

11-203E

1941

c. 2



CANADA 1941

The **O**fficial **H**andbook
of Present Conditions and
Recent Progress



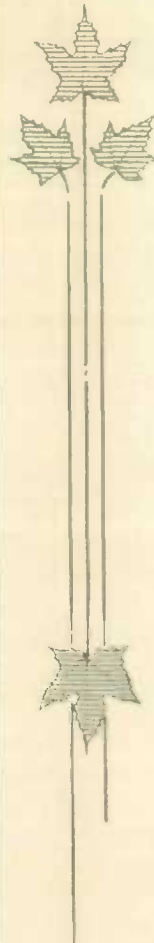
THE CITADEL
QUEBEC

Canada has entered the second
year of the war with her decks
cleared for action and with a
firm determination to see that
her sons overseas lack nothing
that human ingenuity can provide
in equipment and supplies and
reinforcements. Our course is now
set and I feel confident that if
we are prepared for any sacrifice, we
shall emerge from the storm with our
flag still flying.

Atkinson.



HIS EXCELLENCY. THE RIGHT HONOURABLE THE EARL OF ATHLONE,
K.G., ETC., ETC., ETC.: GOVERNOR GENERAL AND COMMANDER IN
CHIEF OF THE DOMINION OF CANADA.



HER ROYAL HIGHNESS. PRINCESS ALICE, COUNTESS OF ATHLONE,
G.B.E., V.A.

Foreword

THE growth in popularity of this handbook since the series was placed on an annual basis in 1930; its extensive use by official and semi-official bodies in regular and special editions; its distribution in large numbers at international exhibitions and in different parts of the world where Canada is officially represented; and its use, by special permission, in financial and commercial houses for distribution to their clients; all attest to the need that exists for a brief and attractive economic handbook of the Dominion.

The current reports of the Dominion Bureau of Statistics deal in great detail with the subjects of population, production, external and internal trade, transportation, education, etc., but they are intended mainly for those who are specially interested in particular phases of our national life. The *Canada Year Book*, which summarizes these and other official publications, is of too detailed a character for wide distribution. The present publication is the result of an effort to survey the current Canadian situation—comprehensively but at the same time succinctly—in a popular and attractive form, and at a cost that makes possible its use on a general scale.

The handbook is designed to serve two purposes. To those outside of Canada, it will give a balanced picture of the Canadian situation from the Atlantic to the Pacific and of our diversified resources and their systematic development. In Canada, itself, it will help to provide a basis of information for dealing with current problems.

Jas. A. Mac Kinnon

Minister of Trade and Commerce.

OTTAWA, January 1, 1941.

PREFATORY NOTE

This handbook has been prepared and edited in the Year Book Division of the Dominion Bureau of Statistics from material which 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. The Introduction is a short review of developments at the close of 1940, with special reference to Canada's War program. The Special Articles following this Introduction deal, respectively, with the British Commonwealth Air Training Plan, and the Royal Canadian Mounted Police with special emphasis on the part the Force has played in the history and development of the Canadian West. The former of these articles is based on material supplied by the Department of National Defence: the latter has been specially prepared for the handbook under the direction of the Commissioner of the Royal Canadian Mounted Police by J. P. Turner of the Historical Research Section of the R.C.M.P.

R. H. COATS,
Dominion Statistician.

Canada 1941



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

Official Copy—Not For Sale

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

CONTENTS

	PAGE
FOREWORD.....	iii
INTRODUCTION—Canada's War Program and Economic Conditions at the Close of 1940.....	1
SPECIAL ARTICLE—The British Commonwealth Air Training Plan...	17
SPECIAL ARTICLE—The Royal Canadian Mounted Police—Its Place in the Development of the Canadian West.....	27
CHAPTER I—Population and Vital Statistics.....	42
CHAPTER II—Survey of Production.....	49
CHAPTER III—Agriculture.....	54
CHAPTER IV—Mines and Minerals.....	71
CHAPTER V—Forest Resources of Canada.....	77
CHAPTER VI—Water Powers of Canada.....	84
CHAPTER VII—Fisheries of Canada.....	90
CHAPTER VIII—Fur Resources of Canada.....	96
CHAPTER IX—Manufactures of Canada.....	102
CHAPTER X—Transportation and Communications.....	113
CHAPTER XI—Construction.....	125
CHAPTER XII—External Trade.....	132
CHAPTER XIII—Internal Trade—Cost of Living—Prices.....	144
CHAPTER XIV—Public Finance.....	152
CHAPTER XV—Currency—Banking—Insurance.....	160
CHAPTER XVI—Labour—Unemployment Relief—Old Age Pensions..	170
INDEX.....	183

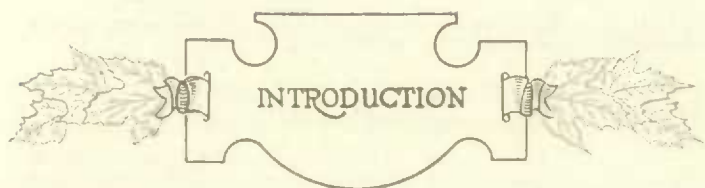
LIST OF ILLUSTRATIONS

HALF-TONES

	PAGE		PAGE
The Rt. Hon. W. L. Mackenzie King, P.C., M.P., Prime Minister of Canada.	1	Fur Trapping.....	100
National Defence.....between 2 and 3	12	Quick Freezing of Foods.....	102
H.M.C.S. <i>Fraser</i>	14	Manufacturing Aluminum Utensils.....	106
Hon. James A. MacKinnon, M.P., Minister of Trade and Commerce.....	18, 20, 22, 24	Paper Towels being Interfolded.....	107
British Commonwealth Air Training Plan.....	facing 27	Shell Blank in Furnace.....	108
Royal Canadian Mounted Police.....	facing 35 and 36	Shell in Acid Tank.....	108
The King and Queen Receiving Indian Chiefs at Calgary, Alta.....	42	Central Electric Stations.....	109
City of Saskatoon, Sask.....	45	Rolling Aluminum Foil.....	111
National Registration.....	46	Working in the Smoke Box of a Loco- motive.....	114
A Group of Lake Harbour Eskimos.....	50	The Toronto-Hamilton Highway.....	115
Primary Production in Canada.....	52	Lake Freighters at Fort William.....	116
Secondary Production in Canada.....	54	New C.N.R. Telegraphs Operating Room	118
An Ontario Dairy Herd.....	57	Trans-Canada Airlines.....	119
Stooked Wheat, Alberta.....	58	Long-Distance Lines Carry a Radio Pro- gram over a Hook-up.....	120
Farm Landscape, Nova Scotia.....	58	Armoured Mobile Unit of the CBC Oper- ating in England.....	122
Filling a Silo with Clover Hay.....	61	Sorting Mail in a Railway Postal Car.....	123
Live Stock.....	63	Construction under the British Common- wealth Air Training Plan.....	128
Tobacco at Yamaska River, Que.....	64	Machinery Used in Road Construction.....	130
Weighing Drums of Maple Syrup.....	65	Canadian Douglas Fir at Bombay, India	135
A Herd of Jersey Cattle in Ontario.....	66	Canadian Dairy Cattle being Unloaded at Hong Kong.....	136
An Up-to-Date Creamery in Nova Scotia	68	Vendors of Ice Cream made from Cana- dian Powdered Milk at Calcutta, India	136
A Fine Flock of Emden Geese.....	69	Unloading Newsprint at Havana, Cuba.....	137
Apple Orchard and Tree Spraying.....	72	Hall Harbour on the Fundy Coast, N.S.....	139
Asbestos Production in Canada.....	74	Trail Riders, Blue Creek, Jasper Park.....	140
Underground in an Ontario Mine.....	77	Rugged North Shore of Lake Superior.....	140
Keeping Logs on the Move.....	79	Display of Canadian Canned Goods at Cape Town, South Africa.....	145
Canada's Extensive Pulpwood Resources	81	Fruit Market at Hamilton, Ont.....	147
Logging in British Columbia.....	82	Retail Merchandising.....	150
Barking and Cleaning Logs in the Pulp Mill.....	85	Grain Elevators, Port Arthur.....	151
LaTuque Power Plant.....	85	The Royal Canadian Mint.....	154
Lowering a Stator into an Impregnating Tank.....	86	Gold Mines and Assay Room of a Gold Mine.....	156
The Rotor of a Vertical Waterwheel Generator.....	87	City of Ottawa Water Works Pumping Station.....	159
A Welder at Work.....	88	One Hundred Million Dollars in Fine Gold Bars.....	161
Installing a Hydro-Electric Generator.....	89	Weighing and Testing Coin at the Royal Canadian Mint.....	163
Power Development, Nipigon River.....	90	Coining Presses at the Royal Canadian Mint.....	164
Oyster Fisheries.....	92	Stock Exchanges.....	167
The Lunenburg Fishing Fleet.....	93	Electricians Wiring a Bomber before the Outside Metal Plates are Attached.....	177
The Doryman Comes Aboard.....	94	Practical Instruction in Forest Surveying	173
Pilchard Loaded on Scows.....	95		
Testing Cans of Salmon.....	96		
Silver Fox Display.....	98		
Ermine in Native Habitat.....	99		
Young Beaver.....			

CHARTS

	PAGE		PAGE
Canada's War Organization.....	13	Value of Net Production.....	53
British Commonwealth Air Training Plan.....	25	The Trend of Employment.....	175



Canada's War Program and Economic Conditions at the Close of 1940



The Rt. Hon. W. L. Mackenzie King,
P.C., M.P., Prime Minister
of Canada.

When the first session of the Parliament elected on Mar. 26 opened in May, one free country after another, in quick succession, had already become the victim of Nazi aggression. Before Parliament was adjourned on Aug. 7, Italy had joined her Axis partner as an open enemy, French resistance had collapsed, and the Government of France had surrendered. Britain herself was threatened with invasion. The theatre of conflict had begun to spread into other lands beyond the confines of Europe. Japan and China were still at war. Among the nations of the world, the United Kingdom and the British Dominions, alone, stood in arms in the defence of the world's freedom.

Parliament met again on Nov. 5 for the prorogation of the first session. The second session opened on Nov. 7. The purpose of beginning the session before the new

year was to enable the Government to present to Parliament an account of the development of the War, and of Canada's War effort in the period since the adjournment of the first session in midsummer.

On Nov. 12, the Prime Minister outlined to the House of Commons the developments on the international scene and summarized the War effort. He introduced his summary with the following words:

I believe the British forces are going to triumph. I believe democracy will win. I feel certain that right will triumph, but I believe it is going to be a longer road, a harder road and a more terrible road than any of us even at this time begin to believe. That is what I wish to speak about to-night to this House of Commons. We have been brought here primarily to discuss the War, and particularly to discuss Canada's War effort. We are here to get

a picture of the situation as it is to-day. As the people's representatives we must face the situation in its stark reality. We are here to do the best we possibly can to meet the situation, to the utmost of the nation's strength.

When Parliament re-assembled in November, the battle for the mastery of the air over Britain was still going on, and long, grim months of siege with constant threat of death from the skies still lay ahead. After months of waiting, the German army of invasion remained impotent to cross the narrow seas and, in spite of all her suffering and losses, Britain was stronger than she had been in midsummer.

The enemy's hope of a quick victory had been shattered on the rock of British resistance; the attention of the enemy was turning in considerable measure to other regions; from October, the great aim of the enemy had been to break the stronghold of the British blockade and, at the same time, to blockade Britain through the use of the submarine.

The Prime Minister interpreted the significance of these international developments in the following words:

The events of the past few months make it clearer than ever that the immediate aim of Germany is a new world order, based upon spheres of influence to be controlled by Nazi Germany and her Axis partners. Hitler plans, by holding out specious hopes of collaboration, to secure the participation of the subject peoples in the elaboration of his grand design. . . .

. . . It becomes more apparent, with each new development, that we are engaged in a titanic and terrible death struggle between two conflicting philosophies of life. On the one side is tyranny; on the other, democracy. On the one side, brutality and slavery; on the other, humanity and freedom. On the one side, the law of force; on the other, the force of law.

What Hitler has failed to accomplish by fear or force—the destruction of Britain—he has now set about attempting to effect by intrigue and guile. A new world order, based upon spheres of influence to be controlled by Nazi Germany and her Axis partners, is now the immediate aim. This is the subtle method by which, as the ultimate end of aggression, Germany hopes to attain world domination. Through the alliance between Japan and the Axis in Europe the new order in Asia has been linked to the new order in Europe. The pattern is now plain. The world, as I have said, is to be divided into spheres of influence. Germany and her greater vassals are to dominate a world of lesser vassals. The new order in Asia and the islands of the Pacific is domination by Japan. The new order in Europe is domination by Germany. The new order in the Mediterranean and in Africa is joint domination by Germany and Italy. The areas to be dominated by the Soviets would appear, at the moment, to be a subject for further negotiation. By promises of collaboration, Hitler and Mussolini are seeking to beguile France and Spain.

At the close of his report on the progress of Canada's War effort, in the same speech, the Prime Minister defined the policy of the Government in the following terms:

The only limits the Government is prepared to place upon Canada's War effort are those imposed by the extent of our resources, both human and material, and by our capacity for sacrifice. We will make financially possible the utmost effort the people of Canada are physically and morally capable of making.



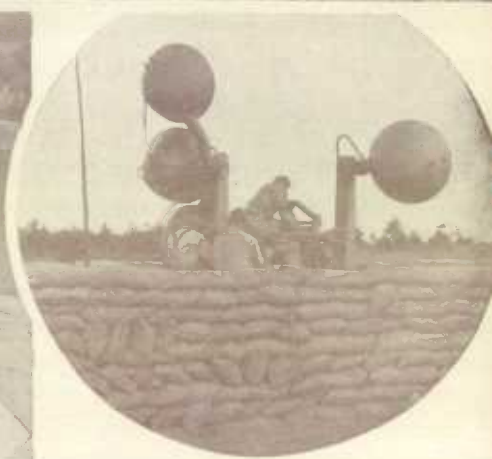
Shilo Training Camp, Manitoba.

A Lewis Gun Crew Training with Gas Masks.



Left Centre.—One of the Most Modern of the Empire's Anti-Aircraft Guns Defending the East Coast.

Right Centre.—Anti-Aircraft Listening Post.



An Anti-Aircraft Predictor.—This instrument co-ordinates data on target locations.

Courtesy, Director of Public Information and Montreal Standard.

Naval Ratings in Training in the R.C.N. Training School, Halifax, N.S.—The officers' class is in the rear.



Naval Wireless Class at the Training Barracks. →

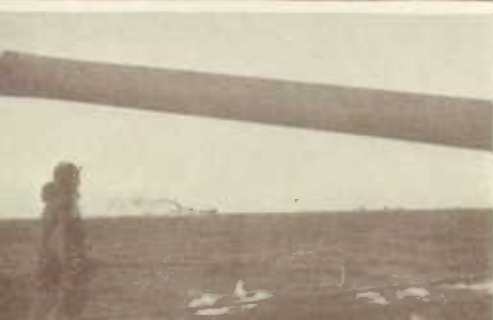


← Naval Recruits Undergoing Gunnery Instruction.



Canadian Seamen Undergoing Anti-Gas Instruction in the Torpedo School.

Courtesy, Director of Public Information and Montreal Standard.



Top.—Sighting Torpedo Tubes on a Canadian Destroyer.

Left Centre.—In the Engine Room.

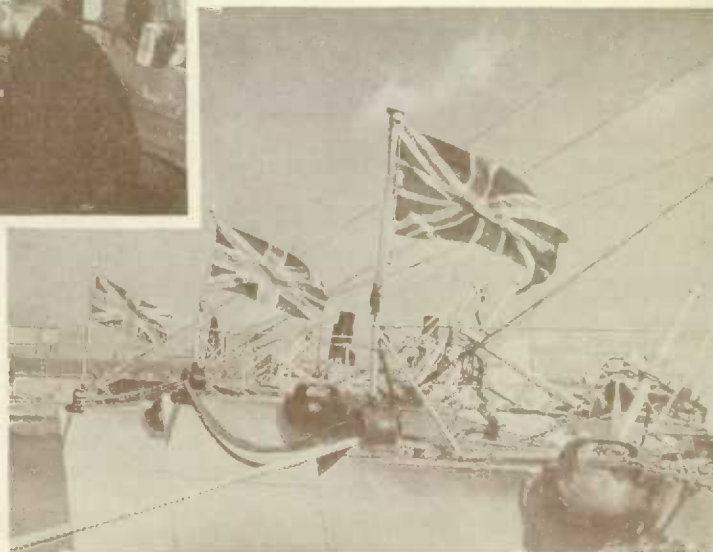
Right Centre.—Lookout on the Bridge.

Bottom.—A Convoy Moves Out under the Eyes of the Canadian Navy.

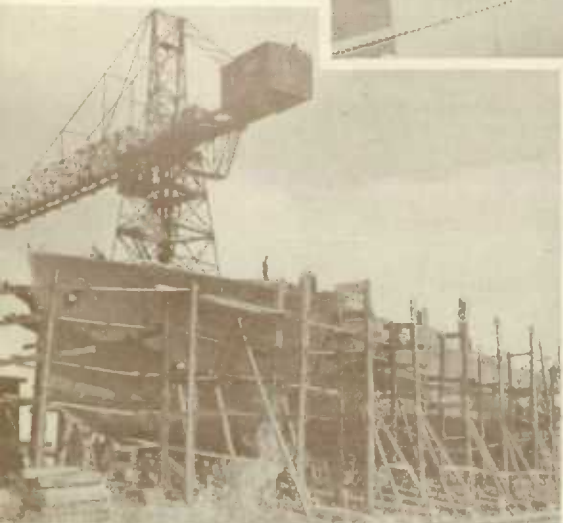


United States Sailors Explaining to Royal Navy Ratings the Depth Charge Mechanism on One of the Fifty Destroyers Recently Transferred to the Royal Navy. Six of These Were Later Transferred to the Royal Canadian Navy.

A Group of the Transferred Destroyers Now Proudly Flapping the Union Jack at their Moorings at an East Coast Port.



The Hull of a Corvette just before it was Launched from a Canadian Shipyard.



The Launching Operation.—Canada is producing an increasing number of this type of naval vessel.

Courtesy, Director of Public Information.



In order to meet the widening responsibilities of the growing War effort, the structure of the administration was progressively altered and enlarged throughout the year. The Department of Munitions and Supply was established on April 9, and its scope has been steadily extended, and its organization strengthened to meet growing needs. The Department of National Defence has been reorganized, and separate ministries created for Air and Naval Services. The Department of National War Services has been established. The Government was empowered by the National Resources Mobilization Act to bring to the defence of Canada, and the advancement of the common cause, all our resources, both human and material.

The extent to which Canada's War effort has been furthered by the co-operation of the United States has been recognized by tributes in Parliament. The growing admiration, in the United States, for the British capacity and determination to resist, has found expression in a steadily increasing supply of aeroplanes, guns and munitions, and other essentials of war from the factories of the United States to the battle-fields of Britain and the training fields of Canada. In the words of the Prime Minister:

The overwhelming majority of the people of the United States came to see in Britain an outwork of their own defence. They saw the need of giving all possible assistance to Britain. But they saw, too, the need for strengthening their second line of defence. If the coasts of America were to be immune from attack, naval and air bases were needed on the islands of the Atlantic. Joint action between the United States and Canada was recognized also as necessary to their common security. From the point of view of Canada and the whole British Commonwealth, what followed constitutes the most significant development in international affairs in the three months since our Parliament adjourned in August. In ultimate importance, it far surpasses the formation of the triple Axis.

The first stage of this development came on Aug. 17, and has come to be known as the Ogdensburg Agreement. Its terms were:

The Prime Minister and the President have discussed the mutual problems of defence in relation to the safety of Canada and the United States.

It has been agreed that a permanent joint board on defence shall be set up at once by the two countries.

This Permanent Joint Board on Defence shall commence immediate studies relating to sea, land and air problems including personnel and material.

It will consider in the broad sense the defence of the north half of the Western Hemisphere.

The Permanent Joint Board on Defence will consist of four or five members from each country, most of them from the services. It will meet shortly.

The Ogdensburg Agreement was announced on Aug. 18, and the Permanent Joint Board on Defence was appointed on Aug. 22. Meanwhile on Aug. 20, the Prime Minister of the United Kingdom announced that the British Government had decided to offer the United States sites for naval and air bases in the British possessions in the Western Hemisphere. Mr. Churchill's announcement was followed on Sept. 3 by an announcement from Washington that an agreement had been reached

between the Governments of the United Kingdom and the United States by which sites for bases in British Atlantic possessions were to be made available to the United States. In Newfoundland and Bermuda, these sites were leased for no other consideration than Great Britain's interest in the strength and security of North America. The sites in the Caribbean area were leased in exchange for fifty "over-age" United States destroyers. Six of these destroyers were subsequently made available to the Royal Canadian Navy and are already in commission.

On Nov. 12, the Prime Minister expressed the view that, "any part which our country may have had in bringing about a harmony of sentiment between the British Empire and the United States may well be a legitimate source of pride to all Canadians". The significance of these closer relations was interpreted by the Prime Minister in these words:

In the midst of the darkness which to-day enshrouds mankind, the relations between the United States and the British Commonwealth shine forth as the one great beam of hopeful light left in the world.

The Economic Effort

Modern 'total war' requires the effective mobilization of economic forces to equip and supply the fighting forces and to maintain the civil population while as much as possible of the national effort is devoted to war. For Canada this has implied that, in addition to providing men and materials for her own fighting forces, she must, to the maximum of her ability, furnish Britain with food, munitions, equipment, and raw materials.

Canada is much better able to aid in these directions than she was in 1914 because the industrial structure, as well as agriculture, is much more fully developed. The true measure of a country's ability to wage war must always be the power to adapt, expand, and adjust its production to meet the ever-changing requirements of war. Canada has ample resources of labour, capital, and material, some of which have hitherto been unemployed, and it should be possible for her to divert a great deal of production to war purposes without a too drastic temporary reduction in the standard of living.

But shortages of certain types of labour and materials arise even when there are no general shortages and well before general shortages are indicated; in the case of these bottlenecks, special measures are necessary to increase supplies or restrict civilian use. Specific shortages of this kind were becoming prominent in Canada in the latter months of 1940.

Study had been made of Canada's possible war-time requirements before hostilities broke out, and consequently it was possible to set up quickly the emergency organizations needed. The Defence Purchasing Board had been established in July and had begun to function actively before War was declared. Under war-time conditions it was realized that a Board with wider powers, which would include not only purchasing but, when necessary, the organizing and directing of supply,

would be needed. As a result, the Government set up the War Supply Board with these broader powers, which took over the work of the Defence Purchasing Board on Nov. 1, 1939. A War Purchasing Mission arrived in Canada in September from the United Kingdom and, after careful study of the supply field, it requested the War Supply Board to act as its purchasing agent in Canada. A prominent Canadian industrialist was appointed Director General of British (and French) Purchasing in the United States, and it was arranged that he should also direct purchases for the Canadian Government in that country.

On April 9, the War Supply Board was superseded by the Department of Munitions and Supply, which retained and expanded the organization and personnel that the Board had already built up. As the need for supplies became more acute, the purchases of the Department were extended and accelerated. On November 20, 1940, the Minister of Munitions and Supply stated in the House of Commons* that in the first quarter of this year the number of contracts averaged approximately 1,910 per month; in the second quarter approximately 4,070 per month; and in the third quarter nearly 7,500 per month. As of Nov. 11, the total of orders placed for Canadian account amounted to \$540,000,000, and for British account \$309,000,000, making a grand total of \$849,000,000.

The Department also commenced to examine and organize sources of supply, and to mobilize the resources of Canada for the prosecution of the War. In this connection, six Controllers have been appointed to deal with timber, steel, oil, metals, machine tools, and power. A War-time Industries Control Board composed of these Controllers was formed to co-ordinate their work. In November, 1940, the Government also appointed a War-time Requirements Board to ensure that war needs, in the order of their importance, shall have priority over all other needs, and to advise the Government on planning the most productive use of available resources for war purposes. In addition, eight Government-owned corporations have been established to carry out special functions in connection with the purchasing and production of equipment, supplies, or materials necessary for war purposes.

Within a few hours of the outbreak of war in Europe the War-time Prices and Trade Board was set up. This important body, composed of senior civil servants, was charged with responsibility for arranging supplies of necessities where shortages appear likely, for controlling prices in such a way as to prevent profiteering and, when and where necessary, for instituting systems of rationing and control. The Board was given wide powers to make and enforce regulations and has, in general, secured the widespread co-operation of producers and traders alike.

In September, 1940, the Board was given power to control rents and it proceeded to put into effect a standstill order fixing rents, in certain areas of special war-time demand, at the level of Jan. 2, 1940, in order to check the rapid increase in rents which had been going on in these areas. A Rentals Administrator was appointed and local Rentals Committees were set up.

The Government also appointed a special Agricultural Supplies Committee (later changed to a Board) to deal with problems of agricultural

* See Unrevised Hunsard, Page 286.

supplies and marketing under war-time conditions.* A Bacon Board was set up to deal with exports of bacon and hams to the United Kingdom under the agreement concluded by the two Governments. It commenced operations on Jan. 20. A Dairy Products Board was later established to deal, in a somewhat similar way, with exports of cheese and other dairy products.

The Canadian Shipping Board was established in December, 1939, succeeding the Ship Licensing Board. It has some control of the Canadian Merchant Marine, assists in obtaining shipping space for Canadian export trade and, in general, deals with Canadian shipping problems. Mention should also be made of the Voluntary Service Registration Bureau which keeps a record of all men and women who have indicated their willingness to take part in war-time activities of all kinds.

The supply of skilled labour is of particular importance in the establishment of large-scale war industries as well as in providing the many skilled tradesmen required by the armed forces themselves. The Department of Labour and the Department of Munitions and Supply have dealt with various aspects of the labour supply problem including the training of labour for war work, in which private employers and provincial and municipal authorities have co-operated. In June, 1940, a National Labour Supply Council was established to advise the Minister of Labour on questions concerning labour supply and training. This Council was composed of representatives of trade unions and of employers and their organizations. In October, 1940, an Inter-Departmental Committee on Labour Co-ordination was established to consider various aspects of labour policy and to ensure that the activities of the various Departments concerned with labour and employment should be properly co-ordinated.

An Advisory Committee on Economic Policy advises the Cabinet directly on the co-ordination and control of economic aspects of the War effort. This Committee is made up almost entirely of senior civil servants who are thoroughly familiar with both the principles and the practice of economic affairs.

After the enactment of the National Resources Mobilization Act, a Department of National War Services was established in July, under a separate Minister (Hon. J. G. Gardiner), to undertake the National Registration of Canadian man-power, and also to co-ordinate and develop the various voluntary war services throughout the country. The new Minister and Department were also to take over the existing government information and publicity services in connection with the War. The most urgent task of the new Department was the preparation for the National Registration (see p. 44). The most immediate use of the registration was for the selection of single men of specified age groups to be called up for military training for service in Canada. Provisions were made to ensure that this calling up be done in such a way as to

* The Minister of Agriculture described the War organisations related to his Department in the House of Commons on May 23, 1940 (see unrevised Hansard, p. 183).

cause the minimum interference with production in essential industries. The registration will also be used as a source of information on manpower available for other essential work in war time.

The war economic organization as at Dec. 1 is shown in the chart at p. 13.

The Financing of Canada's War Effort.—Since the War of 1914-18 Canada has become much stronger financially and, indeed, has now a well-developed and relatively mature financial system, both public and private. The keystone of this structure was placed in 1935 by the establishment of the Bank of Canada. On entering this War the Dominion had, therefore, sufficient financial machinery to carry out the heavy tasks that war demands.

At the emergency session of Parliament in September, 1939, an appropriation of \$100,000,000 was passed to cover war expenditures, and with this was lumped the unexpended funds of the Department of National Defence that had been voted at the first 1939 session. The first War Budget, which was brought down on Sept. 12 by the Minister of National Revenue, set forth the general policies of war finance that the Government proposed to follow. In this Budget moderate increases were announced in income taxes and substantial increases were made in taxes upon certain luxuries and semi-luxuries, notably beverages and tobacco. An excess profits tax was enacted to divert to the Treasury a large part of increased profits arising from war-time conditions.

When Parliament assembled in May, a War Appropriation of \$700,000,000 was passed to meet the costs in 1940-41 of the greatly extended War effort. The Minister of Finance later stated in his Budget Speech that war expenditures during the fiscal year would probably exceed that figure and amount to \$850,000,000 or \$900,000,000. Estimates submitted to Parliament for other expenditures amounted to \$448,000,000, showing a substantial reduction from the corresponding figure of \$525,000,000 in the previous year. The second War Budget, brought down on June 24, provided for substantial increases in taxes to meet a portion of these additional costs of war. The graduated rates of the personal income tax were raised very substantially and exemption limits were reduced. A National Defence Tax was introduced applying broadly to all persons receiving incomes of more than \$600 per annum. So far as possible, this tax is deducted at the source. The Excess Profits Tax was revised and made much more severe. In order to conserve exchange, a War Exchange Tax of 10 p.c. was imposed on all imports except those from the Empire. The excise tax on automobiles was made much more severe and steeply graduated in the upper brackets. The Minister of Finance estimated that these, and the other less important changes, would produce an increase of \$280,000,000 in tax revenue in a full year.

War expenditures during the first twelve months of the War amounted to approximately \$290,000,000. At the end of this period, however, they had reached a much higher rate than this average; the figure of War expenditure for the month of August, 1940, was approximately \$59,300,000, for September it was \$66,700,000 and for October \$81,700,000.

While the United Kingdom is able to pay for a large part of what she buys in Canada either with the proceeds of her sales to Canada, or with cash, there is a considerable excess to be paid for otherwise. Canadian dollars for the payment of a large part of this excess are provided by the repatriation of securities, under arrangements by which Canada buys back or redeems in dollars Canadian securities that have been held in London. Most of this process is carried out directly by the Governments, the Canadian Government raising Canadian dollars and paying them to the British Government in return for the securities that the British Government obtains in the United Kingdom and is able to pay for there in sterling.

Four major borrowing operations were carried out by the Dominion Government during the first fifteen months of the War. The first was of a short-term character, taking the form of a sale to the chartered banks of 2-year 2 p.c. notes to the value of \$200,000,000. The next borrowing was the issue of the First War Loan of \$200,000,000 3½ p.c. bonds and an unspecified amount in conversion in January, 1940, by which time it was judged that incomes and savings had increased sufficiently to ensure the success of a large public loan. The issue was quickly oversubscribed. Total cash subscriptions were \$321,276,850, to which \$200,000,000 in securities was issued, the larger subscriptions being subject to allotment; conversion subscriptions were allotted \$50,000,000 of bonds. In the latter part of May a National Savings Campaign was launched for the sale of war savings certificates and war savings stamps. The certificates are sold for four-fifths of the face value. They mature in 7½ years, which gives a return of 25 p.c. on the money invested, amounting to 3 p.c. per year, compound interest. Up to Oct. 31 certificates to a total face value of \$26,091,680 had been sold, and in addition war savings stamps to a value of \$1,424,061.25 had been sold and not yet turned in for certificates.

The latest loan was the Second War Loan, issued in September, 1940. This consisted of an offer, for cash subscription, of \$300,000,000 of 12-year 3 p.c. bonds, at a price of \$98.75 to yield 3½ p.c. The bonds were also offered in conversion for an issue of bondings maturing Sept. 1. Subscription books opened Sept. 9 and remained open two weeks. Total cash subscriptions amounted to \$342,248,300, and conversion subscriptions to \$24,946,200. The specified total of \$300,000,000 was allotted to cash subscriptions and conversion subscriptions were met in full.

In addition to these normal methods of borrowing, the Dominion Government has received a substantial number of non-interest-bearing loans, both large and small, from public-spirited citizens. Special provision was made for the issue of non-interest-bearing certificates of indebtedness for this purpose. Up to Nov. 18, 1940, 466 of these loans had been received, for a total amount of \$2,843,297.07.

The Foreign Exchange Control Board was established and its powers defined by Order in Council of Sept. 15, 1939 and control began next day. The Government took this step resolutely but reluctantly, because the commercial and financial ties between Canada and other countries, particularly the United States, are very close indeed and there has always been the greatest freedom of financial intercourse between Canada and the outside world. The Board has power to license imports and exports

of goods, currency, and capital (as for example in the form of securities). All transactions with residents of other countries are subject to its regulations. Early in July, the Board, with the approval of the Government, ceased selling foreign exchange to Canadian residents for the purpose of pleasure travel, in order to conserve exchange for the purchase of essential war supplies.

On Apr. 30 a Foreign Exchange Acquisition Order was passed requiring all Canadian residents to sell their holdings of foreign exchange (but not of foreign securities) to the Foreign Exchange Control Board before the end of May. The Board permitted those who needed a current supply of foreign exchange in carrying on their normal business to retain enough for this purpose. At the same time the Bank of Canada sold its gold reserves to the Board in order that all the nation's liquid reserves, both of gold and exchange, might be centralized in the hands of the one agency. The Exchange Fund, established in 1935 and used by the Board in its operations, was increased by \$325,000,000 in order to enable the Board to purchase the gold and foreign exchange referred to above.

National Defence

The Administration of National Defence.—The ever-increasing responsibilities that the War brought to the defence services in Canada and the importance that the Air Arm was assuming in the defence picture, especially in relation to the British Commonwealth Air Training Plan, made it necessary to set up a separate Department of National Defence for Air in May, 1940. On May 22, the Air Ministry Bill (amending the National Defence Act) providing for this Department received Royal Assent. The Hon. C. G. Power, Postmaster General, was made Minister and in addressing Parliament in support of the Bill he warmly commended the move, pointing out the arrangements for closest co-operation between the Defence Departments.

After the accident in June that deprived the Dominion of the services of the Hon. Norman Rogers, Minister of National Defence during the early months of war, Colonel the Hon. J. L. Ralston became Minister of National Defence, and the National Defence Act was again amended on July 8, 1940. A separate Department of National Defence for Naval Services was later established; the Hon. Angus L. Macdonald, Premier of Nova Scotia, was appointed Minister.

