

11-203E

1946

c. 2



CANADA 1946

THE OFFICIAL HANDBOOK
OF PRESENT CONDITIONS AND
RECENT PROGRESS

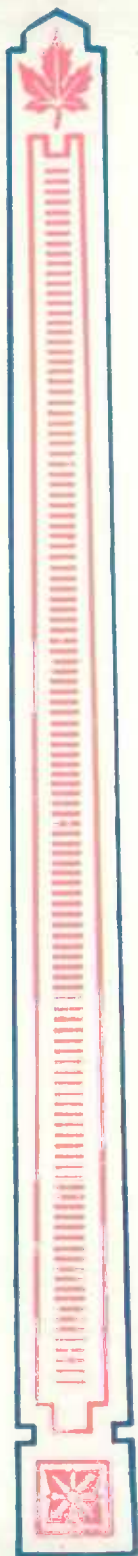
DOMINION BUREAU
OF STATISTICS

APR 15 1946

PROPERTY OF THE
LIBRARY.



THE ARMS OF CANADA



His Majesty The King

"The Queen and I know the ordeals which you have endured throughout the Commonwealth and Empire. We are proud to have shared some of them with you...."

From His Majesty's Broadcast of May 8, 1945, to mark Victory over Germany.

"... By gigantic efforts and sacrifices a great work has been done, a great evil has been cast from the earth, and no peoples have done more to cast it out than you to whom I speak."

From His Majesty's Commonwealth and Empire Broadcast, Christmas Day, 1945.



Courtesy, United Kingdom Information Office, Ottawa.

Her Majesty The Queen



Courtesy, United Kingdom Information Office, Ottawa.



PRINCE EDWARD ISLAND COUNTRYSIDE.

ATHABASKA GLACIER, JASPER NATIONAL PARK, ALBERTA.





PERCÉ VILLAGE, GASPE PENINSULA, QUEBEC.



MORAINÉ LAKE, GLACIER NATIONAL PARK, BRITISH COLUMBIA.



CANADA 1946

The Official Handbook
of Present Conditions
and Recent Progress



Published by Authority of
THE HON. JAMES A. MacKINNON, M.P.
Minister of Trade and Commerce

DOMINION BUREAU OF STATISTICS
DEPARTMENT OF TRADE AND COMMERCE
OTTAWA, CANADA

Price 25 cents

PRINTED BY
EDMOND CLOUTIER, KING'S PRINTER
OTTAWA, CANADA

FOREWORD

THIS Handbook is designed to give in brief and attractive form a record of economic conditions as they exist in Canada to-day. Since the "Canada" series was established on an annual basis in 1930 it has grown steadily in popularity and is now in wide demand both in Canada and in many countries abroad.

During the war years many features that gave added attraction to the Handbook had, for reasons of economy, to be modified, although every effort was made to maintain the standard and general appearance of the publication under the conditions then existing.

The present edition is the first to be published since the achievement of Victory by Allied Arms and it has therefore been thought desirable to mark the occasion by introducing colour plates of Their Majesties and of typical Canadian scenes. Emphasis has also been shifted in the text from the war effort to reconversion problems and post-war trends. The stability and strength of Canada's economic institutions and resources that made possible her outstanding war achievement are a signpost for progress in the coming years of peace.

To those who are interested in particular aspects of our national life, the comprehensive series of detailed current reports, also published by the Dominion Bureau of Statistics, will be found useful. The *Canada Year Book*, in turn, summarizes these in considerable detail, but is essentially a book of reference and too expensive for wide distribution. This Handbook provides a ready and convenient means of bringing to the attention of the general reader the diversified life and resources of the Dominion.

Jas. A. Mac Kinnon

Minister of Trade and Commerce.

Ottawa, Jan. 1, 1946.

Prefatory Note

This Handbook has been prepared and edited in the Year Book Branch of the Dominion Bureau of Statistics from material that has, in the main, been obtained from the different Branches of the Bureau. In certain special fields information has been kindly contributed by other branches of the Government Service.

The Handbook is planned to cover the general economic situation in Canada, the weight of emphasis being placed from year to year on those aspects that are currently of most importance, since there is not space to deal adequately with all. A special article is included entitled "Trans-Canada Air Lines — Its Place in the Field of Civil Aviation in Canada", which was prepared under the direction of W. F. English, Vice-President, Trans-Canada Air Lines, Montreal, by R. H. Ayre, Assistant Manager, Press Bureau.

HERBERT MARSHALL,
Dominion Statistician.

Acknowledgements for Illustrative Material

Acknowledgement is made to the following sources, by whose courtesy photographs in this edition are used:—

Algoma Steel Corporation, Limited
Bank of Montreal
Bank of Toronto
Bathurst Power and Paper Company,
Limited
British Columbia Government Travel
Bureau
British Ministry of War Transport
Canada Packers, Limited
Canadian Bank Note Company, Limited
Canadian Banker's Association
Canadian Broadcasting Corporation
Canadian Dairy and Ice Cream Journal
Canadian Fisherman
Canadian Food Packer
Canadian Geographical Society
Canadian Industries, Limited
Canadian Locomotive Company, Limited
Canadian Marconi, Limited
Canadian National Railway System
Canadian Pacific Air Lines
Canadian Pacific Railway Company
Canadian Vickers, Limited
Geo. W. Crothers, Limited
Dominion Department of Agriculture
Dominion Department of Mines and
Resources
T. Eaton Co., Limited

Financial Post
Foundation Company of Canada, Limited
H. J. Heinz Company of Canada, Limited
Hudson's Bay Company
Hydro-Electric Power Commission of
Ontario
Imperial Oil, Limited
International Nickel Company of
Canada, Limited
Manitoba Industrial Development Board
Manitoba Travel and Publicity Bureau
Massey-Harris Company, Limited
Monetary Times
Montreal Fire Department
Montreal Gazette
National Film Board
Nova Scotia Bureau of Information and
Publicity
Ontario Department of Lands and Forests
Ontario Travel and Publicity Bureau
H. Pollard, Calgary
Quebec Department of Game and
Fisheries
Royal Bank of Canada
Royal Canadian Air Force
Stokely-Van Camp of Canada, Limited
Trans-Canada Air Lines

CONTENTS

	PAGE
FOREWORD.....	3
INTRODUCTION—Economic Developments in Canada, 1945.....	7
SPECIAL ARTICLE—Trans-Canada Air Lines—Its Place in the Field of Civil Aviation in Canada.....	15
Population—Vital Statistics.....	28
National Income—Survey of Production.....	40
Agriculture.....	46
Forest Resources.....	70
Fur Production.....	78
Fisheries Production.....	85
Mines and Minerals.....	90
Water Powers.....	96
Manufactures.....	104
Transportation—Communications.....	114
Labour—Employment and Unemployment.....	130
Welfare Services.....	144
Construction.....	154
External Trade.....	161
Internal Trade—Prices—Cost of Living.....	170
Public Finance.....	183
Currency—Banking—Insurance.....	195
Education.....	203
INDEX.....	211



**The Right Honourable William Lyon Mackenzie King,
Prime Minister of Canada**

On June 9, 1946, the Right Honourable W. L. Mackenzie King, according to the official record, will have been Prime Minister of Canada over a longer period of time than any other incumbent of that office and will then have exceeded the previous record of the Right Honourable Sir John A. Macdonald, the first Prime Minister of the Dominion, by exactly one day.

Prime Minister King has been in office since December 29, 1921, except for the three-month term from June 29, 1926, to September 28, 1926, and the five-year period from August 7, 1930 to October 23, 1935.

This period has witnessed not only great changes in the world but also profound changes in Canada's national economy and in her status and influence in international affairs. Alike in peace and in war, Canada has met and overcome many grave problems during this momentous period of her national history. Today, under the continuing leadership of Prime Minister King, Canada is engaged in the program of reconstruction following upon her great exertions during the War on behalf of freedom and democracy.

INTRODUCTION

Economic Developments in Canada, 1945



Hon. James A. MacKinnon, M.P.,
Minister of Trade and Commerce.

Economic conditions were maintained at a relatively stable and high level in Canada during the first eight months of 1945. The achievement of less than twelve millions of people in meeting the challenge of war during the past six years has been outstanding. Even the most optimistic of observers could not have foreseen at the outbreak of war the magnitude of Canada's industrial effort.

The advance in the national income, so much in evidence during more than five years of war, was curbed during 1945. The production of steel, indicating the trend in the production of munitions and industrial equipment, recorded a slight betterment from January to August, 1945, compared with the first eight months of 1944, and export trade increased slightly.

The money supply, consisting of the deposit liabilities of the banks and circulating media in the hands of the public, averaged nearly 12 p.c. greater in the 1945 period than during the same months of 1944.

On the other hand, many lines of economic activity are showing a recession from the high levels of the early part of 1944. The influence of war conditions in accelerating employment and payrolls is now losing its force, the labour personnel being somewhat less than at the same time last year. It has been evident for some time that the volume of economic activity has dipped below the maximum position of more than a year ago. Commodity production in the first eight months of 1945 was at a lower level than in the same period of the preceding year, the index of the physical volume of business being 8 p.c. less.

The balance between agriculture and industry within the Dominion has undergone a profound change. Most industries, stirred by heavy demand, have added immensely to their plant and equipment leading to a sharp increase in the number of skilled workers. A heavy backlog of demand for both producer and consumer goods has accumulated together with a stored-up purchasing power that was never greater in Canada's history. These obvious advantages have a bearing on the prospects for a high and stable level of employment in the post-war period.

Production

Agriculture.—Agriculture and industrial activities are complementary and interdependent. The attainment of a well-balanced and flourishing agricultural

industry is necessary for the national prosperity. The farmer, favoured by bountiful crops in 1944, accomplished much in providing for the home market as well as in meeting the extraordinary demands of Britain and liberated Europe. An ample harvest of coarse grains assisted in the continued production of meats and dairy products. High levels were reached in shipments of Canadian wheat during the year and stocks were reduced to a lower point than at any other time since 1939.

In 1945, field operations and subsequent germination and growth were retarded over practically the whole of Canada by the cool backward spring, with the result that earlier plans were considerably adjusted both as to acreage and type of crop. The total planted area was reduced by a million acres from the level of 1944. With some improvement in weather conditions during June and July, the handicap imposed by earlier unfavourable conditions was partly overcome. The movement of cattle to market for the first eight months of the year was above that in the same period of 1944. Hog marketings declined sharply, particularly in the Prairie Provinces. Butter output also declined but cheese showed an excellent increase.

Forestry, Fisheries and Trapping.—The output of essential requirements in forest products was more than maintained in the first eight months of 1945. Newsprint production in that period was about 2,100,000 tons, slightly above that of the same months of the preceding year and 16.3 p.c. greater than the tonnage in the same period of 1939. The main determinant is the scarcity of labour and wood supplies in which there has been as yet no pronounced betterment. The new lumber cut has fallen below the domestic and external requirements, which have recently expanded beyond previous levels. Costs of materials, labour and transportation are greatly in excess of pre-war years, although price control and rationing were a decided help toward keeping costs within bounds. The unprecedented destruction of property in Europe will provide a wide market for Canadian lumber for a considerable period.

The Canadian fishing industry, despite its reduced labour force and the inherent difficulties of operation, played an important part in adding to the wartime food supply both in Canada and in the United Kingdom. During the pre-war period, domestic consumption of fish was small in relation to the output, and the industry must contend with the fact that for an indefinite period after the War the greater part of the production will have to be shipped to other countries. Exports of fishery products were valued at \$51,156,000 in the first eight months of 1945, an increase of 27.3 p.c. over the same period of the preceding year.

Since the War began, the fur trade in Canada has been enjoying a considerable measure of prosperity due to the general shortage of raw furs and to the high level of purchasing power contingent on full employment. With the shortage of trappers and personnel for the fur farms the supply of furs has been none too plentiful. After the lifting of the restrictions on importation imposed upon the introduction of price fixing in 1941, the inward shipment of furs from other countries showed a marked increase. Despite the closing of the British market, the value of exports in the first eight months of 1945 was about 71 p.c. greater than in the same period of 1939.

Mining.—Canada's role as the leading exporter of base metals gave the mining industry an opportunity of making a well-nigh indispensable contribution to the war effort. Base-metal mining has greatly extended in operational scope, both by



The Algoma Iron and Steel Plant at Sault Ste. Marie, Ont. The annual capacity of this plant is 1,250,000 tons of coke, 1,000,000 tons of pig iron and 750,000 tons of steel. While specializing in steel rails, it is among the leaders in the production of alloy steel for special purposes.

expansion of existing mines and development of new properties including those with marginal and sub-marginal deposits. The value of the exports of non-ferrous metals, minerals and derivatives had, in the first eight months of 1945, risen 20 p.c as compared with the same period of 1939.

Though headway was made in some directions, the total value of output at the end of the eight months of 1945 was running lower than in the preceding year. Lead and asbestos recorded increases, while most other metals and minerals receded to lower levels. Employment in the industry as a whole was lower than in any comparable period since before the War.

From the commencement of hostilities, developments in the industry were governed largely by the changing requirements of the war effort. Operating under difficult conditions, the industry maintained a high level of production sufficient to meet most of the Canadian requirements and a large share of those of the Allied countries.

Electric Power.—Production of primary electric power which had reached a maximum during 1944 showed recession in the first eight months of the present year. The output in 1944 was about 40,000,000,000 kwh. and the consumption of

firm power surpassed all previous experience. Following the outbreak of war all available power was speedily absorbed and a prompt realignment of the distribution was the first step toward providing the necessary energy for the varied activities of munitions production. As speedily as possible, new units were added to generating stations not fully installed and construction of new developments was commenced and rushed to completion, resulting in the addition of two million horsepower during the war years. Power demands for war purposes passed their peak in 1944, resulting in the virtual cessation of construction of new power projects and a limited relaxation of restrictions on the use of power for domestic, commercial and industrial needs.

The net increase in hydro-electric facilities during 1944 was only 69,000 h.p. and no large power projects were under construction during 1945. The installation at the beginning of the year was 10,283,000 h.p. leaving about 80 p.c. of the country's water-power resources available for future development as demand arises. Production of primary power in the first eight months of 1945 was 21,610,000,000 kwh. compared with 23,676,000,000 kwh. in the same period of 1944.

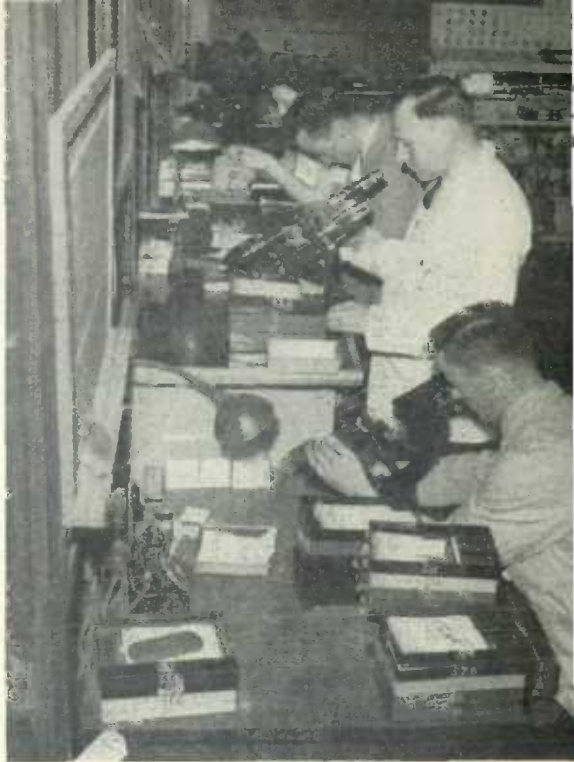
Manufacturing.—The impact of war revolutionized the industrial life of the Dominion. During the War of 1914-18 Canada was called upon to build an industrial machine that subsequently gave this country a leading place in world commerce: the enlarged scope of industrial operations occasioned by the war demands of recent years will have an even greater influence. The magnitude of the transformation from September, 1939, is indicated by commitments to the beginning of 1945 of about \$10,250,000,000 by the Munitions Department alone.

A major factor in the levelling off of industrial production during the first eight months of 1945 was the decline in war production. A recession of 3 p.c. was



An Electron Microscope installed at the National Research Laboratories, Ottawa, which makes possible the study of minute organisms and particle structures. It provides magnifications ranging from that of a low-power microscope to fifty-times higher than the highest power of an ordinary microscope. The machine, in which the operator is inserting a specimen, is shown with its protective covers removed.

Checking Optical Lenses for power with lensometers at a western Canadian plant, one of the largest optical manufacturers and suppliers in the British Empire. The average lens passes through approximately fourteen operations in process of manufacture.



shown in 1944 from the level of the preceding year and the decline was extended markedly with the defeat of Japan. Shortages of labour and raw materials and other difficulties have limited and will continue to limit resumption of suspended output of civilian products despite the lifting of many wartime controls.

The index of employment in manufacturing plants showed a decline of 6.5 p.c. for the first eight months of 1945 compared with the same period of 1944; volume of production dropped 11.7 p.c. The first appreciable downturn of the war period took place during the eight months, mainly through marked declines in the iron and steel, non-ferrous and fabricating sections of war industries which were not offset to any great extent by increases in other groups.

Transportation.—The railways have been called upon to sustain without appreciable easement the tremendous effort which abnormal military and other wartime necessities placed upon them. The repatriation of personnel of the Armed Forces from Europe has taxed passenger traffic facilities to the utmost. Combined gross earnings of the two large railways recorded a new high point in the first eight months of 1945, the increase over the preceding year being of slight proportions. The total was \$469,250,000, which may be compared with the pre-war revenue of \$187,254,000 received during the first eight months of 1939.

Consumption

Internal Trade.—Although in the past five years the production of many lines of consumer goods has been restricted and a heavy contribution has been made in the purchase of war bonds and taxation payments, an upward trend is shown in

consumer purchases from retail stores. The increase of about 82 p.c. since the last year of peace is due mainly to an advance in the quantity of goods purchased, the upward movement in retail prices being of relatively lesser proportions. Retail sales during the eight months of 1945 averaged 8.4 p.c. over the same period of the preceding year. The estimate for 1944 was \$4,069,000,000 compared with \$2,593,000,000 in 1939.

Capital Formation

The importance of capital formation on a physical basis as a feature of economic activity has long been recognized. The production of munitions and war supplies has a somewhat similar generating influence on the whole economy. While the investment money-flow is normally far less than that arising from payment for consumption goods, the wider fluctuation in the former is of greater significance in promoting economic activity.

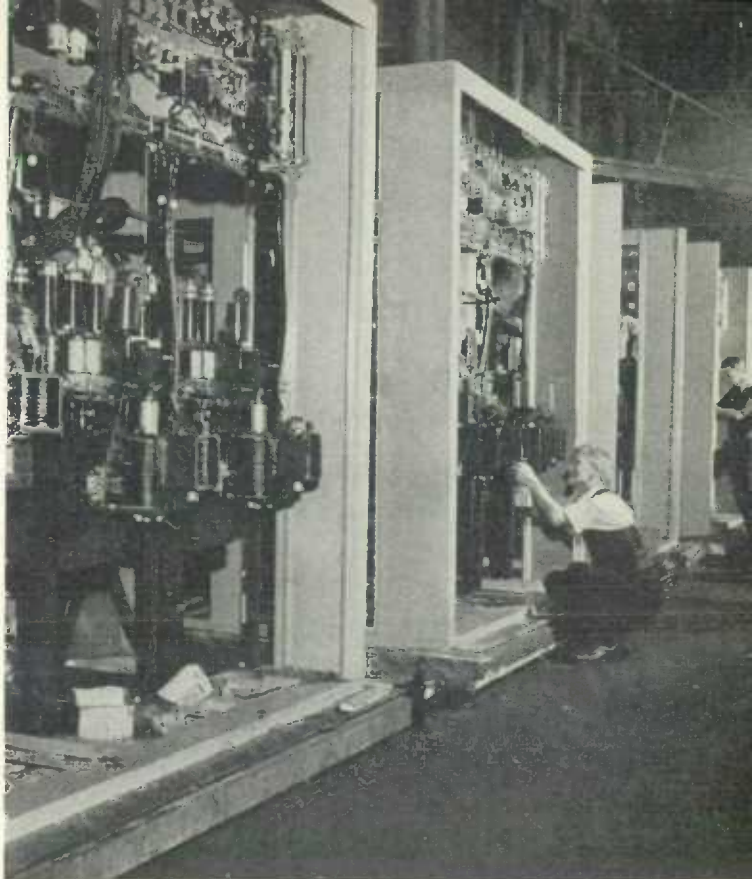
Construction.—The initial expenditures on construction and similar activities necessarily lead in due course to additional outlay on living necessities. The operations of the construction industry measured by records of employment were at somewhat higher levels during the first eight months of 1945 than in the same period of 1944, and the situation in regard to the placement of contracts was also more favourable. The considerable new business placed in 1945 and the record of contemplated new contracts indicated heavy operations upon the removal of restrictions regarding men and materials. The construction industry was hampered in wartime through lack of supplies in meeting the need of the expanding urban centres. With the removal of wartime restrictions a heavy backlog of requirements is emerging.

External Trade.—The composition of Canada's exports during the War had a distinctly wartime character, resembling in this respect the financial background making possible the large outward movement of commodities. Manufactured products, made up mainly of munitions in the broader sense, represented a large proportion of total exports. Export commodities normally assigned for civilian use, such as food, non-ferrous metals, lumber, pulp and paper, were consigned outward in a volume considerably augmented by wartime conditions. Probably not more than a quarter of the exports during the period of heightened war activity represented commercial trade on a normal footing. The story of exports amounting to about \$3,000,000,000 in 1943 and \$3,500,000,000 in 1944 loses some of its significance when the underlying conditions are kept in mind.

The high level of production was reflected in the export trade which in the first eight months of 1945 reached a total of just over \$2,331,800,000 not including the net export of non-monetary gold amounting to \$65,500,000. Imports as compared with this total amounted to \$1,065,500,000 leaving an active balance of trade, exclusive of non-monetary gold, of more than \$1,266,300,000. The main changes in the export side from the early part of 1944 were declines in iron and its products and a fairly large increase in non-ferrous metals. A more active trade has subsequently developed in foodstuffs, notably in wheat.

Finance.—Government expenditure has been a dominant factor in the economic expansion of the war period. The magnitude of the country's war effort in

Canadian Industries are now in a position to supply highly finished equipment for export. The picture shows cubicle transformers, part of a large order for the Soviet Union. Instructions are printed and parts identified in Russian.



a financial sense becomes readily apparent from a glance at the Dominion budgets of the six-year period. The financing of the transitional period from a wartime to a peacetime economy is of heavier proportions than is generally realized, public policy aiming at an abundant supply of credit and a low level of interest rates.

Government expenditures in the first seven months of the fiscal year 1945-46 (April-October, 1945) were about 17.7 p.c. less than in the same period of 1944. War expenditures receded from \$4,587,000,000 in the twelve months ended Mar. 31, 1944, to \$4,418,000,000 in the latest fiscal year, the Mutual Aid appropriation showing a decline of 22 p.c.

Among the sources of the money supplied to the national economy by the chartered banks, investments in government obligations remain by far the most important single item. Compared with them, commercial, industrial and agricultural loans are now relatively insignificant, more than one-half of the assets of the chartered banks consisting of Dominion, provincial and other securities.

The steady rise in demand for currency is reflected in the increase in deposits subject to cheque and in notes and coin. The further advance in money supply during the twelve months ended August, 1945, was 12 p.c., the turnover of deposits having shown slight recession. A special feature of recent developments in the monetary situation was the appreciable increase in currency outside of banks.

Whatever the credit requirements of the post-war period may be, there is every reason to believe that they can be met without difficulty. Interest has centred recently in the increased investments of the banks and the maintenance of a strong liquid position. It is estimated that the total payments by cash and cheque rose 4.8 p.c. in the twelve months, the amount in August, 1945, having been \$6,761,000,000. The comparison clarifies the important position of the banks in facilitating the economic expansion occasioned by war operations.

Distribution

Income Payments and Employment.—As income payments to individuals constitute the principal flow of money, the importance of these payments to the economy is readily realized. Salaries and wages represent from one viewpoint the greatest share in the distribution of the value which is produced in commerce and industry and from another the greatest single factor in the purchasing power which represents consumer demand for these values.

The number of available workers and job vacancies was still out of balance upon the end of the War with Japan in August, 1945, but the easing of the supply situation enabled industry to speed the return to the manufacture of peacetime goods, opening up more employment opportunities in the civilian manufacturing field.

The release of workers in the higher-paid industries, although there was increased employment of those in the lower-paid divisions, contributed to the recession in payrolls as of the first week of August, 1945, compared with the same period of 1944. The decline in the index of aggregate payrolls during the latest twelve months was 5.1 p.c. The index of aggregate weekly payrolls in manufacturing receded from 166.8 in the period of August 1, 1944, to 153.4 as of the corresponding week of 1945. The recession in industrial employment in August from the preceding month was particularly interesting for the reason that it was the first drop indicated at midsummer in the years since 1938. There is evidence that recession has occurred in the payment of salaries and wages notwithstanding the higher level of rates during the first eight months of the year.

The payment of dividends going partly to individuals in Canada was well maintained in the first nine months, while the disbursement of interest by the Dominion Government was at a considerably higher level due to the increase in the outstanding funded debt.

The magnitude of the task that confronts the world, the rebuilding of the devastated countries, the feeding of millions of hungry people, the coming into flower of the productive genius of men and women brought about by war itself, has a bearing on the prospects of high levels of income and employment in the post-war period. Canada's resources of land, forest and power will assist in producing a heavy return in the form of national income now and in the future. The intelligence and the courage that were applied by the Allied Powers to beating down the most powerful of aggressors can surely serve to organize the world against future aggression.

Two years later (March, 1932), because of the necessity for economies in all public services, this inter-city air-mail service was suspended. Maintenance of the Airway already constructed was continued, however, and surveys were carried forward in Ontario, Quebec, the Maritimes and through the Rockies.

As an unemployment relief measure, the Government proceeded with construction and improvement of the Airway and gave work to thousands of single, otherwise unemployed men. This program was continued until 1936, when the camps were closed and the work was continued by day-labour or contract.

Out of conditions such as these, the project of Trans-Canada Air Lines took shape. It grew out of the need for a swift, modern system of transportation between communities scattered across an area more than three thousand miles in width, out of a vision of a more closely integrated nation and a nation playing an increasingly important part in the affairs of the world. Scarcely had T.C.A. begun trans-continental operations when Canada entered the War and the air line assumed a new importance.

The Establishment of Trans-Canada Air Lines.—Under the terms of the Act incorporating the Trans-Canada Air Lines, the capitalization was set at \$5,000,000, with a majority stock control to be held by the Canadian National Railways. Three of the directors are named by the Government and four are nominated by the shareholders. For the sake of convenience and economy, some functions of the Air Lines are performed by existing departments of the railways, notably the offices of the Secretary, the Treasurer, the Comptroller, the Chief Counsel, the Director of Public Relations, the Chief Architect and the Chief Medical Officer. T.C.A. set up its own operating, engineering and maintenance, communications and traffic departments. The Government, through the Air Services Branch of the Department of Transport, is responsible for the Airway, including fields and lighting, radio-communications and meteorological service. Some of the airports are owned by municipalities.

In presenting to the House of Commons in 1937 the measure to incorporate Trans-Canada Air Lines, the Hon. C. D. Howe, then Minister of Transport, pointed out that Canadian citizens had been "insistent in demanding the establishment of a direct Canadian service". The volume of air mail routed through the United States was, he said, sufficient to warrant the establishment of a direct service in Canada and he believed such a service would prove of immense value for national purposes. If the time needed to travel between the west and the east could be cut to one-third or one-quarter by an air service, the people living at the extremes of this country would be able to travel more frequently to the centres of government, business and industry, and the inter-relations of the country would thereby be facilitated.

As the Minister said in presenting the legislation to incorporate the Company: "the set-up of the Trans-Canada Air Lines is such that the Company will be protected against loss, but its profits will be strictly limited. In other words, it is organized to perform a certain national service, and it is expected that the service will be operated at or near cost".

Under the terms of the contract, the company was to receive, out of moneys appropriated by Parliament for the purpose, a subsidy equal to the deficit, if any, resulting from operations in each calendar year during the initial period. The



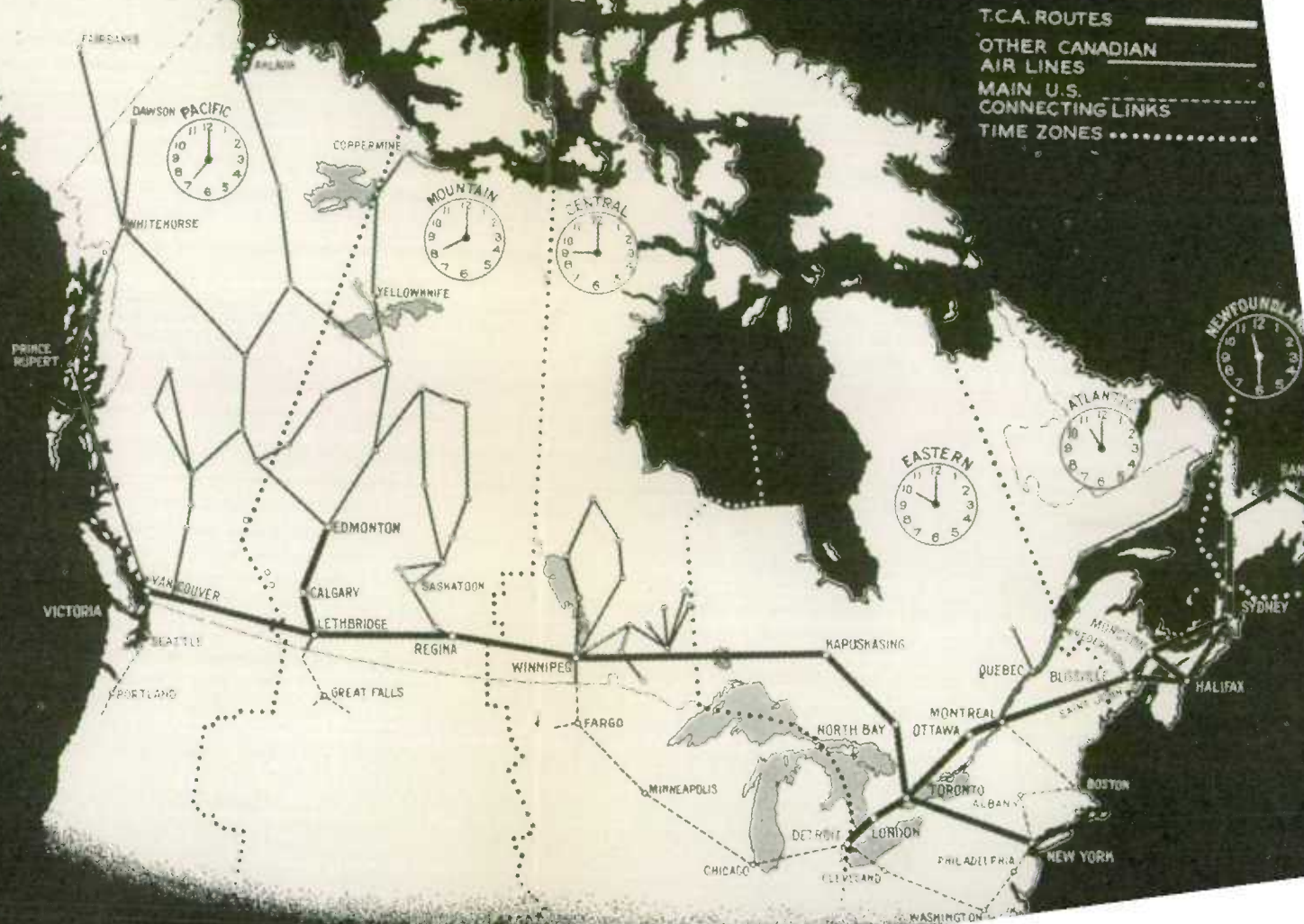
Trans-Canada Air Lines— Its Place in the Field of Civil Aviation in Canada

The Development of Aviation in Canada.—In February, 1909, a little more than five years after the Wrights made history at Kitty Hawk, U.S.A., the first aeroplane flight in the British Empire took place in Canada. J. A. D. McCurdy lifted the *Silver Dart* off the ice at Baddeck Bay, N.S., rose thirty feet and flew half a mile at forty miles an hour. That was the beginning of aviation in the Dominion. There was little development until the War of 1914-18 when Canadians brought new lustre to their country by their exploits as fighting airmen. When the War was over, many of them who desired to make aviation a career found opportunities to continue flying on peaceful missions at home. For ten years, inter-city flying played a small part in Canadian aviation, but the aeroplane became an important means of transportation in the northern hinterland beyond the reach of railway lines and highways. Mining communities and other outposts that had depended for their transportation largely on such primitive means as the canoe and the dogsled lost their isolation and were enabled to develop more rapidly. The Dominion led the world in the volume of freight transported by air and the bulk of this traffic was to the northern areas. Canada pioneered, too, in the use of aircraft for forestry and fisheries patrols and saved tedious labour by the use of aerial photography in the mapping of unsettled territory.

The passage in the United States of the Kelly Act in 1926 providing for the regulation (and making possible the establishment of their airway system) of commercial aviation began to have its effect on Canada. The public was growing air-minded and Canadians began travelling through the United States to go quickly from one Canadian point to another. Much mail was routed across the border, transported by United States air services and returned to Canada at the point nearest its destination.

Surveys for a trans-Canada airway, over which the Trans-Canada Air Lines was ultimately to fly, were begun in 1928 by the Civil Aviation Branch, Department of Transport. In all parts of Canada, flying clubs and municipalities, with the support of the Government, had been active in promoting and laying out airports. Work was begun in the Prairies and here presented the simplest construction and operating problems. By the end of 1929, Winnipeg and Edmonton were linked by a chain of lighted airports and fields, radio and meteorological services were established, and in March of the following year a nightly air-mail service was established between those two cities by way of Calgary, and later, Lethbridge and Calgary. At the same time, the Post Office let a contract for daily air-mail service from Moncton to Montreal, Kingston, Toronto, Hamilton, Brantford, London, Windsor and Detroit. By arrangement with the United States, Canadian air mail was carried between Detroit and Pembina, south of Winnipeg. By using the United States link, Canadians had a through air service between Moncton and Edmonton.

TRANS-CANADA AIR LINES





T.C.A. Aircraft over the Rockies.

deficit in 1937, the period of organization and development and of the operation of the small Vancouver-Seattle service, was \$111,005. The deficit amounted to \$818,025 in 1938. With trans-continental service in operation in 1939, it was reduced to \$411,656. A surplus of \$539,263 was shown in 1940; in 1941, the surplus amounted to \$302,436; in 1942, it was \$494,915; in 1943, \$147,888; and in 1944, \$7,409. The reduced surplus in 1944 was due largely to increased cost of labour and materials and to development expenditures in preparation for expanding operations.

Fifty percent of the surplus was to be applied to a reduction in the rate paid by the Post Office to Trans-Canada. In 1939 and 1940, the rate paid was 60 cents per 'plane mile. This was reduced to 48.16 cents in 1941, 45.57 cents in 1942, 42.90 cents in 1943 and 42.03 cents in 1944. As a result, an increase of 61 p.c. in the volume of mail carried in 1943 brought the Company an increase of only 9 p.c. in mail revenue. Mail contributed 70 p.c. of the total revenues in 1939; 62 p.c. in 1940; 53 p.c. in 1941; 44 p.c. in 1942; and 37 p.c. in 1943 and in 1944.

Several months after T.C.A. was incorporated, at the end of July, 1937, an official flight over the route from Montreal to Vancouver was made by Company executives and by members of the Department of Transport. The flight, with five stops, took seventeen hours and eleven minutes.

Organization and Operation of T.C.A.—The organization and operation of Trans-Canada Air Lines was placed in the hands of responsible men bringing with them a wide experience of modern air-line procedure and they gathered around them an efficient staff of technicians, not only in the field of flight operations, but in the fields of engineering and maintenance, communications, passenger service and traffic promotion.



T.C.A. Aircraft at Montreal Airport.

T.C.A. began commercial operations with a regular service over the 122 miles between Vancouver and Seattle, acquired from Canadian Airways. (By arrangement with the United States, this service was discontinued in 1941, when T.C.A. began flying between Toronto and New York.)

At the beginning of 1938, Trans-Canada had 71 employees and a fleet of 5 Lockheed *Electras*. This year was given to organization, construction and training, although the Vancouver-Seattle service continued and some air mail and express were carried between Montreal, Toronto and Vancouver and between Lethbridge and Edmonton. The fleet was increased to 14 aircraft and personnel increased from 71 to 346. Hangars were completed at Winnipeg and Lethbridge and another begun at Toronto. A repair and overhaul base was established at Winnipeg.

It was in the spring of 1939, just two years after T.C.A. was incorporated, that daily passenger, air-mail and air-express schedules went into operation across the continent between Montreal and Vancouver, by way of Ottawa, Toronto, North Bay, Kapuskasing, Armstrong, Winnipeg, Regina and Lethbridge and between Lethbridge, Calgary and Edmonton. In November, air-mail service, by daylight, was in effect between Montreal and Moncton. The *Electras* were sold and 6 more of the larger Lockheeds were purchased, bringing the fleet up to 15 aircraft. The Toronto hangar was completed and another erected at Montreal. Work was begun on a hangar at Moncton.



Engine Assembly Line in the T.C.A. engineering and maintenance shops, Winnipeg.

Early in 1940, T.C.A. aircraft were flying on daily schedules between Moncton and Vancouver. The line between Toronto, London and Windsor was opened during the summer, a second daily flight went into effect on the transcontinental route and service between Montreal, Ottawa and Toronto was increased. Six *Lodestars* were purchased. The shop facilities at Winnipeg were expanded to provide the additional accommodation required to take care of instrument repairs for military aircraft. The Moncton hangar was opened. Operations and traffic headquarters were transferred from Montreal to Winnipeg.

Service was extended to Halifax in April, 1941, and to New York from Toronto, in May. A hangar was completed at Montreal's new airport at Dorval. There were further extensions to facilities at Winnipeg and at Toronto. At Montreal, a T.C.A. staff undertook maintenance and overhaul of aircraft used in the Atlantic return ferry service.

Sydney, N.S., and St. John's, Newfoundland, were part of the Trans-Canada route after May, 1942, and, with the addition of 6 new *Lodestars*, traffic was greatly increased in other sections. The Air Lines undertook the operation of the new engine shop erected at Winnipeg by the Department of Munitions and Supply for the overhaul of military equipment.

In 1943, the only route extension was to the Vancouver Island terminal at Patricia Bay, giving direct service to Victoria and other Island communities. Facilities were extended, including the quarters of the central reservations control office at Toronto for the speedy handling of passenger bookings.

PROPERTY OF THE
LIBRARY

CANADA 1946

The cities of Fredericton and Saint John, N.B., became part of the Trans-Canada system in 1944, both served by the airport at Blissville. Winnipeg and Montreal were linked by a third daily flight. Traffic increases continued and improvements were made to facilities and schedules. Three more *Lodestars* were added to the fleet.

In 1945, a third daily transcontinental schedule was established. Third and fourth daily round-flights began between Edmonton, Calgary and Lethbridge and a fourth Lethbridge-Vancouver schedule was added. Maritime services were expanded by a fourth Montreal-Halifax and a second Halifax-Sydney schedule. This intensification of operations—made possible largely by the absorption of repatriated R.C.A.F. pilots—permitted the carriage of considerably increased numbers of passengers. Throughout the year, T.C.A. gave much of its energies to the planning of post-war expansion and development. At the end of July, 1945, the staff totalled 2,900 and the active flight equipment consisted of 11 Lockheed 14-08 aircraft and 14 Lockheed *Lodestars*, each equipped with Pratt and Whitney twin-row Wasp engines of 1,200 h.p. In the autumn of 1945 three 21-passenger Douglas DC-3 aircraft were added to the T.C.A. fleet. These are being used on inter-city routes and have considerably increased the capacity for passengers, mails and express. Eighteen additional DC-3's will enter service in the spring of 1946.

The Trans-Canada Air Lines system, Canada's national air service, now spans the continent from Newfoundland to Vancouver Island, operates between Toronto and New York, between Toronto, London and Windsor, and between Lethbridge, Calgary and Edmonton. Its routes total 5,299 miles and its aircraft fly over ten million revenue miles annually.

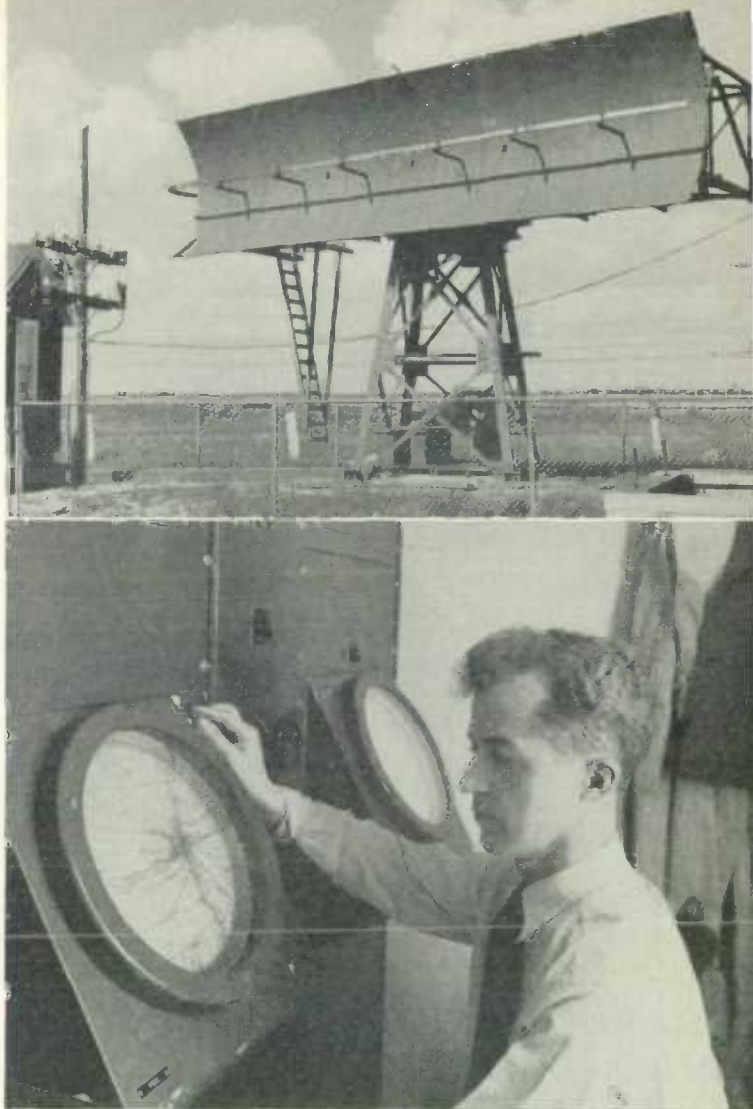
The following figures indicate the growth, from year to year, of Trans-Canada Air Lines traffic:—

<u>Year</u>	<u>Revenue Miles Flown</u>	<u>Air Mail</u>	<u>Air Express</u>	<u>Passengers</u>
	<u>No.</u>	<u>lb.</u>	<u>lb.</u>	<u>No.</u>
1938.....	1,122,179	367,734	7,806	2,086
1939.....	2,760,090	523,906	45,819	21,569
1940.....	4,770,219	927,037	105,788	53,180
1941.....	6,384,651	1,389,614	173,192	85,154
1942.....	7,172,130	2,308,812	362,837	104,446
1943.....	8,254,819	3,726,607	821,606	140,276
1944.....	9,110,474	3,739,105	856,016	156,884
1945 (estimated).....	10,580,000	3,520,000	943,000	184,000
Totals.....	50,154,562	16,502,815	3,316,064	747,595

These figures do not include the transatlantic service operated by T.C.A. for the Canadian Government which was designed primarily to speed the delivery of mails to and from the Forces overseas. (See p. 26.)

Every time an aircraft lands, it is checked over by experts on the ground. A more comprehensive scrutiny is made after every 10 hours of flying and a still more thorough inspection after every 50 hours. In the fourth check, made at the base after 200 hours of service, the 'plane is stripped and renewed in every particular requiring attention. The engines are removed and overhauled, practically rebuilt, every 600 hours. The repair and overhaul base at Winnipeg has become one of the finest aircraft engineering and maintenance bases in the world.

An Experimental Radar Station has been installed by T.C.A. at Winnipeg. It is being used to detect aircraft at distances up to 80 miles, guide them to the field and control traffic in the landing area. Radar antennae (top) is used in locating the plane whose position is recorded on the 'scope' (bottom).



Wartime Developments and Present Official Policy in Regard to T.C.A.—In addition to making an impressive record in the operation of their own air line, T.C.A. has made significant contributions to aeronautical science. Many of the methods and devices worked out in the T.C.A. shops at Winnipeg have been adopted by other air lines and important researches have been carried out on behalf of the National Research Council and other bodies interested in the development of aviation. The system devised by the T.C.A. central reservations control for the speedy handling of passenger bookings by means of teletype has been adopted by United States air transport companies. Trans-Canada pioneered in the use of frequency modulation radio for instantaneous communication without



Operators at T.C.A.
central reservations
control office, Toronto.

static or fading and studies are being made in other phases of electronic development which may lead to more radical changes. To apply the wartime discovery of radar to civilian air travel, T.C.A. has installed an experimental radar station at its operations headquarters at Winnipeg. It thus becomes the first air line in the world to use this marvellous extension of human vision to improve the efficiency and safety of flight.

From the beginning, Trans-Canada has been a training school for pilots, stewardesses, passenger agents, radio operators, shop mechanics and other personnel. A management-employee co-operative plan gives the rank and file members an opportunity to participate in the operation of the Air Line by making suggestions for increased efficiency. As the demands of the War increased, T.C.A. was faced with many manpower problems; by the end of 1944, 263 men and 16 women employees had enlisted in the Armed Forces. The difficulty of acquiring sufficient personnel to cope with the rapid development of the Air Line made it necessary to increase the number of female employees, who at one time comprised over a third of the total payroll, serving as agents, chauffeurs, cargo handlers, radio operators, stockkeepers and workers in the shops, as well as stewardesses and clerical workers. To-day, as T.C.A. absorbs more and more ex-service men, this high ratio of female employees is on the decline.

In 1943, T.C.A. made an arrangement with the Royal Canadian Air Force by which the flight crews could be augmented with Air Force men who had completed operational duties overseas. This was the beginning of a policy of rehabilitation of returned airmen. Approximately 100 repatriated R.C.A.F. pilots have entered the Company's flight organization. They are men of high aeronautical qualifications—most of them having completed operational tours overseas and many of them wearing decorations for exceptional skill and gallantry. Nevertheless, these pilots, experienced though they are, go through the same scrupulous system of training for air-line flying as all other T.C.A. pilots, who begin as First Officers and who do not become Captains until they have flown the Line long and successfully. The transition from wartime to commercial flight is not a minor one and every precaution is taken to ensure that these newcomers perform to the highest Company

TRANS-CANADA AIR LINES

standards. The original T.C.A. flight crews were all men of wide experience in flying, chosen for ability and character and given the most intensive training of any group of air-line pilots, and as the Air Line has developed they have risen to greater responsibilities. The Operations Superintendents in the various divisions are all veteran T.C.A. pilots.

This employment of ex-R.C.A.F. pilots is only one facet of T.C.A.'s program for the rehabilitation of service men. All new training classes, in all departments of the Company, are being heavily manned with previous members of the Armed Forces. These men are already serving in large numbers as maintenance personnel, radio operators, passenger agents and traffic and office staff.

Early in the War, T.C.A. was given the responsibility of overhauling engines, propellers, instruments and accessories for the R.C.A.F., the Commonwealth Air Training Plan and other branches of war aviation. This work is now ended, but during the years of European conflict, a very large amount of overhaul was completed in the Winnipeg shops.

In 1941, the Air Line undertook, at Montreal, the maintenance and overhaul of Atlantic return ferry aircraft for the British Overseas Airways Corporation. This assignment continues. Radio coverage, dispatch and station service has been furnished at T.C.A. stations for any R.C.A.F. aircraft that might require such assist-

ance.



Meals for Air Travellers are carefully prepared on a scientific basis. Rapid changes in food are caused by difference in air pressure and certain foods are found more digestible and palatable than others. Meals are served in fibre trays fitted with light-weight dishes.

The participation of Trans-Canada Air Lines in Atlantic flying began in 1937 when it became Canadian agent for Imperial Airways in flights across the ocean to Montreal. On July 22, 1943, at the request of and for the Canadian Government, Trans-Canada undertook the operation of a wartime transatlantic service. The first aircraft, a Lancaster bomber built in England, was flown overseas for conversion into a transport. Gun turrets, bomb bays and armour plating were removed and two extra gas tanks were installed, so that the aircraft could fly 4,000 miles without stop. Since then, the fleet has been expanded with the addition of several Canadian-built Lancasters. Much of the modification work on these was performed by T.C.A. ground crews at Montreal. Frequency of service between Montreal and the United Kingdom base at Prestwick has been steadily increased.

In 1944, over a million pounds of mail were transported across the Atlantic to and from Canada's Armed Forces overseas. In addition, over one hundred thousand pounds of priority war freight was speeded between the two continents. No fare-paying passengers were carried at that time, but more than seven hundred representatives of Government Departments, ranking military officers, technicians and others travelling on urgent war business and designated by the Department of Transport or the Office of the Canadian High Commissioner in Great Britain were accommodated.

T.C.A. holds the records for transatlantic crossings, both east and west—10 hours and 14 minutes, eastbound, and 11 hours and 26 minutes westbound.

This wartime transatlantic service is in process of being transformed into a full-scale commercial operation. Fare-paying passengers will be carried and T.C.A. will provide Canada's entry on this highly competitive and important peacetime route.

The place of T.C.A. in the National Air Policy was described by the Prime Minister, the Rt. Hon. W. L. Mackenzie King in a statement before the House of Commons on Apr. 2, 1943:—

"Trans-Canada Air Lines will continue to be the instrument of the Government in maintaining all transcontinental air transport services and in operating services across international boundary lines and outside Canada. The Government will encourage the company to obtain modern aircraft which will keep present services up to modern standards and will expand these services to the fullest extent that post-war conditions permit. The development of supplementary routes will continue to be left to private enterprise, unless considerations of public interest indicate that certain of these routes should be designated by the Government as routes to be operated by T.C.A. The operations of T.C.A. will continue to be limited to important services of a mainline character, where the volume of passenger and mail traffic would justify it."

T.C.A. has made preparations for a wide expansion of Canada's domestic air services. These include intensified flying on established routes and the operation of new routes of a mainline character. Among the latter will be a direct service between Winnipeg and Edmonton via Saskatoon, and a transcontinental route across the Great Lakes, rather than to the north as at present.

Internationally, T.C.A. will undertake the operation of those United States-Canada trans-border routes recently allocated to Canada, as well as the transatlantic, Pacific and West Indian service.

TRANS-CANADA AIR LINES

In time of war, when production and transportation show enormous flexibility and the ability to expand rapidly to carry greatly increased loads, the growth of Trans-Canada Air Lines might easily be taken for granted. Yet the fact remains that to fling an air line across a continent and put it into regular operation at high gear in such a short time, as T.C.A. has done, is unprecedented in air-line history. T.C.A. has taken its place as an essential factor in national development, has proven itself to be a dependable and valuable public servant. By its faithful, efficient, day-in-and-day-out routine, it has changed the habits of the Canadian people, it has brought a new dimension to the progress of the Dominion. Thousands of miles are now interpreted as hours of distance; far-flung communities have been drawn closer together. T.C.A. has brought to Canada a new vision of unity, a new vision of the future. It has done all this, handicapped by the War and by the shortage of men and equipment. And by speeding men and mails, medical supplies and other important freight, it has shown itself to be a powerful instrument of progress in war and in peace.

T.C.A. Lancaster in Transatlantic Service.
Inset: Loading mail for overseas.



Population—Vital Statistics

Population

Although Canada is the biggest country in the Americas, yet, due to her topography and surface characteristics, she is not capable of supporting an over-all population as dense as her size would imply. Certain areas such as the St. Lawrence Valley, parts of the Maritimes and the coastal plains of the Pacific are exceedingly fertile and situated in latitudes that invite a vigorous population growth but, by and large, these areas are limited in extent and widely separated from one another. Vast areas are suited only to the growing of timber or are economically valuable as potential sources of mineral wealth. In either case, the permanent settlement in such areas will be of very limited proportions.

When Canada's first census was taken in 1666 to measure the advancement made by this French colony since the founding of Quebec 58 years earlier, it was found that there were 3,215 inhabitants. About one hundred years later, that population, settled along the shores of the St. Lawrence River with its western outpost at Montreal, had increased to about 70,000; what is now the Maritime Provinces had another 20,000. The coming of the United Empire Loyalists and their settlement in the Eastern Townships and along the Upper St. Lawrence, Lake Ontario and the Niagara Peninsula in the last quarter of the eighteenth century, opened up new areas and Canada began the nineteenth century with a population of probably 300,000.

The year 1851 marks the beginning of the regular decennial census, so that there is a regular measure of population growth in Canada over the past 90 years. The 'fifties saw a very rapid development, especially in Ontario, and the 'sixties showed only less substantial gains. In the years following Confederation, from 1871 to 1881, there was a spurt, but the population of Canada as a whole showed a very significant drop in its rate of increase during the years from 1891 to 1900. The last half of the nineteenth century was characterized by large numbers of immigrant arrivals, by a large outward movement from the country mainly of immigrant population, and by the movement of native population from the more thickly settled parts of Quebec and the Maritimes to other parts of the country where the population was more thinly distributed.

But it is within the first decade of the present century that the most spectacular expansion of the population of Canada has taken place. The outstanding feature was, of course, the opening to settlement of the West. The unorganized southern stretch of the Northwest Territories, ceded to the Dominion soon after Confederation, had been tapped and traversed by the Canadian Pacific railway between 1875 and 1885. But, though the western population had roughly doubled in each of the decades ended 1881, 1891 and 1901, it was only with the discovery of the wheat-growing potentialities of the prairies and the launching of a large-scale immigration movement after 1900 that western settlement became a factor of first importance. In the decade 1901-11 immigration exceeded 1,800,000 and, though at least a third of these were lost to Canada, it formed the chief factor in the gain of 34 p.c. which the total population registered in that period and which was larger than the relative growth of any other country during the same period. The movement was continued in the first three years of the second decade of the century after

POPULATION

which a recession set in to which the outbreak of war gave a new and wholly unexpected turn. Nevertheless, Canada's relative gain for the decade was again among the largest in the world.

After the War of 1914-18, immigration never again reached anything like its former levels and during the depression years of the 1930's it was still further restricted by Government regulations as well as by economic necessity. The population increase in the decade 1921-31 amounted to 18.1 p.c. and in the decade 1931-41 to 10.9 p.c. During the latest decade, and even to some extent in the previous one, the trend of growth has come back from the west to the east.

The trend towards urban life in Canada is very striking. Early in the second half of the nineteenth century signs of an increase in the small urban proportion were beginning to be seen, and with the expansion of manufacturing industries and the increasing ease of transportation and communication, that proportion grew continuously. In 1871, 19.6 p.c. of the population were urban dwellers, in 1901 37.5 p.c., in 1921 49.5 p.c. and in 1941 54.3 p.c. The great advance of employment during the war years in the larger cities of Canada is evidence of the drain from country to city that has taken place since the 1941 Census.

The Port of Halifax through which passed the bulk of Canada's wartime overseas traffic. The Citadel grounds are shown in the centre of the picture and the location of the terrific explosion at the Naval Stores in Bedford Basin that occurred on July 18, 1945, is indicated; (1) marks the old buildings which were completely destroyed and (2) the newer construction which can be repaired and used.



Canadians do not form a compact group like the English or French, but are a collection of diverse races molding themselves into a nation that takes its pattern from the land of their adoption. At the time of Confederation, the largest individual British racial group was Irish, and the Irish and Scottish together outnumbered the English by almost two to one. After 1881 the English predominated and the Scottish moved to second place after 1911. By the time of the 1941 Census, the numerical strength of the principal racial stocks was in the following order: French, English, Scottish, Irish, German, Ukrainian, Scandinavian, Netherlanders, Jewish and Polish. Canada is officially bilingual, and the 1941 Census revealed 1,500,000 people speaking both official languages, while 7,750,000 spoke English only and 2,200,000 spoke French only.

The following tables give a picture of the Canadian population from various angles at the time of the 1941 Census.

Population of Canada, Census Years 1891-1941, with Density, 1941

NOTE.—The figures for certain censuses are not altogether comparable but the qualifications are for the most part technical and are given in detail in the Census volumes and the Canada Year Book.

Province or Territory	Land Area in Sq. Miles	Population						Persons per Sq. Mile 1941
		1891	1901	1911	1921	1931	1941	
P.E.I.....	2,184	109,078	103,259	93,728	88,615	88,038	95,047	43.52
N.S.....	20,743	450,396	459,574	492,338	523,837	512,846	577,962	27.86
N.B.....	27,473	321,263	331,120	351,889	387,876	408,219	457,401	16.65
Que.....	523,800	1,488,535	1,648,898	2,005,776	2,360,510	2,874,662	3,331,882	6.36
Ont.....	363,282	2,114,321	2,182,947	2,527,292	2,933,662	3,431,683	3,787,655	10.43
Man.....	219,723	152,506	255,211	461,394	610,118	700,139	729,744	3.32
Sask.....	237,975	—	91,279	492,432	757,510	921,785	895,992	3.77
Alta.....	248,800	—	73,022	374,295	588,454	731,605	796,169	3.20
B.C.....	359,279	98,173	178,657	392,480	524,582	694,263	817,861	2.28
Yukon.....	205,346	—	27,219	8,512	4,157	4,230	4,914	0.02
N.W.T.....	1,253,438	98,967	20,129	6,507	8,143	9,316	12,028	0.01
Canada....	3,462,103	4,833,239	5,371,315	7,206,643	8,787,949	10,376,786	11,506,655	3.32

¹ Includes 485 members of the Royal Canadian Navy who were recorded separately.

Rural and Urban Populations, by Provinces, 1931 and 1941

Province or Territory	1931		1941		Numerical Increases 1931-41	
	Rural	Urban	Rural	Urban	Rural	Urban
Prince Edward Island.....	67,653	20,385	70,707	24,340	3,054	3,955
Nova Scotia.....	281,192	231,654	310,422	267,540	29,230	35,886
New Brunswick.....	279,279	128,940	313,978	143,423	34,699	14,483
Quebec.....	1,061,056	1,813,606	1,222,198	2,109,684	161,142	296,078
Ontario.....	1,335,691	2,095,992	1,449,022	2,338,633	113,331	242,641
Manitoba.....	384,170	315,969	407,871	321,873	23,701	5,904
Saskatchewan.....	630,880	290,905	600,846	295,146	30,034	4,241
Alberta.....	453,097	278,508	489,583	306,586	36,486	28,078
British Columbia.....	299,524	394,739	374,467	443,394	74,943	48,655
Yukon.....	2,870	1,360	3,117	1,797	247	437
Northwest Territories.....	9,316	Nil	12,028	Nil	2,712	—
Canada.....	4,804,728	5,572,058	5,254,239	6,252,416	449,511	680,358



This view of the Village of Verchères, 30 miles northeast of Montreal, on the St. Lawrence River, shows the results of the French seigneurial system. The land is held in long narrow strips with the farm houses clustered at the same end along the main road.