Provision was also made for the appointment of an Associate Minister of National Defence in order to facilitate the work of the Department, make it possible to have ministerial attention given to vitally important matters, and help to avoid congestion by providing two outlets instead of one. Mr. Power, who had been Acting Minister of National Defence for extended periods, while retaining the portfolio for Air also became Associate Minister of National Defence with the Hon. J. L. Ralston. The Department thus had the benefit of his recognized organizing ability and the experience he has acquired in the many phases of departmental activities. The Minister of National Defence is the Senior Minister with directing and complete ministerial authority.

The Army.—As soon as the emergent requirements for home and coastal defence and the protection of vulnerable points had been met, attention was directed to the establishment of a force to be available for service in Canada or overseas as the occasion might demand. One division and some ancillary troops were despatched overseas during the latter part of 1939, and were followed by additional troops, including the Second Division, in the spring of 1940.

During May and the early part of June troops were despatched outside of Canada to the West Indies, Iceland, and Newfoundland.

Meanwhile, further mobilization was carried out and plans for the direct defence of the East Coast were further advanced by the formation of an Atlantic Command. This is responsible for all matters of defence in the coastal area, including measures adopted for the defence of Newfoundland in co-operation with the Newfoundland Government and for the control of a mobile force stationed in the Maritime Provinces.

By agreement between the Governments of Canada and the United States, a Permanent Joint Defence Board consisting of representatives of the Governments and of the fighting services of both countries was constituted in August, 1940. The duties of the Board are to consider the problem of defence of the North American Continent and to ensure effective co-operation in defence matters that affect both nations.

Following passage of the National Resources Mobilization Act, plans for training at Militia training centres were prepared and the first 30,000 men commenced one month's training on Oct. 9. Instruction given at these centres is designed to give the man called up some basic training in subjects common to the Navy, Army, and Air Force and in doing so to increase his physical fitness to the greatest possible extent during the time available.

At the request of the Government of the United Kingdom, the Canadian Forestry Corps—to consist initially of twenty forestry companies—was formed. Its duties will be similar to those in the War of 1914-18, that is, to exploit the use of the forests of the United Kingdom for war purposes and thereby to economize shipping that would otherwise be required for the carriage of lumber and timber.

The organization, training, and equipment of the Canadian Forces conforms, in general, to British practice, as is customary throughout the Empire. Modifications have been made where necessary to suit Canadian conditions and to facilitate the production of equipment in Canadian factories, which are rapidly becoming the main source of supply for our forces both overseas and in Canada.

The Navy.—The task of the Navy in time of war is twofold; to protect Canada's coast and its coastal waters; and to guard all shipping, both approaching and leaving its shores. The fighting ships of Canada's Navy have taken part in convoying merchant ships in this regard.

A phase of naval work that is of great importance is that connected with coast defence including the provision of defences against submarines and armed raiders at harbour entrances, as well as the installation of anti-submarine nets for harbour defence.

The closest co-operation between the Royal Navy and the Royal Canadian Navy has been maintained at all times; this accounts in no small way for the fact that members of either fleet can, at a moment's notice, be transferred to the other without delay.

Although R.C.N. ships never act as ocean escort to convoys (R.N. ships *always* do) they are responsible for the convoys' passage through the dangerous waters adjacent to harbour approaches. During her period of operation in European waters H.M.C.S. *Restigouche* escorted six convoys through the German 'blockade' without the loss of a single vessel. Latest figures reveal that of the 3,302 ships that have left Eastern ports in convoy, 72 or 2·18 p.c. have been lost as a result of enemy action—none of them in Canadian coastal waters.

The ships of the R.C.N. have been augmented since the outbreak of war by the addition of a flotilla leader and six "over-age" United States destroyers (see p. 4). One hundred and thirty vessels of various types were pressed into service as minesweepers, patrol vessels, etc. Some of these were bought outright from other branches of the Government or from private interests. Some, indeed, were donated by public-spirited citizens of the Dominion. Three C.N.R. liners were bought for conversion into armed merchant cruisers. One of these, H.M.C.S. *Prince Robert*, commissioned on Aug. 1, 1940, captured the speedy German freighter *Weser* off the coast of Mexico. Contracts were given for the construction of 60 "corvettes" (190-foot patrol boats), 18 steam and 10 diesel minesweepers, 12 speedy motor torpedo boats and 24 "Fairmiles" (fast-maneuvrable craft for anti-submarine work).

To replace H.M.C.S. *Fraser*, the first R.C.N. ship lost in the present conflict, H.M.C.S. *Margaree*, a Class D destroyer, was acquired from the Royal Navy in late August, 1940. Unfortunately, H.M.C.S. *Margaree* was lost while performing convoy duty on Oct. 22, 1940. The sinking of the *Bras d'Or*, due to a strong gale and a heavy sea, in early November, 1940, brought to three the number of vessels lost by the R.C.N. to date.

By June, 1940, the first detachments of officers from the Royal Canadian Naval Volunteer Reserve had completed training in England. Some units have seen service in the Caribbean Sea and European waters, and on several occasions they have played important roles in the capture of enemy ships. A sequel to the sinking of the *Fraser* was the rescue of a majority of the survivors by H.M.C.S. *Restigouche*. Soon after this, H.M.C.S. *St. Laurent* rescued upwards of 700 persons from the *Arandora Star* which was torpedoed *en route* to Canada with German and Italian internees. H.M.C.S. *Skeena* took part in the rescue work of the ss. *Manipur* after the vessel was damaged by enemy action. For gallantry displayed during the evacuation from France, three officers of the Royal Canadian Naval Volunteer Reserve were awarded the Distinguished Service Cross.

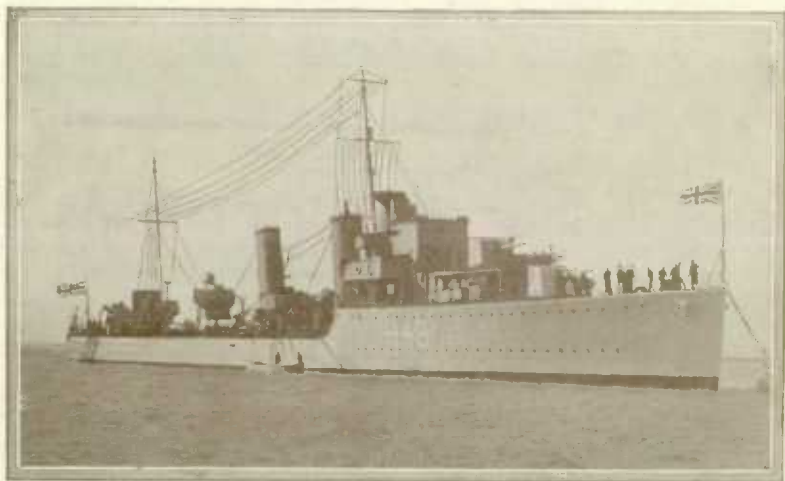
The Royal Canadian Air Force.—The R.C.A.F. plays a part of considerable importance in the Empire's War effort. At the outset of the War, Canada had a well-trained air force that could have been sent overseas for immediate service, but it was decided that the R.C.A.F. should be used as a nucleus of a vast Empire air training plan which would provide, over the years, an inexhaustible supply of pilots, air observers, and air gunners. On Oct. 12, 1939, the British Commonwealth Air Training Plan

was announced, and, early in November, air missions representing the United Kingdom, Australia, and New Zealand met at Ottawa. On Dec. 17 an Agreement was made providing for the establishment of 67 schools in Canada for the training of pilots, air observers, and wireless operator-air gunners. This Agreement, enlarged now to embrace 83 schools, will remain in force until Mar. 31, 1943, but may be terminated or extended by mutual consent. The Plan, as first drawn up, has been shortened in several respects in order to accelerate the output of personnel that events in Europe have demanded. A special article on the organization of the Plan and the progress that has been made to date is printed at pp. 17 to 26. The cost is estimated at \$600,000,000, of which Canada's share is \$350,000,000.

The work of planning and laying out airports and providing equipment for the Trans-Canada Airway in years previous to the outbreak of war, has proved to be a very substantial contribution to the actual War effort. Indeed, the excellent advantages possessed by the Dominion for air training were largely instrumental in the choice of Canada as the locale of the Plan.

But, while the British Commonwealth Air Training Plan is the main direction in which the R.C.A.F. is advancing Canada's War effort, there are other important ways in which support is being given. There are a great number of Canadians already serving overseas both with the R.A.F. and in squadrons of the R.C.A.F. operating with the R.A.F. Canadian airmen are also manning home defences, sea coasts, and vital territories, as well as convoying ships and 'spotting' for the Royal Canadian Navy. Thus in a three-fold way the R.C.A.F. has taken to the air and is carrying on in the traditions set by the Canadians in 1914-18.

Whereas in September, 1939, the R.C.A.F. had 450 officers and 4,000 airmen, on Sept. 15, 1940, the strength was in excess of five times these figures.



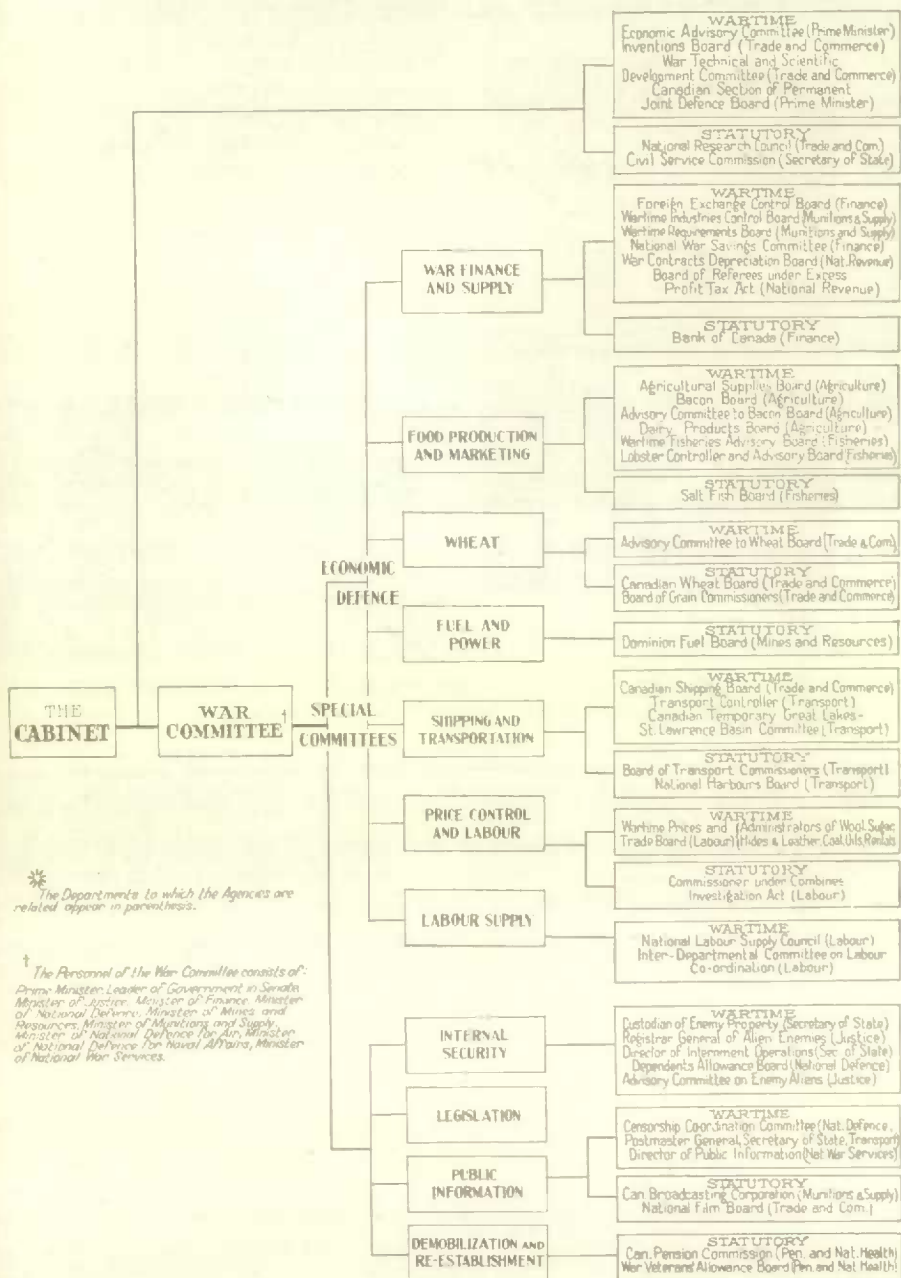
H.M.C.S. *Fraser*, the First Canadian Naval Vessel to be Lost in the War.—The *Fraser* was sunk in a collision off the French coast on June 25, 1940.

Courtesy, Department of National Defence.

WAR ORGANIZATION

CABINET COMMITTEES

RELATED AGENCIES



* The Departments to which the Agencies are related appear in parenthesis.

† The Personnel of the War Committee consists of: Prime Minister, Leader of Government in Senate, Minister of Justice, Minister of Finance, Minister of National Defence, Minister of Mines and Resources, Minister of Shipping and Supply, Minister of National Defence for Air, Minister of National Defence for Naval Affairs, Minister of National War Services.

Economic Conditions in Canada at the Close of 1940



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

In the following paragraphs the statistics and trends given in the chapter material of this Handbook in relation to certain outstanding branches of Canadian economy, are brought up to the time of going to press.

Agriculture.—Canada's wheat crop for 1940 is estimated at 547,000,000 bushels as compared with 490,000,000 bushels in 1939. Of these 547,000,000 bushels, about 427,000,000 bushels, in addition to the carryover of 301,000,000 bushels from the last crop year, are considered to be available for export during the present crop year.

Crops other than wheat were also generally larger in 1940 than in 1939, the important oat crop being estimated at 388,000,000 bushels against 384,000,000 bushels and barley at 105,000,000 bushels against 103,000,000 bushels. Mixed grains are estimated at 44,000,000 bushels, unchanged from 1939, and rye at 14,000,000 bushels against 15,000,000 bushels. The estimated crops of peas and buckwheat are practically unchanged from 1939; on the whole, however, the field crops are estimated as being 6 p.c. greater in volume and the first estimate of their total value is \$648,286,000 as compared with \$669,672,000 in 1939, a decrease of 3 p.c. The wheat crop was valued at \$280,582,000, an increase of over 5 p.c.

As regards animal husbandry, it may be noted that the meat trade was distinctly more active in the first 48 weeks of 1940 than in the same period of 1939. Cattle slaughterings in the same period increased by nearly 2 p.c. over 1939 and hog slaughterings by 48 p.c. Recently the British Government has renewed the contract for a year's supply of Canadian bacon, amounting to 425,000,000 lb.

Mines and Minerals.—In 1940 increased production by the Canadian mining industry reflected for the second consecutive year the tempo of war-time conditions. Statistical returns received from operators during the first nine months of the year indicated an increase in output over 1939 in almost all branches of the industry. The stability and efficiency of this great basic industry are proving to be of ever increasing importance as factors in the Empire's magnificent War effort. Gold output should surpass the previous high record of 5,094,379 ounces established in 1939. This is of very great significance in financing the purchase of war materials from

foreign countries. A satisfactory output of the non-ferrous metals, including nickel, copper, lead and zinc, was maintained throughout the year and increased shipments of cement, clay products and other structural materials emphasized the rapid expansion in war-time construction. A distinct increase in production of Canadian coal during the year under review helped to conserve foreign exchange while an expansion in crude-petroleum and natural-gas production continued in the important Turner Valley oil fields of Alberta.

Forestry.—During 1940 the Canadian lumber industry was called upon to take a leading part in the national War effort. Following the loss of other sources of supply, shipments of Canadian lumber to the United Kingdom rose to the exceptionally large volume of 1,600 million board feet. Exports of planks and boards in the first 10 months were 2,030 million board feet, an increase of 11 p.c. over the corresponding figure of 1939, while newsprint production, at 2,883,562 tons, was over 23 p.c. more than in the same period of 1939. Exports of lumber to the United States increased in value and provided American dollars urgently needed for the purchase of war supplies.

The industry provided lumber for some 5,000 buildings erected at air-training schools, air stations, and military training camps, and structural timbers were supplied for more than 335 aircraft hangars and drill halls.

The index number of employment in logging was 258·6 at Nov. 1, 1940, as compared with 206·4 at the same date of 1939.

Central Electric Stations.—Electric power production is one of Canada's leading and most rapidly expanding industries; output of electric power being now five times as large as in 1919, the earliest year for which this figure of output is available. Pulp and paper and mining companies purchase a very large proportion of the output of central electric stations. In the first ten months of 1940 the output of electric power was 24,971 million kilowatt hours, the highest figure on record for this period and an increase of 8 p.c. over the corresponding period of 1939. About 98 p.c. of Canada's electric power is produced from water. Indeed, in the production of hydro-electricity, Canada is second only to the United States and in aggregate production of electricity was fifth among the nations of the world in 1938. The consumption of firm power has increased steadily and for the first ten months of 1940 amounted to 18,892 million kwh. which was 16 p.c. above the firm power consumption in 1939.

Manufactures.—As pointed out at p. 112, the best barometer of conditions in the manufacturing industry, until the 1939 and 1940 Censuses of Industry have been completed, are provided by indexes of employment compiled, month by month, in the Dominion Bureau of Statistics. A table showing these indexes down to November, 1940, is there given, and it will be seen that from September, 1939, to November 1, 1940, the index, based on 1926 as 100, advanced from 115·3 to 144·6.

A monthly index of manufacturing production is constructed in the Bureau from 30 significant factors and this has shown a general upward

trend with minor fluctuations, and over the first 12 months of the War effort it rose from 121·3 in September, 1939, to 142·4 in April, 1940, and to 174·2 in October.

External Trade.—Canadian exports, excluding gold, totalled \$964,000,000 in the ten-month period ended Oct., 1940, against \$727,000,000 in the corresponding period of the previous year, an increase of 33 p.c. A very large part of this rise is represented by exports to the United Kingdom which at \$424,000,000 were up 58 p.c., though other countries, notably the United States (26 p.c.), Australia (13 p.c.), and British S. Africa (119 p.c.) showed substantial gains; Japan fell from \$24,000,000 to \$10,000,000.

Imports for the first ten months of 1940 were 47 p.c. above the same months of 1939, standing at \$877,000,000 against \$594,000,000. The United States accounted for more than three-quarters of the increase. Total trade (imports and exports combined) has increased to the point where, for the month of October, it stood at \$215,000,000—higher than for any other month since 1929.

The export balance of trade was \$99,000,000, which represented a decline from the previous year of 30 p.c. This balance was supplemented by net exports of non-monetary gold amounting to \$169,000,000.

Employment.—The response of Canadian industry to war-time demands resulted, during 1940, in a volume of employment greatly exceeding that of any other year in the Dominion's history. From Apr. 1, the trend was consistently upward; between that date and Nov. 1, the index rose by over 24 p.c., a larger-than-normal advance, which represented an increase of some 267,400 men and women in the working forces of the employers reporting to the Dominion Bureau of Statistics. At Nov. 1, returns were received from 12,392 establishments, whose staffs aggregated 1,364,720, while the index, based on the 1926 average as 100, stood at 139·2, the highest on record; the Nov. 1, 1939, figure was 123·6.

The improvement in 1940 extended to all parts of the country and to all industries. The gains in manufacturing were particularly pronounced, employment in factories rising to unprecedented levels. The non-manufacturing divisions also showed considerable activity, although construction, as a whole, lagged behind other classes during most of the year; this was due to curtailment in the highway group, although building construction afforded more employment than in any other year since 1931.

The expansion in industrial activity resulted in a marked decline in unemployment; it is estimated that the proportion of unemployed among the total number of wage-earners declined from 13·8 p.c. in January, 1940, to 4 p.c. at the end of October; in October, 1939, the estimate was 10 p.c.

Prices.—Following a sharp advance in the last four months of 1939, movements in commodity prices during 1940 were comparatively small. Except in the case of security prices, 1940 year-end levels were slightly higher than in December, 1939. Wholesale price levels have been held in check by sharp declines in grain quotations in May and June, and farm products, as a group, suffered major losses during the year. Increases in clothing and home furnishings have been the main contributing factor to a rise of approximately 3 p.c. in living costs.



BRITISH COMMONWEALTH AIR TRAINING PLAN



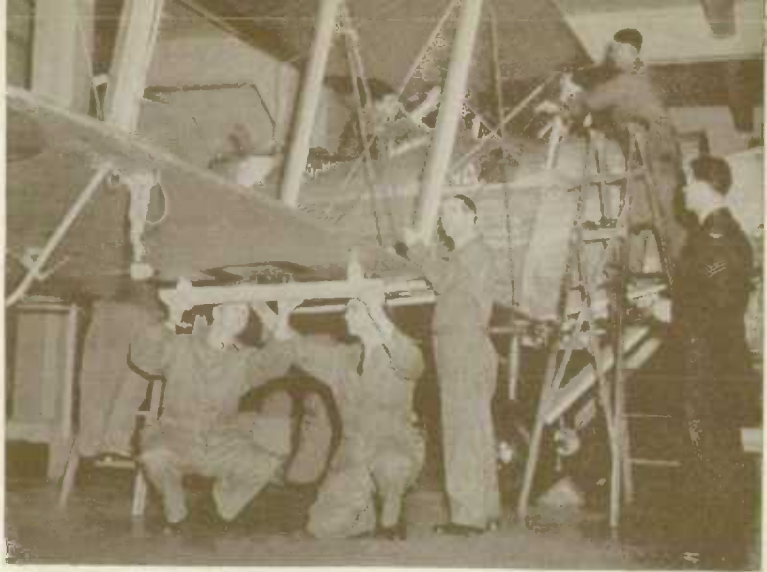
On Oct. 12, 1939, about six weeks after the outbreak of war, a comprehensive scheme of Empire air training was announced simultaneously in the United Kingdom, Canada, Australia, and New Zealand. This plan, known as the British Commonwealth Air Training Plan, is a vast enterprise undertaken by the four contracting Governments to assure an inexhaustible supply of trained airmen to carry on the war against the totalitarian powers. The Agreement was signed in December, 1939.

The Plan was initiated by the United Kingdom and Canada. The former realized that, if ultimate victory was to be achieved, mastery of the air, as well as of the sea, would be a deciding factor, and that the organization of Empire resources for the rapid and efficient training of pilots, air observers, and air gunners was necessary. The growth and expansion of the aircraft industry in the United Kingdom and her huge purchases of aircraft abroad made it necessary that she should look ahead to the training of the personnel required to man her aircraft. The area of the United Kingdom is little more than one-quarter the land area of Ontario and the thickly populated and highly industrialized areas; the relatively short distances; the limited number of aerodrome sites available for practice purposes on such a scale as war demands and when operational needs under conditions of 'total warfare' are taken care of, not to speak of the confusion of attempting to provide for preliminary training of the necessary numbers in what is actually a front line defensive system; the climatic conditions of fog and cloud that restrict the number of flying days available; and the compact honey-combed nature of the countryside all militated against the establishment of a vast training scheme in Britain.

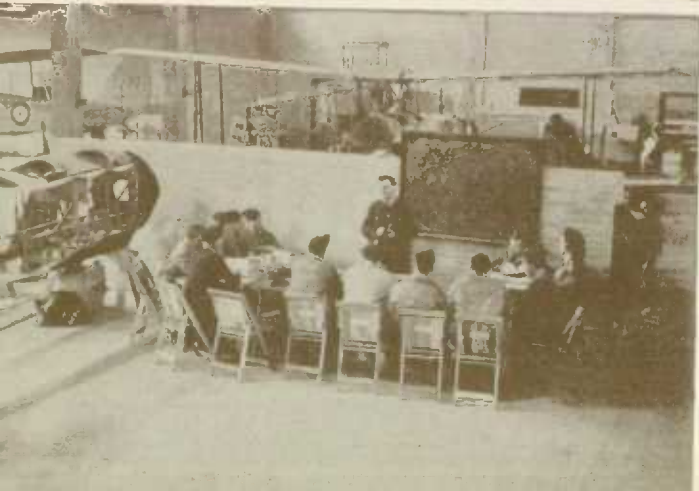
Canada, on the other hand, possesses all the advantages and none of the disadvantages as the locale of such a training scheme. Her wide distances and organized system of aerodrome sites along the Trans-Canada Airway; her potential industrial output of machines and equipment compared with the other Dominions; her close relations with, and proximity to, the industrial centres of the United States where large British purchases of aircraft are made; her relative nearness to the United Kingdom combined with safety from enemy attacks; and the aptitude and proven skill of her sons for flying all combine to place her in an exceptional position to make a great contribution to the Empire scheme. This, Canada consented to do and has bent every effort to make the Plan, which has become "Canada's greatest single enterprise", a success. The program is being carried out in Canada, administered by the Government of Canada, and organized and operated by the Royal Canadian Air Force. The Department of Munitions and Supply is responsible for the construction of buildings, etc., but the Transport Department built the aerodromes.

The Commonwealth Air Training Plan produces its pilots, air observers, and air gunners for service in the Royal Air Force. These are separate

Rigging Class at the
School of Aeronautical
Engineering, Montreal.



Instruction under the
B.C.A.T. Plan at the
Wireless School,
Montreal.



Future
Air-Frame Mechanics
in School.

*Courtesy, Department of National
Defence for Air.*

altogether from airmen already sent from Canada for service overseas by the Royal Canadian Air Force, which are a voluntary and entirely supplementary contribution and retain their identity as the R.C.A.F. Another contribution to Canada's War effort in the air is that section of the R.C.A.F. known as the Home War Establishment, whose principal duty is the defence of Canada. Its function is to carry out reconnaissance duties, to engage in anti-submarine patrol, to provide aerial protection to convoys going overseas, to Newfoundland, or to the Caribbean. Besides this, it is charged with the duty of training men for its own operations and overseas service.

The Plan.—As at first outlined, the total cost of the project was estimated at \$600,000,000, of which Canada's contribution was set at \$350,000,000, including the entire cost of the Initial Training and Elementary Flying Training Schools. Canada was to provide, moreover, about 80 p.c. of the pupils, and about 90 p.c. of the personnel of the Royal Canadian Air Force was to serve as administrators and instructors. A personnel of over 40,000 was estimated as required to operate its various facilities. Schedules were established that were to bring the Plan to its predetermined capacity by the beginning of 1942 and, in the meantime, progressively increasing numbers of pilots, air observers, and air gunners were to be trained. The qualifying factors to the success of the program were the construction to schedule of aerodromes, buildings, aircraft, and engines, and the training of maintenance crews, administration personnel, instructional staff, and students.

Administration.—The organization and executive command of the training schools under the Commonwealth Plan has been entrusted to the Royal Canadian Air Force. A supervisory board has been established for the general supervision of the Plan and meets at regular intervals. The Minister of National Defence for Air is Chairman of the Board and members include the Minister of Finance, the Minister of Munitions and Supply, representatives of the Governments of the United Kingdom and Australia in the persons of the High Commissioner in Canada for the United Kingdom, the High Commissioner for Australia, and a representative of New Zealand, the Deputy Minister of National Defence for Air, and the Chief of the Air Staff for Canada.

The country is divided into four Training Commands: No. 1 Command, with Headquarters at Toronto, includes eastern Ontario with the exception of the Kingston, Mattawa, Montreal triangle; No. 3 Command, with Headquarters at Montreal, extends eastward from the No. 1 Command to the Atlantic seaboard; No. 2 Command, with Headquarters at Winnipeg, extends westward from a due north-south line drawn from the Lake Superior coast at Schreiber to the eastern limits of Alberta but does not include the southwest corner of Saskatchewan; No. 4 Command, with Headquarters at Regina, extends from this line to the Pacific Coast.

Each Command is organized independently with its own schools, depots, and recruiting centres. Permanent corps of competent aero-engine mechanics, air-frame mechanics, and fabric and metal workers are maintained at each Command to keep training equipment in perfect condition. With such rapid expansion as has taken place, it has been necessary to enlist the services of men from all walks of life. Administration personnel

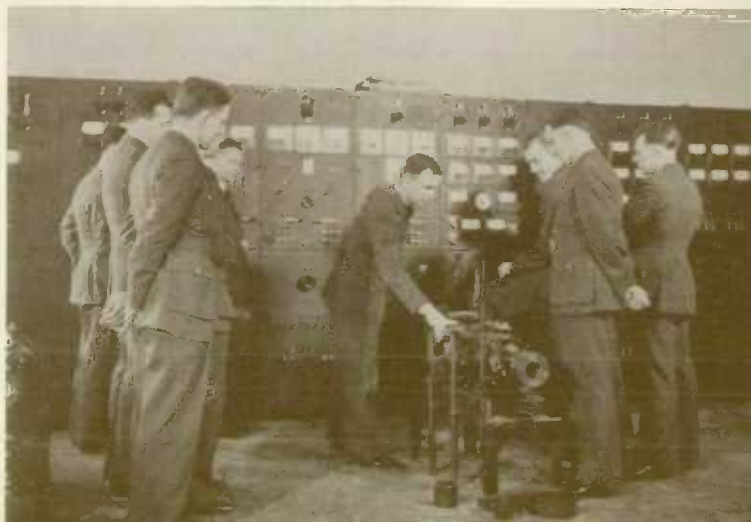


Class-Room Scene at
One of the Many Centres
of the B.C.A.T. Plan.



Students Undergoing
Lewis Gun Training.

Students in the
Electrical Course.



*Continued, Department of
National Defence for Air*

has been recruited and trained for duty at all the 71 units for the training of pilots, air observers, and air gunners shown in the chart at p. 25 besides those of Air Force Headquarters, R.C.A.F. Commands, and schools for instructors.

Selection of Sites for Schools and Aerodromes.—The responsibility for the selection of suitable sites for the aerodromes required for the Plan and the preparation of these sites for use was placed on the Civil Aviation Branch of the Department of Transport, whose wide experience in connection with the ten-year program of similar work on the Trans-Canada Airway proved invaluable. Their recommendation had subsequently to be passed by the Royal Canadian Air Force Aerodrome Development Committee. In the original program aerodromes were required for 26 elementary training schools; 10 air observers schools; 10 bombing and gunnery schools; 16 service flying training schools, each requiring 3 aerodromes; and 2 air navigation schools. As 8 Elementary Flying Training Schools operate from Air Observers School aerodromes, the total number of aerodrome projects amounted to 88.

The rapid series of successes of German arms on the Continent of Europe in the summer of 1940, which culminated in the capitulation of France, placed the United Kingdom in a most critical position and made it necessary to advance the Commonwealth effort by all possible means. Speeding up of the construction program was, of course, fundamental since it was impossible to proceed with training without adequate facilities. The schedule contemplated construction over a period of two and a half years but 90 p.c. of the projects were completed by November, 1940.

The factors governing the selection of sites for schools and the development of aerodromes were: (a) The cost of extending aerodromes previously used by the Trans-Canada Air Lines or establishments for other purposes as compared with the cost and development of new sites, taking into consideration equitable distribution as between the various provinces; (b) The value of new developments as a permanent asset to the Dominion as a whole for civil flying at the conclusion of the present conflict; (c) The character of the surrounding country and the proximity of hazards to flying; (d) The location of the sites with respect to railroads, highways, telegraph and telephone facilities, and adequate supplies of power; (e) The proximity of schools to aircraft and other plants to facilitate overhauls and maintenance of aircraft and engines.

Equipment.—Training aircraft for the Air Training Plan can be roughly divided into two classes, elementary trainers and advanced trainers. The elementary trainers are produced in Canada; some are equipped with engines obtained from the United Kingdom and others with engines obtained from the United States. The advanced trainers were to have been furnished by the United Kingdom as part of its contribution to the Plan. Some of these were to have been produced in the United Kingdom and others were to have been purchased in the United States and sent on to Canada. The change in the military situation during May made it difficult for the United Kingdom to make her contribution and it became necessary for her to suspend shipments for a time. Immediate arrangements were made to manufacture substitute aircraft in Canada and until



1. Student Pilots at Trenton, Ont.
2. Servicing a "Harvard" Trainer.
3. Loading Bomb Racks of a Fairey "Battle".
4. Radio Operator at His Key in a Flying Boat.
5. Making Tea in the Compact Galley of a Flying Boat.
6. Navigator at His Table in the Air.

such production could be commenced and shipments resumed by the United Kingdom, the gap in the program was partly filled by the purchase of new and used aeroplanes from the United States. Each of the 16 Service Flying Training Schools, where pilot pupils do their intermediate and advanced training, requires, when in full operation, about 100 advanced trainers.

The types of training aircraft include: The Fleet "Finch" and the de Havilland "Tiger Moth" for instruction at Elementary Flying Training Schools. The Avro "Anson" and North American "Harvard" for pilot instruction at Service Flying Training Schools (the former also for Air Navigation Schools). The Fairey "Battle" for use at Bombing and Gunnery Schools, and Air Armament School. The Noorduyt "Norseman" for use at Wireless Schools and Air Navigation Schools. Other aircraft available include Airspeed "Oxfords", Lockheed "Hudsons", Boeing transports, Douglas "Dighys", and Westland "Lysanders".

Training.—Great technological progress has taken place in the science of aviation since the War of 1914-18. The super-speeds now attained and the intricate service-craft that are now standard require men who are young enough to withstand the physical strain and absorb the knowledge and technique required in the shortest possible time. It is essential that their instruction be thorough, efficient, and complete, for on them depends not only the success of the Plan, but in large measure the lives and future destiny of the nation.

The vast majority of the personnel to be trained under the Plan will be Canadians. Practically all air recruits in the United Kingdom will be trained at home. In Australia and New Zealand all air recruits will receive their initial and elementary flying training at home, while most of the former and some of the latter will also receive advanced training in their respective countries. Under the Agreement, however, about one-fifth of the pupils who receive advanced training in Canada will come from the other two Dominions. A number will also be received from the United Kingdom, Newfoundland, and elsewhere.