Urban Centres having over 20,000 Inhabitants in 1941, Census Years 1901-41

Urban Centre and Province	Populations				
	1901	1911	1921	1931	1941
Montreal, Que.....	325,653	490,504	618,506	818,577	903,007
Greater Montreal.....	—	—	—	1,023,158	1,139,921
Toronto, Ont.....	218,504	381,833	521,893	631,207	667,457
Greater Toronto.....	—	—	—	810,467	900,491
Vancouver, B.C.....	29,432	120,847	163,220	246,593	275,353
Greater Vancouver.....	—	—	—	308,340	351,491
Winnipeg, Man.....	42,340	136,035	179,087	218,785	221,960
Greater Winnipeg.....	—	—	—	284,295	290,540
Hamilton, Ont.....	52,634	81,969	114,151	155,547	166,337
Greater Hamilton.....	—	—	—	163,710	176,110
Ottawa, Ont.....	64,226	87,062	107,843	126,872	154,951
Greater Ottawa.....	—	—	—	175,988	215,022
Quebec, Que.....	68,840	78,118	95,193	130,594	150,757
Greater Quebec.....	—	—	—	172,517	200,814
Windsor, Ont.....	15,198	23,433	55,935	98,179	105,311
Greater Windsor.....	—	—	—	110,385	121,112
Edmonton, Alta.....	4,176	31,064	58,821	79,197	93,817
Calgary, Alta.....	4,392	43,704	63,305	83,761	88,904
London, Ont.....	37,976	46,300	60,959	71,148	78,264
Greater London.....	—	—	—	—	80,740
Halifax, N.S.....	40,832	46,619	58,372	59,275	70,488
Greater Halifax.....	—	—	—	74,161	91,829
Verdun, Que.....	1,898	11,629	25,001	60,745	67,349
Regina, Sask.....	2,249	30,213	34,432	53,209	58,245
Saint John, N.B.....	40,711	42,511	47,166	47,514	51,741
Greater Saint John.....	—	—	—	58,717	65,784
Victoria, B.C.....	20,919	31,660	38,727	39,082	44,068
Greater Victoria.....	—	—	—	—	75,218

Urban Centres having over 20,000 Inhabitants in 1941, Census Years 1901-41
—concluded—

Urban Centre and Province	Populations				
	1901	1911	1921	1931	1941
Saskatoon, Sask.....	113	12,004	25,739	43,291	43,027
Three Rivers, Que.....	9,981	13,091	22,367	35,450	42,007
Sherbrooke, Que.....	11,765	16,405	23,515	28,933	35,965
Kitchener, Ont.....	9,747	15,196	21,763	30,793	35,657
Hull, Que.....	13,993	18,222	24,117	29,433	32,947
Sudbury, Ont.....	2,027	4,150	8,621	18,518	32,203
Brantford, Ont.....	16,619	23,132	29,440	30,107	31,948
Outremont, Que.....	1,148	4,820	13,249	28,641	30,751
Fort William, Ont.....	3,633	16,499	20,541	26,277	30,585
St. Catharines, Ont.....	9,946	12,484	19,881	24,753	30,275
Kingston, Ont.....	17,961	18,874	21,753	23,439	30,126
Timmins, Ont.....	—	—	3,843	14,200	28,790
Sydney, N.S.....	9,909	17,723	22,545	23,089	28,305
Oshawa, Ont.....	4,394	7,436	11,940	23,439	26,813
Westmont, Que.....	8,856	14,579	17,693	24,235	26,047
Sault Ste. Marie, Ont.....	7,169	14,920	21,092	23,082	25,794
Peterborough, Ont.....	12,886	18,360	20,994	22,327	25,350
Glace Bay, N.S.....	6,945	16,562	17,007	20,706	25,147
Port Arthur, Ont.....	3,214	11,220	14,886	19,818	24,426
Guelph, Ont.....	11,496	15,175	18,128	21,075	23,273
Moncton, N.B.....	9,026	11,345	17,488	20,689	22,763
New Westminster, B.C.....	6,499	13,199	14,495	17,524	21,967
Moose Jaw, Sask.....	1,558	13,823	19,285	21,299	20,753
Niagara Falls, Ont.....	5,702	9,248	14,764	19,046	20,589
Shawinigan Falls, Que.....	—	4,265	10,625	15,345	20,325
Lachine, Que.....	6,365	11,688	15,404	18,630	20,051

Percentage Distribution of Population by Sex and Age Groups, by Provinces, 1941

Age Group	Prince Edward Island		Nova Scotia		New Brunswick		Quebec		Ontario		Manitoba	
	Males	Fe-males	Males	Fe-males	Males	Fe-males	Males	Fe-males	Males	Fe-males	Males	Fe-males
Under 10 years.....	10.2	9.9	10.0	9.7	10.8	10.6	10.6	10.4	8.0	7.8	8.6	8.3
10-19 years.....	10.0	9.6	9.8	9.5	10.6	10.4	10.7	10.7	8.9	8.6	9.7	9.6
20-29 ".....	8.9	7.7	9.3	8.8	9.0	8.2	8.7	9.0	8.6	8.4	9.2	9.1
30-39 ".....	6.4	5.3	6.8	6.0	6.4	5.9	7.0	6.9	7.5	7.1	7.0	6.7
40-49 ".....	5.3	5.0	5.2	5.0	5.0	4.8	5.3	5.1	6.5	6.2	5.9	5.5
50-59 ".....	4.4	4.2	4.3	4.1	4.1	3.8	3.9	3.7	5.4	5.1	5.9	4.6
60-69 ".....	3.5	3.3	3.3	3.0	3.1	2.8	2.5	2.4	3.5	3.5	3.6	2.7
70 or over.....	3.1	3.2	2.5	2.7	2.2	2.3	1.5	1.6	2.3	2.6	1.9	1.7
All Ages	51.8	48.2	51.2	48.8	51.2	48.8	50.2	49.8	50.7	49.3	51.8	48.2
Age Group	Saskatchewan		Alberta		British Columbia		Yukon		Northwest Territories		Canada	
	Males	Fe-males	Males	Fe-males	Males	Fe-males	Males	Fe-males	Males	Fe-males	Males	Fe-males
Under 10 years.....	9.8	9.5	9.6	9.3	7.1	6.9	8.7	8.9	13.4	12.7	9.2	9.0
10-19 years.....	10.8	10.5	9.9	9.7	7.9	7.7	6.3	5.9	9.5	9.2	9.8	9.6
20-29 ".....	9.1	8.5	8.9	8.5	8.6	8.7	11.0	7.4	10.1	7.4	8.8	8.6
30-39 ".....	6.7	5.9	7.5	6.3	7.7	6.7	11.9	5.0	9.5	6.0	7.2	6.7
40-49 ".....	5.8	4.8	6.4	5.0	6.6	5.7	6.8	3.2	6.1	4.1	5.9	5.5
50-59 ".....	6.0	4.0	6.2	4.1	7.5	5.4	6.4	2.6	4.1	2.5	5.1	4.4
60-69 ".....	3.5	2.2	3.5	2.3	5.2	3.0	7.3	1.9	2.3	1.6	3.3	2.9
70 or over.....	1.6	1.3	1.6	1.2	2.6	2.1	5.8	0.9	0.7	0.8	2.0	2.0
All Ages	53.3	46.7	53.6	46.4	53.2	46.8	64.2	35.8	55.7	44.3	51.3	48.7

POPULATION

Conjugal Condition of the Population, by Provinces and Sex, 1941

Province or Territory	Single	Married	Widowed	Divorced	Legally Separated	Total ¹
MALES						
Prince Edward Island.....	29,828	17,625	1,549	22	202	49,228
Nova Scotia.....	173,506	111,132	9,359	247	1,770	296,044
New Brunswick.....	140,952	85,093	6,095	197	1,137	234,097
Quebec.....	1,027,162	591,533	46,386	500	7,270	1,672,982
Ontario.....	993,265	851,096	60,210	2,291	14,105	1,921,201
Manitoba.....	209,939	155,157	10,268	473	2,218	378,079
Saskatchewan.....	283,297	179,996	11,383	468	2,351	477,563
Alberta.....	243,666	168,469	10,594	801	2,891	426,458
British Columbia.....	215,205	200,027	13,979	1,547	4,213	435,031
Yukon.....	2,029	957	116	17	34	3,153
Northwest Territories.....	3,978	2,443	204	6	10	6,700
Canada.....	3,322,827	2,363,528	170,743	6,569	36,201	5,900,536
FEMALES						
Prince Edward Island.....	24,748	17,473	3,401	19	178	45,819
Nova Scotia.....	148,474	109,513	21,544	268	2,115	281,918
New Brunswick.....	123,540	84,275	14,040	192	1,256	223,304
Quebec.....	981,890	581,569	85,425	646	9,353	1,658,900
Ontario.....	876,215	826,525	142,731	2,865	18,039	1,866,454
Manitoba.....	178,458	151,105	20,625	654	2,818	351,665
Saskatchewan.....	221,557	175,112	18,965	381	2,414	418,429
Alberta.....	186,215	161,953	17,963	717	2,850	369,711
British Columbia.....	165,064	181,932	29,235	1,718	4,878	382,830
Yukon.....	833	810	88	3	27	1,761
Northwest Territories.....	2,747	2,211	361	Nil	8	5,328
Canada.....	2,907,741	2,292,478	354,378	7,463	43,936	5,606,119

¹ Includes persons with conjugal condition not stated.

Origins of the People, 1941

Origin	Number	Origin	Number
British Isles Races—		Hungarian.....	54,598
English.....	2,968,402	Indian and Eskimo.....	125,521
Irish.....	1,267,702	Italian.....	112,625
Scottish.....	1,403,974	Japanese.....	23,149
Other.....	75,826	Jewish.....	170,241
Totals, British Isles Races....	5,715,904	Negro.....	22,174
French.....	3,483,038	Netherlander.....	212,863
Austrian.....	37,715	Polish.....	167,485
Belgian.....	29,711	Roumanian.....	24,689
Bulgarian.....	3,260	Russian.....	83,708
Chinese.....	34,627	Scandinavian.....	244,603 ¹
Czech and Slovak.....	42,912	Ukrainian.....	305,929
Finnish.....	41,683	Yugoslavic.....	21,214
German.....	484,682	Various.....	67,357
Greek.....	11,692	Unspecified.....	5,275
		Grand Total.....	11,506,655

¹ Includes 37,439 Danish, 21,050 Icelandic, 100,718 Norwegian and 85,396 Swedish.

Eight Leading Origins in Canada, by Provinces, 1941

Province	Origin							
	British Isles Races	French	German	Ukrainian	Scandinavian	Netherlander	Jewish	Polish
P.E.I.....	78,714	14,799	172	2	152	494	25	1
N.S.....	445,178	66,260	15,038	711	2,353	23,834	2,285	2,206
N.B.....	276,758	163,934	1,394	22	2,929	4,639	1,228	233
Que.....	452,887	2,695,032	8,880	8,006	4,840	2,645	66,277	10,036
Ont.....	2,729,830	373,990	167,102	48,158	27,225	73,001	69,875	54,893
Man.....	360,560	52,996	41,479	89,762	32,620	39,204	18,879	36,550
Sask.....	397,905	50,530	130,258	79,777	68,806	35,894	4,149	27,902
Alta.....	399,432	42,979	77,721	71,868	63,494	20,429	4,164	26,845
B.C.....	571,336	21,876	22,407	7,563	41,560	12,737	3,350	8,744
Canada¹	5,715,904	3,483,038	464,682	305,929	244,603²	212,863	170,241	167,485

¹ Includes Yukon and the Northwest Territories.
100,718 Norwegian and 85,396 Swedish.

² Includes 37,439 Danish, 21,050 Icelandic.

Birthplaces of the Population, Census Years 1901-41

Year	Canadian Born		Other British Born ¹		Foreign Born				Total Population
					United States Born		Other		
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.
1901.....	4,671,815	86·98	421,051	7·84	127,899	2·38	150,550	2·80	5,371,315
1911.....	5,619,682	77·98	834,229	11·58	303,680	4·21	449,052	6·23	7,206,643
1921.....	6,832,224	77·76	1,065,448	12·12	374,022	4·26	516,255	5·87	8,787,949
1931.....	8,069,261	77·76	1,184,830	11·42	344,574	3·32	778,121	7·50	10,376,786
1941.....	9,487,808	82·46	1,003,769	8·72	312,473	2·72	701,660	6·10	11,506,655 ²

¹ Includes some hundreds of persons born at sea.

Includes "birthplace not stated".

Membership of the Eight Leading Religious Denominations, Census Years 1901-41

Religious Denomination	1901	1911	1921	1931	1941
Roman Catholic.....	2,229,600	2,833,041	3,389,626	4,285,388 ¹	4,980,552 ²
United Church of Canada.....	—	—	8,728	2,017,375	2,204,875
Anglican.....	681,494	1,043,017	1,407,780	1,635,615	1,751,188
Presbyterian.....	842,531	1,116,071	1,409,406	870,728 ³	829,147 ³
Baptist.....	318,005	382,720	421,730	443,341	483,592
Lutheran.....	92,524	229,864	286,458	394,194	401,153
Jewish.....	10,401	74,564	125,197	155,614	168,367
Greek Orthodox ⁴	15,630	88,507	169,832	102,389	139,629

¹ Includes 186,654 Greek Catholics.

² Includes 185,657 Greek Catholics.

³ These are

the "continuing Presbyterians" who did not join with the Methodists and Congregationalists to form the United Church of Canada in the 'twenties. ⁴ Greek Orthodox and Greek Catholics combined under the term Greek Church in 1921; in the Censuses of 1931 and 1941, Greek Catholics are included with Roman Catholics.

Membership of the Eight Leading Denominations, by Provinces, 1941

Province or Territory	Roman Catholic ¹	United Church of Canada	Anglican	Presbyterian	Baptist	Lutheran	Jewish	Greek Orthodox
P.E.I.....	42,743	24,005	5,739	14,724	5,443	45	18	10
N.S.....	188,944	124,301	103,393	47,415	89,272	9,104	2,167	347
N.B.....	220,454	63,268	55,155	15,382	88,766	870	1,196	85
Que.....	2,894,621	100,196	162,056	56,086	12,303	7,081	65,683	12,040
Ont.....	882,369	1,073,425	815,413	433,708	192,915	104,111	69,217	28,383
Man.....	203,239	194,001	125,076	43,073	13,267	48,213	18,715	20,777
Sask.....	243,734	230,495	117,674	54,856	19,460	104,717	4,076	37,699
Alta.....	191,343	193,664	113,279	68,910	32,268	84,630	4,052	34,991
B.C.....	113,282	200,817	245,531	94,300	29,780	41,772	3,235	5,198
Yukon.....	742	404	2,545	422	75	368	2	67
N.W.T.....	5,061	299	5,327	271	43	242	6	32
Canada....	4,986,552	2,204,875	1,751,188	829,147	483,592	401,153	168,367	139,629

¹ Includes Greek Catholics.

Aboriginal Races

According to 1941 Census figures, the aboriginal population amounts in all to little more than 1 p.c. of the total population.

Indians.—Indian affairs are administered by the Indian Affairs Branch of the Department of Mines and Resources under the authority of the Indian Act. Reserves have been set aside for the various bands of Indians in the Dominion and the Indians located thereon are under the supervision of the local agents of the Branch. The activities of the Branch, on behalf of the Indians, include the control of Indian education, the care of health, the development of agriculture and other pursuits

Eskimos of Southampton Island, N.W.T., holding a feast.



among them, the administration of their funds and legal transactions, and the general supervision of their welfare.

The Indian Act provides for enfranchisement of Indians. In the older provinces, where the Indians have been longer in contact with civilization, many are becoming enfranchised. Great discretion, however, is exercised by the Government in dealing with this problem as Indians who become enfranchised lose the special protection of the Indian Act.

According to the Dominion Census of 1941, the total number of Indians was 118,316 (60,182 males and 58,134 females) made up by provinces as follows: Prince Edward Island, 258; Nova Scotia, 2,063; New Brunswick, 1,939; Quebec, 11,863; Ontario, 30,336; Manitoba, 15,473; Saskatchewan, 13,384; Alberta, 12,565; British Columbia, 24,875; Yukon, 1,508; and the Northwest Territories, 4,052.

During the Second World War, the Indians of Canada served well, as they had done during the previous war. From 1939, enlistments in the Armed Forces numbered 2,576, 45 p.c. of whom were from Ontario.

Eskimo.—The Eskimo in Canada are found principally north of the tree-line on the northern fringe of the mainland and around the coasts of many of the islands in the Arctic Archipelago and in Hudson Bay. Most of the Eskimo are essentially coastal dwellers, obtaining much of their food and clothing from the mammals of the sea. However, there are bands of Eskimo living in the interior of Keewatin District on the west side of Hudson Bay who are inland people, and who subsist chiefly on caribou.

The administrative care of Eskimo devolves upon the Lands, Parks and Forests Branch of the Department of Mines and Resources, which, by regulative measures, conserves the natural resources necessary to their subsistence. Contact with the Eskimo is maintained through permanent stations at a number of which medical officers are located—in the eastern, central, and western Arctic; by patrols of the Royal Canadian Mounted Police; by radio-communication; by means of the annual Canadian Eastern Arctic Patrol by steamship; and by auxiliary motor vessels.

The official returns of the Dominion Census of 1941 established the Eskimo population at 7,392, of which 5,404 were located in the Northwest Territories; 1,965 in Quebec; 4 in Nova Scotia; 3 in Ontario; 1 in Manitoba; 4 in Saskatchewan; 4 in Alberta; and 7 in British Columbia. In addition, a late return reported 247 for the Igloodik region of Northwest Territories, raising the total to 7,639.

Immigration

Total immigrants into Canada during the fiscal year ended in 1945 numbered 15,306 as compared with 9,040 in 1944 and 7,445 in 1943.

English, Scottish, Irish and Welsh from overseas numbered 9,943 as compared with 4,278 and 2,418 in 1944 and 1943, respectively; immigrants from the United States totalled 4,624 in 1945 as compared with 4,441 and 4,827, respectively, for the two previous years; from other countries the number was 739 as compared with 321 and 200.

In January, 1942, provision was made to furnish the dependants of members of the Armed Forces serving overseas with free transportation from their home in the country of residence to destination in Canada. By Order in Council dated



New Canadians arriving from the British Isles. It is estimated that wives and children of Canadian service men who married overseas will number between forty and fifty thousand.

Sept. 21, 1944, dependants, immediately on their admission to Canada, acquire the same immigration status as the head of the family. From 1942 to 1944, 5,321 dependants comprising 3,319 adults and 2,002 children were admitted to Canada.

A movement not included on the immigration statistics is that of 'returned Canadians' who numbered 2,304 in 1944-45 as compared with 2,202 in 1943-44.

Although tourists entering Canada are not immigrants, their admission calls for an immigration examination at the International Boundary and at ocean ports. In 1944-45 the number of entries in this class totalled 21,261,000 made up of 12,699,000 tourists, etc., 8,560,000 residents returning and 2,000 Canadians returning after residence in the United States, as mentioned above; in 1943-44 the total entries, in round figures, numbered 16,381,000 including 10,507,000 tourists, etc., 5,872,000 returning residents and 2,000 returned Canadians.

Vital Statistics

Canada has had a national system of vital statistics since 1926, organized by the Dominion Bureau of Statistics in collaboration with the Registration Officials of the provinces.

National Vital Statistics Index.—At a Dominion-Provincial Conference on Vital Statistics in September, 1944, it was decided that the Dominion and the Provinces would collaborate in the creation of a National Vital Statistics Index for Canada. This index is to be used collectively by the several governments in

the verification of births, stillbirths, deaths and marriages. Modern mechanical methods including microfilm and punch-card equipment are being synchronized. The former permits the rapid transmission of photographic copies of the events registered in the provincial vital statistics offices to the Dominion Bureau of Statistics. In setting up the National Index and for the analysis of the statistical facts, mechanical tabulation processes are being applied to the material on a uniform basis at the Bureau.

Vital Statistics Council.—A Vital Statistics Council for Canada was established by Order in Council to facilitate co-operation between Dominion and Provincial Governments with respect to the use of vital records and statistics, and to ensure the creation and maintenance of a system that is adequate to meet increasing demands both for Dominion and provincial purposes. The Dominion Statistician is the Chairman and the Council comprises one representative for each province, one for Yukon and the Northwest Territories and the Chiefs of Vital Statistics and Census Branches in the Dominion Bureau of Statistics.

Births, Deaths and Marriages in Canada

Province	Births			Deaths			Marriages		
	1944 ¹		1926	1944 ¹		1926	1944 ¹		1926
	No.	Rate per M.	Rate per M.	No.	Rate per M.	Rate per M.	No.	Rate per M.	Rate per M.
Prince Edward Island.....	2,290	25.2	20.1	923	10.1	10.3	646	7.1	5.3
Nova Scotia.....	15,340	25.1	21.3	6,129	10.0	12.4	5,915	9.7	5.6
New Brunswick.....	13,485	29.2	26.1	5,121	11.1	12.6	3,813	8.3	7.4
Quebec.....	102,261	29.2	31.6	34,742	9.9	14.3	31,917	9.1	6.8
Ontario.....	78,082	19.7	21.4	39,669	10.0	11.3	31,228	7.9	7.5
Manitoba.....	16,008	21.0	22.9	6,088	9.1	8.3	6,294	8.6	7.1
Saskatchewan.....	18,138	21.4	25.2	6,446	7.6	7.4	5,910	7.0	6.7
Alberta.....	19,373	23.7	23.8	6,303	7.7	8.5	7,298	8.9	7.4
British Columbia.....	18,998	20.4	16.0	9,666	10.4	9.0	8,434	9.0	7.3
Canada².....	283,975	23.7	24.7	115,687	9.7	11.4	101,464	8.5	7.1

¹ Preliminary figures.

² Exclusive of Yukon and the Northwest Territories.

Implementing an agreement between the Dominion and the provinces, tabulations of births and deaths are being made on the basis of residence rather than place of occurrence, as from Jan. 1, 1944.

Births.—From 1926 to 1930 the number of births showed an upward trend rising from 232,750 to 243,495. This movement was reversed until 1939 when the number of births was 229,468 as against 229,446 in 1938. In 1940 the figure rose to 244,316; in 1941 to 255,317; in 1942 to 272,313; in 1943 to 283,580; and in 1944 to 283,975, the highest ever recorded in Canada. Because of the growing population, the rate per 1,000 births showed a steady drop from 1926 to 1937 of from 24.7 to 20.2, but in 1940 the rate stood at 21.5; in 1941 at 22.2; in 1942 at 23.4; in 1943 at 24.0; and in 1944 at 23.7.

The influence of war on Canadian births is reflected in the sharp increases in both rates and numbers for the years 1940 to 1943, the rate for 1943 being the highest recorded since 1928.

VITAL STATISTICS

Deaths.—The ten leading causes of death accounted for well over 77 p.c. of the total deaths in Canada in 1944; "diseases of the heart", considered as a group, was the most important cause. Cancer was second; incidentally, the death rate from this cause has advanced almost every year from 1926 to 1944, the increase in that period being from 80.7 to 118.9 per 100,000 population; there is every indication of a smoothing out of the rate curve for this disease. This increase in deaths is rather misleading, being due to improvement in diagnostic and X-ray techniques and to the ageing of the Canadian population. Pneumonia, which was in third place in 1926 with a rate of 89.3, dropped in 1944 to seventh place with a rate of 49.5.

Maternal Mortality.—The average rate for the five-year period 1926-30 was 5.7 per 1,000 living births. Since that time there has been a marked improvement in the rate which decreased to 4.0 in 1940 and reached the low figure of 2.7 in 1944.

Infant Mortality.—In Canada during recent years this rate has shown a substantial reduction, falling from 102 per 1,000 live births in 1926 to 60 in 1941 and 54 in 1942 and 1943. However, there was a slight increase to 55 in 1944.

Infant Deaths and Death Rates in Canada

Province	Infants under One Year					Rates per 1,000 Live Births				
	1926	1941	1942	1943	1944 ¹	1926	1941	1942	1943	1944 ¹
Prince Edward Island...	123	163	106	98	102	70	80	50	45	45
Nova Scotia.....	882	908	884	898	821	80	65	58	58	54
New Brunswick.....	1,095	936	978	886	1,035	106	76	77	68	77
Quebec.....	11,666	6,770	6,657	6,642	6,913	142	76	70	67	68
Ontario.....	5,302	3,294	3,139	3,390	3,342	78	46	40	42	43
Manitoba.....	1,122	788	807	909	786	77	53	51	55	49
Saskatchewan.....	1,681	946	788	873	858	81	51	43	47	47
Alberta.....	1,233	879	696	810	889	85	51	38	42	46
British Columbia.....	588	552	596	711	765	58	37	35	38	40
Canada².....	23,692	15,236	14,651	15,217	15,511	102	60	54	54	55

¹ Preliminary figures.

² Exclusive of Yukon and the Northwest Territories.

Natural Increase.—The birth rate declined from 23.9 in 1930 to 20.2 in 1937, but since 1938 has increased steadily to a rate of 24.0 in 1943. The death rate declined at a somewhat lower rate (a slight increase in 1937, 1941 and 1943) with the result that the rate of natural increase was declining between 1930 and 1937. Since 1938 there has been an increase in this rate. The rate for 1940 was 11.7 per 1,000; for 1941, 12.2; for 1942, 13.7; for 1943, 13.9; and for 1944, 14.0.

Marriages.—In 1929 marriages in Canada numbered 77,288. The depression exercised a marked influence on marriages and the marriage rate, causing a downward trend until 1933 when a gradual recovery commenced. The increase continued until 1938 when the yearly total for marriages stood at 88,438. The influence of the War is reflected in the abnormally large figures and high rates for the years 1939, 1940, 1941, 1942, and 1943 of 103,658, 123,318, 121,842, 127,372 and 110,937, respectively. The 1942 marriage rate of 10.9 per 1,000 population was the highest Canadian marriage rate on record, the rates for 1943 and 1944 being slightly lower at 9.4 and 8.5, respectively.

National Income—Survey of Production

National Income

Canada's gross national product increased during the war years from a level of \$5,500,000,000 in the year 1939 to the impressive total of \$11,700,000,000 in 1944. This astonishing increase provides some measurement of the economic contribution made to the general war effort by capital and labour, by manufacturing industry, agriculture and other types of productive activity. The doubling of gross national product exaggerates somewhat, to be sure, the actual increase in physical quantities of output. This is because the figures reflect general increases in price levels as well as the real growth of goods and services. Nevertheless, the record is an outstanding one and the relative increase compares very favourably with the most advanced and industrially efficient countries of the world.

Gross national expenditure is perhaps the best available means of analysing year-to-year changes in the results of economic activities. It is an appraisal of all the goods and services resulting from productive activities. These include goods and services purchased by government as well as consumption goods and services for the general public, such as food and medical care. Added to these are capital goods such as machines, factory buildings and houses. The surplus of exports over imports is included as representing goods and services supplied to other countries over and above those paid for by imports. Materials produced and used up in production processes during the year are excluded since their value is already taken into account in the goods in which they are embodied. Otherwise there would be double-counting in the totals. As an example of this, the textiles used up in the production of clothing are not specifically included in gross national product, since they will be included in the value of clothing.

During the war years, government expenditure on goods and services has accounted for a very large proportion of gross national product. Most of this amount has been spent by the Dominion Government on equipment for Canada's armed services and for those of her Allies. Ships, tanks, guns and other implements of war are necessarily financed out of the public purse. In the year 1944, government expenditures on goods and services of all kinds amounted to about \$5,500,000,000, about 47 p.c. of gross national product.

The remainder of gross national product was made up in that year of about \$6,300,000,000 worth of consumption goods for the general public, \$550,000,000 of private outlay for capital equipment less about \$250,000,000 which is the excess of current imports over current exports, adjusted for government transactions.

Gross national expenditure represents only one of the points of view from which the national economy can be analysed. It is the evaluation of final goods and services at the prices which must be paid for them. This total may also be analysed from the viewpoint of incomes of the various factors of production. Out of gross national expenditure are paid the incomes earned in production processes such as salaries, wages and profits. In addition, it is sufficient to cover indirect taxes such as sales taxes, and the reserves that are necessarily accumulated by business against the depreciation of capital equipment.

Another method is thus indicated for making up a consolidated account of national economic activity. This second total is known as net national income



A splendid growth of Wheat in Western Canada.

at factor cost. It is the total of incomes earned in production processes in a given year. After making the necessary adjustment for depreciation reserves and indirect taxes, it is possible to think of gross national expenditure and net national income at factor cost as balancing totals. The former is essentially a consolidated sales account for the economy as a whole adjusted for the change in business inventories during the year. It is made up of sales to consumers, sales to business for capital purposes, sales to government and net exports. It is said to be on a consolidated basis since intra-business sales of raw materials and goods in process are eliminated. The net national income at factor cost, on the other hand, shows the most important charges that are made against the consolidated sales total. These are the incomes of the factors of production, such as labour, management and capital, including labour hired by the Government.

National income at factor cost is useful for the study of the distribution of resources among the different factors of production. It increased from about \$4,000,000,000 in 1939 to \$9,700,000,000 in 1944. In the year 1944 salaries and wages accounted for nearly \$5,000,000,000 or about 51 p.c. of the total. Investment income including business profits before taxes and the interest, dividends, rent and profits earned in the country as a whole, amounted to about \$1,800,000,000 in that same year. This latter amount is almost one-third of the total of salaries and wages. Military pay and allowances amounted to over \$1,000,000,000 in 1944.

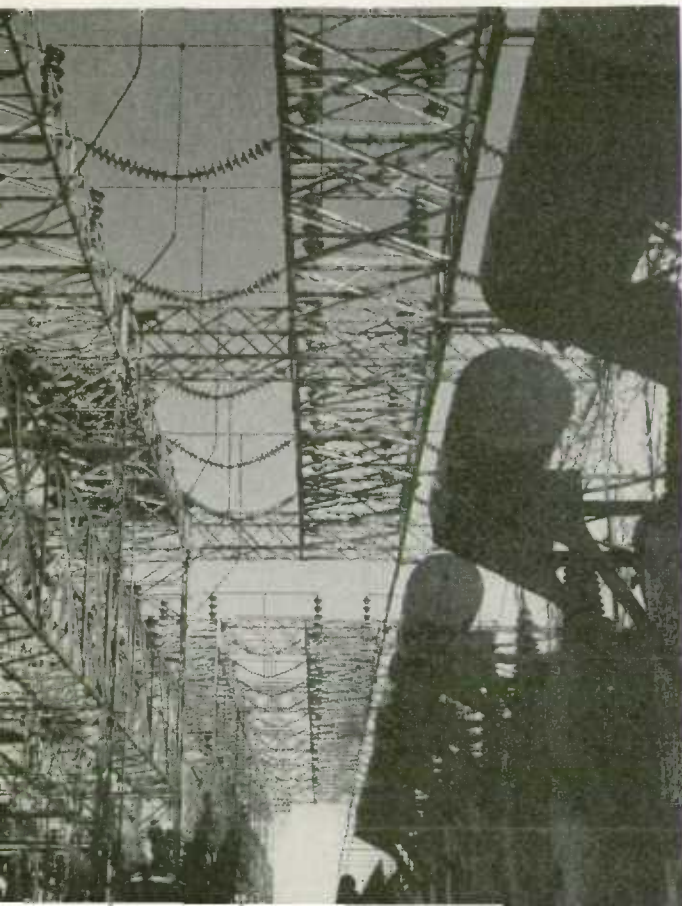
CANADA 1946

The remaining sector of net national income is composed of the net income of unincorporated individual enterprise, a field which includes most farming operations, and this amounted to a total of about \$1,900,000,000 in 1944.

The subject of national income analysis has become increasingly important as a means of providing information to government, business and the general public. In a period such as the present in which fundamental changes have taken place in the productive activity and the structure of business, the Dominion Bureau of Statistics has concentrated on the development of all types of information that reveal useful facts relating to the Canadian economy. National problems of full employment, material welfare and dynamic industrial growth can be usefully analysed in their domestic and international aspects by means of national income figures.

Survey of Production

In this survey only those industries generally considered to have a *direct* connection with production are considered, the coverage being limited to agriculture, fishing, mining, forestry, trapping, electric power, manufactures, construction, and custom and repair. However, production in the economic sense includes much more than the contribution of these industries. Transportation, trade, banking and



Banks of Transformers with disconnectors overhead which have a capacity of over one million horsepower of electricity required in producing aluminum at a Quebec plant.

A Feed Pen in Alberta where range cattle are fed grain and bone meal to increase their weight before marketing.



numerous other services also contribute to the nation's economy and should be taken into account when attempting a complete survey of Canada's productive capacity.

Net production is defined as the value left in producers' hands after the elimination of the cost of materials, fuel and purchased electricity and supplies consumed in the process of production. Net production is, therefore, a much better criterion of the value of an industry to the community in which it operates than is gross production.

The net output of the nine main branches of production in 1943 rose 6.9 p.c., or \$406,000,000, over the preceding year. Such production was more than double that of 1939 when the level was not greatly affected by war demand. The expansion of the manufacturing industries was the most important factor in the four-year period since general production was, of course, directed mainly to munitions of war.

Fluctuation in the past two years is indicated by the trend of production and prices. The index of the physical volume of business recorded a gain of 0.4 p.c. in 1944 over the preceding year. An increase of 2.5 p.c. was shown in the index of wholesale prices. Changes in the averages of the business and price indexes for the first eight months of 1945 from the same period of the preceding year, amounting to a decline of 8 p.c. and a gain of 0.6 p.c., respectively, suggest that the upward trend in the net value of production was reversed in the year recently ended. The index of employment was also slightly lower in the first eight months of 1945 than in the same period of 1944.

Net production in agriculture during 1943, constituting 50.2 p.c. of the aggregate for the six branches of the primary group, dropped 7.8 p.c. from 1942. The bumper grain crop and the heavy output of animal products to meet increased overseas demand were the main elements in the high level of 1942. Mining, second in importance among the primary industries, declined 7.5 p.c. Activities, especially in gold mining, were retarded by the scarcity of manpower and the difficulty of obtaining mining machinery and equipment. The net output of the electric power and forestry industries showed increases of 0.2 p.c. and 7.9 p.c., respectively.

CANADA 1946

An increase of 15.2 p.c. was shown in the output of the fisheries industry, while the decrease from the activities of trappers was 9.3 p.c. New records had been established during 1942 in both industries.

Aside from agriculture, manufacturing was the main factor in Canadian production during 1943, showing a gain of 15.3 p.c. over the preceding year. The totals for manufacturing include some industrial enterprises also listed under "primary industries" but, to avoid duplication, the value of output in the latter is deducted in the grand total of production for Canada. The value of output in the construction industry declined by 5.6 p.c., and custom and repair showed an advance of 2.5 p.c. above the preceding year.

The size of the working force, without distinction as to status, is an excellent measure of the relative importance of the various industries in the economic life of the Dominion. Agriculture stood head and shoulders above any other industry, in regard to the number engaged, until the first year of the War. Manufactures was second in importance in this respect, but the gainfully occupied was only somewhat more than half the number engaged in agriculture. However, the tremendous expansion in the working force employed in manufacturing industries during the war years, which amounted to about 89 p.c. between 1939 and 1943, and the decline in the number engaged in agriculture during the same period, brought manufactures to the leading position. The commodity-producing industries engaged 52 p.c. of the manpower in 1943, while the commodity-handling and -facilitating divisions found employment for 21.8 p.c. and 26.2 p.c., respectively.

Value of Production in Canada, by Industries, 1942 and 1943

Industry	1942		1943	
	Gross	Net	Gross	Net
	\$	\$	\$	\$
Agriculture.....	1,615,453,000	1,351,606,000	1,524,379,000	1,245,843,000
Forestry.....	763,988,245	429,079,260	810,154,089	462,815,227
Fisheries.....	103,118,177	64,821,702	118,610,634	71,655,678
Trapping.....	23,801,213	23,801,213	21,579,615	21,579,615
Mining.....	946,021,397	514,109,951	974,414,921	475,529,364
Electric power.....	203,835,365	200,345,240	204,801,508	200,833,297
Totals, Primary Production...	3,656,217,397	2,583,763,366	3,653,939,767	2,481,256,181
Construction.....	635,649,570	310,917,190	572,426,551	293,538,167
Custom and repair.....	208,379,000	141,395,000	213,622,000	144,952,000
Manufactures.....	7,553,794,972	3,309,973,758	8,732,860,999	3,816,413,541
Totals, Secondary Production...	8,397,823,542	3,762,285,948	9,518,909,550	4,254,903,708
Grand Totals¹	10,982,803,173	5,919,847,344	12,023,952,501	6,325,458,373

¹ Excludes duplication in "Manufactures" of items included under primary production.

The relative importance of the nine provinces in Canadian production remained substantially the same as in 1942. The position of Ontario and Quebec as the principal producers was more predominant than in the preceding year, with Ontario's share in the Dominion's total output increasing to 41.5 p.c. as compared with 41.2 p.c. in 1942. Quebec's contribution also increased somewhat, standing at 29.2 p.c. British Columbia retained third position with 9.1 p.c. Saskatchewan, as the

SURVEY OF PRODUCTION

fourth ranking contributor, accounted for 5.3 p.c. of the total production and Alberta 5.1 p.c. The net value of production in two of the Prairie Provinces showed a decline in 1943, while the percentage to the Dominion total was less favourable in each of the provinces of that economic area.

Small relative change was noted in the contribution of the Maritime Provinces. The three provinces showed increases to 3.0 p.c. for Nova Scotia and 2.1 p.c. for New Brunswick, while the share of Prince Edward Island increased slightly to 0.3 p.c.

Value of Production in Canada, by Provinces, 1942 and 1943

Province	1942		1943	
	Gross	Net	Gross	Net
	\$	\$	\$	\$
Prince Edward Island.....	25,193,034	15,369,746	32,320,752	19,955,547
Nova Scotia.....	303,537,344	161,595,641	332,485,662	187,595,481
New Brunswick.....	210,503,062	116,792,353	239,055,462	133,799,469
Quebec.....	3,097,634,158	1,609,534,224	3,625,951,438	1,848,391,341
Ontario.....	4,850,285,849	2,440,514,658	5,254,698,241	2,622,176,339
Manitoba.....	476,999,633	268,265,285	531,444,425	285,852,815
Saskatchewan.....	585,285,078	426,555,113	513,608,526	333,445,471
Alberta.....	572,810,397	385,214,709	528,081,770	321,341,525
British Columbia ¹	860,554,578	496,006,315	966,306,225	572,900,385
Canada.....	10,982,803,173	5,919,847,344	12,023,952,501	6,325,458,373

¹ Includes Yukon and the Northwest Territories.

Experimental Work
on Cucumbers carried on by the Dominion Experimental Farms for the benefit of growers.





Agriculture

The Agricultural Outlook

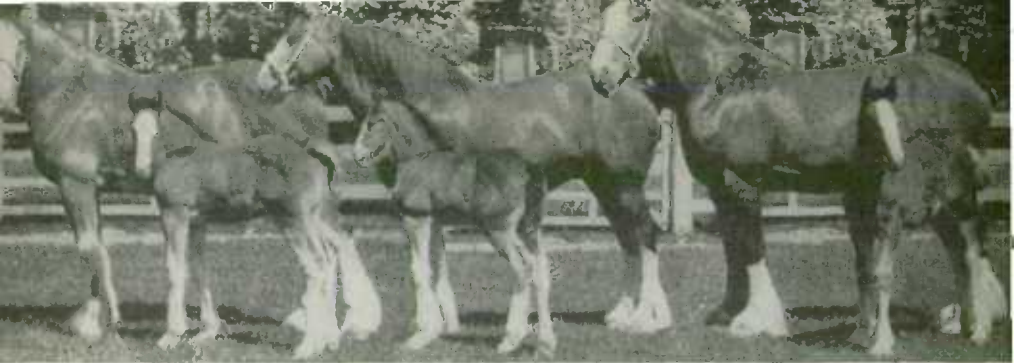
After a six-year period of effort to meet the needs of a country at war, Canadian agriculture now faces the transition from war to peace. During the war years, farmers in Canada made important contributions to the common cause by producing in ever-increasing quantities the foodstuffs needed to nourish the people at home, the troops overseas and the soldiers and civilians in Britain and Allied countries. Throughout the war period, agricultural production increased by some 40 p.c., in spite of sharply reduced manpower and restricted supplies of farm machinery. True, there has been the stimulus of assured markets at satisfactory prices, but Canada's farmers have looked beyond the economic aspects of the problem and, recognizing the great need, have worked long and hard to do their part.

In order that production might be directed along certain lines in accordance with specific requirements, the Government during the early war period introduced the payment of bonuses and subsidies on such products as hogs of A and B1 grades, milk for various uses, and certain fruits and vegetables for processing. Under the freight assistance policies, fertilizers and feed grains were made available at reduced costs to those who required them in their cropping and live-stock programs.

The end of the War saw the production of certain lines forging steadily ahead while in other cases the peak had been passed. Production of eggs established a new record in 1945. During the first half of the year more eggs were purchased for export than during the whole of the previous year. In the case of meats, however, production appeared unable to keep up with demand. A contract with the British Ministry of Supply called for 900,000,000 lb. of bacon in the years 1944-45. During 1944, shipments amounted to 685,000,000 lb. while for 1945 it is estimated that shipments will total 429,000,000 lb. The contract for 1945 covers 450,000,000 lb. While marketings of cattle, calves, sheep and lambs reached record levels during 1945, the falling-off in pork production coupled with the tremendous demand, resulted in the resumption of meat rationing and the controls on the slaughter of meat animals.

Milk production during 1945 passed by a small margin the record figure of the previous year. Fluid milk sales exceeded those of 1944 but the increase was less marked than during the four previous years. Creamery butter production at around 300,000,000 lb. showed a slight increase but not enough to do away with the necessity for rationing which still remains in effect. The manufacture of cheddar cheese was up by 5 p.c.

Canadian farm cash income, which increased steadily throughout the War, reached its high point in 1944 at approximately \$1,800,000,000. Cash income from the sale of farm products during the first half of 1945 showed some reduction, mainly as a result of reduced marketings of wheat and hogs in the Prairie Provinces. Heavy marketings of cattle, calves and oats helped to offset the decline to a considerable extent.



Mares and Foals of a heavy draft breed used for farm and industrial purposes. It is expected that Canada will be called upon to supply an extensive post-war demand for such horses in Europe. A shipment of 3,000 has already been made to France where they will be distributed among French farms and industries.

In the early days of the War there were no immediate signs of increased demand for farm products. Farmers were advised by the Government to go ahead with their production plans on the same basis as formerly and to await developments. When the call for increased output came, emphasis was placed on development along those lines which would involve the least possible disruption of the existing farm organization and thus lessen the difficulties of readjustment to a peacetime basis. The Agricultural Supplies Board, set up immediately following Canada's entry into the War, was charged with the responsibility of keeping agriculture functioning in a manner which would supply the food needs of Canada and her Allies during the War and leave the Canadian farmer, so far as possible, in a position to follow his normal program when peace returned.

In meeting its assignment, the Board has been the principal agency in directing the development of the agricultural resources of Canada toward meeting to best advantage the wartime demands. It has provided direction in maintaining farm production, in distributing supplies of feed, fertilizers and other materials essential to production, and in preparing and conserving agricultural products. Much of the actual direction has been done through co-operation with the provincial departments of agriculture, agricultural colleges and farmers' producer and trade organizations. Early in the War the policy was adopted of calling together in conference, representatives of the various provincial departments and farmers' organizations to plan production for the following year in the light of the requirements.

Canadian agriculture has lived up to its wartime responsibilities but what of the future? For the time being there will apparently be no serious marketing problems. Present contracts with Britain for a number of items will run until the end of 1946. While these agreements are for specified minimum amounts, in each case Britain has undertaken to accept as much more as can be made available. In addition, the United Nations Relief and Rehabilitation Administration is in the market for huge quantities of practically every kind of foodstuff.

By the end of 1946, European agriculture should be well on its way to recovery and Canada will have to face again a certain amount of competition from that source for the lucrative British market. If this market is to be retained, Canadian farmers will need to lay heavy stress on quality. Science has made rapid strides during the war period and farmers cannot afford to ignore the contributions of the scientific

AGRICULTURAL OUTLOOK

investigators as applied to their field. Quality in farm products is not the result of chance but of the application of sound production principles. In bringing these products to the consumer in best possible condition, science again plays a part. Canadian farmers are fortunately well served by the facilities of the Dominion and provincial departments of agriculture and by the universities and other research agencies, but these facilities should be used to the fullest possible extent.

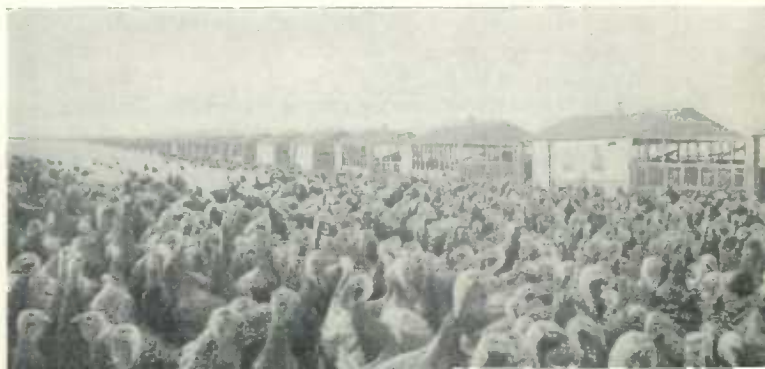
The basic asset in all farming is the soil. Unfortunately in many instances this asset has been abused and soils have become depleted. Soil surveys have done much to establish the best uses of various soil types and soil scientists have shown the way toward conservation and improvement of this greatest of natural resources. In any post-war program for agriculture in Canada, soil conservation will find a prominent place. The progressive decline in crop yields must be arrested and the trend reversed if agriculture is to prosper in the years ahead.

Another factor that will have an important bearing on the future of agriculture is the growing appreciation of the need for better standards of nutrition. Too many people, not only in foreign countries but in Canada as well, do not get enough to eat or are not eating the right kinds of food. The correction of this situation will inevitably be reflected in greater demands for many products of the farm.

While there is every indication of an assured market for Canadian farm produce for some time to come, steps have been taken to prevent any serious slump in prices as a result of the discontinuance of wartime subsidies and bonuses. Provision has been made through the Agricultural Prices Support Act to take care of any subsidies that may become necessary during the transition period from a wartime to a peacetime basis. This Act has been designed to prevent price collapse of farm products and to assist in maintaining adequate and stable returns for agriculture. The Agricultural Prices Support Board appointed under the Act will have powers to buy and sell any farm product except wheat and thus establish a level of price below which no one need sell. Moreover the Board is empowered to pay subsidies in order to maintain domestic and export prices at similar levels, thereby avoiding the objection of dumping surpluses and inviting retaliation from the country in which the product is dumped.

Serious study has been given to the problems connected with agriculture following the end of the War. Legislative action has been taken to provide for export credits and the facilitation of trade expansion. Assistance for a rural housing program and loans for farm improvement, rural electrification and other purposes will be made available under the Farm Improvement Loan Act.

This Turkey Ranch in Manitoba is one of the largest in the British Empire; here about 8,000 birds are groomed for market at one time.



The First Conference of the Food and Agriculture Organization of the United Nations

The Food and Agriculture Organization, popularly known as FAO, had its origin at a conference held at Hot Springs, Virginia, in May, 1943, when the Interim Commission on Food and Agriculture was established. The purpose set forth in the first report by the Interim Commission of the proposed organization was to achieve, in so far as food was concerned, freedom from want. In order to carry out this purpose, it was recommended by the Interim Commission that a permanent organization in the field of food and agriculture be established and that this organization come into being at the earliest possible moment following the cessation of hostilities. The Interim Commission made five technical reports which covered in thorough detail matters relating to nutrition and food management, agricultural production, fisheries, forest and primary forest products, and statistics.

From Oct. 16 to Nov. 1, 1945, Canada was host to the first conference of the Food and Agriculture Organization of the United Nations held at Quebec City. This Conference was attended by thirty-seven member nations with four member nations not represented. In addition there were four observer nations present, who participated actively in the work of the Conference although they did not have voting powers.

The Conference was organized in two Commissions. Commission A, divided into six committees, dealt with the technical aspects of the work of the organization. Commission B, responsible for dealing with organization and administration problems of FAO, consisted of four committees. The Committees within each Commission were further broken down into sub-committees or panels to deal with specific matters within the various fields. The Committees of Commission A gave detailed attention and examination to the five technical reports submitted to the Interim Commission and following their deliberations each presented reports to Commission A which were dovetailed into a final report of that Commission. This report charts the course to be followed by FAO in its technical activities. The program laid down is broad and comprehensive and was unanimously satisfactory to all member nations.

The Conference did much to clarify the position of FAO, *vis-à-vis* other permanent international organizations and other temporary agencies now working in the international field. Essentially the first task of FAO is to act as a fact-gathering agency for the exchange and interchange of information between nations on matters of nutrition, diet, production and marketing of the products of agriculture, forestry and fisheries, including scientific, technical and statistical information. FAO will seek to achieve by such means a reconciliation of the interests of producers and consumers with a view to promoting better living conditions throughout the nations of the world. FAO will not displace or duplicate the work of such organizations as UNRRA which will continue to be the action body in the distribution of relief to those countries needing it. FAO will, however, on the basis of the facts or information it has, make recommendations and bring problems to the attention of governments and suggest their solution. From this point other agencies will assume the practical and difficult tasks of furnishing the necessary assistance.

Canada's participation in the Conference was active. At the first session of the Conference, the Canadian Ambassador to Washington, L. B. Pearson, was chosen as the Conference Chairman. Mr. Pearson had been prominent in the



Top: The Food and Agriculture Organization in plenary session.

Centre: Sir John Boyd Orr, M.P., Rector of Glasgow University, famed Scottish nutritionist, scholar and farmer, who was unanimously elected Director-General of FAO.

Bottom: L. B. Pearson, Canadian Ambassador to the United States, Chairman of the Interim Commission of FAO and also Chairman of the First Conference.



work of the Interim Commission and had also acted as Chairman of that body. Owing to the First Conference being held in Canada, a substantial proportion of the technical and administrative staffs of the Conference was drawn from Canadian personnel. The Minister of the Dominion Department of Agriculture headed the Canadian Delegation.

During the Conference great interest was fixed upon the selection of the permanent staff and in particular upon the choice of a Director-General to head the Organization. The selection by the member nations of Sir John Boyd Orr, internationally known nutritionist, was a popular and unanimous choice. Sir John Boyd Orr will organize and direct the work of FAO during its first year of existence. In accepting the Director-Generalship he emphasized that in so doing, he became an 'international civil servant'.

The temporary seat of the new Organization will be Washington, D.C., pending final decision by the United Nations Organization as to its location. Eventually FAO will be located at the same place as the United Nations Organization.

Agricultural Statistics

Net Farm Income

Net farm income (gross income including Government payments less operating expenses and depreciation charges) amounted to \$1,241,000,000 in 1944. This was substantially higher than the previous high of \$1,093,000,000 recorded in 1942 and \$240,000,000 greater than the \$1,001,000,000 for 1943 while it was nearly double the 1941 figure of \$627,000,000.

Net farm income is defined as the net income accruing to farm operators and their families from their own farming operations. It does not include income to persons on farms from non-farm sources. Higher prices for farm products together with a pronounced expansion of live-stock production and high grain yields made the remarkable increase in farm income possible.

Cash income from the sale of farm products increased consistently from 1941 to 1944. The value of farm products consumed on the farm also increased steadily as a result of higher prices and increased consumption of meat, milk and eggs. The gross income did not reflect this consistent increase for these years as much of the increase in cash income that occurred between 1942 and 1943 represented receipts from sales of grain which were held over on farms from the heavy crop of 1942. For the net income calculations, these sales are credited back to the year 1942 by taking into account values of changes in inventory of live stock and grain on farms.

Gross income for 1944 increased 80 p.c. as compared with 1941. During the same period farm operating expenses and depreciation charges increased much less rapidly by 35 p.c. As a result, net income, excluding supplementary payments, increased by 114 p.c. or when supplementary payments are included by 98 p.c.

Supplementary payments comprise the amount paid under the Prairie Farm Assistance Act, the Prairie Farm Income Act and the Wheat Acreage Reduction Act and are included in the year in which they were earned. These payments which amounted to nearly \$70,000,000 in 1941 declined in 1944 to about \$1,450,000 as the result of favourable yields and increased prices.

In the Maritime Provinces net income, which recorded steady increases up to 1943, showed some decline in 1944. Quebec and Ontario, on the other hand, showed

consistent increases through 1944. Manitoba, whose net income doubled between 1941 and 1942, continued to show additional increases in 1943 and 1944. Saskatchewan and Alberta showed even sharper increases in 1942 over 1941 but declined considerably in 1943 as the result of lower crop yields. Net income in Saskatchewan in 1944 was over three times as large as in 1941 and in Alberta over twice as large.

Net Farm Income in Canada, 1941-44

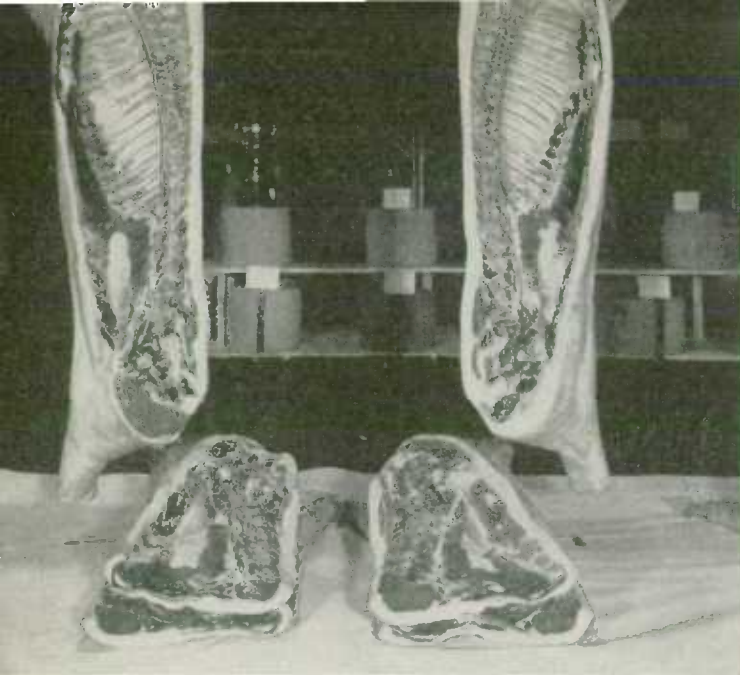
Item	1941	1942	1943	1944
	\$ '000	\$ '000	\$ '000	\$ '000
Cash income.....	914,039	1,100,942	1,402,065	1,799,055
Income in kind.....	200,790	225,063	241,309	249,129
Value of changes in inventory.....	-38,884	+351,630	-50,813	-112,177
Gross income.....	1,075,945	1,677,635	1,592,561	1,936,007
Operating expenses and depreciation charges.....	517,970	606,132	621,880	696,557
Net income excluding direct Government payments.....	557,969	1,071,503	964,681	1,192,131
Supplementary payments.....	69,443	21,422	36,355	1,449
Net income including Government payments.....	627,412	1,092,925	1,001,036	1,240,899

Cash Income from the Sale of Farm Products

Annual estimates of cash income from the sale of farm products represent the gross returns from all products sold off farms valued at the prices received by farmers. The estimates include bonuses or subsidies paid by the Dominion or Provincial Governments to farmers for the production of the commodities subsidized. They do not include payments made under the Prairie Farm Assistance Act, the Prairie Farm Income Act and the Wheat Acreage Reduction Act. Increased production, together with higher farm prices, have acted to raise cash farm income substantially in the past few years. However, lower estimates of cash farm income for the first six months of 1945, together with materially reduced production, indicate a substantial reduction in income for 1945 as compared with 1944.

Typical Rolling Country just north of Toronto where the rich soil and the moderate climate provide ideal conditions for mixed farming.





About 3,000,000,000 pounds of Canadian Bacon have been exported to the United Kingdom since 1939, mostly in the form of Wiltshire sides, two samples of which are shown.

Cash Income from the Sale of Farm Products, by Provinces, 1941-44

Province	1941	1942	1943	1944
	\$ '000	\$ '000	\$ '000	\$ '000
Prince Edward Island.....	8,551	11,171	14,078	13,804
Nova Scotia.....	20,063	21,577	24,917	26,582
New Brunswick.....	19,448	25,178	30,823	32,223
Quebec.....	144,879	174,308	199,150	216,862
Ontario.....	286,487	355,976	383,711	410,554
Manitoba.....	81,648	103,422	145,741	173,991
Saskatchewan.....	161,955	195,825	327,417	527,216
Alberta.....	154,408	168,887	220,710	331,976
British Columbia.....	36,000	44,000	55,518	65,847
Totals.....	914,039	1,100,942	1,402,065	1,799,055

Farm Labour

Throughout the war years, Canadian farmers were asked to produce and succeeded in producing vast quantities of food for export to the United Kingdom and other Allied Nations. These increased requirements came at the same time as the farm labour force was being depleted by enlistments in the Armed Forces and a considerable movement into industrial employment. Farmers and their families, therefore, were obliged to put forth a maximum effort and much credit must be given to them for the results that have been achieved.

Food Consumption

Studies have been made of the supplies of food available for civilian consumption in Canada during the pre-war years 1935-39 and during subsequent war years. For the most part, rates of consumption have increased but for certain foods, such as sugar, meat, fats and oils and rice, which enter largely into international trade, it has been necessary to control consumption by means of consumer

rationing. The demand for food has increased sharply as a result of the higher incomes of a large percentage of the consuming public. Export demand has also increased sharply. However, the over-all increase in agricultural production has been, for the most part, sufficient to meet both these requirements. Details of available supplies by commodities on a per capita basis have been published in special reports of the Agricultural Branch and in the Quarterly Bulletin of Agricultural Statistics.

Field Crops

Acreage.—Canada's seeded wheat acreage of 23,414,100 acres in 1945 remained almost unchanged from the 23,284,200 acres planted in 1944. At the same time it is 1,914,000 acres above the wheat acreage recommended by the Canadian Agricultural Objectives Program for 1945. During the War, Canada's need was for greater production of coarse grains and oilseeds to feed her increased live-stock population and to fill the gap left by the stoppage of vegetable-oil imports from the Far East. In 1943, under the economic incentives supplied by the acreage bonus of \$2.00 per acre on land removed from wheat and sown to coarse grains, flax or grass, together with a floor price for oats and barley, farmers shifted from wheat and seeded the smallest acreage since 1917.

In 1944, however, the acreage premiums for acres diverted from wheat production was discontinued, while a guaranteed minimum price for wheat was set at \$1.25 per bushel for No. 1 Northern wheat, basis in store Fort William-Port Arthur, as compared with a minimum of 90 cents in 1943. Since floor and ceiling prices for oats and barley remained unchanged, farmers turned again to more normal acreage levels and they have maintained them during the 1945 season.

On Sept. 19, it was announced that during the five-year period ending July 31, 1950, Canadian producers will receive not less than \$1.00 per bu., basis No. 1 Northern, in store Fort William-Port Arthur or Vancouver, on the authorized deliveries for each crop year. For the balance of the 1945-46 crop year, at least, the Canadian Wheat Board initial advance will continue at \$1.25 per bu., basis No. 1 Northern, in store Fort William-Port Arthur or Vancouver. At the same time, the Government has instructed the Wheat Board to offer wheat for sale for export overseas at prices not higher than the current export price of \$1.55 per bu., basis No. 1 Northern in store Fort William-Port Arthur or Vancouver.

Grain Production.—For 1945 the average wheat yield was estimated to be 12.7 bu. per acre, the lowest yield per acre since 1937, and compares with 18.7 bu.

Preparing the Soil,
planting the seed and
firming the soil in one
operation with a
tractor-drawn one-way
disc seeder and packer
attachment.



CANADA 1946

per acre in 1944 and the long-time average yield per acre of 16 bu. According to the second estimate of Canada's 1945 wheat crop, total production is placed at 308,610,000 bu. as compared with 435,535,000 bu. a year ago. Production in the Prairie Provinces amounts to 284,000,000 bu. which is a substantial decrease from the 1944 production of 410,600,000 bu. Ontario, the only important wheat-growing area in Canada outside of the Prairie Provinces, produced 21,503,000 bu. of wheat in 1945. All but 713,000 bu. of this total was winter wheat. When the present crop is combined with a carry-over of 258,394,518 bu. at July 31, the total wheat supply for the crop year 1945-46 amounted to about 567,004,518 bu. which was 225,061,561 bu. less than for 1944-45 and the smallest total supply since 1938.

Drought conditions in the Prairie Provinces were instrumental in causing fairly substantial decreases in the production of coarse grains this year. Oat production was down to 378,261,000 bu. from 499,643,000 in 1944. Despite increased seeded acreage, barley production declined from 194,712,000 bu. in 1944 to 156,270,000 bu. Oat and barley acreages failed their 1945 acreage objectives by 1,606,800 acres and 687,500 acres, respectively. The combined production of autumn and spring rye was estimated at 5,963,000 bu. as compared with 8,526,000 bu. in 1944. This decrease can be attributed to a smaller acreage as the average yield was the same as that of a year ago. The flaxseed crop was placed at 7,432,000 bu., which was 2,236,000 bu. less than the 1944 production. Although the average yield for this oilseed crop was slightly lower in 1945, a decrease in acreage was largely responsible for the smaller crop.

Decreased production and a smaller carry-over of coarse grains in 1945 has resulted in a tighter feed-supply position. To help alleviate this situation, barley exports have been prohibited and not until September were restrictions on the export of oats lifted. Advance equalization payments for barley have been raised from 15 to 20 cents per bu. to compensate growers whose barley crop might have found its way into the export market for malting purposes at a premium of 5 cents per bu. Domestic maltsters are required to pay the 5-cent premium into the Equalization Fund. The same system of paying the premium into the Equalization Fund



Row-Crop Tillage by
the modern method.

will apply to exporters in the event that domestic supplies will permit the export of barley later in the crop year.

Field Crops of Canada, 1944 and 1945

Crop	3rd Estimate 1944 Crops			2nd Estimate 1945 Crops		
	Area	Production	Gross Farm Value	Area	Production	Gross Farm Value
	acres	bu.	\$	acres	bu.	\$
Wheat.....	23,284,200	435,535,000	460,417,000	23,414,100	308,610,000	326,800,000
Oats.....	14,315,000	499,643,000	268,217,000	14,393,200	378,261,000	200,781,000
Barley.....	7,290,700	194,712,000	132,191,000	7,350,500	156,270,000	106,333,000
Rye.....	647,950	8,526,000	8,170,000	487,100	5,963,000	7,328,000
Peas, dry.....	83,600	1,269,000	3,265,000	82,000	1,192,000	3,293,000
Beans, dry.....	99,500	1,432,000	3,762,000	96,400	1,376,000	3,497,000
Buckwheat.....	256,000	5,553,000	4,667,000	261,100	5,409,000	4,286,000
Mixed grains.....	1,518,100	57,431,000	34,300,000	1,453,400	46,796,000	30,784,000
Flaxseed.....	1,323,100	9,668,000	24,360,000	1,059,200	7,432,000	18,131,000
Corn, shelled.....	270,000	11,700,000	11,557,000	237,000	10,365,000	10,774,000
		cwt.			cwt.	
Potatoes.....	534,900	49,409,000	75,467,000	507,600	36,235,000	72,680,000
Turnips, etc.....	147,200	31,852,000	27,670,000	137,500	26,374,000	24,202,000
		tons			tons	
Hay and clover....	10,119,700	15,102,000	192,837,000	10,219,000	17,892,000	216,847,000
Alfalfa.....	1,580,200	3,783,000	42,773,000	1,587,000	3,880,000	47,064,000
Fodder corn.....	474,000	4,398,000	17,500,000	492,500	3,967,000	14,925,000
Sugar beets.....	55,900	564,200	6,250,000	60,000	610,000	5,148,000

Production, Imports and Exports of Wheat for Canada, 1930-45

NOTE.—Wheat flour has been converted into bushels of wheat at the uniform average rate of 4½ bu. to the barrel of 196 lb. of flour.