Since plans for the training scheme were first drawn up, changes have been introduced in order to accelerate the output of pilots and personnel to meet the urgent requirements that developments in Europe have made necessary. These were made with the least possible interference with efficiency or high standards of training by the provision of more equipment and facilities, the reorganization of courses, and the saving of time in the training sequences. The changes were made at the request of and in co-operation with the United Kingdom and have resulted in a substantial all-round speeding up of the Plan.

The air-training program is illustrated in the diagram at p. 25.

Applicants for air training under the Plan must subject themselves to interviews by the Officer Commanding at one of the 17 Recruiting Centres throughout Canada, and must undergo medical examination. They are then sent to one of the 4 Manning Depots where for two or three weeks they learn the ABC's of Air Force life. From there they go to one of the three Initial Training Schools where a 4-week schedule takes them through courses in elementary mathematics, accounts, armament hygiene and sanitation, duties of an officer, drill and physical training, law and discipline, administration and organization.



A North American
"Harvard" Used in
Advanced Training.



A Lockheed
"Hudson" on Coastal
Reconnaissance.

Fairey "Battle" Light
Bombers as Used
in Training.



An Avro "Anson"
Used for Training
Bomber Crews.



Below.—Light Training
Machines Used for R.C.A.F.
Preliminary Instruction.

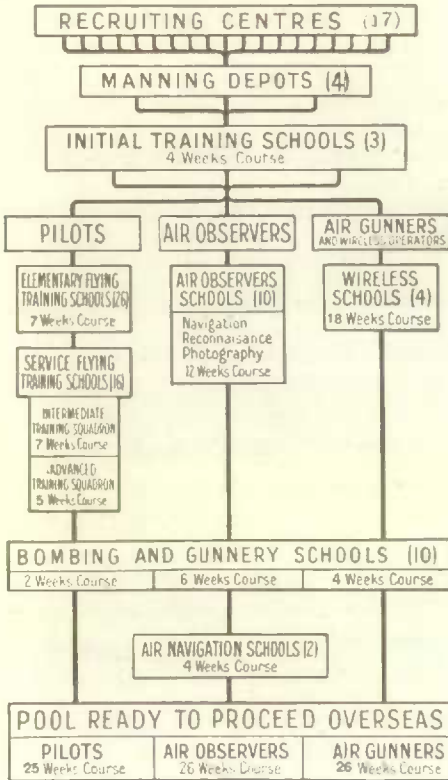
*Courtesy, R.C.A.F. and Fleet
Aircraft, Limited.*



Results of progress through the Initial Training School determine the post for which each man is best fitted. The pilot must be between the ages of 18 and 31 and other members of the aircrews between the ages of 18 and 32. Prospective pilots are selected with the help of the 'link

BRITISH COMMONWEALTH AIR TRAINING PLAN

SEQUENCE OF TRAINING



trainer', a machine resembling a miniature aeroplane but fixed to the ground. Instruments record the movements and actions of pupils, the co-ordination of mind and muscle, and reactions to normal flight movements. The pilots then have 7 weeks in an Elementary Flying Training School; then 12 weeks at a Service Flying School, after which they go overseas for further training in operational training units prior to being absorbed in Service squadrons.

The close teamwork demanded of an aircrew means careful training for the air observer upon whose shoulders, just as much as on the pilot's, rests the responsibility of the 'plane's mission. The observer is also the bomb aimer and bomb dropper once he has navigated the 'plane to the objective. Chosen for his sense of responsibility and mathematical precision, the air observer student leaves the Initial Training School for a 12-week course in an Air Observers School, where

he learns air navigation, aerial photography, and reconnaissance duties such as sketching, observation, and spotting enemy positions and concentrations. He then has 6 weeks at a Bombing and Gunnery School and 4 weeks at an Air Navigation School. The entire course for an air observer is 26 weeks.

An aircraft needs a pilot to fly it, an air observer to navigate it, but it takes an air gunner to provide the protection from hostile 'planes so that all can reach the home base safely. When not fending off attacking enemy 'planes, the air gunner is wireless operator and controls the means

of communication with the home base and other 'planes of the formation. The first stage of an air gunner's training is a course of 18 weeks in a Wireless School. He then has 4 weeks at a Bombing and Gunnery School. The entire air gunner's course runs to 26 weeks.

At the conclusion of training, all specialists of high standing, coming from the 'production line' as pilots, air observers, or air gunners, enter the aircrew pool; here they are organized into aircrew units. This pool is the point where the graduates of the Air Training Plan step from training into active service. The majority go overseas. Some Canadians may remain in Canada for a time attached for further training to the home defence squadrons for active service on the sea coasts.

Many recruits never attend an Initial Training School or Elementary Flying School but proceed from a Manning Depot to the Technical Training School where they qualify as maintenance crews on the administrative side of the Plan. The centre of training for such crews is St. Thomas, Ont. The length of the technical course is 18 to 24 weeks and graduates are qualified in such trades as aero-engine mechanics, air-frame mechanics, fabric workers, instrument makers, electricians, and all allied Air Force trades. There have also been established Equipment Schools, Accountant Schools, Schools of Administration, and a Chef School.

Post-War Dismantling.—When the War ends, all lands acquired for the Plan will remain Canadian Government property. With the exception of aircraft and equipment supplied by the United Kingdom, all other assets will be shared equally among the participating Dominions and the United Kingdom.



Barracks at Regina, Sask., 1940.



Craig Harbour Post, Eastern Arctic, 1940.



Patrol Boat *St. Roch*—The pioneer vessel of the R.C.M.P. Marine Section.



Launching of the R.C.M.P. Prevention Service Cruisers *MacDonald* and *Laurier*, 1937.

R.C.M.P. Cruiser, *Alachasse*.

Courtesy, R.C.M.P., Ottawa.

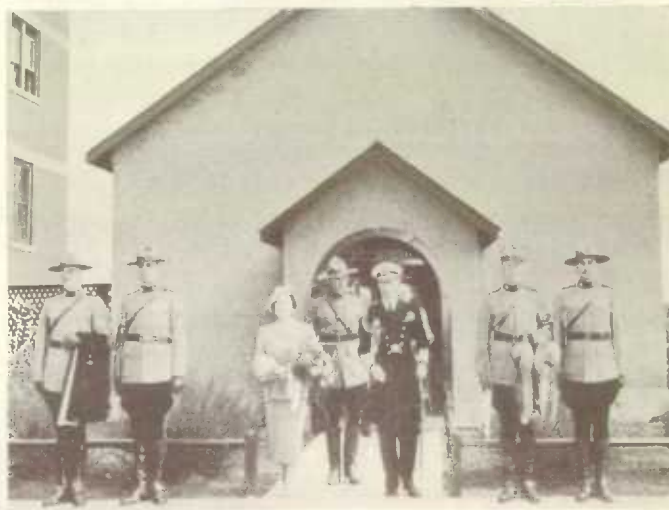


Member of the R.C.M.P. on Parliament Hill, Ottawa.

R.C.M.P. Contingent, Golden Gate Exposition, San Francisco, Cal., July, 1939.



The King and Queen leaving the R.C.M.P. Chapel, Regina, Sask., on Their Tour across Canada, 1939.



R.C.M.P. Provost Company in England, 1940.

Courtesy, R.C.M.P., Ottawa.

THE ROYAL CANADIAN MOUNTED POLICE.

Colonel J. B. Mitchell, One of the Original Members of the R.C.M.P., and Mrs. Mitchell, Being Presented to Their Majesties, King George and Queen Elizabeth during the Royal Tour across Canada.

Courtesy, R.C.M.P., Ottawa.





The Old Mounted Police Fort at Battleford, before and during the Rebellion of 1885.



Fort Walsh, Cypress Hills, 1898.



Concentration Camp, Blood Reserve, 1885.



Fort Macleod, 1884.
Courtesy, R.C.M.P., Ottawa.



Crowfoot—Chief of the Blackfoot Confederacy—Friend of the White Man.



A Staff-Sergeant of the N.W.M.P. and Indian Scouts at Macleod, 1894.



A Typical Blackfoot Warrior.

Fort Whoop-Up, 1874. Built by Missouri Whisky Traders.—While on British soil, it will be observed that the U.S. flag is flying over the Fort.

Courtesy, R.C.M.P., Ottawa.



Siberian Expeditionary Force of the R.C.M.P., Vladivostok, 1918.



Inspection in London of the Coronation Contingent of the R.C.M.P., May, 1937, by Hon. Vincent Massey Accompanied by Assistant Commissioner S. T. Wood.

The Coronation Contingent of the R.C.M.P. Passing through Trafalgar Square.



R.C.M.P. Aviation Section, Toronto, Ont., July, 1937.

Courtesy, R.C.M.P., Ottawa.



THE ROYAL CANADIAN MOUNTED POLICE



Background.—On the 23rd day of May 1873—six years after Confederation—the Dominion Parliament authorized the establishment of the North West Mounted Police. It had been the intention to call the Force “Mounted Rifles” but in deference to suggestions reaching him, the Prime Minister, the Right Honourable Sir John A. Macdonald, had drawn his pen through the words and substituted “Mounted Police”. The organization of the Force was therefore intimately bound up with Confederation; it was, in fact, the direct result of the problems faced in opening up the western prairies, and linking the Provinces of Ontario and British Columbia by the construction of the Canadian Pacific Railway. When British Columbia entered Confederation in 1871 the Dominion Government had guaranteed this railway link between east and west.

Since 1873 the Force has played a conspicuous part in the development of Canada and about it is woven the colourful picture of the settlement and welding into the Dominion framework of the vast Northwest. For two hundred years previous to Confederation the larger part of this area, vaguely defined as regards boundaries, was the territorial monopoly of Rupert's Land, which had been granted to the Hudson's Bay Company by Charles II of England in 1670. This Company, growing to be a powerful trading corporation, sold the territory, while reserving certain valuable rights, to the young Dominion Government in 1870. There were troubles incidental to this transfer which made it necessary that the Dominion Government should have a force on the spot vested with the necessary authority to maintain law and order.

From these beginnings, the present Royal Canadian Mounted Police has developed into a Force of nearly 4,000. To-day it represents Canada in every province and its activities have broadened out to comprise such duties as the suppression of smuggling and traffic in narcotic drugs as well as secret service activities: ministerial jurisdiction is vested in the Minister of Justice.

It is the purpose of this article to summarize the history of the Force so far as space will permit.

The Organization of the N.W.M.P., The ‘Great March’, and the Formative Period.—In 1870 the organization of the Province of Manitoba was under way and Winnipeg had already become the gateway to an enormous and potentially rich area stretching westward approximately 1,000 miles from the Red River Valley to the Rockies and from the United States boundary to the forest country of the North Saskatchewan. But, before these rich resources could be developed, a new order had to be established throughout what was naturally a vast Indian battleground and

buffalo pasture. Everywhere in this uncontrolled expanse, not only was an adequate and efficient force needed to furnish security for settlers and Indians, but to provide an efficient instrument for the assertion of the national authority, the enforcement of law, and, eventually, the safe construction and operation of the proposed transcontinental railway.

The Indians of the farther plains had never permitted permanent trading posts to be established among them, but had been accustomed to receive trading visitors both from the Saskatchewan and the Missouri. With the coming of wagon trains from the latter (and not a few free traders with their carts from the Red River Settlement) loaded with "firewater", a dangerous situation had resulted. Tribes were being constantly inflamed against tribes; Red men against Whites. Especially was this the case with the ferocious Blackfeet Nation—the Blackfeet proper, the Bloods, and Piegans, all speaking the same language, and the Sarcees, a small adopted tribe.

So serious were the reports of disorder drifting eastward that the Dominion Government undertook to investigate the situation. An officer was assigned to examine the conditions, and his finding was that the entire Northwest was "without law, order or security for life or property". He recommended the appointment of a Civil Magistrate or Commissioner, after the models existing in Ireland and India; the organization of a well-equipped force of from 100 to 150 men, one-third to be mounted; the establishment of several government posts; the extinguishment by treaty of Indian titles to the land, and other essentials. The commanding officer of the Canadian Militia was also despatched upon a western reconnaissance. He in turn reported that "a large military force was not required, but that the presence of a certain force would be found to be indispensable for the security of the country, to prevent bloodshed and preserve order". Many Hudson's Bay Company officers and church missionaries had made vigorous complaints; and finally it was learned that a veritable plague of illicit traffickers was swarming across the border to the utter demoralization of human life. Smallpox had also appeared and was reducing the Indians of the plains to a sorry plight.

Outstanding incidents prompted the Government to adopt some form of regulation. In 1873 a small party of freebooters from beyond the boundary had fallen upon a camp of Assiniboines in the Cypress Hills, on the Canadian side, in retaliation, it was said, for wrongs inflicted by Indians from the north, and, with repeating rifles, had cut down the defenceless Red men indiscriminately. Settlers on their way north from the United States had been waylaid by debauched Indians and completely wiped out; and, for no apparent reason, a camp of Piegans had been butchered mercilessly to the number of 170 men, women, and children by armed White men.

About this time, too, the demarcation of the western boundary between the United States and Canada was being carried forward under an International Boundary Commission—altogether it was a strenuous period for the young Dominion. The Fenian raids had drawn heavily upon the Treasury; the future of the railway planned to span the continent at tremendous expense was obscure; the new provinces of Manitoba and British Columbia were being organized; a severe trade depression prevailed,

and revenue was limited. To add to the seriousness of the situation was the inescapable fact that a reign of utter lawlessness had fallen upon the newly acquired realm, and some form of preventive action was imperative.

Under these conditions the North West Mounted Police had its beginnings. In 1873 a complete plan for the organization, equipment, and distribution of the Force was proceeded with; only men of sound constitution, able to ride, who were active and able-bodied and of good character, between the ages of 18 and 40, were to be enlisted, and all were to be able to read and write either English or French. The command was to be divided into Troops. The commanding officer was to be termed "Commissioner", and have the rank of Lieutenant-Colonel. The term of service was to be for at least three years. It was to be a semi-military body, the immediate objectives being: to stop the liquor traffic among the Indians; to gain their respect and confidence; to break them of their old practices by tact and patience; to collect customs dues; and to perform all duties such as a police force might be called upon to carry out. An Act was passed in 1874 prohibiting the importation or manufacture in the Northwest of all intoxicating liquors; and a Board of Indian Commissioners was appointed to deal with treaty-making and such general policy as might be laid down by the Department of Indian Affairs.

The authorized strength of the Force was 300 men, but it was decided, for the time being, to form only three Troops of 50 men each, to be sent that autumn (1873) over the so-called Dawson Route from the head of Lake Superior. In late October, Red River was reached, and the party proceeded to the Lower Fort Garry, or "Stone Fort" (20 miles down the river from Winnipeg) for training in preparation for work across the prairies the following spring. Towards the end of the year, a young British officer, Lieut.-Col. George A. French of the School of Gunnery, Kingston, Ont., officially assumed the office of Commissioner.

The Commissioner was not slow to realize that, upon penetrating the plains, the Force would have to be well prepared and that, beyond the farthest point reached by the Boundary Commission, the country would be practically unknown. Realizing that 150 men would be insufficient for the task in hand, further recruiting, to bring the Force to the full 300, was authorized. The three additional Troops left Toronto in the late spring of 1874. The westward journey was made by train, through Chicago and St. Paul, to a point in North Dakota, a few miles below the Manitoba Boundary, and, upon crossing the line, the new arrivals were joined by those who had wintered at the "Stone Fort".

The Great March.—On July 8th, 1874, the entire Force of six Troops struck westward from the little settlement of Dufferin on the Red River, the headquarters of the Boundary Commission. As nearly as possible, the boundary was to be roughly paralleled at a reasonable distance, the chief objective being the forks of the Bow and Belly Rivers in the land of the Blackfeet. Reports had it that the whisky traders from the Missouri occupied a main establishment in that area, grimly termed "Fort Whoop-Up", and that the most diabolical orgies arising from the liquor traffic were rampant in the Indian camps.

Day after day, the travel-worn cavalcade, accompanied by ox-carts, wagons, cattle for slaughter, several field pieces and mortars, snowing

machines, and other equipment, faced new difficulties with stout hearts. Readiness to make the best of every situation soon became an essential part of duty. The long grind from the Red River left its impress on the little army, but the first rough experiences disclosed a stamina and endurance that augured well. The junction of the Bow and Belly Rivers was finally reached, but Fort Whoop-Up could not be found; and, with provisions all but exhausted, with horses, oxen and beef cattle reduced in numbers, the red-coated troopers after more than two months of hard travel turned southward, through immense herds of buffalo, to the Sweet Grass Hills near the boundary.

Being now within easy access of the big supply centre of Fort Benton on the Upper Missouri, the Commissioner and Assistant-Commissioner, leaving the Force encamped, proceeded southward to purchase supplies and horses. Meantime, arrangements had been made for the construction of a headquarters barracks on the Swan River, near the Hudson's Bay Company post of Fort Pelly, far to the northeast. Upon return to the Sweet Grass, the Commissioner set out with "D" and "E" Troops for Swan River. He found the barracks incomplete, and, leaving an officer and a Troop in charge, returned for the winter to Dufferin (later Emerson), the starting point of four months earlier. A round trip of 1,959 miles had been achieved without the loss of a single man. Meantime, under the command of the Assistant-Commissioner, and guided by an efficient, half-Piegian plainsman picked up at Fort Benton, "B", "C", and "F" Troops pushed northwestward, through a country teeming with buffalo, to a site on the Old Man's River near the foothills of the Rockies. On the way the now deserted Fort Whoop-Up was located. By mid-October the improvised buildings of Fort Macleod—the first outpost of constituted authority in the farthest west—had been hastily begun, and, a fortnight later, "A" Troop, which had branched northward from a point something less than midway of the main line of march, had found temporary quarters in Fort Edmonton, the principal Hudson's Bay Company post on the North Saskatchewan.

The 150 men at Macleod, were completely isolated and without hope of reinforcements in case of need. The inexperience of the command, the unknown strength and disposition of surrounding Indians, and the lawless activities of border freebooters, involved possibilities of danger.

The Formative Period.—While preparations for winter were being rushed forward under extraordinary difficulty no opportunity was lost to disperse or bring to account the hardened vendors of "firewater", nor to introduce civilized procedure and authority among Indians and freebooters alike. Even after the first few months, Blackfeet, Bloods, Piegiens, Sarcees—the entire Blackfeet Confederacy—as well as Crees, Assiniboines, and Saulteaux, were not slow to sense the meaning of the scarlet tunic. In due course, *Maintiens le Droit*—the motto of the Force—was to become a recognized axiom of the plains; to "uphold the right", an open passport to security.

Native chiefs visited the Force, first in curiosity, afterwards in full confidence of Canada's intentions. Barbarity and civilization met on common ground; and when at last the tall, lithe figure of Crowfoot, the great Ogemah of the Blackfeet and the head of the Confederacy, rode up with

impressive dignity, the stage was set. He advanced and cordially shook hands. On that day, Canada safely launched her ship of state upon the broad prairie ocean of the West!

By 1875, the Force had become firmly planted. The bordermen responsible for the Assiniboine massacre in the Cypress Hills in the spring of '73 were rounded up for trial and, close to the scene of their murderous revenge, 160 miles east of Macleod, Fort Walsh was built and was soon as busily occupied as the parent post. In the north, Fort Saskatchewan was erected, 19 miles from Fort Edmonton; and Fort Calgary appeared at the junction of the Bow and Elbow Rivers, midway between Edmonton and Macleod. The Commissioner and headquarters staff had moved, with the coming of spring, to Swan River, having established several subordinate posts towards the east, in communication with Winnipeg, from whence a telegraph line was being built.

It is noteworthy that, in marked contrast to the usual methods in the taming of the West, there had been no tendency towards strong-arm methods; no swaggering; only a steady, persistent endeavour to make law-abiding citizens of both White men and natives.

The Period of Widening Activities.—In the first twelve months of the existence of the Force, though many intermittent disruptions and countless floutings of the law were inevitable, the conviction had taken root that the restraining influence of the North West Mounted would be unyielding. However, there still smouldered among many of the native-born the thought that all had not been for the best and several flare-ups occurred. In the summer of 1875, rumours spread that a separate government was in contemplation among the French halfbreeds near the Hudson's Bay post of Fort Carlton on the Saskatchewan, just at a time when the commanding officer of the Canadian Militia was setting out from Winnipeg on a tour of inspection, particularly of the Force. An escort of Police, consisting of the Commissioner and 50 troopers, accompanied the commandant from Swan River, and, upon their arrival at the scene of the threatened disaffection, the authority of the Crown was at once made apparent, and the rumours died away. The Militia commander proceeded westward, visited Fort Saskatchewan, and turned southward to Fort Macleod, escorted by Police. Near the latter place he held council with several hundred Blackfeet under Chief Crowfoot, who expressed great satisfaction with the sudden transformation. Subsequently, the Commandant of Militia reported: "Too much value cannot be attached to the North West Police; too much attention cannot be paid to their efficiency".

The Influx of the Sioux.—In 1876 the Sioux, the most powerful tribe in all the northwestern States, appealed to the Blackfeet to cross the border and join them in warfare against the U.S. cavalry regiments. There was promise of booty and a prediction that the combined forces would later turn northward to wipe out the Mounted Police and all White settlers. Though persistently repeated, the request was spurned, with the rejoinder that the Blackfeet were on friendly terms with the red-coats and the "Great White Mother". The Sioux threatened to invade the Blackfeet in retaliation for their curt rejection, but Crowfoot was informed that in such an event the Mounted Police would fight to protect his realm. Hearing of the dignified old warrior's loyalty, Queen Victoria forwarded her grateful thanks to him.

Soon afterwards, the most ghastly clash between White men and Red in all the history of the West stirred the civilized and Indian worlds.

Beginning with the Minnesota Indian War, in 1862, hostilities had been incessant between the Sioux and the U.S. army over a wide extent of the trans-Mississippi plains. In June, 1876, this bitter warfare culminated on the Little Big Horn River, 300 miles south of the Cypress Hills. Probably the largest Indian camp ever assembled on the American continent resulted. It was made up almost entirely of Sioux, under the leadership of the already renowned medicine man and necromancer Sitting Bull and the able war chiefs Crow King, Crazy Horse, and Gall. Treaties had been disregarded by a feverish White invasion from the East, especially in the Black Hills of Dakota where gold had been discovered. The Sioux, driven this way and that and thrown on the defensive, had decided upon a stand. As a result a fine military organization and one of the most picturesque and courageous officers—Major-General George A. Custer, of the 7th U.S. Cavalry—were needlessly sacrificed, being wiped out to the last man. A nation's indignation was stirred to the depths, and the Sioux, now scattered to the winds, turned northward for refuge, the first band of fugitives crossing the International Boundary to pitch their lodges 100 miles southeast of Fort Walsh on Canadian soil.

A supreme test now confronted the Force. On the one hand, officers and men were continually called upon to pacify the Canadian Indians and prevent a junction with the newcomers; on the other, to prevent the Sioux from spreading to the Blackfeet hunting grounds, already being seriously depleted of buffalo. The climax of a difficult position came with the arrival of Sitting Bull himself and his more immediate following, resulting in a total of Indians from the United States in Canada of about 5,600 men, women, and children. But again, the loyalty of Crowfoot, coupled with a tireless and tactful handling of the situation, saved the day.

Several months before the coming of the Sioux, Lieut.-Col. J. F. Macleod, the Assistant-Commissioner, had been appointed to succeed Lieut.-Col. French, resigned; and, owing to the general unrest along the border and immediately south of the line, the precaution was taken to increase the active strength of Forts Macleod and Walsh by the transfer of a hundred men from the northern posts. Fort Macleod now became the headquarters. Upon 214 officers and men depended the security of life and property along hundreds of miles of wild and treacherous boundary.

From Fort Walsh and a sub-post at Wood Mountain, near the camp of the Sioux wanderers, the utmost vigilance was maintained. Warnings were given Sitting Bull and his following that the law must be adhered to during their sojourn in Canada. Meanwhile, governments were intensely occupied in an attempt to smooth out the difficulties. U.S. commissioners visited Fort Walsh to negotiate with Sitting Bull for his peaceful return to his own soil, but, to the chagrin and disappointment of the officers on both sides, his words belied any immediate possibility of the desired result.

Four powerful and influential elements now held the stage in and about the region of the Canadian plains—the Hudson's Bay Company along the north, the Sioux under Sitting Bull near the International Boundary, the Blackfeet Confederacy towards the west, and the North West Mounted Police everywhere. With the disposal of Rupert's Land

to the Crown, the great trading corporation had ceased to occupy a position of authority; the Sioux were merely undesirable visitors, who, it was hoped, would soon be prevailed upon to return to the south; and, though the White man's code had, to a marked degree and in a mutually amicable manner, become the pattern of future Indian life, the Confederacy still held the country bordering the foothills. The aim of the Mounted Police was to reach a legal and lasting understanding with Crowfoot and to unburden the country of Sioux aliens.

Shortly after the establishment of Manitoba, treaties had been entered into with the Indians adjacent to the Red River; and, in 1876, the way having been paved by the Force, the Crees, Assiniboines, and Saulteaux had surrendered large portions of territory, leaving about 50,000 square miles, occupied by the Blackfeet, Bloods, Piegans, and Sarcees, to be dealt with. The Government, early in 1877, decided that there should be no further delay in bringing the entire country within the legal scope of the administration. The Lieutenant-Governor of the Northwest Territories and the Commissioner of the North West Mounted Police were nominated to enter into negotiations with Crowfoot and his brother chiefs. A great ceremony took place at the Blackfeet Crossing, on the Bow River, east of Calgary. Amidst this last great assemblage of barbaric splendour, details were completed bearing upon the most important Indian treaty in Canadian annals. After signatures had been affixed by the representatives of the Government and the Indian dignitaries, Chief Crowfoot testified in the following words to the belief and faith his people had in the Mounted Police: "The advice given me and my people has proved to be very good. If the Police had not come to this country where would we all be now? Bad men and whisky were killing us so fast that very few of us would have been left to-day. The Police have protected us as the feathers of the bird protect it from the frosts of winter".

With the signing of this treaty, complete sovereignty of the Canadian West passed to the Dominion Government.

The Coming of the Settlers.—That part of western transition from buffalo ponies to ploughshares was carried out almost wholly under Mounted Police surveillance and guidance; and, on the plains, the laws of the Dominion, or, as the Indians so often termed them, "the words of the Great White Mother", were now almost entirely administered by the Police from Manitoba to the Rockies. In countless ways, the red-coated riders performed their duties with great versatility. There were prairie fires to be battled with; smuggling, especially of whisky, to forestall, customs dues to be collected; victims of winter blizzards to be succored; starvation and other forms of privation to be overcome; illnesses and accidents innumerable to be allayed; weddings and funerals to be arranged, mails to be carried; insane persons to be taken in; lost travellers to be found; stolen stock to be returned to rightful owners; cattle- and horse-thieves, gamblers, murderers—all who participated in major crimes—to be run down; and, as settlement spread, mining, lumber, and railroad construction camps to be kept under strict observation.

In 1879, Fort Walsh became the headquarters of the Force, and no more picturesque pages appear in western history than those which, for the next few years, portray the change from the old order to the new in

Their Majesties' Reception
by
The Indian Tribes of Western Canada

and about Cypress Hills. By no means the least onerous duty at Fort Walsh was to see that Sitting Bull's Sioux did not use Canada as a base of operations against a friendly country, where an almost continuous condition of Indian warfare prevailed.

In 1880, Commissioner Macleod, whose name had become a byword as that of a remarkably fair and fearless administrator, became Stipendiary Magistrate for the Northwest Territories, and Lieut.-Col. A. G. Irvine, the Assistant-Commissioner, was elevated to the command of the Force. Incidentally, about this time, the term "Troop" gradually gave way to "Division". The following year was marked by two outstanding events. The Marquis of Lorne, Governor General of Canada, escorted by Mounted Police, made a tour of the Northwest. He proceeded from the head of the C.P.R. at Portage la Prairie, via the northerly posts, to Calgary and Macleod and southward to Montana; and, through the efforts of the Police and, not the least, by the sagacity of a prominent French-Canadian trader in the Wood Mountain country, the Sioux were prevailed upon to surrender to the U.S. authorities. Following the latter achievement, the border posts of Macleod and Walsh gradually became less important, and it devolved upon the Force to move the various Indians to allotted reserves, well away from the boundary. The building of the C.P.R. was forging ahead, and the Commissioner advised the Government to arrange for permanent headquarters on the line of steel at a more central site. An increase in the personnel of the Force was also urged. Accordingly, late in 1882, a new headquarters post was under construction near the Pile of Bones Creek, on the C.P.R., at a point henceforth to be called Regina, and soon afterwards the activities of Fort Walsh were transferred northward to Maple Creek, also on the transcontinental track. The same year, the Northwest Territories was reorganized into the Provisional Districts of Alberta, Assiniboia, Athabasca, and Saskatchewan. The strength of the Force was increased from 300 to 500, and an important innovation, a training depot for recruits was established at Winnipeg (later transferred to Regina).

The Railway Building Period.—The building of the railway across the plains created a problem. The coming of some 4,000 labourers, many of rough character, created much ill-feeling among the Indians. There were strikes among railway labourers to be settled but, to the credit of the Force, general order prevailed. Red-coats were even called upon to act as railway mail-clerks. Newcomers were met by a strong, efficient, and helpful administration. At Macleod, Calgary, Edmonton, Maple Creek, Battleford, Regina, and other points, villages and towns were developing, and the need for enforcement of law and order became greater and more difficult. Save for a few stragglers here and there, the buffalo had by this time been wiped out, causing extreme suffering among the plains Indians, and, to maintain a semblance of peace, the mounted men were called upon to perform almost superhuman tasks.

Within a brief period of ten years the tenets of law and order had been firmly rooted; the Last Great West was won by patience and forbearance coupled with co-operation. Less than ten cycles of the seasons, crammed with frontier energy, had altered the whole aspect of life upon the plains. Here and there the ranch house and corral had appeared. On virgin



THEIR MAJESTIES, KING GEORGE VI AND QUEEN ELIZABETH, ESCORTED BY THE ROYAL CANADIAN MOUNTED POLICE, BEING RECEIVED AT CALGARY, ON THE TRADITIONAL BUFFALO ROBE, BY THE CHIEFS AND MEMBERS OF THE BLACKFOOT, STONY, SARCEE, BLOOD AND PEIGAN INDIAN TRIBES OF SOUTHERN ALBERTA, MAY, 1939.

COPYRIGHT
OLIVER, CALGARY

Courtesy, Calgary Exhibition and Stampede, and Mr. D. J. Oliver, Calgary.

meadows, strewn with bleaching skulls, domestic cattle now followed time-worn trails. Far and wide, the red-coated corporal and the picturesque cowboy came and went. Flat-bottomed steamers worked the larger rivers. A pioneer railway had spanned the plains with a ribbon of steel and was penetrating the mountains; and wires carried tidings from the outside world.

The North-West Rebellion.—After the once-dominant Blackfoot Confederacy accepted the White man's mode of life things moved smoothly for a time though, with the disappearance of their inherent means of livelihood, the transition from the untrammled life of the buffalo pastures to the distasteful restrictions of the settlements and reservations was hard on Indians and Halfbreeds. Famine had at times stalked among the native camps, attended by rampant theft and cattle-killing; rations of beef and flour had served to stay many a warlike outbreak. Along the north, Crees and Assiniboines had become restive. Halfbreeds on the Saskatchewan, as on a former occasion on the Red River, resented the invasion of their territory by Easterners. Soon, there were rumblings of an approaching storm.

In the early summer of 1884 the detachment at Battleford first gave warning that the Halfbreeds of the district were demanding redress of alleged grievances. Later, it was reported that the leader of earlier Red River troubles had appeared on the scene and that meetings had been held in the settlements of Prince Albert and Duck Lake. The unrest became intensified throughout the summer and autumn of 1884. The Crees, under Chiefs Poundmaker and Big Bear, became doubly aggressive. A small Police detachment at Prince Albert, an outpost of Battleford, was increased to 21 men. Indignation meetings continued throughout the following winter. The little Police outpost at Duck Lake reported that serious trouble was inevitable. It was learned that the Halfbreeds had invited several bands of Cree Indians to meet at Duck Lake in the spring of 1885. A Cree chief visited the Blackfeet with exaggerated promises of great reward should the Confederacy see eye to eye with the Crees and Halfbreeds. On the 13th of March, 1885, Battleford reported that a rebellion was likely to break out at any moment; that the northern detachments must be reinforced; and that the Indians would join the Halfbreeds. Commissioner Irvine, at Regina, received orders to proceed northward with all available men. Accompanied by four officers, 86 non-commissioned officers and men, and 66 horses—a small force against hundreds of disgruntled natives—he made a forced march in bitter weather. Adroitly slipping past the insurgent outposts, the column reached Prince Albert, learning on the way that looting had begun, and that attacks on Prince Albert and Fort Carlton were imminent. Hastening to Fort Carlton, Irvine learned that hostilities had started. There had been a severe clash near Duck Lake between the Police, who had been joined by some Prince Albert volunteers, and a large body of Halfbreeds and Indians. In the face of overwhelming numbers, the Police had been thrown back with loss of life, and from then on the "North-West Rebellion" was in full swing. On the following day, the 27th of March, every town, city, and hamlet in Canada, from coast to coast, was aroused by the news. A call to arms was made and for several months the Force bore a difficult and ever-ready part, in conjunction with regiments from both Eastern and Western

Canada. The Blackfeet remained loyal to the last, and, with the defeat of the rebels and the capture of the principal instigators, the rebellion came to an end. The Mounted Police, who had acted conspicuously throughout, reassumed responsibility for law and order and general jurisdiction across the West. To meet the demands upon it, the Force was increased to 10 Divisions and a strength of 1,000 rank and file, distributed at Regina, Maple Creek, Medicine Hat, Swift Current, Moose Jaw, Broadview, Moosomin, Whitewood, Fort Qu'Appelle, Moose Mountain, Shoal Lake, Prince Albert, Calgary, Battleford, Lethbridge, Edmonton, Fort Saskatchewan, Fort Macleod, and Chief Mountain. No portion of the plains remained beyond the reach of the law, and, to assist in encompassing isolated and distant tracts, a number of Indians and Halfbreeds were employed as trailers and scouts. Shortly after the completion of the C.P.R. (1885), Commissioner Irvine resigned and Col. Lawrence W. Herchmer was appointed in his place.