Year	Production	Imports of Wheat and Flour ¹	Exports of Wheat and Flour ¹
	'000 bu.	bu.	bu.
1930.....	420,672	244,221	258,693,887
1931.....	321,325	216,328	207,029,555
1932.....	443,061	173,014	264,304,327
1933.....	281,892	413,165	194,779,875
1934.....	275,849	896,674	165,761,305
1935.....	281,935	291,510	254,424,775
1936.....	219,218	403,396	195,223,653
1937.....	180,210	6,138,819	92,957,047
1938.....	360,010	1,891,177	160,034,183
1939.....	520,623	444,368	192,674,368
1940.....	540,190	122,036	231,206,246
1941.....	314,825	29,103	225,828,434
1942.....	556,684	3,022	214,700,902
1943.....	284,460	432,931	343,322,389
1944.....	435,535	404,647	343,608,564
1945.....	308,610 ²	3	3

¹ Imports and exports are for the years beginning Aug. 1, 1939 to 1944. Not available at time of going to press.

² Subject to revision



Sheep grazing on the hills of Western Canada.

Live Stock

Many important changes occurred during the war years in the Canadian live-stock industry. At an early stage it became apparent that there would be a great increase in the demand for meat both for the domestic market and to meet import requirements of the United Kingdom and other Allied Nations. Several forms of governmental encouragement to live-stock producers were introduced including price subsidies, bonus payments designed to divert crop acreage from wheat into feed grains, and freight assistance on the movement of feed grains from Western to Eastern Canada. As a result of these measures, together with higher prices and patriotic motives, the numbers of live stock on farms increased rapidly.

Naturally, it was possible to increase hog production much more rapidly than that of beef cattle. The increase in sheep production was also rapid during the early years of the War. Numbers of horses had been declining before the War and although this trend was arrested in 1940, 1941 and 1942, it has again been downward since that time. Hog numbers marked a peak in 1943, but higher prices of grain, shortage of farm labour and other factors led to a considerable decline since that year and numbers at June 1, 1945, were approximately the same as at June 1, 1940. Numbers of cattle on farms have continued to increase and at June 1, 1945, were at a record high level of 10,759,000 as compared with 8,374,000 at the same date in 1939. This increase has been reflected in substantially higher marketings of cattle and calves particularly in 1944 and 1945.

Numbers of Principal Species of Live Stock on Farms in Canada, June 1, 1939-45

Year	Horses	Cattle	Hogs	Sheep
	'000	'000	'000	'000
1939.....	2,761	8,374	4,364	2,911
1940.....	2,780	8,380	6,002	2,887
1941.....	2,789	8,517	6,081	2,840
1942.....	2,816	8,945	7,125	3,197
1943.....	2,775	9,665	8,148	3,459
1944.....	2,735	10,346	7,741	3,726
1945.....	2,585	10,759	6,026	3,622

Dairying

Domestic and Export Situation.—During the six-year war period that has just terminated, the production of dairy products was very considerably increased, in order to meet home requirements and those for shipment to the United Kingdom and the continental war zones. Liberated countries were short rationed and impoverished, making it necessary to supply them with food. The same situation is now being faced in enemy countries, and the dairy industry of this Dominion, along with other Empire countries, must be prepared to meet contingencies that may arise particularly for those products that can be shipped in concentrated form.

In the domestic field, the problem is largely one of supplying greater quantities of fluid milk and cream, and of manufacturing sufficient butter to maintain the 7-oz. ration in effect since Apr. 1, 1945. Before the War, practically one-third of the butter output was produced on farms; only about one-tenth of the total butter supply is now of farm origin. The gradual demobilization of military personnel, of course, has increased the number of civilian users and thus the domestic demand for fluid milk, butter and concentrated products.

Hereford Cattle cross a Prairie bridge. Canada's cattle herd has increased from just over 8,000,000 head in 1939 to well over 10,000,000 in 1945: this has meant heavier marketings and greater supplies of beef both in Canada and abroad.



The export market promises to depend very much on the quantities produced or made available after domestic needs are taken care of. The contract with the United Kingdom for 125,000,000 lb. of cheese per year still stands and, with the quantities required by UNRRA, there is a fair market for all the cheese that Canada can supply providing credit can be extended on a liberal basis within the framework of international finance.

Milk Production.—In 1944 farmers produced 17,604,823,000 lb. of milk, which represented an increase of nearly 85,850,000 lb. over 1943 and 1,823,719,000 lb. over 1939. Up to the end of August, 1945, milk production had increased 9,000,000 lb. over the January-August production of 1944; it is estimated that the 1945 production will approximate 18,000,000,000 lb.

Butter Production.—The creamery butter make in 1944 declined 14,000,000 lb. from the previous year, reducing the total from 312,000,000 to 298,000,000 lb. This, of course, was due to the increased demand for all classes of dairy products and the fact that farmers (regardless of the attractive prices offered as a result of the Government subsidy of 10 cents per lb. butter-fat) were unable to produce sufficient milk for all purposes. Since fluid milk was in a preferred price bracket, so far as farmers were concerned, it was only natural that the demand for this product would impinge on butter production. However, controls exercised by the Agricultural Food Board directed the flow of milk in most of the essential channels. With the closing of some military establishments in 1945, this competition became less evident and the controls were removed as from Oct. 31. Due to the retreat from dairying in the Prairie Provinces (particularly Manitoba and Saskatchewan), creamery butter production in Canada during the period January to September was slightly reduced from that of a year ago. Nevertheless, it is expected that the 1945 output may reach close to 295,000,000 lb.

Cheese Production.—Milk used for cheese has been subject to a Dominion Government subsidy since October, 1943. In addition, a quality bonus has been paid by the Ontario Government and a similar bonus, formerly paid by the Quebec Government, was discontinued on Nov. 1, 1944. These bonuses usually have been passed on to patrons and become a part of the total price. The payment of these subsidies and bonuses has had a marked effect on production. Also, the regulations applied by the Food Board of the Department of Agriculture (see paragraph above) stabilized farmer-patronage during the past two years. Thus, cheese production has been subject to less variation from month to month. Up to the end of September, 1945, cheese production had advanced almost 6 p.c. over the same period of 1944, and it is estimated that the total production for 1945 will reach approximately 183,000,000 lb.

Sales Income.—Farmers have increased their income from the sale of dairy products during the past six years, which encouraged them to carry on under labour shortages and mechanical handicaps of many kinds. In 1930 such income amounted to approximately \$150,000,000 or 22 p.c. of the total income of Canada, exceeding 1925 by more than \$29,000,000. In 1939 (the first war year) income from dairying stood at \$148,000,000; but with the increase in the price of other products, it represented only 20 p.c. of the total. In 1944 income from dairying moved up to \$264,000,000, the highest point in the history of the industry. The January to

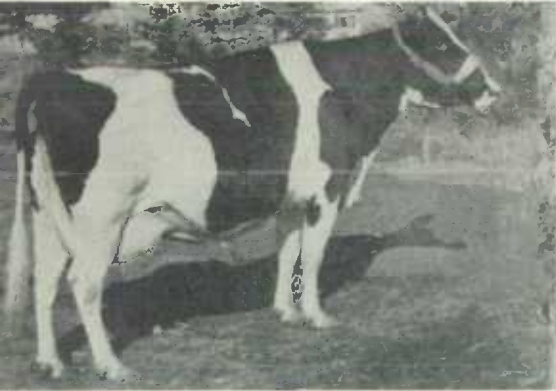
September estimate for 1945 was approximately \$213,000,000, and the yearly total promises to reach \$275,000,000.

Markets for Dairy Products.—Canada is not a butter-exporting nation, most of her production being needed for domestic use. During the past ten years the only export movement of any significance was in 1939. In exporting butter from Canada, it is the usual practice to ship this product from the Dominion when the stock position indicates a possible surplus after all domestic requirements are provided for. The object in so doing is to give a certain measure of price protection to producers.

On the other hand, cheese is an export product. The 131,000,000 lb. shipped out of Canada in 1944 represented 73 p.c. of the total production, and practically all of it went to the United Kingdom. This represented a substantial advance over 1939, when exports were only 91,000,000 lb. The cheese contract between Canada and the United Kingdom in 1943-44 called for the shipment of 150,000,000 lb. of cheese. In subsequent contracts this was reduced to 125,000,000 lb. It is understood, of course, that there is a market in Britain for a much greater quantity of Canadian cheese.

In 1944, 1,100,000 lb. of powdered milk and 27,325,000 lb. of evaporated milk (principally the whole-milk product) were shipped out of Canada. Up to the end

Canadian Milk Production won new laurels by the achievement of Alcartra Gerben, an Alberta-owned Holstein, in winning the world championship for Canada in 1945. Under the Dominion Government Record of Performance, which is surrounded by many safeguards, Alcartra Gerben completed the 365-day record with a production of 1,409 lb. of butterfat from 27,745 lb. of 5.08 p.c. milk. The previous champion from Carnation Milk Farms, Seattle, Wash., had a production of 1,402 lb. of fat in a like period. The main picture shows a herd of well-bred Holsteins. Inset is a recent picture of the 1945 champion, Alcartra Gerben



of September, 1945, exports of concentrated milk products advanced 57 p.c. and may reach a grand total of 85,000,000 lb. by the end of the year.

Domestic Disappearance.—On a per capita basis the consumption of butter in 1944 worked out to almost 30 lb. (29.74), approximately 25 lb. of which was creamery butter, the remainder being dairy and whey butter. The total disappearance of 299,000,000 lb. of creamery butter compared with only 271,000,000 lb. in 1940 but, due to rationing, it represented a decline of 5,700,000 lb. as compared with 1942.

Although the Canadian people are not large consumers of cheese, it is a significant fact that the popularity of this product has increased slightly during the War due to the number of industrial workers employed, the scarcity of other food products, and increased buying power. In 1944, the domestic disappearance of cheese (all classes) was approximately 49,000,000 lb., of which 45,700,000 lb. was cheddar cheese. The per capita consumption was 4.08 lb.—slightly less than the 4.66 lb. estimated in 1943.

The domestic disappearance of concentrated milk products has been restricted owing to the export demand, while wartime regulations limited the distribution of evaporated milk to preferred users. The consumption of concentrated milk products in 1944 was almost 16 lb. per capita as compared with 13 lb. in 1940. Fluid milk and cream on a milk basis amounted to 0.98 pt. per capita in 1944 as compared with 0.87 pt. in 1940.

Dairy Production by Economic Areas, 1943 and 1944

Economic Area and Year	Milk		Milk Products			
	Fluid Sales	Total Milk Pro- duction	Butter		Cheddar Cheese	Evapor- ated Milk
			Creamery	Dairy		
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
Maritime Provinces. 1943	220,127	1,092,727	18,978	8,346	1,753	1,239
1944	232,816	1,088,204	18,202	7,923	2,217	2,699
Quebec and Ontario. 1943	2,624,022	10,555,624	167,556	15,590	155,713	140,451
1944	2,761,811	10,596,406	156,780	15,817	166,912	135,422
Prairie Provinces. 1943	593,355	5,295,320	120,300	29,828	6,369	10,291
1944	625,103	5,293,280	117,583	29,215	8,266	13,767
British Columbia. 1943	269,009	575,302	4,875	1,643	718	26,387
1944	292,746	626,933	5,687	1,625	835	27,582
Totals. 1943	3,706,513	17,518,973	311,709	55,407	164,553	178,368
1944	3,912,476	17,604,823	298,252	54,580	178,230	179,470

Poultry and Eggs

In response to the wartime agricultural program, an unprecedented development took place in poultry farming during the past five years. The production of eggs showed an increase of 53.3 p.c. from 1940 to 1944 and the output of poultry meat an increase of 43.8 p.c. in the same period. The numbers of poultry on farms at June 1, 1945, showed a decline of 2 p.c. from the previous year.

Baby Chicks being packed for shipment. Incubated and hatched without benefit of hen, they are healthy and happy in their modern incubators and brooders.



Poultry Meat and Farm Egg Production, by Economic Areas, 1943 and 1944

Economic Area and Year	Poultry Meat Production			Egg Production		
	Marketed	Farm- Home Consumed	Total	Marketed	Farm- Home Consumed	Total ¹
	'000 lb.	'000 lb.	'000 lb.	'000 doz.	'000 doz.	'000 doz.
Maritime Provinces..... 1943	12,051	2,485	14,536	12,116	7,001	19,808
1944	14,490	2,762	17,252	14,756	8,615	24,218
Quebec and Ontario..... 1943	92,661	26,322	118,983	104,570	34,454	143,875
1944	103,494	29,580	133,074	114,971	39,717	160,298
Prairie Provinces..... 1943	93,725	26,775	120,500	82,584	40,750	127,884
1944	116,739	34,280	151,019	95,560	47,632	148,386
British Columbia..... 1943	9,087	2,202	11,289	20,219	3,005	24,041
1944	11,125	2,706	13,831	23,559	3,506	28,046
Totals..... 1943	207,524	57,784	265,308	219,489	85,210	315,608
1944	245,848	69,328	315,176	248,846	99,470	360,948

¹ Includes eggs for hatching.

Special Crops

Tobacco.—The expansion of the tobacco industry reached its pre-war peak in 1939, when 107,703,400 lb. were produced from 92,300 acres. The farm value of this crop was \$19,443,800, which was less than the value of the smaller crop of 101,394,600 lb. in 1938, amounting to \$20,269,700. The War, in its early stages, checked the expansion for a time, the acreage in 1940 being only 67,880. This check was caused by a virtual closure of the United Kingdom market. Export

restrictions became easier in 1942 and domestic consumption increased. Cigarettes taken out of bond for consumption in 1939 totalled 7,126,192,927, but by 1944 the quantity had increased to 11,666,420,984. The area under crop had also increased to 88,495 acres in 1944, with a total production for that year of 105,415,500 lb., having a gross farm value of \$31,001,900.

In its Canadian agricultural program for 1945, the Agricultural Supplies Board, at the Dominion-Provincial Agricultural Conference, recommended a total area for all types of tobacco of 109,140 acres of which 88,900 acres were to be planted to flue-cured. Owing to weather conditions, however, the area in tobacco in 1945 did not reach the objective, being estimated at 93,697 acres, of which 77,199 acres were planted to flue-cured in Quebec, Ontario and British Columbia, the greatest portion, 72,344 acres, being in Ontario.

Sugar Beets.—Despite the acute shortage of farm labour which prevailed in Canada during the war years, sugar beet acreage in 1945 was increased to 60,000 acres as compared with 55,900 acres in 1944. This was the largest acreage planted to sugar beets since 1942, although it fell far short of the 82,200 acres planted in 1940. Although the Quebec acreage showed a decline from 2,700 in 1944 to 2,000 acres in 1945, the yield per acre jumped from 6 to 10 tons per acre, giving total production of 20,000 tons or an increase of 3,800 tons over 1944. Acreages in Alberta and Ontario displayed fairly substantial gains, while yield per acre showed little tendency to change. Manitoba acreage remained unchanged at 10,000 acres. The output of refined beetroot sugar increased from 129,268,010 lb. in 1943 to 165,318,840 lb. in 1944.

Maple Products.—Unusually warm days and lack of night frosts materially shortened the tapping season in 1945, which lasted approximately 3 weeks. The runs of sap were short and the quality of the syrup was much below 1944. Total production, expressed in terms of syrup, amounted to 1,530,000 gal., which was 50 p.c. below the 1944 level of 3,090,000 gal. and 43 p.c. below the ten-year 1934-43 average of 2,668,000 gal. The crop moved rapidly into consumption and more sales than usual were made direct to consumers. Supplies being light, prices received by producers were at the ceiling for the grades produced. Average prices received by producers for both syrup and sugar were slightly higher than during the 1944 season, but with the greatly reduced output total returns to producers were much smaller. The value of the crop, including both sugar and syrup, amounted to \$4,498,000 compared with \$9,057,000 in 1944.

Honey.—Although there was a substantial increase in the number of colonies during the year, the 1944 honey crop amounted to only 34,970,000 lb., a reduction of 12 p.c. from the 39,492,100 lb. crop produced in 1943. The average yield for the season was only 69 lb. per colony compared with 88 lb. in 1943 and the pre-war average of 93 lb. The increased interest in beekeeping, which has been evident since the outbreak of war, continued and the number of beekeepers rose to the record figure of 40,700. The pre-war 1935-39 average was only 26,860.

The total value of the crop, which was estimated at \$5,253,000, was below the 1943 estimate of \$6,095,000, but was still 78 p.c. above the 1935-39 average. Average prices received by producers varied from 13 cents per lb. in Manitoba to 18 cents per lb. in New Brunswick and Prince Edward Island. While prices in some provinces were above the 1943 level, the over-all average was down slightly

Picking Hops and dropping them into sacks for weighing-in. Prior to the War the production of hops in Canada was limited to British Columbia, but Ontario and Quebec are now entering the picture. The value of production rose from \$547,900 in 1938 to \$1,489,200 in 1944.



from 15.4 cents in 1943 to 15 cents in 1944. Prices received in 1944, however, were 81 p.c. higher than those of the five-year pre-war average.

Fibre Flax.—Under the stimulus of the wartime demands for this commodity, there was considerable expansion in acreage and production over the past five years during which time, through action of the Agricultural Supplies Board, the whole industry has been put on a mechanized basis. Field and mill processing machinery is now manufactured in Canada and mills in Ontario and Quebec are equipped to process retted flax straw into long fibre and tow.

The area planted to this crop increased from 10,536 acres in 1939 to 47,070 acres in 1942 but declined to 35,297 in 1943. The objective for 1944 called for plantings up to about 48,100 acres but actual acreage planted totalled 39,102 acres.

Oil-Bearing Crops.—The fact that the War closed several sources of vegetable oils, stimulated the production of domestic oil-seed crops in Canada during the past few years. Flax is the principal oil-seed crop produced here, but when importations from abroad were halted production of soybeans, sunflower seed and rapeseed was stressed in order to meet deficiencies.

Flaxseed production was at its peak in Canada just prior to the First World War when the west was being opened up and flax made an excellent crop for new breaking. In 1912 over 2,000,000 acres were seeded to flax. Since then it declined and in 1938 a little over 210,000 acres were sown to this crop. With the advent of the Second World War and the urgent need for vegetable oils, acreages were rapidly increased and by 1943 the area sown to this crop soared to 2,947,800 acres. In 1944, however, only 1,323,100 acres were planted and production declined from 17,911,000 bu. in 1943 to 9,668,000 bu. in 1944. For 1945, the estimated acreages were nearly 300,000 acres in excess of the 1,059,200 acres actually planted in 1945. Likewise, yields per acre were slightly below those of 1944 with the result that production was down to 7,432,000 bu. in 1945.

The crushing capacity for flax and other oil-seed crops has increased steadily during the past four years until now it is estimated to be about 8,000,000 bu. per annum. The bulk of this capacity is located in Eastern Canada, but there are important sections of the industry in Manitoba, Alberta and British Columbia. The commercial disposition of the Canadian flaxseed crop during the crop year 1944-45 covered almost 8,000,000 bu. distributed as follows: domestic crushers 4,172,161 bu., exported 3,613,266 bu., total 7,785,427 bu. Most of the linseed oil produced from flaxseed goes into the paint, linoleum, printers' ink, etc. Only limited amounts have been used for the manufacture of edible oils.

Soybean production in Canada is not by any means new, but it was only after the outbreak of war that acreage was expanded sufficiently to make it a crop of commercial importance. Production is centred chiefly in southern Ontario.

The production of soybeans for beans is estimated at 681,820 bu. in 1944 as compared with 569,100 bu. in 1943. There was little change in acreage during the two years, the higher production being largely attributable to better yields. Outside of Ontario the only commercial production of soybeans in 1944 was in Manitoba, about 5,000 bu. being harvested. Preliminary estimates of soybean acreage seeded for beans in 1944 showed a total of 36,200 acres with 35,800 acres located in Ontario. In addition to the above acreage, there were about 8,900 acres of soybeans sown for hay in Ontario. Production of soybeans in British Columbia for commercial purposes disappeared in 1944.

Sunflower seed was produced in commercial quantities in Manitoba and Saskatchewan in 1944 with approximately 17,000 acres planted in these two provinces. A preliminary estimate of production indicated a total crop of 8,500,000 lb. of seed as compared with 5,302,500 lb. in 1943. Deliveries of seed during the crop year 1944-45 totalled less than 5,000,000 lb. The Canadian Wheat Board was authorized to purchase the crop at 5 cents per lb. delivered f.o.b. at certain shipping points.

The acreage seeded to *rapeseed* in Canada in 1944 was 12,030 acres as compared with 4,051 acres in 1943, most of this acreage was located in Manitoba and Saskatchewan. Owing to dry weather, the yield in southern Alberta was very disappointing, with a substantial proportion of the seeded acreage being abandoned. Commercial production of rapeseed in Canada in 1944 was estimated at 6,600,000 lb. or more than twice as much as was produced in 1943. During the crop year 1944-45, the Canadian Wheat Board has taken delivery of 3,500,000 lb. which is a substantial increase over the 877,000 lb. delivered to the Board in 1943-44. This seed was crushed in Western Canada yielding over a thousand tons of rapeseed meal in addition to the marine engine oil, which is the primary reason for its production in this country. The Canadian Wheat Board has been authorized to purchase rapeseed at 6 cents per lb. delivered f.o.b. at shipping points named by the Board.

Seed Crops.—The production of hay and pasture seeds, which in 1944 totalled 57,776,200 lb., had a farm value of \$8,317,100. The value of these crops showed an 18 p.c. increase over the value of 1943 and an increase of 137 p.c. over the 1942 value. While there are fifteen kinds of seed included in this classification, about 95 p.c. of the total value in 1944 was accounted for by alfalfa, alsike clover, red clover, sweet clover, timothy and brome grass. Ontario led in 1944 with a total production of 16,690,000 lb., having a value of \$2,500,000.

The production of vegetable seeds, which in 1944 was valued at \$2,736,000, has developed very rapidly since 1939. The cutting-off of European sources of a

great many kinds of these seeds caused Federal and provincial authorities to encourage production in Canada. Because of favourable soil and climatic conditions in British Columbia, the main producing areas are located in that Province. However, all other provinces have made contributions. Some conception of the rapidity of the expansion of this industry will be gained when it is considered that in 1938 there were only 16 growers in British Columbia and by 1941 the number had jumped to 200. This is more surprising when the very specialized nature of these crops is considered.

Fruit and Vegetables

Fruit.—The 1945 season proved very disappointing to fruit and vegetable growers after the unusually favourable prospects earlier in the year. The orchards bloomed heavily in Eastern Canada, but cool, backward conditions and frequent rains during the blooming period, coupled with heavy frosts, injured the blossoms to such an extent that very little fruit was formed. The continued wet weather during May and June seriously handicapped spraying and apple scab, which developed rapidly, and damaged both trees and fruit in all eastern provinces.

Young Apple Orchards in the Okanagan Valley. Expansive areas in southern British Columbia specialize in the growing of apples and produce a fine quality of fruit.





Apple Graders wipe, grade on sorting tables, size into bins, pack, lid, label and place the apples in cold storage. The sorting machines divide the apples into sizes and grades and return the culls to a separate section.

In British Columbia good crops of fruit were produced. Although the apple harvest was not as heavy as in 1944, it was still 7 p.c. larger than the ten-year 1934-43 average. The Canadian apple crop in 1945 was estimated at 7,685,000 bu. and was only 43 p.c. as large as the 17,829,000 bu. crop harvested in 1944. All other tree fruits also showed declines from a year ago, due to the unusually small crops in Ontario. The grape harvest was the one bright spot in the Ontario fruit picture, the crop being currently estimated at 62,886,000 lb. compared with 57,340,000 lb. last season.

Values of Fruits Produced in Canada, 1941-44, with Five-Year Averages 1936-40

Fruit	Five-Year Average 1936-40	1941	1942	1943	1944
	\$	\$	\$	\$	\$
Apples	10,414,000	9,472,000	14,390,000	16,814,000	22,807,000
Pears	724,000	1,137,000	1,429,000	1,462,000	2,007,000
Plums and prunes	312,000	822,000	737,000	1,133,000	1,375,000
Peaches	1,612,000	2,808,000	3,550,000	2,079,000	4,534,000
Apricots	116,000	154,000	227,000	102,000	489,000
Cherries	565,000	1,413,000	1,587,000	1,545,000	1,909,000
Totals, Tree Fruits	13,743,000	15,806,000	21,920,000	23,135,000	33,121,000
Strawberries	2,049,000	2,211,000	2,057,000	3,337,000	2,303,000
Raspberries	987,000	1,156,000	1,664,000	2,708,000	2,682,000
Grapes	867,000	1,352,000	1,862,000	1,733,000	2,380,000
Loganberries	98,000	112,000	153,000	153,000	196,000
Totals, Small Fruits	4,001,000	4,731,000	5,736,000	7,931,000	7,561,000
Totals, All Fruits	17,744,000	20,537,000	27,656,000	31,066,000	40,682,000

Vegetables.—Vegetable growing, although one of the minor branches of agriculture, is nevertheless essential, as vegetables supply many of the elements necessary to maintain the national health. With the outbreak of war some of the sources of citrus fruits were cut off and other supplies were greatly reduced. In an effort to make up the deficiencies, particularly of vitamin C, which citrus fruits

supply, more and more emphasis was put on increasing Canada's production of vegetables. One step in the program to ensure the increase was to bonus the growers of the four major processing crops—peas, beans, corn and tomatoes.

According to a survey made in June, 1945, there was an over-all increase of approximately 8 p.c. in the area planted in 1945 over that of the previous season. Included in the total area is the acreage of the processing crops. In June of 1945 the area under contract with the processors was 121,900 acres compared with the 1944 contracted acreage of 117,800 acres, an increase of 3 p.c.

Provincial Assistance to Agriculture

Each of the nine provinces, under Sect. 95 of the B.N.A. Act, has its Department of Agriculture, through which is carried on educational and extension work to assist farmers. Agricultural colleges maintained by the provinces are: the Nova Scotia Agricultural College at Truro, the Ontario Agricultural and the Ontario Veterinary Colleges at Guelph, and the College of Agriculture at Saskatoon. Three agricultural colleges in Quebec are assisted by the Provincial Government, while faculties of agriculture are found in the provincial universities of Manitoba, Alberta and British Columbia.

Threshing Peas at a viner station in western Ontario. The vines are forked into the threshers where by means of beaters, the pods are opened and the peas separated from the chaff.



Forest Resources

Canada's forests cover an area of 1,291,000 square miles, or more than one-third of the total land area of the country, but a considerable part of this vast forest is not suitable for commercial operations, either because it is too difficult and expensive to reach, or because the trees are not of satisfactory size and quality. The accessible productive portion of the forest covers 435,000 square miles, or 278 million acres, and it is from this area that the whole output of sawlogs, pulpwood, fuelwood, and other primary products is obtained. About 378,000 square miles of forest, classed as productive but not at present accessible, form a reserve for the future when transportation systems may be more highly developed.

By far the larger part of the world demand for wood is for softwood, or coniferous species. Canada possesses the principal reserves of softwoods within the British Empire, and these include large supplies of the most desirable varieties—spruces, Douglas fir, western hemlock, western red cedar, and white, red and other pines. In addition, the eastern provinces furnish hardwoods, such as birches, maples and elms, which are particularly useful for special purposes.

The total stand of timber of merchantable size is estimated to be approximately 311,000 million cubic feet*, of which 191,000 million cubic feet are accessible. In terms of ordinary commercial units of measurement, the accessible portion of the stand consists of 250,000 million feet board measure of sawlogs and 1,685 million cords of smaller material. Nearly 70 p.c. of the accessible stand is of softwood species.

The extraordinary demand created by the War for forest products of all kinds imposed an abnormal drain on the reserves of merchantable timber. There was particularly severe over-cutting of such specially valuable trees as Sitka spruce and the finer specimens of yellow birch. In addition, shortages of labour seriously hampered protection of the forests against fire and other enemies, and forest research was brought almost to a standstill. As a result, special efforts to rehabilitate the forests will be required in the post-war period.

If the forests are not to be impaired, the volumes of wood removed each year to serve useful purposes and the volumes burned or destroyed by pests must be replaced by annual growth. The relationship between the normal pre-war rate of depletion and the rate effective under war conditions in 1941, 1942 and 1943 is illustrated in the following statement.

* Usable volume: former estimates included volumes of stumps and unusable tops of trees.



Reforestation policy includes all measures to assist a natural forest stand that has been unsystematically cut or damaged by fire or insect pests to re-establish itself. Tree-planting is a part of this policy.

Forest Fires account for an average of about 11 p.c. of the annual depletion of standing timber in Canada. For the most part they are shown to be the result of human carelessness and idly



Forest Depletion

NOTE.—Volumes are stated in millions of cubic feet of standing timber.

Item	Ten-Year Average 1930-39	1941	1942	1943
Cut for use.....	2,041	2,637	2,576	2,440
Destroyed by fire.....	315	780	135	40
Destroyed by insects and tree diseases.....	500	500	500	500
Totals.....	2,856	3,917	3,211	2,980

Most of the depletion takes place on the accessible portions of the forests and replacement on these areas requires an average annual growth of about 11 cu. ft. per acre. It seems probable that, under pre-war conditions, growth was equal to depletion, so far as total volume of trees of all species was concerned, but it is questionable whether the much higher rate of depletion experienced during the war years could be maintained indefinitely under present methods of forest management.

While the War continued, Canadian production of forest products was limited only by shortages of labour. It now seems likely that, at least for several years to come, there will be a ready market for all the lumber and paper that can be manufactured. Wood proved, under war conditions, to be the most versatile of materials and it was frequently substituted for other materials that were in short supply. Tremendous new possibilities for use of inferior grades of wood, which now have limited or no use for industrial purposes, have been opened up by the development of chemical processes.

The marketing outlook for Canadian lumber during the post-war period is very favourable. Domestic demand for construction purposes will remain strong for several years, and, the British Ministry of Supply has indicated its desire to purchase 1,200,000,000 bd. ft. of Canadian lumber in each of the first two post-war years. The brisk demand for lumber in the United States will continue for some time, and strong markets may be expected in other Empire countries and in the liberated areas of Europe.

Canadian Forestry and FAO

Plans adopted by the first Conference of the Food and Agriculture Organization of the United Nations which was held at Quebec in October, 1945 (see p. 50), indicate that forestry and primary forest products will receive the same degree of attention from the new body as nutrition, agriculture and fisheries. Among its other activities, FAO will collect and make available to all member nations the most up-to-date information on forest resources and the supply of and demand for forest products in different parts of the world. It will facilitate the exchange of new research data between countries, and act as a clearing-house for all kinds of information respecting forestry and forest products. It may, at the request of the governments concerned, organize special missions to study forestry problems in individual countries. In co-operation with financial institutions, which presumably will be set up by the United Nations, FAO may be called upon to prepare plans for meeting the needs of large populations who now suffer from serious shortages of lumber, paper and other forest products.

Canada, the world's third largest producer and largest exporter of forest products, will benefit in large measure from these activities. Improved knowledge of the forest resources of other regions, prompt and reliable statistics respecting world-wide production and movement of forest products, and ready access to new information about technological developments in other lands will help Canadian foresters and forest industrialists to make rational plans for further developments in this country. The discovery of a new method of fighting forest fires in Europe, the erection of a large new sawmill in Brazil, or the invention of a new mechanical logging device in Australia—all these are of importance to Canada. Similarly, comparative studies of forest taxation or forest insurance which might be instituted by FAO on a world-wide basis could hardly fail to be useful when these questions are under consideration in Canada.

In short, FAO will provide Canada with much valuable forestry information and will give Canada an opportunity to contribute the results of her own special experience to the improvement of forestry in other lands.

Operations in the Woods

Generally speaking, the operations in the woods form the preliminary step in the industry and provide the primary forest products in the form of logs or bolts which are the raw material for the mill operations that form the second stage. An exact separation of the statistics relating to these two stages in the industry cannot always be made nor can the lumber industry be treated as entirely distinct from the pulp and paper industry. Woods operations produce not only sawlogs but pulpwood, ties, poles, piling, square timber, mining timbers, firewood, fence posts, wood for charcoal and excelsior manufacture, and wood for distillation. It is often impossible to state for what purpose the timber being cut will eventually be used. Many lumber manufacturers install machinery for cutting-up and barking pulpwood, and direct a part of their spruce and balsam logs to pulp manufacture; some pulp and paper companies operate sawmills in connection with their plants for the purpose of utilizing the larger timber on their limits.

It has been estimated that operations in the woods in Canada in 1943 involved the investment of over \$281,000,000, gave employment during the logging season amounting to 32,337,000 man days, and distributed over \$180,000,000 in wages and salaries.



A well-managed, forty-year-old Stand of Red Pine after taking a cut of commercial-sized timber. Canada's forests are a heritage which, with wise management, economic operation and adequate protection, will serve in perpetuity.

Value of the Products of Woods Operations, by Products, 1939-43

Products	1939	1940	1941	1942	1943
	\$	\$	\$	\$	\$
Logs and bolts.....	55,685,197	71,817,471	86,514,625	92,897,611	99,852,479
Pulpwood.....	58,302,668	74,347,132	88,193,045	103,619,151	110,844,790
Firewood.....	33,058,240	33,297,756	26,662,296	27,264,486	45,152,897
Hewn railway ties.....	2,048,186	1,788,001	1,547,780	878,830	1,138,663
Poles.....	2,940,361	2,691,107	2,467,336	2,663,663	2,032,681
Round mining timber.....	1,461,507	5,707,677	2,458,435	2,169,268	3,418,857
Fence posts.....	1,111,883	909,934	964,568	1,291,393	1,902,546
Wood for distillation.....	289,230	518,204	588,747	745,408	774,344
Fence rails.....	267,437	270,320	262,521	341,007	464,365
Miscellaneous products.....	2,582,689	3,130,273	3,503,736	2,500,534	3,033,661
Totals.....	157,747,398	194,567,875	213,163,089	234,371,891	268,615,283

The Lumber Industry

Except in the Maritime Provinces, 90 p.c. of the forest land is the property of the Crown, lumbermen being granted cutting rights only. This land is administered by the various provincial departments. Conifers usually form about 95 p.c. of the total cut of all kinds of wood, only 5 p.c. being deciduous-leaved trees or hardwoods. Spruce is the most important kind of lumber sawn, and is produced in every province. Douglas fir, which is produced almost entirely in British Columbia, comes second, with hemlock, white pine and yellow birch next in order of importance.

CANADA 1946

The industry includes products of: sawmills; shingle, tie, lath, shook, stave, heading and hoop mills; and mills for the cutting-up and barking of pulpwood. Sawn lumber produced in 1943 amounted to 4,363,575 M ft. valued at \$151,899,684. Shingles numbered 2,565,752 M squares at \$10,020,804, sawn ties 4,139,767 at \$3,262,116, and lath 114,029 M at \$554,278. The gross value of production for the industry as a whole showed an increase of 1.5 p.c. over the total for 1942.

Production of Sawn Lumber and All Sawmill Products, 1943

Province or Territory	Sawn Lumber Production		Total Sawmill Products
	M ft. b.m.	\$	\$
Prince Edward Island	5,702	168,080	232,790
Nova Scotia	233,376	7,079,588	8,446,279
New Brunswick	303,706	11,042,769	15,770,038
Quebec	961,946	35,170,296	45,641,615
Ontario	544,490	21,261,613	26,732,478
Manitoba	71,536	2,379,356	2,538,835
Saskatchewan	132,302	3,595,465	3,934,544
Alberta	108,077	4,768,900	5,493,110
British Columbia	1,941,966	65,808,102	87,069,097
Yukon	474	25,500	25,950
Totals	4,363,575	151,899,684	195,885,336

The Pulp and Paper Industry

The manufacture of paper was a relatively unimportant industry in Canada until the last two decades of the past century when wood-pulp superseded rags as a raw material. Canada's extensive pulpwood resources and widely distributed water powers have been largely responsible for the remarkable development of the industry. From the early 'twenties until 1941, the pulp and paper industry headed the lists in net value of production and in wage and salary distribution, replacing the sawmills in both cases. Since 1942, some of the war industries have surpassed it in these respects. In these comparisons only the manufacturing stages of the pulp and paper industry are considered, no allowance being made for capital invested, employment furnished, payroll, or production of operations in the woods.

The volume of pulp and paper produced in 1944 was about the same as in the previous year. However, because of substantial increases in the price of pulp and paper, the gross value of the products of this industry rose to a new high.

Considering only the manufacturing aspect of the industry, or the manufacture of wood-pulp and paper, the gross value of production in 1944 was 7.4 p.c. over the previous record of 1943 and an increase of 51.6 p.c. over 1929. Figures from 1930 are:—

	Gross Production	Net Production		Gross Production	Net Production
1930	\$215,674,246	\$107,959,927	1938	\$183,897,503	\$ 89,034,186
1931	174,733,954	88,166,297	1939	208,152,295	103,123,660
1932	135,648,729	67,121,459	1940	298,034,843	158,230,575
1933	123,415,492	57,289,643	1941	334,726,175	174,852,041
1934	152,647,756	77,696,593	1942	336,697,277	164,500,420
1935	159,325,516	79,199,741	1943	344,411,614	164,244,088
1936	183,632,995	86,406,163	1944	369,846,086	174,492,103
1937	226,244,711	106,002,017			



A "Room" of Pulpwood on the Ottawa River.

There are three classes of mills in the industry. These, in 1944, comprised 27 making pulp only, 50 combined pulp and paper mills, and 27 making paper only. In 1944 the 77 mills making pulp produced 5,271,137 tons valued at \$211,041,412, representing a decrease of less than 0.1 p.c. in quantity but an increase of 8.5 p.c. in value over 1943. About 69 p.c. by quantity was made in combined mills and used by them in papermaking and about 31 p.c. was made for sale in Canada and for export.

Newsprint made up 75.2 p.c. of the total production of Canada's 77 paper mills in 1944; paper boards 14.5 p.c.; wrapping paper 3.9 p.c.; book and writing paper 3.3 p.c.; and tissue and miscellaneous papers the remainder.

Production of Newsprint and Total Paper in Canada, 1936-44

Year	Newsprint Paper		Total Paper	
	Quantity	Value	Quantity	Value
	tons	\$	tons	\$
1936.....	3,225,386	105,214,533	3,806,710	146,354,666
1937.....	3,673,886	126,424,303	4,345,361	175,885,423
1938.....	2,668,913	107,051,202	3,249,358	151,650,065
1939.....	2,926,597	120,858,583	3,600,502	170,776,062
1940.....	3,503,801	158,447,311	4,319,414	225,836,809
1941.....	3,519,733	158,925,310	4,524,776	241,450,292
1942.....	3,257,180	147,074,109	4,231,767	230,269,512
1943.....	3,046,442	152,962,868	3,966,344	234,036,152
1944.....	3,039,783	165,655,165	4,044,376	255,545,841



A Power Saw Mechanic chopping out the undercut before sawing is begun on the opposite side of the tree. Small portable machines such as the one here shown are helping to bridge the manpower shortage in the woods.

Monthly figures of Canadian newsprint production for 1945 are:—

	<i>Tons</i>		<i>Tons</i>
January.....	264,766	June.....	266,417
February.....	239,661	July.....	270,640
March.....	263,776	August.....	287,028
April.....	245,429	September.....	269,963
May.....	264,464	October.....	310,975

The Newsprint Situation.—During the latter part of 1944 and the early part of 1945 electric power, which had been taken from certain newsprint mills for direct war needs, was returned to the mills, and newsprint production was then increased in some cases. During the same period, the supply of pulpwood also increased and labour commenced to become more plentiful. As a result of these improvements, the production of newsprint in Canadian mills in the first nine months of 1945 amounted to 2,372,144 tons, or an increase of 6·3 p.c. over the same period of 1944. Estimates for the fourth quarter of 1945 indicate a further gain and it is anticipated that total production in 1945 will amount to about 3,250,000 tons or a gain of 6·9 p.c. over the production of 3,039,783 tons in 1944. In the last pre-war year, 1939, production was 2,926,597 tons which is about 9·9 p.c. below that estimated for 1945.

During the war years not only was newsprint production allocated under the jurisdiction of the Newsprint Administrator appointed by the Wartime Prices and Trade Board, but deliveries to various world markets were also allocated on a monthly basis. In 1945, the United States market was allocated 200,000 tons a month during the first six months, 220,000 tons a month during the third quarter, and 230,000 tons a month during the fourth quarter. Canadian consumers were

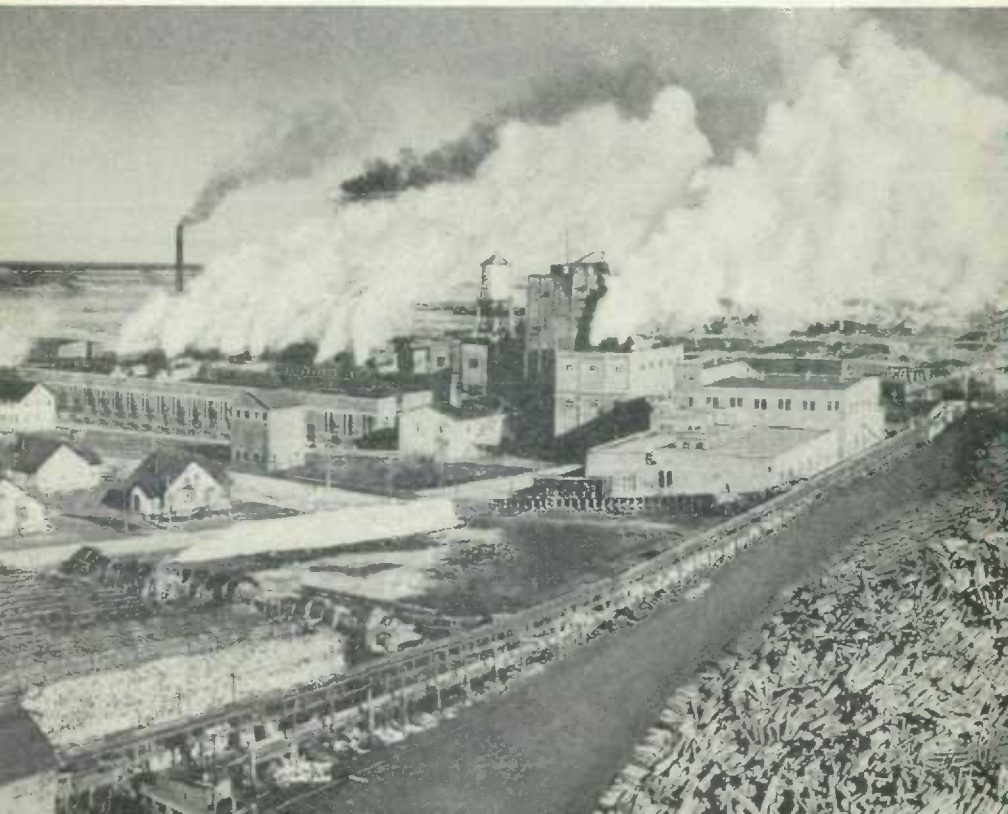
FORESTRY

allocated 15,700 tons a month during the first six months, 16,800 tons a month in the third quarter and 17,500 tons a month in the fourth quarter of the year. Overseas markets received 37,500 tons a month during the first half of the year and 42,000 tons a month during the last half.

Under the allocations as stated above, Canadian consumers received more newsprint during the six war years than they did in the six pre-war years. For United States consumers, Canadian mills have more than filled the gap caused by loss of United States and Scandinavian tonnage. During the war emergency, Canadian mills also supplied over 80 p.c. of the quotas for South American countries and, with help from Newfoundland, provided all the imports for Britain, Australia, New Zealand, Africa and India. Over 40 countries relied chiefly on Canada for their wartime newsprint supply.

In October, 1945, it was announced that allocation of Canadian newsprint production to all markets other than to Canada would be discontinued as of Dec. 31, 1945, and that the industry compensation plan which has been functioning since Sept. 1, 1942, under which wartime burdens were distributed among all Canadian newsprint companies, would also be terminated on that date.

A large modern Pulp and Paper Plant in New Brunswick.





His Excellency the Earl of Athlone, Governor General of Canada, and Her Royal Highness Princess Alice admire the six matching blue foxes presented to Princess Alice by the Hudson's Bay Company on the occasion of the Company's 275th anniversary on May 2 1945.

Fur Production

The fur trade has been important in the Canadian economy since the earliest days of exploration. Wild fur-bearing animals were numerous in almost all areas of Canada, but with the advent of settlement the animals have been driven farther and farther afield. In the past fifty years, however, there has been a gradual development of fur farming both as a specialized industry and as a side-line enterprise on general farms.

The value of pelts taken in Canada, both from wild life and fur farms, has increased rapidly during the war years. The number of pelts taken fluctuates sharply from year to year depending on trapping conditions and disease, particularly among the smaller animals such as squirrels and rabbits. Prices have risen sharply in recent years and demand both for use in Canada and for export has been very strong. The Dominion and Provincial Governments have been active in developing a strong policy of wild-life conservation in Canada.

Numbers and Values of Pelts Taken, Years Ended June 30, 1930-44

Year Ended June 30	Pelts		P.C. of Value Sold from Fur Farms	Year Ended June 30	Pelts		P.C. of Value Sold from Fur Farms
	Number	Value			Number	Value	
		\$				\$	
1930.....	3,798,444	12,158,376	19	1938.....	4,745,927	13,196,354	43
1931.....	4,060,356	11,803,217	26	1939.....	6,492,222	14,286,937	40
1932.....	4,449,289	10,189,481	30	1940.....	9,620,695	16,668,348	31
1933.....	4,503,558	10,305,154	30	1941.....	7,257,337	21,123,161	26
1934.....	6,076,197	12,349,328	30	1942.....	19,561,024	24,859,869	19
1935.....	4,926,413	12,843,341	31	1943.....	7,418,971	28,505,033	25
1936.....	4,596,713	15,461,883	40	1944.....	6,324,240	33,147,392	28
1937.....	6,237,640	17,526,365	40				

Numbers and Values of Pelts Taken, by Provinces, Years Ended June 30, 1942-44

Province or Territory	Pelts			Values		
	1942	1943	1944	1942	1943	1944
	No.	No.	No.	\$	\$	\$
Prince Edward Island.....	32,427	31,280	24,706	735,189	760,385	890,362
Nova Scotia.....	101,731	112,235	101,913	532,059	920,515	764,863
New Brunswick.....	78,910	70,167	70,159	834,671	864,489	834,741
Quebec.....	601,211	541,788	519,155	3,894,630	4,562,354	6,167,605
Ontario.....	1,024,195	1,048,178	1,049,371	3,965,003	5,806,743	7,129,781
Manitoba.....	844,631	878,989	880,622	2,596,436	3,242,655	3,832,641
Saskatchewan.....	3,813,447	1,174,164	1,106,354	2,245,275	2,440,942	3,437,777
Alberta.....	11,713,686	2,446,665	1,513,951	5,162,636	4,542,818	4,686,311
British Columbia.....	838,750	677,168	682,371	1,655,137	1,860,990	2,736,991
Northwest Territories.....	445,336	385,440	297,633	2,840,701	3,165,107	2,199,132
Yukon.....	66,700	52,897	78,005	398,132	338,035	467,188
Canada.....	19,561,024	7,418,971	6,324,240	24,859,869	28,505,033	33,147,392



Muskrat Trappers of northern Manitoba hanging pelts on stretchers to dry.

During the war years, the value of Canadian raw fur production has shown substantial increases; the value of pelts sold from fur farms and those taken by trappers during the year ended June 30, 1944, reached a new record at \$33,147,392. This was an increase of 16 p.c. over the 1943 figure, which was, in turn, an increase of 15 p.c. over the 1942 total. Approximately 72 p.c. of the 1944 value represented furs taken by trappers in the wild.

Generally higher prices were responsible for the increased valuation in 1944. Pelts of mink contributed the largest amount to the total value with a valuation of \$7,151,809. Beaver was second with \$4,841,221, muskrat third with \$4,654,641 and standard silver fox fourth with \$4,390,912. New-type fox pelts rose in price from an average of \$41.39 in 1943 to \$59.27, blue fox from \$26.38 to \$31.79, white fox from \$28.37 to \$32.83, standard silver fox from \$24.84 to \$33.99 and red fox from \$12.50 to \$13.90; fisher rose from \$50.63 to \$76.21, ermine from \$1.58 to \$2.17, otter from \$19.33 to \$23.99 and beaver from \$29.96 to \$37.02.

Fur Farming.—Although the fox was the first important commercial fur bearer to be raised in captivity, many other kinds of fur-bearing wild animals are now being raised—mink, raccoon, skunk, marten, fisher and rabbit. Mink farms are the most numerous of the miscellaneous class, raccoon farms coming next. From 1920 to 1939 fur farming in Canada expanded rapidly and during that period there was a marked change in the type of furs that were most acceptable to the market. Black fox was popular twenty-five years ago. A few years later the highest prices were being paid for quarter and half-silvers and during recent years the full-silver and new-type have been setting the upper price limit. The development of the new-type fox and mink has proven to be an incentive to the fur-farming industry. New-type fox such as platinum, platinum-silver, pearl-platinum and white-marked are meeting a ready market as are the new-type mink including silver-sable, platinum-silver blue, snow-white and a number of other colour phases. In 1939 the Dominion Government introduced the grading of furs under the Department of Agriculture. One of the main objectives in grading is to secure uniformity, so that furs may be bought by grade without the necessity of buyers from foreign countries personally examining the pelts.

FUR PRODUCTION

Statistics of Fur Farming.—The number of fur farms in operation in Canada in 1943 was 6,973 compared with 7,835 in the preceding year and it is expected that there will be a further decrease in 1944. Most of the declines have occurred in the smaller farms or where fur-bearing animals are kept as a side-line to general farming. The difficulties which have been experienced in securing meat for feeding and necessary extra labour have made it hard for these smaller enterprises to operate economically. Although there was a smaller number of farms in 1943, the value of fur-farm property increased to \$17,403,249, 25 p.c. higher than in the preceding year. This increase in capital was due largely to the values of animals which had risen in sympathy with higher values for pelts. Quebec stood first among the provinces in value of fur-farm property with 21.5 p.c. of the total. The other provinces ranked as follows: Ont., 20.9 p.c.; Alta., 15.1 p.c.; Man., 13.0 p.c.; P.E.I., 9.1 p.c.; Sask., 7.1 p.c.; N.B., 5.4 p.c.; B.C., 4.9 p.c.; N.S., 2.9 p.c.; and Yukon, 0.1 p.c.

The total revenue of the fur-farming industry in 1943 was \$9,846,005, 91 p.c. of which was received from the sale of pelts and the remainder from the sale of live animals. Silver and new-type fox pelts accounted for \$5,011,756, or 56 p.c. of the total pelt sales, and mink for \$3,823,656, or 43 p.c. The average value of silver-fox pelts was \$30.88 compared with \$21.94 in 1942, and of standard mink

Red Fox Pelts in bins at a fur auction warehouse.



pelts \$15.24 compared with \$7.98. Live silver fox sold numbered 5,083 and were valued at \$328,857; mink numbered 7,707 valued at \$229,257; and new-type fox, including platinum, white-face, silver blue, etc., numbered 2,024 valued at \$310,870. Compared with 1942, the total value of pelts sold showed an increase of \$2,219,559, while the value of live animals sold increased by \$470,447.

The value of the animals on the farms at the end of 1943 was \$10,044,903, of which 62 p.c. was of silver and new-type fox and 35 p.c. of mink. The 95,300 silver and new-type fox on the farms was an increase over the preceding year of 151, and the 119,266 mink an increase of 14,580. The total number of fur-bearing animals on farms was 219,257 compared with 204,480 in 1942.

From information received direct from the fur farmers, it is estimated that 115,000 standard silver fox, 53,400 new-type fox and 255,200 mink will be pelted in the season 1945-46.

Marketing and Trade.—Montreal is recognized as an international fur market, and fur auction sales are held also at Winnipeg, Edmonton and Vancouver. Through the medium of the Canadian fur auctions, grading and marketing of furs have been placed on a scientific footing, resulting in more or less stabilized conditional prices to the benefit equally of trapper, breeder, manufacturer, distributor and consumer.

Before the outbreak of war, a large proportion of the production of Canadian furs found its way to the London market where the furs were prepared and manufactured and returned to Canada in the form of the finished product. Under the circumstances brought about by the War, Canada's trade in furs is now carried on mainly with the United States.

Exports and Imports of Raw and Dressed Furs, 1937-44

Year	Exports ¹			Imports		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
	\$	\$	\$	\$	\$	\$
1937.....	10,722,537	5,728,014	17,515,460	1,676,407	4,293,135	8,169,840
1938.....	8,794,834	4,478,818	14,096,503	1,135,686	3,148,940	5,650,624
1939.....	7,054,745	6,772,641	14,568,986	1,018,417	4,455,938	7,133,052
1940.....	3,306,271	12,187,006	16,176,075	920,528	6,813,080	8,885,540
1941.....	430,428	14,883,751	16,159,033	1,970,910	4,112,345	9,120,337
1942.....	156,586	16,869,153	17,976,615	945,360	3,306,214	6,448,861
1943.....	66,844	25,086,912	26,448,522	496,578	4,923,632	8,613,879
1944.....	28,321	25,748,651	27,029,329	250,280	6,832,775	11,434,257

¹ Canadian produce only.

During the past twenty years or so, immense improvements have been made in the dressing, dyeing and finishing of furs. In 1943, the 16 fur-dressing and dyeing plants in Canada treated 8,440,998 fur skins, the chief kinds being rabbit (3,963,997), squirrel (1,239,763), and muskrat (1,073,032). The number of plants engaged in the manufacture of fur goods—coats, capes, scarves, muffs, etc.—numbered 495 with a total output valued at \$39,131,614.

FUR PROCESSING

A long road lies between the animal in the field and the finished coat or neckpiece. The process of fur working is exacting and complex and requires the attention of skilled craftsmen — buyers, sorters, cutters, designers, sewers and glazers. Three of the many steps involved in the turning out of a fur coat are shown.



Top: Skins originally short and comparatively broad (mink, beaver, opossum, muskrat) can be "let-out" by cutting into bias strips about 1/4 inch wide and "dropped" in re-sewing. A mink skin about 13 x 3 inches can be "dropped" to 26 x 1 inch. Working time on skins for a full-length mink coat (70 skins) is about 4 weeks.



Centre: Fur sewing is a highly specialized trade. The machine overcasts fur strips so that they lie flat and fit together with no visible joins from the fur side.



Bottom: Glazing is the final finishing of a fur coat, to make the skin silky and glossy. A steam iron is used, the canvas base of which steams the fur and the supporting metal frame dries the steamed surface. Glazing a beaver coat takes from 2 to 3 hours.



Fishing Schooners at the docks at Lunenburg, N.S.

Fisheries Production

The Outlook for the Fisheries Industry

Preliminary reports show that in the first eight months of 1945, the latest period for which figures are available at time of writing, there was no halt in the upward trend in dollar return from Canadian sea-fishing operations that had been manifest since early in the War. Continuing world food shortages and the imperative needs of liberated European peoples, are maintaining maximum demand for Canadian fish, and prices remain firm. Preliminary figures for the eight-month period indicate a substantial increase in the catch of sea fish and shellfish, as compared with production in the corresponding months of 1944, and an increase of several million dollars in the value of the landings. Although no definite information has been received regarding the fresh-water or inland fisheries—practically all of which are under the administration of provincial authorities whose statistical reports are made up at year-end—it is probable that here, too, there has been some increase in aggregate return.

In the light of the January-August showing in the sea fisheries, and with fish demand continuing at a high level, it is estimated that for the full year 1945 the value of Canada's return from fisheries production will exceed the 1944 total which, at approximately \$89,000,000, was the highest on record. For that matter, from 1941 onward a new high mark has been reached each successive year. In 1938, the last complete pre-war year, fisheries production had a total marketed value of slightly less than \$40,500,000. That figure had at times been substantially exceeded in earlier years but in no year had the return ever approached recent levels.

Wartime demand and price firmness explain the great gains in dollar return, of course, but it should be kept on record that the fishermen and fish processors did exceedingly well in maintaining production under wartime difficulties. They kept the over-all output at approximately the pre-war level though their numbers had been reduced by enlistments and the flow of workers to munitions plants and though the fishing fleet was cut in size by the requisitioning of several score of the most productive vessels for use in the naval service. Moreover, not only was production, generally, well maintained but the necessary adjustments required to meet the needs of the United Nations, especially the United Kingdom, for particular commodities, such as canned herring and canned salmon, were effectively made.

How long the present demand situation will continue cannot be foreseen, nor can it be predicted with any certainty just what the conditions will be as to world trading and economics in the years after the period of transition from war to peace. The latter question, of course, is of paramount importance as regards the position of the Dominion's fishing industry when the transition period has gone by. The country's fisheries resources are great and, obviously, the industry must continue to rely mainly upon external markets until domestic population is much larger than it is to-day.

So far as demand at present and in the immediate future is concerned, it is obvious that the supply position *vis-à-vis* demand will soon be modified by the return to production of some countries that were completely or partially forced out of fisheries operations during the war years. Indeed, return has already begun. Norway, for example, one of the world's principal fish producers in pre-war days



A Bag of Fish about to be dumped into the deck pens. The underside of this section of the net is protected from chafing by cowhides.

and a keen competitor of Canada in marketing some fish foods, is now back in production, though naturally not yet on the old scale. World food needs are so great, however, that for the time being, the demand for Canadian fish remains at a high level.

Among the important elements entering into current demand for fish from the Dominion are the requirements of the United Nations Relief and Rehabilitation Administration as it carries on its plans for the alleviation of distress in European areas that had been overrun and looted by the Nazis. All told, Canada has undertaken to make available to this agency approximately 30,600,000 lb. of processed fish from the country's total output from July, 1945, to the end of June, 1946. Shipments planned for the year include 14,200,000 lb. of canned products, 12,000,000 lb. of pickled fish, 3,000,000 lb. of salted fish, and 1,300,000 lb. of smoked herring. (These quantities and also the total commitment are subject to change, according to fluctuations in production during the year and adjustments that may become necessary in the food requirements of different countries.) The canned fish going to UNRRA will consist mainly of herring, mackerel, and chicken haddie or flake-fish; the pickled fish will be, for the most part, herring and mackerel; and the salted fish, cod or other groundfish. Deliveries are now in progress.

The United Kingdom, where food needs are still pressing, will receive from the Dominion out of 1945 production about 67,200,000 lb. of canned salmon. Shipments are being made under arrangements similar to those in effect between Ottawa and London during 1941-44 which made available to the British Ministry of Food

FISHERIES

the great bulk of the annual output of the British Columbia plants, where practically all of Canada's canned salmon is packed. The quantity of canned salmon made available to the domestic civilian market from the 1945 pack will be approximately 14,400,000 lb., an increase over the amount released for Canadian civilian consumption in the earlier years of the wartime agreements with Britain. Incidentally, it may be noted that the British Columbia salmon pack for 1945 will be much larger than the output in either 1944 or 1943 and may exceed the production in 1942 when more than 1,811,500 cases (48-lb. cases) were put up. Pack figures for 1945 are not yet complete but the output to October exceeded 1,600,000 cases with several weeks of the canning season still ahead.

Great Britain is also to receive from Canada about 40,700,000 lb. of canned herring from the output for the 1945-46 season. The bulk of the shipments will be from British Columbia. Frozen fish amounting to over 20,000,000 lb. is likewise being supplied to the United Kingdom from the 1945 catch and the quantity may reach 22,000,000 lb. or more. Frozen groundfish fillets from the Atlantic provinces and halibut from British Columbia enter into these shipments.

Under various arrangements, including continuation of an earlier Combined Food Board plan for the world rationing of salted fish, Canada has allocated to a number of countries some 35,000,000 lb. of salted groundfish, 37,800,000 lb. of pickled fish and about 5,400,000 lb. of smoked fish from July, 1945, to June, 1946. The greater part of the fish is going to the United States, with the British West Indies

Trout Hatchery at St. Faustin, Que., one of the our provincial stations where trout and salmon are propagated for the stocking and re-stocking of Quebec's innumerable lakes and rivers. Game fishing is one of the great natural resources of that Province.



obtaining the next largest quantity. Substantial shipments are also being made to the Netherlands West Indies and various countries in Central and South America. These allocations include the supplies for UNRRA referred to previously.

Statistics of Production

Canada's list of food fishes embraces nearly 60 different kinds, chief among which are salmon, herring, cod, lobster, whitefish, halibut, sardines, haddock, pilchard and pickerel. The total quantity of fish of all kinds taken by Canadian fishermen in 1943 was 12,358,241 cwt., for which fishermen received, at the point of landing, a total of \$48,712,802 compared with a catch of 12,062,088 cwt. with a landed value of \$41,734,723 in 1942.

Fisheries Production, by Provinces, 1914, 1943 and 1944

Province or Territory	Values of Production			Percentages of Total Values		
	1914	1943	1944 ¹	1914	1943	1944 ¹
	\$	\$	\$	p.c.	p.c.	p.c.
Prince Edward Island.....	1,261,666	2,860,946	2,598,975	4.1	3.3	2.9
Nova Scotia.....	7,730,191	21,684,435	23,662,055	24.7	25.4	26.5
New Brunswick.....	4,940,083	11,128,864	11,967,747	15.8	13.0	13.4
Quebec.....	1,924,430	5,632,809	5,361,872	6.2	6.6	6.0
Ontario.....	2,755,291	5,292,268	4,938,193	8.8	6.2	5.5
Manitoba.....	849,422	4,564,551	3,581,795	2.7	5.3	4.0
Saskatchewan.....	132,017	1,154,544	1,482,223	0.4	1.4	1.7
Alberta.....	86,720	795,000	929,887	0.3	0.9	1.0
British Columbia.....	11,515,086	32,478,632	34,900,990	36.8	37.9	39.0
Yukon.....	69,725	2,495	3,131	0.2	—	—
Totals.....	31,264,631	85,594,544	89,426,868	100.0	100.0	100.0

¹ Preliminary.