Rapid change and development followed. Immigration increased; new settlements and mushroom villages sprang up; wheat-farming augmented the cattle industry. Healing of scars remaining from the rebellion involved no small part of the work of the Force, and systematized patrols were inaugurated, radiating from strategically established detachments or sub-posts. Many Indians turned to farming and ranching under Government instructors, but the young braves of the Confederacy displayed a preference for their inherent practice of horse stealing and cattle 'rustling'. Everything was done to help, direct, and influence the multiplying citizenry of the plains. In the autumn of 1885, the Governor General, Lord Lansdowne, made a hurried trip from post to post under Police escort, visiting the Blackfeet and Blood Reserves, meeting the chiefs in friendly council.

Expansion Between 1885-95.—This decade witnessed a great extension of activities. A patrol was stationed in southern Manitoba; another was stationed near the foot of Lake Winnipeg; while, over the mountains, in response to complaints that the Kootenay Indians were opposing miners and settlers coming in over the Walla Walla Trail, Fort Steele was erected. During this period, two successive Governors General, Lord Stanley and the Earl of Aberdeen, visited the plains under Police escort. Branch railways had begun to appear. The entire West was settling down to a more prosaic, if more varied, form of life. So successfully and completely had the Force assumed control, the strength was gradually reduced to approximately 800 men in 1894.

Soon the north began to come within the orbit of the Force. An outpost was established at Cumberland House, 200 miles down the Saskatchewan River from Prince Albert, and patrols were made into the Peace River country and along the Mackenzie River, far north of Edmonton. In the spring of 1895, the taking of a census throughout the plains was entrusted to the Police; Assiniboia, Saskatchewan, and Alberta combined showed 65,873 Whites and 7,633 Halfbreeds. This year, and the one following, gave ample indications that there was still much to be done on the plains before the Indians could be permanently regarded as peaceful wards of the nation.

The Yukon Gold Rush.—In 1895, the vanguard of what was to be a feverish stampede of miners and prospectors to the Yukon goldfields

had set in; it became obvious that some form of police control was necessary. Leaving Regina, a detachment of 20 selected officers and men struck for the north and after 4,800 miles of travel by steamer up the Pacific Coast and the Yukon River, Fort Cudahy, a trading post at Forty Mile Creek, which then became the most northerly military outpost in the British Empire, was reached. Soon there followed one of the greatest gold rushes in the history of the world, chiefly headed for Bonanza Creek, a fabulously rich placer. Amidst a conglomeration of all classes of people, infested with criminal gangs, the little force of red-coats struggled to maintain order. Stirring incidents followed one upon another, but, owing to strict vigilance and activity, murders and other major offences were surprisingly few.

One of the outstanding chapters in the records of the Force had begun—an epic that called for the utmost in courage and determination.

The gold strike in Yukon drew thousands of adventurers from Canada and the United States; a veritable hejira crowded the approaches and mountain passes. By the close of 1897, the Police detachments in the area embraced 8 officers and 88 men, including dog-drivers. Detachments were placed on the Chilcoot and White Horse Passes on the Alaskan Boundary, though the line was of doubtful location; and a patrol went overland from Edmonton, taking a year to negotiate 1,600 miles of forest and mountain country to reach the goldfields. A Yukon judicial district was established, and the Force was increased until, in 1898, there were 12 officers and 254 men doing duty in the district, despite the fact that the personnel of the Force had fallen to less than 700. In addition, patrols were out in the wilderness of the Peace River and Athabasca countries. The Commissioner was forced to ask for an increase of 100 men, which was granted; and, while the most intensive activity was underway in the north, a detachment of 32, with 27 horses, was participating in London in a great procession in celebration of Queen Victoria's Jubilee.

Headquarters for the Yukon District was now Dawson City, at the forks of the Klondyke and Yukon Rivers. Skagway, on the United States side of the Yukon-Alaskan Boundary, had earned the title of "the roughest place on earth", the hang-out of the notorious "Soupy" Smith and his following of some 150 ruffians. Dyea was no better, and Sheep Camp, at the foot of the Chilcoot Pass, seethed with robbery and murder. But, in the face of the most exacting conditions, the Police prevailed, often carrying their operations across the Boundary with the tacit approval of the U.S. authorities. In 1898 Yukon was constituted a separate territory by Act of Parliament, under a Commissioner and Council of 6 members, and, realizing that a tremendous task had fallen to the Police, the Government sent a special force of 200 men—drawn from the permanent soldiery of Canada—to assist until conditions improved. The population had reached approximately 20,000. The duty of carrying the mails to the scattered gold camps was undertaken by the Police, 64,000 miles being covered in a single year in the performance of this service. Meantime, patrols, introducing boats and hauling dogs, branched out to Peace River, Lesser Slave Lake, Fort Resolution, and Fort Simpson. The end of the year found 830 of all ranks in the Force.

The Modern Period.—In 1899, the South African War broke out, and 245 members of the Force who were granted leave of absence enlisted in the 2nd Canadian Mounted Rifles and the Strathcona Horse. Many honours were bestowed and for the first time the Victoria Cross found its way to the red-coated men of the West. Upon return, not a few seasoned westerners retired, among these Colonel Herchmer, who had commanded the Rifles and who relinquished the Commissionership, to be succeeded by Superintendent A. Bowen Perry.

Following the War, settlers streamed westward. Within a short time 300,000, most of whom were inexperienced, were to take up prairie homesteads. The annals attest to the adventure, hardship and dogged perseverance undergone by the "Riders of the Plains".

The modern era had begun. Events followed upon events to add in flaming colours to the part already performed in the building up of the Dominion and broaden still further the field of usefulness of the Force. In 1901, the Earl and Countess of Minto made an extended journey through the West, escorts and arrangements being furnished by the Force; a Yukon Census was taken, showing over 16,000 Whites; the Duke and Duchess of Cornwall and York visited Canada on a world-wide tour, and red-coated officers and men were constantly in attendance; again the Yukon strength was increased—to about 300. In remote portions of the north, the work was extending the sphere of contact with the wilderness. By 1903, several posts were opened in the sub-Arctics, including Cape Fullerton, McPherson, and Herschel Island, the distribution now extending from the International Boundary to the Polar Sea and from Hudson Bay to the Alaskan Border. With the succeeding years, the duties became ever more onerous. The records display a splendid, if at times tragic, devotion to duty, as in the case of the following brief scrawl found in the scarlet tunic of a young constable who had perished in carrying despatches over a difficult country through a murderous winter storm: "Lost, horse dead. Am trying to push ahead. Have done my best". The profound respect for the Police that had grown up with the years received official recognition in 1904, when the prefix "Royal" was bestowed by King Edward VII to mark the brilliant and steadfast services rendered; the Earl of Minto became the first Honorary Commissioner.

At this time there were 8 Divisions, each with a headquarters post, embracing 84 detachments. The work was widely scattered, for there were now 350,000 people in the entire field of operations. British rights to the Arctic Archipelago were transferred to Canada in 1880 and, early in the twentieth century, whalers and Eskimos in Hudson Bay and the Arctic had made the acquaintance of the Mounted Police. In 1905, the Provinces of Saskatchewan and Alberta were created to form with Manitoba a triple division of the plains; but the Force continued its duties with the Provincial Governments sharing in the cost. The Mounted Police had virtually raised the new provinces from infancy to manhood. This year, the customary tour by the Governor General brought Lord and Lady Grey to the West, and the Police provided escorts and made pre-arrangements. As an evidence of the distances patrols often had to travel at this time in order to establish Canadian jurisdiction and become familiar with conditions of life, the following is related from the records: An Inspector, with

a Corporal and three Constables, leaving Fort Saskatchewan on a morning in early June, 1908, headed northward to Fort Resolution on Great Slave Lake, crossed the vast, unfriendly wilderness to Hudson Bay, employed Eskimo dogs to Churchill, and eventually reached Lake Winnipeg in the following spring, a distance travelled of 3,347 miles.

In 1911, Canada's red-coated troopers were the cynosure of millions of eager eyes as, with their matchless horses, they shared in the Guard of Honour at the Coronation of His Majesty, King George V, in London. The activity of the Force still grew apace; the perpetrators of 44 murders were confronted, within a period of 12 months, by the Nemesis of the law, and the Commissioner pleaded for more men. The call was promptly met, and, with the total strength, all ranks, at 763, two new detachments were established in Yukon, two in the Mackenzie River District, one on Hudson Bay and twenty at various other locations.

The War of 1914-18.—The energies of a splendid organization now crowd the records.

Early in the War period the strength was increased to 1,268, but later the personnel fell to 929. In 1916, several hundred ex-members of the Force were enrolled in the Army for duties abroad, some having completed their service as policemen or having purchased their discharge. This left the strength well below the authorized number. In 1917, the Force was relieved of many of its duties in Saskatchewan, Alberta, and northern Manitoba, in order to give more effective attention to 1,900 miles of International Boundary, as well as to centre attention on the alien population. The strength was allowed to fall to 656, but despite this reduction, 26,356 patrols covering more than 800,000 miles were made. Intensive work was being done in the north and marvellous travelling under most difficult conditions was being carried on at a time when British Armies were making a desperate stand in France. So general had been the desire among the men to enlist for overseas service, it became necessary for the Prime Minister to point out that the organization was even more essential than ever. It was not until 1918 that the Government consented to the Police leaving for active service, when what was termed "A" Squadron embarked for France and "B" Squadron went to Siberia. But so heavy were the demands on the Force that, in spite of the recruiting of several hundred additional men, the strength fell to 303—practically down to the number of the "Originals" who had struck across the plains in 1874. The Government then resolved upon a new and permanent establishment, an extension of jurisdiction, and a strength of 1,200. In this year the Force's operations were extended to British Columbia.

The Post War Years.—Immediately following the War, a general strike broke out in Winnipeg, but after much disruption of services and street fighting, it was terminated by the Mounted Police. The Force extended its field to cover the whole of Canada in 1919, and, in 1920, provision was made for the absorption of the Dominion Police at Ottawa, the transference of headquarters from Regina to Ottawa, and a change in the title to "Royal Canadian Mounted Police"; H.R.H. the Prince of Wales became the Honorary Commandant. At this time, the Force entered a new

territory, east of Hudson Bay, to be followed by the establishment in 1921 of a detachment at Port Burwell on an island in Hudson Strait and at Pond Inlet in the eastern Arctic.

In 1921 the Force entered the anti-narcotic campaign, and travel by aeroplane was first used. In 1922, Major-General Bowen Perry retired from the office of Commissioner, and the post fell to Lieut.-Col. Cortlandt Starnes. At the 50th anniversary of the Force in 1923 the strength was 1,148. The same year, a detachment was established at Craig Harbour in Ellesmere Land—the nearest British post to the North Pole; the location of other detachments followed throughout the North. Famous Arctic patrols that added to the lustre of the history of the Mounted Police were made in 1923-24. A 'farthest' post was established on Bache Peninsula in the remote North. Like the Red man of the Plains, the Eskimo has accepted the firm but co-operative hand of authority. Patrols entered Coronation Gulf and the Anderson River in the Arctic in 1929-30.

In 1931, Major-General (later, Sir) James H. MacBrien became Commissioner, and under his leadership the Force was fully modernized. In the Provinces of Alberta, Manitoba, New Brunswick, Nova Scotia, and Prince Edward Island the Provincial Police were replaced by the R.C.M.P.; and the duties of the Preventive Service of the Department of National Revenue were transferred, in 1932, to the Dominion-wide body. During this period, Assistant Commissioner Stuart Taylor Wood established a Mounted Police Museum at Regina; under his guidance, the first copy of the R.C.M.P. *Gazette* appeared, to be continued from that time forward.

From 1932-34 the Marine Section had become a constituent part of the Force in connection with the Preventive Service; co-operation was begun with the United States Coast Guard, and an intensive war against smuggling of all kinds was waged, including curtailment of opium and other narcotics traffic on the Pacific Coast. The Finger Print Section, which had been inaugurated under Colonel Sir Percy Sherwood (the Commissioner of the former Dominion Police) was enlarged at Ottawa, and extended elsewhere. In the course of law-enforcement and other duties, Police motor cars covered 7,000,000 miles in 1936. The year 1937 saw a Scientific Laboratory established at Regina and, two years later, a similar one at Ottawa (Rockcliffe). To offset smuggling on the Atlantic Coast, two new fast cruisers, the *Macdonald* and the *Laurier*, were constructed and put into operation. A picked detachment, under Assistant Commissioner Wood, represented the Force at the Coronation of King George VI and Queen Elizabeth in 1937. The Governor General, Lord Tweedsmuir, travelling under Police guidance and protection, visited the Arctic in the same year. In 1938, on the death of Sir James MacBrien, the Assistant Commissioner, Brigadier S. T. Wood, was appointed to the command.

It was a fitting climax that, after sixty-five years of remarkable service, the Mounted Police should participate in the first visit of British sovereignty to Canada. In 1939 the Royal Tour of King George and Queen Elizabeth was outstanding and, thanks to the R.C.M.P., and the presence of the Commissioner and escort on the Royal Train throughout the entire trans-Canada tour, a remarkable freedom attended the Royal couple.

The Force To-day.—The territory under direct supervision of the Force is now as large as the whole of Europe. Its multitudinous duties have been outlined briefly: their scope involves operations by land, sea, and air. Posts exist at all interior strategic points, with divisional headquarters in the larger cities. Except in British Columbia, Ontario and Quebec, there are no Provincial Police, the work being carried out by the R.C.M.P. The Marine Section is located chiefly in the Maritimes. Before its transfer to the Department of National Revenue on the outbreak of war in September, 1939, it operated about 30 vessels, as well as several on the Pacific Coast. The pioneer of the fleet is the *St. Roch*, on duty at present (December, 1940) north of the Arctic Circle. Although a civil force, the R.C.M.P. is drilled as a military organization, and the period of training, which is intensive, is not less than six months.

The erection of Training Colleges at Regina and Ottawa during the course of the past few years has changed the entire outlook of the personnel of the Force in dealing with crime. This can be seen from the Commissioner's Annual Report and from the up-to-date methods used in the prevention and detection of crime. Here again, the Force has kept abreast the times, and throws open to all police forces throughout the Dominion the courses of instruction and training given at the Colleges previously mentioned. It has further enhanced its usefulness to all Canadian police forces by circulating, free of charge, weekly, the R.C.M.P. *Gazette*, which not only gives up-to-date information regarding persons wanted, etc., but includes instructive articles on the many phases of police work.

The guidon of the Force bears "North West Canada, 1885", "South Africa, 1900-02", "France and Flanders, 1918", and "Siberia, 1918-19". Since the outbreak of war in September, 1939, authority has been granted the Commissioner to re-engage 500 ex-members of the Force and 2,500 special constables, if required, and the guarding of vulnerable points throughout the Dominion now rests upon the Canadian Militia and the R.C.M.P. The Force has furnished one Provost Company, comprising approximately 120 men, to the Canadian Active Service Force, and this unit is already with the First Division in England. From a combined strength of 300 in 1873, the Force has now grown to a little under 4,000.

CHAPTER I

Population and Vital Statistics

Population

The present population of the earth is estimated at approximately 2,000,000,000.* The British Empire, which covers slightly less than one-quarter of the land area of the earth, has an estimated population of 500,870,000 or slightly less than one-quarter of the world's population. Canada, which occupies over one-quarter of the area of the British Empire, has an estimated population of 11,422,000 or only about one forty-fifth of the Empire population. The latest official estimates of population of other British countries are: the British Isles, 50,422,000 (1938); Union of South Africa, 10,160,000 (1939); Australia, 6,930,000 (1938); New Zealand, 1,604,000 (1938); India, 359,186,000 (1937). While there is no absolute standard for population density, so much depending on extent of resources, the rate of increase in productivity of land as a result of invention, etc., a certain minimum density is desirable.

Growth of the Canadian Population.—The general rate of population increase in Canada in the opening decade of the present century was 34 p.c., the greatest for that decade of any country in the world. In the second decade the rate was 22 p.c., again the greatest, with the one exception of Australia where growth was greater by a fraction of 1 p.c. A century earlier the United States grew 35 p.c. decade by decade until 1860, but with this exception there has been no recorded example of more rapid population growth than that of Canada in the early decades of the

* The Statistical Year Book of the League of Nations, 1938-39, gives the population of the world as 2,125,000,000 not including estimates of certain populations, chiefly in Asia and Africa, where censuses are incomplete or do not exist.

The City of Saskatoon, Sask.

Courtesy, Department of National Defence



twentieth century. In 1871, only 2.97 p.c. of the population dwelt west of Lake of the Woods. In 1921 the proportion was 28.37 p.c. and in 1931, 29.51 p.c.—3,061,745 compared with 110,000 at Confederation.

Populations of Canada, Census Years 1871-1936

Province	1871	1881	1891	1901	1911	1921	1931	1936 ¹
P.E.I.....	94,021	108,891	109,078	103,259	93,728	88,615	88,038	-
N.S.....	387,800	440,572	450,396	459,574	492,338	523,837	512,846	-
N.B.....	285,594	321,233	321,263	331,120	351,889	387,876	408,219	-
Que.....	1,191,516	1,359,027	1,488,535	1,648,898	2,005,776	2,360,665 ²	2,874,255	-
Ont.....	1,620,851	1,926,922	2,114,321	2,182,947	2,527,292	2,933,662	3,431,683	-
Man.....	25,228	62,260	152,506	255,211	461,394	610,118	700,139	711,216
Sask.....	-	-	-	91,279	492,432	757,510	921,785	931,547
Alta.....	-	-	-	73,022	374,295	588,454	731,605	772,782
B.C.....	36,247	49,459	98,173	178,657	392,480	524,582	694,263	-
Yukon.....	-	-	-	27,219	8,512	4,157	4,230	-
N.W.T. ³	48,000	56,446	98,967	20,129	6,507	7,088	9,723	-
Canada	3,680,257	4,324,610	4,833,239	5,371,315	7,206,643	8,787,949	10,376,786	-

¹ Quinquennial census figures.

² Revised in accordance with the Labrador Award of the Privy Council, Mar. 1, 1927.

³ The decreases shown in the population of the Northwest Territories since 1891 are due to the separation therefrom of vast areas to form Alberta, Saskatchewan, and Yukon and to extend the boundaries of Quebec, Ontario, and Manitoba.

⁴ Includes 485 members of the Royal Canadian Navy.

Rural and Urban Population.—As regards rural and urban distribution, though Canada is still largely agricultural, town dwellers in 1931, for the first time, exceeded the numbers living upon the land (5,572,058 urban and 4,804,728 rural). Sixty years ago the towns and cities of Canada accounted for only 19.58 p.c. of the people (722,343 urban and 2,966,914 rural), and at the beginning of the century the percentage was but 37.

The latest final figures of population data are, of course, for 1931 and are, therefore, almost ten years old. The usual analyses of sex distribution, races, religions, and conjugal condition, etc., are, for this reason, felt to be somewhat removed from present conditions and until results are available from the 1941 Census these classifications will not appear in the Handbook.

Estimated Populations.—Annual figures of population are required for many purposes such as the calculation of birth, death, and marriage rates and of per capita figures of production, trade, and finance. The Dominion Bureau of Statistics estimates such figures for intercensal years.

Estimated Populations of Canada for Intercensal Years since 1931¹

Province	1932	1933	1934	1935	1936	1937	1938	1939	1940
	'000	'000	'000	'000	'000	'000	'000	'000	'000
P.E.I.....	89	89	89	89	92	93	94	95	-
Nova Scotia.....	519	522	525	527	537	542	548	554	-
New Brunswick.....	413	420	425	429	435	440	445	451	-
Quebec.....	2,910	2,970	3,018	3,062	3,096	3,135	3,172	3,210	-
Ontario.....	3,475	3,564	3,629	3,673	3,689	3,711	3,731	3,752	-
Manitoba.....	709	710	711	711	711	717	720	727	-
Saskatchewan.....	933	932	932	931	931	939	941	949	-
Alberta.....	740	748	756	764	773	778	783	789	-
British Columbia.....	704	712	725	735	750	751	761	774	-
Yukon.....	4	4	4	4	4	4	4	4	-
N.W.T.....	10	10	10	10	10	10	10	10	-
Canada	10,506	10,681	10,824	10,935	11,028	11,120	11,209	11,315	11,422¹

¹ Not available by provinces.

The National Registration of 1940

The intention of the Government to undertake a national registration of man-power was announced by the Prime Minister, the Rt. Hon. W. L. Mackenzie King, in the House of Commons on June 18, 1940, at the same time as the Government made known its intention to introduce the National Resources Mobilization Act. Certain of the immediate purposes of National Registration were indicated by Mr. King as follows:—

"The National Registration will constitute an additional precaution against 'fifth column' activities such as sabotage and espionage which conceivably might become more menacing as external threats grow more serious. In this way, it will add to our internal security.

"National Registration will also provide the Government with an inventory of the mechanical and industrial skill of our population. Such an inventory will prove valuable in affording additional information on the extent of our resources of skilled labour which can be drawn upon to meet the needs of essential wartime industries."

It was emphasized that the registration had nothing whatever to do with the recruitment of men for overseas service.

On July 8, the Prime Minister announced that the Hon. J. G. Gardiner would be appointed Minister of the new Department of National War Services shortly to be established. At the same time it was indicated that the new department would be entrusted with the responsibility of conducting the National Registration.

The first decision reached in the actual conduct of the National Registration was that it should be conducted, as far as possible, on a voluntary basis. A Registrar and a Chief Assistant Registrar were appointed for each constituency, and Deputy Registrars for each Polling Subdivision. These were the only paid officials and a public appeal was made for voluntary assistance to aid in the conduct of the Registration itself. At least 200,000 people acted as voluntary Deputy Registrars.

Three days were set aside for National Registration and these days were ultimately fixed as August 19, 20, and 21, 1940.

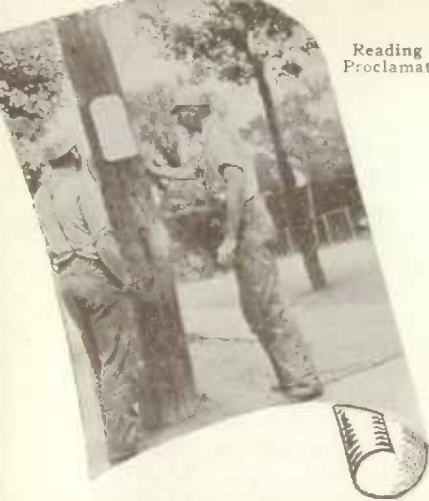
Provision was made for registration by industries with more than one hundred employees within the industries themselves. Institutions were granted the same privilege.

The whole machinery of Registration moved into operation on the designated date, from one end of Canada to the other, without the slightest hitch, and the Registration was completed in the specified time limit. It has become clear that the Registration was a most exhaustive one and involved a complete stock-taking of all the people of Canada over the age of sixteen years, male and female, who were permanent residents of Canada, whether Canadian citizens or not.

Aboriginal Races

According to 1939 figures the aboriginal population amounts in all to little more than 1 p.c. of the total population.

Indians.—Indians are minors under the law and their affairs are now administered by the Indian Affairs Branch of the Department of Mines



Reading the
Proclamation.

NATIONAL REGISTRATION

(See text on facing page)



Mailing the Blank Schedules to the
Registration Centres.

A Registration Booth.



The Completed Schedules being Sorted after
Return to the Bureau of Statistics.

Classifying and Tabulating the Data.



and Resources under the authority of the Indian Act. Reserves have been set aside for the various bands of Indians in the Dominion since the earliest times and the Indians located thereon are under the supervision of the local agents of the Branch. The activities of the Branch, as guardians of the Indians, include the control of Indian education, the care of health, etc., the development of agriculture and other pursuits among them, the administration of their funds and legal transactions, and the general supervision of their welfare.

The Indian Act provides for the enfranchisement of Indians. When an Indian is enfranchised he ceases to be an Indian under the law. 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. Indians who become enfranchised lose the special protection attached to their wardship, so that premature enfranchisement must be avoided.

According to the 1931 Dominion Census, the total number of Indians was 122,911 (62,943 males and 59,968 females) made up by provinces as follows: P.E.I., 233; N.S., 2,191; N.B., 1,685; Que., 12,312; Ont., 30,368; Man., 15,417; Sask., 15,268; Alta., 15,249; B.C., 24,599; Yukon, 1,543; N.W.T., 4,046. The Department of Indian Affairs made a later count of Indians in 1939 and the figure given at that date was 118,378, made up by provinces as follows: P.E.I., 274; N.S., 2,165; N.B., 1,922; Que., 14,578; Ont., 30,145; Man., 14,561; Sask., 13,020; Alta., 12,163; B.C., 24,276; Yukon, 1,550; N.W.T., 3,724.

Eskimos.—The Eskimos of Canada are found principally on the northern fringe of the mainland and on islands in the Arctic Archipelago and in Hudson Bay, although in the Baker Lake-Chesterfield Inlet area on the west side of Hudson Bay there are bands of Eskimos who are essentially an inland people, and subsist chiefly on caribou.

The administrative care of Eskimos outside of the organized provinces devolves upon the Lands, Parks and Forests Branch of the Department of Mines and Resources, which, by regulative measures, conserves the

Canada's Northern Population.—A group of Lake Harbour Eskimos.

Courtesy, Max Sauer, for the Hudson's Bay Company.



natural resources necessary to their subsistence. To augment these resources the Branch imported in 1935 a substantial herd of reindeer. Contact with the Eskimos is maintained through permanent stations in the eastern, central, and western Arctic, at a number of which medical officers are located, and by means of the annual Canadian Eastern Arctic Patrol by steamship. Law and order in all regions in Canada inhabited by Eskimos is maintained by the Royal Canadian Mounted Police.

According to the Dominion Census of 1931, there were 5,979 Eskimos in Canada, nearly 80 p.c. of these being in the Northwest Territories. The distribution by provinces was: N.W.T., 4,670; Que., 1,159; Yukon, 85; Man., 62; and Alta., 3.

Immigration

Total immigrants into Canada during the fiscal year 1940 numbered 16,205 as compared with 17,128 in 1939 and 15,645 in 1938.

English, Scottish, Irish, and Welsh from overseas numbered 3,566 as compared with 3,373 and 2,972 in 1939 and 1938, respectively; immigrants from the United States totalled 5,748 in 1940 as compared with 5,663 and 5,643, respectively, for the two previous years; from other countries the number was 6,891 as compared with 8,092 and 7,030.

A movement not included in the immigration statistics is that of 'returned Canadians'. These Canadian citizens are divided into three groups: (a) Canadian born; (b) British born (outside of Canada); (c) naturalized in Canada. The total for 1939-40 was 4,561 as compared with 4,571 in 1938-39.

Although tourists entering Canada are not immigrants, their admission calls for an immigration examination on the International Boundary and at ocean ports. The number of entries in this class increased from 20,898,000 for 1933-34 to 28,337,000 for 1939-40—a total much more than twice the population of the whole Dominion.

Vital Statistics

Canada has had, since 1920, a national system of vital statistics, organized under the Dominion Bureau of Statistics and the Registrars General of the several provinces.

Births, Deaths, and Marriages in Canada, by Provinces

Province	Births			Deaths			Marriages		
	1939 ¹		1926	1939 ¹		1926	1939 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.....	2,114	22.3	20.1	1,122	11.8	10.3	641	6.7	5.3
Nova Scotia.....	11,800	21.3	21.3	6,321	11.4	12.4	4,993	9.0	5.6
New Brunswick.....	11,259	25.0	26.1	5,075	11.3	12.6	3,726	5.3	7.4
Quebec.....	79,621	24.8	31.6	33,388	10.4	14.3	28,911	9.0	6.8
Ontario.....	64,000	17.1	21.4	37,602	10.0	11.3	34,657	9.2	7.5
Manitoba.....	13,583	18.7	22.9	6,157	8.5	8.3	7,676	10.6	7.1
Saskatchewan.....	18,019	19.0	25.2	6,018	6.3	7.4	7,307	7.7	6.7
Alberta.....	16,323	20.7	23.8	5,780	7.3	8.5	7,835	9.9	7.4
British Columbia.....	12,344	15.9	16.6	7,511	9.7	9.0	7,862	10.2	7.3
Canada².....	229,063	20.3	24.7	108,874	9.6	11.4	103,608	9.2	7.1

¹ Preliminary figures.

² Exclusive of Yukon and the Northwest Territories.

Births.—From 1926 to 1930 the number of births, though not the rate, showed an upward trend, rising from 232,750 to 243,495.

After 1930, however, the movement was reversed until 1938 when the number of births was 229,446 compared with 220,235 in 1937. Indeed the figure was higher in 1938 than it has been since 1932. There was a decrease recorded again in 1939 when the figure fell to 229,063. Because of the growing population, the rate showed a still greater drop between 1930 and 1937 of from 23.9 to 19.8 but for 1939 stood at 20.3. Extension of rural depopulation affected the decline in births during the depression.

Deaths.—The six chief causes of death accounted, in 1938, for well over one-half of the total deaths in Canada. Diseases of the heart considered as a group was the most important cause in this year. Cancer was second—incidentally, the death rate from this cause has advanced for almost every year from 1926 to 1939, but this trend is in a considerable measure accounted for by the ageing of the Canadian population. Third in importance as a cause of death was the group "diseases of the arteries", which has also shown an apparent upward trend since 1926. Pneumonia was in fourth place, although up to and including 1932 this cause took precedence over diseases of the arteries. Nephritis was next and diseases of early infancy, accidental deaths, and tuberculosis sixth, seventh, and eighth.

Infant Mortality.—In Canada during recent years this rate has shown a substantial reduction, falling from 102 per thousand live births in 1926 to 61 in 1939. The Canadian rate, however, ranks comparatively high.

Infant Deaths and Death Rates in Canada

Province	Infants under One Year				Rates per 1,000 Live Births			
	1926	1937	1938	1939 ¹	1926	1937	1938	1939 ¹
Prince Edward Island.....	123	152	114	166	70	73	58	79
Nova Scotia.....	882	812	754	760	80	70	62	64
New Brunswick.....	1,095	1,072	859	892	106	101	75	79
Quebec.....	11,666	7,580	6,486	6,210	142	100	83	78
Ontario.....	5,302	3,382	3,245	2,979	78	55	49	47
Manitoba.....	1,122	826	750	752	77	64	56	55
Saskatchewan.....	1,681	1,245	941	920	81	67	52	51
Alberta.....	1,233	994	812	758	85	63	51	46
British Columbia.....	588	630	556	483	58	56	45	39
Canada².....	23,692	16,693	14,517	13,920	102	76	63	61

¹ Preliminary figures.

² Exclusive of Yukon and the Northwest Territories.

Natural Increase.—Natural increase results from the difference between births and deaths. The birth rate (as indicated in the table at p. 47) is, in general, declining in Canada, although it increased in 1938. The death rate, however, is also declining though at a somewhat lower rate (1939 shows a slight rise) with the result that the rate of natural increase has been downward on the whole since 1930. The rate for 1926 was 13.3 per thousand; for 1929 it was 12.2; for 1933, 11.3; and for 1939, 10.7.

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. This increase continued to 1939 when an abnormally large figure (103,608) was reached. The influence of the early months of the War is reflected in a comparison of the monthly figures with those of 1938, the yearly total of which stood at 88,438.

CHAPTER II

Survey of Production

Under the term 'production' as here used are included activities of agriculture, fishing, mining, forestry, trapping, power development, manufactures, and construction. This does not imply that many other activities such as transportation, merchandising, personal and professional services, are not also 'productive' in a broad economic sense. It is customary, however, to regard the processes involved in the creation of materials or their making over into new forms as constituting production in a special sense.

A distinction is made between *gross* and *net* production. By net production is meant the value left in producers' hands after the elimination of the value of the materials, fuel and purchased electricity, and supplies consumed in the process of production. This net figure is therefore a much better criterion of the value of an industry to the community in which it operates than the gross.

Although the trend of wholesale prices was definitely downward in 1938, the net value of production as a whole showed a recession of only 0.6 p.c. from the high level of 1937. While 1937 had been a particularly discouraging year for agriculture, the return to average crops in 1938 re-established the former relationship of the leading industries, particularly in western areas. The net value of commodities produced aggregated \$2,974,700,000 compared with \$2,992,300,000 in 1937, and was exceeded only by 1937 in the period back to 1930. Since the level of commodity prices declined from 84.5 in 1937 to 78.6 in 1938, or by 7 p.c., it is evident that, on a volume basis, production was considerably higher than in 1937.

Six of the nine main divisions of industry showed advances in 1938. The exceptions were manufactures, forestry, and trapping; in these cases external demand for such commodities as newsprint, lumber, non-ferrous metals and furs tended to cause recession in output.

Agriculture showed an improvement of 9.3 p.c. over 1937 due to lower seed and feed costs. Field crops, dairy products, fruits and vegetables, poultry, and tobacco were sold in much better volume. While grain prices naturally gave ground in the face of larger crops, the recovery staged by agriculture in Saskatchewan was particularly gratifying, a gain of no less than \$60,000,000 having been shown in the net value of agriculture for that province. The Maritime farmers also enjoyed a much better return for their labour.

Mining continued to expand and established a new record for the fourth consecutive year in the net value of its output. It should be noted that since the end of the War of 1914-18 the mining industry has tripled its annual contribution to the net value of Canada's production and indications are that this is still far from maximum output. The volume of gold production in 1938 was more than double that of 1930 and the price has shown a somewhat similar advance.

PRIMARY
PRODUCTION
IN
CANADA

Threshing from the Stook.