The statistics in the following table are based upon the averages of the four latest pre-war years and of the first four complete years of hostilities.

Averages of Production and Values Marketed, by Principal Kinds of Fish, 1936-39 and 1940-43

Kind of Fish	Averages 1936-39		Averages 1940-43	
	Quantity Caught	Value Marketed	Quantity Caught	Value Marketed
	cwt.	\$	cwt.	\$
Salmon.....	1,755,598	13,659,892	1,571,319	18,553,705
Herring.....	2,952,023	2,850,286	3,579,479	8,956,937
Cod.....	1,640,282	3,260,317	1,996,898	8,876,556
Lobsters.....	305,568	4,148,100	281,839	5,089,854
Whitefish.....	159,285	1,636,569	170,426	2,763,207
Sardines..... bbl.	227,063	1,704,753	346,275	2,469,400
Halibut.....	159,081	1,736,664	139,630	2,451,545
Pilchards.....	749,086	634,408	1,217,190	1,796,823
Haddock.....	392,644	1,326,818	303,213	1,783,194
Pickerel.....	134,494	1,013,021	123,795	1,461,881
Mackerel.....	318,254	637,275	345,606	1,341,969

The salmon fishery of British Columbia gives to that Province first place in respect to value of production, the position that in earlier times belonged to Nova Scotia with her cod fishery. The herring fisheries (on both the Atlantic and Pacific Coasts) are of rising importance and second only to salmon in value of output. Canned herring is the chief product, but herring meal and oil are also produced. On the Atlantic Coast, the cod, lobster and sardine fisheries are of importance, while among the inland fishes, whitefish occupies first place.

The fish-processing industry is connected entirely with the sea fisheries, the plants being scattered along the coasts in locations of easy accessibility to the fishermen in delivering their catches. Capital invested in fish-processing establishments, vessels, boats, nets, traps, etc., in 1943 amounted to \$61,861,710, and the number of persons finding part-time or full-time employment was 77,358.

Game Fish.—The myriad of lakes, rivers and streams which are to be found everywhere across Canada, with the exception perhaps of the southern middle west, provide sport fishing in wide variety, and the angler may find a perfect natural setting for his own particular line of fishing in whatever part of the country he may be. Salmon, speckled and brook trout, bass, pike, pike-perch or dore, perch, whitefish, maskinonge, sturgeon and a variety of other game fish abound in the innumerable lakes and streams of Ontario and Quebec and in the rivers connecting with the sea on both the Atlantic and Pacific Coasts.



When the trout are biting the cares of life are forgotten.

Mines and Minerals

With the defeat of Germany and Japan in 1945 commenced a period of readjustment from wartime operations to peacetime production. This transition period showed evidence of a renewal and increase in exploration and development work and a lifting of wartime controls. Progress in increasing mineral output was, however, still hampered by a lack of essential equipment and a shortage of skilled labour.

Metallics.—Gold mining, which probably suffered more from wartime conditions than any of the other metal-producing industries, showed distinct signs of a general revival. Preliminary development and exploration of both new and old deposits were more or less widespread throughout the gold-bearing areas of the Dominion. An increase in prospecting and diamond drilling in these same areas also reflected a general revival of interest in Canadian gold mines. Production of gold in 1945, as in previous years, came largely from the auriferous quartz mines of northwestern Quebec; in Ontario from Kirkland Lake, Larder Lake, Porcupine, Little Long Lac and Patricia areas, and in British Columbia from the Bridge River and Portland Canal Districts; in Manitoba steady production of auriferous quartz ores was restricted to ore property with relatively small amounts coming from Nova Scotia. Several gold-bearing deposits were under development or examination in Canada's new gold-mining field in the Yellowknife area of the Northwest Territories. Production in this remote area was largely restricted by labour and supply shortages; it is probable that the gold output in this camp will show a considerable increase in 1946. In addition to the recovery of gold from auriferous quartz ores, there is, in Canada, a relatively large quantity of the metal obtained from non-ferrous ores. It is estimated that Canadian gold production from all sources totalled 2,661,567 fine oz. valued at \$102,470,330 in 1945 compared with 2,922,911 oz. worth \$112,532,073 in 1944. Of the 1945 output, 664,226 fine oz. came from Quebec mines; 1,590,339 fine oz. from Ontario; 175,903 fine oz. from Manitoba and Saskatchewan; 188,380 fine oz. from British Columbia, and 39,334 fine oz. from Yukon and the Northwest Territories.

Encouragement to Canadian silver producers was given in 1945 when, in September, the United States ceiling price for foreign silver was raised from 45 cents to 71.11 cents per fine oz.; this price can be obtained by Canadian mines for silver exported after the Dominion requirements for the metal are satisfied.

Production of non-ferrous metals showed comparatively little change from that of 1944. The principal copper producers, as in immediately preceding years, were the Noranda, Waite-Amulet-Dufault and Normetal mines in Quebec; the International Nickel Company and Falconbridge Nickel mines in Ontario; the Flin Flon and Sherritt Gordon mines in Manitoba and Saskatchewan, and the Britannia and Granby deposits in British Columbia. Nickel production as usual came entirely from the large nickel-copper deposits of the Sudbury District of Ontario. The largest lead-producing property continued to be the famous Sullivan mine of the Consolidated Mining and Smelting Company of Canada, located at Kimberley, B.C. The production of zinc in 1945 comprised the refined zinc produced at Trail, B.C. and Flin Flon, Man., together with the zinc in concentrates exported from mines



The New Helen Iron Mine, in 1945, was producing at the rate of 700,000 tons of siderite ore annually. This picture indicates the awesome grandeur as well as the natural richness of the vast Canadian hinterland. Untold mineral wealth lies in the two million square miles of northern Canada now classified as largely unproductive in regard to surface resources.

in Quebec, Manitoba and British Columbia. In August, 1945, the Canadian Metals Controller rescinded all wartime restrictions on the purchase of lead and zinc in Canada, and in September, 1945, all controls on the domestic use of copper and brass were removed. In June, 1942, the Metals Controller issued Order M.C. 19 which restricted the production, development and new installations in non-essential mines; this was done to conserve labour and materials urgently required for more essential purposes and to maintain the operating gold mines. The order was rescinded June 7, 1945, and the only restrictions remaining on gold-mining operations at that time were the availability of materials and labour. Most of the wartime projects for the production of tungsten, molybdenite, chromite and certain other strategic minerals were closed down by the Wartime Metals Corporation, a wholly owned Crown company, in 1944 or 1945.

Included in the more interesting events in the Canadian mining industry in 1945 was the discovery and development of an important copper-gold-silver orebody on the property of Quemont Mines, Limited, adjoining Noranda Mines, Limited, in northwestern Quebec; the production of metallic calcium at Haley, Ont., by Dominion Magnesium, Limited; the expansion in high-grade iron-ore production at Steep Rock Lake in the Rainy River District of Ontario, and the exploration of



Hollinger, Canada's largest gold mill, treats 3,900 tons of ore daily. Total value of production from this mill amounted to \$355,263,389 to the end of 1944.

large high-grade iron-ore deposits in Ungava. Canadian base-metal mines and metallurgical plants are for the most part well equipped and capable of supplying the immediate major metal requirements of post-war industry.

Fuels.—The fuel situation in Canada has always demanded the serious consideration of the authorities. The country is in a somewhat anomalous position in that large deposits of coal are located in the eastern and western provinces, but no coal is mined in Ontario and Quebec, where the greater number of Canadian manufacturing industries are located and denser populations exist. For that reason, coal must be brought into these central provinces, chiefly from the United States. Supplies of anthracite coal, formerly brought in from Great Britain in substantial amounts, have been practically cut off because of the difficulties in ocean shipping during the War. Production of coal in Canada totalled 17,859,057 tons in 1943 and 17,026,499 tons in 1944. Of the total output in 1944, 5,745,671 tons came from mines in Nova Scotia; 7,428,708 tons from Alberta; 2,134,231 tons from British Columbia; 1,372,766 tons from Saskatchewan, and 345,123 tons from New Brunswick.

Natural gas consumption in Canada was 5 p.c. greater in 1944 than in 1943, and for the first six months of 1945 consumption totalled 27.2 thousand cubic feet as compared with 26.4 during the corresponding period of 1944. The Province of Alberta produces about 81 p.c. of the total Canadian output. Ontario is the second largest producer and small quantities are recovered from wells in New Brunswick and Saskatchewan.

Turner Valley

THE CENTRE OF CANADIAN OIL PRODUCTION

In Canada oil is produced from wells in Alberta, the Northwest Territories, Ontario and New Brunswick but far the largest part comes from Alberta. In fact the story of Canada's oil production is very closely bound up with the story of Turner Valley in southern Alberta. In 1942 Canada, for the first time in her history, produced over 10,000,000 bbl., yet she produced less than one-fifth of the world's annual production and only 15 p.c. of her own requirements. Since 1942 there has been a steady decline in production, though the decrease for the first six months of 1945 was only half that of the preceding year.

The thirty-year history of the famous Turner Valley field is divided into four distinct periods. The first, 1912-14, deals with the original discovery from shallow horizons above the limestone. Dingman Nos. 1 and 2, later known as Royalite 1 and 2, were the discovery wells. They were in the centre of the present producing field and about half a mile east of the Turner Valley townsite. The second period started ten years later, on Oct. 17, 1924, when the famous Royalite 4 Well was brought in with production of wet gas from the limestone. This well, which was located about half a mile to the north of the Dingman Wells, produced in six years over 900,000 bbl. of naphtha, valued considerably in excess of \$3,000,000. The third period was opened early in 1929 when the Home Well, about four miles south of Royalite 4, proved itself a prolific producer, yielding around 700 bbl. per day. Intensive development which lasted until 1939 followed this event. The fourth and most important period commenced on June 16, 1936, when the Turner Valley Royalties Well, situated about four miles south of the Home group and close to Little Chicago townsite, tapped crude oil in encouraging quantities in the limestone. In 1939, Home 2 in the far north end of the field started equally intensive development and Home 16 and 18 are at present the northern markers and are among the largest producers in Turner Valley. The centre of the Valley has again come back into production as a result of intensive drilling during 1944. The southern end of the field, too, has furnished a pleasant surprise by the bringing in of an excellent well when production in this particular area seemed to be definitely dropping.

Alberta's oil production from 1914 to the close of 1944 totalled over 75,000,000 bbl., with a total valuation of about \$120,000,000.

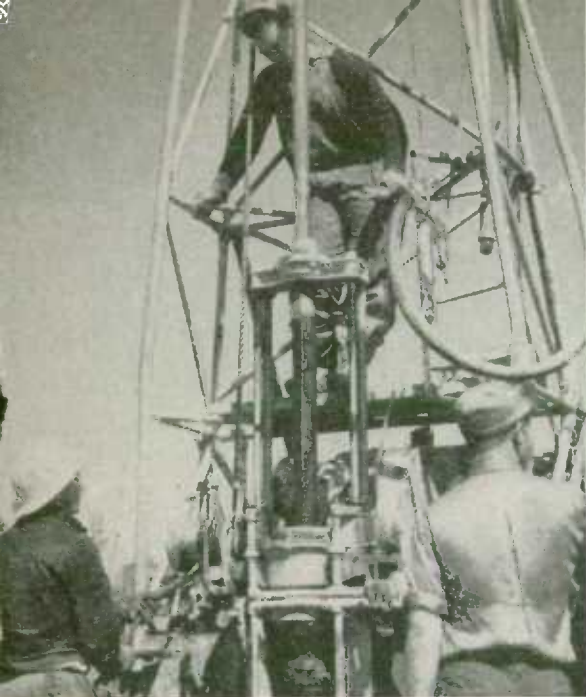


The Turner Valley field in 1914 with its two wells producing oil from the shallow horizon above the limestone.



Two present-day views of Turner Valley: \$1,000,000 is being spent each month on the development of new fields in Western Canada.





Top Left: Most oil-well equipment, such as this drill, is mobile.



Top Centre: Controlling the pressure on a bit—too much may break it; too little results in slow drilling.

Top Right: The rotary bits on the lower end of the drill cost \$100 each and more than 100 are required to drill the average well.

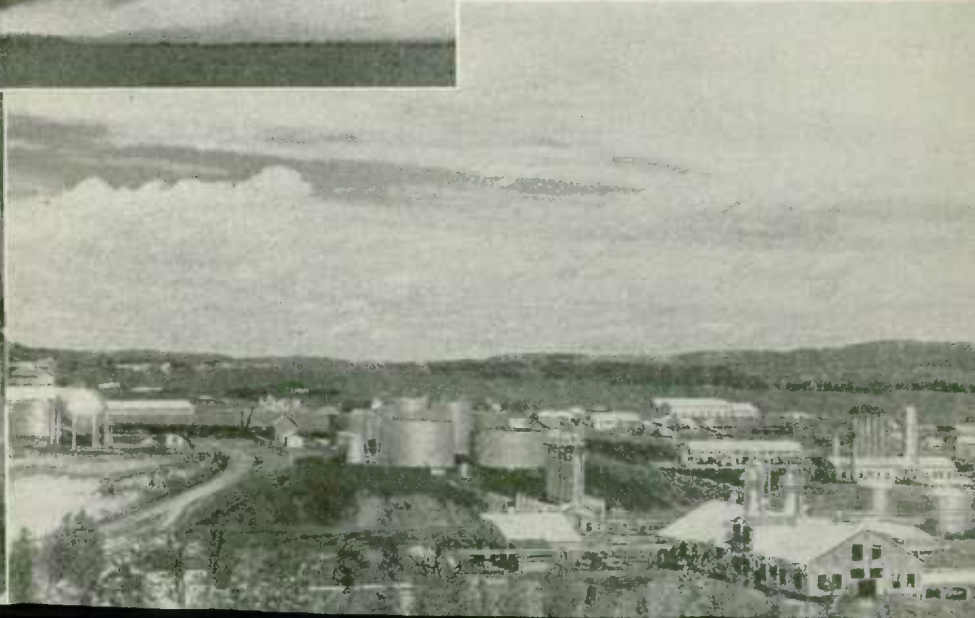
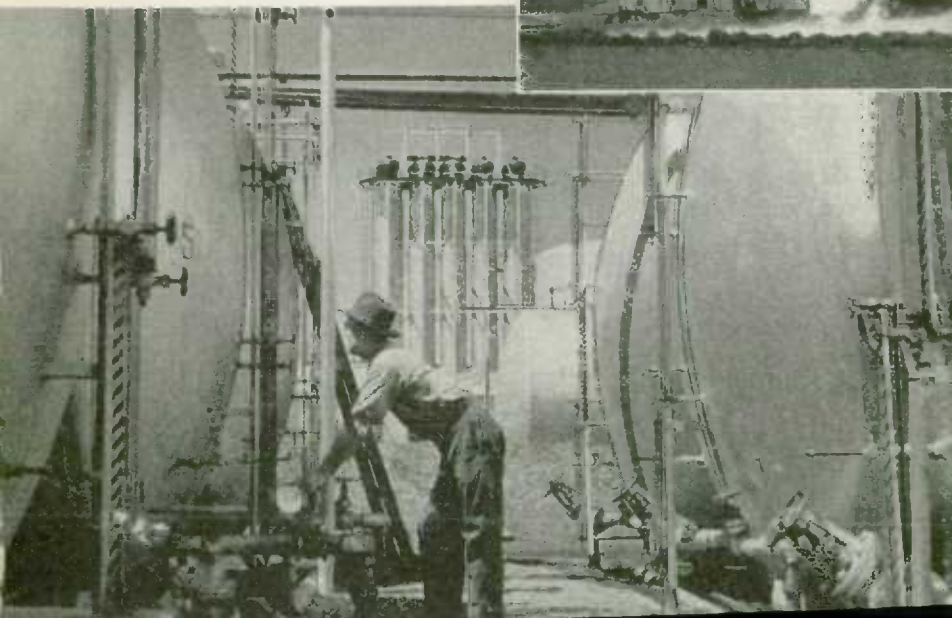


Centre: In the acidizing treatment, spent acid mixes with oil so that the well's first burst is burned off.



Lower Left: Inspecting high octane gas storage tanks.

Lower Right: Before gasoline goes to the storage tanks, sulphur is removed in "scrubbing" plants.



MINES AND MINERALS

Owing to a decline in yields from wells in the Turner Valley field of Alberta, crude petroleum production in Canada in 1944 was somewhat less than in the previous year. The drop in production at Turner Valley was partially offset by increases in other fields in Alberta, and particularly by the Fort Norman wells in the Northwest Territories. The construction of the Alaska Highway, the laying of a pipeline to Whitehorse, Yukon, to supply crude oil to a refinery which was built there as a war measure, was the reason for the rapid development of the Fort Norman wells. Owing to the cessation of war activities in the northwestern part of Canada (the refinery has been shut down), production from the Fort Norman wells dropped rapidly in 1945. Oil from these wells in the future will be utilized largely in the opening up of the mining areas in this part of Canada.

Non-metallics.—Canadian deposits of industrial minerals are in most instances ample for the requirements of the nation. The Dominion is probably the world's leading asbestos-producing country and is also one of the chief producers of feldspar, mica, magnesitic-dolomite, gypsum, salt and graphite. Production of most non-metallic minerals was reasonably well sustained in 1945; in certain instances the problems of supply and demand arising from reconversion to peacetime industry were reflected in fluctuating output. The output of structural materials, particularly brick and building tile, was seriously affected by the shortage of skilled labour,

Canada is endowed with widespread and diversified mineral wealth and the great unexplored areas of her northland afford promising fields for the prospector and explorer of both to-day and to-morrow. The rapid development of aerial transportation should facilitate this exploration and hydro power is generally available for the development of new mining districts.

New Monolithic Headframe at the Murray Mine of International Nickel Company of Canada Ltd. Construction work which satisfies the aesthetic sense as well as the practical has become a feature of the north country in recent years.





The first shipment of Steep Rock Ores being loaded on the *SS Marquette* at the new ore-loading docks at Port Arthur Ont.

Mineral Production of Canada, 1943 and 1944

Item	1943		1944	
	Quantity	Value	Quantity	Value
		\$		\$
METALLICS				
Copper..... lb.	575,190,132	67,170,601	547,070,118	65,257,172
Gold..... fine oz.	3,651,301	140,575,088	2,922,911	112,532,073
Iron ore..... ton	641,294	2,032,240	553,252	1,909,608
Lead..... lb.	444,060,769	16,670,041	304,582,198	13,706,199
Magnesium..... "	7,153,974	2,074,652	10,579,778	2,575,695
Mercury..... "	1,690,240	4,559,200	735,908	1,210,375
Molybdenite concentrates..... "	781,715	549,515	2,127,508	1,079,698
Nickel..... "	288,618,615	71,675,322	274,598,629	69,204,152
Palladium, rhodium, iridium, etc..... fine oz.	126,004	5,233,068	12,929	1,960,085
Platinum..... "	219,713	8,458,951	167,523	6,064,635
Silver..... "	17,344,569	7,849,111	13,627,109	5,859,656
Zinc..... lb.	610,754,354	24,430,174	550,823,353	23,685,405
Others..... ton	103,233	5,534,797	64,509	3,247,408
TOTALS, METALLICS	—	356,812,760	—	308,202,161
NON-METALLICS				
FUELS				
Coal..... ton	17,859,057	62,877,549	17,026,499	70,433,169
Natural gas..... M. cu. ft.	44,276,216	13,159,418	45,067,158	11,422,541
Peat..... ton	782	7,000	644	5,397
Petroleum..... bbl.	10,052,302	16,470,417	10,099,404	15,429,900
TOTALS, FUELS	—	92,514,384	—	97,291,007

MINES AND MINERALS

Mineral Production of Canada, 1943 and 1944—concluded

Item	1943		1944	
	Quantity	Value	Quantity	Value
OTHER NON-METALLICS		\$		\$
Asbestos..... ton	467,196	23,169,505	419,265	20,619,516
Barite..... "	24,474	279,253	118,719	1,023,696
Gypsum..... "	446,848	1,381,468	596,164	1,511,978
Magnesian dolomite and brucite.....	1	1,200,056	1	1,139,281
Mica..... lb.	8,050,692	553,856	6,084,846	841,026
Peat moss..... ton	64,360	1,461,422	80,446	1,869,553
Quartz..... "	1,776,749	1,608,448	1,740,262	1,658,409
Salt..... "	687,686	4,379,378	695,217	4,074,021
Sodium sulphate..... "	107,121	1,025,151	102,421	987,842
Sulphur..... "	257,515	1,753,425	248,088	1,755,739
Others.....	—	1,844,606	—	1,769,948
TOTALS, OTHER NON-METALLICS.....	—	38,716,568	—	37,251,009
CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS				
Clay products, brick, tile, sewer pipe, etc.....	1	6,608,193	1	6,997,425
Cement..... bbl.	7,302,289	11,599,033	7,190,851	11,621,372
Lime..... ton	907,768	6,832,992	885,142	6,926,844
Sand and gravel..... "	25,744,469	9,005,857	28,399,986	10,280,119
Stone..... "	7,222,950	7,964,179	5,994,992	7,159,177
TOTALS, CLAY PRODUCTS, ETC.....	—	42,010,254	—	42,984,937
Grand Totals.....	—	530,053,966	—	485,819,114

Not available.

Mineral Production of Canada, by Provinces, 1942-44

Province or Territory	1942		1943		1944	
	Value	P.C. of Total	Value	P.C. of Total	Value	P.C. of Total
	\$		\$		\$	
Nova Scotia.....	32,783,165	5.8	29,979,837	5.7	33,981,977	7.0
New Brunswick.....	3,609,158	0.6	3,676,834	0.7	4,133,902	0.9
Quebec.....	104,300,010	18.4	101,610,678	19.2	90,182,553	18.5
Ontario.....	259,114,946	45.7	232,948,959	44.0	210,706,307	43.4
Manitoba.....	14,345,046	2.5	13,412,266	2.5	13,830,406	2.8
Saskatchewan.....	20,578,749	3.6	26,735,984	5.0	22,291,848	4.6
Alberta.....	47,359,831	8.4	48,941,210	9.2	51,066,662	10.5
British Columbia.....	77,247,932	13.7	68,442,386	12.9	57,246,071	11.8
Yukon.....	3,453,568	0.6	1,625,819	0.3	939,319	0.2
Northwest Territories.....	3,976,267	0.7	2,679,993	0.5	1,440,069	0.3
Canada.....	566,768,672	100.0	530,053,966	100.0	485,819,114	100.0



Water Powers

Canada has a wealth of water-power resources favourably distributed throughout the country in relation to other resources, to centres of population, and to transportation facilities. Since the turn of the present century, water-power development has had a profound effect upon the national economy. This development, increasing from a total of 173,000 h.p. in 1900 to more than 10,283,000 h.p. in 1945, has been the mainspring of the great industrial expansion of the past four decades and has brought to the greater part of the population the amenities of electric lighting and other electric services.

In the six years of war which ended in August, 1945, water power was fundamental to Canada's vast war-production program. During this period more than 2,000,000 h.p. was added to the developed water-power capacity of the Dominion. Virtually all of this new capacity was utilized for war production and, in addition, large quantities of power were diverted from peacetime to wartime use. In the reconversion period which has now commenced, some of the new capacity will be required to supply the normal growth in demand for power which was curtailed by wartime restrictions and some to provide normal reserves for emergencies, such reserves not being available under war conditions. In certain regions there is a prospect of surplus power capacity due to the cessation of war demands while in others plans are being made to undertake new hydro-electric developments to provide for the growing needs of communities and industries.

Available and Developed Water Power, by Provinces, Jan. 1, 1946

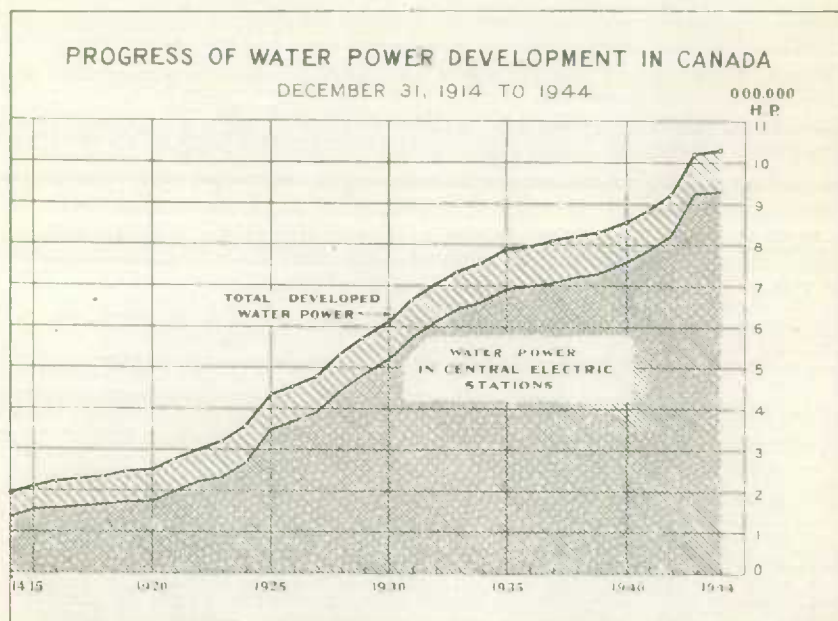
Province or Territory	Available 24-Hour Power at 80 p.c. Efficiency		Turbine Installation
	At Ordinary Minimum Flow	At Ordinary Six-Month Flow	
	h.p.	h.p.	h.p.
Prince Edward Island.....	3,000	5,300	2,617
Nova Scotia.....	20,800	128,300	133,384
New Brunswick.....	68,600	169,100	133,347
Quebec.....	8,459,000	13,064,000	5,848,572
Ontario.....	5,407,000	7,261,000	2,673,290
Manitoba.....	3,309,000	5,344,500	422,825
Saskatchewan.....	542,000	1,082,000	90,835
Alberta.....	390,000	1,049,500	94,997
British Columbia.....	7,023,000	10,998,000	864,024
Yukon and Northwest Territories.....	294,000	731,000	19,719
Canada.....	25,516,400	39,832,700	10,283,610

There is already a considerable change in the character of electric energy being consumed; the demand for primary energy being considerably reduced and the use of energy for secondary purposes being correspondingly increased. This reflects, particularly, the drastic reduction in electric energy required for the production of aluminum for war purposes and the diversion of a substantial part of this energy

← It is the harnessed power from the numerous rapids and falls such as this that has enabled Canada to achieve the splendid record of production that has marked her war effort.

to the pulp and paper industry for secondary use in raising process steam. With the power capacity released from war use and with the great opportunities still available for development Canada's resources of developed and undeveloped water power should be of strategic value in meeting post-war problems.

It has proven sound commercial practice to install hydraulic power equipment averaging 30 p.c. in excess of the six-month flow power, and it is estimated that Canada's presently recorded water power provides for an installation of more than 51,782,000 h.p. That is, the present development represents only 20 p.c. of the possible development.



Provincial Distribution of Water Power.—The water powers of the Maritime Provinces, while small in comparison with the sites in the other provinces, constitute a valuable economic resource, the development of which is supplemented by power from abundant indigenous coal supplies. Quebec, with large resources of water power, has achieved a remarkable development; the present installation in the Province represents almost 57 p.c. of the total for Canada. Almost 84 p.c. of this total installation is operated by six large central station organizations. The Province of Ontario has extensive water-power resources. The Hydro-Electric Power Commission of Ontario, province-wide in its field, operates plants aggregating 70 p.c. of the total hydraulic installation of the Province and serves more than 900 municipalities. A notable feature of electric distribution by the Commission is the operation of more than 20,000 miles of rural lines, serving over 130,000 consumers.

WATER POWERS

Of the Prairie Provinces, Manitoba has the greatest power resources and the greatest power development: 70 p.c. of the total hydraulic development of the three provinces is installed on the Winnipeg River to serve the city of Winnipeg and adjacent municipalities and more than 157 cities, towns and villages in southern Manitoba over the 2,154-mile transmission network of the Manitoba Power Commission. In the districts containing the least water power—southern portions of Alberta and Saskatchewan—there are large fuel resources. British Columbia, traversed by three distinct mountain ranges, ranks second in available power resources and in hydraulic development is exceeded in Quebec and Ontario only. The water powers of Yukon and the Northwest Territories, while considerable, are so remote from markets as to limit their present commercial development to local mining uses.

Hydro-Electric Construction during 1945.—New hydro-electric installations during 1945 totalled 19,000 h.p. This is a very small increase when compared with the installations of the earlier war years and is an indication of the transition from war to peace.

The largest undertaking completed during the year was the addition of a

Power Development at Chats Falls on the Ottawa River. This aerial picture of the entire water-control system gives a good idea of the magnitude of the engineering task involved. Inset: The generating plant (shown also on the right of the main picture) supplies over 200,000 h.p. to the southern Ontario system of the Hydro-Electric Power Commission.



19,000-h.p. unit at the Alexander Landing development of the Hydro-Electric Power Commission of Ontario on the Nipigon River. On Twelve-Mile Creek near St. Catharines, Ont., the Commission commenced the enlargement of its DeCew Falls plant taking water from the Welland Canal—water which is provided by diversion to the Great Lakes system from the Ogoki River and Long Lake. A second unit of 70,000 h.p. will be installed at DeCew Falls. Late in the year a new 56,000-h.p. development was commenced at Stewartville on the Madawaska River about eight miles from Arnprior.

In Manitoba, the city of Winnipeg proceeded with the work of enlarging its Slave Falls power station on the Winnipeg River preparatory to the installation of two additional 12,000-h.p. units.

In Quebec the Lower St. Lawrence Power Company undertook construction of a new development of 6,000-h.p. on the Metis River, one mile below its present plant.

In Alberta, the Calgary Power Company commenced the construction of a new 13,500-h.p. development on the Kananaskis River to augment the supply of power to the Company's transmission system which covers a substantial part of the Province.

In British Columbia, approval was given by the Provincial Government for the immediate construction by the British Columbia Power Commission of a development on Campbell River, Vancouver Island, with an initial capacity of 28,000 h.p. together with transformer facilities and transmission lines to deliver power to Courtenay, Alberni, and Nanaimo.

Hydro-Electric Construction in Prospect.—In Ontario the Hydro-Electric Power Commission of Ontario has in view the early construction of a new 400,000-h.p. development at Des Joachims on the Ottawa River above Pembroke and a new 45,000-h.p. plant on the Aguasabon River near Lake Superior to supply a new sulphate pulp mill. In Quebec the Gatineau Power Company has placed orders for the installation of the fifth and final unit of 24,000 h.p. in its plant at Farmers Rapids on the Gatineau River. In British Columbia preliminary engineering studies were inaugurated by the British Columbia Electric Railway Company in connection with a development on Bridge River which will have an ultimate installed capacity of some 600,000 h.p.

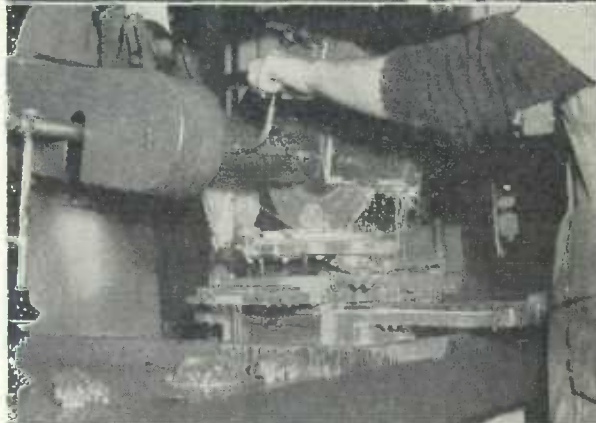
Central Electric Stations

Over 90 p.c. of all developed water power in Canada is developed by central electric stations and, although there are 300 that derive their power entirely from fuels and 45 hydraulic stations that also have thermal auxiliary equipment, 98 p.c. of all electricity generated for sale is produced by water power.

The production of electricity by central electric stations amounted to 5,500,000,000 kwh. in 1919, the first year for which such data are available. Six years later it was almost doubled, by 1928 it had more than trebled, and by 1930 it amounted to 18,000,000,000 kwh. With continued depression in manufacturing industries, the output started to decline late in 1930 and continued into 1933, but from 1933 to 1945 there was an almost continuous succession of increases each average month as shown in the table on p. 102. The daily rate of production reached a peak in November, 1943, and from that point has fluctuated at a slightly lower level.

RADIO CRYSTAL OSCILLATOR UNITS

Radio Crystal Oscillator Units, which before the War were imported from the United States, have been produced in Canada since 1942 for use in radio-equipped planes, tanks and ships. The manufacture of these units will be continued for peacetime radio communication services such as radio broadcasting, aviation, forestry, police, marine, public utilities, etc.

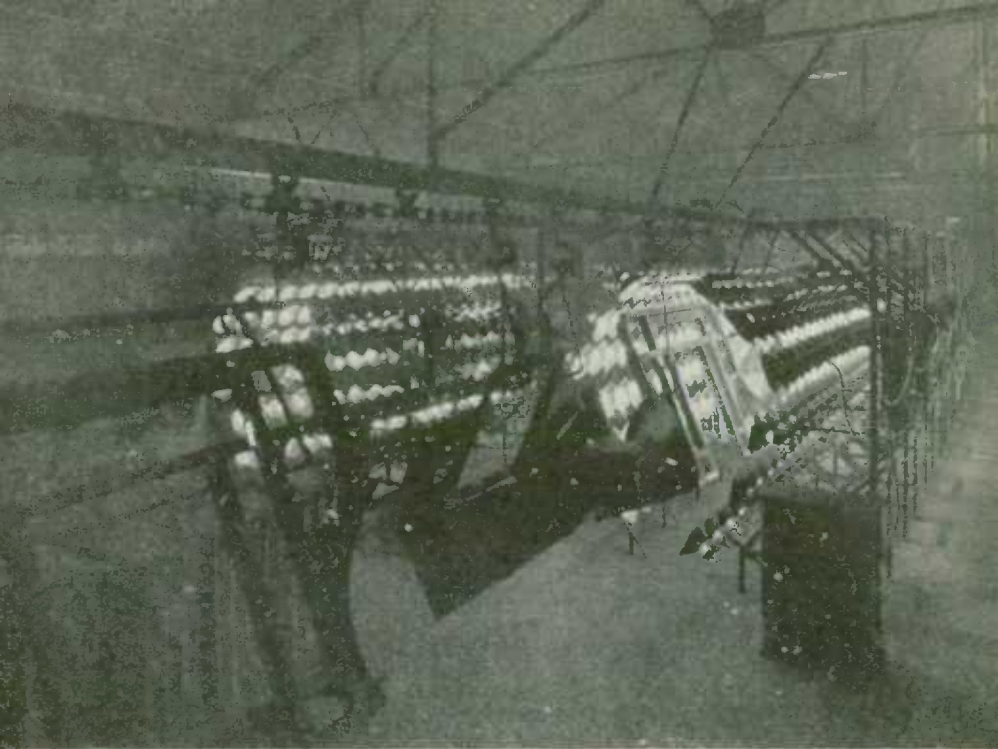


Top: From raw material to finished product — crystal quartz in the upper left corner; first cuttings upper right; left centre, quartz shaped to be cut into blanks and a quantity of blanks; below, some of the many types of holders or cases which make the complete oscillator unit.

Upper Centre: Slicing crystal quartz with a high-speed diamond saw.

Lower Centre: One of the stages in the grinding process in manufacturing crystals; some are ground to an accuracy of a few millionth parts of an inch.

Bottom: Operators electrically test the crystals at the finishing stage and, where necessary, hand-finish them to their required radio frequency.



An Infra-Red installation with a power load of 235 kwh. The conveyor system carries painted truck parts which are baked in from 3½ to 7 minutes instead of several hours. Production by the use of this drying method is greatly increased and the finished product improved.

Average Monthly Output of Central Electric Stations, 1928-45

Year	From Water	From Fuel	Total	Year	From Water	From Fuel	Total
	'000 kwh.	'000 kwh.	'000 kwh.		'000 kwh.	'000 kwh.	'000 kwh.
1928	1,340,292	21,192	1,361,484	1937	2,256,779	41,882	2,298,661
1929	1,441,203	27,022	1,468,225	1938	2,130,006	37,728	2,167,734
1930	1,463,330	25,230	1,488,560	1939	2,321,815	40,811	2,362,626
1931	1,339,907	26,071	1,365,978	1940	2,460,466	46,222	2,506,688
1932	1,296,360	25,845	1,322,205	1941	2,731,880	55,233	2,787,113
1933	1,423,486	26,150	1,462,636	1942	3,037,823	62,109	3,099,932
1934	1,733,810	29,484	1,763,294	1943	3,299,998	64,807	3,364,805
1935	1,917,958	32,410	1,950,368	1944	3,290,538	81,637	3,372,175
1936	2,078,739	37,452	2,116,191	1945	3,346,795	75,675	3,422,470

¹ Seven-month average.

The demands for primary power for war requirements greatly increased the primary power production, partly by switching secondary power to primary power uses and partly by increases in total output. The electro-chemical and electro-metallurgical industries showed large and rapid increases in consumption of electric power whereas the pulp and paper industry showed decreases mainly through transfer from electric to coal boilers.

WATER POWERS

The rated capacity of electric motors in manufacturing industries in Canada in 1943 was 80.7 p.c. of the total capacity of all power equipment in these industries, the increase from 61.3 p.c. in 1923 being almost continuous. In the mining industries this conversion to electric drive has been even greater, growing from 57.3 p.c. in 1923 to 81.0 p.c. in 1943. In 1943, 90 p.c. of these electric motors in manufacturing industries and 87 p.c. in mining industries were driven by power produced in central stations. Mechanical power, particularly electric motors, has been increasing in manufacturing industries during the past decade much more rapidly than the number of employees.

Electricity, principally hydro-electric energy, is displacing coal and oil to heat furnaces and ovens, and is doing enormous quantities of work in electrolytic refining of metals, production of fertilizers, metal plating, and so forth.

Investments in central electric stations for 1943 amounted to \$1,778,224,640, which was higher than for any manufacturing industry; revenues amounted to \$204,801,508 and 1,852,367 domestic customers were served, representing approximately 60 p.c. of all families in Canada, both urban and rural.

Electric energy is exported from Canada only under licence and an export tax of 0.03 cents per kwh. is levied. Exports have shown a steady increase over the past decade and amounted to 2,585,311,000 kwh. in 1944.

Modern Poultry Plants use electrical equipment and assembly-line methods for the plucking and preparing of birds for market. Stray feathers remaining after the bird has been through the plucking machine are removed by means of a revolving electric drum.



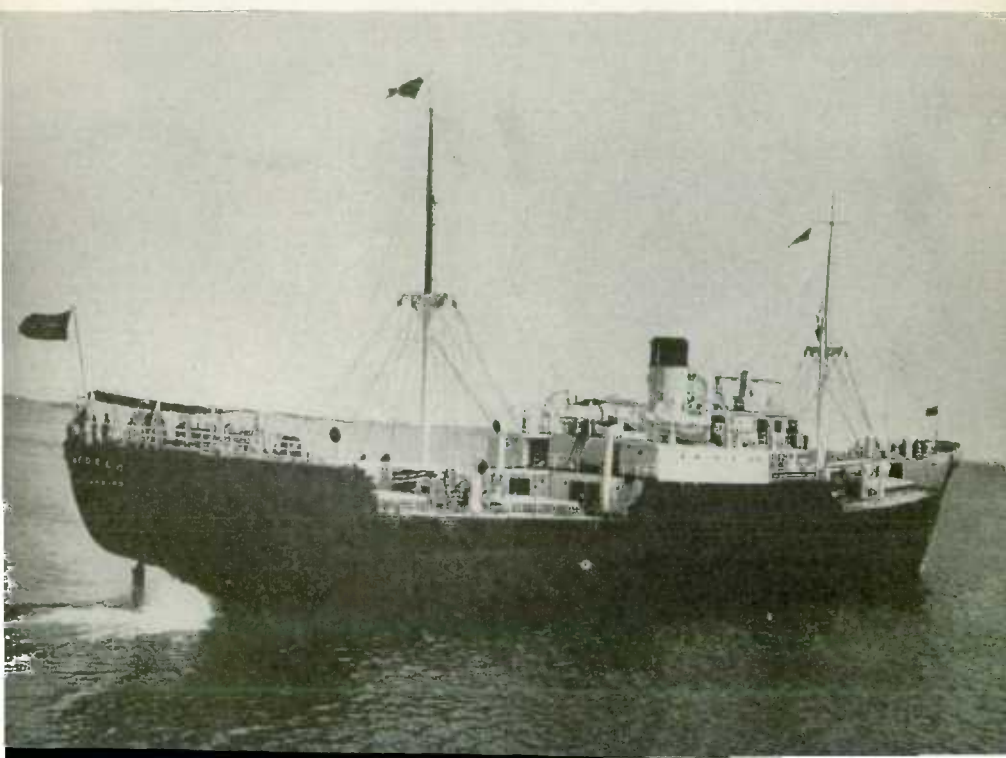
Manufactures

The chief forward movement in the development of Canadian manufactures has been the result of three great influences: first, 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, the First World War which left a permanent imprint upon the variety and efficiency of Canadian plants; and thirdly, the Second World War with its insatiable demands for food and manufactured materials of all sorts.

During the war years manufacturers rose to the demands made upon them with marked success. The achievement of the manufacturing industries of Canada in producing the huge quantities of equipment and supplies needed for war purposes, in addition to supplying the greatly expanded demands of the civilian population, is best illustrated by a comparison of their 1943 operations with those for 1939. In this period the number of employees increased by 89 p.c., with an increase of 169 p.c. in the salaries and wages paid, while the gross value of production was 151 p.c. higher: the physical volume of production was nearly doubled.

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 stands on the

Shipbuilding for Export. The efficiency of Canadian yards is exemplified by the placing of recent orders in the Dominion by Brazilian and other South American countries for modern cargo ships. The S.S. *Cabedelo*, built and engined in Canada, is one such vessel.



MANUFACTURES

threshold of a new era in manufacturing development which bids well for her future as a great industrial country.

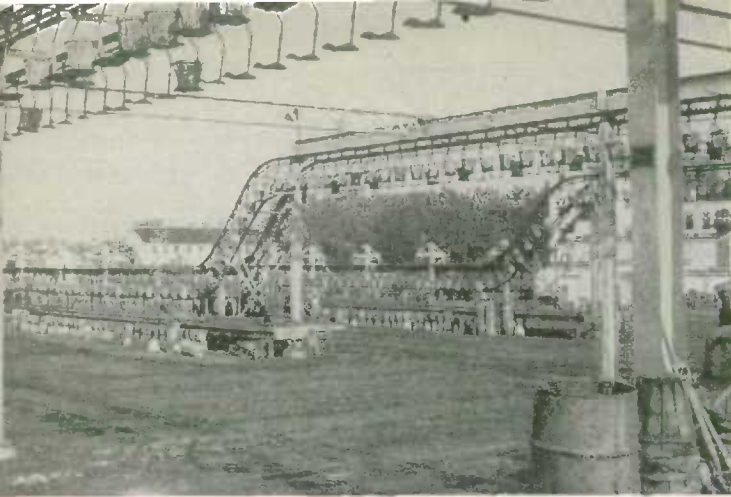
Summary of Statistics of Manufactures, 1870-1943

Year	Estab- lish- ments	Capital	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products ¹	Gross Value of Products
	No.	\$	No.	\$	\$	\$	\$
1870	41,259	77,964,020	187,942	40,851,009	124,907,846	96,709,927	221,617,773
1880	49,722	165,302,623	254,935	59,429,002	179,918,593	129,757,475	309,676,068
1890	76,964	353,213,000	369,595	100,415,350	250,759,292	219,088,594	469,847,886
1900 ²	14,650	446,916,487	339,173	113,249,350	266,527,858	214,525,517	481,053,375
1910 ²	19,218	1,247,583,609	515,203	241,008,416	601,509,018	564,466,621	1,165,975,639
1920 ²	22,157	2,914,518,693	591,753	711,080,430	2,083,579,571	1,609,168,808	3,692,748,379
1929	22,216	4,004,892,009	666,531	777,291,217	2,029,670,813	1,755,386,937	3,883,446,116
1933	23,780	3,279,259,838	468,658	436,247,824	967,788,928	919,671,181	1,954,075,785
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	3,271,203,531	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
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	2,349,721,903	1,942,471,238	4,529,173,314
1941	26,293	4,905,503,906	1,168,178	1,264,862,643	3,296,547,019	2,605,119,788	6,076,308,129
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

DETAILS BY PROVINCES AND PURPOSE GROUPS, 1943

Prince Edward Island	230	3,881,832	1,552	1,298,112	6,432,079	3,021,848	9,577,446
Nova Scotia	1,278	179,363,703	37,445	55,205,712	96,551,817	84,909,686	188,463,088
New Brunswick	862	111,287,910	23,225	30,451,181	76,711,513	58,956,676	140,934,879
Quebec	9,372	2,230,620,386	437,247	658,323,620	1,483,627,797	1,280,097,615	2,852,191,853
Ontario	10,587	2,994,953,988	570,017	956,399,212	2,278,871,511	1,844,651,587	4,221,101,003
Manitoba	1,245	173,752,507	37,003	53,841,825	200,464,756	99,146,670	304,867,912
Saskatchewan	976	60,674,093	11,683	16,445,866	111,193,185	37,895,459	152,123,360
Alberta	1,133	111,682,419	20,613	29,494,369	142,057,051	65,796,813	211,159,142
British Columbia	1,961	450,360,048	102,221	185,711,773	294,445,005	341,699,478	652,046,313
Yukon and N.W.T.	8	589,841	62	120,711	138,369	237,709	395,943
Totals	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
Producers materials	8,554	2,503,815,480	361,570	582,769,064	1,449,892,836	1,156,538,422	2,748,227,057
Food	8,421	592,585,732	123,531	159,966,391	1,094,856,728	349,628,456	1,464,737,993
Industrial equipment	2,724	1,051,234,389	223,783	387,609,582	707,744,312	732,500,508	1,492,541,620
Vehicles and vessels	385	816,203,889	217,970	425,756,663	587,491,411	671,153,055	1,272,121,963
Clothing	2,592	244,217,485	119,715	141,914,240	292,357,250	228,688,337	523,922,505
Drink and tobacco	647	242,927,173	28,044	40,435,534	99,602,633	135,459,552	238,506,471
Books and stationery	2,476	159,733,494	45,647	71,581,405	72,022,230	130,513,969	204,779,758
House furnishings and equipment	881	121,791,799	38,472	54,067,442	80,661,310	94,922,368	178,461,622
Personal utilities	730	68,356,782	18,059	24,516,425	50,345,687	53,017,112	104,512,562
Miscellaneous	242	516,300,504	64,277	98,675,638	255,518,686	243,991,762	505,049,448

¹ For and since 1929 the figures for the net value of production represent the gross value less the cost of materials, fuel and electricity. Prior to this, only the cost of materials is deducted. ² Includes all establishments employing five hands or over. ³ From 1920 to 1943 the figures include all establishments irrespective of the number of employees, but exclude construction, and custom and repair work.



Pallet Conveyors for tomatoes at a large Ontario food-processing plant. Farmers deliver their tomatoes according to a definite schedule. Trucks are unloaded at the conveyor platforms and the pallets take the baskets into the factory.

Food Industries.—Normally the food industries of Canada contribute about 23 p.c. to the total output of manufactured products. In 1943 the production of the food industries was valued at \$1,464,737,993. The leading industries, with the gross value of production in 1943, were as follows: slaughtering and meat packing \$437,228,577; butter and cheese \$215,771,404; flour and feed mills \$201,127,291; bread and other bakery products \$120,445,625; biscuits, confectionery, cocoa and chocolate \$80,261,546; miscellaneous foods, including coffee, tea and spices \$72,798,428; fruit and vegetable preparations \$72,228,697; fish curing and packing \$64,804,969; sugar refining \$51,239,749; stock and poultry feeds \$40,594,703; and condensed milk \$28,071,816. Each of these industries reported a substantial increase; all-told there was an increase of 27 p.c. in the physical volume of production as compared with 1939.

Slaughtering and Meat Packing.—Slaughtering and meat packing is the leading industry of the food group. In 1943 its physical volume of production was about 57 p.c. higher than in 1939. In the later year, the industry furnished employment to 18,775 persons who were paid \$29,994,640 in salaries and wages, and about \$334,000,000 was paid out by packers for live stock. Of the 148 establishments in 1942, 34 contributed 83 p.c. of the total output, while the 12 largest plants had an average production of about \$17,500,000.

Dairy Products.—Manufacturing statistics of dairy production are given in the Chapter on Agriculture at pp. 59-62.

Flour Milling.—The flour-milling industry has a tremendous capacity to produce whatever flour may be needed during the immediate post-war period. The present maximum daily capacity of the mills is 88,703 bbl. per day of 24 hours, or an annual running capacity of about 28,000,000 bbl. The output of flour during the 1944-45 crop year amounted to 24,684,403 bbl., an increase of over 31 p.c. over the previous ten-year average.

A great impetus was given this industry, which has existed to meet domestic needs for more than 300 years, by the large import requirements of the United Kingdom and other Allied countries during the recent war years. Exports of wheat flour to all countries increased to 13,938,631 bbl. in 1944 from an export of only 3,911,886 bbl. in 1938. The demand for Canadian flour in foreign markets was a decided boon to Canadian agriculture, inasmuch as it enabled flour mills to make

MANUFACTURES

available large quantities of mill feeds that otherwise would not have been produced. Farmers could thus obtain sufficient feeds needed to fulfill the large commitments made for exporting cheese and bacon.

Canned Foods.—The production of canned foods in Canada showed remarkable expansion during the war years. In spite of unavoidable restrictions and other difficulties under which the canning industries had to carry on, the value of output advanced from \$69,466,998 in 1939 to \$105,945,027 in 1943; the volume of production increased 30 p.c. in the same period.

Principal Foods Canned in Canada, 1939 and 1943

Product	1939		1943	
	Quantity	Value	Quantity	Value
		\$		\$
Fish..... lb.	108,893,332	15,478,961	166,564,042	27,286,951
Fruits..... "	116,500,115	7,769,005	42,217,278	4,225,833
Vegetables..... "	251,432,000	14,526,671	226,927,541	15,331,390
Meats..... "	7,887,228	1,743,227	38,671,960	10,800,282
Soups..... "	96,660,000	9,259,222	92,275,310	10,568,847
Other foods..... "		9,113,911	134,749,489	11,536,549
Concentrated milk..... cwt.	1,660,425	11,975,971	2,557,593	26,105,175
Totals.....	—	69,466,998	—	105,945,027

Textile Industries.—The need for clothing and equipment for Canada's Navy, Army and Air Force placed a heavy burden upon the textile industries. These industries are, to a high degree, centralized in Quebec and Ontario. The peak production year was 1942, but 1943, with a gross value of \$790,659,927, was only slightly lower, and showed an increase of 101 p.c. over 1939. Employment was given to 157,987 persons in 1943, and \$191,305,628 was paid out in salaries and wages. Of all females employed in manufacturing industries, 26.7 p.c. were in the textile group, as compared with 43 p.c. in 1939.



Grading rayon yarn in skeins.

Individual industries in the group represent practically all stages of manufacturing. In 1943 primary production from natural fibres declined as compared with 1942, notably in the cotton yarn and cloth industry, but this was largely offset by increases in the men's factory clothing and other industries. Men's factory clothing led the group with a gross value of production of \$149,800,112, an increase of 111.6 p.c. over 1939. Cotton yarn and cloth, with an output valued at \$126,879,874, showed an increase of 80.3 p.c. Other leading industries were women's factory clothing, hosiery and knitted goods, woollen cloth, and silk and artificial silk, increases over 1939 being, respectively, 109.5 p.c., 39.1 p.c., 143.3 p.c. and 98.2 p.c. New developments include the use of artificial silk (viscose) yarns in the production of tire cord and fabric, and the experimental production of acetate artificial silk from wood-pulp.

Synthetic Rubber.—Synthetic rubber of Canadian manufacture has been made available since 1943, but only for direct war production and for other essential purposes. With the cessation of absolute priority demands in the various theatres of war, the production of synthetic rubber tires for civilian use has been greatly accelerated. The plant at Sarnia, Ont., will be a significant factor in later developments in the rubber industry, and also in the field of plastics.

Iron and Steel Industries.—The three major corporations that constitute the core of the industry in Canada are self-contained in that they process iron and steel from the ore through to the semi-finished and finished articles. The activities of the Steel Company of Canada, Limited, cover a wide range of products. The main plant at Hamilton, Ont., has 3 blast furnaces, 13 open-hearths, 1 electric furnace, and rolling mills for making billets, bars, wire rods, sheets, plates and light shapes. Its capacity is about 1,100,000 net tons of ingots annually. In addition, it operates several works in Ontario and Quebec for the production of wire, fencing, nails, screws, bolts, nuts, forgings, pipe, horseshoes, etc. The Algoma Steel Corporation, Limited, has 5 blast furnaces, 12 open-hearths, and also rolling mills. Its capacity is about 736,000 tons of ingots yearly and its chief products are billets, rails and rail fastenings, carbon and alloy merchant bars, tinplate, black sheets, structural steel and sheet piling. It is Canada's main producer of heavy structural shapes which are made in all standard sizes and forms. The Dominion Steel and Coal Corporation operates 4 blast furnaces and 16 steel furnaces with a yearly ingot capacity of 750,000 tons. Its rolling mill makes billets, rails, rail fastenings, merchant bars, wire rods and plates and in other plants or plants of subsidiary companies it makes wire, fencing, nails and similar lines.

Canada has recently built 2 of the largest blast furnaces in the British Empire. Actual output of pig iron in 1944 was 1,852,628 net tons compared with 846,418 tons in 1939.

Notable expansion occurred during war years in connection with alloy steels and steel plates. The production capacity and output of alloy steels was multiplied six times, making this country practically independent in providing the types used in guns, armour plate and machine tools. In all, there are 137 steel furnaces in Canada, including 51 open-hearth units, 83 electric units and 3 converters.

Canada's steel production in 1944 amounted to 3,024,000 tons or nearly double the best pre-war tonnage. At the beginning of 1940 the rated capacity of steel furnaces in the Dominion was 2,300,000 net tons, but new installations raised this potential



Loading a mammoth blast furnace with the components of steel.



A Wartime Worker in
T.C.A. shops at Win-
nipeg.

to 3,620,000 tons at the end of 1944, including 3,358,000 tons ingot capacity and 262,000 tons for castings.

In the secondary or steel fabricating industries, there was tremendous expansion in the war years. For a decade prior to 1940 the shipbuilding industry was practically inactive, but in 1944 there were about 60,000 workers in 22 major and 69 smaller yards with output valued at \$332,000,000. The aircraft industry, which had fewer than 1,000 employees at the outbreak of war in 1939, had 77,000 workers in main assembly and in sub-assembly plants in 1944 when output amounted to \$363,000,000. The automobile industry, which early in the War was switched entirely to military vehicles, continued to work at a high level with 22,499 employees in 1944 and production valued at \$324,000,000.

For the entire group of iron and steel industries, the output in 1943 was valued at \$2,576,000,000 compared with \$553,000,000 in 1939.

Chemicals.—There was a small decline in the production of chemicals and allied industries in 1944 due apparently to slightly lower schedules for propellants and ammunition in the early months of the year. The total output value was \$720,000,000, about 6 p.c. lower than in 1943 but still more than four times the best pre-war total of \$159,500,000 established in 1939. The shell-filling and small-arms ammunition plants accounted for a very large share of the totals for the war years; if these were excluded, the value for 1944 would be \$365,000,000 compared with \$359,000,000 in 1943 and \$348,000,000 in 1942.

In 1944 there were 955 operating establishments in the chemicals and allied industries with an average of 82,000 workers, of whom about 39,000 were in shell-filling and ammunition plants. Gains in output value were reported for fertilizers, soaps, medicinals, toilet preparations, inks and polishes; declines were recorded for heavy chemicals, compressed gases, coal-tar distillation, wood distillation, adhesives, paints, and the miscellaneous group, including shell-filling.

Canada has a strong and diversified heavy chemical industry, which now supplies about 70 p.c. of the Dominion's chemical needs and, in addition, makes

MANUFACTURES

a substantial contribution to export trade. It has buildings and capital equipment valued at \$120,000,000, employs 10,000 workers, and annually distributes \$18,000,000 in salaries and wages and \$40,000,000 for materials, fuel and power. Its production has expanded three-fold since the beginning of the War to reach a total value in 1944 of about \$110,000,000. Carbide, cyanide, cyanamide, acetic acid, vinyl resins, acetylene black, ammonium nitrate, ammonium phosphate and ammonium sulphate are the main export items, while sulphuric acid, caustic soda, chlorine, calcium chloride, phosphorus chemicals, synthetic ammonia, acetone, sodium silicate, and compressed gases are other important items of manufacture in a list that is being extended steadily each year.

Leading Individual Industries

A prominent feature of Canadian manufacturing development in recent years has been the rapid growth of non-ferrous metal smelting. This industry has now taken its place among the leading manufactures along with the industries based upon forest, agricultural and live-stock resources. From the standpoint of gross value of production, it has stood in first place since 1937. Under the impetus of war production, the industries engaged in producing the equipment needed by the Armed Forces, such as shipbuilding, aircraft, automobiles, miscellaneous chemical products and primary iron and steel, advanced to higher positions.

Principal Statistics of Fifteen Leading Industries, 1943

Industry	Estab- lish- ments	Capital	Em- ployees	Salaries and Wages	Cost of Materials	Gross Value of Products
	No.	\$	No.	\$	\$	\$
Non-ferrous smelting and refining.....	16	392,217,159	26,749	48,491,732	356,251,255	511,213,376
Miscellaneous chemical products.....	200	505,359,005	61,428	94,496,031	242,940,411	482,660,017
Slaughtering and meat packing.....	153	102,948,528	18,775	29,994,640	382,284,793	437,228,577
Shipbuilding and repairs.	87	241,992,825	75,847	153,595,330	123,317,336	376,560,974
Iron and steel products, n.e.s.....	161	276,501,433	48,567	95,810,305	181,658,309	304,698,074
Automobiles.....	5	139,610,450	24,255	57,509,265	248,652,602	352,229,955
Pulp and paper.....	106	667,458,143	37,020	71,199,422	143,956,462	345,653,470
Aircraft.....	45	228,610,099	69,529	126,826,708	60,448,010	246,028,586
Electrical apparatus and supplies.....	223	161,260,825	46,928	76,906,994	109,281,060	245,770,859
Primary iron and steel..	63	235,386,238	34,229	65,654,468	101,413,794	223,951,059
Butter and cheese.....	2,314	72,237,363	19,181	23,836,366	166,881,687	215,771,404
Flour and feed mills....	1,131	70,869,815	7,163	10,015,738	169,488,522	201,127,291
Sawmills.....	5,140	115,273,788	43,954	49,564,303	101,021,760	195,885,336
Brass and copper products	158	73,747,578	21,899	40,731,201	108,330,435	192,987,718
Petroleum products.....	52	90,196,659	6,085	12,748,732	138,159,884	187,106,054
Totals, Fifteen Leading Industries						
1943.....	9,854	3,373,675,908	541,612	957,441,241	2,634,086,320	4,578,872,750
1942.....	10,130	2,619,033,673	442,104	708,128,866	2,143,829,967	3,652,046,787
Grand Totals, All Industries						
1943.....	27,652	6,317,166,727	1,241,068	1,987,292,384	4,690,493,083	8,732,860,999
1942.....	27,862	5,488,785,545	1,152,091	1,682,804,842	4,037,102,725	7,553,794,972
Percentages of Fifteen Leading Industries to All Industries, 1943...	35.6	53.4	43.6	48.2	56.2	52.4

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 their gainfully occupied population. In the west the cities are more largely distributing centres, though manufactures are rapidly increasing there also.

The extent to which the manufacturing industries of Canada are concentrated in urban centres is indicated by the fact that in Ontario 90.8 p.c. of the gross manufacturing production of the province in 1943 was contributed by cities and towns having a gross production of over \$1,000,000 each. In Quebec the percentage was 90.2, while in the Maritime Provinces and British Columbia, where sawmilling, fish-packing and dairying are leading industries, the proportions fell to 64.9 and 79.1 p.c., respectively. In the Prairie Provinces manufacturing is confined largely to a few urban centres.

Urban Centres with Manufacturing Productions of Over \$25,000,000 in 1943

NOTE.—Statistics cannot be published for Arvida, Lauzon, Magog, Noranda, Sorel, St. Joseph, Ste. Thérèse-de-Blainville and Verdun, Quebec; Copper Cliff, Oshawa and Port Colborne, Ontario; North Vancouver and Trail, British Columbia.