Scaling Down Loose Rock from
Roof of Scraper Stope in a
Gold Mine.



Hauling Logs in Winter.



La Gabelle Power House,
St. Maurice River, Que.

Courtesy, Massey Harris Co. Ltd.,
Canadian Government Motion Picture
Bureau, Shawinigan Water and Power
Company.

SURVEY OF PRODUCTION

The electric power industry also established a new record in 1938, showing a gain of 1 p.c. over 1937. Increased consumption by domestic users and in the mining districts more than compensated for losses in the pulp and paper, textiles, and other manufacturing industries.

Declines in the value of textile products, wood and paper, iron and steel and non-ferrous metals were responsible for the decrease of 5.3 p.c. in manufacturing operations. Decreases of 2.8 p.c. in the number of persons employed and 2.2 p.c. in the amount of salaries and wages paid were experienced.

Value of Production in Canada, by Industries, 1937 and 1938

Industry	1937 ¹		1938	
	Gross	Net	Gross	Net
	\$	\$	\$	\$
Agriculture.....	1,039,492,000	678,953,000	1,062,645,000	742,020,000
Forestry.....	494,344,383	284,492,827	425,019,266	244,564,571
Fisheries.....	51,155,513	34,439,481	53,182,700	35,593,009
Trapping.....	10,477,096	10,477,096	6,572,824	6,572,824
Mining.....	662,630,976	372,796,027	653,781,836	374,415,674
Electric power.....	143,546,643	140,963,914	144,331,627	142,320,725
Totals, Primary Production	2,401,646,611	1,522,123,345	2,345,533,253	1,545,486,803
Construction.....	351,874,114	176,029,679	353,223,285	176,661,077
Custom and repair.....	145,511,833	98,484,982	146,399,500	99,086,100
Manufactures.....	3,625,459,500	1,508,924,867	3,337,681,366	1,428,286,778
Totals, Secondary Production	4,122,845,447	1,783,439,528	3,837,304,151	1,704,033,955
Grand Totals²	5,693,610,700	2,992,336,288	5,431,756,699	2,974,673,454

¹ Revised since the publication of *Canada 1940*.
of items included under primary production.

² Excludes duplication in "Manufactures"

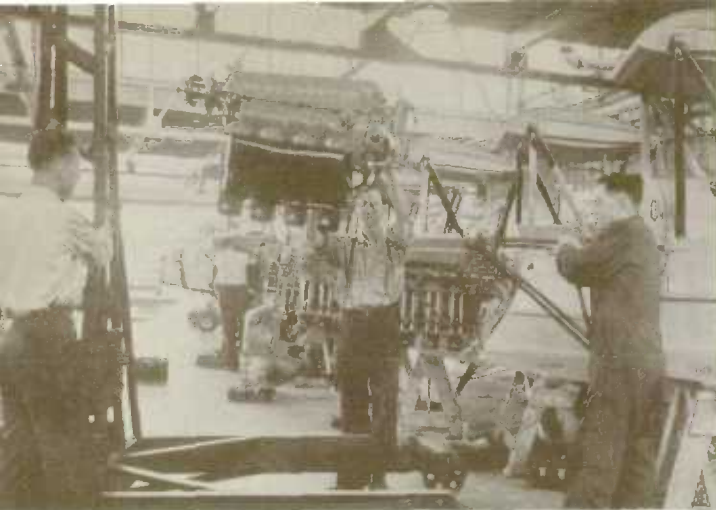
Value of Production in Canada, by Provinces, 1937 and 1938

Province	1937 ¹		1938	
	Gross	Net	Gross	Net
	\$	\$	\$	\$
Prince Edward Island.....	18,480,008	9,429,799	20,458,300	11,832,958
Nova Scotia.....	182,212,155	102,891,083	168,300,064	99,158,589
New Brunswick.....	136,595,211	71,136,855	126,852,056	70,047,728
Quebec.....	1,507,712,591	764,517,559	1,450,142,356	764,189,933
Ontario.....	2,595,646,912	1,329,953,078	2,429,302,024	1,292,574,329
Manitoba.....	303,844,094	176,680,688	263,484,363	145,101,719
Saskatchewan.....	178,407,583	75,836,421	231,430,092	136,980,819
Alberta.....	311,106,844	206,987,784	308,419,193	208,382,832
British Columbia ²	459,605,302	264,903,021	433,368,161	246,404,547
Grand Totals	5,693,610,700	2,992,336,288	5,431,756,699	2,974,673,454

¹ Revised since the publication of *Canada 1940*.

² Includes Yukon and Northwest Territories.

SECONDARY PRODUCTION IN CANADA



← Installing Engines in the
Fuselages of Trainer
Aeroplanes.



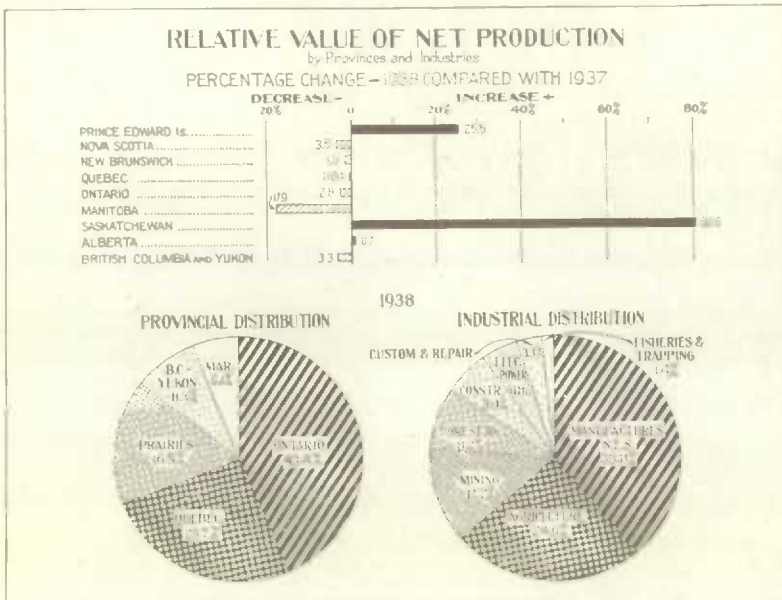
Construction of the Fuselage
of Trainers.



← Assembly of Moth Trainers
at the Plant.

Courtesy, Canadian Car and
Foundry Co. Ltd., and de
Havilland Aircraft of Canada,
Limited.

Comparing the relationship of primary and secondary industries, it is observed that the primary group registered a net advance of 1.5 p.c. in 1938 over 1937 whereas secondary production decreased 4.5 p.c. The official price index of producers' goods receded to 75.8 in 1938 from 86.1 in 1937 while the index of consumers' goods declined 2.3 points to 77.2, indicating a fairly close price parity between the two branches of the national economy.



Due to its pre-eminent industrial position and diversification, Ontario had a net commodity output of \$346.44 per capita, a decline of about \$12 from the level of 1937. British Columbia ranked second with a per capita production of \$317.94. Alberta was again in third place with \$266.13 per capita, while Quebec's record was well maintained at \$240.92. The result for Manitoba was rather sharply downward at \$201.53 compared with \$246.42 in the preceding year. Saskatchewan registered an encouraging gain with \$145.57 compared with \$80.76 in 1937. Prince Edward Island with \$125.88 showed a gain, while Nova Scotia and New Brunswick, with \$180.95 and \$157.41, respectively, showed slight declines.



CHAPTER III

Agriculture

Wide variations in the soil and climate of Canada have permitted a great diversity of farming enterprise. From Cape Breton on the Atlantic to Vancouver Island on the Pacific the types of farming carried on and the products marketed are continually changing. In the Maritime Provinces important cash crops are potatoes and apples, while large areas of arable land are devoted to the production of hay and clover. Dairying is important and this enterprise supplies a large proportion of the cash income. Most of the dairy products are used in the Maritime Provinces. Generally, except for apples and potatoes, the Maritime Provinces are a deficit producing area and depend on supplies of meats, feed grains, etc., from outside sources.

In Quebec, the dairying enterprise is a specialty in many areas with large markets available in the urban centres of the Province. To support the heavy dairy production, more than 90 p.c. of the crop area is given over to the raising of forage and feed grains. Specialty crops for which this Province is noted are maple products, honey and tobacco. Truck farming has greatly increased in importance and now provides a large proportion of the cash income in areas that are suitable for this type of farming close to the consuming centres.

In recent years specialized production has increased in importance in Ontario. The fruit and truck-crop area of the Niagara Peninsula has increased in importance and, more recently, a phenomenal expansion in tobacco production has provided a large source of income. Most of the field-crop area, as in the case of Quebec, is devoted to production of forage and feed-grain crops which are used on the farm in production of live stock and live-stock products. In Ontario the development of urban centres has resulted in an increase in the specialized milk-producing areas and, gradually, this type of farming is being extended further from the cities and displacing general farming.

The three Prairie Provinces constitute the area of surplus production of wheat and of feed grains. Wheat is one of Canada's most important export commodities, while feed grains are sent from the Prairie Provinces to many countries as well as to Eastern Canada. The specialized wheat area covers the short-grass plains from the Red River Valley to the foothills of Alberta and is bounded on the north by the Park Belt. In the Park Belt, live-stock production is an important farm enterprise, particularly feeding of beef cattle and raising of hogs. However, on many of the specialized wheat farms some live stock are kept which provide for family needs and supplement the cash income prior to the harvest of the wheat crop. In southwest Saskatchewan and southern Alberta a considerable amount of sheep and cattle ranching is carried on.

The varied climate of British Columbia provides for a greater diversity of farming enterprises than in any other province. Fruit and truck crops are most important in the Okanagan and Kootenay Valleys. In the

CANADA 1941

lower Fraser Valley, as well as on Vancouver Island, dairying and poultry raising are specialties. In the interior of the Province considerable cattle ranching is still carried on, while in northeastern British Columbia an extension of the Peace River area from Alberta produces a considerable amount of spring wheat.

Values of Agricultural Capital and Production

The two main classes of farm capital showed increases in values in 1939. In 1939 Ontario had 31 p.c. of the total value of such farm capital, Quebec 20 p.c., and Saskatchewan 19 p.c.

Current Value of Agricultural Capital, by Provinces, 1939

Province	Land and Buildings	Implements and Machinery	Live Stock	Total
	\$'000	\$'000	\$'000	\$'000
Prince Edward Island.....	44,183	5,962	7,998	58,143
Nova Scotia.....	97,366	7,699	15,419	120,484
New Brunswick.....	85,953	9,504	17,035	112,492
Quebec.....	709,786	69,912	121,753	901,451
Ontario.....	1,072,847	116,827	219,225	1,408,899
Manitoba.....	225,628	46,499	57,724	329,851
Saskatchewan.....	629,838	115,073	95,670	841,181
Alberta.....	413,602	86,800	99,063	599,465
British Columbia.....	91,815	10,411	23,590	125,816
Totals.....	1939 3,371,018	469,287	657,477	4,497,782
	1938 3,271,970	474,990	594,132	4,341,092
	1937 3,634,981	478,454	607,316	4,720,751

The gross value of agricultural production includes the value of all crops, live stock and animal products produced on farms in Canada. In 1939 the gross value of agricultural production was estimated at \$1,170,943,000, which was 10 p.c. higher than in 1938.

Gross Value of Agricultural Production in Canada, 1935-39

Item	1935	1936	1937	1938	1939
	\$'000	\$'000	\$'000	\$'000	\$'000
Field crops.....	511,873	612,300	556,222	550,069	634,130
Farm animals.....	120,078	130,979	140,989	136,846	170,837
Wool.....	1,493	1,861	2,049	1,565	1,688
Dairy products.....	180,756	198,672	216,623	226,155	217,716
Fruits and vegetables.....	49,964	44,015	41,816	157,095	55,911
Poultry products.....	50,434	53,244	51,766	53,747	55,483
Fur farming.....	5,516	6,532	6,802	6,476	5,828
Maple products.....	3,522	3,714	2,245	3,850	3,444
Tobacco.....	10,870	9,774	17,140	20,270	19,246
Flax fibre.....	321	298	332	619	1,249
Clover and grass seed.....	1,818	2,154	2,344	2,896	2,683
Honey and wax.....	2,338	2,823	2,164	3,057	2,726
Totals.....	938,983	1,065,966	1,039,492	1,062,645	1,170,943

Field Crops

Acresages.—During the past half century there has been almost a trebling in the area sown to field crops. The opening up of the Prairie Provinces and the stimulus to production induced by the War of 1914-18 were the principal factors responsible for this increase.



Stooked Wheat, High Prairie, Alta.

Courtesy, Canadian Pacific Railway.

Wheat.—Prior to 1905 the amount of wheat produced was less than 100,000,000 bushels. For six years it remained steadily over this figure until 231,000,000 bushels was reached in 1911. In only three of the next twenty years was wheat production less than 200,000,000 bushels, viz., 1914, 1918, and 1919. At that time the abnormally high 1915 crop of 393,000,000 bushels set a record for a number of years until 1922, when nearly 400,000,000 bushels were produced. New high records were attained in 1923 (474,000,000 bushels), in 1927 (480,000,000 bushels), and in 1928 (567,000,000 bushels). Except for the years 1930 and 1932 when production exceeded 400,000,000 bushels, the years from 1929 to 1937 were marked by unfavourable climatic conditions.

Production, Imports, and Exports of Wheat for Canada, 1929-40

NOTE.—Wheat flour has been converted into bushels of wheat at the uniform average rate of $4\frac{1}{2}$ bu. to the barrel of 196 lb. of flour.

Year	Production	Imports of Wheat and Flour ¹	Exports of Wheat and Flour ¹	Year	Production	Imports of Wheat and Flour ¹	Exports of Wheat and Flour ¹
	'000 bu.	bu.	bu.		'000 bu.	bu.	bu.
1929.....	304,520	1,374,726	186,267,210	1935.....	281,935	291,510	254,424,775
1930.....	420,672	244,220	258,637,886	1936.....	219,218	403,396	195,223,653
1931.....	321,325	216,328	207,029,555	1937.....	180,210	6,138,819	92,957,047
1932.....	443,061	173,014	264,304,327	1938.....	360,010	1,891,177	166,959,447
1933.....	281,892	413,165	194,779,875	1939.....	489,623	444,368	207,896,515
1934.....	275,849	896,674	165,751,305	1940.....	561,104 ²	?	?

¹ Imports and exports are for the years ended July 31, 1929 to 1940. Not available at time of going to press.

² Subject to revision.



Farm Landscape, Cumberland County, N.S.

Courtesy, N.S. Department of Agriculture and Marketing.

In 1937 the worst drought ever experienced on the prairies reduced the crop to 180,210,000 bushels, the smallest yield since 1914. From 1938 to 1940, under greatly improved weather conditions, wheat production has been recovering. In 1940, the crop of 561,104,000 bushels was the second largest ever grown.

Filling a Silo with Clover Hay.—The green forage, wet or dry, is preserved by being chopped fine and sprayed with molasses solution.

Courtesy, Canadian Industries, Limited.



Other Grains.—These grains consist of oats, barley, flaxseed, rye, buckwheat, peas, mixed grain, and corn. The first two have assumed importance among the field crops of Canada. The volume of oat production has attained considerable dimensions, reaching the record total of close upon 564,000,000 bushels in 1923. The area under crop has expanded from 3,061,356 acres in 1890 to 12,789,900 acres in 1939, when the production was estimated at 384,407,000 bushels. Barley, with a production of 17,223,000 bushels in 1890, yielded a record total of 136,391,400 bushels in 1928, while the yield for 1939 was estimated at 103,147,000 bushels. Rye production amounted to 1,341,000 bushels in 1890, increased to 32,373,400 bushels in 1922, and receded to 15,307,000 bushels in 1939.

Field Crops of Canada, 1939

Field Crop	Area	Total Yield ¹	Total Value	Field Crop	Area	Total Yield ¹	Total Value
	acres	bu.	\$		acres	cwt.	\$
Wheat.....	26,756,500	489,623,000	252,779,000	Potatoes.....	517,700	36,390,000	39,040,000
Oats.....	12,789,900	384,407,000	105,963,000	Turnips, man- golds, etc.....	189,600	37,636,000	12,884,000
Barley.....	4,347,400	103,147,000	33,147,000	Hay and clo- ver.....	8,836,600	13,377,000	107,068,000
Rye.....	1,101,800	15,307,000	5,766,000	Alfalfa.....	946,900	2,167,000	17,819,000
Peas.....	76,000	1,307,000	2,350,000	Fodder corn...	494,800	4,514,000	13,666,000
Beans.....	73,200	1,527,000	2,790,000	Grain hay....	1,000,000	1,538,000	6,717,000
Buckwheat.....	335,200	6,848,000	4,083,000	Sugar beets...	61,600	605,000	3,673,000
Mixed grains.....	1,218,100	44,072,000	18,902,000				
Flaxseed.....	307,100	2,169,000	3,030,000				
Corn for husking.	183,200	8,097,000	4,453,000				

¹ Yields of the most important crops, according to second estimates for 1940, as published on Nov. 15, 1940, are: wheat 547,179,000 bu.; oats 387,805,000 bu.; barley 103,454,000 bu.; mixed grains 43,602,000 bu.; potatoes 42,038,000 cwt.; turnips, mangolds, etc. 39,153,000 cwt.; hay and clover 14,156,000 tons.

Prices of field crops were at an unusually high level during the War of 1914-18 and until 1919, then slumped steeply, falling to a low level in 1923. Recovery followed in the years up to 1930, when sharp declines commenced, bringing the prices of many crops to the lowest recorded levels. The value of the field crops of Canada, which in 1910 was \$384,514,000, had increased by 1914 to \$638,580,000. As the effects of the War of 1914-18 came to be felt, the maximum was reached in 1919 with a total of \$1,537,170,000. This value receded to \$899,266,200 in 1923 but the recovery of prices combined with excellent harvests brought the value up to \$1,173,133,600 in 1927 and \$1,125,003,000 in 1928. Since then it declined to \$948,981,000 in 1929, \$662,040,000 in 1930 and \$432,199,400 in 1931. With certain fluctuations, there was a gradual gain in value until the 1939 season when it stood at the highest level since 1930. Comparative figures for the past seven years are: 1933, \$453,958,000; 1934, \$549,079,600; 1935, \$511,872,900; 1936, \$612,300,400; 1937, \$556,222,000; 1938, \$550,069,000; and 1939, \$634,130,000. Owing to reduced yields of many field crops in 1937, and to reduced prices in 1938, the value of field-crop production declined during these two years in comparison with the 1936 level.

The Canadian Grain Trade.—Unlike the handling systems of most countries, Canadian grain is handled in bulk, rather than in bags, and is sold abroad by export grades, rather than by sample. The bulk handling

of grain has been facilitated by the system of country and terminal elevators that has grown with the increase in wheat production. In 1900-01, there were already in operation 518 country elevators with a total capacity of 12,759,352 bushels. By 1939-40 these had increased to 5,678 with a capacity of 190,759,450 bushels, although some of these elevators have not been operating during the recent years of light production.

From these country elevators the grain is moved by rail through any one of a number of inspection centres, such as Winnipeg, Calgary, or Edmonton, to the terminal elevators located at Fort William-Port Arthur or on the Pacific Coast. The number of licensed elevators at the Head of the Lakes has grown from 5 in 1900-01 with a capacity of 5,570,000 bushels to 29 with a capacity of 92,832,210 bushels in 1939-40. Pacific Coast terminal elevators are located at Vancouver, Victoria, New Westminster, and Prince Rupert and have a capacity of 31,812,610 bushels. A new route to overseas ports has been developed through Churchill with the erection of a terminal elevator in 1931 having a capacity of 2,500,000 bushels. The movement of grain through the Head of the Lakes has always been the heaviest. Total receipts of wheat, oats, barley, rye, and flaxseed at Fort William-Port Arthur in 1939-40 were 334,782,606 bushels, compared with receipts at Pacific elevators of 21,859,947 bushels, and at Churchill of 1,864,708 bushels.

From the Head of the Lakes, grain is shipped by water to eastern elevators located on the Lower Lakes and along the St. Lawrence River. Lower Lake elevators supply grain for eastern consumption and for transshipment to the St. Lawrence. Grain also moves from the Head of the Lakes to United States lake ports for United States consumption, milling-in-bond, or shipment by canal or rail to Atlantic seaboard ports. In winter months, small amounts of grain are moved by rail from Georgian Bay and Lower Lake elevators to the ports of Saint John and West Saint John, N.B., and Halifax, N.S., which are open to navigation the year around. Within the past two years a few small ocean-going vessels have gone directly to the Head of the Lakes, and have cleared with grain cargoes for overseas.

Clearances of Canadian wheat in 1939-40 from Canadian and United States ports amounted to 152,703,719 bushels. United States imports for consumption and milling-in-bond during 1939-40 amounted to 9,454,498 bushels. The total export movement of Canadian wheat in 1939-40 amounted to 207,896,515 bushels, including wheat flour expressed as wheat. Exports of oats and oat products in 1939-40 amounted to 23,911,383 bushels. Barley exports totalled 12,148,058 bushels, while rye exports amounted to 4,570,898 bushels. Flaxseed exports amounted to 17,908 bushels while, on the other hand, flaxseed imports into Canada totalled 1,391,667 bushels.

Live Stock

The live-stock industry of Canada provides the means by which surplus feed grain and fodder crops are converted into income in the form of cash and products consumed in farm households. Probably the most important branch of the industry is that of cattle raising. In the production of beef cattle, the ranges of southwestern Saskatchewan, southern Alberta, and parts of British Columbia provide the foundation for the industry. In these areas, large-scale ranching is carried on, with the cattle

LIVE STOCK

Beef Cattle—
"White Faces" on a
ranch in Alaska.



Horse Raising—
Mares and foals on
pasture in Quebec.



Canada's Bacon—
Yorkshire pigs in
Ontario.



Mutton-Wool—
Rambouillet ewes
and lambs on the
short grass plains
in Saskatchewan.



moving out to feeding areas in other parts of Western Canada, to Ontario, and to the United States. Total numbers of cattle on farms fell from 8,952,000 head in 1934 to 8,474,600 head in 1939. At June 1, 1940, there were 8,565,000 cattle on farms.

The production of bacon hogs is now an important phase of Canada's live-stock industry. The hog industry depends chiefly upon supplies of feed grains, and to a lesser extent upon a provision of supplemental feeds such as skim milk and buttermilk. The greatest concentration of the hog industry is, therefore, found in central and southwestern Ontario, throughout the central and northern parts of Manitoba, across the Park Belt of Saskatchewan, and in the north central and central areas of Alberta. In late years the Prairie Provinces have become relatively more important as hog-producing regions. Hog production has been increasing since 1938 and at June 1, 1940, there were 5,882,000 hogs on farms compared with 4,294,000 at June 1, 1939. This 1940 figure is the largest yet recorded.

The raising of sheep for production of mutton and wool is carried on both under general farm live-stock raising and as a specialized business in the sheep-ranching areas of southwestern Saskatchewan, southern Alberta, and parts of British Columbia. In recent years there has been a tendency for the numbers of sheep on farms to remain fairly steady and at June 1, 1940, there were 3,452,000 compared with 3,365,000 in 1939.

The raising of horses for sale was at one time an important industry in the southern range areas of Saskatchewan and Alberta. With the increase in the use of mechanical power during recent years, the production of horses has declined considerably. At June 1, 1940, the number of horses on farms was estimated at 2,858,000.

Marketings.—Commercial marketings of cattle in 1939 amounted to 1,183,000 head, of which 789,000 head were sold through the stockyards, 278,000 head were sold direct to packing plants, and 116,000 head were sold direct for export. Total commercial marketings in 1938 were 1,074,000 cattle. Movement of cattle to stockyards by truck has become increasingly important. In 1939, 45 p.c. of the cattle and 51 p.c. of the calves, were transported to stockyards by truck. Calf marketings were 795,000 head as compared with 748,000 head in 1938.

Hog marketings in 1939 amounted to 3,706,000, compared with 3,246,000 head in 1938. The public stockyards handled 746,000 head. Of considerable interest in Canadian hog marketing is the trend toward carcass grading. The 1939 carcass gradings numbered 1,964,000 as compared with only 115,000 in 1935.

Total sheep and lamb marketings were reported at 753,000 head in 1939, and 759,000 head in 1938. About one-half the sheep and lambs are sold through the public stockyards.

The greater proportion of horses marketed are transferred from one farm to another and thus do not appear on the stockyard records. There has been a very considerable increase in recent years in the number of horses shipped eastward through the St. Boniface yards at Winnipeg.

Special Crops

Some of the more important special crops are: tobacco, sugar beets, maple syrup and sugar, honey and vegetable crops.

Tobacco.—Commercial production is centred in Ontario and Quebec, with a few hundred acres of flue-cured tobacco in British Columbia. The major development in the industry has taken place during the years since 1926 and has been due almost entirely to the phenomenal increase in the production of flue-cured tobacco, particularly in Ontario. Total plantings of the flue-cured type showed an uninterrupted expansion from 7,570 acres with a production of 6,239,800 pounds in 1927 to 28,063 acres with production totalling 27,847,000 pounds in 1932. Following the sharp break in prices in 1931 and 1932, when the average price of flue-cured dropped from 32.0 cents in 1930 to 16.4 cents in 1932, a system of voluntary acreage control was introduced in Ontario in 1933 and has been in effect since that year. Marketing of the crop is now controlled by the Flue-Cured Marketing Association of Ontario and, under the stimulus of a minimum price fixed annually by the Association, cultivation of this crop has expanded rapidly. The 1939 crop of flue-cured totalled 79,734,400 pounds from 69,840 acres, as compared with 78,174,100 pounds from 63,530 acres in 1938.

The total commercial tobacco crop of 1939 was estimated at 107,703,400 pounds with a gross farm value of \$19,443,800 as compared with 101,394,600 pounds valued at \$20,269,700 in 1938. The 1939 crop was produced on 92,300 acres as compared with 83,575 acres in the previous year. With the first estimate of the 1940 crop showing a total production of only 49,000,000 pounds, which is less than half the record crop produced in 1939, the sharply upward trend in Canadian tobacco production during the past three years has been reversed. While smaller crops from lower acreage are common to all types of tobacco, the most drastic reduction has been in the production of flue-cured tobacco in Ontario where approximately 24,000,000 pounds has been harvested from 42,350 acres. The decrease is the result of reduced acreage (as recommended by the Ontario Flue-Cured Marketing Association in view of the heavy surplus of unsold tobacco from the 1939 crop) and an unfavourable season and extensive frost damage in the Norfolk area.

Tobacco at Yamaska River, Que.
Courtesy, Department of Agriculture.



The home market for flue-cured leaf has shown the most rapid expansion in recent years. About 89 p.c. of raw leaf used in domestic manufacture in 1939 was grown locally, as compared with only 54 p.c. in 1930. The increased use of domestic leaf has coincided with a drop in imports of foreign leaf from 17,400,000 pounds in 1930 to 4,400,000 in 1939.

Exports in commercial quantities began in 1920, reached a peak of 13,900,000 pounds in 1933 and a record total of 32,210,000 pounds in 1939. The United Kingdom has always been the chief buyer, taking about 90 p.c. of the total leaf exports, which are largely flue-cured. The virtual closing of this market following the outbreak of hostilities in September, 1939, with total imports of Canadian tobacco restricted to 8,000,000 pounds, created an acute marketing problem and resulted in a carryover into the 1940-41 crop year of an unsold surplus of approximately 30,000,000 pounds of flue-cured tobacco.

Other Crops.—Quebec leads in maple products. Production in 1940 amounted to 3,099,000 gallons in terms of syrup, and the gross farm value of sugar and syrup produced in all Canada was \$4,209,300 as compared with the 1939 crop of 2,592,200 gallons valued at \$3,443,900.

Sugar-beet production is centred in southwestern Ontario and near Raymond, Alta., although there are other areas sown to this crop in Quebec and Manitoba. In 1939, the latest year for which factory statistics are available, the output of refined beetroot sugar amounted to 169,320,343 pounds valued at \$8,063,332 as compared with 143,013,847 pounds valued at \$6,001,380 in 1938.

The production of honey is common to all provinces, with Ontario, Manitoba, and Quebec the leaders. The 1939 crop was estimated at 28,856,100 pounds as compared with 37,909,900 pounds in 1938. The 1939 crop of honey and wax was valued at \$2,726,700.

The growing of fresh vegetables for market is an important occupation in many parts of Canada, particularly in suburban areas. Truck farms located in specially favoured regions provide raw materials for the vegetable-canning industry and cater to the fresh-vegetable market.

Other special crops of lesser importance are clover and grass seed, hops, and flax for fibre.



Weighing Drums of
Maple Syrup,
Plessisville, Que.

*Courtesy, Quebec
Department of
Agriculture*

Dairying

The Cheese and Butter Industries.—In 1939, 1,312 creameries, 1,000 cheese factories, and 228 factories manufacturing both butter and cheese were operated in Canada. The output of these factories reached a total of 267,368,100 lb. of butter and 122,771,800 lb. of cheese, valued at \$61,045,300 and \$14,598,700, respectively. While the creamery output in 1939 was only slightly greater than that produced in the previous year, it exceeded the 1937 production by 8.2 p.c. and revealed an increase of 26,400,000 lb., or 11.0 p.c. over that of 1935. Cheddar cheese production in 1939 represented a decline of 1.0 p.c., compared with the output of the preceding year, and fell 6.0 p.c. below the 1937 production. Yet, in comparison with 1935 an increase of 22,300,000 lb. or 22.2 p.c. was indicated. During the first nine months of 1940, 214,300,000 lb. of butter and 116,300,000 lb. of cheese were produced in the Dominion, the former registering a reduction of approximately 1 p.c. as compared with the January-September period of 1939, and the latter an increase of almost 14 p.c.



A Herd of Jersey Cattle in Ontario.

An advance in cheese production has been shown for 1940 due, in part, to a diversion of milk otherwise used for butter-making; also to a general increase in the production of milk and the proportion supplied for manufacturing. The demand for cheese in the United Kingdom and the stabilization of prices under a war-time economy produced some important changes in the domestic price structure. Early in the year, Canadian cheese had the advantage of a free market in the United Kingdom which permitted prices to move to unusually high levels. First-grade

Ontario coloured cheese reacted to market conditions in the United Kingdom at that time and averaged $18\frac{1}{4}$ cents at Montreal during the month of January, as compared with $12\frac{1}{4}$ cents in the same month of the preceding year. When import and price regulations were applied to Canadian cheese by the British Government, the Dairy Products Control Board was set up by the Canadian Government to govern the export movement of cheese, and to make price regulations in the Dominion. The Order in Council appointing the Board also set the price of No. 1 Canadian cheese at 14 cents, f.o.b. Montreal. After the passing of this Order on May 23, cheese



An Up-to-Date Creamery in Nova Scotia.

Courtesy, Canadian Government Motion Picture Bureau.

prices conformed closely to the fixed basic price of 14 cents as compared with the June-September average of 12 cents in 1939. The trend in butter prices, on the other hand, was less favourable. During the first five months of 1940 creamery butter solids at Montreal averaged $26\frac{3}{8}$ cents as compared with $21\frac{1}{8}$ cents in the same period of 1939, while in the period June-September the average was $22\frac{3}{8}$ cents, compared with $22\frac{7}{8}$ cents in the corresponding four-month period of the preceding year.

The production of dairy butter has increased approximately 6,000,000 lb. in the past ten years, the greater part of which is consumed on farms or in rural towns and villages. The 1939 production of 103,722,000 lb. represents approximately 28.0 p.c. of the total butter output. Farm-made cheese, on the other hand, amounting to 1,046,300 lb. in 1939, constitutes only about 1 p.c. of the total cheese production.

After the War of 1914-18 butter exports were relatively high, amounting in 1925 to 26,600,000 lb., or 16 p.c. of the annual production, but, with the development of the home market, exports declined, and at times they have been reduced to quite insignificant quantities. In 1935, 7,700,000 lb. were exported from Canada; in 1936 exports were reduced to 5,100,000 lb., in 1937 to 4,100,000 lb., and during 1938 only 3,893,000 lb. were shipped from Canadian ports. With the outbreak of the War in Europe in 1939, the overseas movement of butter was sharply reduced, so that the exports of 11,551,900 lb. during the first eight months of 1939 represented 93.2 p.c. of the total shipments for the year. Incidentally, approximately one-half of this amount was shipped during the first three months of the year, which was the largest export movement of butter during that period since 1925. From January to September, 1940, only 930,300 lb. of butter were exported from the Dominion, compared with 11,785,700 lb. in the same period of the preceding year.

In contrast to butter, cheese is mainly marketed abroad. In Ontario, where a large proportion of this product is manufactured, primary sales are made through local cheese boards, and after being inspected by Dominion Government inspectors the cheese is shipped to Great Britain and other countries by dealers in the larger distributing centres. At the turn of the century exports approximated 200,000,000 lb., and for the year ended June 30, 1904, 234,000,000 lb. As production declined exports also dropped to lower levels, and in 1935 amounted to only 55,700,000 lb. The 1939 exports were 90,900,000 lb., 74.1 p.c. of the total make for that year. During the first nine months of 1940 exports amounted to 78,100,000 lb., an increase of nearly 55 p.c. as compared with the same period of 1939. The 1938 exports represented 23.1 p.c. of the total cheese entering the British market where the Canadian product commands a price preference that places it next in rank to the finest English cheddar.

Milk and Milk Products.—Milk and cream for fluid consumption are generally sold by producers to distributors; the demand for pasteurized products has tended to bring this about, although in many of the smaller centres producers still deliver these products direct to householders. In the larger centres of population the distributors usually own plants where milk and cream are pasteurized, and butter, cheese, and other products are manufactured from the surplus. With the growth of urban centres, more and more milk is being used in the fluid form, a fact that has significance in connection with the decline in the cheese industry. It is estimated that, in 1939, 3,580,000,000 pints of milk (including cream) were consumed in Canada, representing a per capita consumption of 0.87 pint daily. Concentrated milk (included under "Miscellaneous Factory Products" in the following table) is another branch of dairy manufacturing that has developed at the expense of cheese production. During the period 1933 to 1939 whole-milk products increased 103.9 p.c. while milk by-products advanced 68.9 p.c. In 1939, 19.8 p.c. of the total output of all concentrated milk products, amounting to approximately 158,000,000 lb., was shipped to British and Empire markets. Another important product in the miscellaneous group is ice cream; from 1933 to 1939 the total output for the Dominion increased by approximately 3,000,000 gal.

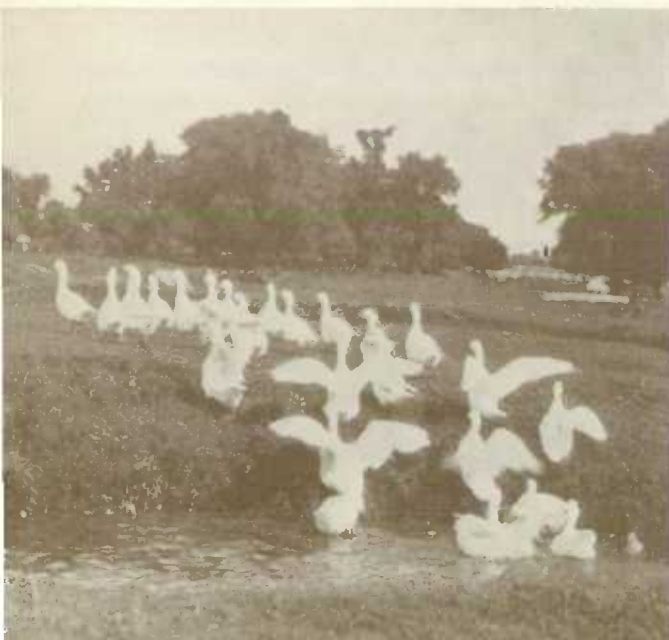
**Production of Dairy Products in Canada, by Provinces, 1939,
with Totals for 1938**

Province	Butter		Cheese		Miscellaneous Factory Products	Milk Other- wise Used	All Products Expressed as Milk
	Creamery	Dairy	Factory	Farm- made			
	lb.	lb.	lb.	lb.	'000 lb.	'000 lb.	'000 lb.
P.E.I.	1,924,900	1,606,000	464,700	300	723	45,618	134,206
N.S.	5,677,600	5,738,000	Nil	20,000	15,863	164,197	447,513
N.B.	3,968,600	6,292,000	561,300	5,000	3,685	150,920	401,150
Que.	79,793,000	12,132,000	26,271,400	223,000	26,132	1,538,426	4,013,262
Ont.	88,243,800	24,344,000	88,518,500	125,000	332,434	1,898,142	5,859,064
Man.	20,024,200	10,844,000	3,493,000	165,000	10,646	373,873	1,300,284
Sask.	25,400,000	24,004,000	344,800	203,000	6,912	576,060	1,745,656
Alta.	29,750,000	15,912,000	2,196,200	225,000	14,623	554,250	1,664,936
B.C.	6,086,000	2,850,000	921,900	80,000	59,427	262,539	542,380
Totals, 1939	267,368,100	103,722,000	122,771,800	1,046,300	470,445	5,564,025	16,108,451
1938	267,347,271	105,076,000	123,971,368	1,101,300	435,106	5,579,501	16,133,852

Poultry and Eggs

Poultry farming has expanded considerably in the past ten years. The specialized production of eggs and poultry has shown the most noticeable development, but poultry is also being given a more important place in general farming. Selective breeding and the improvement in the quality of eggs and poultry are matters that have received more attention in recent years.

The population of hens and chickens at June 1, 1939, was estimated at 53,510,000. Turkeys numbered approximately 2,500,000, geese 795,000, and ducks 624,000. During the year 1939, the production of eggs amounted to 221,737,000 doz., valued at \$41,037,000 or 18.5 cents per dozen. The production per hen remained at 111, the same as in 1938. Exports of poultry in 1939 amounted to 3,515,500 lb. compared with 3,512,800 lb. in 1938. The shipments of eggs decreased, declining from 1,843,000 doz. in 1938 to 1,274,000 doz. in 1939. During the first nine months of 1940, 7,971,000 doz. of eggs were exported from the Dominion as compared



A Fine Flock of
Emden Geese.

*Courtesy, Department
of Agriculture.*



View of the Cornwallis-
Annapolis Valley, N.S.

Spraying Apple Trees.

*Courtesy, Nova Scotia
Department of
Agriculture and
Department of
Agriculture,
Ottawa.*



with 703,000 doz. in the January to September period of 1939. Egg consumption is comparatively high, amounting in 1939 to 21.28 doz. per capita. The consumption of poultry in the same year was 19.31 lb. per capita.

Fruit Growing

The first records of attempts to establish cultivated fruit in Canada are to be found in the Census of 1698 when 1,584 trees were reported at Port Royal and 32 at Beaubassin in the region then known as Acadia. From this small beginning, the industry has developed until now fruit is being grown in all provinces although production is on a commercial scale only in Nova Scotia, New Brunswick, Quebec, Ontario, and British Columbia. The most extensive fruit-growing areas are the Annapolis Valley in Nova Scotia, southwestern Ontario, and the Okanagan Valley in British Columbia, while less well-known, but increasingly important, districts are the St. John Valley in New Brunswick and the Montreal and southern counties district in Quebec. The development of improved varieties with

hardy characteristics has made fruit growing possible in the Prairie Provinces but production is confined chiefly to the backyard gardens. The value of the commercial fruit crops in 1939 was \$17,164,600, made up as follows: apples, \$10,138,100; pears, \$375,300; plums and prunes, \$287,800; peaches, \$1,142,900; cherries, \$580,200; apricots, \$149,700; strawberries, \$2,119,600; raspberries, \$1,078,400; loganberries, \$83,700 and grapes, \$908,900.

Marketings.—With the outbreak of war, exports of Canadian apples to continental Europe were completely cut off and shipments to the United Kingdom were restricted to approximately 50 p.c. of the average exports for the previous two years. For the year ended Mar. 31, 1940, exports to the United Kingdom were 1,189,756 barrels compared with the five-year, 1935-39, average of 1,973,639 barrels. Exports of all fruits for the year ended Mar. 31, 1940, amounted to 1,335,127 barrels while the five-year, 1935-39, average was 2,192,936 barrels or 46.6 p.c. of the average commercial crop for those years. Exports for 1940 amounted to only 23 p.c. of the 1939 crop.

Various steps were taken to stabilize the domestic market and among them were the canning and drying of 1,333,000 barrels of No. 1 and domestic Nova Scotia apples and the zoning of the Dominion to assure the fair distribution of the fresh fruit. In addition an extensive advertising program to sell apples and apple products was instituted by the Government.

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 Manitoba Agricultural College at Winnipeg. Three agricultural colleges in Quebec are assisted by the Provincial Government, while faculties of agriculture are found in the provincial universities of Saskatchewan, Alberta, and British Columbia.

CHAPTER IV

Mines and Minerals

Development of the Mining Industry since the War of 1914-18.—

Canada's mineral deposits constitute a very important factor in the economic and social development of the country. This has been especially reflected during recent years, and more particularly since the War of 1914-18. In 1914 Canada's mineral production was valued at \$128,863,075, and in 1939 the output was valued at \$474,602,000, the highest ever recorded; this of itself shows an enormous growth. There are, however, features of the mineral production of Canada that are of special significance at the present time. In 1914 most of the products of the mines had to be exported in either a crude or a semi-refined state. For instance, in 1914 this country produced only a small amount of refined lead, no refined copper, no refined zinc, and no refined nickel; whereas to-day the highest grades of these metals are produced in large quantities. Aluminium is also being produced in increasing quantities from imported ores.

Progress in Canadian gold mines has been truly remarkable. In 1939 the output of gold reached an all-time high value of \$184,115,951 as compared with \$15,883,007 in 1914. Canadian gold mines, located in almost every province, form a very important part of the natural bulwark of defence. The gold is used for the purpose of purchasing war supplies from other countries, while the products of the great base-metal mines and smelters go into the manufacture of vital munitions, war equipment, and naval defence, both in Canada and in England. Reserves of steam coal are considerable, particularly in Nova Scotia, Alberta, and British Columbia. Production of crude petroleum from the Turner Valley district of Alberta has increased rapidly during recent years. A high bessemer grade iron-ore deposit is being developed in Ontario and the recent production of mercury in British Columbia represents the only large commercial output of this metal within the Empire. Canada's position with regard to many of the industrial non-metallic minerals is excellent. The asbestos deposits of Quebec are among the finest of their kind in the world and the supply of fibre from these is ample for war requirements. Also, in Ontario and Quebec, are many deposits of high-grade mica and other essential war minerals and with the cutting off of supplies from the British market of feldspar from Scandinavia, Canada has been called upon to make up part of the deficiency. Magnesitic dolomite production in Quebec, used in the manufacture of a high type of refractory material, is increasing greatly as the iron and steel and non-ferrous metal smelting industries are required to enlarge their output. Canadian plants for the production of cement, brick, and other structural materials are developed to a high state of efficiency and are so situated that the demands of the country can be supplied readily.

Because of the excellent position of Canada with regard to the strategic metal situation at the outbreak of the present War, the companies producing these metals were able and willing to make contracts with the British Government to furnish large quantities at prices prevailing shortly before the beginning of hostilities. This is a tremendous contribution financially, since if Canada had not been able to supply these metals,



ASBESTOS PRODUCTION IN CANADA



(1) View of the Jeffrey Mine, Que., the largest asbestos mine in the world. The town of Asbestos is shown to the left. (2) This equipment could hold two 1½ storey houses inside its control cab. (3) The choice long fibres are broken away from the rock with a small "cobbing" hammer and then carried to the mill in bags. (4) The buildings at Asbestos where the valuable asbestos fibre is recovered by a series of crushing and separating operations, from the rock blasted out of the mine.

Courtesy, Canadian Johns-Manville Co. Limited.

the United Kingdom would have found it necessary to purchase them from neutral countries with a proportionate drain on exchange reserves, and prices would undoubtedly have risen far beyond those existing at the present time, as was the case during the War of 1914-18.

Base metals are refined in the following provinces: lead and zinc at Trail, B.C.; zinc in Manitoba; copper, nickel, and cobalt in Ontario; and copper in Quebec. In addition, aluminium metal is made at Arvida and Shawinigan Falls, Que., and plants are being established in the industrial centres of the central provinces for the fabrication of these metals into various commodities. Canada is developing to the stage where ores are being worked up not only into refined metals but into finished products.

Prospecting fell to a low ebb during the War of 1914-18, but in 1921 the famous northwestern Quebec copper-gold areas were opened up with the discovery of the Noranda. This wonderful mine is not only one of Canada's principal copper producers but is also the third largest gold producer in the country.

The Prairie Provinces, long thought of as being valuable only as grain-growing areas, have also become prominent as a source of minerals. In 1915 the Flin Flon copper-gold-zinc mine, situated on the Manitoba-Saskatchewan boundary, was discovered. The ore was complex and hard to treat and it was several years before this large deposit was brought to successful production but to-day a large mine, smelter, and zinc refinery add annually to Canada's wealth.

During the past two years several gold mines have come into production in the Northwest Territories and at Lake Athabaska in northern Saskatchewan. One of the most recent developments is in the Zeballos country, on the west coast of Vancouver Island. The veins in this latter area appear to be very rich and success for some of the properties was assured with a minimum of expenditure.

The discovery of pitchblende in 1936 by Gilbert Labine at Great Bear Lake in the Northwest Territories placed Canada on the map as one of the world's important sources of radium. The ore is brought to Port Hope, Ont., for the recovery of radium and uranium salts.

Among the countries of the world, Canada is to-day first in the production of nickel and platinum metals, third in gold and copper, and fourth in lead and zinc.

Canada is in a somewhat anomalous position with regard to coal. There are large supplies of bituminous coal in the Maritimes, on the prairies, and on the Pacific Coast, but in the Provinces of Quebec and Ontario, where the population is most dense, no coal is mined. Therefore coal must either be brought to these "acute fuel areas" from the United States or, if from Canadian mines, with the assistance of the Dominion Government by means of subventions. Canada's anthracite requirements are supplied by the United States, Great Britain, and other European sources, and some comes from as far away as French Indo-China. Production of petroleum from the Turner Valley and other Alberta fields has risen from 1,312,368 bbl. in 1936 to 7,576,932 bbl. in 1939. Some production is also derived from the Stoney Creek field in New Brunswick and from southwestern Ontario. The New Brunswick gas supplies Moncton and Hillsborough; that of Ontario about 120,000 industrial and domestic users.

Canada produces a great variety of non-metallic minerals of economic value. The principal non-metallic is asbestos. Indeed, Canada leads the world in the output of this mineral. Approximately all of the output comes from the Eastern Townships of Quebec, though during the past year development work has been undertaken on a property in Ontario which should shortly be in the production class. The fibre of this mineral is of good quality and well adapted for spinning. Production in 1939 totalled 364,472 tons with a value of \$15,859,212.

Next in importance is common salt. The greater part of the Canadian production of this mineral comes from wells in southwestern Ontario, although there is a salt mine at Malagash, Nova Scotia, and production from this property is increasing. The first production of commercial



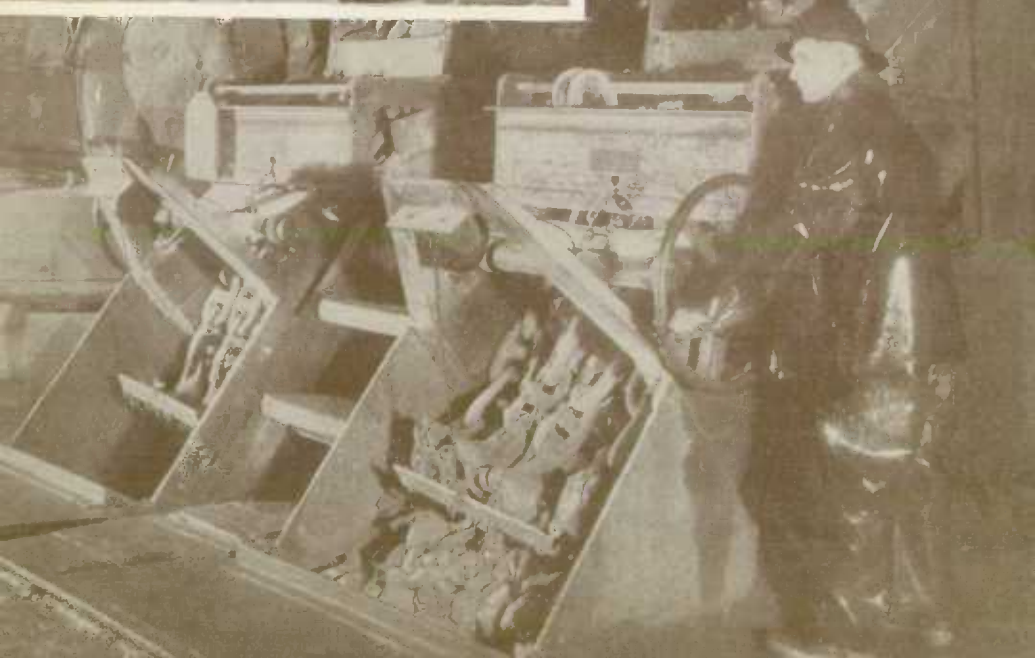
Sampling Underground at
Timmins, Ontario.



Pull and Chain Loader, Underground
at a Large Ontario Mine.



*Courtesy, Lake Shore Mines, Limited
and Photographic Arts.*



importance in Manitoba was recorded in 1932, and in Saskatchewan in 1933. Some shipments have also been made from deposits near McMurray in Alberta. Between 40 and 50 p.c. of the Canadian salt production is used in the form of brine in chemical industries for the manufacture of caustic soda, liquid chlorine, soda ash, and other chemicals.

Third in importance among the Canadian non-metallics (other than fuel) is gypsum, and output in 1939 was valued at \$1,935,127. Many large deposits of gypsum occur throughout Canada, but production is chiefly from Hants, Inverness, and Victoria Counties, N.S.; Hillsborough, N.B.; Paris, Ont.; Gypsumville and Amaranth, Man.; and Falkland, B.C. Nearly 50 p.c. of Canada's production is exported in the crude form from Nova Scotia deposits, though a substantial trade has been built up in Canada from the manufacture of plaster of paris, gypsum wallboard, acoustical materials, and insulating products. Other important non-metallic minerals produced in Canada are listed in the table at p. 76.

Canada has long been a producer of brick and tile, cement, lime, stone, and sand and gravel. Production in 1939 totalled more than \$35,000,000. As only a small part of these items is exported, the value of output is an excellent barometer of conditions in the construction industry.

Production in 1939 Compared with 1938.—Mineral production in 1939 showed an increase of 7.4 p.c. over 1938 which reflects the almost general expansion in production and new development. The value of the 1939 output was the highest ever recorded.

Mineral Production of Canada, by Provinces, 1937, 1938, and 1939

Province or Territory	1937		1938		1939	
	Value	P.C. of Total	Value	P.C. of Total	Value	P.C. of Total
	\$		\$		\$	
Nova Scotia.....	30,314,188	6.6	26,253,645	5.9	30,746,200	6.5
New Brunswick.....	2,763,643	0.6	3,802,565	0.9	3,949,433	0.8
Quebec.....	65,160,215	14.3	68,965,594	15.6	77,335,998	16.3
Ontario.....	230,042,517	50.3	219,801,994	49.7	232,519,948	49.0
Manitoba.....	15,751,645	3.4	17,173,002	3.9	17,137,930	3.7
Saskatchewan.....	10,271,463	2.2	7,782,847	1.8	8,794,090	1.8
Alberta.....	25,597,117	5.6	28,966,272	6.6	30,691,617	6.5
British Columbia.....	73,555,798	16.1	64,549,130	14.6	65,216,745	13.7
Yukon.....	3,784,528		3,959,570		4,961,321	
Northwest Terri- tories ¹	117,978	0.0	568,618	1.0	3,248,777	1.7
Totals¹.....	457,359,892	100.0	441,823,237	100.0	474,662,959	100.0

¹ Production of radium-bearing ores not included; figures not available for publication.

Outstanding contributors of mineral wealth in the Dominion during 1939 were the gold mines and base-metal mines. Canadian gold production during the year under review reached an all-time high peak and Canada probably ranked second as a gold-producing country in 1939. High production records in base metals were established in 1939 for copper, nickel, and zinc. Lead output showed a 7 p.c. decrease from the preceding year's production of 418,927,660 lb. In 1939, for the first time in several years, the commercial production of iron ore was reported; this came from the New Helen mine in the Michipicoten district of Ontario.

The fuel industries were featured in 1939 by a continued and important increase in the production of petroleum, chiefly from Alberta wells. Coal production increased 8.7 p.c. over the 1938 output. Increases were recorded in all coal-producing provinces except Saskatchewan and Manitoba. Natural gas had a record output. The total value of all fuels increased 9.1 p.c. compared with the preceding year.

Among the more important industrial minerals, asbestos production marked an increase of 25.8 p.c. over 1938. Other outstanding minerals in this group showing increases included gypsum, mica, sulphur, and sodium sulphate. Brick and other clay products showed an encouraging increase. Other structural materials to show increases in value over the preceding year were cement, stone, and lime.

Mineral Production of Canada 1938 and 1939

Item	1938		1939	
	Quantity	Value	Quantity	Value
METALLICS		\$		\$
Gold..... fine oz.	4,725,117	97,676,834	5,094,379	105,310,157
Estimated exchange on gold produced	-	68,529,156	-	78,805,794
Silver..... fine oz.	22,219,195	9,660,239	23,163,629	9,378,490
Nickel..... lb.	210,572,738	53,914,494	226,105,865	50,920,305
Copper..... "	571,249,664	56,554,034	608,825,570	60,934,859
Lead..... "	418,927,660	14,008,941	388,569,550	12,313,768
Zinc..... "	381,506,588	11,723,698	394,533,860	12,108,244
Platinum metals..... fine oz.	292,219	8,874,136	284,304	9,422,211
Other metals.....	-	2,133,622	-	4,312,295
Totals¹	-	323,075,154	-	343,506,123
NON-METALLICS				
Fuels				
Coal..... ton	14,294,718	43,982,171	15,537,443	48,315,224
Natural gas..... M cu ft.	33,444,791	11,587,450	35,185,146	12,507,307
Petroleum, crude..... bbl.	6,966,084	9,230,173	7,826,301	9,846,352
Peat..... ton	620	3,500	445	2,445
Totals	-	64,803,294	-	70,671,328
Other Non-Metallics				
Asbestos..... ton	259,793	12,590,195	364,472	15,859,212
Feldspar..... "	14,058	129,293	12,500	112,309
Gypsum..... "	1,008,799	1,502,265	1,421,934	1,935,127
Magnesite dolomite.....	-	420,261	-	474,418
Quartz ² ton	1,380,011	961,617	1,582,935	1,100,214
Salt..... "	440,045	1,912,913	424,500	2,486,632
Sodium sulphate.....	63,009	553,307	71,485	628,151
Sulphur ¹ "	112,395	1,044,817	211,278	1,668,025
Talc and soapstone.....	-	144,848	-	170,066
Other non-metallics.....	-	506,607	-	627,695
Totals	-	20,066,123	-	25,061,849
CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS				
Clay products (brick, tile, sewer pipe, pottery, etc.).....	-	4,536,084	-	5,151,236
Cement..... bbl.	6,519,102	8,241,350	5,731,264	8,511,211
Lime..... ton	486,922	3,542,652	552,209	4,003,514
Stone, sand, gravel, and slate..... "	37,339,904	17,558,580	36,737,963	17,696,798
Totals	-	33,878,666	-	35,362,759
Grand Totals¹	-	441,823,237	-	474,662,659

¹ Production of radium-bearing ores not included. Figures not available for publication.

² Includes silica sand used for smelter flux.

³ In sulphuric acid made and in pyrites shipped.

CHAPTER V

Forest Resources of Canada

Among the industries engaged in utilizing the natural resources of Canada, forestry ranks third, i.e., after agriculture and mining.

Canada has 783 million acres of forested land comprising more than 35 p.c. of the total land area. By way of comparison, only about 8.6 p.c. of the total land area is considered to be of value for agriculture, and only about 6 p.c. is now used for field crops or pasture. It is thought that perhaps 134 million acres now forested may have agricultural potentialities but the most productive use to which about 650 million acres can be devoted is the growing of forests. Not all of this forested area is capable of producing wood for commercial purposes, about 290 million acres being situated in sub-arctic, sub-alpine, or other unfavourable sites that preclude profitable timber growth or industrial utilization. These "unproductive" forests, however, have important influences on the climate and on the control of water supplies; they provide optimum natural habitats for wild life, and wood for fuel and building material for the use of the local inhabitants, white and native.

About 493 million acres are considered accessible and capable of producing continuous crops of timber for domestic and industrial purposes. Of this productive forest area it is estimated that 47 p.c. carries timber of

Keeping Logs on the Move.

Courtesy, International Paper Sales Co. Inc.



merchantable size, that is, large enough to be used now as pulpwood, cordwood, or saw logs. On the remaining 53 p.c. there is young growth of various ages, kinds, and degrees of stocking that has become established by natural reproduction on cut-over or burned-over areas.

The total stand of timber of merchantable size is estimated to amount to 273,000 million cu. ft., of which 170,000 million is considered accessible. Of the accessible timber about one-third (245,000 million bd. ft.) is large enough for saw material and two-thirds (1,100 million cords) is suitable for pulpwood, fuelwood, posts, mining timber, etc. Much of this smaller material will attain saw-timber size if allowed to grow another 30 to 50 years but there are some stands growing on poor sites that cannot be expected to produce saw logs.

During 1938 about 2,700,000,000 cubic feet of the standing timber was cut for use. About 564,000,000 cubic feet is destroyed annually by fire and another 700,000,000 feet by insects, fungi, windfall, and other agencies so that the inroads made in our forest capital in 1938 amounted to about 3,964,000,000 cubic feet.

Forest resources, however, are capable of replacement under forest management and can be made self-sustaining. New trees can be grown to take the place of those cut or destroyed. Destruction can be reduced, growth can be encouraged and increased, and with an annual increment of only 10 cubic feet per acre—quite possible under forest management—this valuable resource can be maintained in perpetuity. It can be managed so as to supply all needs at the present rate of consumption even if the population were to increase to over 26 millions.

Over 160 different tree species grow to commercial size in Canada and while only 31 of these are conifers their wood forms 80 p.c. of the standing timber and 95 p.c. of the sawn lumber.

Operations in the Woods

Differences in forest conditions throughout Canada give rise to differences in logging methods. The climate in Eastern Canada is such that the cutting and hauling of logs can usually be carried on most economically during the fall and winter months, so that the logging industry is largely seasonal. In British Columbia, on the other hand, the scarcity of drivable streams and the greater size of the logs give rise to methods of operation that are more or less independent of frost, snow, or freshet and are therefore carried on more uniformly throughout the year.

In Eastern Canada logging operations are usually carried on by the mill owners or licensees of timbered lands, often through the medium of contractors, subcontractors, and jobbers. A considerable quantity of lumber is sawn by custom sawmills or small mills purchasing logs from farmers. In British Columbia logging is carried on more frequently as a separate enterprise by limit-holders, who cut and sell logs on the market. In many cases mill operators are not limit-holders but buy their supplies of raw material from logging concerns.

A Sample of Canada's Extensive Pulpwood Resources.
*Courtesy, Canadian Geographical Journal
 and Pulp and Paper Magazine.*



Value of the Products of Woods Operations, by Products, 1934-38

Products	1934	1935	1936	1937	1938
	\$	\$	\$	\$	\$
Logs and bolts.....	29,115,515	34,077,938	44,627,957	58,004,070	52,759,660
Pulpwood.....	38,302,807	41,195,871	48,680,200	63,057,205	53,761,999
Firewood.....	31,489,524	31,864,500	32,167,410	32,457,629	32,740,566
Hewn railway ties.....	1,541,901	3,188,651	3,190,052	3,129,207	2,222,509
Poles.....	1,091,046	1,359,736	1,563,681	2,455,345	2,824,512
Round mining timber.....	954,059	997,357	1,102,255	1,262,658	1,297,993
Fence posts.....	988,884	976,402	1,008,178	992,610	978,679
Wood for distillation.....	286,847	274,797	274,077	309,892	298,110
Fence rails.....	262,519	266,253	273,282	262,160	264,480
Miscellaneous products.....	1,506,630	1,260,274	1,717,136	1,319,111	1,117,349
Totals.....	105,539,732	115,461,779	134,604,228	163,249,887	148,265,857

The Lumber Industry

Except in the Maritime Provinces, 90 p.c. of the forest land is still the property of the Crown, the lumbermen having been 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. Douglas fir is the most important kind of lumber sawn, and is produced almost entirely in British Columbia. Spruce is sawn in every province and comes second, with hemlock, white pine, cedar, and yellow birch next in order of importance.

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 1938 amounted to 3,768,351 M ft. valued at \$72,633,418. Shingles numbered 2,761,978 squares at \$6,894,654, sawn ties 4,699,351 at \$2,344,596, and lath 239,467 M at \$656,320. The gross value of production for the industry as a whole showed a decrease of 11.4 p.c. from the total for 1937.

Production of Sawn Lumber and All Sawmill Products, 1938

Province	Sawn Lumber Production		Total Sawmill Products
	M ft. b.m.	\$	\$
Prince Edward Island.....	4,525	88,332	116,180
Nova Scotia.....	141,504	2,181,143	2,560,788
New Brunswick.....	223,384	4,619,708	5,414,051
Quebec.....	724,652	15,403,296	19,857,902
Ontario.....	439,397	11,081,402	14,432,476
Manitoba.....	52,190	975,979	1,086,538
Saskatchewan.....	35,753	632,820	651,288
Alberta.....	102,070	1,491,891	1,720,550
British Columbia.....	2,044,876	36,158,847	46,986,133
Totals.....	3,768,351	72,633,418	92,855,906

Markets for Canadian lumber now include practically all the more important countries of the world. Canadian wood enjoys a preference in the British market and the value of Canada's exports of unmanufactured or partially manufactured wood to the United Kingdom has increased from \$4,848,157 in the calendar year 1932 to \$29,664,344 in 1939. Most of the

increase in 1939 over the 1938 figure of \$22,669,304 was accounted for by sawn lumber, the exports of planks and boards amounting to \$25,598,314 in 1939 as compared with \$19,374,453 in 1938.

The Pulp and Paper Industry

The pulp and paper industry in 1938 ranked first among Canadian manufacturing industries in capital, wage and salary distribution, and net value of production. It was second to the non-ferrous smelting and refining group with respect to gross production, and second to the sawmills in employment.

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 her dependable and widely distributed water powers have been largely responsible for the remarkable development of the industry.

The pulp and paper industry has headed the lists in net value of production since 1920, and in wage and salary distribution since 1922, replacing the sawmills in both cases. It was the first in gross value of production from 1925 (when it replaced the flour mills) until 1935 (when it was overtaken by the non-ferrous metal group). In these comparisons only the manufacturing stages of the pulp and paper industry are considered, no allowance being made for the capital invested, employment furnished, payroll, or production of those operations in the woods which form such an essential part of the industry as a whole.

The gross value of output of the industry increased rapidly and steadily until the boom years following the War of 1914-18 and jumped to a

**Logging in
British Columbia.**



*Courtesy, Dominion
Forest Service.*

peak of over \$232,000,000 in 1920. This was followed, in 1921, by a drop which was general throughout the industrial field. From that year on there was a steady recovery resulting in a total for 1929 of \$243,970,761. Figures for more recent years are shown in the following statement:—

	Gross Production	Net Production		Gross Production	Net Production
1930.....	\$215,674,246	\$107,523,731	1935.....	\$159,325,546	\$ 78,647,626
1931.....	174,733,954	87,858,357	1936.....	183,632,995	85,739,406
1932.....	135,648,729	66,855,923	1937.....	226,244,711	106,002,017
1933.....	123,415,492	56,880,641	1938.....	183,897,503	89,034,186
1934.....	152,047,756	77,243,309	1939.....	208,152,295	103,123,660

There are three classes of mills in the industry. These, in 1939, comprised 27 making pulp only, 49 combined pulp and paper mills, and 24 making paper only. In 1939 the 76 mills making pulp produced 4,166,301 tons valued at \$97,131,817, representing an increase of 13.6 p.c. in quantity and an increase of 10.5 p.c. in value from 1938; about 79 p.c. by quantity was made in combined mills and used by them in papermaking. About 4 p.c. was made for sale in Canada and 17 p.c. was made for export. Of the total pulp production in Canada in 1939, 66 p.c. was ground wood, 15 p.c. unbleached sulphite, 10 p.c. bleached sulphite, 7 p.c. sulphate, and the remaining 2 p.c. screenings, etc.

Newsprint made up 81.3 p.c. of the total paper production in 1939; paper boards 11.5 p.c.; wrapping paper 3 p.c.; book and writing paper 2.5 p.c.; and tissue and miscellaneous papers the remainder.

Many Canadian pulp and paper mills not only manufacture basic paper and paper-board stock but also convert this stock into more highly

Barking and Cleaning Logs in a Canadian Pulp Mill.

Courtesy, Canadian Government Motion Picture Bureau.



manufactured products such as napkins, towels, packaged toilet papers, coated and treated papers, boxes, envelopes, stationery, and other cut paper and boards. Figures covering this conversion are not included here.

Production of Newsprint and Other Paper in Canada, 1933-39

Year	Newsprint Paper		Total Paper	
	Quantity	Value	Quantity	Value
	tons	\$	tons	\$
1933.....	2,021,965	66,959,501	2,419,420	96,689,875
1934.....	2,604,973	86,811,460	3,069,516	120,892,225
1935.....	2,765,444	91,762,201	3,280,896	129,078,386
1936.....	3,225,386	105,214,533	3,807,329	146,431,934
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	3,000,502	170,776,065

The Canadian production of paper is still almost four times that of 1917, in spite of the decreases in 1921, 1930, 1931, 1932, and 1938. Practically all the different kinds of paper used in Canada at the present time can be produced in Canadian mills.

Canada's newsprint production in 1939 was over three times that of the United States, a few years ago the world's chief producer.

The latest monthly figures of Canadian newsprint production are:—

1940—	tons	1940—	tons	1940—	tons
January.....	251,032	May.....	323,563	September.....	282,352
February.....	281,623	June.....	315,343	October.....	309,957
March.....	251,279	July.....	332,689	November.....	282,844
April.....	268,947	August.....	316,607	December.....

For the fiscal year 1939, exports of newsprint amounted to 2,475,399 tons valued at \$107,360,211 and ranked first among the exports of the Dominion.

CHAPTER VI

Water Powers of Canada

Canada's water powers constitute one of her greatest natural resources. Their development has not only facilitated the growth of industry but has resulted in giving value to marginal products, which, without the low-cost power provided by water, would have remained unmarketable. This low-cost power has also resulted in the creation of entirely new centres of population for the processing of raw materials imported from abroad. So general and widespread is its availability that all but the most isolated hamlets enjoy the amenities of electric lighting, radio, cooking and domestic appliances which in many countries are associated only with the larger urban centres.

Canada's water powers have an estimated capacity of almost 34,000,000 h.p. which, under average conditions of use, will provide for a turbine installation of about 43,700,000 h.p. of which the installation, as at Jan. 1, 1941, represents approximately 19½ p.c.. These water powers, developed and undeveloped, are found from the Maritimes to British Columbia in proximity to all industrial centres, the largest mineral deposits and pulpwood supplies. Widespread transmission networks distribute the power from developed sites to consumers within radii of hundreds of miles.