Urban Centres	Estab- lish- ments	Capital	Em- ployees	Salaries and Wages	Cost of Materials	Gross Value of Products
	No.	\$	No.	\$	\$	\$
Montreal, Que.....	2,992	721,223,427	194,643	307,922,631	665,209,935	1,184,114,458
Toronto, Ont.....	3,238	647,907,281	156,459	259,307,913	481,504,056	961,923,997
Windsor, Ont.....	229	206,850,571	38,516	85,965,874	247,504,385	417,745,229
Hamilton, Ont.....	485	315,896,136	54,671	95,576,332	164,271,139	362,743,019
Vancouver, B.C.....	898	193,795,910	45,971	81,059,815	130,412,455	288,196,900
Winnipeg, Man.....	688	100,511,565	24,898	35,807,283	106,485,838	174,523,234
Montreal East, Que.....	18	58,258,103	3,989	7,612,885	97,837,762	126,791,276
Quebec, Que.....	309	111,821,277	25,876	34,461,191	37,317,318	101,451,883
Leaside, Ont.....	42	71,335,820	13,290	24,406,020	60,954,359	100,128,734
Peterborough, Ont.....	85	49,913,613	9,728	15,737,084	51,629,519	92,082,644
Kitchener, Ont.....	154	45,668,496	12,240	18,426,863	50,137,928	90,496,101
St. Catharines, Ont.....	95	46,279,431	11,109	20,218,926	47,153,262	86,742,678
New Toronto, Ont.....	24	46,160,094	6,159	12,322,966	49,167,411	85,226,690
Edmonton, Alta.....	186	27,767,185	6,641	9,838,153	62,670,798	82,896,502
Welland, Ont.....	53	48,552,603	9,939	18,081,870	36,050,331	82,250,094
London, Ont.....	232	48,505,955	13,501	20,059,499	35,237,389	81,178,623
St. Boniface, Man.....	51	14,660,736	3,272	4,870,367	59,805,008	73,140,799
Shawinigan Falls, Que.....	40	66,795,570	6,721	10,773,222	35,278,145	72,099,227
Calgary, Alta.....	203	44,273,115	6,233	9,754,177	45,750,478	70,849,587
Brantford, Ont.....	118	48,376,209	14,023	22,797,244	26,397,320	66,252,865
Sarnia, Ont.....	45	78,070,050	5,138	9,575,966	40,953,552	63,611,788
Niagara Falls, Ont.....	68	79,381,448	7,843	13,860,444	28,569,899	53,965,697
Ottawa, Que.....	212	38,989,696	11,520	18,276,988	21,315,934	53,235,387
Lachine, Que.....	36	36,468,094	7,607	15,999,966	21,609,934	50,621,042
Sault Ste. Marie, Ont.....	45	65,174,285	5,032	10,231,037	18,124,055	48,118,627
Kingston, Ont.....	50	33,366,384	6,846	9,734,470	19,893,212	45,358,638
Saint John, N.B.....	126	22,684,335	5,396	7,138,588	26,317,429	41,988,274
Three Rivers, Que.....	69	61,667,267	6,713	9,830,292	19,409,629	40,432,616
Sherbrooke, Que.....	87	28,409,684	8,010	10,519,643	18,562,872	39,833,746
St. Laurent, Que.....	18	17,285,564	11,906	19,410,782	12,140,847	39,622,541
New Westminster, B.C.....	91	20,463,691	5,037	8,744,444	9,915,427	37,402,702
Longueuil, Que.....	13	45,874,401	9,889	19,615,656	8,239,815	36,631,482
Fort William, Ont.....	45	34,286,478	6,623	12,242,821	12,086,260	36,592,632
Regina, Sask.....	102	18,911,228	3,430	5,721,797	23,305,802	35,785,047
Halifax, N.S.....	113	26,662,732	6,910	11,180,207	14,840,271	35,348,278
Guelph, Ont.....	91	16,587,381	5,631	7,818,551	17,648,429	34,199,614
Victoria, B.C.....	143	18,731,583	5,686	10,378,408	10,127,295	32,083,580
Moose Jaw, Sask.....	42	8,079,517	1,478	2,207,838	25,744,184	31,776,952
Saskatoon, Sask.....	78	10,330,510	1,965	2,811,927	20,934,495	29,992,908
Sydney, N.S.....	44	58,542,687	6,494	10,796,565	15,719,487	29,482,649
Cornwall, Ont.....	48	31,865,612	5,123	7,113,792	11,434,161	26,704,155
Galt, Ont.....	73	19,035,116	5,684	8,422,823	10,423,300	25,291,893

The Production of Women's Clothing is rapidly becoming a very important industry in Canada, the value of output having more than doubled since 1939. The illustration shows the machine room in a sportswear manufacturing plant.



Employment in Manufactures

A good all-round barometer of industrial activity is afforded by the index of employment maintained from month to month in the Dominion Bureau of Statistics. This is based on returns received from establishments having 15 or more employees and covers the great majority of employees.

The index indicates the increasing tempo of employment in manufacturing industries through the war years 1940, 1941 and 1942. The rate of increase began to taper off after 1942, although its highest point (231.3) was reached on Oct. 1, 1943. Since then there has been quite an appreciable decline in industrial employment.

Monthly Indexes of Employment in Manufactures, 1940-45

(1926 = 100)

Month	1940	1941	1942	1943	1944	1945	Month	1940	1941	1942	1943	1944	1945
Jan. 1....	118.2	142.5	187.1	219.6	226.4	212.7	July 1....	130.3	172.4	209.5	226.5	225.8	207.2
Feb. 1....	120.5	147.4	191.2	222.1	227.3	215.0	Aug. 1....	134.4	176.8	212.4	227.7	225.0	204.1
Mar. 1....	122.6	150.8	195.7	223.4	226.5	214.3	Sept. 1....	138.4	181.4	215.6	229.9	226.2	198.6
Apr. 1....	123.4	158.2	199.4	224.1	225.5	212.9	Oct. 1....	143.8	184.9	218.3	231.3	223.7	188.3
May 1....	125.7	162.3	202.3	222.9	223.2	210.6	Nov. 1....	144.6	187.5	218.6	230.8	221.3	186.3
June 1....	129.2	168.0	205.9	224.1	223.1	209.0	Dec. 1....	144.7	188.4	221.7	230.9	220.1	—

Transportation—Communications

Steam Railways.—It would be difficult to over-estimate the importance of the railways in the building of Canada. With its relatively small population thinly distributed along the southern strip of a vast area 4,000 miles in length, a large and costly transportation system is a necessity if the country is to operate as an economic and political unit.

One of the first great undertakings to engage the attention of the Dominion of Canada after Confederation in 1867 was the building of a transcontinental railway to link the east and west. Surmounting tremendous difficulties, the Canadian Pacific Railway was completed in 1885 and the vast hinterland of the Canadian west was opened for settlement. The wheat boom during the period 1900-13 brought prosperity and rapid economic expansion and precipitated another era of railway development. Two other transcontinental systems, the Canadian Northern and the Grand Trunk Pacific (with the government-built National Transcontinental) were built, and total Canadian railway mileage increased from 18,140 in 1901 to 30,795 in 1914. This expansive railway policy of Canada made direct economic intercourse between its separate regions possible. Not only was the settlement of the west promoted, but economic activity in the east was stimulated. A direct railway connection with the prairies gave a tremendous impetus to the industrialization of Ontario and Quebec, to the coal and steel industries of Nova Scotia and to the lumber industry of British Columbia. The railways had reduced the vast size of the country to manageable proportions.

It has at times seemed unfortunate that the optimism prevailing during this period should result in the building of far more railways than were at the time economically justified and in costly duplication extending across long stretches of unproductive territory so that transportation overhead increased with each passing year. Yet in times of war it is difficult to see how the extraordinary demands on transportation facilities could otherwise have been met. The heavy strain on such facilities during 1914-18 left the railways considerably weakened and in order to avert financial disaster on a national scale, many lines had to be taken over by the Government. It was these lines, including the Canadian Northern, the Grand Trunk (and its subsidiary the Grand Trunk Pacific) and several smaller lines, along with the Intercolonial, that were brought together in 1923 to form the Canadian National Railways.

During the 1920's, the financial condition of Canadian railways improved considerably with general world prosperity, but the depression years of the 1930's saw railway freight and passenger traffic decline to new low levels and hard hit by the long continued drought in the west and by increasing highway competition. In order to reduce unnecessary competition and duplication of service between the C.N.R. and the C.P.R., the Canadian Pacific-Canadian National Act was passed in 1933 providing for the financial reorganization of the C.N.R. and the co-operation of both railways in several important measures. The control of rates to be charged and the other conditions under which services to the public were to be rendered by common carriers was placed in the hands of the Board of Transport Commissioners.

The Canadian railways played a vitally important part in the Second World War, at the outbreak of which they had 42,637 miles of single track or one mile



Top of the World. This engine, shown near Banff, Alta., is one of Canada's most powerful types of locomotive. It has a 78 p.c. tractive effort and can haul the heaviest, longest trains.

of line for each 264 persons. During the years 1940-45, facilities were taxed to the limit. Canadian industrial production, so greatly expanded to meet the demands of war, could not have been served by a transportation system adequate only to the needs of its peacetime economy. Canada's railway "problem" now became one of its greatest war assets. Freight traffic increased 110 p.c. in ton miles between 1939 and 1944. The upsurge of passenger traffic was even more phenomenal, increasing about 195 p.c. in the same period. As traffic increased, unit costs went down and it was proved that, given the traffic to carry, Canadian railways could pay their way.

Summary Statistics of Canadian Railways, 1928, 1933, 1938 and 1942-44

Year	Freight Carried One Mile	Passengers Carried ¹	Em- ployees	Gross Operating Revenues	Operating Expenses
	tons	No.	No.	\$	\$
1928.....	41,610,660,776	40,592,792	187,710	563,732,260	442,701,270
1933.....	21,092,594,200	19,172,103	121,923	270,278,276	233,133,108
1938.....	26,834,696,695	20,911,196	127,747	336,833,400	295,705,638
1942.....	56,153,953,000	47,596,602	157,740	663,610,570	485,783,584
1943.....	63,915,074,000	57,175,840	169,663	778,914,565	590,597,204
1944.....	65,928,078,992	60,335,950	175,095	796,636,786	634,774,021

¹ Duplications included.

The above table gives summary figures for all Canadian railways for the years 1928 (the high record for railways before the war years), 1933 (the low point of the depression), 1938 (the last full year before the outbreak of war) and 1942, 1943 and 1944.

Electric Railways.—The cheap and reasonably rapid conveyance of human beings is a necessity of modern urban life. In the cities of Eastern Canada, electric street railways are generally operated by private companies under city franchises, while in a considerable number of cities in Ontario and the west the street railways are owned and operated by the municipalities.

The single overhead-trolley system is used by all electric railways but Edmonton. Montreal and Winnipeg have begun using also a double overhead trolley and trackless trolley-buses. The number of electric cars operated in 1943 was 3,319, the number of buses 1,329 and trackless trolley-cars 41.

The number of passengers carried by electric railways in the years since 1939 showed an especially sharp rise over previous years due to the increased population in the larger cities where war industries were located and to the curtailment of passenger automobile traffic as a result of the War. The 1,177,093,883 passengers carried in 1943 amounted to by far the greatest traffic ever handled by these systems, the increase over 1942 being 18 p.c.

Roads and Highways.—Construction of roads suitable for motor traffic has been one of the principal items of provincial expenditure during the past twenty-five years. The Dominion Government has built roads in National Parks and has granted subsidies to the provinces, first in 1920 and again as an unemployment relief measure in 1930-39, but has not constructed any rural roads outside of Dominion lands.

The mileage at the end of 1943 was 124,906 miles of surfaced roads, and 427,697 miles of earth roads. Of the surfaced roads, 108,354 miles were gravel or crushed stone; 13,989 bituminous surfaces; 2,525 portland cement concrete.

The expenditures for 1943 amounted to \$65,094,997, including \$22,842,064 for construction of roads, \$2,036,697 for construction of bridges, \$34,603,578 for maintenance of roads, \$3,192,601 for maintenance of bridges, \$20,380 for footpaths and sidewalks, and the remainder for administration and general expenses.

Motor-Vehicles.—The number of motor-vehicles registered in Canada reached a peak of 1,572,784 in 1941, including 1,279,536 passenger cars, 278,771 commercial cars, and 14,477 motor-cycles. During the war years the number of commercial cars continued to increase advancing to 309,964 in 1944, including 302,611 trucks, 4,676 buses and 2,677 miscellaneous vehicles; motor-cycles also increased to 15,045. Passenger cars, however, declined each year to 1,177,558 in 1944 due to restrictions on the manufacturing of cars for private use and on tires and gasoline, inability to secure repair parts and shortage of garage mechanics. The average serviceable life of a passenger car was extended from 12 or 13 years in 1939 to over 15 years in 1944 and, on the basis of this extended life, it will be necessary to produce over 400,000 cars between January, 1945, and December, 1948 to replace cars that will be retired. If the average serviceable life is reduced to 12 or 13 years, the retirement will increase to over 600,000 cars, which will allow for no increase over the 1944 level of registrations. The Dominion Government

Heavy Traffic on Toronto's main thoroughfare will be relieved by the projected subway which is part of that city's plan for the post-war future. →





The wartime servicing of Canada's ocean-going shipping has required the building-up of Harbour Services on a wide front. Such services included the furnishing of derrick boats for the loading and unloading of heavy items of cargo such as the one shown loading a tug to the deck of a freighter.

guaranteed the provinces their 1941 revenues from the gasoline taxes and made up the differences by subsidies, but the loss in revenues from reduced registrations was not offset; it declined from \$31,559,944 in 1941 to \$30,584,711 in 1944.

Motor-Vehicles Registered in Canada, 1936-44

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada ¹
1936...	7,632	46,179	33,402	181,628	590,226	74,940	102,270	97,468	106,079	1,240,124
1937...	8,011	50,048	36,780	197,947	623,918	80,800	105,964	100,434	116,341	1,319,702
1938...	7,992	51,214	37,110	205,463	660,088	88,219	109,014	107,191	119,229	1,394,853
1939...	8,040	53,008	38,116	213,148	682,891	88,864	119,018	113,702	122,087	1,439,245
1940...	8,070	57,873	39,000	225,152	703,872	90,932	126,970	120,514	128,044	1,500,829
1941...	8,615	62,805	41,450	232,149	739,194	96,573	131,545	126,127	134,439	1,572,784
1942...	7,537	58,872	37,758	222,622	715,380	93,147	130,010	125,482	132,893	1,524,153
1943...	8,032	59,194	40,205	222,676	691,615	93,494	133,834	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	1,502,667

¹ Includes Yukon.

Shipping.—Canadian shipping is divided into two classes: (1) foreign service, and (2) coasting service. The first is subdivided into: (a) seagoing, i.e., between Canadian ports on the Pacific and Atlantic Oceans and on the St. Lawrence up to Montreal, including fishing at sea and at ports in other countries; and (b) inland, i.e., between Canadian and United States ports on the Great Lakes and connecting rivers. The second is service between Canadian ports, including fishing in Canadian waters.

Shipping statistics are collected only from ports at which there is an official of the Customs and Excise Division of the National Revenue Department, and consequently do not include shipping on Mackenzie River, Lake Winnipeg, etc.

TRANSPORTATION

Vessels Entered at Canadian Ports, 1936-44

Fiscal Year	Foreign Service ¹		Coasting Service		Totals	
	No.	Tons Register	No.	Tons Register	No.	Tons Register
1936	37,800	41,746,953	69,809	42,979,361	107,609	84,726,314
1937	41,755	45,030,914	73,033	45,973,830	114,788	91,004,744
1938	42,582	45,603,055	75,537	44,471,834	118,119	90,074,889
1939	43,601	44,775,116	73,386	45,386,457	116,987	90,161,573
1940	46,241	46,666,396	78,212	44,361,232	124,453	91,027,628
1941	25,122	32,579,900	79,951	50,471,166	105,073	83,051,066
1941 ²	26,203	31,452,400	77,592	48,111,082	103,795	79,563,482
1942 ²	24,006	25,640,763	73,366	43,990,764	97,432	69,631,527
1943 ²	22,901	26,315,562	65,066	40,300,778	87,967	66,646,340
1944 ²	23,786	28,356,081	64,999	43,776,497	88,785	72,133,178

¹ Sea-going and inland international.

² Calendar year.

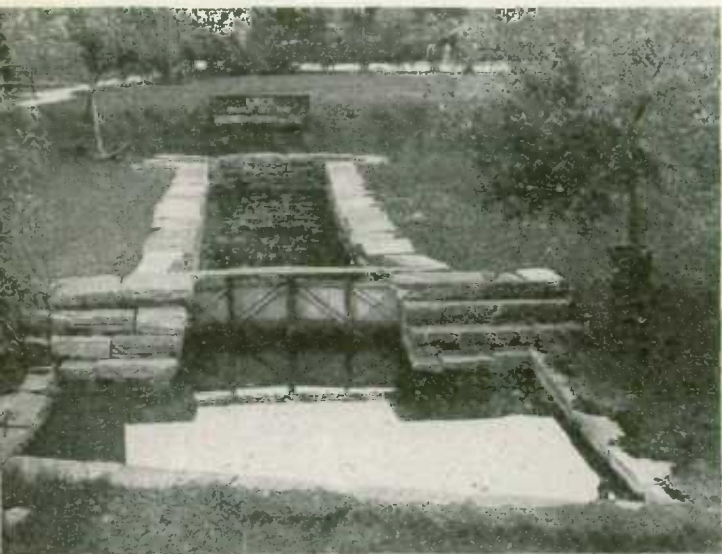
Harbours.—Facilities provided for the co-ordination of land and water transportation at Canada's many ports include docks and wharves, warehouses for general cargo, cold-storage warehouses, harbour railway and switching connections, grain elevators, coal bunkers, oil storage tanks and, in the chief harbours, dry-dock accommodation. Eight of the principal harbours—Halifax, Saint John, Chicoutimi, Quebec, Three Rivers, Montreal, Vancouver and Churchill—are administered by

The Waterfront, Vancouver, B.C.



the National Harbours Board, seven others by commissions that include municipal as well as Dominion Government appointees, and the remainder by harbour masters directly under the authority of the Department of Transport.

Canals.—There are six canal systems under the Department of Transport, namely: (1) between Fort William and Montreal, (2) from Montreal to the International Boundary near Lake Champlain, (3) from Montreal to Ottawa, (4) from Ottawa to Kingston, (5) from Trenton to Lake Huron, and (6) from the Atlantic Ocean to Bras d'Or Lakes in Cape Breton. These canals have opened to navigation



St. Mary's River Rapids was, in the early days, the great barrier to transportation between the lower lakes and Lake Superior. The difficulty was surmounted by the Northwest Fur Company through the creation of a small bateau and canoe lock—38' long and 8' 9" wide with a lift of 9'—built of timber in 1796. This lock was destroyed in 1814 by U.S. troops but was subsequently restored in stone. The present Soo Canal is 1.38 miles long and the locks have a length of 900', a width of 60' and a depth of 18-25'.



from the Atlantic about 1,890 miles of waterways. Under the Department of Public Works or other authority are minor canals and locks that facilitate local navigation.

The Great Lakes and St. Lawrence River form one of the busiest waterways in the world. More traffic passes up and down the Detroit River than any other waterway and the traffic through the canals at Sault Ste. Marie, Ont., in 1929 reached a peak of 92,616,898 tons, more than through the Panama and Suez Canals combined. Due to heavy war requirements for iron ore this margin was increased to a new peak of 120,200,814 tons in 1942 and 117,237,862 tons in 1944.

The maximum draught of vessels plying between the lakes is governed by channels in the Detroit and St. Mary's Rivers, and is limited to about 21 feet. Since 1932 when the New Welland Ship Canal, with 25 feet in the stretches between locks (the locks have 30 feet of water above the sills), was opened, larger upper-lake vessels have passed down as far as Prescott. The St. Lawrence canals have a depth of 14 feet (reduced in periods of low water) so that ocean vessels, except of small tonnage, cannot sail up into the lakes; a few such vessels have been engaged in the Great Lakes traffic for several years, bringing cargoes from European ports.

Canadian Scheduled Air Transport Services.—*Government Air Policy.*—In a statement in the House of Commons on Apr. 2, 1943, the Prime Minister made it clear that, in the international field, Canadian support would be given to any reasonable proposal for international control in the interests of peace in the post-war years. In the domestic field he stated that Trans-Canada Air Lines would "continue to operate all transcontinental systems and such other services of a mainline character as may from time to time be designated by the government" and that Trans-Canada was "the sole Canadian agency which may operate international air services". He stated that secondary services would be left to private enterprise, but made it clear that no competition would be permitted either between a private company and a publicly owned company, or between two private companies.

On Mar. 17, 1944, the Minister of Munitions and Supply, who is the responsible minister for air, further elaborated Government policy by stating that the railways would be required to divest themselves from the control of airways within one year after the end of hostilities in Europe. He further stated that the establishment of new air routes would be deferred until the men returning from overseas were able to participate in forming them.

The Aeronautics Act was amended making provision for the establishment of an Air Transport Board (in lieu of the Board of Transport Commissioners) to advise the Minister on questions of general policy in connection with air transport, to investigate and recommend the establishing of new air routes and to licence all commercial air-transport services.

The Government air policy was advanced another step on Oct. 22, 1945, when a bill was introduced into the House of Commons by the Minister of Munitions and Supply which was designed to amend the Trans-Canada Air Lines Act by increasing the capital from \$5,000,000 to \$25,000,000 and to provide authority to create corporations to operate and maintain air services under contract with Trans-Canada Air Lines, such corporations to be controlled by Trans-Canada Air Lines. Provision was also made for the payment of subsidies to such corporations for efficient service and during initial operation until sufficient traffic develops.

The various Empire and international conferences on aviation at which Canada participated during 1944-45 were: Commonwealth Air Convention, Montreal, October, 1944; International Civil Aviation Conference, Chicago, November-December, 1944; Commonwealth Air Transport Council, London, July, 1945; Provisional International Civil Aviation Organization, Montreal, August, 1945.

Trans-Canada Air Lines.—An extensive article on the scope and expansion of Trans-Canada Air Lines which has been designated by the Government as the service to fly transcontinental, international and overseas routes, will be found at pp. 15-27. Trans-Canada Air Lines is now operating over a total of 5,299 miles of air routes in Canada and to New York and to Newfoundland, and 3,030 miles across the Atlantic between Montreal and Prestwick, Scotland. This latter service is operated for the Department of Transport.

Canadian Pacific Air Lines.—Canadian Pacific Air Lines consolidated into one organization a number of independent commercial operators which had been chiefly engaged in servicing the mining industry in northern Canada. With the cessation of hostilities it is anticipated that there will be a definite movement toward further development of Canada's northern mineral belt. Canadian Pacific Air Lines now control the operation of Canadian Airways Limited, Arrow Airways Limited, Ginger Coote Airway, Prairie Airways, Mackenzie Air Services, Yukon Southern Air Transport Limited, Dominion Skyways Limited, Quebec Airways, Wings Limited, Starratt Airways and Transportation Company.

There was considerable expansion in airways development during the war years in northwestern and northeastern Canada to provide the necessary transportation for essential personnel and cargo carried in connection with vital continental establishments. Completion of the main construction projects in northwestern Canada in 1944 resulted in certain curtailment in mail and express traffic, while movement of released personnel accounted for further increases in passenger business.

The component companies of Canadian Pacific Air Lines flew approximately 5,985,000 revenue miles in 1944. This compares with nearly 6,134,000 miles in 1943 and approximately 5,300,000 miles in 1942. Freight express and mail carried totalled 9,463,595 lb. in 1944 as compared with 11,736,246 lb. in 1943, and approximately 10,000,000 lb. in 1942. Passengers carried totalled 104,166 in 1944, 72,602 in 1943 and approximately 60,000 in 1942.

It is estimated that 90 p.c. of the Company's business during the past few years was devoted to war purposes. "Bush" services were maintained in all important areas and the reduction in activity due to the decline in gold mining was compensated for by increased search for essential war minerals.

To meet increasing priority traffic, more efficient and larger twin-engined aircraft were made available to the different essential northern routes replacing the smaller equipment formerly used. Up-to-date air navigation facilities were provided and every effort was made to bring such services up to mainline standards.

Participation of Canadian Pacific Air Lines Limited, in the British Commonwealth Air Training Plan was reduced during 1944 by the closing down of two air training schools, in accordance with Government policy. The remaining schools were closed in 1945, together with overhaul plants operated for the Department of Munitions and Supply.

TRANSPORTATION

Independent Air Lines.—Although many of the principal operating companies have been absorbed by C.P.A., there still remain independent organizations in this field. Typical of these are Maritime Central Air Lines which operates a mail, passenger and express service between Moncton, Saint John, Blissville, Summerside, Charlottetown and New Glasgow; the M. and C. Aviation Company, which at present operates a licensed air-mail, passenger and express service from Prince Albert to northern Saskatchewan points.

Passengers carried by aircraft increased from 133,776 in 1939 when the Trans-Canada service was being organized to 386,719 in 1944. Passengers between Canada

A Douglas DC-3 aircraft, ten of which are now in service on the inter-city routes of T.C.A. In addition to 31 passengers and their baggage and a crew of 3, each plane is capable of carrying 800 lb. of cargo and 544 gal. of fuel at a speed of more than 180 miles an hour.





Toronto Morse Room on Election Day, showing operators sitting on each side of the movable belt which conveys messages as soon as they are received to the distribution centre. Such peak rush periods require a co-operative effort in the common cause of speed and accuracy of handling

and the United States exclusive of through passengers between Alaska and the United States increased from 15,456 in 1939 to 133,491 in 1944. Mail ton-miles also increased from 433,349 in 1939 to 2,071,847 in 1944.

Telegraphs.—Six telegraph systems are operated in Canada, four in conjunction with the railways, one by the Dominion Government and one small system that is owned and operated independently. One United States company operates lines across Canadian territory; one private Canadian company operates a wireless system; and three cable companies, in addition to the telegraph companies, operate cables from Canadian stations. In all, 22 cables are operated between Canada and England, Azores, Australia, New Zealand, Newfoundland, St. Pierre and Miquelon, and Bermuda, and 2 cables between North Sydney and Canso, N.S.

These systems operate 378,931 miles of telegraph wire in Canada, 5,419 miles outside of Canada, and 894 nautical miles of submarine cable between Canada and other countries. Multiple circuits normally produce 689,621 miles of channels for telegraphic use. During 1944 a total of 16,469,564 telegrams and 2,713,233 cablegrams, excluding messages between foreign countries, were handled by these systems.

Telephones.—There were 3,187 telephone systems in Canada in 1943, operating 6,057,880 miles of wire and 1,692,162 telephones. The estimated number of conversations during the year was 2,979,794,000 or 1,761 per telephone. The transfer from manually operated telephone switchboards to automatic has continued although it has been somewhat restricted by scarcity of equipment since

1941. In 1943, 57 p.c. of all telephones were dial telephones; 78 p.c. of these were in urban centres of over 10,000 population.

National Radio.—Expansion in broadcasting and in broadcasting facilities, both at home and internationally, marked Canadian radio in 1945. Though there was a slight decrease in the domestic purchase of radio receiving licences—owing to wartime disturbance of living conditions and the scarcity of new receiving sets on the market—listener research indicates that there was also a steadily increasing audience for entertainment, news, discussion, and for adult and school educational programs.

The control of national broadcasting is vested in the Canadian Broadcasting Corporation, which succeeded the Canadian Radio Broadcasting Commission in November, 1936. The Corporation operates under the Canadian Broadcasting Act, 1936, by which it is given regulatory powers over all broadcasting stations in Canada.

The Board of Governors of the CBC consists of nine members, appointed for three years, in rotation, to act as "trustees of the national interest in broadcasting". They are responsible for the policies of the Corporation, and for guaranteeing to the public that broadcasting will be administered in a non-partisan and business-like manner. The CBC is responsible to Parliament through a Minister of the Cabinet.

Transmission Facilities.—Of the 97 standard band stations in Canada, 11 are owned and operated by the CBC, and 86 are privately owned. All but three of the latter are operated on a commercial basis, these being two educational stations and one leased and operated by the CBC. Four of the CBC-owned stations have 50,000-watt transmitters: CBA, Sackville; CBF, Montreal; CBL, Toronto; and CBK, Watrous. Supplementing these, and serving other parts of the Dominion, are: CBH, Halifax; CBV, Quebec; CBJ, Chicoutimi; CBM, Montreal; CBO, Ottawa; CJBC, Toronto; and CBR, Vancouver.

Since early in 1944 Canadian listeners have been able to obtain alternative radio fare over two CBC coast-to-coast networks—the Trans-Canada and the Dominion—which replace what was formerly called the National network. The French network of the CBC operates in the Province of Quebec. The networks are made up of CBC stations and privately owned affiliated stations in all parts of the country. The Trans-Canada has a maximum outlet of 54 stations; the Dominion a maximum of 31; and the French network a maximum of 11. For occasions of national moment, the three networks are joined to form the National network. It is estimated that network service now reaches 90 p.c. of the radio homes in Canada.

In addition to operating these facilities, the CBC has pioneered in the development of low-powered repeater stations which operate automatically with the network in remote areas of the Dominion.

Overseas Technical Operations.—During 1944 and 1945 the CBC continued to operate four mobile units overseas with a staff of six engineers. Two of these units accompanied the Canadian Forces in the invasion of Normandy, and a unit which had been in Italy accompanied the Canadian Forces to the northern European theatre early in 1945. Some assistance was also given at the request of the Department of National Defence in the matter of establishing suitable camp listening facilities

in the United Kingdom and Europe, so that programs broadcast from the CBC International Service short-wave transmitters at Sackville, N.B., could be readily received. Two CBC engineers have been seconded to this service to assist in the establishment of camp broadcasting facilities in the United Kingdom and in Europe, these facilities to be employed in rehabilitation camps and in areas where Canadian Forces of occupation are located.

New Construction.—At Halifax, additional studio and office accommodation was provided, as well as a new transmitter (CBH). In Quebec City, studios were provided in the Palais Montcalm to accommodate the programming activities of CBV. In Montreal new studios were constructed on Crescent Street to house the programming activities of the International Service. Also in Montreal, a frequency modulation station (VE9FM), Canada's first FM station licensed to carry regular programs, was placed in operation on an experimental basis. Additional transmitters are now on order so that, within the next year, it is expected that several Canadian cities will be provided with FM service. At Toronto, the CBC studios and offices as well as the workshop and garage facilities were consolidated in one building on Jarvis Street, in the space formerly occupied by the R.C.A.F. The premises include several buildings, all of which have been put to use as studios and offices.

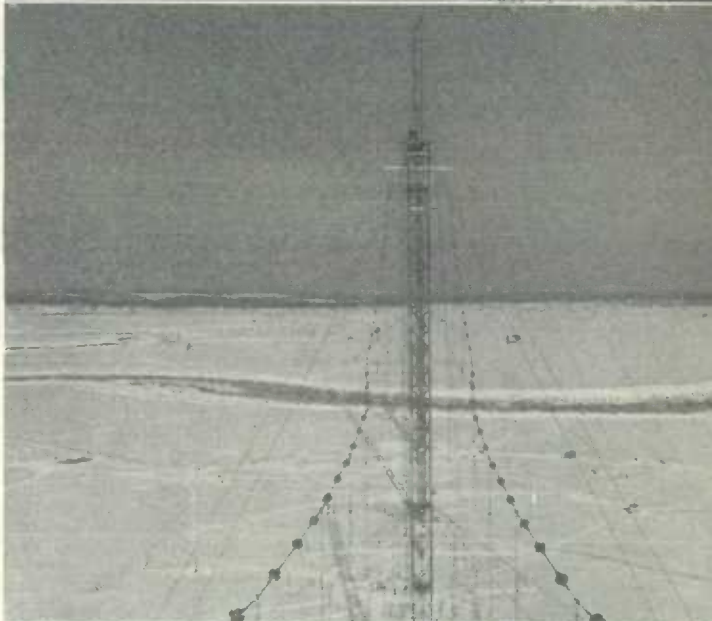
The short-wave project at Sackville commenced experimental operations in December, 1944, and formal operations in February, 1945. The service at the outset was limited to Europe for serving the Canadian Forces abroad but by September, 1945, this service had been extended in other directions, including South Africa, South America, New Zealand and Central America. In all, at Sackville, there are two 50,000-watt transmitters (CHTA and CHOL) and twenty-two antennae. Five are directed to Europe, with five in the reverse direction to South America and New Zealand. Three are directed to South America, three to South Africa and, in the reverse direction, three to Australia. Reports received from the BBC and from other observers throughout Europe, have indicated that the service generally from Sackville is highly satisfactory and that the CBC, through its Sackville station, is providing the strongest signal in Europe from the American Continent. Good reports are also being received from New Zealand, South America and South Africa.

Programs.—The total number of programs presented in Canada during the year ended Mar. 31, 1945, amounted to 54,962 representing 16,647 hours of broadcasting on the Trans-Canada, Dominion and French networks. This constitutes an appreciable increase in broadcasting, reaching the unprecedented height of 45.40 average hours of broadcasting, during the 16-hour daily schedule. This shows an increase of more than two hours daily over the 1943-44 daily average, which was the previous peak. The increase was effected mainly by the scheduling of additional commercial and sustaining program service on the Dominion network.

The high daily average of broadcasting hours has been brought about through the practice of presenting sustaining network service on a regional basis and scheduling delayed broadcasts in place of the simultaneous release of a given program on a national basis. Regional service makes possible the reception of specialized programs, designed for a specific audience, and delayed broadcasts achieve the end of presenting service at the most appropriate time to listeners in each of Canada's

**CANADA'S SHORT-
WAVE TRANSMIT-
TING FACILITIES—
THE MOST MODERN
IN NORTH AMERICA**

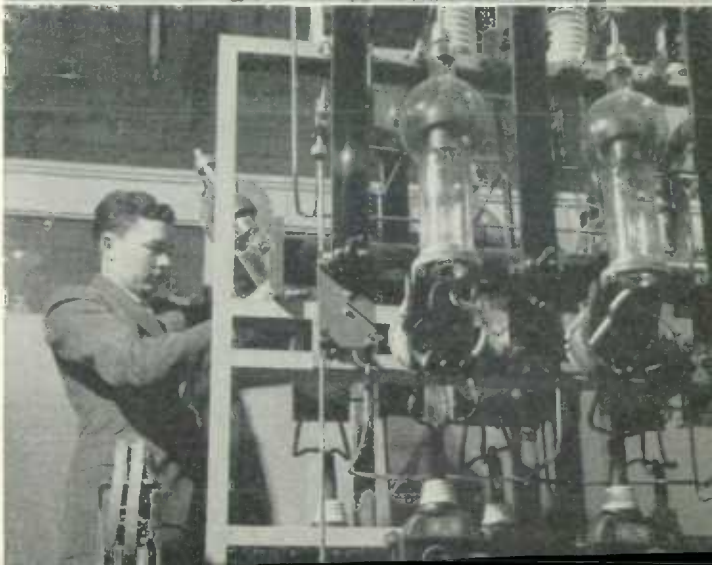
With the opening of this short-wave international service on Feb. 25, 1945, Canada embarked on a program designed to develop good relationships by means of the radio with the countries of the world. The studios are in Montreal from where programs in five languages are sent by telephone wires to the transmitters near Sackville, N.B., there to be broadcast from the complicated web of steel and cable forming the antennae system to listeners in Europe. This service has now been extended in other directions including South Africa, South America, New Zealand and Central America.



Top: The shortwave transmitter building near Sackville, N.B., housing, in its million cubic feet, two 50-kilowatt short-wave transmitters and their associated equipment.

Centre: Steel towers ranging up to 380 ft. in height, hold aloft the unique antennae system; they are built to withstand a 120-mile-an-hour gale.

Bottom: Replacing a rectifier tube in the transmitter station.





The "Singing Stars of Tomorrow" Contest — a program designed to encourage young amateur singers of talent. The winner of the 1944-45 contest is shown singing in the final broadcast to the accompaniment of the orchestra conducted by an eminent Canadian musician-conductor.

five geographical time zones. Both practices are obligatory for such sustaining program service as agricultural, educational, children's, homemaker's and news as well as on the subsequent rebroadcasting of important overseas programs. The system is sometimes followed also in the commercial field but to a much lesser extent. Sustaining service on the regional system is followed more fully on the Trans-Canada network than on the Dominion network. The former operates with five-sixths of its service on a regional basis and one-sixth on a national, whereas two thirds of Dominion network operations are scheduled on a national basis. This is because the Dominion network operates almost exclusively in peak listening hours and hence there is no need to ensure reception through the setting up of regionalized network sections.

In addition to its own programs, the CBC brings listeners outstanding programs from the BBC and from the four American broadcasting chains. There was an increase in the importation of BBC-originated programs during the past program year, but a decrease in exchange programs from the United States, due to the increase in the American networks' commitments to troop and public-service broadcasts, which were directed almost exclusively to American audiences.

CBC and the War.—So much had the prosecution of the War—and in the past year, the preparation of peace plans—become identified with every aspect of Canadian life during recent years that, in making the distinction between direct war broadcasting and general programming, CBC has continued each year to eliminate many of its sustaining war programs from the war category. Those listed as having direct bearing on the war, up until the ending of hostilities in Europe and the Pacific, ranged from hundreds of talks by political and military leaders

to special battle despatches from CBC correspondents abroad, and on through farm, music and variety programs that carried war effort appeals to the people of Canada. Prominent among the broadcasts concerned with re-establishment, which have been presented both before and after the coming of peace in August, 1945, have been special discussion forums by service personnel overseas, discussion by leading citizens at home, special talks, comedy, and variety programs on reconversion matters affecting all Canada.

Broadcasting CBC News.—The CBC news service is available to all radio stations in Canada to which there are land lines. Private stations may release the CBC news service only on a sustaining, non-sponsored basis. Newsrooms are maintained by the CBC at Halifax, Montreal (which provides news in both English and French), Winnipeg and Vancouver, with a central newsroom at Toronto. The Canadian Press and British United Press both provide full news services to the CBC, while reports are picked up by CBC short-wave listening-posts at Ottawa, Dartmouth, N.S., and Hornby, Ont., and are also received from CBC correspondents overseas. The CBC pays for its news service from CP and BUP, but rewrites the bulletins for radio consumption, incorporating items of unusual interest from the other sources mentioned.

The Post Office.—Wartime conditions brought a continuing and enormous expansion of postal business of all kinds throughout Canada; war industries, governments, and private citizens utilized postal facilities as never before. This is revealed by the gross postal revenue, which increased from \$42,896,179 in the fiscal year 1938-39 to \$79,533,903 in 1944-45. In the latter year, the Base Post Office despatched overseas the record volume of over 38,048,524 lb. of parcels, 864,077 lb. of letters and 1,487,841 lb. of news to the fighting services. During that year, postal service to many European countries—France, Belgium, the Netherlands, Greece, Italy, etc.—disrupted early in the War, was restored, at first on a restricted scale and then gradually expanded. Money orders to the amount of \$281,890,290 payable in Canada and \$5,185,578 payable in other countries were issued in 1944-45, together with postal notes to the value of \$27,381,372.

Air Mail.—The trans-Canada air-mail system operates several times daily each way from the Atlantic to the Pacific over some 3,900 miles and air-mail volume continues to increase; over 328,707 lb. was carried during March, 1945. Swift connections are made with the United States and other air-mail networks of the world. Canada's expanding use of the air-mail services is reflected in the following figures:—

<i>Year Ended Mar. 31</i>	<i>Miles Flown</i>	<i>Mail Carried</i>
	<i>No.</i>	<i>lb.</i>
1939	3,711,987	1,822,399
1940	5,769,257	2,351,172
1941	8,330,121	2,842,367
1942	10,021,579	3,541,625
1943	10,798,670	5,373,021
1944	12,799,218	7,220,554
1945	13,581,053	8,224,230

Record quantities of mail were speeded overseas during 1944-45 by special R.C.A.F. and R.A.F. transatlantic aircraft and by the Canadian Government Transatlantic Air Service, which was notably expanded.

Labour—Employment and Unemployment

Labour Legislation

Federal and Provincial Powers.—Most labour laws have been enacted by the provinces as they relate to such civil rights as freedom of contract or freedom of association or to local works and undertakings, subjects which, with the exception of certain specified works, railways, shipping, telegraphs and other works extending beyond the boundary of a province, are, under the British North America Act, reserved to the provinces. In all provinces, except Prince Edward Island where there is little industrial employment, there are laws for the inspection of mines, factories, shops and other work-places and the regulation of wages, hours of work, the employment of women and children, apprenticeship and workmen's compensation. Laws have been enacted also to protect freedom of association, to require employers to bargain with the representatives of employees or of trade unions and to prohibit any strike or lockout until after inquiry. Prince Edward Island in 1945 enacted statutes to prohibit child labour under 15 years in industry and to promote collective bargaining.

The Dominion regulates the working conditions of its own employees, provides compensation for them in case of accident occurring in the course of employment and requires observance of specified wage-and-hour conditions in the execution of Dominion public works and of contracts for supplies. There are federal laws relating to employment on railways and in the mercantile marine and, under its power over criminal law, Parliament enacted legislation freeing trade unions from liability to prosecution as conspiracies in restraint of trade, permitting peaceful picketing, and prohibiting employment on Sunday except under certain conditions. In 1940, following amendment of the B. N. A. Act, a statute was passed providing for a national system of unemployment insurance and of employment offices (see p. 139).

The Dominion and the provinces have co-operated to enable the former to deal with certain classes of labour disputes under the Industrial Disputes Investigation Act, to promote vocational education and training with the aid of Dominion funds, and to facilitate the administration of the wartime policies concerning collective bargaining and industrial disputes and the stabilization of wages.

In 1900 a Dominion Department of Labour was established to aid in improving labour conditions and in settling disputes through mediation and the dissemination of information. The Minister of Labour is charged with the administration of the Fair Wage Policy for Government contracts, the Industrial Disputes Investigation Act, Government Annuities Act, Combines Investigation Act, Vocational Training Co-ordination Act, Unemployment Insurance Act and Re-instatement in Civil Employment Act. Information on the operation of these statutes is given in the annual reports of the Department and of the Unemployment Insurance Commission and also in the *Labour Gazette*, published monthly by the Department of Labour.

Departments of Labour in all provinces, except Alberta and Prince Edward Island, administer most provincial labour laws, but workmen's compensation is usually in charge of an independent board. In Alberta the Department of Trade and Industry, through the Board of Industrial Relations, deals with wages and hours legislation and the Department of Public Works with factory inspection.



The assembling and wiring of to-day's intricate control boards demands the services of skilled craftsmen.

In all provinces, laws for the protection of miners are administered by Departments of Mines.

War Regulations.—Certain wartime labour problems have been dealt with by the Dominion Government through Orders in Council under the War Measures Act. A declaration of principles for the conduct of industrial relations in wartime was embodied in an Order in Council. The Industrial Disputes Investigation Act was extended to war industries and provision was made for preliminary inquiry into disputes by commissioners with a view to settlement, if possible, without recourse to the appointment of a board of conciliation and investigation. In 1944, the Dominion Wartime Labour Relations Regulations were put in force. They suspended the operation of the Industrial Disputes Investigation Act, require employers to negotiate with the representatives of their employees or of trade unions and prohibit certain unfair practices. (See p. 134.)

The Government's anti-inflationary policy, initiated at the beginning of the War, includes the control of profits, prices, salaries and wages. In its application to wages, it has been revised from time to time. The Wages Control Order, 1943, prohibits increases or decreases in wage-rates except with the permission of the administrative authorities. (See p. 132.)

The controls imposed on employers and labour by the National Selective Service Regulations are being gradually relaxed. (See p. 141.) The War Emergency Training Program has been converted into a Re-establishment Training Program and increased grants have been made for training men discharged from the Armed Forces and for apprenticeship. (See p. 142.) Persons discharged from the Armed Forces must be reinstated in their former jobs and other steps have been taken to assist demobilized men and women and those released from war industries to secure employment.

Wages and Hours of Labour

Control of Wages.—One phase of the Government's general anti-inflationary program—the stabilization of wages—was first introduced in 1940, but at that time, though it was recommended for all employers, it applied only to Boards of Conciliation and Investigation in their recommendations on wages. In the autumn of 1941, when comprehensive price control was introduced, wage and salary increases and wage reductions were prohibited over the whole field except with the permission of the administrative authorities. In July, 1942, wage rates were stabilized at the level in effect on Nov. 15, 1941, and provision was made for a cost-of-living bonus adjusted to changes in the cost-of-living index. Rates which were unduly low could be raised. A National War Labour Board and nine Regional War Labour Boards administered the Order.

The Wartime Wages Control Order was revised in December, 1943, and further amendments were made early in 1944. The principal changes provided for incorporating the cost-of-living bonus in the wage rate and empowered the National Board to authorize or direct an increase in rates only where necessary to remedy a gross injustice or inequality. Increases may be granted, however, in cases where, and to the extent that, any cost-of-living bonuses and wage increases granted since August, 1939, have not yielded the employees as much as the full standard cost-of-living bonus and also to maintain the relationship between wage-rates of employees in international railway service outside Canada, where it has been the custom to fix rates in Canada in relation to those outside. A further change in the Order permits an employer to increase a rate to that fixed by a provincial minimum-wage authority, pursuant to provincial legislation, up to a rate as high as 35 cents an hour or any higher rate in effect on Nov. 15, 1941.

Wage Rates.—The following table shows wage rates in the main industrial groups for five-year periods from 1901 to 1935 and by years from 1935 to 1944. These rates have been calculated on the base 1939 = 100, and replace the rates based on 1935-39 = 100 formerly published.

Index Numbers of Wage Rates for Certain Main Groups of Industries, 1901-44
(1939 = 100)

Year	Con- struc- tion	Water Trans- porta- tion	Elec- tric Rail- ways	Steam Rail- ways	Coal Mining	Metal Mining	Manu- fact- uring	Logging	Laund- ries	Tele- phones	General Average
1901	35.3	43.9	32.8	33.7	47.4	61.2	—	51.4	—	—	38.1
1905	42.8	44.7	37.7	36.5	49.5	58.7	—	57.0	—	—	43.1
1910	50.9	48.4	44.0	44.1	54.0	62.5	—	64.0	—	—	49.9
1915	59.4	54.0	50.2	49.8	58.7	66.2	50.1	61.1	47.5	—	53.2
1920	106.0	105.2	99.7	108.2	113.3	102.9	102.4	142.5	88.2	92.2	107.0
1925	99.8	90.4	96.4	91.2	96.1	93.3	92.3	95.2	99.0	89.1	93.8
1930	119.1	97.2	102.3	100.0	97.1	93.9	95.5	97.5	102.0	94.7	99.9
1935	93.6	81.1	94.3	90.1	95.0	92.6	87.0	72.1	96.6	93.0	88.4
1936	94.2	82.4	95.2	90.1	95.1	94.9	89.1	80.9	97.1	93.8	90.0
1937	96.9	92.0	97.8	96.0	95.6	99.1	96.1	93.9	98.3	98.5	96.7
1938	99.2	99.1	99.4	100.0	100.0	99.6	99.2	101.8	99.7	99.7	99.6
1939	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1940	104.5	105.2	104.9	100.3	102.1	102.8	104.3	104.9	105.4	101.3	103.9
1941	111.6	113.3	110.1	104.9	109.4	112.2	115.2	114.0	110.5	106.4	113.1
1942	118.6	125.8	114.9	113.0	113.1	118.7	125.5	125.9	116.5	112.0	122.5
1943	127.7	137.3	122.4	124.4	124.8	123.1	135.6	143.1	127.3	121.9	132.8
1944	129.6	140.7	127.6	124.4	146.0	125.2	141.1	144.7	128.9	122.4	137.5

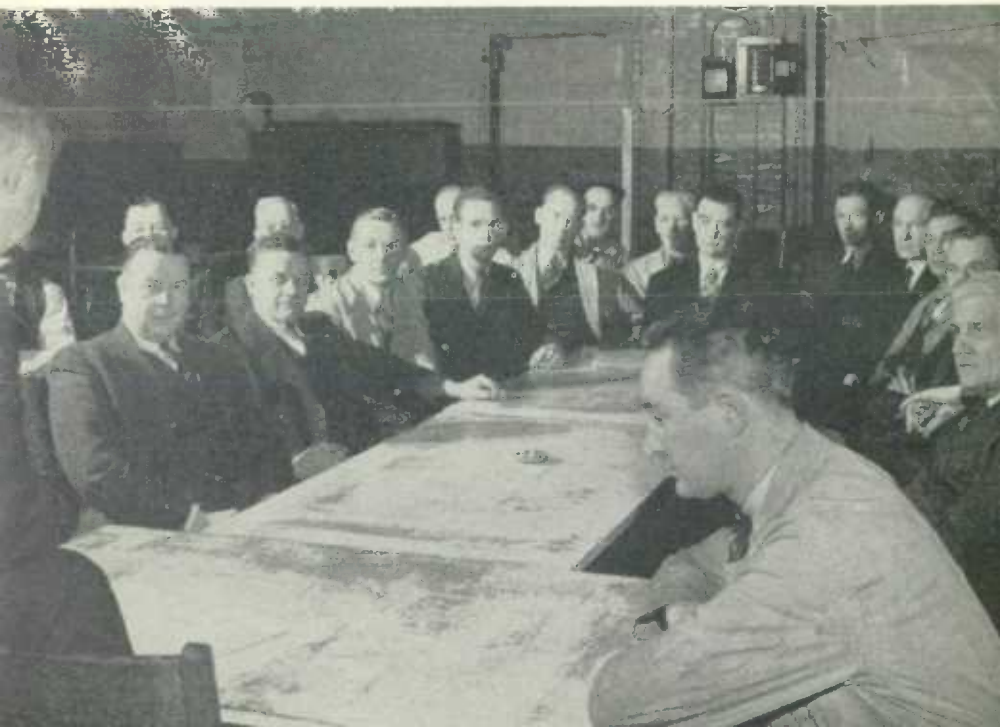
Hours.—In 1944 the standard working hours in manufacturing were usually 48 to 54 per week in textile mills, 44 to 48 in clothing factories, 48 in pulp and paper mills, 44 to 55 in paper-products factories, 47 to 55 in woodworking plants, 44 to 60 in metal-products plants and in shipyards, 45 to 55 in boot and shoe factories, and 37½ to 55 in rubber factories. The 8-hour day prevailed in construction in cities, on steam railways and in mining. The 10-hour day is common in logging, except in British Columbia where the 8-hour day is generally standard.

Organized Labour in Canada

Trade unions in Canada are divided into four principal groups; those affiliated with the Trades and Labour Congress; those affiliated with the Canadian Congress of Labour; those unions in the Province of Quebec which are linked with the Canadian and Catholic Confederation of Labour; and the railroad brotherhoods of men in train and engine service. The railroad brotherhoods and many of the unions affiliated with the two Congresses are "international unions" in the sense that they have branches in Canada and the United States and, in some cases, in Newfoundland, Mexico, Panama or the Philippines.

In December, 1944, there were 724,188 trade union members reported to the Department of Labour, an increase of 59,655 over 1943. The number of branches of unions and of local unions was 4,123, a gain of 388 during the year. Newly organized locals rather than the growth of organizations already established accounted for a considerable portion of the increased membership in 1944. By far

Labour-Management Co-operation is proving of immense value in increasing the efficiency and the working conditions in industrial plants.



the greatest gain in the number of new branches was in the services group. The metals group also showed a marked increase in the number of locals, although total membership in this group decreased from 199,487 in 1943 to 193,376 in 1944.

The Trades and Labour Congress reported a paid-up membership of 246,791 in 1944. The Canadian Congress of Labour reported a membership of approximately 250,000 and the Canadian and Catholic Confederation of Labour, 65,249.

Industrial Disputes

For the first eight months (January to August) of 1945, preliminary figures showed 128 strikes and lockouts, involving 44,349 workers and causing a time-loss of 170,193 man-days. During the corresponding period in 1944 there were 157 strikes and lockouts, involving 66,509 workers with a time-loss of 464,594 days. The lowest time-loss since the record was begun in 1901 was in 1930 when 91,797 days were lost during the year in 67 disputes involving 13,768 workers. The highest occurred in 1919 when 336 strikes and lockouts involved 148,915 workers and caused a loss of 3,400,942 man-days.

Wartime Labour Relations Regulations.—Early in 1944 the Wartime Labour Relations Regulations, designed to facilitate collective bargaining and to settle disputes, were approved by an Order in Council (P.C. 1003) under the War Measures Act. The Regulations suspended the Industrial Disputes Investigation Act and established machinery for certifying employees' representatives for collective bargaining and for adjusting differences.

The Regulations apply to industries of a national or interprovincial character which are ordinarily within the jurisdiction of the Dominion Parliament, such as transport and communication agencies. They also apply to Crown companies engaged in the manufacture of war supplies, to the National Harbours Board, and to specified war industries. The Regulations are administered by the Wartime Labour Relations Board (National) and six Provincial Boards representing equally employers and employed. The latter Boards were established by agreement between the Dominion Minister of Labour and the Governments of Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick and Nova Scotia. In British Columbia the Regulations are administered by the Provincial Minister of Labour. Industries other than those mentioned may be brought within the scope of the Regulations by provincial legislative action, and this has been done in British Columbia, Manitoba, New Brunswick, Nova Scotia and Ontario.

Bargaining representatives may be certified by the appropriate Board on election by the employees concerned or on election or appointment by a trade union. Either the employer or the employees' representatives may give notice of the desire to negotiate an agreement, but both parties must negotiate in good faith in an effort to arrive at an agreement. If an agreement cannot be reached within 30 days, either party may apply to the appropriate Board for assistance and, at the Board's request, the Dominion Minister of Labour may assign a Conciliation Officer to aid the parties in reaching an agreement. Should the Conciliation Officer fail to effect a settlement, on his recommendation, a Conciliation Board may be appointed by the Minister.

A strike or lockout is prohibited throughout the entire period of the various stages of negotiation and conciliation and until 14 days after the parties have received the report of the Board of Conciliation.

Female Workers cleaning anode cells in an electrolytic tank-room of a mining and smelting company. The shortage of labour in the war years necessitated the use of women in even the heavier industries.



Certain unfair practices are forbidden by the Regulations, for example, interference by an employer with the affairs of a trade union or employees' organization, refusal to employ a person because of his membership in a trade union or employees' organization, and intimidation of a worker into joining or refraining from joining a trade union or employees' organization.

From Mar. 20, 1944, when the Regulations became effective, to Sept. 8, 1945, the National Board received 289 applications for certification of bargaining representatives. Of these, 170 were granted, 24 were referred to Provincial Boards, 34 rejected, 36 withdrawn by the applicants and 4 were dropped. The remaining cases are before the Board. In the same period the Board ordered 52 representation votes to be taken. There were 70 appeals to the National Board, or applications for leave to appeal, from decisions of Provincial Boards. Sixteen appeals were granted; 39 were denied and withdrawn, and 2 applications for leave to appeal were refused. The remaining appeals are before the Board.

In the same period, the six provincial Wartime Labour Relations Boards and the British Columbia Minister of Labour received 2,509 applications for certification and granted 1,641, rejecting 202; 94 applications were withdrawn. The agencies ordered 162 representation votes.

Unemployment in Trade Unions

Statistics are tabulated by the Department of Labour from reports of trade unions showing the unemployment among their members. At the close of June, 1945, reports from 2,238 labour organizations, of which the total membership was

CANADA 1946

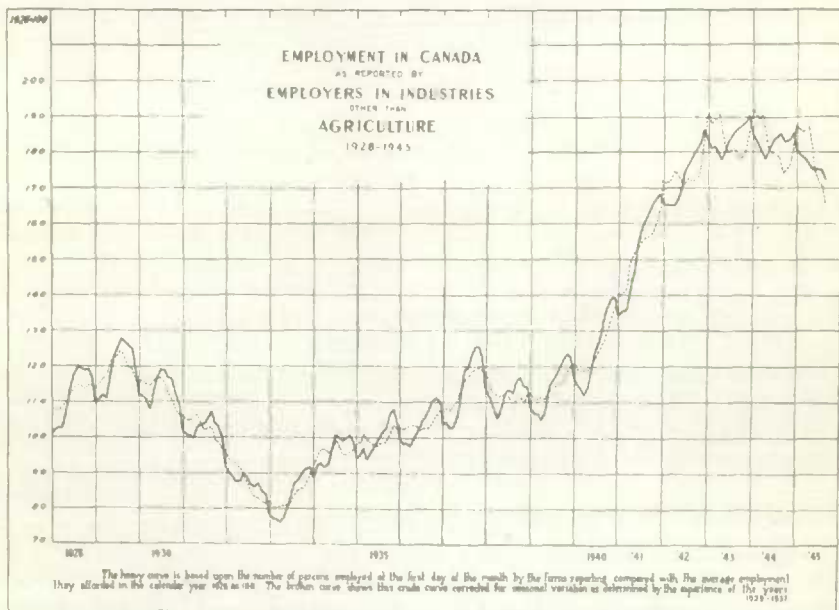
414,150 persons, showed 2,266, or 0.5 p.c. unemployed; 0.3 p.c. were without work in the corresponding month in 1944 and 0.6 p.c. in 1943.

The proportion unemployed at the end of June, 1945, while somewhat higher than in June, 1944, still indicated a favourable level of employment. The highest percentage of unemployment in the record was for December, 1932, and January, 1933, when it stood at 25.5 p.c.

Employment and Unemployment

Employment in Canada, 1945

In the first ten months of 1945, industrial employment in Canada showed a general recession; although this was not particularly marked, its significance is emphasized by the fact that the decline was contrary to the normal seasonal movement from the first of the year to Oct. 1, and was still more at variance with war-time trends. The shrinkage from Jan. 1 to Oct. 1 amounted to 6.5 p.c.; the experience of past years shows that, typically, there is an increase of some 0.9 p.c. in this period. The outstanding factor contributing to this situation was the cessation of hostilities, although before that event employment in war plants had been declining as a result of the accumulation of stocks of munitions by the Allied Nations. Upon the termination of the War, however, the rate of curtailment was considerably accelerated, counteracted to some degree by the ever-growing demand for commodities for civilian consumption at home and abroad, although fulfilment of such demand was complicated by shortages of necessary labour and materials. The need in many industries for conversion of manufacturing processes to peace-



time production also entered into the situation, as did the reluctance of workers to accept employment in the industries in which rates of wages were lower than had been the case in many war plants. At Oct. 1, the latest date for which statistics are available at the time of writing, the index, based on the 1926 average as 100, was 168.7, as compared with 180.4 at Jan. 1, 1945, and 183.3 at Oct. 1, 1944; at the all-time high for that date, Oct. 1, 1943, the figure had been 187.5.

In the period Jan. 1 to Oct. 1, 1945, the index of employment averaged 175.7, as compared with 182.6 in the same months of 1944, and 183.0 in 1943. There was thus a falling-off of 3.8 p.c. in the former and of 4 p.c. in the latter comparison. As compared with 1939, however, there was an increase of 56.9 p.c., the index number then having averaged 112.0 in the period, Jan. 1 to Oct. 1, when peacetime conditions prevailed.

During the first ten months of 1945, statistics were furnished by an average of 15,315 establishments in the eight leading industries, whose employees averaged 1,793,331. The weekly salaries and wages paid to these workers averaged \$57,424,352, while the typical person in recorded employment received a weekly average of \$32.02. In the same period of 1944, the co-operating employers had reported a staff greater by 3.8 p.c., and the indicated payrolls had exceeded the above-named figure by 2 p.c. On the other hand, the average earnings per person had been slightly lower, at \$31.84. The mean in 1943 was \$30.78 and that in 1942, \$28.56. Thus the advance in the average earning in the period of observation in 1945 was decidedly smaller than that indicated in 1944 over 1943, being also less than that in 1943 as compared with 1942.

The retrogressive movement in employment shown during the first ten months of the year under review in comparison with the same part of 1944 generally extended to all provinces, to most of the 20 cities for which monthly statistics are segregated, and to a considerable number of the major industrial groups. Obviously, the areas and industries most affected were those in which wartime production was a factor of particularly great importance.

As would be expected in reaction from the extraordinarily great expansion that had been recorded in manufacturing in Canada during the War, the most pronounced curtailment in employment in 1945 took place in factories. The index declined uninterruptedly during the first ten months of the year, falling by 11.4 p.c. from Jan. 1 to Oct. 1; at the latter date, recorded employment showed a reduction of 18.6 p.c. from the all-time maximum index which had been indicated at Oct. 1, 1943, but was still 57.4 p.c. above the level at the same date in 1939.

The cutbacks due to the cancellation of war contracts affected to a particularly marked degree the situation in the heavy manufacturing industries. Employment therein during the first ten months of the year was reduced by 21.5 p.c., whereas the falling-off in employment in the production of light manufactured goods amounted to only 0.7 p.c. Within the latter category, the loss was largely confined to the chemical industries, in which war work had been an extremely important factor. It is interesting to note that, as compared with 1939, employment in the durable manufactured goods industries in the period Jan. 1 to Oct. 1, 1945, continued 146.5 p.c. higher; the accompanying increase in the light manufactured goods industries was 51.8 p.c.