Available and Developed Water Power, by Provinces, Jan. 1, 1941

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	139,217
New Brunswick.....	68,600	169,100	133,347
Quebec.....	8,459,000	13,064,000	4,320,943
Ontario.....	5,330,000	6,940,000	2,597,595
Manitoba.....	3,309,000	5,344,500	420,925
Saskatchewan.....	542,000	1,082,000	90,835
Alberta.....	390,000	1,049,500	71,997
British Columbia.....	1,931,000	5,103,500	788,763
Yukon and Northwest Territories.....	294,000	731,000	18,199
Canada.....	20,347,400	33,617,200	8,581,438

Provincial Distribution of Water Power.—The water powers of the *Maritime Provinces*, while small in comparison with the sites in the other provinces, are a valuable economic resource that is augmented by abundant local coal supplies. *Quebec* has the largest known resources of water power and the greatest development, her present installation is a little more than 50 p.c. of Canada's total. More than 90 p.c. of total installation is operated by central electric station organizations. *Ontario*, which, like *Quebec*, is without local coal supplies, is second in both power resources and development. Here the Hydro-Electric Commission operates plants aggregating more than 67 p.c. of the total



The New LaTuque Power Plant, St. Maurice River, Que.—This photograph, taken in late September, 1940, shows the progress of the new development at that time. The power house is built to accommodate six 44,500-h.p. units, four of which are provided for in the present initial installation.

Courtesy, Shawinigan Water and Power Company.

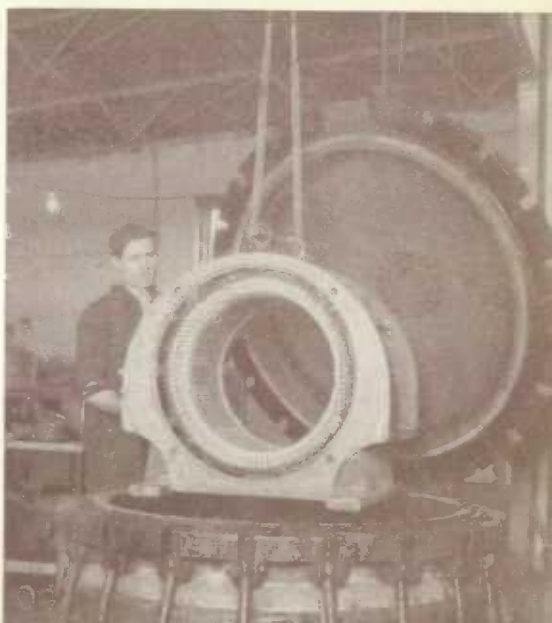
installation of the Province, while an additional 18 p.c. is operated by other central station organizations. Of the *Prairie Provinces*, Manitoba has the greatest power resources and the greatest development, more than 72 p.c. of the total hydraulic development of the three provinces being installed on the Winnipeg River to serve the Winnipeg area and over the transmission network of the Manitoba Power Commission, approximately 135 cities, towns, and villages in southern Manitoba. In the section of the *Prairie Provinces* containing least water power, there are large fuel resources. *British Columbia* ranks fourth in available power resources and her hydraulic development is exceeded in Quebec and Ontario only. The water powers of *Yukon* and the *N.W.T.* are considerable, but present development is limited to mining uses.

Hydro-Electric Construction During 1940.—New water-power installations during 1940 aggregated approximately 295,000 h.p. bringing Canada's total installation as of Jan. 1, 1941, to 8,584,438 h.p.

In *British Columbia* the West Kootenay Power and Light Company completed the installation of two units of 25,000 h.p. each in its Upper Bonnington Falls Station, giving the plant a total capacity of 84,000 h.p. and the Nanaimo-Duncan Utilities Ltd. added a second unit, 750 h.p., to its Millstone River station.

Lowering a Stator into an Impregnating Tank.

Courtesy, Canadian Geographical Journal.



No additional installation was made in the Prairie Provinces but the Consolidated Mining and Smelting Company was installing one unit of 4,700 h.p. in its new plant between Prosperous and Blue Fish Lakes, in the Yellowknife gold-mining area in the Northwest Territories. Delivery of power is expected in the spring of 1941.

The South River Electric Company added a 330-h.p. unit to its plant near South River, Ont., and in Quebec the Beauharnois Light, Heat and Power Company added the tenth unit of 53,000 h.p. to its station on the St. Lawrence River 25 miles west of Montreal. The eleventh is planned for operation in February, 1941, and work is proceeding on the twelfth and thirtieth units. The St. Maurice Power Corporation, owned jointly by Brown Corporation and the Shawinigan Water and Power Company, completed its new 178,000-h.p. plant at La Tuque on the St. Maurice River.

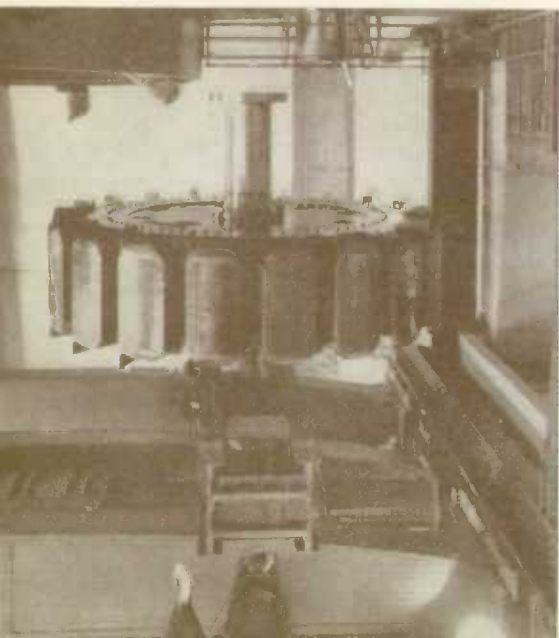
Central Electric Stations

Over 88.4 p.c. of all water power developed in Canada is developed by central electric stations and, although there are a large number of stations (300) that derive their power entirely from fuels and 40 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 kilowatt hours 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 kilowatt hours. With continued depression in manufacturing industries the output started to decline late in 1930 and continued into 1933, but from June, 1933, to the end of 1937 there was an almost continuous succession of increases each

month after adjusting for normal seasonal variations. A slump in 1938 in the pulp and paper industry, which takes around 40 p.c. of the total power generated, caused a reduction in the output for that year. The output for May, 1940, at 2,671,567,000 kilowatt hours, was the largest in the history of the industry; an estimate for the year 1940 is 31,113,000,000 kilowatt hours, as compared with the output of 28,351,514,000 kilowatt hours shown for 1939. Only one other country (Norway) has a greater output per capita and only three other countries have greater total outputs irrespective of size. One reason for this large use of electricity produced by central stations is the absence of coal in the central provinces and the large quantities of water power

The Rotor of a 48,500 KVA. Vertical Waterwheel Generator.
Courtesy, Canadian Geographical Journal.



A Welder at Work.—Electric welding has greatly increased the efficiency of the metal-working industry.



Courtesy,
International
Nickel Company
of Canada,
Limited.

available within transmitting distances of the principal manufacturing centres. The pulp and paper industry has been an important factor in the rapid increase, using around 40 p.c. of the total output. Low rates and reliable service have increased the domestic use for lighting, cooking, water heating and other household uses; the average per capita consumption has risen to 1,393 kilowatt hours per annum, about twice that in the United States where living standards are very similar. Secondary power used in electric boilers, mainly in pulp and paper mills, has increased from a very small quantity in 1924 to over 7,313,000,000 kilowatt hours in 1937. 5,751,000,000 in 1938 and 6,590,378,000 in 1939, but the consumption of firm power, or total output less secondary power for electric boilers and exports to the United States, has also continued to increase and reached a new peak in May, 1940, of 1,941,629,000 kilowatt hours; the index after adjustment for seasonal variation, rose to 256 for August, 1940.

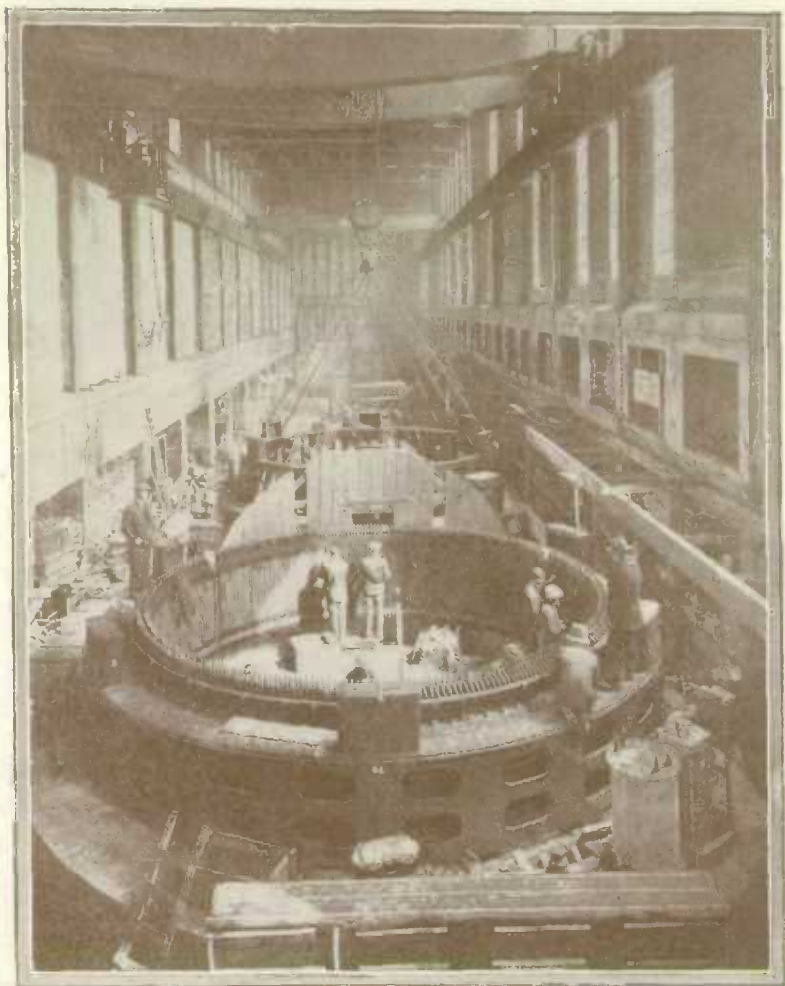
Average Monthly Output of Central Electric Stations, 1927-40

Year	From Water	From Fuel	Total	Year	From Water	From Fuel	Total
	'000 kwh.	'000 kwh.	'000 kwh.		'000 kwh.	'000 kwh.	'000 kwh.
1927.....	1,193,481	18,944	1,212,425	1934.....	1,733,810	29,484	1,763,294
1928.....	1,340,292	21,192	1,361,484	1935.....	1,917,958	32,410	1,950,368
1929.....	1,441,203	27,622	1,468,825	1936.....	2,078,739	37,452	2,116,191
1930.....	1,463,330	25,230	1,488,560	1937.....	2,256,779	41,882	2,298,661
1931.....	1,339,907	26,071	1,365,978	1938.....	2,130,006	37,728	2,167,734
1932.....	1,296,360	25,845	1,322,205	1939.....	2,321,815	40,811	2,362,626
1933.....	1,436,486	26,150	1,462,636	1940 ¹	2,466,448	44,041	2,510,489

¹Eight-month average.

The rated capacity of electric motors in manufacturing industries in Canada in 1937 was 79.2 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 79.7 p.c. in 1937. In 1937 almost 84 p.c. of these electric motors in manufacturing industries

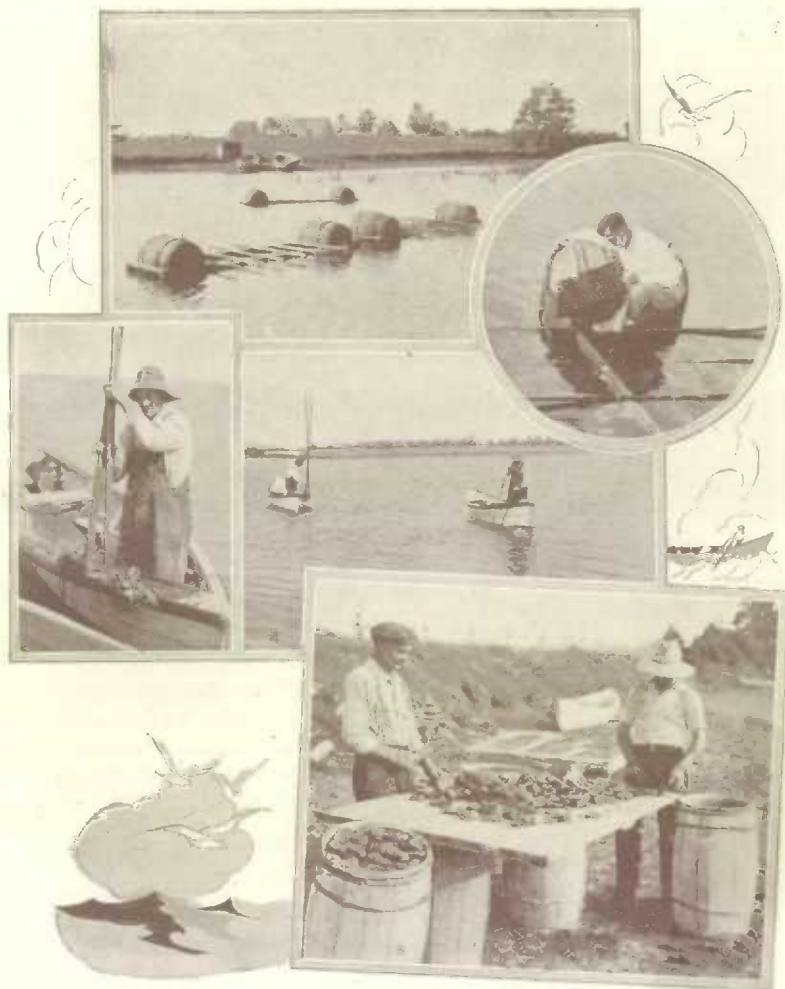


A Large Hydro-Electric Generator being Installed in a Canadian General Electric Station.—The picture gives some idea of the complex engineering task involved.

Courtesy, Canadian Westinghouse Company, Limited.

and 85 p.c. in mining industries were driven by power produced in central stations. Mechanical power, particularly electric motors, has been increasing in manufacturing industries much more rapidly than the number of employees during the past decade.

THE OYSTER FISHERIES OF PRINCE EDWARD ISLAND



The lay-out shows: (1) Floats from which the oyster "spat collectors" (concrete egg-crate fillers) are suspended. Oysters settle on these at the swimming stage. (2) Superintendent examining the "collectors" during the period the young oysters are expected to settle. (3) Oyster fishermen "tonging" (fishing) oysters from river beds. (4) Oyster fishermen fishing with "tongs". (5) Method of "cleaning oysters"—removing bits of shell and other marine growth with a small blunt hatchet hammer before packing in barrels for shipping.

Courtesy, Canadian Government Motion Picture Bureau.

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



Alexander Power Development, Nipigon River.—Three modern units, aggregating 54,000 horse-power, in the generating room.

Courtesy, Hydro-Electric Power Commission of Ontario.

Investments in central electric stations for 1938 amounted to \$1,545,416.592, which was larger than for any manufacturing industry; revenues amounted to \$144,331,627 and 1,559,394 domestic customers were served. These are approximately 60 p.c. of all families in Canada, both urban and rural.

CHAPTER VII

Fisheries of Canada

Canada has perhaps the largest fishing grounds in the world. On the Atlantic, from Grand Manan to Labrador, the coast line, not including the lesser bays and indentations, measures over 5,000 miles. The Bay of Fundy, 8,000 square miles in extent, the Gulf of St. Lawrence, fully ten times that size, and other ocean waters comprise not less than 200,000 square miles or over four-fifths of the area of the fishing grounds of the North Atlantic. In addition there are on the Atlantic seaboard 15,000 square miles of inshore waters controlled entirely by the Dominion. The Pacific Coast of the Dominion measures 7,180 miles in length. Inland lakes contain more than half of the fresh water on the planet; Canada's share of the Great Lakes alone has an area of over 34,000 square miles.

Canada's list of food fishes embraces nearly 60 different kinds, chief among which are the salmon, the lobster, the cod, the herring, the halibut, the whitefish, the haddock, the trout, and the pickerel.

The Government and the Fisheries

At the present time the Dominion Government controls all the tidal fisheries except those of the mainland portion of Quebec, the non-tidal fisheries of Nova Scotia, and the fisheries of Yukon and the Northwest Territories. The non-tidal fisheries of New Brunswick, Prince Edward Island, Ontario, the Prairie Provinces, and British Columbia, and both the tidal and non-tidal fisheries of Quebec (except the Magdalen Islands) are controlled by the respective provinces, but the right of fisheries legislation for all provinces rests with the Dominion Government. The fisheries under the control of the Dominion Government are administered by the Department of Fisheries. The main object of legislation has been the prevention of depletion, the enforcement of close seasons, the forbidding of pollutions and obstructions, and the regulation of fishing operations generally. Stations under the direction of the Fisheries Research Board of Canada for the conduct of biological research are established at Halifax, N.S., St. Andrews, N.B., Nanaimo and Prince Rupert, B.C., and in Gaspé County, Que. A marine biological station, chiefly for oyster investigation work, is conducted at Ellerslie, P.E.I., and a substation for salmon investigation at Cultus Lake, B.C. A system is now in operation for broadcasting radio reports as to weather probabilities, bait and ice supplies, and ice conditions along the coast. Educational work is carried on by permanent officers of the Department of Fisheries to instruct the fishermen in various areas as to the best methods of handling and processing their catches, and to bring to the attention of the public the value of fish as a food. By an Act of 1882 (45 Vict., c. 18) provision was made for the distribution among fishermen and the owners of fishing boats of \$150,000 annually in bounties, representing the interest on the amount of the Halifax Award. An Act of 1891 (54-55 Vict., c. 42) increased the amount to \$160,000. Annual expenditure is settled by Order in Council.

By Parliamentary vote moneys have been made available for use by the Department of Fisheries to aid, in co-operation with the provinces concerned, in the re-establishment of needy fishermen. In a further effort

to aid the fishermen, in this case by expanding the demand for their products, large-scale advertising was continued (mainly in the Dominion) by the Department of Fisheries during the fiscal year.

The Modern Industry

The latter half of the nineteenth century saw the commencement of expansion in the commercial fishing industry of Canada. In 1844 the estimated value of the catch was only \$125,000. By 1900 it had reached a total of \$21,000,000 and the growth continued with little interruption until 1918, when it reached the high record of \$60,000,000. Due to lower prices, the values in later years have been less. In 1939 the value was \$40,072,985 which is the second highest amount recorded since 1930. These figures represent the total value of the fish marketed, whether in a fresh, dried, canned, or otherwise prepared state. The quantity of fish, including shell-fish, caught and landed during the year 1939 was 10,681,318 cwt., compared with 10,741,150 cwt. in the preceding year.

Fisheries Production, by Provinces, 1914, 1938, and 1939

Province or Territory	Values of Production			Percentages of Total Values		
	1914	1938	1939	1914	1938	1939
	\$	\$	\$	p.c.	p.c.	p.c.
Prince Edward Island.....	1,261,666	930,874	950,412	4.1	2.3	2.4
Nova Scotia.....	7,730,191	8,804,231	8,753,548	24.7	21.7	21.8
New Brunswick.....	4,940,083	3,996,064	5,082,393	15.8	9.9	12.7
Quebec.....	1,924,430	1,957,279	2,010,953	6.2	4.8	5.0
Ontario.....	2,755,291	3,353,775	3,007,315	8.8	8.3	7.5
Manitoba.....	849,422	1,511,124	1,655,273	2.7	4.5	4.1
Saskatchewan.....	132,017	468,646	478,511	0.4	1.2	1.2
Alberta.....	86,720	492,943	430,724	0.3	1.2	1.1
British Columbia.....	11,515,086	18,672,750	17,698,989	36.8	46.1	44.2
Yukon.....	69,725	5,290	4,867	0.2	0.0	0.0
Totals.....	31,261,631	40,492,976	40,072,985	100.0	100.0	100.0

Lobstering on the Atlantic Coast is second in value only to the salmon fishery of the Pacific. In New Brunswick the canning of sardines, which

Part of the Famous Lunenburg Fishing Fleet.

Courtesy, Canadian Government Motion Picture Bureau.





The Doryman Comes Aboard in the North Atlantic.

Courtesy, Canadian Geographical Journal.

are young herring and not a distinct type of fish, exceeds in importance the lobster industry. The fish-canning and -curing 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.

Fisheries Production, by Principal Kinds, 1938 and 1939

(Each over \$1,000,000 in value, and arranged by value in 1939.)

Kind	1938		1939	
	Quantity Caught	Value Marketed	Quantity Caught	Value Marketed
	cwt.	\$	cwt.	\$
Salmon.....	1,766,728	14,992,544	1,501,747	13,409,292
Lobster.....	314,385	3,793,219	314,665	3,782,325
Herring.....	2,533,677	2,487,231	3,364,530	3,780,297
Cod.....	1,702,023	3,335,231	1,635,505	3,234,059
Sardine.....	368,900	1,393,129	634,170	2,300,818
Halibut.....	162,540	1,769,444	184,734	2,117,712
Whitefish.....	154,244	1,650,347	164,619	1,722,342
Haddock.....	393,589	1,361,992	385,155	1,357,064

Capital Invested and Employees Engaged in the Fisheries, 1937-39

Item	1937	1938	1939
Capital	\$	\$	\$
Vessels, boats, nets, traps, etc.....	26,796,379	26,598,944	25,844,436
Fish-canning and -curing establishments.....	18,130,385	21,962,498	21,479,200
Totals, Capital.....	44,926,764	48,561,442	47,323,636
Employees	No.	No.	No.
On vessels and boats, and in fishing without boats.....	69,981	71,510	68,941
In fish-canning and -curing establishments.....	14,044	14,484	14,805
Totals, Employees.....	84,025	85,994	83,746



A 700-ton Catch of Pilchard Loaded on Scows.

Courtesy, Canadian Geographical Journal.

The salmon fishery of British Columbia gives to that province first place in respect to value of production, the position which in earlier times belonged to Nova Scotia on account of her cod fishery. Nova Scotia is now second with regard to value of output, with New Brunswick third and Ontario fourth.

Salmon Pack of British Columbia, by Species, 1935-39

(Standard cases of 48 lb.)

Species	1935	1936	1937	1938	1939
	cases	cases	cases	cases	cases
Sockeye.....	350,444	415,024	325,774	447,453	269,888
Spring, red.....	10,187	16,493	10,963	10,276	10,302
Spring, pink.....	3,114	2,527	1,788	2,322	2,848
Spring, white.....	8,619	10,834	3,420	2,933	2,947
Blueback.....	15,319	33,718	19,238	27,417	48,209
Steelhead.....	596	1,068	844	1,035	797
Coho.....	218,173	212,343	113,972	273,706	196,887
Pink.....	514,966	591,532	585,576	400,876	620,595
Chum.....	410,604	597,487	447,602	541,812	380,584
Totals.....	1,530,022	1,881,026	1,609,175	1,707,530	1,539,057

Export Trade in Fish.—In view of the immense quantity of fish taken annually by Canadian fishermen, the trade must depend to a large extent upon the foreign market as an outlet for the product. From 60 to 70 p.c. of the annual catch is an average export, of which the United States takes approximately one-half and the United Kingdom one-fourth. In the

FISHERIES

calendar year 1939, total exports amounted to \$29,641,232, of which \$13,661,128 went to the United States and \$8,718,246 to the United Kingdom.

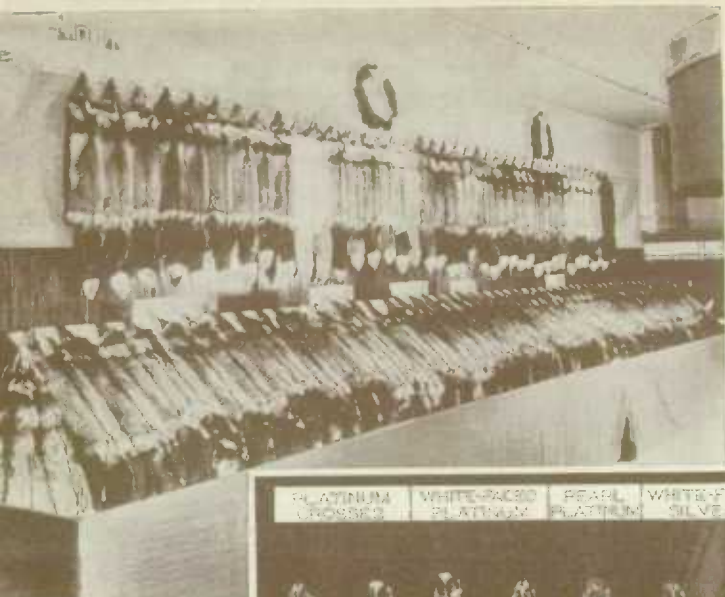
The most important single export is canned salmon followed by fresh lobster, fresh salmon, fresh whitefish, canned lobster and dried cod. The United States is the chief market for fresh fish, although the United Kingdom takes considerable quantities of salmon and halibut, classified as fresh and frozen.

Testing Vacuum
in Cans of Salmon
at the Inspection
Laboratory of
the Department
of Fisheries,
Vancouver.—All
British Columbia
canned Salmon
must be submitted
for inspection.

*Courtesy, Canadian
Government
Motion Picture
Bureau.*



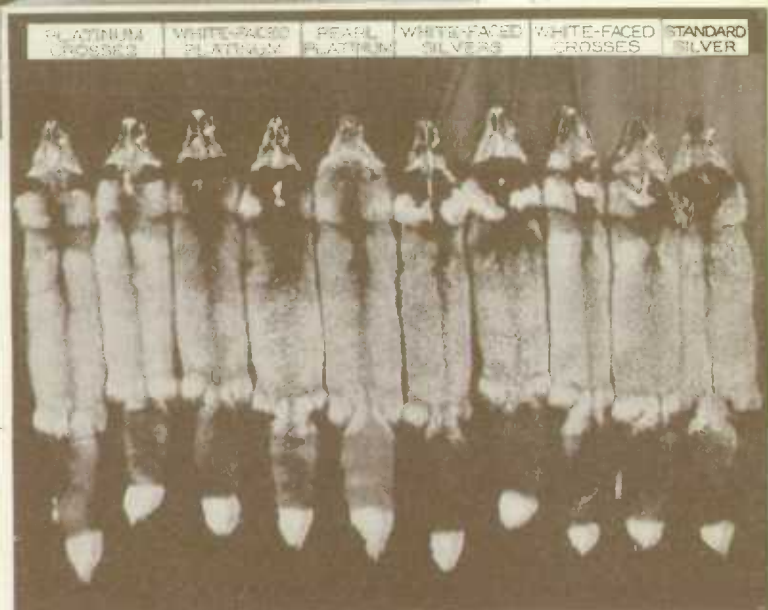
The first year of war appears to have affected favourably Canada's trade in fish and fishery products, even though such exports to certain belligerent countries ceased at the outbreak of war. In the eight months ended Aug. 31, 1940, the total value of exports shows an increase of \$2,000,000 over the corresponding period of 1939. The value of exports to the United Kingdom advanced by more than \$1,000,000, and many other British Empire countries also took more fishery products from Canada. The exports to the United States show an increase in total value of over \$1,000,000.



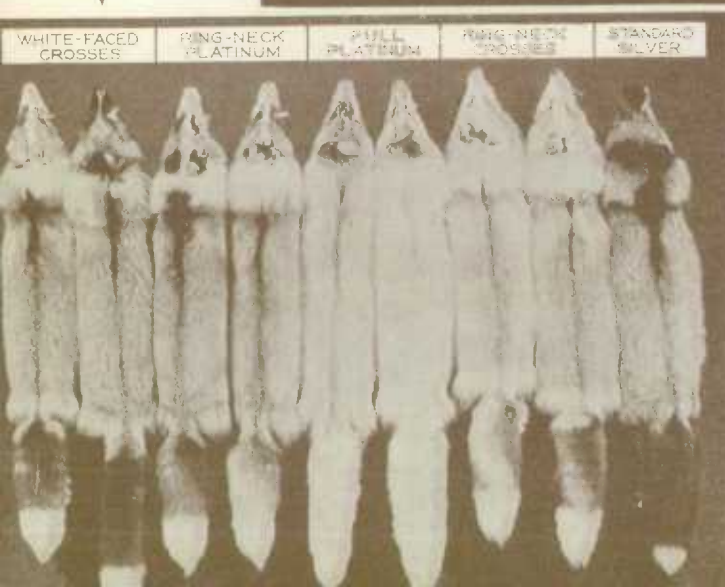
New Brunswick
Provincial Pelt Show
1939.



*Courtesy,
Department of
Agriculture,
New Brunswick.*



Displays of
High Quality
Platina and
Silver Foxes.



CHAPTER VIII

Fur Resources of Canada

The fur trade of Canada which, in the early days, dominated all other pursuits and led to the exploration and the eventual settlement of the country, is still of immense importance. The advance of agricultural settlement, lumbering, and mining has driven fur-bearing animals farther and farther afield, and this expulsion from their former range, combined with the improved methods now used in the capture of the animals, has caused serious depletion in the numbers of the various kinds. To deal with this loss the various Provincial Governments, in co-operation with the Dominion authorities, have inaugurated a policy of conservation, and have passed laws under which provision is made for close seasons, for the licensing of trappers and traders, for the collection of royalties on pelts, and for the regulation of the methods to be employed in trapping the animals. The annual value of the raw-fur production of Canada shows no decline, but this is due to the fur-farming industry, which now supplies nearly all of the silver fox and about 40 p.c. of the mink pelts.

Trends in Production.—The value of Canada's raw-fur production in the year ended June 30, 1939, showed an increase over the preceding season of 8 p.c. The total production comprises pelts taken by trappers and pelts sold from fur farms, the value of the latter representing approximately 40 p.c. of the whole.

Silver fox, almost entirely a product of the fur farms, held first place in order of value, followed by mink, while muskrat was third. The number of silver-fox pelts produced was greater than in any previous season, but the average price was the lowest in the history of the industry. Mink pelt production has, due to the advancement of mink farming, mounted rapidly during the past few years. Compared with the preceding year there was an increase of 80,619, and an increase in value of \$703,187. It is estimated that 40 p.c. of the number of mink pelts and 50 p.c. of the total value represent the sales from fur farms. The total number of pelts of all kinds was 6,492,222, compared with 4,745,927 in the season 1937-38, muskrat and squirrel accounting for the greater part of the increase.

Ontario with \$2,538,658 and Quebec with \$2,230,280 were the leading provinces with respect to value of raw-fur production. New Brunswick, Alberta, P.E. Island, the N.W.T., Manitoba, and British Columbia followed in order, each with a value of over a million dollars. Saskatchewan's product was valued at \$983,447 and that of Yukon at \$267,721.

Numbers and Values of Pelts Taken, Seasons 1926-27 to 1938-39

Season	Pelts	Total Value	Season	Pelts	Total Value
	No.	\$		No.	\$
1926-27.....	4,289,233	18,964,126	1933-34.....	6,076,197	12,349,328
1927-28.....	3,601,153	18,758,177	1934-35.....	4,926,413	12,843,341
1928-29.....	5,150,328	18,745,473	1935-36.....	4,506,713	15,464,893
1929-30.....	3,798,444	12,158,376	1936-37.....	6,237,640	17,526,365
1930-31.....	4,090,356	11,803,217	1937-38.....	4,745,927	13,196,354
1931-32.....	4,449,289	10,189,481	1938-39.....	6,492,222	14,286,937
1932-33.....	4,503,558	10,308,154			

An important adjunct of the fur trade is the industry of fur dressing and fur dyeing. The work is chiefly on a custom basis; the furs are treated for owners at a certain charge per pelt. The number of plants engaged in treating furs in the calendar year 1938 was 14, the number of skins treated 4,197,079, and the amount received for the work \$1,318,819. Rabbit and muskrat were the principal kinds of fur treated, numbering 1,318,904 and 1,374,930, respectively. There is also the fur goods industry, which supplies practically the entire quantity of fur goods—coats, scarves, muffs, caps, gauntlets, etc.—consumed in the Dominion. This industry, chiefly centred in Quebec and Ontario, had in 1938 a total of 366 establishments, provided employment for 3,500 persons, paid in salaries and wages \$4,015,775, and produced goods to the value of \$16,012,245.

Fur Farming.—In the early days of the fur trade it was the practice in Canada for trappers to keep foxes caught out of season alive until the fur was prime, and from this custom has arisen the modern industry of fur farming.

Silver fox was the first important commercial fur bearer successfully raised in captivity and it remains of greatest importance. With increased interest in fur farming came a large demand for foxes to be used as foundation stock in newly established ranches and fabulous prices were obtainable for the live animals, but as larger numbers of foxes became available for sale, prices naturally declined. By 1938 the number of fox farms had mounted to 8,073, with a total of 141,000 foxes, of which 137,819 were classified as "silver". The demand for live foxes is not as great as in the earlier years when fur farming was in course of establishment, but there is an ever-present market for furs. In 1938 the value of the pelts sold represented 89 p.c. of the total revenue in that year.

Two new types of fox, "platinum" and "white-face", are attracting much attention, and large sums have been received for pelts. Both kinds are regarded as colour phases of the silver fox, having come originally from freak foxes in litters of silvers.

Second in importance to the silver fox is the mink. The number of minks on farms at the end of 1938 was 106,283, 23 p.c. below the number of silver foxes. The high prices obtainable for fisher and marten pelts have encouraged efforts to raise these animals in captivity and, although the work is still in an experimental stage, a moderate amount of success has been obtained. A recent addition to the industry is the valuable chinchilla. Records for 1938 show 60 chinchillas with a value of \$96,000.

The Dominion Department of Agriculture conducts, at Summerside, Prince Edward Island, an experimental fur farm for the study of matters affecting the health of fur-bearing animals, especially the silver fox, in



Ermine in
Native Habitat.

captivity. The Department has, in addition, organized a service to assist in the marketing, both at home and abroad, of the pelts of Canadian fur bearers. Several provincial government departments also have branches whose activities are for the benefit of the fur-farming industry.