The industrial distribution of the persons in recorded employment has recently undergone considerable change. This is evident from the table on p. 139, which

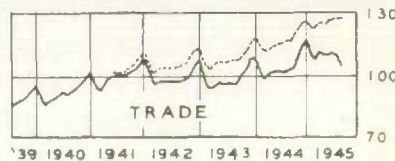
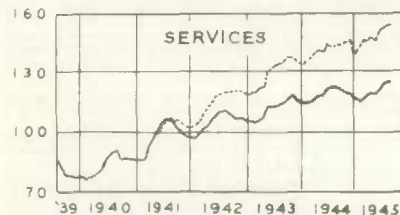
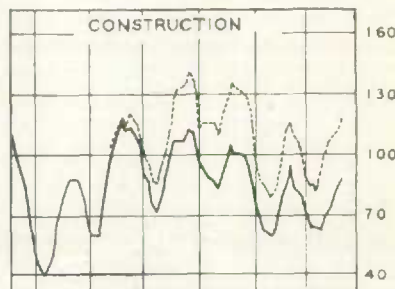
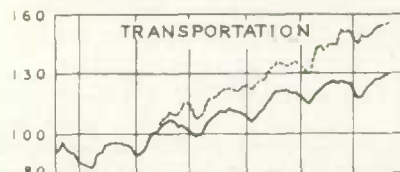
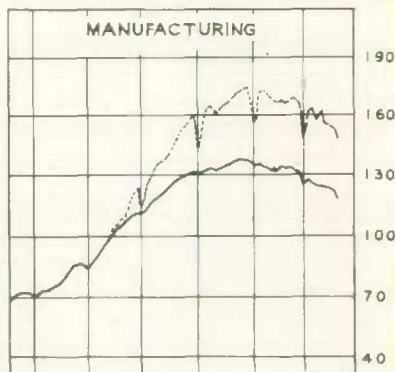
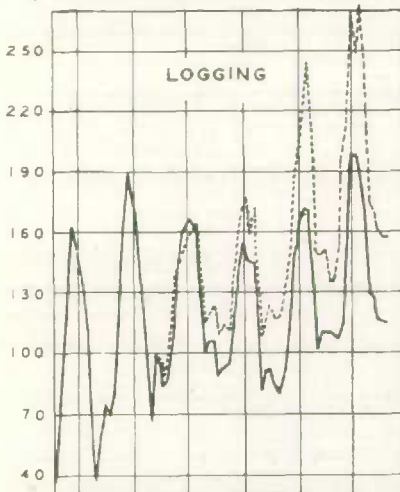
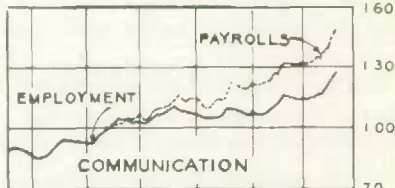
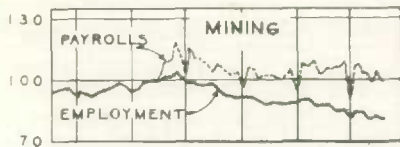
CANADA 1946

also shows that, at the time of writing, the distribution had not completely reverted to pre-war levels. The 1943 data are given to show the situation when war employment was at its highest level.

INDEX NUMBERS OF EMPLOYMENT AND PAYROLLS BY INDUSTRIES 1939-1945

JUNE 1, 1941=100

JUNE 1, 1941=100



**Distribution of the Persons in Recorded Employment at
Sept. 1, 1939, and Oct. 1, 1943 and 1945**

Industrial Group	Sept. 1, 1939	Oct. 1, 1943	Oct. 1, 1945
	p.c.	p.c.	p.c.
Durable manufactured goods.....	19.6	36.3	26.7
Non-durable manufactured goods.....	29.5	26.9	29.5
Central electric stations.....	1.6	0.9	1.2
All Manufacturing Industries.....	50.7	64.1	57.4
All Reporting Industries.....	100.0	100.0	100.0

The changes in the sex distribution of the persons in recorded employment in manufacturing as a result of the War are also interesting. Prior to 1942, no information respecting the number of women workers was collected in connection with the monthly surveys of employment, so that the earlier data in this regard must be taken from the records of the Annual Census of Industry, which obtains statistics from all employers. In the monthly surveys, on the other hand, returns are collected only from establishments ordinarily employing 15 persons or over. Thus the comparisons that can be made with the pre-war situation are not perfect; they nevertheless serve to indicate in a general way the changes in the proportions of women workers that have taken place during the past six years.

In 1939, of each 1,000 workers reported to the Census of Manufactures, there were 220 women; in 1940, the proportion was slightly lower, at 218, rising to 226 in 1941, to 257 in 1942 and to 282 in 1943: these are annual averages. At Oct. 1, 1943, the current survey of employment also showed a proportion of 282 women per 1,000 persons in recorded employment in manufacturing, exclusive of electric light and power. In 1944, the proportion at Apr. 1 was 283 women per 1,000, rising partly in accordance with the seasonal trends to 286 at Oct. 1. Six months later, the ratio had fallen to 274, while at Oct. 1, 1945, the figure was 263. There was thus an increase of 30 p.c. in the proportion of women workers in manufacturing from 1939 to the high point at Oct. 1, 1944; in the succeeding 12 months, the ratio declined by 8 p.c., but nevertheless continued 19.5 p.c. above peacetime levels.

Information is not available to show the pre-war proportions of female employees in the non-manufacturing industries. From Oct. 1, 1942, to Oct. 1, 1944, there was an advance of 25.5 p.c. in the ratio of women per 1,000 workers of both sexes in such industries, viz., logging, mining, transportation, communications, construction, services, trade and finance. In the succeeding 12 months, however, there was a decline of 2.4 p.c., the Oct. 1, 1945, proportion being 245 per 1,000 workers. Among the non-manufacturing industries, it may be noted that in the first ten months of 1945, employment generally in mining and construction was at a lower level than in the same period of the preceding year, but in logging, transportation, communications, services and trade, new all-time high levels were established.

Unemployment Insurance and National Selective Service

Unemployment Insurance.—The Unemployment Insurance Act, 1940, providing for a co-ordinated program of unemployment insurance and employment offices, is administered by an Unemployment Insurance Commission consisting

of a Chief Commissioner and two Commissioners (one appointed after consulting employees and one after consulting employers).

The Head Office of the Commission is at Ottawa. For purposes of administration, Canada is divided into five areas known as the Pacific, Prairie, Ontario, Quebec and Maritime regions. Regional offices located at Vancouver, Winnipeg, Toronto, Montreal and Moncton act as clearing houses for the local offices in some 200 centres.

At Aug. 31, 1945, the number of registered employers with insured employees was 147,043 and the number of insured persons registered was 2,691,588.

Unemployment insurance contributions became payable in Canada commencing July 1, 1941. Insured workers and their employers make contributions according to a graded scale, but in the country as a whole they contribute approximately equal amounts. The Dominion Government adds one-fifth of the total amount contributed by employees and employers to the Unemployment Insurance Fund and, in addition, pays the administrative costs of the scheme.

Weekly Rates of Contribution and Benefit under the Unemployment Insurance Act

Class	Earnings in a Week	Weekly Contributions ¹		Denom-ination of Stamp ²	Weekly Benefits ³	
		By Employee	By Employer		Single Person	Person With One or More Depend-ants
		\$	\$	\$	\$	\$
0	Less than 90 cents daily (or under 16 years of age).....	4	0.27	0.27	4	4
1	\$ 5.40 to \$ 7.49.....	0.12	0.21	0.33	4.08	4.80
2	\$ 7.50 to \$ 9.59.....	0.15	0.25	0.40	5.10	6.00
3	\$ 9.60 to \$11.99.....	0.18	0.25	0.43	6.12	7.20
4	\$12.00 to \$14.99.....	0.21	0.25	0.46	7.14	8.40
5	\$15.00 to \$19.99.....	0.24	0.27	0.51	8.16	9.60
6	\$20.00 to \$25.99.....	0.30	0.27	0.57	10.20	12.00
7	\$26.00 or more.....	0.36	0.27	0.63	12.24	14.40

¹ The daily rate of contribution in respect of each class is one-sixth of the weekly rates. ² Unemployment insurance stamps combine both employer and employee contributions. ³ Rates calculated on assumption that person is in the same class for two years. Daily or weekly benefit for an insured person without dependants is 34 times his average daily or weekly contributions, and 40 times the average employee contribution for married persons mainly or wholly maintaining one or more dependants. ⁴ Workers in this class make no contributions and are not eligible for benefit. They may, however, accumulate benefit rights on the basis of employer contributions.

From July 1, 1941, to Aug. 31, 1945, \$310,132,690 was deposited in the Unemployment Insurance Fund. This amount includes employee, employer and Government contributions, and interest. Employer and employee contributions to the fund were \$245,061,400 and Dominion Government contributions \$49,012,280.

The first date on which claimants could qualify for benefit was Jan. 27, 1942. From that date to Aug. 31, 1945, the amount paid in insurance benefit was \$10,537,593. In this period 248,305 claims were received at Insurance Offices for adjudication, 197,938 of which were allowed, 44,191 were not allowed, and 6,176 were pending. In the same period the number of appeals made by claimants to the Courts of Referees, and the number of cases referred to such Courts was 6,435, of which 5,612 were heard, 257 were pending on Aug. 31, 1945, and 566 were withdrawn. The Courts of Referees allowed 1,666 claims and disallowed 3,946.

Many High School Students during their vacations answered the call of the Dominion Government for assistance on the farms of Canada.



The Unemployment Insurance Advisory Committee gives assistance and advice on questions relating to the operation and scope of the Act referred to it by the Commission. The National Employment Committee, representing labour, industry, veterans, women's organizations and other interested groups, advises the Commission in carrying out the purposes of the employment service. Five Regional Employment Committees and a number of Local Employment Committees have been set up to assist in this work.

National Selective Service. — Canada's manpower was organized and controlled to meet the exigencies of war under two sets of regulations: National Selective Service Mobilization Regulations and National Selective Service Civilian Regulations. The Director of National Selective Service is advised by a board representing government departments and agencies, industry and labour. There are also Regional Advisory Boards of somewhat similar composition. An administration board of senior officers of Selective Service and of the Employment Service of the Unemployment Insurance Commission discusses day-to-day problems.

Call-ups under the Mobilization Regulations were suspended on May 7, 1945, on termination of the European War. Under these regulations certain classes of men had been designated for military service. Broadly speaking, these were men born in any of the years 1906 to 1912, and those who, born between 1913 to 1926, inclusive, were, on or after July 15, 1940, widowers, judicially separated, unmarried or divorced. Under certain circumstances, Mobilization Boards granted postponement from military service to men essential to industry.

On the civilian side the policy had two aspects: control over the placement of workers, and direction of certain workers into more essential jobs. Control over the movement of labour was maintained through Local Employment Offices. Employers were required to register their labour needs with the Employment Office, and workers were required to seek work under permit from the Employment Office. No worker could resign or be released without giving or receiving seven days' notice, a copy of which went to the Local Employment Office. No person who had attained

his sixteenth birthday could leave Canada to take a job outside Canada without a permit. After Sept. 20, 1943, workers in establishments of high priority or in other establishments designated by the Director were not able to resign or be dismissed without a written permit of a Selective Service Officer. A considerable number of workers were required to leave their jobs to take more essential work.

Steps were taken to secure an adequate supply of farm labour. These included "freezing" the farmer to employment in agriculture and using soldiers, students, Treaty Indians and prisoners of war.

Since the end of hostilities in Europe and a reduction in Canada's war commitments, control of manpower has been substantially relaxed. This has been done by carefully planned stages, lest by easing the situation in one direction, problems might be created in another. One of the first controls to be lifted was that requiring women to secure a permit before seeking or entering employment; operations under the compulsory transfer orders were suspended; Labour Exit Permits were more freely issued; lifting of the "freeze" in high-priority establishments (except agriculture) then followed. Virtually the only control remaining is that requiring employers to register their labour needs with the Employment Office and workers to obtain a permit from the Office to enter employment.

Employment Offices.—In the first eight months of 1945, Employment Offices received 1,592,497 applications for employment, were notified of 1,692,437 vacancies and effected 1,039,479 placements. During the same period of 1944, 1,647,554 applications, 1,866,143 vacancies and 1,155,062 placements were reported.

Canadian Vocational Training

The Training Branch of the Department of Labour provides for the training of workers through several different schemes. The most recent programs are concerned with apprenticeship and the retraining of persons directed for instruction by the Unemployment Insurance Commission under the Unemployment Insurance Act.

Apprentice-training is facilitated by the Vocational Training Co-ordination Act, 1942. An Order in Council of Jan. 21, 1944, under this Act authorized the Minister of Labour to make agreements to give grants on a fifty-fifty basis for not more than ten years to any provinces which have, or which later enact, statutes providing for a provincial system of apprenticeship along the lines laid down in the Order in Council; agreements have now been made with all provinces except Quebec. Under the Quebec Apprenticeship Act an arrangement may be made with the Dominion for the training for employment of members of the Armed Forces.

The Unemployment Insurance Commission may direct persons to attend courses of instruction to fit or re-fit them for employment. Early in 1945 the Dominion Government arranged to pay the cost-of-living allowances at prescribed rates during such training, which is given under the direction of the provincial authorities in industrial or commercial establishments, in pre-employment centres or in schools. The provinces share equally in capital expenditures for needed equipment and in the case of other expenses the Dominion pays about 60 p.c.

A further step was taken when an Order in Council of March, 1945, authorized financial assistance to the provinces to develop greater facilities for vocational training on the secondary-school level; \$10,000,000 is provided to assist in meeting capital expenditures for accommodation and, for current expenses, \$2,000,000 a year has been made available to the provinces over a period of ten years.

EMPLOYMENT

The Youth Training and War Emergency Training Programs have continued for some years. The Youth Training scheme for persons between 16 and 30 years of age is now confined to courses in rural districts and to financial assistance to university students other than first-year students.

The War Emergency Training scheme, which is to be merged and expanded in the Re-establishment Training Program, operated in the first seven months of 1945 on a much reduced scale. The total enrolment of industrial workers during this period was 4,253. Training was in three main divisions: (a) full-time pre-employment classes lasting from two to six months (enrolment for the period, 1,213, of whom 1,191 were placed in jobs); (b) part-time technical training to facilitate the up grading and promotion of persons already employed in industry (enrolment, about 1,267, including 295 women); (c) training in plant schools and industrial establishments (enrolment, 1,773, of whom half were women). Most of this latter training has been given in Quebec in primary and secondary textile processes because of the shortage of skilled operators for essential civilian production.

The Supervisory or Foremanship Training Program has been further extended. This scheme now includes job instruction training, two series of job relations training which deal with human relations, job methods training which has to do with increasing the productive efficiency of industry, and job safety training. This type of training continues to grow in favour both with industry and Dominion Government departments. In the past three years, approximately, more than 95,000 people have had the benefit of this training.

The Re-establishment Training Program for discharged members of the Armed Forces continues to expand. Total enrolment on July 31, 1945, was 5,243. There has been considerable difficulty in obtaining adequate accommodation and equipment, but this condition is gradually being eased with the assistance of the Crown Assets Allocation Committee and the War Assets Corporation. The demobilization of competent instructors has made it possible to maintain the high quality of the staff. The field staff has also been increased in order to locate training opportunities in industry which will lead to employment, and to provide closer co-operation with the Department of Veterans Affairs in an effort to facilitate prompt and satisfactory re-establishment.

Health Services for workers are recognized as a necessary part of industrial life. While they provide first aid to the injured and sick, for the most part such services are consultative, preventative and educational. Here a physician in an industrial plant removes a piece of steel embedded in a worker's forearm by means of a magnet and forceps.



Welfare Services

Historically, welfare work in Canada began with the care of the most needy and the care of the indigent, aged and infirm, homeless orphans, dependent, neglected and delinquent children, and the dependent deaf and blind. These classes have been recognized as a public responsibility since the earliest days, but the actual work of caring for them was, in great degree, undertaken by religious and philanthropic bodies, of which many were incorporated during the latter part of the nineteenth century. In many cases, government aid was granted, with official inspection as the natural corollary. As early as 1752 an orphanage was opened at Halifax, N.S., for orphans and deserted children and towards the end of the eighteenth century an Act was passed in Upper Canada to provide for the education and support of orphan children. In the different colonies before Confederation, under various Acts of the Legislatures, houses of refuge, homes for the aged, orphanages and other charitable institutions were provided. From these early beginnings public welfare organizations of a wide variety have grown up in every province of Canada.

The Dominion Government extended its responsibilities in the welfare field after the First World War 1914-18 by the establishment of a Department of Soldiers' Civil Re-Establishment which was responsible for the welfare of ex-service men and fitted them into the general economic system. Resolutions, memorials and petitions to Parliament culminated in 1919 in the creation of a Federal Department of Health, made specifically responsible for the administration of the Food and Drugs Act, the Opium and Narcotic Drug Act, the Quarantine Act, the Public Works Health Act, the Leprosy Act and the Proprietary or Patent Medicine Act, and, in general, "co-ordination of the efforts proposed or made for preserving and improving the public health, the conservation of child life and the promotion of child welfare".

The next major step on the part of the Federal authority in the welfare field was taken in 1927 with the adoption of the Old Age Pensions Act. Further responsibilities were accepted in the 1930's by unemployment and farm relief measures, followed in 1941 by a national system of contributory unemployment insurance. In 1928 the Departments of Health and of Soldiers' Civil Re-Establishment were merged to create the Department of Pensions and National Health. With the dissolution of the latter Department in 1944, the Department of National Health and Welfare was set up.

The Second World War 1939-45 has emphasized the need for a broader system of social welfare as part of the post-war rehabilitation and economic readjustment program. The post-war objective of a planned domestic policy must provide conditions under which all men and women may look forward to an increasing degree of economic security. From the financial aspect, the heavy obligation assumed as a result of six years of enormous expenditure presupposes a high level of national income if this is to be met. The present welfare program of the Dominion Government is linked closely with this objective.

All advanced countries are planning in the direction of "social security", which would go much further than the provision of social services for the unfortunate. The United Kingdom in 1942 published the Beveridge Report *Social Insurance and Allied Services* and the United States published a report of the National Resources Planning Board on *Security, Work and Relief Policies*. The latter is



Mothers Receiving Informal Instruction at a well-baby clinic where pre-school children are brought for routine check-ups.

less specific than the British plan but goes far in lining up the United States with British and Canadian opinion on social security. The Marsh report, issued Mar. 16, 1943, was an attempt to adapt to Canadian conditions the best opinions that have taken shape in the field of social security. It had also certain original features of its own. The six main proposals were: (1) a national program for the promotion of employment; (2) children's allowances; (3) health insurance (including provision of medical care); (4) disability pensions, old age pensions, widows' and orphans' pensions and funeral benefits; (5) extension of unemployment insurance and the inclusion in it of sickness (cash benefit) insurance; and (6) extension of workmen's compensation.

The aim of the Report was to explore and co-ordinate the main features of existing statutory provisions for social security in Canada and to set out the methods by which these provisions could be improved and extended.

In April, 1945, the Government formally announced in a White Paper presented to Parliament by the Minister of Reconstruction its adoption of a high and stable level of employment and income, and thereby higher standards of living, as a major aim of Government policy. The Speeches from the Throne in both 1944 and 1945 forecast adoption of a nation-wide scheme of health insurance or its equivalent as soon as suitable arrangements could be made with the provinces. Legislation establishing family allowances was passed by Parliament in 1944, and proposals were submitted to the Dominion-Provincial Conference on Reconstruction in 1945 for the extension of old age pension benefits, for increased payments to civilian blind and for work among crippled children. This Conference also heard proposals for a division of responsibility whereby the provinces would ensure care of needy



Inoculation of Children against infectious diseases has become part of the regular school routine. These children are being inoculated against typhoid fever.

unemployables and self-employed persons thrown out of work, and the Dominion the care of those who become unemployed but were not under unemployment insurance.

Dominion Welfare Services

Family Allowances.—The Family Allowance Act, 1944, was introduced for the purpose of equalizing opportunity for the children of Canada. The allowances are paid monthly to parents (to mothers, except in unusual circumstances) and must be spent exclusively for the maintenance, care, training, education and advancement of the child. If it is satisfactorily shown to the authorities that the money is not being spent for this purpose, payment can be discontinued or made to some other person or agency on behalf of the child. It is further set out in the Act that if any person is dissatisfied with a decision as to his right to be paid an allowance or as to the amount of an allowance payable to him or as to any other matter arising under this Act, he may appeal against such decision to a tribunal established for that purpose.

In general, all children under sixteen years of age are eligible for an allowance, including Indians and Eskimos. To be eligible a child must be registered for the allowance and be maintained by a parent, who is defined in the Act. For registration purposes a child must be under the age of sixteen years, must reside in Canada and, in addition, must have (a) been born in Canada and resident since birth or (b) lived in Canada for the three years preceding registration. Residence provisions do not apply to children born to parents domiciled in Canada but temporarily out of the country on war service or other similar duties. A further important clause in the eligibility regulations concerns education. The allowance is not payable to a child who, being above the age of six years, and physically fit to attend school, fails to do so or to receive equivalent training.

WELFARE SERVICES

The allowances, which are tax free, are paid by cheque monthly at the following rates:—

Children under 6 years of age.....	\$5
Children from 6-9 years of age.....	\$6
Children from 10-12 years of age.....	\$7
Children from 13-15 years of age.....	\$8

The allowances are reduced after the fourth child as follows: one dollar reduction for the fifth child, two dollars each for the sixth and seventh child, and three dollars for each additional child.

The following table shows the number of families to whom allowances were paid, total children benefiting by these allowances and the average amount paid to each family in the month of October, 1945.

Family Allowance Payments, October, 1945

Province	Families to Whom Allowances Were Paid	Total Children	Average Allowance per Family	Average Allowance per Child	Total Allowances Paid October, 1945
	No.	No.	\$	\$	\$
Prince Edward Island.....	11,877	30,293	15.22	5.97	180,724
Nova Scotia.....	74,146	177,970	14.37	5.90	1,005,667
New Brunswick.....	57,264	153,419	15.96	5.96	914,078
Quebec.....	365,987	1,058,690	16.83	5.82	6,160,887
Ontario.....	434,218	899,545	12.86	6.21	5,584,078
Manitoba.....	84,621	180,312	13.05	6.12	1,103,908
Saskatchewan.....	103,006	242,711	14.28	6.06	1,470,796
Alberta.....	100,535	226,445	13.61	6.04	1,367,858
British Columbia.....	102,101	196,764	11.63	6.04	1,187,474
Yukon and N.W.T.....	820	2,038	18.90	7.60	15,502
Totals.....	1,334,575	3,168,187	14.27	6.01	19,050,972

Unemployment Insurance.—In 1940, by an amendment to the British North America Act, the Dominion Government was given complete jurisdiction in the field of unemployment insurance and since that time a national system of

A Public Health Nurse instructing a mother in the care of her child who is ill with a communicable disease. The public health nurse, a graduate Registered Nurse with special public health training, is a link provided by the provincial government between the doctor and people.



unemployment insurance administered by the Unemployment Insurance Commission has been in operation. (See Labour Chapter, pp. 139-141.)

Old Age Pensions and Pensions for Blind Persons.—The Old Age Pensions Act was adopted by the Dominion Parliament in 1927 and under the provisions of this statute, the Dominion Government, through the Department of National Health and Welfare, contributes 75 p.c. of provincial disbursements for old age pensions. (See p. 150.) In 1937 the Act was amended to provide pensions for the blind under certain conditions.

Canadian Government Annuities.—The Government Annuities Act 1908 authorizes the issue of Government annuities in order to encourage the people of Canada to provide for old age during the earning periods of their lives. A Canadian Government annuity is a yearly income of from \$10 to \$1,200 either payable for life, or guaranteed for 10, 15 or 20 years and payable for life thereafter. Annuities may be either deferred or immediate, and may be purchased individually or by associated groups operating under retirement plans.

From the inception of the Act until Mar. 31, 1945, the total number of individual annuity contracts and certificates under group contracts issued was 125,500. The net receipts for the entire period totalled \$271,826,219.

On Mar. 31, 1945, there were in effect 112,184 contracts and certificates. Annuity was payable under 30,531 of these and annuity was still deferred under 81,653. The total amount of annuity payable under the vested contracts was \$12,158,592 and the value of outstanding annuities, both immediate and deferred, was \$243,537,624, this being also the balance at credit of the Annuities Fund as of Mar. 31, 1945.

Supervised Playgrounds are common to most communities. Healthful, happy play is the right of every child.



Children's Aid Societies across Canada provide child care and protection services. Foster children receive all possible care and affection.



Dependents' Allowances.—The Dependents' Allowance Board is charged with the payment of allowances to dependents of members of the Armed Forces, the main purpose of which is to promote the well-being and efficiency of His Majesty's Forces by relieving financial anxieties with respect to the domestic welfare of their dependents.

A special Family Welfare Section has been instituted by the Board to administer allowances when the recipient is infirm or where domestic difficulties necessitate the intervention of a third party.

A Supplementary Grants Fund, administered by a separate Dependents' Board of Trustees, is designed to give supplementary assistance in cases of difficulties and hardship where the regular allowances are found inadequate.

Veterans' Allowances.—In addition to war pensions, allowances are paid to certain non-pensionable veterans at 60 years of age, or earlier if the veteran is permanently unemployable, or to eligible veterans who, having served in a theatre of actual war, are incapable and unlikely to become capable of maintaining themselves because of economic handicaps combined with disabilities.

Provincial Welfare Services

The field of provincial welfare work is a very wide one. It includes Homes for the Aged and Infirm; Children's Aid Societies; Reformatories; Day Nurseries; Homes for Child Delinquents; Training Schools for Mentally Defective Children; Psychiatric Services; and Industrial Schools. These are in some provinces maintained solely by provincial funds, in others by municipal, public or joint municipal and

provincial funds. The Provincial Governments also supervise the institutions operated by cities, counties, districts and religious and benevolent societies; provide mothers' allowances, old age pensions, and pensions for the blind, in co-operation with the Dominion; and many other social services.

Old Age Pensions.—All provinces and the Northwest Territories now co-operate with the Dominion legislation covering old age pensions. By authority under the War Measures Act the maximum pension paid at the age of 70 years to persons, based upon a means test, has been increased from \$240 to \$300 a year and the maximum income (including pension) from \$365 to \$425 a year.

Summary of Old Age Pensions, by Provinces, as at Dec. 31, 1944

Province or Territory	Total Pensioners	Average Monthly Pension	Pensioners to Total Population	Persons 70 Years of Age to Total Population	Dominion Government's Contribution 1927-44
	No.	\$	p.c.	p.c.	\$
Prince Edward Island.....	1,914	18.59	2.01	6.27	2,165,896
Nova Scotia.....	14,047	22.53	2.43	5.17	20,653,126
New Brunswick.....	12,261	22.11	2.68	4.42	13,407,514
Quebec.....	49,198	23.96	1.48	3.15	63,422,992
Ontario.....	58,099	23.89	1.53	4.88	126,878,071
Manitoba.....	12,348	24.50	1.69	3.65	27,279,648
Saskatchewan.....	12,803	24.70	1.43	2.89	25,634,709
Alberta.....	11,319	24.18	1.42	2.86	20,713,564
British Columbia.....	15,129	24.45	1.85	4.70	28,584,163
Northwest Territories.....	9	24.44	0.07	1.42	20,847
Canada.....	187,127	—	—	—	328,766,530

Pensions for Blind Persons.—Under an amendment to the Old Age Pensions Act in 1937 provision was made for payment of a pension to every blind person who complied with certain conditions at the date of proposed commencement of pension.

Mothers' Allowances.—Eight of the provinces provide, exclusively at their own expense, allowances to mothers who are widowed or who, under certain circumstances, are without means of support. The Acts of the respective provinces stipulate that the applicant must comply with certain conditions at the time of application. Rates of allowances are determined by each province. In Nova Scotia the exact amount paid is determined by the special circumstances of each case, with a minimum of \$15 per month and a maximum of \$80. In New Brunswick the maximum allowance is \$27.50 per month for a mother and one child, and \$7.50 per month for each additional child. Under certain circumstances an additional \$7.50 per month may be paid, provided the total amount payable per month does not exceed \$60. Under the British Columbia regulations the amount that may be paid is \$40 per month for mother and one child and \$7.50 for each additional child and for an incapacitated father in the home. In Ontario the maximum rate for mother and child is \$42 in a city, \$36 in a town and \$30 in a rural district, with \$6 for each additional child. An additional \$10 per month per beneficiary may also be paid where need is evidenced. Up to September, 1945, Quebec's scale of allowances was \$25 per month for a mother and one child under 16 years in cities, \$20 in towns and \$15 in rural areas, plus \$5 per month for each additional child up to a maximum of \$75 per month. In September, 1945, it was announced that

WELFARE SERVICES

this scale of payments would be adjusted to take into consideration family allowance payments. The maximum for mother and one child in Manitoba is \$33 (excluding winter fuel) with additional allowances for other children up to \$89, with supplementary grants for food and clothing and for maintenance of a disabled father in the home. In Saskatchewan the allowance is paid for the children, not the mother, with a maximum allowance for the first child of \$10 per month and \$5 per month each for the second and third child and \$4 per month each for subsequent children up to a maximum of \$48 per month. Alberta will pay not more than \$35 per month to a mother and child, with the amount rising to \$85 where there are six children. The exact amount of allowance is set by the Department after consideration of circumstances in each case.

Except in Alberta, where 25 p.c. of the allowance is borne by the municipality, and in Manitoba, where part of the cost is charged back to the municipalities through an equalized assessment, the whole cost is provided from provincial funds.

Workmen's Compensation.—Although workmen's compensation is entirely the responsibility of industry, the welfare aspects of payment made to workers injured in the course of their duties or to their dependents in cases of fatalities should not be overlooked. In all provinces, except Prince Edward Island, this legislation is in force and although the Acts vary in scope between provinces, each Act provides for an accident fund administered by a provincial board to which employers are required to contribute.

Better School Lunches are part of the nutrition program of the Manitoba Government.





THE V.O.N.

The Victorian Order of Nurses, a voluntary public-health agency, has been maintained for over forty-five years with one definite purpose—home nursing service. V.O.N. nurses give care to medical, surgical and maternity patients under medical direction and look after the needs of a large group of people who would otherwise be neglected. Service is offered to everyone in the community regardless of race or creed and the fee is adjusted to suit the family income, though service is never refused because of inability to pay. In 1944, in 100 centres across the Dominion, containing more than three-quarters of the total urban population, V.O.N. healing succor has gone to nearly 100,000 patients.



The Care of Dependent and Handicapped Groups.—The work of the various institutions and agencies for dependent and handicapped groups under custodial care may be classified under two main headings: the care of adults and the care of children (including minors under 20 years of age).

Care of Adults.—At the date of the Census, June 2, 1941, there were 16,523 adults under care. Of these 11,358 or 68·7 p.c. had attained the age of 60 years or over, and 13,171 were maintained from public or private charity funds. In regard to mental and physical conditions 1,855 or 11·2 p.c. were either blind, deaf and dumb or crippled, while 3,890 or 23·5 p.c. were feeble-minded or subnormal.

Care of Children.—An estimated increase of 43 p.c. in juvenile delinquency from 1939 to 1944 reveals the value of home training in normal times, since much of this increase is attributable to absence of the father on active service or to the mother on war work.

At the date of the Census of 1941 there were 6,104 persons from 0-20 years of age under the care of homes for adults and children; 14,669 in orphanages; 16,991 cared for by Children's Aid Societies; and 282 by juvenile immigration societies.

Other Welfare Services

Other welfare services include the Canadian Red Cross, the Victorian Order of Nurses, and the St. John Ambulance Association. Each of these organizations carries an important responsibility in the welfare field but their major activities are related more directly to public health than to welfare. During the war years 1939-45 these societies devoted much of their work, which is furnished voluntarily, to the aid of the sick and wounded of the Armed Forces. In peacetime, however, their organizations are devoted to the promotion of good health, good citizenship, international friendship and first aid and home nursing.

Social Welfare Developments and Readjustments Projected at the Dominion-Provincial Conference, 1945

On Aug. 6, 1945, the provincial premiers and Dominion Government representatives met at Ottawa for the Dominion-Provincial Conference on Reconstruction. Among the chief proposals for public welfare and social security were:—

- (1) Dominion-Provincial Governments to share jointly on a 50-50 basis in a pension of \$30 for needy persons between 65 and 70 years of age; the Dominion to pay full costs of \$30 monthly pensions to all persons—regardless of means—over 70 years of age, with 20 years' residence in Canada and the three-year period immediately preceding the date of application.
- (2) A joint Dominion-provincial health insurance scheme to be inaugurated by progressive stages with the provinces administering and adjusting conditions and the Dominion providing financial assistance.
- (3) The Dominion to pay unemployment assistance to all persons falling unemployed and not coming within the classes insured under unemployment insurance, but the provinces to remain responsible for relief of needy unemployables and self-employed persons.

These proposals along with many others on housing and employment may well be considered as the most important ever proposed with regard to the future welfare of Canada. In order to study the Dominion proposals and to develop further details of each of the provincial governments' proposals, the Conference was adjourned on Aug. 10, until Nov. 26.

Construction

Government Assistance to the Construction Industry

There are three Acts of Parliament in effect at the present time under which it is possible to obtain help from the Dominion Government for the purpose of building houses: The National Housing Act, 1944; The Veterans' Land Act; and the Farm Improvement Loans Act. These Acts are outlined below, followed by statement on the work of Wartime Housing Limited, a Crown company created in 1941 to erect temporary homes for rental purposes in order to relieve housing pressure in congested areas.

The National Housing Act.—The National Housing Act, 1944, was the third general housing Act to be proclaimed in Canada. The first, the Dominion Housing Act, 1935, was superseded by the National Housing Act, 1939, which in turn was followed by the present Act. By July 1, 1945, 29,085 family housing units had been erected under the three Acts, the average loan made for the construction of each unit being approximately \$3,394. This Act is not an emergency measure; it is intended to become a permanent factor in the normal life and growth of the nation, and it is from this legislation that the whole of Canada's long-term post-war housing policy will probably take shape. It covers the entire housing field, making provision for:—

- (1) Loans to prospective home-owners who wish to build for themselves.
- (2) Loans to assist in the construction of co-operative housing projects.
- (3) Loans to builders who intend building either for sale or for rental purposes.
- (4) Loans to limited-dividend corporations undertaking the construction of low-rental housing projects.
- (5) Guarantees to life insurance companies investing their funds in the construction of low-rental and moderate-rental housing projects.
- (6) Assistance to municipalities collaborating with limited-dividend corporations or life insurance companies in slum-clearance schemes.
- (7) Housing research and community planning.

Loans to prospective home-owners or to builders are made through approved lending institutions, 25 p.c. of the money borrowed being furnished by the Dominion Government and 75 p.c. by the lending institution. The maximum loan procurable under the Act for building a single-family, four or more bedroom house is \$6,400. For smaller houses the amount is reduced. Houses must be built according to minimum standards and specifications laid down by the National Housing Administration. The interest rate is 4½ p.c. per annum, and the normal period of amortization is twenty years.

A limited-dividend housing corporation wishing to erect a large-scale low-rental housing project from which it is willing to receive not more than 5 p.c. profit per annum on its original investment, may borrow from the Dominion Government up to 90 p.c. of the lending value of such project at an interest rate of 3 p.c. per annum.

Life insurance companies are permitted to invest up to 5 p.c. of their total assets in Canada in the purchase of land and the erection thereon of low-rental and moderate-rental housing projects, including accommodation for retail stores, shops, offices, etc., but not hotels. A life insurance company so investing may

One type of **Factory-Built Home** which will help to alleviate Canada's housing shortage. This four-room, fully insulated cottage leaves the factory in a single "package" 30 ft. long, 16 ft. wide and 10 ft. high.



receive from the Dominion Government the guarantee of a net return of $2\frac{1}{2}$ p.c. per annum of the cost of the project for the period of the project's useful life, a maximum of fifty years.

The Act provides for assistance to municipalities in the clearance of slum areas. Land owned by the municipality is cleared and sold to a limited-dividend housing corporation or to an insurance company for the purpose of rebuilding with low-cost housing, and a grant is provided by the Dominion Government of 50 p.c. of the amount by which the cost of acquiring and clearing the land has exceeded the price obtained for it from the insurance company or corporation, the other 50 p.c. being borne by the municipality.

Under the provisions of the Act, loans may be obtained through banks or approved instalment credit agencies for the purpose of financing repairs, alterations or additions to existing homes. However this Part of the Act has not yet become effective.

Because of the shortage of men and materials, the full effect of the National Housing Act has not yet been felt. The Research Department, which is authorized to deal with the investigation of housing conditions and measures to be taken for their improvement, the preparation of plans of low-cost homes, public education on the subject of community planning, etc., is still in its infancy and little has been done by way of loans to limited-dividend housing corporations, guarantee of insurance companies or sponsorship of slum clearance. However, it is expected

A Wartime Housing Limited Development in a lovely setting, Burnham Point, Peterborough, Ont.



that the scope of the National Housing Administration activities will extend as rapidly as improved conditions permit.

The Veterans' Land Act.—This Act provides, by means of low-interest Government mortgages, for settlement by veterans on farms and small holdings in rural or suburban areas; and the ex-service man can avail himself of it at any time during the ten years following his discharge from the Armed Forces.

The Farm Improvement Loans Act.—This Act provides, among other things, for loans up to \$3,000 for the construction of farm dwellings. Only those whose main business is farming are entitled to its benefits. The loans, which are guaranteed by the Dominion Government, are made by the chartered banks of Canada, and interest is charged at the rate of 5 p.c. per annum.

Wartime Housing Limited.—The Department of Munitions and Supply realized early in the War that Canada's industries would have to be greatly increased to produce the munitions required to bring the War to a victorious conclusion. Surveys showed a shortage of 120,000 housing units across Canada and it was evident that living quarters would have to be built to accommodate additional population in centres where industrial expansion occurred. The answer to this shortage was the formation in the spring of 1941 of a Crown-owned company known as Wartime Housing Limited.

The first responsibility of the Company was to build not only houses for families, but also living accommodation for single men and women who would be employed in essential war industries. The construction of a large number of houses was in itself a great undertaking, but the accommodation provided for single men and women carried with it many administrative problems. Actually, the accommodation included hotels with attendant housekeeping and commissary services.

As Canada became more and more industrialized, and the arsenals of war con-



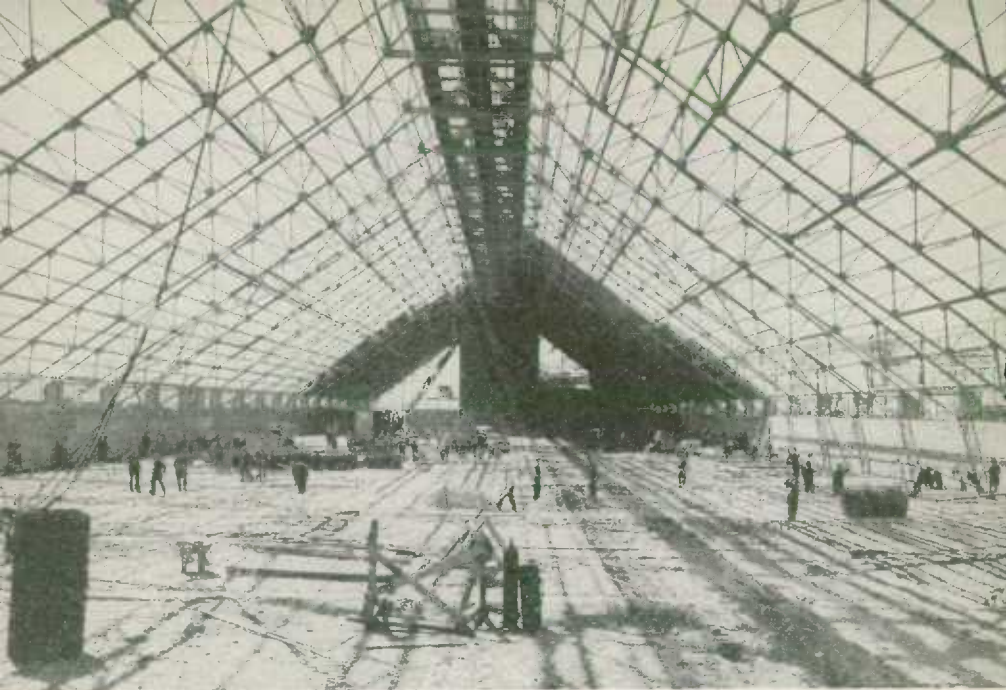
tinued to expand, the call for additional living accommodation increased, reaching a peak toward the end of 1943. During 1944, emphasis was placed upon maintaining and supervising existing properties. The construction program in connection with the supply of munitions was as follows:—

17,705 Bungalows	22 Community Halls
72 Staff Houses	1 Coloured Men's Building
17 Bunk Houses	2 Chinese Living Quarters
3 Men's Centres	2 Special Buildings (Hospital)
11 Women's Centres	1 General Store
17 Dining Halls	3 Water Works Systems
34 Schools	1 Building for Help
1 Wood Camp	1 Deep Water Terminal
1 Nurses' Residence	1 Hiring Hall
2 Manning Pools	14 Fire Halls
6 Administration Buildings	1 Addition to Staff House
1 Marine School	1 Clark Ruse Plant Conversion
1 Port Control	1 Emergency Shelter

As the men in the Armed Forces began to return to civilian life, it was realized that the already acute housing shortage would be aggravated still further and, since it appeared that the shortage of low-rental houses could not be relieved by private enterprise in a number of communities, Wartime Housing Limited again was called upon to resume its construction activities. The Company is now building houses for service men in response to urgent requests from municipalities in dire need of additional housing.

Despite the serious difficulties in obtaining skilled and unskilled labour and vital building materials, 1,250 bungalows and 27 apartments have been completed and occupied and contracts have been let for over 7,000 additional houses.

Before the veterans housing program was begun Wartime Housing Limited's capital investment totalled more than \$75,000,000 and the present program will involve another \$35,000,000.



Bauxite Storage Building under construction at Arvida, Que. This building, now completed, provides storage for 205,000 net tons of bauxite — enough to produce 51,250 tons of aluminum.

Statistics of Construction

The value of construction work performed in Canada in 1944 showed a decrease of 21.4 p.c. as compared with 1943. The pressing demand for housing accommodation resulted in an increase in residential building of 31.8 p.c. An increase of 59.8 p.c. was shown in institutional building, of 10.6 p.c. in commercial building and of 2.7 p.c. in streets and highways. All other classifications declined. Construction of armouries, barracks, hangars, etc., had, of course, slowed up to a great extent during 1944, showing a decrease of 74.2 p.c. as compared with 1943 and, since war production had passed its peak, industrial building also declined by 49.3 p.c.

In the industry as a whole, employment was provided for 123,892 persons in 1944 as compared with 155,300 in 1943, while salaries and wages amounted to \$197,703,984, a decrease of \$49,132,051.

Statistics of the Construction Industry, 1936-44

Year	Persons Employed	Salaries and Wages Paid	Cost of Materials Used	Value of Work Performed
	No.	\$	\$	\$
1936.....	142,346	112,846,384	122,189,238	258,040,400
1937.....	151,652	150,637,291	175,844,435	351,874,114
1938.....	147,191	147,405,398	176,562,208	353,223,285
1939.....	148,414	153,442,443	189,497,342	373,203,680
1940.....	149,830	180,229,498	267,228,786	474,122,778
1941.....	176,358	235,631,781	370,188,739	639,750,624
1942.....	175,267	262,043,471	324,732,380	635,649,570
1943.....	155,300	246,836,035	278,888,384	572,426,551
1944.....	123,892	197,703,984	200,801,042	449,838,059

Statistics of the Construction Industry, by Provinces and Groups, 1944

Province and Group	Persons Employed	Salaries and Wages Paid	Cost of Materials Used	Value of Work Performed
Province	No.	\$	\$	\$
Prince Edward Island.....	470	721,126	1,014,390	1,061,471
Nova Scotia.....	11,531	13,660,224	13,558,520	29,832,726
New Brunswick.....	4,319	6,471,332	5,734,951	13,657,013
Quebec.....	37,146	58,652,589	64,351,331	131,061,232
Ontario.....	42,001	72,680,458	65,743,260	165,395,169
Manitoba.....	4,733	7,064,369	10,054,567	19,357,321
Saskatchewan.....	3,219	4,928,392	5,292,484	12,423,241
Alberta.....	6,311	10,114,224	10,588,592	27,569,213
British Columbia and Yukon.....	13,262	22,811,270	24,462,947	48,577,643
Totals	123,892	197,703,984	200,801,042	449,838,059
Group				
Contractors, builders, etc.....	92,912	157,826,635	181,451,684	381,216,381
Municipalities.....	10,181	14,175,811	7,821,706	23,782,546
Harbour Commissions.....	612	860,625	348,448	1,304,594
Provincial Govt. Depts.....	17,373	20,685,698	8,872,324	36,520,088
Dominion Govt. Depts.....	2,814	4,149,212	2,306,880	7,014,450

Values of Construction, by Types, 1944, as Compared with 1943

Type of Construction	1943	1944	Increase or Decrease
	\$	\$	\$
Residential.....	63,684,367	83,927,360	+ 20,242,993
Institutional.....	13,118,233	21,005,720	+ 7,887,487
Commercial.....	26,439,561	29,233,965	+ 2,794,404
Industrial (includes factories, warehouses, mine buildings, etc.).....	140,396,554	71,131,759	- 69,264,795
Other (includes armouries, barracks, hangars, etc.).....	58,216,173	15,001,136	- 43,215,037
Totals, Building Construction	301,884,888	220,299,940	- 81,584,948
Streets, highways, etc.....	66,582,959	68,381,994	+ 1,799,035
Bridges, watermains, sewers, dams, reservoirs, etc.....	30,256,377	22,020,560	- 8,235,817
Electric stations and transmission lines.....	30,843,814	19,919,488	- 10,924,326
Docks, wharves, piers, etc.....	10,282,332	5,919,364	- 4,462,968
Other engineering (includes landing fields, parks, canals, dredging, pile driving, etc.).....	65,562,348	36,982,306	- 28,579,052
Totals, Engineering	203,527,830	153,123,802	- 50,404,028
Totals, Building Trades	67,013,833	76,114,317	+ 9,490,484
Grand Totals	572,426,551	449,838,059	-122,588,492

Building Permits.—Since 1940 the Dominion Bureau of Statistics has collected monthly statistics showing the anticipated cost of building represented by the permits taken out in 204 municipalities. Figures for new housing units were first compiled in 1942.

For the first eight months of the current year the value of all permits issued by the reporting municipalities was \$123,864,869 as compared with \$89,081,113 in the comparable period of 1944, an advance of 39 p.c.

CANADA 1946

Permits for the construction of 18,516 new dwelling units were granted up to the end of August as compared with 17,743 in the same period of 1944. The permits for 1945 included 16,391 for new buildings and 2,125 for conversions. The value of new residential buildings, and additions and repairs thereto, amounted to \$75,729,257 during the first eight months of this year as compared with \$61,123,424 in the same period of 1944.

The population of the 204 centres mentioned constituted about 46 p.c. of the total population; for Jan. 1 to Oct. 1, 1945, their building authorizations amounted to 40 p.c. of the total value of the construction contracts awarded for the same period throughout Canada.

Number of New Housing Units for which Building Permits Were Issued, 1942-45, and by Provinces, 1944-45

NOTE.—"New housing unit" means a new unit capable of serving as a separate place of residence. Adjustments have been made in cases of insufficient information supplied by municipalities.

Year and Province	New Buildings			Conversions	Grand Total
	Single Dwellings	Doubles, Duplexes, Apartments, etc.	Total New Buildings		
Canada	1942 13,342	316	13,658	1,269	14,927
	1943 10,742	742	11,484	1,699	13,183
	1944 15,437	4,568	20,005	3,690	23,695
	1945¹ 12,429	3,962	16,391	2,125	18,516
Province					
Prince Edward Island.....	1944 2	Nil	2	5	7
	1945 ¹ 17	"	17	5	22
Nova Scotia.....	1944 407	3	410	31	441
	1945 ¹ 411	Nil	411	37	448
New Brunswick.....	1944 89	"	89	50	139
	1945 ¹ 81	9	90	53	143
Quebec.....	1944 2,874	3,651	6,525	1,390	7,915
	1945 ¹ 1,540	3,081	4,621	655	5,276
Ontario.....	1944 3,775	607	4,382	1,306	5,688
	1945 ¹ 4,623	415	5,038	626	5,664
Manitoba.....	1944 813	21	834	145	979
	1945 ¹ 965	46	1,011	133	1,144
Saskatchewan.....	1944 445	1	446	84	530
	1945 ¹ 772	7	779	146	925
Alberta.....	1944 1,830	77	1,907	138	2,045
	1945 ¹ 1,984	68	2,052	163	2,215
British Columbia.....	1944 3,202	208	3,410	541	3,951
	1945 ¹ 2,036	330	2,372	307	2,679

¹ First eight months.

Railways.—The expenditures of railways on maintenance of way, and structures and equipment are not included in the figures of the construction industries given at pp. 158-159 and are therefore summarized here. For steam railways expenditures for these purposes in 1944 amounted to \$215,080,738 as against \$178,746,911 in 1943. For electric railways the total for 1943 was \$11,511,047 as against \$8,995,478 in 1942 (1944 figures were not available at time of going to press). Expenditures on new lines resulted in a small net credit and additions and betterments showed a net expenditure of \$52,629,513 (exclusive of equipment) in 1943 compared with \$6,418,260 in 1942.

External Trade

Canada, a land of rich natural resources and small population, has developed an export trade from which, normally, almost one-third of its national income is derived. During the six years of war, Canada became the second largest exporting nation in the world. Per capita exports increased from \$82 in 1939 to \$287 in 1944. Total exports of domestic products in 1944 reached the unprecedented value of \$3,440,000,000, an increase of more than 272 p.c. over 1939. Foodstuffs, including meat and dairy products to the United Kingdom and large shipments of grain to the United States, increased more than 261 p.c. during this period.

Prior to the War, a large proportion of Canada's exports consisted of raw materials or semi-manufactured goods. During the war years, however, the bulk has been fully finished war materials and foodstuffs. Included in total exports are goods provided to the United Nations under Canada's Mutual Aid Plan. The total value of such Mutual Aid supplies exceeded \$1,700,000,000 for the two years ended Mar. 31, 1945.

In 1944 Canada's total trade (excluding gold which is omitted in line with the procedure in other countries) reached a record value of \$5,242,000,000, a more than threefold increase over the 1939 total of \$1,687,000,000. Whereas export values continued to expand at a rapid rate through the war years, imports rose quickly for the first three years of the War, but after 1942 showed only a small upward trend. This demand for imports is closely related to the war production program. At the outbreak of war, it was necessary to import large quantities of machinery, machine tools, dies and other factory equipment but, as production got under way, imports levelled off while exports continued their strong upward rise.

Railway Storage Yards where hundreds of flat-car frames, trucks and wheels, built in Canada, are loaded for shipment to the Soviet Union.



Canada's external trade during the war years was, of course, quite abnormal and, as the volume of Canadian war production is reduced, exports especially will undergo marked changes both as to size and composition. If in the years to come export volume is to be maintained at the required level to sustain a satisfactory national income, then a great increase in Canada's trade with the countries of the world outside the United Kingdom and the United States must be the goal. Canada must also be prepared to import more goods from the United Kingdom, and imports and exports with the United States will have to be brought more closely into balance. The Department of Trade and Commerce has already done much to prepare the way for the building up of Canada's post-war trade along these lines, but results will depend as well on the sort of international economy that will be put into operation by the United Nations.

In any case, the transition years hold no promise of easy adjustments. New challenging problems will have to be met on entirely different lines than pre-war experience.

Imports.—During 1944 few significant changes occurred either in the source or character of imports. The trend continued slightly upwards as indicated by the increase of \$24,000,000 or 1.4 p.c. over 1943. Agricultural and vegetable products showed a fairly substantial increase due to larger importations of fruits, vegetables, sugar and coffee. Increased importations of coal, glass and petroleum accounted for most of the increase in non-metallic minerals. The largest decrease was shown in miscellaneous commodities imported under special conditions, which include war materials under Orders in Council for war contracts and for the account of Allied Governments, and articles for the Armed Forces of the British Government. The value of imports for the first eight months of 1945 amounted to \$1,065,510,000 as compared with \$1,170,304,000 for the same period of 1944.

Imports by Main Groups, 1939-44

(Millions of Dollars)

Group	1939	1940	1941	1942	1943	1944
Agricultural and vegetable products	127.8	157.3	171.8	147.7	176.4	212.7
Animals and products	32.8	35.4	34.9	34.9	36.6	36.4
Fibres and textiles	100.9	147.3	161.1	189.1	195.3	190.6
Wood and paper	33.7	38.1	36.7	38.2	40.3	43.6
Iron and its products	183.2	208.9	431.6	377.8	420.2	428.4
Non-ferrous metals	42.1	71.1	94.8	82.4	115.5	106.7
Non-metallic minerals	132.8	161.2	190.0	221.3	250.9	271.0
Chemicals and allied products	43.7	51.8	65.4	66.8	70.6	80.8
Miscellaneous commodities	54.1	120.8	262.5	486.0	629.3	388.7
Totals	751.1	1,081.9	1,448.8	1,644.2	1,735.1	1,758.9

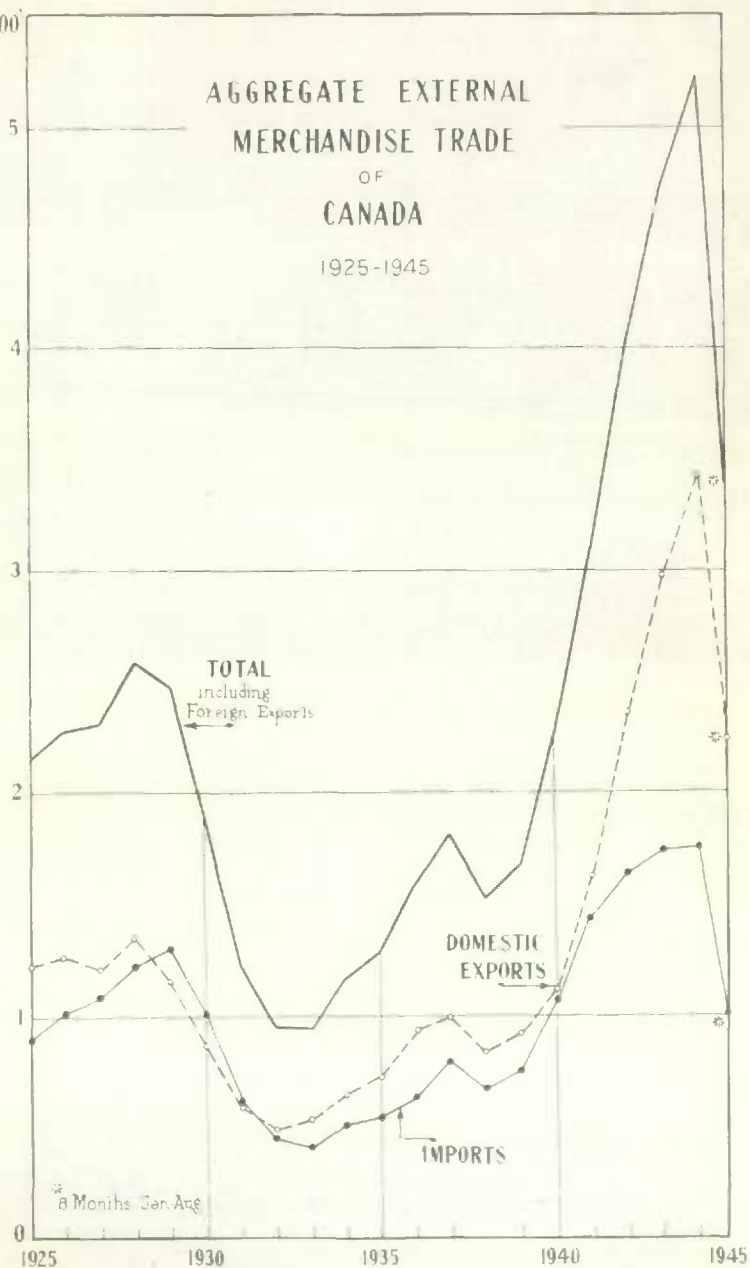
Principal Imports.—Though the order varied from year to year, machinery (except farm), coal, petroleum, rolling-mill products and automobile parts constituted the five leading imports during each of the war years, except that in 1944 rolling-mill products dropped to ninth place and engines and boilers were in fifth place. Urgent requirements for machine tools for war production in the first three years of war kept machinery in first place, imports increasing 204.5 p.c. from 1939 to 1941 and decreasing 39.8 p.c. by 1944. Rolling-mill products also increased

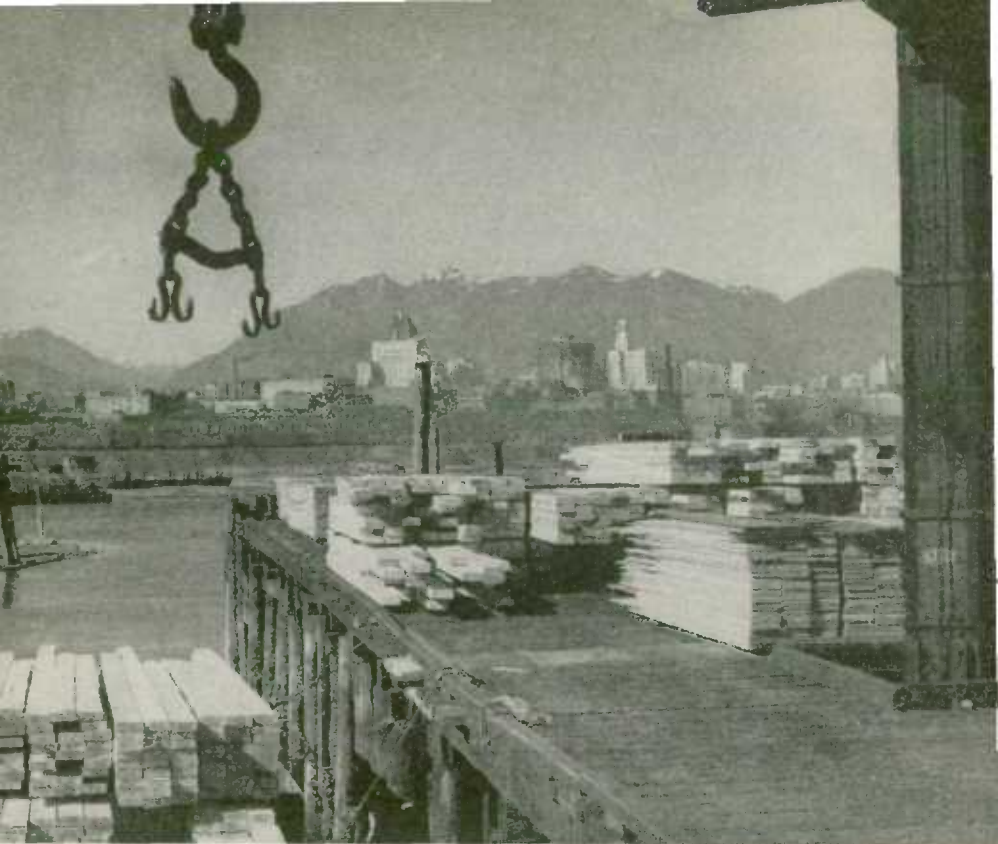
'000,000,000'

\$

AGGREGATE EXTERNAL MERCHANDISE TRADE OF CANADA

1925-1945





Canadian Lumber awaiting shipment to the United Kingdom on the docks at Vancouver, B.C. During 1944, 851,537,000 bd. ft. of lumber left Canada for that destination.

from 1939 to 1942 by 150.9 p.c. and decreased 36.7 p.c. by 1944. Coal, petroleum and automobile parts showed fairly steady increases during the five years, amounting to 172.1 p.c., 146.8 p.c., and 217.4 p.c., respectively, from 1939 to 1944.

Principal Imports, 1939-44

(Millions of Dollars)

Commodity	1939	1940	1941	1942	1943	1944
Coal.....	41.6	49.6	61.6	81.9	101.2	113.1
Petroleum.....	39.7	48.4	56.5	57.5	66.4	97.9
Automobile parts.....	25.3	47.6	71.5	76.4	67.1	80.3
Machinery (except farm).....	42.8	71.5	130.4	71.6	106.0	78.6
Engines and boilers.....	7.6	12.4	32.7	19.6	47.0	63.2
Fruits.....	24.0	27.9	30.6	31.8	46.9	61.9
Electrical apparatus.....	13.8	21.3	28.2	28.2	48.5	57.9
Cotton goods (except raw).....	20.2	25.5	34.0	48.4	52.8	51.8
Rolling-mill products.....	32.3	55.6	60.7	81.1	65.6	51.4
Cotton, raw.....	16.4	25.1	31.8	40.4	33.3	40.8
Farm implements, etc.....	20.9	30.7	31.0	23.6	20.2	40.6
Books and printed matter.....	15.2	16.7	14.8	16.1	18.0	18.2
Vegetables.....	7.0	7.7	7.1	9.2	14.1	15.0
Coffee and chicory.....	4.6	3.7	4.6	4.5	7.8	14.2
Glass and glassware.....	7.9	10.1	12.1	11.1	10.7	14.0

EXTERNAL TRADE

Exports.—As previously stated, Canada's domestic exports increased 272 p.c. between 1939 and 1944. The largest percentage increase was in the miscellaneous commodities group, which reached its peak in 1943. The tremendous increase is accounted for by the fact that this group includes such military equipment as aircraft, shells, ships and Canadian military stores. Heavy shipments of foodstuffs to the United Kingdom and the Canadian Armed Forces overseas is reflected in an increase of 216.6 p.c. in the agricultural, vegetable and animal products groups. Shipments of military vehicles of all kinds and of guns account for a large proportion of the increase recorded in the iron group. Unlike all other commodity groups, the wood and paper products category contains a high percentage of essential civilian goods, but nevertheless the values have almost doubled since 1939 as a result of increased demands for lumber, newsprint, wood-pulp and other products.

Domestic Exports (Excluding Gold) by Main Groups, 1939-44

(Millions of Dollars)

Group	1939	1940	1941	1942	1943	1944
Agricultural and vegetable products.	220.1	218.3	285.7	257.8	483.8	741.3
Animals and animal products.	131.8	164.7	201.7	256.7	289.6	372.9
Fibres, textiles and textile products. .	14.4	21.6	30.8	28.9	30.6	59.7
Wood, wood products and paper.	242.5	348.0	387.1	389.8	391.1	440.9
Iron and products.	53.1	127.7	239.9	467.1	716.6	772.9
Non-ferrous metals and products.	182.9	194.7	244.0	308.9	332.7	339.9
Non-metallic minerals and products. .	29.3	33.8	45.2	56.6	62.2	58.4
Chemicals and allied products.	24.3	31.2	58.7	77.3	86.4	100.7
Miscellaneous commodities.	16.5	39.9	127.9	520.6	578.5	553.2
Totals.	924.9	1,179.0	1,621.0	2,363.7	2,971.5	3,439.9

Principal Exports.—Wheat and automobiles were the main exports in 1944. Wheat and wheat flour exported increased by 277.8 p.c. from 1939 to 1944, while the large shipments of military vehicles and parts accounted for the increase of 1,405.9 p.c. in automobiles and parts exported during the same period. Newsprint exports advanced by 30.9 p.c. from 1939 to 1940 and remained at a fairly steady level thereafter.

Principal Exports, 1939-44

(Millions of Dollars)

Commodity	1939	1940	1941	1942	1943	1944
Wheat.	109.1	119.5	161.9	121.8	234.5	384.2
Automobiles.	22.6	54.3	128.8	194.3	240.8	246.2
Meats.	37.4	63.3	84.2	110.4	130.8	192.0
Newsprint.	115.7	151.4	154.4	141.1	144.7	157.2
Automobile parts.	3.0	10.3	20.2	63.0	213.9	139.3
Wood-pulp.	31.0	60.9	85.9	95.3	100.0	101.6
Aluminum in bars, etc.	25.7	33.0	75.8	112.2	124.5	95.8
Planks and boards.	48.8	67.7	74.2	80.1	74.2	90.1
Wheat flour.	16.4	26.4	44.8	45.8	66.3	90.0
Electrical apparatus.	3.2	3.3	4.5	25.0	41.1	71.7
Nickel.	57.9	61.2	67.7	68.4	68.3	68.4
Fish.	27.7	29.8	39.5	47.9	56.9	63.2
Oats.	4.1	6.2	3.3	6.8	42.3	60.9
Barley.	7.9	1.1	2.0	5.1	32.4	45.6
Copper in forms.	40.2	40.5	31.6	25.3	18.1	33.2

Exports by Countries.—The geographical distribution of Canadian exports has shown some marked changes under war conditions. The United Kingdom and the United States have retained their positions as Canada's best customers. In 1939 their combined purchases represented 76.5 p.c. of all Canadian exports, while in 1944 they amounted to 73.7 p.c. Exports to the United Kingdom increased from \$328,100,000 in 1939 to \$1,235,000,000 in 1944, the reason for this advance being, of course, the wartime demand for foodstuffs, munitions and military vehicles, wood products, etc.

With the enemy occupation of France, Belgium, the Netherlands and other territories, exports to European countries other than the United Kingdom dropped to \$11,600,000 in 1941 from \$57,900,000 in 1939. The trend of the War in Europe as well as Canada's increasing contribution under Mutual Aid can be traced in the distribution of its exports after 1941. Shipments of war materials to Russia accounted for the major part of exports to Europe, exclusive of the United Kingdom, in 1942 and 1943. In 1944 the value of goods to Europe reached \$322,800,000, and shipments to Russia amounted to \$103,300,000. The invasion of Italy in 1943 is reflected in Canadian exports to that country in 1944 valued at \$160,100,000. From D-Day to Dec. 31, 1944, direct shipments to France amounted to \$15,900,000.



A Locomotive built in Canada for the Indian State Railway. This is the first of an order of 190 such locomotives.

Exports to the United States increased from \$380,400,000 in 1939 to \$1,301,300,000 in 1944, due in part to the loss of European sources of supply for civilian goods. One example of this is the greatly increased shipments of wood-pulp, a market in peacetime for imports from the Baltic countries. Unprecedented amounts of wheat, barley, oats, nickel, aluminum and electrical apparatus, which included a considerable amount of radar equipment, were sent to the United States.

Despite shipping and production difficulties, Canada has aided to a large extent in supplying civilian requirements of Mexico, the various countries of the West Indies and Central America. Exports to this group rose steadily from \$20,200,000 in 1939 to \$59,800,000 in 1944. Goods supplied to Newfoundland in 1939 were valued at \$8,500,000 as compared with \$47,900,000 in 1944. Trade with South America showed only normal variations since it consisted of civilian goods with no war theatre included in that territory.

Exports to Asia have undergone major alterations. In 1939 this trade was valued at \$44,800,000 featured by exports to Japan which amounted to \$28,200,000. After Pearl Harbour, Canada's main exports to Asia went to British India, amounting to \$174,800,000 in 1944. War materials consigned to China in that year were valued at \$14,900,000, exports to Iraq at \$5,700,000 and to Turkey at \$7,100,000. Shipments to Australia and New Zealand increased considerably during 1942 but declined in 1943 and 1944 as a result of increasing supplies being available from the United States.

Non-Commodity Items of Foreign Exchange

A nation's commodity trade alone cannot be taken as a complete index of its prosperity, for there are many other exchanges besides those of goods, all of which must be taken into account in order to find out the basic state of affairs in regard to total international transactions.

The Tourist Trade

The growth of tourist travel in Canada, to the point where it became one of the nation's great 'service' industries, was a remarkable development in pre-war years. Tourist expenditures are, in part, the return that Canada derives from scenic attractions, fish and game, summer and winter sports activities and other attractions. The War has, of course, curtailed tourist traffic but total expenditures in Canada of travellers from other countries were estimated at \$111,900,000 in 1944 as compared with \$89,500,000 in 1943 and \$149,000,000 in 1939. Expenditures of Canadians abroad were \$59,500,000 in 1944 as compared with \$37,200,000 in 1943 and \$81,000,000 in 1939.

In order to conserve Canada's supply of United States dollars for more essential uses, the Government, in July 1940, placed restrictions on pleasure travel involving the use of United States dollars. Under these restrictions Canadian expenditures in the United States represented mainly expenditures for such purposes as business trips, travel for health reasons, etc. Modification of these restrictions was made in May, 1944. Under the new regulations Canadians might obtain up to \$150 in United States currency for one trip in a 12-month period, or up to \$75 for each of two trips in the same period. Further relaxations were introduced in May, 1945, and in the Budget of Oct. 12, 1945.

CANADA 1946

The effects of the wartime decline in motor traffic first became pronounced in 1942 when the expenditures of United States motorists in Canada were \$26,000,000 compared with \$54,000,000 in 1941. In 1943 there were further contractions in the expenditures of motorists but these were more than offset by much heavier expenditures by persons travelling by rail than in former years, which reflected a growing volume of business and official travel. There was some recovery in automobile travel in 1944. Travel by other means also increased and total expenditures in Canada were higher than in any earlier wartime year.

Expenditures of Foreign Travellers in Canada and Canadian Travellers Abroad, 1943 and 1944

Class of Traveller	1943			1944		
	Foreign Expenditures in Canada	Canadian Expenditures Abroad	Excess of Foreign Expenditures in Canada	Foreign Expenditures in Canada	Canadian Expenditures Abroad	Excess of Foreign Expenditures in Canada
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Travellers from and to overseas countries ¹	2,500	3,500	-1,000	2,900	2,800	100
Travellers from and to the United States—						
Automobile.....	17,000	1,900	15,100	25,000	3,800	21,200
Rail.....	49,000	22,000	27,000	60,000	33,100	26,900
Boat.....	6,000	700	5,300	7,000	800	6,200
Bus (exclusive of local bus).....	5,000	3,200	1,800	6,000	8,700	-2,700
Aeroplane.....	3,000	1,200	1,800	3,000	2,400	600
Other (pedestrians, local bus, etc.).....	7,000	4,700	2,300	8,000	7,900	100
Totals, United States.....	87,000	33,700	53,300	109,000	56,700	52,300
Totals, All Countries.....	89,500	37,200	52,300	111,900	59,500	52,400

¹ Including Newfoundland.

Canadian Balance of International Payments

In an economy such as Canada's, where external sources of income and demand furnish an important dynamic element to activity within the country, the balance of payments focuses attention on the impact of external demand upon the Canadian economy, the expenditure of income outside of Canada, and the resulting financial and exchange aspects.

From the point of view of exchange and finance, the balance of payments is divided into two clearly defined divisions: the balance of payments between Canada and the sterling area, and the balance of payments between Canada and the rest of the world with which Canada's dealings are on a United States dollar basis. Because of conditions arising from the War, Canada's balance of sterling income over disbursements is no longer freely convertible into United States dollars whereas, before the War, sterling balances were employed in part to cover the deficit in United States dollars.

With the sterling area, the problem has been one of finding means of financing the growing British shortage of Canadian dollars resulting from the extraordinary

wartime needs of the United Kingdom for Canadian munitions, food and raw materials. In the earlier years of the War, this shortage was principally met by the Canadian Government repatriating Canadian securities owned in the United Kingdom and by the accumulation of sterling balances by the Foreign Exchange Control Board. Some settlements have also been effected by purchases of gold from the United Kingdom which has, in turn, been sold in the United States to settle Canadian deficits there. In 1942 a contribution of \$1,000,000,000 was made to the Government of the United Kingdom for expenditure on war supplies in Canada. In the same year the major part of the accumulation of sterling balances by Canada was converted into a loan of \$700,000,000 to the United Kingdom. In 1943 and 1944 the Canadian Parliament set aside appropriations of \$1,000,000,000 and \$800,000,000, respectively, for Mutual Aid, for the production and transfer of Canadian war supplies to the United Nations. Increasing current payments by the Canadian Government to meet the overseas expenditures of Canadian Forces totalling \$1,085,000,000 in 1944 provided a very substantial source of Canadian dollars which enabled the United Kingdom to obtain a large volume of commodities from Canada for the prosecution of the War.

In the case of the balance of payments with non-Empire countries, the central problem has been a Canadian shortage of United States dollars. The customary deficits in Canada's current account with the United States were greatly augmented by the War in each year until 1943, principally because of the rapid rise in Canadian imports from the United States. At the same time, net credits from other foreign countries whose currencies are convertible into United States dollars sharply contracted with the decline in exports to Continental Europe and Asia.

As regards requirements for United States dollars to meet deficits with the United States, exchange control and control of capital movements provided the principal means of conservation. Government measures also limited expenditures on Canadian pleasure travel and non-essential commodities. Settlements made by the United Kingdom in United States dollars, and in gold sold in the United States, were also a factor in meeting deficits in the United States. Still another factor was the growing volume of imports of capital arising, mainly, from the purchase of outstanding Canadian bonds by United States investors.

In the last two years of the War a combination of temporary developments have helped the situation still further. Although current payments by Canada for merchandise and services reached a record level in 1943 and declined only moderately in 1944, substantial increases in current receipts, from sales of munitions and from sales of grain to the United States, have occurred. Other exports to the United States were also heavier and more diversified than formerly. Finally a substantial source of United States dollars in the latter years of the War originated in United States Government expenditures on defence activities in Canada such as the construction of the Alaska Highway and airfields, the Canol project, and other activities in northern Canada.

As a result the current account deficit with the United States was reduced to negligible size in 1943. In the year 1944, however, the unusual sources of receipts were so heavy there was a substantial surplus from current transactions in the United States. When certain large special payments resulting from the termination of the Hyde Park Agreement of 1941 are taken into account, however, there remains a small credit balance for the year.

Internal Trade—Prices—Cost of Living

Internal Trade

The diverse resources of the various parts of the country have led to a vast exchange of products and the task of providing goods and services where they are required for consumption or use by a population of 11,975,000, very unequally distributed over half a continent, accounts for a greater expenditure of economic effort than that required for the prosecution of Canada's great volume of external trade, high though the Dominion ranks among the countries of the world in this field.

Internal trade is broad and complicated, including as it does the transportation and distribution of goods within the country through the medium of railways, steamships, warehouses, wholesale and retail stores, and other agencies. It also includes all services such as those carried on by doctors, hospitals, theatres, schools, banks, insurance companies, and innumerable others. All such activities, even if not productive of material goods, add substantially to the national income.

Unfortunately, owing to the many ramifications of internal trade, its statistical measurement presents great difficulties. Nevertheless, some idea of its extent may be gathered from the fact that, in 1944, the national income arising from productive operations in Canada was estimated at \$12,500,000,000 while the value of exports of Canadian produce (excluding gold) though proportionately very much higher than normal was \$3,440,000,000 in that year.

Wholesale Trade

Results of the Census of Merchandising and Service Establishments (taken every ten years) for 1941 show a total of 24,758 wholesale trading establishments or agencies with annual sales of \$5,290,750,500 of which \$4,278,341,500 represented the sale of goods on own account while the remaining \$1,012,409,000 represented sales made on commission for others. Wholesale firms required the services of 94,627 male and 22,844 female employees to whom \$189,449,100 was paid in salaries and wages. In addition there were 13,656 proprietors actively engaged.

These figures summarize the activities of wholesale firms which differ widely not only in the commodities dealt in but also in the services or functions performed. There are duplications in the total sales figures, some types of wholesalers transacting business with other types. Included in the totals are 9,417 establishments classified as wholesalers proper and consisting chiefly of regular wholesale merchants engaged in servicing the retail trades. These had sales of \$2,358,475,300. The remainder of the establishments consist of such types of business as agents and brokers, grain elevators and other assemblers of farm products, sales offices maintained by manufacturers at locations apart from the plant and the bulk tank stations operated by the wholesale distributors of petroleum products.

Retail Trade

The final stage in the distribution of consumer goods is effected through a great number of retail stores ranging in size from small shops, with meagre daily takings, to large enterprises, whose annual sales are reckoned in millions of dollars. Final results of the Census of Merchandising for 1941 show a total of 137,331 retail stores with \$3,440,901,700 sales, an increase of 24.9 p.c. over the volume of business transacted in 1930, the only other year for which complete details are available.



A Passenger Train passing over the famous Jackfish Curve on the north shore of Lake Superior.

Retail trading provided employment for 297,047 full-time employees in 1941 of whom 188,658 were male and 108,389 were female and to whom \$289,379,500 was paid in salaries and wages. There were also 95,561 part-time employees who received \$25,058,000. In addition there were 131,823 proprietor workers engaged in their own stores.

Sales on the instalment plan were reported at \$313,233,400 or about 9 p.c. of the total volume of retail business. Customers' accounts owing to retail merchants, representing accounts outstanding not only on instalment sales but also on open account and charge purchases, amounted to \$240,269,200 at the end of 1941.

Large-Scale Merchandising.—The development of large-scale merchandising in Canada as in other countries followed two main lines of growth. In the first instance, there was the development of large individual establishments, chiefly of the department-store type and associated in some cases with extensive mail-order business. Secondly, there was the rapid expansion in the chain-store type of distribution which took place in the 1930's.

Department stores, including the mail-order business transacted by these firms, had sales of \$377,806,000 in 1941 or 11.0 p.c. of the total retail trade of the country. There were 532 chain store companies (firms with four or more stores)

in the census year and these operated a total of 8,011 stores with \$642,999,500 sales or 18.7 p.c. of the total volume of retail business. Thus chains and department stores together transacted 29.7 p.c. of the total retail trade while the vast number of smaller independent stores accounted for the remaining 70.3 p.c.

Results of annual surveys of retail chains show a reduction in the number of chain companies and chain outlets during recent years. Results for 1943 show 448 chain companies operating 7,074 stores with \$708,249,100 sales, an amount which formed 18.9 p.c. of the total estimated retail trade for that year.

Current Trends.—The trend in consumer expenditures in retail stores during recent years has been influenced strongly by two opposing sets of factors. The major factor acting as a stimulant to consumer purchasing has been, of course, the increased purchasing power in the hands of consumers resulting from high employment levels. Payments of monthly allowances to dependants of members of the Armed Forces and, in more recent months, payments of gratuities and the institution of family allowances constitute other factors acting in the same direction.

On the other hand, large portions of the country's purchasing power have been removed from circulation either by taxation or government borrowing. Nevertheless, it is significant that the volume of notes and currency circulating in the hands of the public and available for business purposes and consumer expenditures has increased markedly in recent years. In 1933 it was only \$178,470,000; by 1941 it had risen to \$492,100,000 while in 1944 it stood at \$990,100,000.

Curtailed production of certain durable goods, notably automobiles, radios and household electrical appliances, has affected adversely those types of retail stores dealing in such commodities. Marked increases in the business of stores specializing in these items can be expected when normal peacetime production is restored.

Revised estimates of retail sales for 1942 and 1943 indicate that sales in those two years stood 5.6 p.c. and 9.1 p.c., respectively, above the level of the census year. Preliminary figures for 1944 reveal a further increase of 8.1 p.c. above 1943 while sales for the first eight months of 1945 averaged 8.1 p.c. above the corresponding period of 1944.

Furniture stores, hardware stores and jewellery stores recorded increases for the first eight months of 1945 considerably in excess of this average. Substantial gains for radio and electrical specialty shops in recent months, indicating an improved supply position, were partially offset by minor increases or decreases in the first half of the year resulting in a net gain of 5.6 p.c. for the eight-month period.

Retail Services

In addition to the more than 137,000 retail merchandise stores in operation in 1941, there were 49,271 service establishments recorded in the results of the Census of Merchandising and Service Establishments and these had total receipts of \$254,677,900 in the census year. These figures cover a wide range of establishments of various types, located generally in the retail marketing sections of urban areas and whose revenue represents receipts from services rendered rather than from the sale of merchandise. Professional services, transportation services, and services related directly to the building trades, masonry, plumbing, etc., are not included.

The provision of amusement and personal services of various kinds forms a large proportion of the total. Included in the personal services group are 14,529 barber shops, beauty parlours, or combined barber shops and beauty parlours with total

INTERNAL TRADE

receipts of \$30,563,900. Included in the amusement group are 1,244 motion-picture theatres with box-office receipts (exclusive of taxes) amounting to \$41,368,800. Figures for 1942, 1943 and 1944 reveal a further expansion in motion-picture theatre attendance and receipts. There were 208,167,180 paid admissions in 1944 while box-office receipts, exclusive of amusement taxes, amounted to \$53,173,325. Dominion and provincial amusement taxes at motion-picture theatres amounted to an additional \$13,555,730.

Co-operative Associations

Co-operative business organizations in Canada occupy an important position in the marketing of agricultural products, purchasing of farm supplies, and in operating co-operative stores. For the year ended July 31, 1944, in comparison with 1943, the value of grain marketings increased from \$134,000,000 to \$264,000,000, live stock from \$63,000,000 to \$82,000,000, dairy products from \$44,000,000 to \$52,500,000, fruits and vegetables from \$19,500,000 to \$21,000,000, and poultry and eggs from \$11,000,000 to \$15,000,000. According to reports received in 1944, shareholders and members financially interested numbered 690,967 and total business exceeded \$525,000,000. The members' equity amounted to \$72,491,538

SS Lemoyne, the longest bulk freighter on the Great Lakes, at the entrance of the Welland Canal. This vessel is 621 ft. long and has a capacity of 500,000 bu. of wheat.



"Packinghouse Row",
Winnipeg, showing
two large abattoirs
with stockyards on
the extreme left.



consisting of paid-up share capital of \$15,608,150 and reserves and surplus of \$56,883,388. From 1943 to 1944 total working capital increased from \$25,000,000 to \$31,500,000.

In Canada early expansion of co-operative activity took place most rapidly and to the greatest degree in the marketing of farm products. Presumably this field offered the farmer the greatest opportunity to effect savings and to provide needed services. However, in recent years with the establishment of co-operative wholesales in nearly every province, the purchasing of farm supplies and household needs on a co-operative plan has shown a marked increase.

Out of the 1,792 co-operative associations reporting in 1944, a total of 331 handled food products to the value of \$15,000,000 and 213 associations handled over \$2,000,000 worth of clothing and home furnishings for their members and patrons. These associations included the business of approximately 330 urban consumer societies. Petroleum products, handled by 561 associations, were valued at \$11,000,000.

In order to increase crop and live-stock production, farmers of 803 associations purchased \$25,000,000 worth of feed, fertilizer and spray material on a co-operative basis.

Credit unions are active in all provinces of Canada. At Dec. 31, 1943, there were 1,780 credit unions chartered in Canada with a membership of 374,069. More than \$154,000,000 has been lent to the members of the various credit unions in Canada during their period of operation. Loans in the year 1943 totalled about \$17,000,000.

A mutual fire insurance company was formed in Ontario in 1836 and several others, still functioning as farmers' mutuals, were organized between 1850 and 1860. To-day there are over 400 such companies in Canada with net assets of over \$14,000,000 and insurance at risk amounting to over \$1,000,000,000. These have a long history of successful operation.



Approximately 108,000, or 6 p.c., of the telephones in Canada are operated by rural co-operative companies in which there is a total investment of \$22,000,000.

Societies have been formed by fishermen on both coasts for the purpose of canning and marketing fish and buying gear on the co-operative plan. During 1943, 68 fishermen's co-operative societies in Nova Scotia, Quebec and British Columbia with a membership of 7,193 did business amounting to \$5,055,109.

Co-operative housing and co-operative hospitalization and medical service are other forms of newer co-operative ventures that are operating successfully.

Combines in Unlawful Restraint of Trade

The Combines Investigation Act provides facilities for the investigation of trade combinations and monopolies which are alleged to have operated in restraint of trade and to the detriment of the public. Organizations or commercial arrangements of this class which operate to the detriment of the public by enhancing prices, fixing common prices, restricting competition, limiting production or otherwise restraining or attempting to restrain trade, are defined in the Act as combines. Participation in the formation or in the operation of a combine is an indictable offence, subject to penalties up to \$25,000 or two years' imprisonment. Prosecutions for alleged offences may be undertaken at the instance of the Attorney General of a province or the Attorney General of Canada. Provisions against similar offences are contained in the Criminal Code of Canada.

Investigations of alleged combines are conducted under the direction of a Combines Investigation Commissioner. The Act provides for publication of reports of such investigations and for prosecution when a combine is found to exist. During the War, direct controls of prices and supplies by the Wartime Prices and Trade Board and other Government wartime agencies have operated in fields of trade to which the Combines Investigation Act is applicable. As these war controls of

CANADA 1946

prices and supplies are progressively removed, the Combines Investigation Act, in providing against undue restrictions of trade, will be of increasing assistance in relation to the establishment of conditions of expanding trade activity designed to permit high levels of Canadian employment and income.

Wholesale Prices

Wholesale price levels recorded a minor advance of 0.2 during the first nine months of 1945 to reach 102.7 for September. Changes in 1944 and 1945 have been so small that wholesale price levels give the impression of a plateau for these years. Wartime movements from 1939 to 1943 recorded a sharp rise from August, 1939, to the end of 1941, and a more gradual ascent in 1942 and 1943. The plateau in 1944 and 1945 following this advance affords a marked contrast to the precipitous rise in 1919 and 1920, which were also the fifth and sixth years following the outbreak of a world-wide conflict. However, inflationary forces had spent themselves in Canada by July, 1920, whereas the danger of inflation still remained in the latter half of 1945.

Index Numbers of General Wholesale Prices and Wholesale Prices of Canadian Farm Products, August, 1939, and January, 1944, to November, 1945

(1926 = 100)

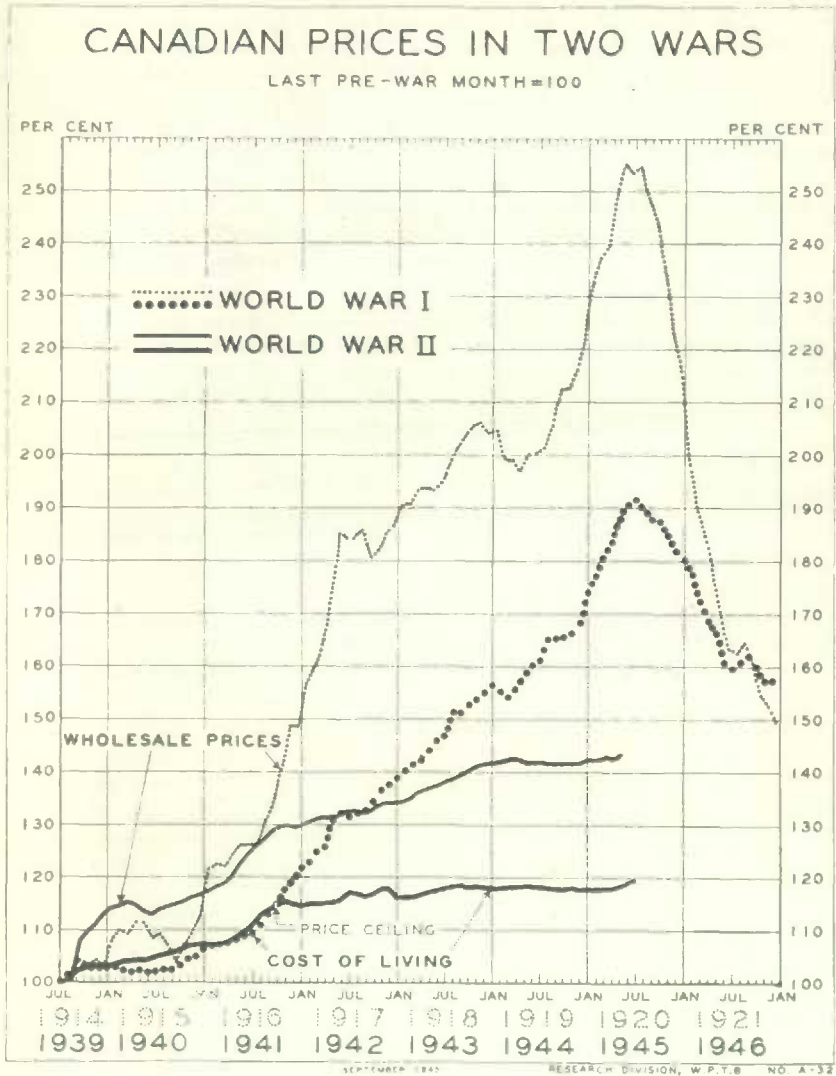
Year and Month	Index Numbers of—		Year and Month	Index Numbers of—	
	General Wholesale Prices	Canadian Farm Products		General Wholesale Prices	Canadian Farm Products
1939			1945¹		
August.....	72.3	58.4	January.....	102.8	104.4
1944			February.....	102.9	104.6
January.....	102.5	104.1	March.....	103.0	105.1
February.....	102.7	104.2	April.....	103.4	105.3
March.....	103.0	104.5	May.....	103.0	104.6
April.....	102.9	104.0	June.....	103.2	105.7
May.....	102.5	101.9	July.....	104.0	107.8
June.....	102.5	102.0	August.....	103.4	105.8
July.....	102.5	102.0	September.....	102.7	103.5
August.....	102.3	101.2	October.....	102.9	105.6
September.....	102.3	101.1	November.....	103.1	106.1
October.....	102.4	102.9	December.....	—	—
November.....	102.4	103.1			
December.....	102.5	103.3			

¹ Subject to revision.

Price Control at the End of the War

On Sept. 1, 1945, the cost-of-living index was only 3.8 p.c. above the level of Oct. 1, 1941, the middle date of the basic period for the over-all price ceiling. The Canadian stabilization program, involving price and wage control, control over the production and distribution of civilian supplies, heavy taxation and borrowing, had been effective in preventing any marked increase in living costs.

The danger of war-generated inflation did not, however, end with V-J Day and though the fighting had ceased the economic consequences of the War remained



evident on every hand. Though many controls were lifted, stabilization measures were still urgently required and the Government announced that it was "determined to safeguard the stabilization program until its full benefits can be reaped in a smoother, more rapid transition to a prosperous peacetime economy". This meant that price control would have to be maintained so long as continuing shortages, inflated buying power and higher costs threatened to produce sharply rising prices.

The supply of civilian goods continued to be restricted after V-J Day because

of the time required to translate the resources of labour, materials and plant released from war activities into increased production of civilian goods and also because of the large and urgent needs of Canada's former Allies for food and reconstruction materials. At the same time, demand for civilian goods was swollen because, for example, of the needs of demobilized men for civilian apparel and of the emergence of large deferred demands for such things as household appliances, backed by accumulated wartime savings and by discharge benefits. Production costs, inflated as a result of wartime shortages, remained comparatively high in a number of cases. While these conditions of shortage were temporary, it was clear that so long as they prevailed stabilization measures and particularly price control were essential if prices and the cost of living were to be kept from rising sharply.

This account of the price ceiling deals with its operation up to the time of writing (October, 1945), and specifically with the past twelve months. Since conditions in some of the fields discussed are changing rapidly, parts of it may not be pertinent to the situation at the time of publication of this Handbook.

Under the general price ceiling established in December, 1941, and administered by the Wartime Prices and Trade Board, the prices of most goods and the more important services were frozen at levels prevailing in the "basic period", Sept. 15 to Oct. 11, 1941. A few types of commodities were exempted from the ceiling but, where their prices tended to rise unduly and the goods were important, maximum prices were later established (e.g., the more important fresh fruits and vegetables). In the interests of greater clarity and better enforcement specific maximum prices were set for some goods, particularly foods replacing the individual ceilings based on each seller's "basic period" prices. Such specific maximum prices were usually set at the wholesale level, with allowance for regional differences and with regulated retail markups or, in some instances, specific retail prices.

The "basic period principle" which governed the administration of price control involved not only the stabilization of prices but also the maintenance, so far as practicable, of the same price-quality relationships and the same proportionate volume of production in each price range as in the basic period. It involved, too, the fair distribution of scarce goods between the various regions and between different dealers. Since prices were no longer free to increase and thus strike a balance between demand and supply, price control was necessarily linked with control over supply and distribution such as rationing, the allocation of raw materials and, where necessary, the direction of production and the simplification of products. Similarly, rent control necessitated the protection of tenants against arbitrary eviction.

Wartime increases in costs and the general pressure of expanding buying power were the sources of many problems in the administration of price control. To a substantial degree the "squeeze" of higher costs was absorbed by producers, importers and distributors. In some businesses, the impact of increased costs was offset by the higher volume of sales and in many fields cost-reducing measures, frequently introduced by the Prices Board, helped to reduce the squeeze. Where such methods proved insufficient and where a continued supply of the commodity concerned was necessary, subsidies were paid or, in some instances, ceiling prices were raised.

In fixing prices for goods not sold during the basic period the procedure was to determine the price at which these goods would have sold in the basic period rather

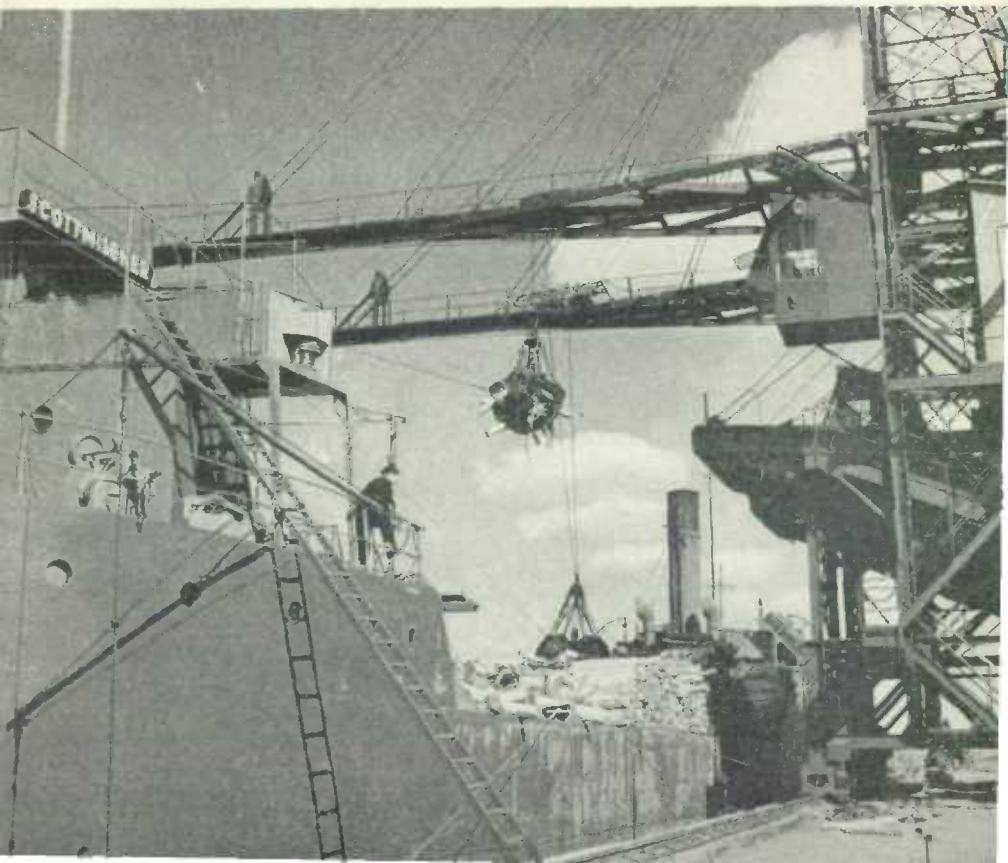
than their actual cost of production. When a price so determined did not cover current costs of production the problem was dealt with in the same way as any other arising out of higher costs.

Particular problems that arose during the first three years of the general ceiling have been discussed in previous volumes of this Handbook. A few of the problems encountered in the fourth year are briefly reviewed below.

The coming of reconversion raised difficult problems of pricing for the variety of goods, such as household appliances and automobiles, which had not been produced in volume for some time. Some reconverting manufacturers claimed that they could not afford to produce at 1941 prices, owing to wartime increases in the costs of labour and materials, together with increases in overhead costs resulting from the reduction in total volume consequent upon cancellation of war orders.

It was not possible, however, to indicate conclusively the extent to which different manufacturers would suffer financial need at 1941 prices, since there was no recent production experience on which estimates of prospective costs could be based, and since in any event prospective costs depended upon a number of factors

Unloading Pulpwood at the docks of a paper company. An enormous amount of freight is transported over the St. Lawrence and Great Lakes Waterways which extend more than 2,000 miles into the heart of industrial Canada. The bulk of this traffic consists of wheat, coal, iron ore and gasoline.



such as prospective volume which could not be accurately determined. Moreover, there was good reason to believe that labour and material costs had in some respects been temporarily inflated as a result of overtime, high labour turnover, the use of inexperienced help, and of less satisfactory substitutes for materials in short supply. In any case, the detailed surveys and estimates required to deal individually with each of the large number of goods and components would have required a great deal of trained personnel and would have taken a very considerable time with the consequent danger of delaying reconversion.

In this situation the Prices Board's task was greatly relieved by the removal in May, 1945, of the special excise tax of 25 p.c. on electrical and gas household appliances and the reduction of the tax in the case of passenger cars, radios, phonographs and cameras. The war exchange tax on imports from the United States was removed and the 8 p.c. sales tax was taken off building materials and machinery and equipment used in production. These taxes had been imposed before the basic period and their removal generally gave manufacturers an appreciable amount of leeway in meeting higher costs without changing basic-period prices. In many cases it was expected that part of the tax relief would be passed on to the consumer—and to date this has been the case in a substantial number of instances.

With the end of hostilities the administration of the price ceiling also had to take into account the ultimate objective of removing price control when the danger of inflation had passed. If controls were to be removed without serious disturbance to the economic structure, it was important that ceiling prices and "free" market prices should be fairly well in harmony at that time. This meant that major increases in costs which were likely to persist would have to be gradually recognized in the ceiling price structure and that subsidies would have to be gradually eliminated. Furthermore, the prospects of an increasing volume of civilian production and imports involved a danger that subsidies on a number of items might increase sharply in the reconversion period. Many subsidies were therefore removed during 1945, sometimes at the cost of price adjustments, and plans were made for the removal of others.

The pressure on price ceilings resulting from the discrepancy between available supplies and consumers' demands created particularly serious problems in the spheres of food, textiles and housing. Demands on world food supplies were increased by the liberation of Europe while production could not be expanded for some time and in some important instances was declining. These conditions were reflected in Canada by such developments as reduced imports of sugar and fats and the need to maintain a high level of meat exports in spite of a serious fall in hog slaughtering. Textile imports were restricted by shortages in Great Britain and the United States and domestic production was held back by labour shortages, while demand had been increasing steadily. Housing construction was held up by shortages of building labour and labour shortages in the industries producing construction materials, while congestion in the cities became increasingly serious as war veterans returned.

Control over retail food prices was improved by the issue of an "item index" to retailers, listing all foods covered by special pricing orders as well as those exempt from ceiling regulations. The index summarized the retail pricing or mark-up provisions for each item, thus relieving retailers of the necessity of studying detailed reports on orders and amendments.

PRICES

In the first half of 1945, shortages of meat developed as a result of declining slaughterings and the heavy exports needed to help in meeting the urgent requirements of Great Britain and liberated Europe. The shortage led to a rise in prices for live hogs and cattle (which are not under price control) so that these prices tended to move out of line with the ceilings for dressed meat. As a result, black-market transactions in meat multiplied and it became increasingly difficult to procure meat for export. In order to maintain the domestic price ceiling and fair distribution while ensuring a sufficient export surplus, meat rationing was reintroduced in September, 1945.

In view of the shortage of textiles, the system of "production directives", begun in 1943, was extended to all essential garments and some fabrics. The directive system involved the programming of garment requirements, the issue of directives to each firm stating the volume of output required, and the supervision of fabric production and distribution in accordance with these programs. In order to promote the maintenance of low and medium priced lines, the directive issued to manufacturers stipulated that garments must be produced in 1942 (in some cases 1943) price ranges with the same proportionate volume in each price range as in that year.

The growing pressure on rental ceilings, resulting from the shortage of housing, made it necessary to tighten the regulations protecting tenants against arbitrary eviction. The protection enjoyed by occupants of houses and apartments was extended to tenants of rooms and flats (with the exception of boarders) since, in many instances, landlords had evicted or threatened to evict roomers in order to obtain higher rentals. The new regulations provided that well-behaved tenants of rooms or flats could be evicted only if the landlord desired the accommodation as an extension of his own residence or for a member of his immediate family. Six

Shopping in a typical Canadian Country Store carrying a great variety of merchandise.



months' notice must be given and tenants holding weekly or monthly leases cannot be asked to vacate in the winter months between Sept. 30 and Apr. 30.

In the summer of 1945, the increasing congestion and the growing number of notices to vacate, in many cases given to families of service men, led the Government to suspend all evictions from houses and apartments even when the landlord desired the accommodation for himself or a member of his family. Outstanding notices to vacate were to be reviewed, and the issue of further notices was banned. It was made clear that this was a temporary measure, necessitated by the acute emergency. This measure did not apply in the cases where the landlord was a returned service man who had owned the accommodation at the time of his induction, or where a member of the landlord's immediate family was a veteran who had occupied the accommodation at the time of induction. Special regulations were made to speed up the recovery of accommodation in these cases.

Cost of Living

The January, 1945, cost-of-living index of 118.6 was the lowest recorded since June, 1943. Practically no movement occurred in this series between January and April, but by August it had advanced to a wartime peak of 120.5. The November level of 119.9 was 18.9 p.c. above August, 1939.

Wartime increases in the six-family budget group indexes which are combined to calculate the composite total, have varied widely. In order of magnitude these increases have been as follows: foods, 35.1 p.c.; clothing, 22.1 p.c.; home furnishings, 18.3 p.c.; miscellaneous items, 8.1 p.c.; rents, 8.0 p.c.; and fuel and light, 7.8 p.c. The fuel and light series has been held down by declines in the electricity index which is now below pre-war levels.

Index Numbers of Living Costs in Canada, 1936-44, and by Months, 1945

(Av. 1935-39 = 100)

Year and Month	Food	Rent	Fuel and Light	Clothing	Home Furnishings	Sundries	Total
1936.....	97.8	96.1	101.5	99.3	97.2	99.1	98.4
1937.....	103.2	99.7	98.9	101.4	101.5	100.1	101.2
1938.....	103.8	103.1	97.7	100.9	102.4	101.2	102.2
1939.....	100.6	103.8	101.2	100.7	101.4	101.4	101.5
1940.....	105.6	106.3	107.1	104.2	107.2	102.3	105.6
1941.....	116.1	109.4	110.3	116.1	113.8	105.1	111.7
1942.....	127.2	111.3	112.8	120.0	117.9	107.1	117.0
1943.....	130.7	111.5	112.9	120.5	118.0	108.0	118.4
1944.....	131.3	111.9	110.6	121.5	118.4	108.9	118.9
1945							
January.....	130.2	112.0	109.1	121.8	118.3	109.2	118.6
February.....	130.6	112.0	107.4	121.7	118.4	109.2	118.6
March.....	131.0	112.0	107.3	121.7	118.5	109.2	118.7
April.....	131.0	112.0	106.7	121.8	118.5	109.2	118.7
May.....	131.7	112.1	106.6	122.0	118.9	109.4	119.0
June.....	133.4	112.1	106.6	122.1	118.9	109.4	119.6
July.....	135.6	112.1	106.5	122.2	119.2	109.4	120.3
August.....	136.2	112.1	106.5	122.1	119.3	109.5	120.5
September.....	134.2	112.1	106.7	122.2	119.4	109.5	119.9
October.....	133.3	112.3	106.7	122.4	119.4	109.6	119.7
November.....	134.0	112.3	106.6	122.5	119.4	109.6	119.9

Public Finance

Dominion Finance

The warning given by the Minister of Finance six and one-half years ago when presenting his first Budget following the outbreak of war that the War would not be "short or moderately expensive" but would entail years of strenuous national effort has been amply borne out. The bringing down of the latest Budget—the first post-war Budget—on Oct. 12, 1945, proved just how strenuous those years have been and how they have taxed the resources of the country.

By boldly facing a policy by which the Government undertook to pay something less than one-half of the actual costs of war out of taxation and borrow the balance from the Canadian people themselves out of current savings (approximately the same balance between taxation and borrowing will be continued for at least the current fiscal year) an enormously high level of taxation was imposed according to previous Canadian standards. Also, by a carefully balanced system of priorities, by controls and rationing, the energies of the nation were directed to wartime needs, consumption was confined to necessary goods and services, and savings were ploughed back into the war effort. Thus, by about the middle of the War, the full burden of wartime taxation was being carried, and from that time to October, 1945, a rigorous financial schedule was adhered to.



Dominion Public Building,
Winnipeg, Man., which houses
various departments of the
Dominion Government.

CANADA 1946

Relief and encouragement has been given to Canadians of every class by the Budget of Oct. 12, 1945, summarized on p. 187. In their indirect effects and underlying significance, the cuts made in taxation, though admittedly a beginning, are designed to offer a concrete stimulus to enterprise and to facilitate the problems of reconversion as well as to encourage the peacetime development of Canada's rich resources.

Although at the end of the 1944-45 fiscal year the total Dominion unmatured funded debt stood at \$13,984,000,000, there were active assets to be deducted that brought the net debt on that date to \$11,298,000,000 as compared with \$3,153,000,000 at Mar. 31, 1939. In other words, the six years of war have increased the national net debt by 258 p.c., a heavy load, certainly, to carry but not out of proportion to the population and to the burden that is being borne by the other Allies.

Included in this net debt of \$11,298,000,000 as at Mar. 31, 1945, are a contribution to Britain and advances to the Allies under Mutual Aid amounting to a total of \$2,716,000,000 which were freely contributed by Canada as part of her financial effort. In considering this high national debt and the ability of the nation to carry it, the large savings built up during the war years by the people must not be overlooked. It is possible to make a rough estimate only of the savings held by Canadian individuals in certain liquid forms. At Mar. 31, 1945, more than \$9,500,000,000 were held by Canadian individuals in the forms of currency, bank deposits, refundable taxes and Dominion Government securities (\$5,250,000,000 in the last-named class alone) as compared with about \$3,000,000,000 in 1938. These savings do not include the large accumulations of individuals in the form of insurance, pensions, homes or corporate securities.

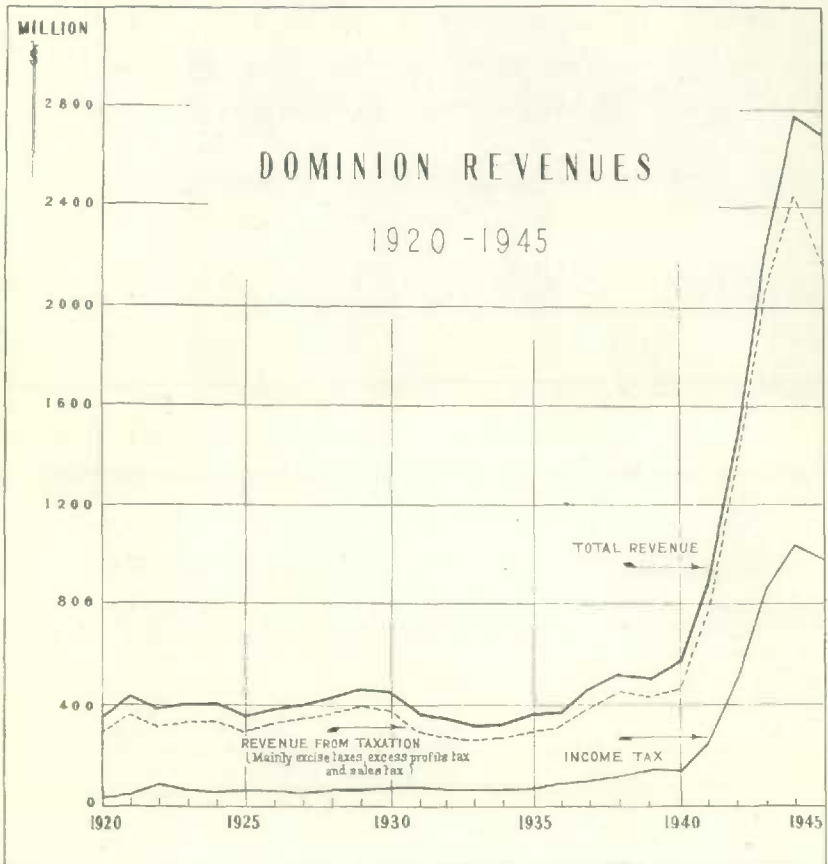
Dominion Finances, 1868-1945

Fiscal Year Ended Mar. 31	Total Revenue	Per Capita Revenue ¹	Total Expenditure	Per Capita Expendi- ture ¹	Net Debt at End of Year	Net Debt Per Capita ¹
	\$	\$	\$	\$	\$	\$
1868.....	13,687,928	3.90	14,071,689	4.01	75,757,135	21.58
1871.....	19,375,037	5.25	19,293,478	5.23	77,706,518	21.06
1881.....	29,635,298	6.85	33,796,643	7.82	155,395,780	35.93
1891.....	38,579,311	7.98	40,793,208	8.44	237,809,031	49.21
1901.....	52,516,333	9.78	57,982,866	10.80	268,480,004	49.99
1911.....	117,884,328	16.36	122,861,250	17.05	340,042,052	47.18
1921.....	436,292,184	49.65	528,302,513	60.12	2,340,878,984	266.37
1931.....	357,720,435	34.48	441,568,113	42.56	2,261,611,937	217.97
1933.....	311,735,286	29.32	332,369,940	50.07	2,596,480,826	244.19
1936.....	372,595,996	34.03	532,585,555	48.64	3,006,100,517	274.53
1937.....	454,153,747	41.12	532,005,432	48.17	3,083,952,202	279.22
1938.....	516,692,749	46.33	534,408,117	47.92	3,101,667,570	278.13
1939.....	502,171,354	44.57	553,063,098	49.09	3,152,559,314	279.80
1940.....	562,093,459	49.39	680,793,792	59.82	3,271,259,647	287.43
1941.....	872,169,645	75.79	1,249,601,446	108.59	3,648,691,449	317.08
1942.....	1,488,536,313	127.73	1,885,066,055	161.75	4,045,221,161	347.11
1943.....	2,249,496,177	190.44	4,387,124,118	371.41	6,182,849,101	523.44
1944.....	2,765,481,945	240.34	5,322,717,737	462.58	8,740,084,893	659.57
1945.....	2,687,334,799	221.75	5,245,611,924	432.81	11,298,362,018	932.29

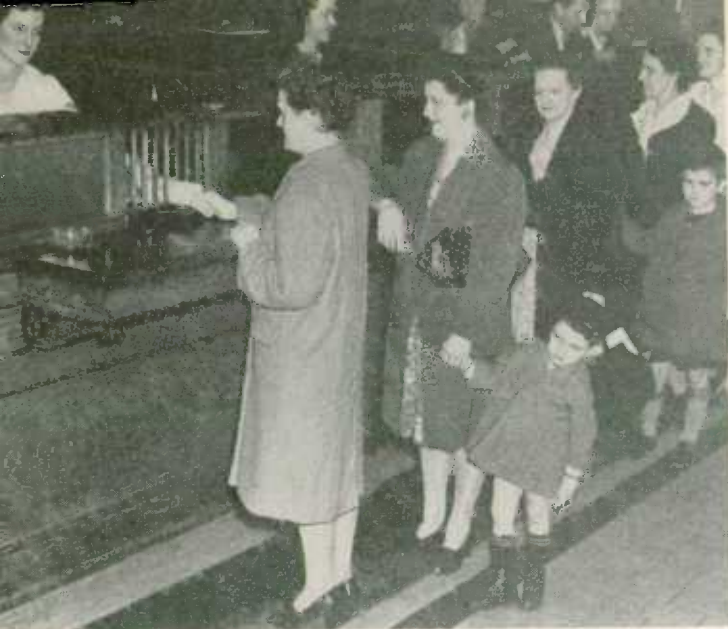
¹ Per capita figures for census years are based on census populations and for intervening years on official estimates.

² Includes non-active advances to railways and transfers from active to non-active assets.

In the fiscal year ended Mar. 31, 1945, both revenue and expenditures showed slight decreases from the record high levels attained in the previous fiscal year.



Net revenues decreased by \$77,684,000 to \$2,687,335,000, occasioned by decreases in income tax, excess profits tax and excise taxes which were partly offset by increased special receipts. Of total expenditures of \$5,245,612,000, expenditures on war accounted for \$4,418,446,000 or 84 p.c. This amount included \$803,346,000 representing Canada's contribution to the United Nations through the provisions of the United Nations Mutual Aid legislation. Ordinary expenditures, covering the normal operating costs of the Government increased by \$136,995,000 to \$767,376,000 due to increased debt charges arising out of war borrowings and to increased expenditures of the Department of Veterans Affairs. Special expenditures and expenditures on Government-owned enterprises totalled \$7,506,000 and \$1,358,000, respectively. The over-all deficit for the fiscal year was \$2,558,277,000 compared with \$2,557,236,000 in the previous fiscal year.



Canadian Mothers presenting family allowances cheques for payment; the first cheques were issued for the month of July, 1945.

Summary of Total Revenues and Expenditures, Fiscal Years Ended Mar. 31, 1941-45

Item	1941	1942	1943	1944	1945
	\$'000	\$'000	\$'000	\$'000	\$'000
Revenues					
Customs Import Duties	130,757	142,392	118,963	167,882	115,091
Excise Duties	88,608	110,091	138,721	142,124	151,922
Income Tax ¹	220,471	403,606	860,189	1,036,757	977,758
National Defence Tax	27,672	106,637			
Excess Profits Tax ²	23,995	135,168	434,581	428,718	341,305
Sales Tax	179,701	236,183	232,929	304,915	209,390
War Exchange Tax	61,932	100,871	94,553	118,912	98,161
Other taxes	37,404	125,962	186,784	237,503	260,997
Totals, Revenues from Taxation	770,540	1,360,913	2,066,720	2,436,811	2,154,627
Non-tax revenues	89,215	102,911	116,079	133,283	145,471
Totals, Ordinary Revenues	859,755	1,463,824	2,182,799	2,570,094	2,300,098
Special receipts and other credits	12,415	24,712	66,697	195,388	387,237
Totals, Revenues	872,170	1,488,536	2,249,496	2,765,482	2,687,335
Expenditures					
Ordinary expenditures	390,629	444,778	561,251	630,381	767,376
Capital expenditures	3,358	3,430	3,276	2,622	3,164
War expenditures (special)	752,045	1,339,674	3,724,249	4,587,023	4,418,446
Other special expenditures ³	42,869	63,976	31,288	37,496	7,506
Government-owned enterprises ⁴	18,182	1,214	1,248	1,307	1,358
Other charges	42,518	31,994	65,812	63,880	47,762
Totals, Expenditures	1,249,601	1,885,066	4,387,124	5,322,718	5,245,612
Deficits	377,431	396,530	2,137,628	2,557,236	2,558,277

¹ Net after deducting refundable portion of the tax amounting to \$50,000,000, \$115,000,000 and \$95,000,000 in the fiscal years 1943, 1944 and 1945, respectively.

² Net after deducting refundable portion of the tax amounting to \$20,000,000, \$10,000,000 and \$124,500,000 in the fiscal years 1943, 1944 and 1945, respectively.

³ Includes \$40,500,000 and \$12,600,000 reserve against estimated loss on wheat guarantees for 1940-41 and 1941-42, respectively.

⁴ Includes net income deficit of the Canadian National Railways incurred in the calendar year 1940 of \$16,965,000 taken into the accounts of the Dominion in the fiscal year after the close of the calendar year.

The 1945 Budget.—The Budget Speech for the fiscal year 1945-46 was presented in Parliament on Oct. 12, 1945. Tax reductions were announced representing a loss of revenue of \$300,000,000 in a full year and \$100,000,000 in the fiscal year 1945-46. After taking account of this reduction, revenues were estimated at about \$2,400,000,000 for the fiscal year as compared with estimated expenditures of \$4,650,000,000, leaving an estimated deficit of \$2,250,000,000.

The principal tax reductions proposed in the Budget Speech were:—

- (1) A reduction of 4 p.c. in individual income tax for 1945 and of 16 p.c. for 1946;
- (2) Reduction of the 100 p.c. rates of Excess Profits Tax to 60 p.c. from Jan. 1, 1946;
- (3) Increase in the minimum standard profit under Excess Profits Tax from \$5,000 to \$15,000, as from Jan. 1, 1946;
- (4) Removal of the 8 p.c. sales tax from all machinery and equipment used directly in the process of manufacture or production of goods as from the date of the budget;
- (5) Complete removal of the War Exchange Tax as from the date of the Budget.

Various other amendments were proposed, including several to implement the recommendations of the Royal Commission on the Taxation of Annuities and Family Corporations. Several income tax concessions to the mining and oil industries were renewed for another year. It was proposed that the succession duty law be amended to provide alleviation of duty in the case of "quick successions", and various tariff changes, largely of an administrative character, were projected.

War Loans.—The following table shows the growth of sales and applications from the First War Loan to the Ninth Victory Loan.

**Applications and Cash Sales in Connection with Canada's
War Loans and Victory Loans, 1940-45**

Date	Applications	Purchases by Individuals ¹	Purchases by Corp- orations ²	Total Cash Sales
	No.	\$'000'000	\$'000'000	\$'000'000
War Loans				
1 Jan. 1940.....	178,363 ³	132.0	68.0	200.0
2 Sept. 1940.....	150,890 ³	113.0	187.0	300.0
Victory Loans				
1 June 1941.....	968,250 ³	279.5	450.9	730.4
2 Feb. 1942.....	1,681,267 ³	335.6	507.5	843.1
3 Oct. 1942.....	2,032,154	374.6	616.8	991.4
4 Apr. 1943.....	2,668,420	529.5	779.2	1,308.7
5 Oct. 1943.....	3,033,051 ³	599.7	775.3	1,375.0
6 Apr. 1944.....	3,077,123	641.5	763.5	1,405.0
7 Oct. 1944.....	3,327,315 ³	762.2	750.2	1,512.4
8 May 1945.....	3,178,275	836.3	732.6	1,568.9
9 Nov. 1945 (preliminary).....	2,947,636	1,221.4	801.1	2,022.5

¹ Excluding special names. ² Including special names purchases by individuals. ³ Including conversion applications

War Savings Certificates.—To provide a form of savings for those not able to purchase the bonds of larger denominations of Victory and War Loans and to provide a means of regular savings, the Government instituted the sale of War Savings Certificates and Stamps in May, 1940. The Stamps are sold in the denomina-

tion of 25 cents and may be accumulated for the purchase of War Savings Certificates. The Certificates are issued at a cost to the purchaser of \$4, \$8, \$20, \$40 and \$80 and, if held to maturity, seven and one-half years after issue date, are redeemable at \$5, \$10, \$25, \$50 and \$100, respectively, and for lesser amounts if redeemed prior to maturity. The yield to the investor, if held to maturity, is 3 p.c. compounded semi-annually. From May 27, 1940, to Dec. 31, 1945, applications were received for Certificates having a purchase value of \$362,187,452.

In June, 1940, arrangements were made to issue Non-Interest Bearing Certificates in the denomination of one dollar or over, maturing June 15, 1945, but subject to redemption at the option of the holder at any time after six months from the date of issue. From February, 1944, the maturity date of new Certificates is June 15, 1947.

Analysis of Income Tax Collections

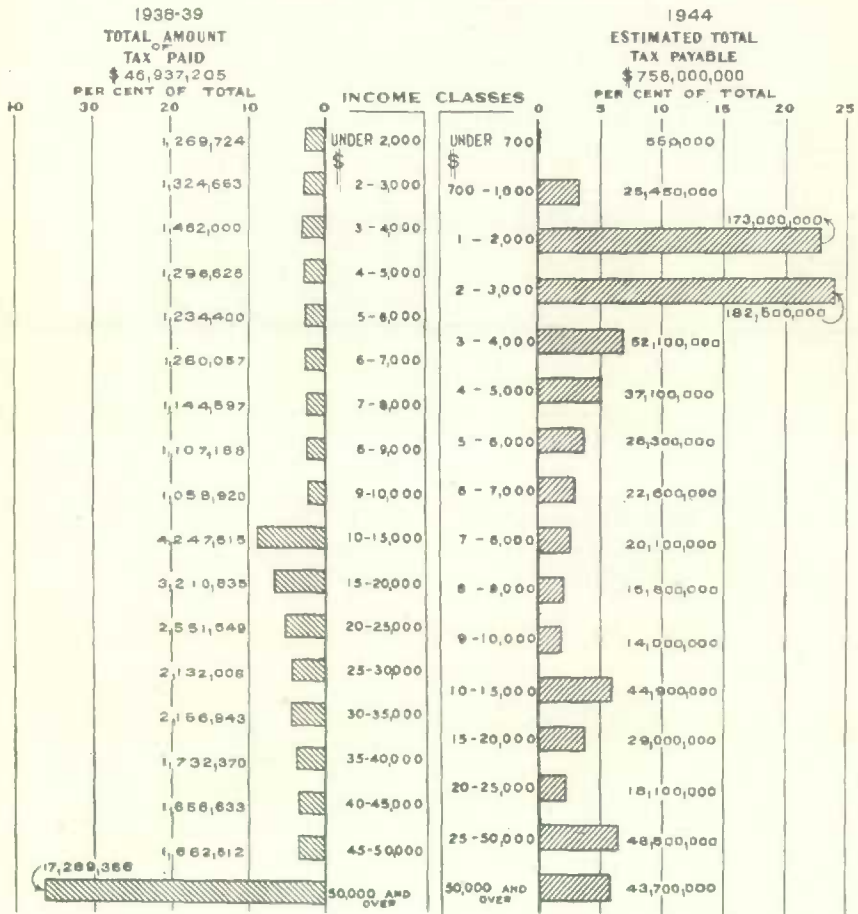
The income tax was introduced during the War of 1914-18 as part of what is still known as war-tax revenue. It is a war tax in name only, for even before the outbreak of the Second World War it had become a permanent and important part of the taxation structure, and the chief means of raising ordinary revenue. It is now, of course, playing a still more important role. In many respects, it is an ideal form of direct taxation; the incidence is admittedly fair and just and the machinery for the collection of this tax was ready to hand.

The pressure of war financing naturally forced the Government to lower the exemption limits and this broadening of the field, as well as the switch-over to a "pay-as-you-go" basis, has made it impossible to compile statistics relating to income groups and occupational classes on a comparable basis. Moreover, the task of transferring income-tax data to the new basis is a tremendous one since the shift has had to be made at a time when the income-tax field has been considerably extended. An indication of the manner in which the income tax has broadened out during the war years is shown by the number of assessed returns filed for individuals as distinct from corporations which increased from 257,000 in 1939 to 2,450,000 in 1944.

Comparisons, as published for earlier years, for individuals between income assessed and tax paid were subject to the important qualification that, while the *income assessed* related to the net income upon which assessments had been approved for the year designated although the income itself was earned two years previously, the figures of *tax paid* included arrears of taxes that were assessed in previous years and even prepayments of taxes not due in the year under review. Under the present system, large sums of money are being collected month by month from individuals or their employers during the taxation year to which they apply. Analyses of *taxes paid* have a different meaning now than formerly and analyses of *taxes assessed for the taxation year* have now more significance. The new system will permit a much closer comparison between the figures of assessed income and taxes levied thereon than did the former figures of incomes assessed and taxes actually received.

The decision to make the change is supported by the growing interest in income tax statistics from an economic and social standpoint. It is believed that the statistics are now of sufficient importance to be presented in the nature of a national report covering the income earned by, and the taxes levied on, all taxpayers in

**DISTRIBUTION, BY INCOME CLASSES,
OF INCOME TAX PAYMENTS IN THE LATEST
PRE-WAR YEAR COMPARED WITH 1944**



respect of a specific calendar or taxation year. On the new basis, the statistics will be related to the year in which the income is earned by the taxpayer and all incomes earned in 1941 will be combined to form the 1941 taxation-year statistics regardless of when the assessments are made by the Department. This describes the change of basis in its broadest aspect.

Assessment statistics on a taxation-year basis are a compilation of all statistics drawn from the assessed tax returns for a specific taxation year and the resulting figures portray the tax conditions in Canada for that specific year. The following table shows, by major income groups, the estimated number of individuals subject

CANADA 1946

to income tax together with the taxes payable and the refundable portion for the year 1944.

Estimated Distribution of Individual Income Taxpayers by Income Classes, Taxation Year, 1944

Income Class	Taxpayers	Taxable Income	Total Tax Payable	Total Amount Refundable	Net Amount Retainable
	No.	\$	\$	\$	\$
Under \$1,000.....	385,000	318,000,000	26,000,000	6,300,000	19,700,000
\$ 1,000 to \$ 2,000.....	1,290,000	1,962,000,000	173,000,000	26,700,000	146,300,000
\$ 2,000 to \$ 3,000.....	595,000	1,404,000,000	182,500,000	24,100,000	158,400,000
\$ 3,000 to \$ 5,000.....	115,000	426,000,000	89,200,000	7,700,000	81,500,000
\$ 5,000 to \$ 10,000.....	48,200	322,000,000	100,800,000	6,100,000	94,700,000
\$ 10,000 to \$ 25,000.....	13,900	199,000,000	92,000,000	2,700,000	89,300,000
\$ 25,000 to \$ 50,000.....	2,250	78,000,000	48,800,000	265,000	48,535,000
\$ 50,000 to \$100,000.....	500	35,000,000	25,300,000	100,000	25,200,000
\$100,000 or over.....	150	23,000,000	18,400,000	35,000	18,365,000
Totals.....	2,450,000	4,767,000,000	756,000,000	74,000,000	682,000,000

Collections from individual and corporation income tax on a taxation-year basis, 1936-45, were as follows.

Individual and Corporation Income and Excess Profits Tax Collections by Taxation Years, 1936-44 and Jan. 1 to Mar. 31, 1945

Taxation Year	Income Tax		Excess Profits Tax		Total
	Individuals	Corporations	Individuals	Corporations	
	\$	\$	\$	\$	
1936.....	39,653,609	67,149,110	—	—	106,802,719
1937.....	45,730,913	88,919,516	—	—	134,650,429
1938.....	42,358,966	74,076,529	—	—	116,435,495
1939.....	54,781,130	90,498,381	—	—	145,279,511
1940.....	152,245,616	151,394,634	4,533,451	102,518,315	410,692,016
1941.....	329,333,512	224,471,245	10,148,521	252,371,160	816,324,438
1942.....	391,194,438	270,204,989	18,543,654	396,478,331	1,076,421,412
1943.....	797,664,649	304,444,456	19,587,528	421,940,217	1,543,636,850
1944 ¹	692,439,775	212,163,325	7,741,335	287,353,971	1,199,698,406
1945 ¹	85,726,789	16,146,068	61,658	26,988,597	128,923,112

¹ The accounts for these taxation years are not yet closed and the figures are therefore not yet complete; there will be a small change in the 1943 account and substantial additions to the 1944 and 1945 accounts.

Provincial Finance

The financial position of the provinces has shown continuous improvement during the war years. Between 1939 and 1943 (fiscal years ended nearest Dec. 31, 1939 and 1943) ordinary revenues, exclusive of shared-cost contributions of other governments, increased by more than \$100,000,000 while ordinary expenditures, exclusive of amounts paid by other governments, increased only moderately. Capital expenditures were substantially reduced during the same period. As a result, during both 1942 and 1943 the revenue of each province exceeded the total

PROVINCIAL FINANCE

of its ordinary and capital expenditure. These over-all surpluses were very substantial and totalled more than \$100,000,000 in the two years. Approximate major revenue increases between 1939 and 1943 were as follows: excess of Dominion subsidies for vacation of income and corporation tax fields over 1939 yield of these taxes, \$32,000,000; liquor control, \$31,000,000; Quebec sales tax, \$13,000,000; public domain, \$8,000,000. Succession duties decreased approximately \$3,500,000. Increased expenditure mainly for education, highways, public welfare and general administrative overhead, was roughly offset by a decline of more than \$30,000,000 in the net provincial relief burden.

In the provincial fiscal years ended nearest Dec. 31, 1942 and 1943, 84.9 p.c. and 84.5 p.c., respectively, of the gross ordinary revenues were accounted for by the following eight revenue sources; the 1943 figures are in parentheses. Dominion of Canada subsidies and subventions, \$141,071,000 (151,394,000), 34.2 p.c. (34.7 p.c.); gasoline taxes, \$47,669,000 (\$45,591,000), 11.6 p.c. (10.5 p.c.); liquor control, \$60,035,000 (\$54,986,000), 14.6 p.c. (14.9 p.c.); corporation taxes \$1,026,000 (\$632,000), 0.2 p.c. (0.1 p.c.); public domain, \$35,268,000 (\$33,152,000), 8.5 p.c. (7.6 p.c.); motor-vehicle licences, \$26,467,000 (\$30,472,000), 6.4 p.c. (7.0 p.c.); succession duties, \$21,944,000 (\$24,402,000), 5.3 p.c. (5.6 p.c.); retail sales taxes \$16,704,000 (\$17,520,000), 4.1 p.c. (4.1 p.c.).

The most significant change in the provincial revenue structure during the war years has been the stabilization of a greatly increased proportion of provincial revenues by the provisions of the Dominion-Provincial Taxation Agreement Act, 1942. By this Act each province agreed to vacate the personal income and corporation tax fields for the duration of the War and a certain readjustment period thereafter in return for a Dominion subsidy equal to either (a) the province's revenue from these sources during the fiscal year ended nearest Dec. 31, 1940, or (b) the province's net debt service¹ less succession duties for the same period. A further provision of the Act guaranteed provincial gasoline tax revenues at the 1940 level.

Aggregate Provincial Revenues and Expenditures, 1921-43

NOTE.—Figures for 1940 to 1943 are not strictly comparable with preceding years. Years following 1939 include provincial fiscal years ended nearest to Dec. 31 instead of the fiscal years ended in the year specified.

Fiscal Year	Gross Ordinary Revenues	Gross Ordinary Expenditures	Fiscal Year and Province	Gross Ordinary Revenues	Gross Ordinary Expenditures
	\$	\$		\$	\$
1921.....	102,030,458	102,569,515	1943—		
1926.....	146,450,904	144,183,178	Prince Edward Island..	2,993,000 ²	2,972,000
1929.....	183,598,024	177,542,192	Nova Scotia.....	20,957,000	18,039,000
1937.....	268,497,670	253,443,737	New Brunswick.....	16,773,000	15,029,000
1938.....	287,955,846	273,861,417	Quebec.....	116,856,000	106,180,000
1939.....	296,873,259	289,228,598	Ontario.....	141,268,000	128,923,000
1940.....	355,311,000 ¹	330,930,000 ¹	Manitoba.....	24,446,000	20,025,000
1941.....	404,791,000	349,818,000	Saskatchewan.....	37,454,000	27,743,000
1942.....	412,385,000	354,195,000	Alberta.....	30,528,000	22,721,000
1943.....	435,771,000 ²	378,790,000 ²	British Columbia.....	44,496,000	37,158,000
			Totals.....	435,771,000	378,790,000

¹ Quebec figures are for nine months.

² Prince Edward Island figures are for fifteen months.

CANADA 1946

The gross provincial funded debt, which totalled \$218,876,000 in 1916 and increased steadily until it reached \$1,734,274,912 in 1940, declined in 1941 to \$1,708,272,500, in 1942 to \$1,696,629,157 and in 1943 to \$1,684,282,000.

Aggregate Provincial Direct Liabilities, 1942 and 1943

NOTE.—Figures are for the fiscal years ended nearest to Dec. 31.

Item	1942	1943	Province	1942	1943
	\$	\$		\$	\$
Gross funded debt.....	1,696,629,157	1,684,282,000	Prince Edward		
<i>Less sinking funds.....</i>	<i>-164,637,242</i>	<i>-182,079,000</i>	Island.....	9,319,882	9,118,000
Net Funded Debt.....	1,531,991,915	1,502,203,000	Nova Scotia.....	90,482,357	88,859,000
Treasury bills.....	259,569,171	228,671,000	New Brunswick...	95,575,372	93,397,000
Savings deposits.....	39,704,954	41,560,000	Quebec.....	385,896,586	376,395,000
Temporary loans.....	4,357,659	1,175,000	Ontario.....	705,039,363	666,757,000
Superannuation and			Manitoba.....	110,094,282	106,444,000
other deposits.....	17,955,292	20,249,000	Saskatchewan.....	202,345,209	196,907,000
Accrued interest.....	18,086,134	18,099,000	Alberta.....	149,756,765	148,543,000
Accounts payable and			British Columbia..	143,672,084	140,793,000
other liabilities.....	20,516,775	15,256,000			
Totals, Direct			Totals, Direct		
Liabilities (less			Liabilities (less		
sinking funds).....	1,892,181,900	1,827,213,000	sinking funds).....	1,892,181,900	1,827,213,000

Municipal Finance

The revenue resources of municipalities in Canada are limited generally to direct taxation, based on assessed valuations of real and other types of property. In 1943 the total taxable assessed valuations on which taxes were levied was \$7,906,826,000 of which approximately \$7,478,466,000 or 95 p.c. was real property. Personal property assessment is still used in some provinces, although not as extensively as in the past. Aside from real property, the most important type of valuation for taxation purposes is the business assessment, although not all provinces assess for business purposes separately and distinctly from real property valuations. Income assessment disappeared in 1942 as a result of the operation of the Dominion-Provincial Tax Agreements whereby the provinces and municipalities abandoned the income tax field for the duration of the War and a certain period thereafter so as to leave it open to the Federal Treasury.

Total municipal revenues, including local schools, for 1943 amounted to \$348,096,000 of which \$259,757,000 or 74.6 p.c. represented taxes on real estate. Other types of taxes produced \$33,393,000 or 9.6 p.c. of the total, of which \$320,000 was derived from income taxes, which dropped from \$4,161,000 in 1941 as a result of the operation of the Dominion-Provincial Tax Agreements. Revenue from other sources, including general provincial subsidies of \$3,476,000 and Tax Agreement subsidies from the Dominion of \$3,930,000, amounted to \$54,946,000 or 15.8 p.c. of the total. In 1939 total municipal revenues were \$321,471,000, 75.7 p.c. of which was from real property taxes and 9.7 p.c. from other taxes.

The support of local schools represented the largest single item of expenditure in 1943 and required \$92,863,000 or 28.2 p.c. of total municipal expenditures which amounted to \$329,242,000. Other services such as public welfare, streets and roads, police and fire protection, etc. (but excluding debt service charges), amounted to



Fire Control is a most important municipal public service. Montreal possesses one of the most up-to-date systems on the continent. Over 1,200 fire boxes are connected with the large control boards seen here and four men are required to direct the movement of 125 fire trucks and 1,200 firemen.

\$163,246,000 or 49.6 p.c. and debt service charges including debt retirement amounted to \$73,133,000 or 22.2 p.c. of the total. In 1939, total expenditures were \$329,038,000 25.0 p.c. of which went for the support of local schools; 48.3 p.c. for other services and 26.7 p.c. for debt service and debt retirement.

Bonded Debt and Other Direct Liabilities.—The rapid growth of municipalities, together with increased demands and responsibilities for improvements, schools and other services, has resulted in the incurring of a heavy burden of debt. However, the greater part of the municipal long-term debt is represented by serial or instalment-type debentures, which require yearly repayments of principal and on the whole the bonded debt situation of municipalities has undergone substantial improvement.

The reductions in recent years have been due largely to a general curtailment, during the depression years, of capital undertakings and works requiring debenture financing. The extension of provincial control over municipal borrowings has also been a major factor in this regard, as well as the fact that the greater part of the total municipal debt is represented by serial or instalment-type debentures, which require yearly repayments of principal. While certain expenditures have been sorely needed in many communities, such as for the rehabilitation of existing assets and for new improvements as a result of normal expansion and growth, these were sacrificed in the early years in the interests of the taxpayer. Latterly, under wartime conditions this policy of deferment has been continued so as to free the financial market to the Dominion Government for its war-financing needs. The post-war period will, no doubt, bring about a resumption of capital borrowings by municipalities to meet such capital expenditures, as municipalities will play an important role in post-war construction and reconstruction in correlation with post-war plans of Federal and Provincial Governments.

Municipal Bonded Debt and Sinking Funds, by Provinces, 1919, 1942 and 1943

Province	Gross Bonded Debt			Sinking Funds	
	1919 ¹	1942 ²	1943 ²	1942	1943
	\$'000	\$'000	\$'000	\$'000	\$'000
Prince Edward Island.....	970	3,217	3,182	717	779
Nova Scotia.....	17,864	33,317	32,983	13,434	13,749
New Brunswick.....	11,188	25,931	24,871	9,446	9,711
Quebec.....	199,706	483,450	460,270	89,736	93,553
Ontario.....	243,227	315,332	289,926	51,366	46,699
Manitoba.....	55,563	67,938	64,509	31,069	29,105
Saskatchewan.....	39,585	49,245	46,811	24,055	23,601
Alberta.....	66,870	50,011	47,216	7,795	7,391
British Columbia.....	94,742	108,426	104,694	30,346	30,276
Totals.....	729,715	1,136,867	1,074,462	257,964	254,864

¹ Not entirely comparable since more complete detail is available in later years.
rural schools in the Maritimes not included.

² Debt for

Aggregate Municipal Direct Liabilities, Fiscal Years Ended in 1942 and 1943

Item	1942	1943	Province	1942	1943
	\$	\$		\$	\$
Gross debenture debt..	1,136,866,471	1,074,462,239	P. E. Island.....	2,614,582 ¹	2,470,862 ¹
Less sinking funds....	-257,963,903	-254,863,821	Nova Scotia.....	22,509,784 ¹	21,761,296 ¹
Net Debenture Debt..	878,902,568	819,598,418	New Brunswick...	19,298,510 ¹	18,310,455 ¹
Temporary loans.....	89,056,655	70,755,784	Quebec.....	494,769,623	467,149,199
Accounts payable and			Ontario.....	284,855,643	263,094,406
other liabilities.....	133,117,180	140,750,554	Manitoba.....	54,694,223	50,226,167
			Saskatchewan.....	82,817,073	76,084,487
			Alberta.....	53,844,662	51,333,635
			British Columbia..	85,672,303	80,674,249
Totals, Direct			Totals, Direct		
Liabilities (less			Liabilities (less		
sinking funds)....	1,101,076,403	1,031,104,756	Liabilities (less	1,101,076,403	1,031,104,756

¹ Excludes rural schools.



Examining Bank of
Canada Notes for
imperfections.

Currency—Banking—Insurance

Currency

The use of the dollar as a monetary unit was extended throughout the new Dominion by the Uniform Currency Act of 1871. The Canadian gold dollar weighs 25.8 grains, nine-tenths fine gold, and thus contains 23.22 grains of gold. Only very limited issues of gold coin have ever been made. British and United States gold coin are legal tender in Canada. Subsidiary silver coin is legal tender up to \$10; the 5-cent piece (now made of mild steel with a chromium finish) is legal tender up to \$5; and the 1-cent bronze coin, up to 25 cents. Since 1931, the Government has permitted the export of gold only under licences issued by the Department of Finance, thus conserving the gold resources of the nation to meet external obligations, and Canadian mines now dispose of their gold through the Royal Canadian Mint according to definite conditions of purchase.

Bank Notes.—Before the establishment of the Bank of Canada in 1935, chartered bank notes were the chief circulating medium in Canada. Such notes, however, were not legal tender but were convertible into Dominion notes which, in turn, were, in normal times, redeemable in gold. The provisions regarding bank notes were materially changed with the establishment of the Bank of Canada and the chartered banks were required to reduce the issue of their own notes gradually during the following ten years to 25 p.c. of their paid-up capital on Mar. 11, 1935. Bank of Canada notes, which are legal tender, are now the main source of paper money in Canada. Under the Bank Act of 1944, note circulation privileges of the chartered banks were still further restricted and, as the right to issue or re-issue notes after Jan. 1, 1945, was cancelled, chartered bank note circulation will gradually disappear completely.

Bank Notes Outstanding, Representative Years, 1900-45

(Yearly Average)

Year	Dominion or Bank of Canada Notes Outstanding	Chartered Bank Notes Outstanding	Year	Dominion or Bank of Canada Notes Outstanding	Chartered Bank Notes Outstanding
	\$	\$		\$	\$
1900.....	26,550,465	46,574,780	1937.....	141,053,457 ¹	110,259,134
1910.....	89,628,569	82,120,303	1938.....	161,137,059 ¹	99,870,493
1920.....	305,806,288	288,800,379	1939.....	184,904,919 ¹	94,064,907
1929.....	204,381,492	178,291,030	1940.....	277,065,305 ¹	91,134,378
1931.....	153,079,362	141,969,350	1941.....	406,433,409 ¹	81,620,753
1932.....	165,878,510	132,165,942	1942.....	572,256,208 ¹	71,743,242
1933.....	179,217,446	130,362,488	1943.....	773,426,716 ¹	50,230,204
1934.....	190,261,981	135,537,793	1944.....	943,576,233 ¹	37,056,187
1935.....	127,335,340 ¹	125,644,102	1945.....	1,070,491,511 ¹	29,180,630 ²
1936.....	105,275,223 ¹	119,507,306			

¹ Since Mar. 11, 1935, the figures used represent Bank of Canada notes.

² Ten-month figure.

Banking

Banking in Canada began to develop some of the features of a central bank system soon after Confederation. These in chronological order are:—

- (1) *Central Note Issue*, permanently established with the issue of Dominion notes under legislation of 1868.
- (2) *The Canadian Bankers' Association*, established in 1900 to effect greater co-operation in the issue of notes, in credit control, and in various other ways.
- (3) *Central Gold Reserves*, established in 1913.
- (4) *Re-discount Facilities*, made a permanent feature of the system in 1923, provided the banks with a means of increasing their legal tender cash reserves at will.
- (5) *The Bank of Canada*, established as a central bank in 1935.

The Bank of Canada.—Legislation was enacted in 1934 to establish the Bank of Canada as a central or bankers' bank. All of its stock is now vested in the Dominion Government. The Bank regulates the statutory cash reserves of the chartered banks, which are required to maintain 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 also acts as the fiscal agent of the Dominion of Canada and may, by agreement, act as banker or fiscal agent for any province. Bank of Canada notes, which are legal tender, will soon become the only source of paper money in Canada since the right of the chartered banks to issue or re-issue notes was cancelled on Jan. 1, 1945.

The Bank of Canada is empowered to buy and sell securities in the open market; to discount securities and commercial bills; to fix minimum rates at which it will discount; to buy and sell bullion and foreign exchange. Under the Exchange Fund Order, 1940, the Bank transferred its reserve of gold to the Foreign Exchange Control Board in which Canada's exchange reserves have now been centralized. At the same time the Bank of Canada's statutory 25 p.c. minimum gold reserve requirement against its note and deposit liabilities was temporarily suspended.

The Industrial Development Bank.—The Industrial Development Bank, which commenced operations on Nov. 1, 1944, is a subsidiary of the Bank of Canada but operates as a separate entity. Its function is to supplement the activities of the chartered banks and other lending agencies by supplying the medium and long-term capital needs of small enterprises. The capital stock of \$25,000,000, \$10,000,000 of which is now paid-up, was subscribed by the Bank of Canada. In addition, the Industrial Development Bank may borrow up to three times the amount of its paid-up capital stock and reserve fund, by the issue of bonds and debentures, thus providing total resources of \$100,000,000.

Commercial Banking.—While the aggregate supply of money is determined by the central bank, it rests with the chartered banks to provide the individual credit requirements of commerce and industry and of the public generally. There are ten banks chartered under the Bank Act and only they, and two long-established savings banks, in addition to the Bank of Canada, are legally entitled to call themselves "banks" or to use the word "banking" in connection with their business.

The branch bank is perhaps the most distinctive feature of the Canadian system as it exists to-day, and for a country such as Canada, vast in area and with a small population, the plan has proved a good one. There has been no bank failure since 1923 and note holders have experienced no losses whatever since 1881.

The ten commercial banks have over 3,000 offices spread out over the Dominion,



Pay-Day in hundreds of small industrial communities across Canada taxes the facilities of the local branch banks.

many located in small villages which would be quite unable to support an independent bank. The head offices of the banks neither take nor lend money—all the banking business is done by the branches, each branch enjoying considerable independence. But the fact that these branches are linked has a very important bearing on the country-wide economic situation. Stringency of cash at one point may be met from another and deposits at one place not needed for local loans may be made available elsewhere. Also nation-wide information is available at all points. In addition to branches in Canada, many banks are represented in the international field. At the beginning of 1945, the different banks had among them 132 branches (not including sub-agencies) in other countries, mainly in Newfoundland, the West Indies, Central and South America.

The primary function of the bank is to provide a safe repository for savings and surplus funds and to furnish credit for carrying on the business of the country. Credit is given in a variety of ways. Direct loans are made, the proceeds of which customers use for purchasing raw materials, paying wages and other operating expenses or for the purchase of goods for resale. Letters of credit are issued to finance the importation of goods. In this way the bank exchanges its well-known and acceptable credit for the less-known credit of its customers.

Apart from the deposit and loan facilities provided, the banks render innumerable services to the communities in which they serve and during the war years, the demand for such services greatly increased. This came from two sources: from the public because of ever-expanding war activities and from the Government



A Veteran discusses his problems with his local bank manager. The chartered banks are proud to extend their facilities and give the benefit of their wide experience and advice to 'returned' men.

because of the various controls, war production, requirements of the Armed Forces, rationing and other activities. All these duties have been performed with great efficiency despite decrease in staff.

Statistics of Individual Chartered Banks as at Oct. 31, 1945

Bank	Branches in Canada and Abroad ¹	Total Assets	Liabi- lities to Share- holders	Liabi- lities to the Public	Total Liabi- lities	Loans and Dis- counts	De- posits by the Public
	No.	\$ '000,000	\$ '000,000	\$ '000,000	\$ '000,000	\$ '000,000	\$ '000,000
Bank of Montreal.....	440	1,716	75	1,641	1,713	280	1,576
Bank of Nova Scotia.....	275	613	36	576	612	146	532
Bank of Toronto.....	163	316	18	296	314	59	290
Provincial Bank of Canada.....	131	132	5	126	131	24	125
Canadian Bank of Commerce.....	477	1,284	50	1,232	1,282	257	1,182
Royal Bank.....	619	1,884	55	1,824	1,879	370	1,736
Dominion Bank.....	120	306	14	291	305	74	275
Banque Canadienne Nationale.....	200	327	12	312	324	69	305
Imperial Bank of Canada.....	166	379	15	363	378	91	350
Barclay's Bank (Canada).....	2	35	2	33	35	3	26
Totals, Oct., 1945.....	—	6,992	282	6,691	6,973	1,373	6,397
Totals, 1944.....	2,593	5,990	282	5,689	5,972	1,344	5,422
Totals, 1943.....	2,589	5,148	282	4,849	5,131	1,334	4,592
Totals, 1942.....	2,642	4,400	281	4,102	4,383	1,370	3,834
Totals, 1941.....	2,830	4,008	279	3,712	3,991	1,403	3,465
Totals, 1940.....	2,846	3,707	279	3,411	3,690	1,324	3,180
Totals, 1939.....	2,861	3,592	279	3,298	3,578	1,244	3,061
Totals, 1938.....	2,875	3,349	279	3,057	3,336	1,201	2,824
Totals, 1935.....	2,978	2,957	278	2,668	2,946	1,276	2,427
Totals, 1930.....	3,598	3,237	305	2,910	3,215	2,065	2,517
Totals, 1920.....	4,876	3,064	252	2,784	3,036	1,935	2,438
Totals, 1910.....	2,621 ²	1,211	179	1,019	1,198	870	910
Totals, 1900.....	641	460	98	356	454	279	305

¹ As at Dec. 31 of previous year. Does not include sub-agencies which numbered 629 in 1944.

² Averages from the respective monthly statements, except in the case of the numbers of branches in Canada and abroad which are as at Dec. 31, 1911.

Cheques Cashed.—Bank debits, or the amount of cheques cashed and charged to deposit accounts, increased year by year during the war period. The standing in 1944 was \$60,677,000,000, representing an increase of 96 p.c. over 1938, the last pre-war year. The total for the first nine months of 1945 was 9 p.c. greater than for the same months of 1944. The level during the war years was far above that of any other period in Canada's history.

It is estimated that about 80 p.c. of Canada's business transactions are financed by cheques, payments in notes and coin being of relatively minor proportions. Thus, the amount of cheques paid through the banks and charged to deposit accounts is widely used as a measure of the volume of financial transactions. A record of such payments is available for the principal commercial centres for a period of more than twenty years.

Cheques Cashed at the Clearing-House Centres, by Economic Areas, 1940-44

Economic Area	1940	1941	1942	1943	1944
	\$	\$	\$	\$	\$
Maritime Provinces . . .	824,489,836	940,712,152	1,075,736,890	1,243,762,861	1,327,660,964
Quebec	9,973,060,607	11,068,666,580	12,751,093,627	15,373,881,025	17,222,287,360
Ontario	15,384,403,480	18,214,788,841	22,136,164,250	24,581,792,142	26,902,944,561
Prairie Provinces . . .	6,118,407,201	6,591,645,027	6,722,376,622	9,199,963,592	11,488,439,812
British Columbia . . .	2,137,113,355	2,427,144,584	2,840,882,813	3,297,405,107	3,735,621,710
Totals	34,437,474,479	39,242,957,184	45,526,254,202	53,796,714,727	60,676,954,407

Insurance

Life Insurance.—The life insurance business was introduced into Canada by companies from the British Isles and the United States of America about the middle of the nineteenth century. By 1875 there were at least 26 companies competing for the available business in Canada, as against 41 active companies registered by the Dominion and a few provincial companies in 1944. Of the 41 active companies registered by the Dominion, 28 were Canadian, 3 British, and 10 foreign.

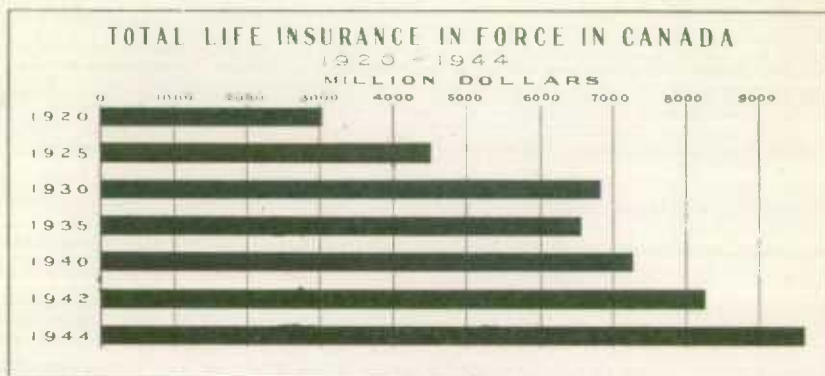
As a result of the adaptation of life insurance policies to the needs of the public and of the growing wealth of the country, the increase in the amount of life insurance in force has been remarkable. In 1869 the total life insurance in force in Canada, by Dominion registered companies, was only \$35,680,000 as compared with approximately \$9,139,000,000 at the end of 1944. This latter figure was equal to \$763.2 per

Banking Facilities. under Canada's banking system are readily provided to new centres and outposts even before the amount of business warrants the expense. A log cabin houses the Bank of Toronto Branch at the new gold field at Yellowknife, N.W.T.



CANADA 1946

head of population. In addition, there was \$226,000,000 of fraternal insurance in force by Dominion licensees and \$252,000,000 of insurance in force by provincial licensees. Thus the total life insurance in force in the Dominion at the end of 1944 was approximately \$9,617,000,000. The premium income from Canadian business of all Dominion registered companies (not including fraternal benefit societies) increased from \$90,000,000 in 1920 to \$221,000,000 in 1930, and to \$244,000,000 in 1944.



Fire Insurance.—The report of the Superintendent of Insurance for the year ended Dec. 31, 1944, shows that at that date there were 270 fire insurance companies doing business in Canada under Dominion licences, of which 59 were Canadian, 73 were British, and 138 were foreign companies, whereas in 1875, the first year for which authentic records were collected by the Insurance Department, 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 to 78 p.c. of the total number is a very marked point of difference between fire and life insurance in Canada, the latter being carried on very largely by Canadian companies.

The enormous increase since 1869 (the earliest year for which statistics are available) in the fire insurance in force is due, no doubt, partly to the growth of the practice of insurance; but it is also important as an indication of the growth of the value of insurable property in the country, and thus throws light upon the expansion of the national wealth of Canada. By 1880, companies with Dominion licences had fire insurance totalling \$411,564,271; by 1900, the one-thousand-million-dollar mark had almost been reached, and by 1930, the total stood at \$9,672,997,000. At the end of 1944 besides \$14,066,918,948 of fire insurance in force in companies with Dominion licences, there was also \$1,653,166,973 in force in companies with provincial licences, or about \$15,720,085,861 in force in companies, associations, or underwriters licensed to transact business in Canada.

Miscellaneous Insurance.—Miscellaneous insurance now includes among other classes in Canada: accident (including personal accident, public liability and employers' liability); aircraft; automobile; boiler; credit; earthquake; explosion; falling aircraft; forgery guarantee; hail; inland transportation; live stock; personal pro-



New and Ingenious Mechanical Banking Equipment has been developed to maintain services to the public despite wartime difficulties. These proofing machines are really twenty adding machines in one, totalling, sorting and classifying in one operation. The machine locks when an error is made.

perty; plate glass; real property; sickness; sprinkler leakage; theft; title; weather and windstorm. Whereas, in 1880, 18 companies were licensed for such insurance, in 1944 there were 267 companies, of which 58 were Canadian, 73 British and 136 foreign.

The total net premium income of Dominion-registered companies for 1944 was \$61,519,751 and the most important class of miscellaneous insurance, according to the amount of premiums received, was automobile insurance, which has greatly increased during the past decade although decreases were shown for a few years prior to 1935 and for 1942 and 1943 with an increase in 1944. As recently as 1910, the premium income of companies doing an automobile insurance business was only \$80,446; in 1916 it was \$909,503 and in 1944 \$20,556,660. The premium income of combined accident and sickness insurance came second with \$11,196,531; personal property insurance was third with \$5,311,542.

Loan and Trust Companies

The principal function of loan companies is the lending of funds on first mortgages on real estate, 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. Of the loan companies under provincial charters, the majority operate largely in the more prosperous farming communities. In 1944 there were 39 loan companies that reported, with a paid-up capital of \$33,687,139 (Dominion companies \$18,848,684 and provincial companies \$14,838,455).

The reserve funds of all real-estate-mortgage loan companies at the end of 1944 were \$21,244,054 (Dominion companies \$12,853,058 and provincial companies \$8,390,996); liabilities to the public \$131,673,701 (Dominion companies \$97,780,573 and provincial companies \$33,893,128); and liabilities to shareholders \$57,951,296 (Dominion companies \$33,115,822 and provincial companies \$24,835,474).

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 minors or incapable persons, as financial agents for municipalities and companies and, where so appointed, as authorized trustees in bankruptcy.

The aggregate total assets of the trust companies of Canada at the end of 1944 were \$3,186,976,790 as compared with \$805,000,000 in 1922 (the earliest year for which figures are available). The bulk of these assets (\$2,932,634,724 in 1944) was represented by estates, trusts and agency funds. The assets of Dominion companies in 1944 amounted to \$407,626,228 and of provincial companies to \$2,779,350,562.

Small Loans Companies and Money-Lenders

Small loans companies make loans of \$500 or less on the promissory notes of borrowers, additionally secured, in most cases, by endorsements or chattel mortgages. Such companies, at the end of 1944, had an aggregate paid-up capital of \$3,805,000; reserve funds, \$597,270; borrowed money, \$4,330,271; other liabilities, \$3,865,305; small loans made, \$23,684,406; small loans balances, \$11,548,307.

The Small Loans Act, 1939 (c. 23, 3 George VI), passed by the Parliament of Canada, came into force on Jan. 1, 1940. Under this Act, licensed money-lenders making personal loans of \$500 or less are limited to a rate of cost of loan 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. As at Dec. 31, 1944, there were 3 licences issued to small loans companies and 50 to money-lenders. The 50 money-lenders made personal loans in 1944 of \$11,590,164 and at the end of that year had outstanding small loans balances of \$5,785,195.



A GRI Plus machine is another answer to the manpower shortage. With this coin-counting machine, the operator can count and roll as much coin as six or seven clerks could by hand.

Education

While victory had been anticipated for some time prior to V-E Day and plans had been made for post-war education, there was a limit to what could be done before the War had been definitely won. The transition and reconstruction taking place in business and industry in the latter half of 1945—the changing over to peacetime economy from organization geared toward effective war participation—was also in evidence in the educational field.

As the Constitution of Canada delegates education to the provinces, with the exception of that for the Indian population, nine units (actually ten as Quebec has two functionally separate systems) must plan individually to meet post-war problems. At the same time they must work in concert, particularly in connection with the resumption of the interrupted education of discharged service men in universities and colleges across the country.

The present readjustment in education cannot be considered as a return to pre-war organization. The war period was marked by both progress and retrogression. Those changes, effected during the war years, which marked a step forward in procedure or organization will probably be retained while all others will be eliminated. For example the quality of teaching deteriorated as the teaching personnel lacked experience or was recruited from married ex-teachers whose methods were not up to date. Permit teachers will be eliminated as soon as qualified teachers are available to replace them. The short-term normal course will be discontinued as soon as possible. On the other hand improved and increased supervision will probably be continued to replace the former casual two-hour inspection on which was based a report purporting to pass on the year's, or half-year's work.

Shortage of teachers resulted in the consolidation of many small schools while the pupils from others were either conveyed to near-by schools or had to depend on correspondence courses. The latter are most effective among pupils of average or better ability who are fairly adult emotionally, but inadequate for those who need personal guidance by a teacher or even a little judicious prodding, nor do they provide the socialization and human contacts of the classroom.

Changes in curricula during the war years resulted in greater emphasis on subject matter related to religious instruction, health and nutrition, democratic citizenship and patriotism. The upper elementary grade pupils were also given more instruction in agriculture or shop work to increase their usefulness during vacations and spare time. Other changes in the curricula, such as emphasis on social studies and the organization of study materials into teaching units, were both helped and hindered by the War. A highly skilled, experienced teaching body is necessary to successfully carry on such projects. Permit teachers or those who taught under the teach-recite methods could not be expected to get the most out of such procedure.

School Administration

During the war years the chief concern of school administrators was to obtain qualified teachers and such materials as were necessary to enable the schools to carry on. The period, however, will be noted for an increase in the number of larger

units organized. Alberta pioneered on a large scale. New Brunswick and Nova Scotia followed and, by June, more than one-third of Saskatchewan was so organized. Manitoba promises to follow suit. The problem is not equally insistent in all of the provinces and there are differences in the distribution of the school population. Teachers have welcomed the larger unit as it has resulted in higher salaries with salary cheques coming on time. Other advantages are noted in provisions for rural high schools, better supervision, more security of tenure and the possibility of a salary schedule for the province. It simplifies the distribution of equalization funds which are becoming more general in Canada.

A three-day "refresher" course in school administration for school trustees, secretaries of school divisions and other school-board officials, which was held in Alberta in the summer of 1945 under Departmental auspices, was a step forward. This was in line with a resolution adopted in 1944 by the Canada and Newfoundland Education Association Convention.

Teachers and Teachers' Salaries

The Canadian Teachers Federation reported that, using the criteria of cost per pupil, no progress was made during the sixteen years ended in 1942. Teachers' salaries, which form a considerable percentage of this, began to increase after the outbreak of war but until 1943 rose no more proportionately than the increase measured by the cost of living. Since that time several of the provinces have increased their minimum salary standard and while none as yet has reached the mark set by the C.N.E.A., Saskatchewan's minimum of \$1,200 for teachers with permanent certificates and \$1,000 for others is a long way from the \$400 or less received by highly qualified experienced teachers in the middle 1930's.

Despite increasing salaries there is still a shortage of teachers and many schools will have to accept permit teachers for the current year. Many of the former teachers who have returned from overseas have either forsaken the profession or are improving their education under the provisions for education grants to ex-service men and women.

Evidence from intelligence tests and other personal data indicated that on the average those entering the profession were not as select a group in the war years as during depression years. There were fewer males, and fewer entrants of British extraction while the majority had received most of their education in rural schools.

Reserve Funds and Building

During the war years the Federal Government asked school boards to curtail expenditures on school properties to bare essentials to conserve supplies. At that time many schools were greatly in need of repairs or replacement from neglect during the years of depression. To meet this backlog of construction and repairs, provision was made by several provincial departments enabling school districts to set aside annual sums of money for construction at a later date when manpower and materials were available. With the war over, the demand for extra housing units and shortages of materials precludes the possibility of much construction in school housing for some time. The interlude should give the governments time to experiment with various construction methods, particularly for rural units. British Columbia and Ontario have published committee reports on school architecture and lighting and the Ontario department is constructing a new type of school building near Port Sydney (Muskoka) for demonstration purposes.

Grade XI Pupils look on with interest as one of their number performs an experiment in electrolysis.



Higher Education

Enrolment in colleges and universities dropped only about one-tenth during the war years which was considerably less than expected. Increase in average income, jobs for everyone and a realization of the importance of education in war and peace were probably factors in this.

In the autumn of 1945 most colleges and universities were crowded to capacity while other prospective students were seeking strenuously to enrol. Intensified courses covering the last year of high school were established in several institutions to prepare ex-service personnel who needed an extra year to fit them for college. Many institutions plan on starting new courses at the beginning of the new year for those who were not discharged in time to enter for the fall term.

During the war years, students were directed away from arts toward engineering, medicine, science, and research specialization for Canadian industry and the Armed Services. Enrolment since the end of the War, however, indicates that the arts course has lost little of its popularity while engineering and business have gained. An innovation this autumn is the establishment of a course leading towards a degree in journalism in the University of Western Ontario and in Carleton College.

War-service training was given to both men and women. The following were stressed: health, St. John's ambulance or home nursing, basic training for the three services, air-raid precautions, gas and chemical warfare, firefighting, signalling, telegraphy, motor-mechanics for transport driving, etc. Interest in health and welfare work will probably continue for some years at least.

It is as yet impossible to estimate the number who will enter college and complete their courses but there is no doubt that Canada will have a more receptive, enlightened public because of the formal and casual education the men have received in the services and the training they will receive in college.

Elementary and High-School Levels

Enrolment in both these groups continued to decrease during the war years.



CANADIAN
UNIVERSITY
BUILDINGS





Grade I Pupils, six years of age, learning to read in public school.

A drop in the number of entrants to Grade I was in evidence in 1938 and continued until the increased birth rate about 1939 changed the trend during the last year. High-school enrolment increased until the war years when many pupils left to enlist or to enter industry where lucrative work opportunities awaited the skilled and unskilled alike. This situation continued until the autumn of 1945 when discharged service men returned and enrolment almost doubled in some schools.

Attendance is now expected to be more regular; during war years absenteeism was common. Many stayed away or left before the close of the year. There was a general feeling of unrest among the upper high-school grades where fellow members were leaving to join up. Pupils coming from homes in which the father, sisters or brothers had joined the Armed Forces or left for war work added to the unrest which was further augmented by the migration of families from province to province or town to city and the resultant crowded conditions. Many teachers left and teaching in science and mathematics in particular, deteriorated.

Technical and Commercial Education

Many of the ex-service men are neither interested in, nor suited to, academic education. These are usually directed to technical or commercial schools which are found, however, only in the cities. To provide greater opportunities in towns and a wider range of courses for the individual to choose from in the cities, the trend is towards the construction of composite high schools in which each pupil may select his course from academic, commercial, technical, agricultural and other

classes. Where guidance procedures are well advanced, opportunities are provided for greater educational direction and pre-vocational guidance.

Realizing that the school needs the guidance of industry as much as industry needs the guidance of the school, a few schools have organized classes in pairs in such a way that one class attends school while the other works in industry. By alternating in this manner, the pupils learn subject matter in school which is valuable in industry, graduate in due course and have been earning as they learn.

Most of the provinces have apprenticeship laws but few have explored the possibilities of effecting a closer relationship between trade and school through which the pupils could earn and learn at the same time.

Audio-Visual Education

The use of audio-visual aids is on the increase. To facilitate the use of films, one or more depots are established in each province. Films may be rented or bought outright. New equipment has not been available in past years but should be procurable shortly and may become as standard equipment of a school as globes and maps. Considerable advance has been made in the effective use of films, film strips and stills.

Likewise, despite shortage of equipment, radio broadcasting has made great strides during the war years. The CBC has co-operated with the provinces in producing educational programs and recordings. Apart from current events, talks by celebrities, etc., some of the most outstanding achievements have been in teaching music to rural classes and oral languages when the teacher spoke only English.

Practical citizenship training resulted from concerted efforts of schools in salvage drives, Junior Red Cross activity, saving stamp campaigns, etc. Pamphlets produced by the Canadian Council of Education for Citizenship alone or in co-operation with other groups have been valuable in directing attention to certain phases of citizenship training.

Summary Statistics of Education in Canada, 1943

NOTE.—Figures in even hundreds are approximate only.

Type of School or Course	In stitutions	Pupils	Teachers	Expenditure
	No.	No.	No.	\$
Provincially Controlled Schools—				
Ordinary and technical day schools	31,709	1,973,218	71,748	186,200,100
Evening schools ¹	400	80,000	—	
Correspondence courses	8	27,072	—	
Special schools ²	20	5,200	500	
Normal schools	88	6,754	944	
Privately Controlled Schools—				
Ordinary day schools	893	98,216	6,149	6,600,000
Business training schools	189	27,283	468	
Dominion Indian Schools	352	16,876	570	1,850,450
Universities and Colleges—				
Preparatory courses	60 ²	22,453	1,548	23,500,000
Courses of university standard	155	49,818	5,537	
Other courses at university	10 ²	34,575	—	
Totals	33,884	2,341,465	87,464	218,150,550

¹ Subject to revision.
of university standard"

² Includes only affiliated schools that are not enumerated in "Courses



An art class
in a Canadian
university.

Public Libraries

The 1942-44 survey of Canadian libraries reports returns from 63 city libraries, some 400 libraries located in the incorporated towns and villages, and about 250 rural and suburban district libraries. The total expenditures of these libraries was just under \$2,400,000. Of this amount 52 p.c. was assigned to salaries and wages; 30 p.c. to books and repair; and the balance to other current expenses. There were 1,106,000 registered borrowers. The regional libraries report just under 300 agencies or branches serving about 50,000 registered borrowers. The book circulation reported for these libraries was 645,000.

The personnel of Canadian libraries is advancing steadily towards a higher degree of professionalism. Since 1900 when the first library association (Ontario) was organized, 6 provincial associations have evolved. The remaining provinces New Brunswick, Nova Scotia and Prince Edward Island, participate in the Maritime Library Institute. Subsidiary organizations of specialized and regional groups of librarians complement the work of the provincial organizations.

The first step towards a national organization for Canada was made in 1941 by the establishment of the Canadian Library Council and the appointment, in 1944, of a full-time secretary. The aim of the Library Council is to co-ordinate the work and promote better and more uniform standards of library service.

New schools for the professional training of librarians have been established at Mount Saint Vincent College, Halifax; L'Université de Montréal; and L'Université d'Ottawa. The latter two schools provide training courses for French-language librarians. Graduates from all library schools, offering degree or diploma courses, average 63 for each year of the decade 1933-43. This number includes less than 10 men each year.

The 1943 survey of libraries in Canada reports 30 p.c. of the personnel of public libraries as having training in library science; the percentage for city libraries is 42. These percentages are based on total personnel, which includes full-time clerical workers and part-time assistants. Exclusive of such workers, about 52 p.c. of the city library staffs are professionally trained librarians. Ten years previously, in 1933, the percentage was 43.

INDEX

	PAGE		PAGE
Aboriginal races.....	35-6	British Columbia, marriages.....	38
Act, Farm Improvement Loans.....	156	— minerals.....	95
— National Housing.....	154-6	— old age pensions.....	150
— Veterans' Land.....	156	— population.....	30, 33, 34, 35
Age distribution of population.....	32	— production.....	45
Agricultural capital and production.....	52-3, 54	— water powers.....	97
— outlook.....	47-9	Broadcasting, national.....	125-9
— statistics.....	52-69	Budget, 1945.....	187
— wealth and revenue.....	44, 52-3, 54	Building permits.....	159-60
Agriculture.....	47-69	Butter and cheese production.....	60
— and Food Organization.....	50-2		
— provincial assistance to.....	69	Canada, Bank of.....	196
Air Lines, Canadian Pacific.....	122	— national income.....	40-2
— independent.....	123-4	— population.....	28-36
— Trans-Canada.....	15-27, 121, 122	— production.....	42-5
— development, wartime.....	23-7	— trade, external.....	161-9
— establishment of.....	18-9	— internal.....	170-82
— organization and operation of.....	19-22	— water powers.....	97-103
— policy, present official.....	23-7	Canadian banking system.....	195-9
— mail service.....	19, 22, 129	— Broadcasting Corporation.....	125-9
— navigation.....	15-27, 121-4	— chartered banks.....	196-9
Alberta, agriculture.....	54	— economy in 1945.....	7-14
— births.....	38	— Forestry and FAO.....	72
— construction.....	159, 160	— Government annuities.....	148
— deaths.....	38, 39	— Pacific Air Lines.....	122
— family allowances.....	147	— railways.....	114-6
— finance.....	191, 192	— vocational training.....	142-3
— fisheries.....	88	Canals.....	120-1
— forestry.....	74	Canned-foods industry.....	107
— fur production.....	79	Capital, values of agricultural.....	53, 54
— manufactures.....	105	— formation.....	12-4
— marriages.....	38	Care, of adults and children.....	153
— minerals.....	95	— of dependent and handicapped	
— old age pensions.....	150	groups.....	153
— population.....	30, 33, 34, 35	Census of manufactures.....	104-5
— production.....	45	— of merchandising and service	
— water powers.....	97	establishments.....	170-3
Allowances, dependents'.....	149	— of population.....	28-36
— family.....	146-7	Central electric stations.....	100-3
— mothers'.....	150-1	— average monthly output of.....	102
— veterans'.....	149	Chain stores.....	171-2
Animal products, dairying.....	58-62	Chartered banks.....	196-9
— slaughtering and meat packing.....	106	Cheese and butter production.....	60
Animals, live stock.....	58-9	Chemicals, manufactures of.....	110-1
Annuities, Government.....	148	Cities and towns, manufacturing in	
Armed Forces, education for.....	143	leading.....	112
Automobile insurance.....	200-1	— population of.....	31-2
— registration.....	116, 118	Civil aviation.....	15-27, 121-4
Aviation, civil.....	15-27, 121-4	Clearing-house transactions.....	199
— development of, in Canada.....	15-8	Combines in restraint of trade.....	175-6
		Combined Food Board.....	87-8
Balance of international payments.....	168-9	Communications.....	114-29
Bank clearings and bank debts.....	199	Conditions in Canada, 1945.....	7-14
— Industrial Development.....	196	Conjugal condition of the population.....	33
— notes.....	195	Construction.....	12, 154-60
— of Canada.....	196	— building permits.....	159-60
Banking.....	195-9	— electric power during 1945.....	99-100
— commercial.....	196-9	— employment in.....	158-9
Banks chartered, statistics of.....	198	— expenditures <i>re</i> railways.....	160
Birthplaces.....	34	— general statistics of.....	158-60
Births in Canada.....	38, 39	— Government assistance to.....	154-7
Blind, pensions for.....	148, 150	— loans for.....	154-7
Bonded indebtedness, municipal.....	193-4	— radio.....	126
— provincial.....	192	— railway, expenditures <i>re</i>	160
British Columbia, agriculture.....	54	— value of, 1943-44.....	158-9
— births.....	38	— War-time Housing Limited.....	156-7
— construction.....	160	Control, price.....	176-82
— deaths.....	38, 39	Co-operative associations.....	173-5
— family allowances.....	147	Cost of living.....	182
— finance.....	191, 192	Crops, field.....	55-7
— fisheries.....	88	— special.....	63-7
— forestry.....	74	Currency.....	195
— fur production.....	79	Customs duties, revenues from.....	186
— manufactures.....	105		

CANADA 1946

	PAGE
Dairy products, markets for.....	61-2
Dairying.....	59-63
Deaths, by provinces.....	38, 39
— infant.....	39
Debt, bonded, municipal.....	193-4
— Dominion net.....	184
— provincial.....	192
Department of Labour.....	130-1
Dependents' allowances.....	149
Disputes, industrial.....	134-5
Dominion Budgets, war.....	12-3, 187
— expenditures.....	184-6
— finance.....	12-4, 183-90
— notes outstanding.....	195
— revenues.....	184-6
Economic developments in Canada, 1945.....	7-14
Education.....	203-9
— audio-visual.....	209
— elementary and high school.....	205, 208
— higher.....	205
— technical and commercial.....	208-9
Eggs, production.....	62-3
Electric power.....	9-10, 97-103
— export of.....	103
— railways.....	116
Employment and income payments.....	14
— and unemployment.....	136-42
— by industries.....	138
— in construction.....	138, 158-9
— in manufactures.....	11, 113
— Service.....	141-2
— wartime, labour regulations re.....	134-5
Eskimo.....	36
Exchange, non-commodity items of foreign.....	167-9
Excise duties, receipts from.....	186
Expenditures, Dominion.....	184-6
— provincial.....	191
— war.....	186
Exports, summary of.....	12, 161, 165-7
— by countries.....	166-7
— wheat.....	57, 165
External trade.....	12, 161-9
Family allowances.....	146-7
Farm labour.....	54
— Improvement Loans Act.....	156
Fibre flax.....	65
Field crops, area, yield, etc.....	55-7
Finance, public.....	12-4, 183-94
— Dominion.....	12-4, 183-90
— municipal.....	192-4
— provincial.....	190-2
— war.....	13, 187-8
Fire insurance.....	200
Fish, game.....	89
Fisheries outlook.....	85-8
— production.....	8, 85-9
— salmon pack.....	88, 89
Flax fibre, production of.....	65
Flaxseed, production of.....	65-6
Flour-milling industry.....	106-7
Food and Agriculture Organization.....	50-2
— canned.....	107
— consumption.....	54-5
— industries.....	106-7
Forage seed crops, production of.....	66-7
Foreign exchange, non-commodity items of.....	167-9
Forest depletion.....	71
— resources.....	8, 70-7
Forestry and FAO.....	72
Forests, operations in the.....	72-3
Fruit growing.....	67-8
Fuel production.....	92-3

	PAGE
Fur farming.....	80-2
— statistics of.....	81-2
— processing.....	83
— production.....	8, 79-82
Furs, marketing and trade in.....	82
Game fish.....	89
Government annuities.....	148
Grain crops.....	55-7
— movement.....	57
Harbours.....	119-20
Highways and roads.....	116
Honey production.....	64-5
Housing Act, National.....	154-6
— Wartime, Limited.....	156-7
Hydro-electric construction during 1945.....	99-100
— in prospect.....	100
— power production.....	9-10, 97-103
Immigration.....	36-7
Imports, summary of.....	162-4
— wheat.....	57
Income, cash farm.....	53-4
— national.....	40-2
— net farm.....	52-3
— payments and employment.....	14
— tax.....	188-90
Index numbers of cost of living.....	182
— of employment.....	138
— of employment in manufactures.....	113
— of wholesale prices.....	176
Indians.....	35-6
Industrial disputes.....	134-5
Industries, food.....	106-7
— forest.....	73-6
— iron and steel.....	108, 110
— leading individual.....	111
— manufacturing.....	10-1, 104-13
— textile.....	107-8
Infant mortality.....	39
Insurance.....	199-201
— fire.....	200
— life.....	199-200
— miscellaneous.....	200-1
— unemployment.....	139-41
Internal trade.....	11-2, 170-182
International payments, balance of.....	168-9
Iron-ore developments at Steep Rock.....	91-2
— and steel industries.....	108, 110
Labour.....	130-43
— Dominion Department of.....	130-1
— legislation in Canada.....	130-6
— organized in Canada.....	133-4
— wages and hours of.....	132-3
— war regulations.....	131, 134-5
Libraries.....	210
Life insurance.....	199-200
Live stock.....	58-9
Loan and trust companies.....	201-2
Loans companies, small.....	202
— war.....	187
Lumber industry.....	73-4
Manitoba, agriculture.....	54
— births.....	38
— construction.....	159, 160
— deaths.....	38, 39
— family allowances.....	147
— finance.....	191, 192
— fisheries.....	88

	PAGE
Manitoba, forestry	74
— fur production	79
— manufactures	105
— marriages	38
— minerals	95
— old age pensions	150
— population	30, 33, 34, 35
— production	45
— water powers	97
Manpower, mobilization of	141-2
Manufactures	10-1, 104-13
— by leading industries	111
— by provinces and purpose groups	105
— indexes of employment in	113
— in leading cities	112
— summary of statistics of	105
Manufacturing conditions	10-1, 104-13
— use of electric power in	103
Maple products	64
Marriages	38, 39
Meat packing and slaughtering	106
Metallics, production of	90-2, 94
Military mails	129
Milk and cream, production of	60
Milling industry	106
Mineral production	8-9, 90-6
Mines and minerals	90-6
Mining industry, use of electric power in	103
Miscellaneous insurance	200-1
Mobilization of manpower	141-2
Money lenders, licensed	202
Mortality, infant	39
— maternal	39
Mothers' allowances	150-1
Motion-picture theatres	173
Motor-vehicles	116, 118
— registered	116, 118
Municipal bonded indebtedness	193-4
— finance	192-4
— taxation	192-3

National Air Policy	26
— broadcasting	125-9
— debt, 1868-1945	184
— Housing Act, 1944	154-6
— income	40-2
— radio	125-9
— Selective Service	141-2
— War Labour Board	131
Natural increase of population	39
Navigation, air	15-27, 121-4
— water	118-21
New Brunswick, agriculture	54
— births	38
— construction	159, 160
— deaths	38, 39
— family allowances	147
— finance	191, 192
— fisheries	88
— forestry	74
— fur production	79
— manufactures	105
— marriages	38
— minerals	95
— old age pensions	150
— population	30, 33, 34, 35
— production	45
— water powers	97
Newsprint situation	76-7
Non-commodity items of exchange	167-9
Non-ferrous metals, production of	90-2, 94
Non-metallic mineral production	93
Northwest Territories, minerals	95
— old age pensions	150
— population	30, 33, 35
Notes, bank or Dominion	195
Nova Scotia, agriculture	54

	PAGE
Nova Scotia, births	38
— construction	159, 160
— deaths	38, 39
— family allowances	147
— finance	191, 192
— fisheries	88
— forestry	74
— fur production	79
— manufactures	105
— marriages	38
— minerals	95
— old age pensions	150
— population	30, 33, 34, 35
— production	45
— water powers	97

Oil production of Turner Valley between 92 and 93	
— bearing crops	65-6
Old age pensions	148, 150
Ontario, agriculture	51
— births	38
— construction	159, 160
— deaths	38, 39
— family allowances	147
— finance	191, 192
— fisheries	88
— forestry	74
— fur production	79
— manufactures	105
— marriages	38
— minerals	95
— old age pensions	150
— population	30, 33, 34, 35
— production	45
— water powers	97
Organized labour	133-4
Origins, racial	30, 33-4

Paper production	74-7
Payments, international balance of	168-9
Pelts, numbers and values of	79
Pensions for blind persons	148, 150
— old age	148, 150
Population, 1891 to 1941	30
— birthplaces of	34
— by sex and age	32
— conjugal condition of	32-3
— in cities and towns over 20,000	31-2
— natural increase of	39
— origins of	30, 33-4
— religions of	34, 35
— rural and urban	30-2
Post Office	129
Poultry and eggs	62-3
Power used in manufacturing and mining industries	103
— water	9-10, 97-103
Price control at the end of the War	176-82
Prices, wholesale and retail	176-82
Prince Edward Island, agriculture	54
— births	38
— construction	159, 160
— deaths	38, 39
— family allowances	147
— finance	191, 192
— fisheries	88
— forestry	74
— fur production	79
— manufactures	150
— marriages	38
— old age pensions	150
— population	30, 33, 34, 35
— production	45
— water powers	97
Production, agricultural	7-8, 47-69
— electric power	9-10, 97-103
— fisheries	8, 85-9
— forestry	8, 70-7

	Page
Production, fur.....	8, 75-82
— grain.....	55-7
— manufacturing.....	10-1, 104-13
— mining.....	8-9, 90-6
— survey of.....	42-5
— by industries.....	44
— by provinces.....	45
— transportation.....	11
Provincial assistance to agriculture.....	69
— bonded indebtedness.....	192
— departments of labour.....	130-1
— public finance.....	190-2
— taxation.....	191
Public finance.....	183-94
— Dominion.....	183-90
— municipal.....	192-4
— provincial.....	190-2
Pulp and paper industry.....	74-7
Quebec, agriculture.....	54
— births.....	38
— construction.....	159, 160
— deaths.....	38, 39
— family allowances.....	147
— finance.....	191, 192
— fisheries.....	88
— forestry.....	74
— fur production.....	79
— manufactures.....	105
— marriages.....	38
— minerals.....	95
— old age pensions.....	150
— population.....	30, 33, 34, 35
— production.....	45
— water powers.....	97

Racial origins.....	30, 33-4
Radio and the War.....	128-9
— construction.....	126
— national.....	125-9
— news broadcasting.....	129
— transmission facilities.....	125
Railway construction, expenditure.....	160
— mileage.....	114-5
Railways, electric.....	116
— steam.....	114-6
— gross operating revenues of.....	115
— summary statistics of.....	115
Raped seed production.....	66
Religions.....	34, 35
Resources, agricultural.....	52-69
— fishery.....	85-9
— forestry.....	70-7
— furs.....	70-82
— minerals.....	90-6
— water power.....	97-103
Retail prices, rents and services.....	172-3, 176-82
— trade.....	170-2
Revenue, agricultural.....	54
— Dominion.....	184-6
— municipal.....	192
— provincial.....	191
Roads and highways.....	116
Rubber, synthetic.....	108
Rural and urban population.....	30-2

Salmon pack.....	88, 89
Saskatchewan, agriculture.....	54
— births.....	38
— construction.....	159, 160
— deaths.....	38, 39
— family allowances.....	147
— finance.....	191, 192
— fisheries.....	88
— forestry.....	74
— fur production.....	79
— manufactures.....	105

Saskatchewan, marriage.....	58
— minerals.....	59
— old age pensions.....	150
— population.....	30, 33, 34, 35
— production.....	45
— water powers.....	97
Sawmilling industry.....	74
Schools.....	203-6
Seed crops.....	66-7
Selective Service, National.....	141-2
Services, retail.....	172-3
— welfare.....	144-53
— Dominion.....	146-9
— other.....	145
— provincial.....	149-53
Sex distribution of population.....	31
Shipbuilding.....	110
Shipping.....	118-9
Sickness and accident insurance.....	209
Slaughtering and meat packing.....	106
Small loans companies.....	202
Social welfare.....	144-53
Soybeans, production of.....	66
Steam railways.....	114-6
Steel and iron industries.....	108, 110
Steep Rock developments of iron ore.....	91-2
Sugar-beet production.....	64
Sunflower seed production.....	66
Survey of production.....	42-5
Synthetic rubber.....	108

Taxation, Dominion.....	184-6, 188-90
— income.....	188-90
— municipal.....	190
— provincial.....	191
— receipts from Dominion.....	186
Teachers and teachers' salaries.....	204
Telegraphs.....	124
Telephones.....	124-5
Textile industries.....	107-8
Theatres, motion-picture.....	173
Timber stand.....	73
Tobacco production and exports.....	63-4
Tourist trade.....	167-8
Towns, population of.....	31-2
Trade, combinations in restraint of.....	175-6
— external.....	12, 161-9
— internal.....	11-2, 170-82
— retail.....	170-2
— tourist.....	167-8
— unionism in Canada.....	133-4, 135-6
— unions, unemployment in.....	135-6
— wholesale.....	170
Training, vocational.....	142-3
— re-establishment program.....	143
— war emergency and youth.....	143
Trans-Canada Air Lines.....	15-27, 121, 122
— development of, wartime.....	23-7
— establishment of.....	18-9
— organization and operation of.....	19-22
— policy, present official.....	23-7
Transportation and communications.....	11, 114-29
Trust and loan companies.....	201-2
Turner Valley oil production.....	between 92 and 93

Unemployment insurance.....	139-41
— in trade unions.....	135-6
Unions, co-operative.....	173-5
— trade.....	133-4, 135-6
United Kingdom, trade with.....	166
— Nations Food and Agriculture Organization.....	50-2
— States, trade with.....	167
Urban and rural population.....	30-2
— centres, manufacturing in leading.....	112

INDEX

	PAGE
Vegetable production.....	68-9
Vehicles, motor.....	116, 118
Veterans' allowances.....	149
— Land Act.....	156
Victory loan campaigns.....	187
Vital statistics.....	37-9
— Council.....	38
— national index of.....	37-8
Vocational training.....	142-3
Wage stabilization policy.....	132
Wages and hours of labour and prices	132-3
— control of.....	132
War effort, financial.....	187-8
— emergency training.....	143
— financing of the.....	187-8
— loans.....	187
— savings certificates.....	187-8
— tax revenue.....	186
Wartime Housing Limited.....	156-7
— labour relations regulations.....	134-5

	PAGE
Water powers.....	9-10, 97-103
— available and developed.....	97-8
— construction during 1945.....	99-100
— in prospect.....	100
— provincial distribution of.....	98-9
— used in manufacturing and mining	103
Welfare services.....	144-53
Wheat production.....	55-57
Wheat imports and exports.....	57, 165
Wholesale and retail trade.....	170-2
— prices.....	176
— index numbers of.....	176
Workmen's compensation.....	151
Woods operations.....	72-3
Youth training.....	143
Yukon, fisheries.....	88
— forestry.....	74
— minerals.....	95
— population.....	30, 33, 35

7.2

STATISTICS CANADA LIBRARY
BIBLIOTHEQUE STATISTIQUE CANADA



1010316848

Ca OOS