Statistics of Fur Farming.—The number of fur farms in operation in Canada in 1938 was 10,454, an increase over the preceding year of 1,275, or 14 p.c. The total includes 8,073 fox farms, 2,222 mink farms, and 159 farms of other types such as raccoon, marten, fisher, etc.

The value of fur-farm property was \$16,860,196, of which \$7,930,692 was credited to the land and buildings and \$8,929,504 to the fur-bearing animals. The number of fur-bearing animals (exclusive of muskrat and beaver, for which information is not available) born in captivity each year has been mounting steadily and for 1938 amounted to 431,508, an increase over 1937 of 77,433. Silver fox and mink accounted for 98 p.c. of the total. Compared with the preceding year the number of silver foxes born showed an increase of 15,193 or 6 p.c., and the number of minks an increase of 62,519 or 58 p.c. The value of the live fur-bearing animals sold from the farms during the year was \$730,074, a decrease from the preceding year of \$300,814, or 29 p.c.

Silver fox pelt sales from the farm continue to advance, but the average price per pelt has receded steadily during the past few years. In 1938 the silver fox pelts sold numbered 229,452 compared with 196,436 in the preceding year, while the total value was \$4,508,767 compared with \$5,019,487. The number of mink pelts sold was 105,292 compared with 54,819, and the value \$1,156,062 compared with \$681,475. The value of silver fox and mink pelts, combined, represents 98 p.c. of the total for all kinds sold from the farms. In 1938 the sale of pelts brought to the fur farmer the total amount of \$5,752,742, a decrease from the preceding year of \$26,756.

Young Beaver at Home.

Courtesy, Hudson's Bay Company.



FUR TRAPPING



Trapper's Cabin.

Trapper Starting
Out to Inspect
Traps.



Trapper Baiting
and Setting a
Trap.

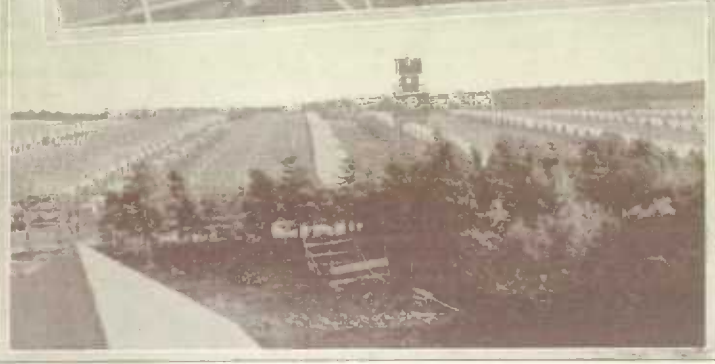
*Courtesy, Canadian
Government Motion
Picture Bureau.*

The above layout shows certain phases of the trapping industry. In spite of the rapid development of Canada in the early twentieth century and the improvements in transportation and settlement which have resulted therefrom, the trapping industry in northern Canada taps a very important resource. The trade has gradually retreated to less accessible territory, and in recent times, the developments of mining on a large scale over the Precambrian Shield has forced the trapper still farther north. On the other hand, the decline of the fur resources has been accompanied by an increased demand, higher prices, and the development of fur farming. The belt of northern Canada which includes the whole of the Northwest Territories, the northern parts of the Prairie Provinces, and extends through northern Ontario and Quebec into the Maritimes, remains one of the world's few natural reservoirs for fine furs.

FUR FARMING



The pictures show portions of "Swissvale" Fox Ranch, Southport, P.E.I.
Inset at left: A fine specimen of Canadian silver black fox.



Courtesy, Canadian Government Motion Picture Bureau.

Export Trade in Furs.—The chief markets for Canadian furs are London and New York; the trade tables for the year ended June 30, 1939, show that of the total of \$14,288,568 worth of raw furs exported, the United Kingdom received \$8,436,144 and the United States \$5,087,038. Some years ago Montreal took a position as an international fur market, holding the first Canadian fur auction sale in 1920. At the sales held in Montreal during the season 1938-39 the pelts sold numbered 1,299,695, while the value amounted to \$3,917,453. Fur auction sales are held also at Winnipeg, Edmonton, and Vancouver.



MODERN
QUICK FREEZING
OF VEGETABLES,
FRUITS AND MEATS



Top.—Fresh green peas being examined for defects.

Centre.—Filling the heavily waxed cardboard cartons lined with waterproof cellophane.

Right.—The packaged foods are frozen solid between aluminium plates in the freezer.

Courtesy, Canadian Industries Limited.

CHAPTER IX

Manufactures of Canada

The present century has witnessed the chief forward movement in Canadian manufactures, mainly as the result of two great influences: first, the opening up of the West, which greatly increased the demand for manufactured goods of all kinds and especially construction materials; and secondly, the first World War, which left a permanent imprint upon the variety and efficiency of Canadian plants. By 1920, the gross value of Canadian manufactured products was no less than \$3,693,000,000, the capital invested \$2,915,000,000, and the number of employees 591,753. Hundreds of millions of capital had been attracted from outside (see Chapter XV) in achieving this striking result.

To-day, the manufacturing industries of Canada stand on the threshold of a new era in their development. The demands created by the present War, owing to Canada's strategic position as a source of food supply and armaments, is bound to have far-reaching effects on the magnitude and diversification of Canadian manufacturing production. Fortunately, Canadian manufacturers are well equipped to undertake the huge task that they are called upon to perform.

Historical Summary of Statistics of Manufactures, 1870-1938

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	40,851,000	124,907,846	90,709,927	221,617,773
1880.....	49,722	165,302,623	254,935	59,429,002	179,918,593	129,757,475	309,676,068
1890.....	75,984	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	260,527,858	214,525,517	481,033,375
1910 ³	19,218	1,247,583,605	515,203	241,008,416	601,509,018	564,460,621	1,165,975,639
1920 ⁴	22,137	2,014,518,692	591,753	711,080,430	2,033,579,571	1,609,108,808	3,692,748,379
1929 ⁵	22,216	4,004,892,000	668,531	777,291,217	2,029,670,813	1,755,386,937	3,883,446,116
1933 ⁶	23,780	3,279,259,838	468,658	436,247,824	967,788,928	919,671,181	1,954,075,785
1934 ⁶	24,209	3,249,348,864	519,812	503,851,055	1,229,513,621	1,087,301,742	2,393,692,729
1935 ⁶	24,034	3,216,403,127	556,664	559,467,777	1,419,146,217	1,133,485,104	2,653,911,209
1936 ⁶	24,202	3,271,233,531	594,359	612,071,434	1,624,213,996	1,289,592,672	3,002,403,814
1937 ⁶	24,834	3,465,227,831	660,451	721,727,037	2,006,926,787	1,508,924,867	3,625,459,500
1938 ⁶	25,200	3,485,683,018	642,016	705,668,569	1,807,478,028	1,428,280,778	3,337,681,366

¹ For and since 1922 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 Includes all establishments irrespective of the number of employees but excludes construction, and custom and repair work.

The rise in manufacturing production that commenced during the summer of 1933 continued with increasing force to the spring of 1938. As a result of this continuous rise, the gross value of products in 1937 was

only 6.7 p.c. below that of 1929; employment 0.9 p.c. lower and salaries and wages paid 7.1 p.c. below the 1929 level. The drop in the gross value of products, 1929-38, was due mainly to a drop of 16.0 p.c. in the wholesale prices of manufactured products. Although the number of employees in 1937 was still below the 1929 level, the physical volume of goods produced was, however, the highest on record, exceeding by 7.4 p.c. the previous peak attained in 1929.

Manufacturing production in 1938 declined slightly from the level reported in 1937. Compared with the previous year there were decreases of 7.9 p.c. in the gross value of production, 2.8 p.c. in the number of persons employed and 2.2 p.c. in the amount of salaries and wages paid.

Industries, by Provinces and Purpose Groups

Among the manufacturing groups analysed on a purpose classification basis, and judged by gross value of production, the producers materials group, which includes manufacturers and building materials, ranked first in 1938 with 31.6 p.c. of the total value of manufactured products. The industries manufacturing food products came second with 23.3 p.c. of the total, followed by the industrial equipment group with 15.2 p.c., vehicles and vessels 8.4 p.c., clothing industries 7.5 p.c., drink and tobacco 4.8 p.c. In the paragraphs following, a short review will be given of the three groups of industries most likely to feel the effects of the increased demands occasioned by the present war.

Census of Manufactures, by Provinces and Purpose Groups, 1938

Province or Group	Estab-lish-ments	Capital	Em-employees	Salaries and Wages	Cost of Materials	Net Value of Products ¹	Gross Value of Products
Province	No.	\$	No.	\$	\$	\$	\$
P.E.I.....	229	2,652,783	1,041	582,725	2,379,543	1,131,902	3,570,667
N.S.....	1,102	91,393,782	16,810	15,570,669	39,703,367	31,375,251	74,860,605
N.B.....	826	81,905,576	13,967	13,177,238	31,578,262	23,865,877	58,570,952
Que.....	8,655	1,146,235,084	214,397	213,390,084	518,430,815	428,614,079	983,123,599
Ont.....	9,883	1,676,896,175	311,274	362,351,277	909,958,721	757,620,622	1,712,496,421
Man.....	1,072	114,367,743	23,567	27,195,923	80,447,740	48,308,248	131,770,280
Sask.....	678	38,364,021	6,123	6,988,061	43,437,556	16,143,533	61,027,853
Alta.....	970	69,192,348	12,684	14,367,789	54,345,594	30,755,020	86,675,500
B.C. and Yukon.....	1,785	264,615,506	42,213	52,044,823	127,196,430	90,471,828	225,585,489
Totals.....	25,200	3,485,683,018	642,016	705,668,589	1,807,478,028	1,428,286,778	3,337,681,366
Purpose Group							
Producers materials.....	7,097	1,513,279,525	197,419	217,719,784	537,240,412	454,401,035	1,054,563,077
Food.....	8,747	432,145,127	97,455	98,044,992	537,923,355	229,154,605	778,760,610
Industrial equipment.....	2,155	626,649,226	93,082	115,089,654	249,033,856	243,718,179	507,219,480
Vehicles and vessels.....	369	254,601,088	53,689	69,944,736	155,932,759	120,202,232	280,605,066
Clothing.....	2,167	168,618,083	92,564	77,877,678	131,540,849	117,286,030	250,710,111
Drink and tobacco.....	681	189,548,588	22,809	26,247,061	75,221,062	84,349,099	161,433,189
Books and stationery.....	2,432	138,814,691	41,264	55,053,531	44,848,474	92,762,965	139,407,239
House furnishings and equipment.....	750	87,071,593	26,303	26,414,078	36,966,223	42,372,987	80,935,597
Personal utilities.....	624	41,767,523	12,106	12,816,968	25,009,093	27,326,565	53,025,074
Miscellaneous.....	178	33,187,574	5,325	6,460,107	13,746,345	16,713,081	31,021,923

¹ Gross value less cost of materials, fuel, and electricity.

Food Industries

To supply the daily needs of the Canadian people for food is a huge task requiring the labour of many people and an organization that is world-wide in its ramifications. Some of the leading industries in this group with their gross values of production in 1938 were as follows:—slaughtering and meat packing, \$175,767,382; butter and cheese, \$127,659,343; flour and feed mills, \$122,598,168; bread and other bakery products, \$78,535,333; biscuits and confectionery, \$49,717,409; fruit and vegetable preparations, \$47,821,350; sugar, \$41,392,096; fish curing and packing, \$27,949,208; coffee, tea, and spices, \$26,628,880; miscellaneous foods, \$16,478,413; condensed milk, \$13,190,013; and breakfast foods, \$10,892,202. A brief review of the more important of these industries follows.

Slaughtering and Meat Packing.—Slaughtering and meat packing is the leading industry of the food group. In 1938 its output was valued at \$175,767,382; it furnished employment to 12,503 persons who were paid \$16,596,710 in salaries and wages. About \$116,000,000 was paid out by packers for live stock. Of the 145 establishments, 38 contributed 89 p.c. of the total output, while 7 of the largest plants had an average production of about \$12,000,000. The same is true of employment. Thirty-eight plants reported 88 p.c. of the total number of persons employed, while the seven largest plants averaged 786 employees each. This industry contributes materially to the foreign trade of Canada. The exports in 1938 totalled \$43,593,843, the principal single item comprising "bacon and hams, shoulders and sides". Imports in 1938 were \$11,101,603 and consisted chiefly of hides and skins, sausage casings, gelatine, wool and meat.

Dairy Products.—Manufacturing statistics of dairy production are given in the chapter on Agriculture at pp. 65-68.

Flour Milling.—The flour-milling industry with an output valued at \$122,598,168 in 1938 is one of the leading industries of the group from the point of view of gross value of production. The War of 1914-18 gave a great impetus to this trade. The 328 flour mills, as distinguished from feed mills, many of them of the most modern type and highest efficiency, have a capacity far in excess of Canada's demands. Since 1928, this industry has been adversely affected by the difficulties that have beset the Canadian grain trade and the decline in the prices of grains. Exports of wheat flour declined from 10,737,266 barrels in 1928 to 3,911,886 barrels in 1938 but in spite of the decrease Canada continues to be one of the leading exporters of wheat flour.

The flour-milling industry has a tremendous capacity to produce whatever flour may be needed under present war conditions. In 1938, the maximum daily capacity of the mills was 102,156 barrels per day of 24 hours, or an annual capacity of over 37,000,000 barrels. Even if the industry were to work only at 75 p.c. of its capacity, over 27,000,000 barrels of flour could be produced. Such a production would allow for an export of about 17,000,000 barrels per annum, an increase of 13,000,000 barrels over the quantity exported in 1938.

Canned Foods.—The development in the production of canned foods in Canada has shown a remarkable expansion since the beginning of the twentieth century. In 1900 the total value did not exceed \$8,250,000, but by 1930 it had increased to more than \$55,000,000, or six and one-half times

as much. In 1933 the value of production dropped to \$33,000,000, and rose again to \$63,000,000 in 1938. Fruits and vegetables of many kinds, retaining much of their original freshness and flavour, are to be had at all times of the year. Producers in the country are provided with an enormously extended market, and consumers in both city and country with cheap and wholesome food in great variety. The consumer also enjoys protection by the inspection services of the Department of Agriculture and the Department of Fisheries.

Quantity and Value of Principal Foods Canned in Canada, 1938

Product	Quantity	Value
		\$
Fish..... lb.	106,922,871	16,184,780
Fruits..... case	2,018,554	3,132,644
Vegetables..... "	8,710,103	14,519,963
Meats..... lb.	5,095,900	1,168,206
Soups..... case	3,125,432	7,742,625
Concentrated milk products..... lb.	157,923,893	11,844,817
Other foods.....	-	8,737,001
Total.....	-	63,333,636



The Manufacture of Aluminum Utensils.—

Inspecting aluminum "circles" or blanks used in making cooking utensils and a workman spinning a pail from a "circle" of aluminum. The manufacture of domestic utensils of aluminum has been widely carried on in Canada, but the exigencies of war have restricted such uses for aluminum and the metal has now been directed to more vital needs of Empire defence, especially aeroplane construction.

*Courtesy, Aluminum Company
of Canada, Limited.*





Paper Towels being Interfolded.

Courtesy, Canadian Geographical Journal.

Textile Industries

The need for clothing and equipment for Canada's suddenly and greatly enlarged armed forces has thrown a heavy burden upon the textile industries. In general, production facilities have shown themselves capable of co-operating efficiently in the War effort, and many concerns are devoting their entire production to requirements of this kind.

The textile industries are, to a high degree, centralized in the Provinces of Quebec and Ontario. In 1938 the gross value of production was \$346,215,005, employment was given to 115,745 persons, and \$99,275,365 was paid out in salaries and wages. It is also worthy of note that of all females employed in the manufacturing industries, 42 p.c. were to be found in the industries making up the textile group.

The variety of individual industries contained within the textile group is representative of practically all of the stages of manufacturing necessary to convert the various raw materials into products ready for purchase by the public. Yarn is spun, and fabrics and goods are woven and knitted. Factory production of clothing is on such a considerable scale that in 1938 the men's factory clothing industry led the group with a gross value of production amounting to \$64,303,613, and was followed closely by the women's factory clothing industry. Some other leading industries, in the order named, were: cotton yarn and cloth; hosiery and knitted goods; silk and artificial silk; and woollen cloth. The remarkable expansion of the silk and artificial silk industry during a comparatively short period of time, and which was continuous throughout the depression years, makes this an important member of the group, with a production valued at \$23,871,992.



A Shell Blank in the
Furnace Before Going
Through the Punch
Press.

*Courtesy, Bureau of
Public Information.*

Iron and Steel Industries

The iron and steel industries account annually for about 17 p.c. of all factory output in the Dominion and for about 19 p.c. of factory employment. In 1938 the gross output value for the 1,391 establishments in this group was \$548,801,929 and the number of employees, 121,235.

Pig-iron production totalled 755,731 long tons in 1939, a gain of 7 p.c. over 1938. Only 4 companies operate iron-ore blast furnaces in Canada. These plants have a capacity of 1,500,000 tons per year. The record production was in 1929 when 1,080,160 tons were made.

Lowering a Shell into the Acid to Remove
the Coating of Grease.

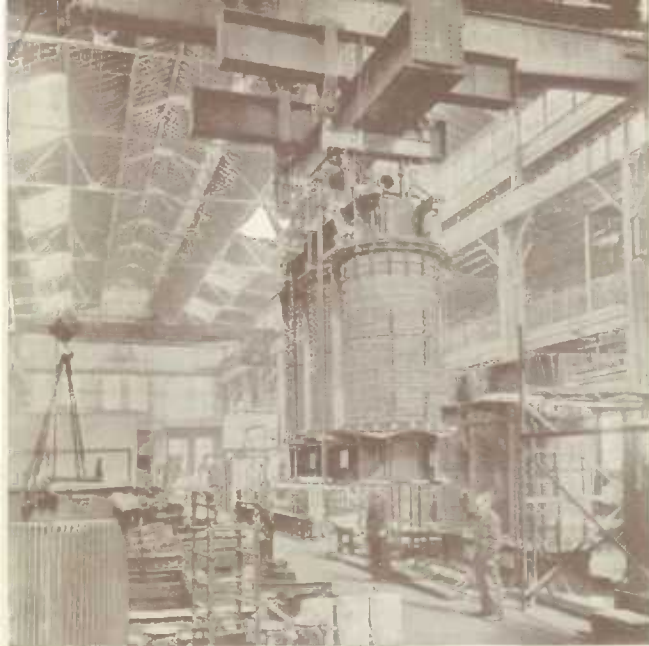
Courtesy, Bureau of Public Information.



In 1939 alone the imports of iron ore totalled 1,764,844 tons, of which about 68 p.c. was from the United States for use in Ontario and about 30 p.c. from Newfoundland for use in Nova Scotia; the remaining 2 p.c. came from Brazil and Sweden.

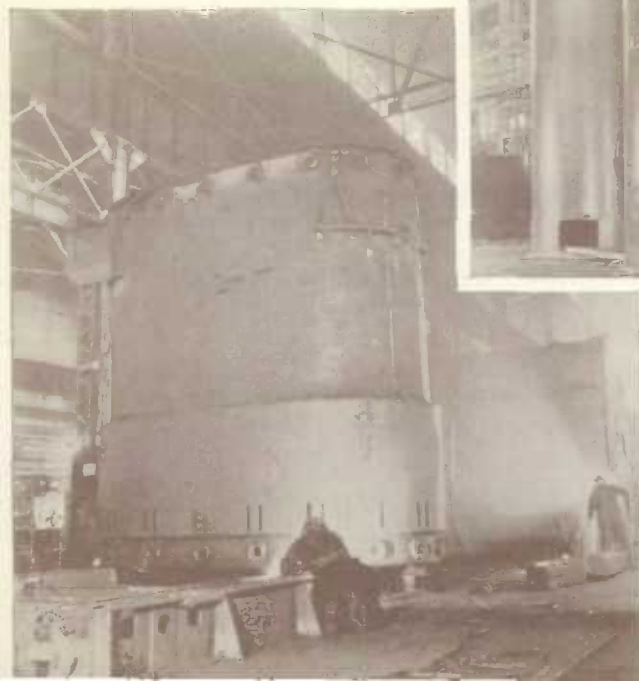
Some domestic ore (45,152 tons) was used in Canada's iron furnaces in 1939, shipments having begun from the new sintering plant at the new Helen Mine. Development work continued at the newly discovered iron-ore deposits at Steep Rock Lake but no commercial shipments were made during 1939.

Production of steel ingots and castings in 1939 totalled 1,384,870 tons including 1,330,408 tons of ingots and 54,462 tons of castings. Steel furnaces operated at about 68 p.c. of capacity. The record output of steel was in 1918 when 1,672,954 tons were produced.



Two 50-ton Cranes Handling
the Core and Coils of a 25-cycle
25,000 KVA. Transformer.

Circuit Breaker Set Up
for Test.



Fabricating a Tank for a Type of
OAPT 25-cycle KVA.
Transformer.

*Courtesy, Canadian General
Electric Company, Limited.*

Rolled products such as billets, rails, bars, wire rods, plates, etc., are now made in 16 different mills, the value of output amounting to \$58,978,429 in 1939. Recent additions to the products made in these works include heavy structural shapes, plates up to 42 inches in width and tin plate, all of which were previously imported in large quantities. Special attention has been given to alloys and special steels and Canadian mills are now able to supply practically all of the domestic requirements of these materials.

Among the secondary or fabricating groups, the automobile industry is most important, production of cars and trucks in 1939 amounting to 155,426 units valued at \$99,173,916 at factory prices. Canadian-made cars are shipped to all parts of the world, exports in 1939 amounting to 58,503 in number and \$22,551,011 in value.

The manufacture and maintenance of railway cars and locomotives ranked next to automobiles in output value and led all iron and steel industries in the number of persons employed. The 37 establishments in this group reported gross production in 1938 at \$80,977,701 and the number of employees at 19,358.

Output values for other industries in this group were as follows in 1938: sheet metal products, \$46,266,684; farm implements, \$21,299,185; automobile parts, \$36,980,424; machinery, \$48,272,442; castings, \$35,460,962; wire and wire goods, \$20,605,207; shipbuilding, \$11,171,416; boilers and engines, \$10,840,220; heating and cooking apparatus, \$14,069,018; hardware and tools, \$19,085,007; aircraft, \$6,927,105; and bridge and structural steel work, \$14,817,901.

Leading Individual Industries

The industries based on mineral resources have taken their place among the leading manufactures of Canada along with the industries based upon forest, and agricultural (including live-stock) resources.

The pulp and paper industry, although of comparatively recent development, had, by 1923, displaced flour milling as Canada's most important manufacturing industry and, in spite of recent vicissitudes, held that position up to 1935 when it was displaced by the non-ferrous metal smelting and refining industry. In employment, and salaries and wages paid, however, pulp and paper is still the leading industry.

The incidence of the depression resulted in a rearrangement in the rank of many industries that has already proved temporary in some cases. The suspension of capital expenditures, a serious factor in the depression, greatly reduced the output of such important industries as sawmills, electrical equipment, automobiles, railway rolling-stock, primary iron and steel, machinery, etc. On the other hand, demand for goods for immediate consumption was more stable, especially in such industries as petroleum products, bakeries, cotton yarn and cloth, printing and publishing, clothing, tobacco, beverages, etc. However, as previously stated, some return to the pre-depression order of importance is in evidence. Comparing the rankings for 1933 with those for 1938, it may be noted that automobiles came up from eleventh to sixth place, sawmills from fourteenth to eighth, electrical equipment from sixteenth to ninth; cotton yarn and

MANUFACTURES

cloth, and bread and other bakery products, which appeared in eighth and seventh places, respectively, in 1933, dropped back again to seventeenth and eleventh.

Principal Statistics of Fifteen Leading Industries, 1938

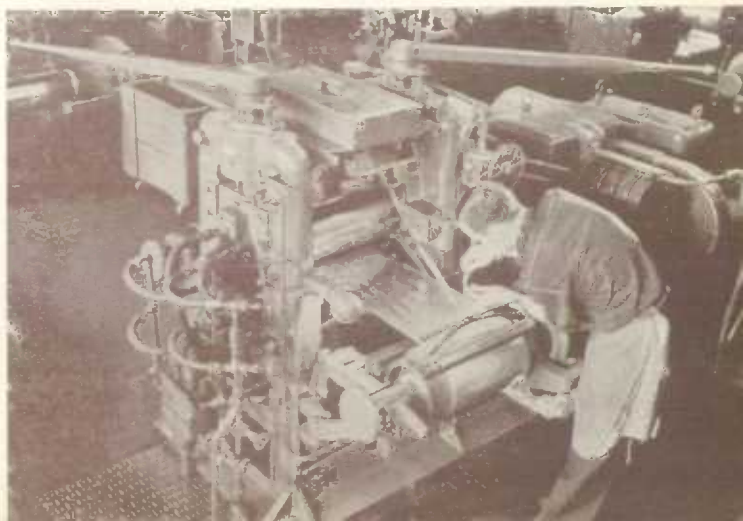
Industry	Estab- lish- ments	Capital	Em- ployees	Salaries and Wages	Cost of Materials	Gross Value of Products ¹
	No.	\$	No.	\$	\$	\$
Non-ferrous metal smelting and refining.....	14	184,337,126	12,788	19,549,963	184,970,812	287,295,733
Pulp and paper.....	90	594,908,222	30,943	42,619,311	71,002,580	183,897,503
Slaughtering and meat packing.....	145	56,119,509	12,503	16,596,710	143,481,692	175,767,382
Butter and cheese.....	2,528	62,481,408	17,336	16,533,956	94,057,247	127,659,343
Flour and feed mills.....	1,080	50,111,006	5,778	6,163,351	99,418,794	122,598,168
Automobiles.....	12	59,798,250	14,872	20,993,362	76,202,670	116,746,239
Petroleum products.....	59	62,620,908	4,675	7,873,040	76,419,516	97,003,347
Sawmills.....	3,873	88,812,313	31,182	25,345,064	52,788,246	92,855,606
Electrical apparatus and supplies.....	188	97,122,970	20,353	24,978,077	35,916,344	90,129,119
Railway rolling stock.....	37	87,814,298	19,358	26,736,265	46,536,416	80,977,701
Bread and other bakery products.....	3,231	48,026,819	22,359	21,410,506	38,446,525	78,535,833
Clothing, men's factory (incl. furnishings).....	367	36,899,228	21,205	18,406,572	35,827,036	64,803,613
Printing and publishing.....	800	53,757,534	18,403	26,070,920	13,416,562	61,743,480
Rubber goods (incl. foot- wear).....	53	64,854,448	12,879	14,061,788	24,301,221	61,030,710
Primary iron and steel.....	55	100,272,104	13,100	18,256,627	24,756,761	59,606,160
Totals, Fifteen Leading Industries.....	12,567	1,647,436,143	257,734	305,600,512	1,017,632,422	1,709,149,727
Grand Totals, All Indus- tries.....	25,200	3,485,683,018	642,016	765,668,559	1,867,478,023	3,337,681,366
Percentages of Fifteen Leading Industries to all Industries.....	49.9	47.2	40.2	43.3	56.3	50.9

¹ Net value is obtained by deducting cost of materials, fuel, and electricity used in manufacturing from the gross value.

Manufactures in Leading Cities

Montreal proper, with an output valued at \$474,534,092 in 1938, exceeded Toronto proper, with \$455,527,321. After these two cities came

Rolling Aluminum
Foil, which is Used
for a Variety of
Purposes.



Hamilton with \$150,394,481, Windsor, \$125,833,355, Vancouver \$91,607,637, and Winnipeg with \$78,029,078. Sixteen other places had manufactures with a gross value of production of over \$20,000,000 in 1938.

Cities of Canada with a Manufacturing Production of Over Twenty Million Dollars in 1938

City	Estab-lish-ments	Capital	Em-ployees	Salaries and Wages	Cost of Materials	Gross Value of Products ¹
	No.	\$	No.	\$	\$	\$
Montreal.....	2,469	409,578,419	103,254	111,431,966	253,277,569	474,534,092
Toronto.....	2,863	424,209,626	94,930	115,832,230	229,641,098	455,527,321
Hamilton.....	471	186,397,262	31,313	38,297,830	71,849,817	150,394,481
Windsor.....	224	79,940,995	17,732	26,088,439	67,680,572	125,833,355
Vancouver.....	842	91,714,005	17,968	21,700,941	52,178,629	91,607,637
Winnipeg.....	634	68,339,544	17,153	19,811,774	43,319,595	78,029,078
Montreal East.....	11	43,354,716	1,894	2,712,448	47,824,567	58,358,311
London.....	241	36,600,462	9,544	10,887,620	19,750,465	44,756,645
Kitchener.....	154	35,046,198	9,137	9,443,442	20,740,672	40,295,471
Oshawa.....	48	22,120,776	6,091	7,189,520	24,882,725	39,054,616
Calgary.....	191	23,909,192	4,274	5,486,989	19,574,234	31,908,064
Quebec.....	304	48,605,791	9,805	8,697,239	15,270,798	31,688,961
Peterborough.....	79	20,090,530	5,404	5,615,853	15,615,497	30,446,245
Edmonton.....	184	19,330,356	4,403	5,331,130	18,850,764	29,009,535
Ottawa.....	197	31,902,576	6,879	8,348,851	11,909,132	26,482,490
Brantford.....	112	38,225,310	6,774	7,016,225	12,737,117	26,123,543
Sarnia.....	44	16,755,912	2,940	4,251,229	18,621,378	24,723,186
Three Rivers.....	4	55,642,880	6,572	5,802,258	10,305,696	24,275,208
New Toronto.....	21	26,708,450	2,849	4,175,393	10,908,838	22,930,601
St. Catharines.....	91	21,236,748	5,502	6,170,906	10,499,922	21,704,998
Niagara Falls.....	61	28,374,168	3,186	4,137,393	7,556,357	21,663,464
St. Boniface.....	46	9,309,975	1,097	2,098,140	14,754,655	20,810,127

¹ Net value is obtained by deducting cost of materials, fuel, and electricity used in manufacturing from the gross value.

Conditions During the Years 1935-1940

Perhaps the best all-round barometer of conditions is afforded by the indexes of employment maintained from month to month in the Dominion Bureau of Statistics. These are based on returns received from establishments having 15 hands or over and include the great majority of employees. The indexes are given below for the latest six years.

Indexes of Employment in Manufactures

(1926=100)

Month	1935	1936	1937	1938	1939	1940	Month	1935	1936	1937	1938	1939	1940
Jan. 1	87.4	96.8	102.4	108.6	104.3	118.2	July 1	98.5	104.7	119.0	111.8	111.3	130.3
Feb. 1	90.1	98.5	105.3	110.3	106.0	120.5	Aug. 1	99.8	104.9	118.1	110.0	112.8	134.4
Mar. 1	92.7	99.5	107.6	110.5	107.0	122.6	Sept. 1	100.8	105.9	121.2	113.8	115.3	138.4
Apr. 1	93.9	101.1	110.8	110.8	107.1	123.4	Oct. 1	103.3	109.0	121.7	112.5	119.7	143.8
May 1	95.6	102.7	113.8	110.6	108.4	125.7	Nov. 1	103.5	107.7	119.0	110.9	122.1	144.6
June 1	98.4	103.4	117.9	112.3	111.4	129.2	Dec. 1	101.4	107.0	116.3	110.1	122.2	-

CHAPTER X

Transportation and Communications

Steam Railways.—Over half of the railway mileage in Canada is owned and operated by the Dominion and Provincial Governments and the remainder by incorporated companies. The mileage of railways publicly operated as at Dec. 31, 1939, was as follows: Dominion, 22,726 miles; provincial, 922 miles; municipal, 92 miles; total 23,740. The mileage operated by incorporated companies was 18,897, the principal private system being the Canadian Pacific Railway with 16,701 miles of line. The total of 42,637 miles with an estimated population of 11,315,000 gives Canada an average of 3.77 miles per 1,000 population which is second only to Australia with an average of 4.04 miles, and is twice the average for the United States.

Freight traffic on the railways reached a peak of 118,652,969 tons in 1928, declined steadily to 1933 and increased somewhat for the next four years, dropped in 1938 and rose again in 1939 to 84,631,122 tons. Passenger traffic has declined quite consistently since 1919 and in 1939 only 20,482,296 passengers were carried, which was only about half of the number carried ten years earlier.

Reduced traffic has lowered the revenues from a high of \$534,106,045 in 1929 to \$233,133,108 in 1933 and \$367,179,095 in 1939. Without corresponding reductions in operation expenses, net incomes declined rapidly. Deficits of the Canadian National system increased and dividends of the Canadian Pacific were reduced or passed entirely.

The number of employees declined from a high point of 187,846 in 1929 with wages of \$290,732,500 to 129,362 in 1939 with a total payroll of \$200,373,668.

Railway Statistics, by Months, 1938-40

Month	Railway Gross Operating Revenues			Total Revenue Car Loadings		
	1938	1939	1940	1938	1939	1940
	\$ '000	\$ '000	\$ '000	No. '000	No. '000	No. '000
January	24,362	23,798	30,496	187	171	210
February	23,316	22,652	30,000	180	160	199
March	25,925	25,700	30,145	200	191	195
April	25,192	25,191	29,916	185	179	219
May	25,445	29,680	34,630	190	215	237
June	24,577	26,160	36,914	187	195	240
July	25,773	27,794	38,398	183	196	248
August	28,439	29,774	37,409	213	229	256
September	34,504	42,960	37,819	250	295	252
October	37,609	39,681	-	257	270	281
November	30,431	36,703	-	219	248	259
December	27,521	33,232	-	178	200	-

Electric Railways.—The total number of passengers carried on urban and interurban electric railways in 1939 was 632,533,000, of which 33 p.c. was carried by the Montreal system and 25 p.c. by the Toronto system.

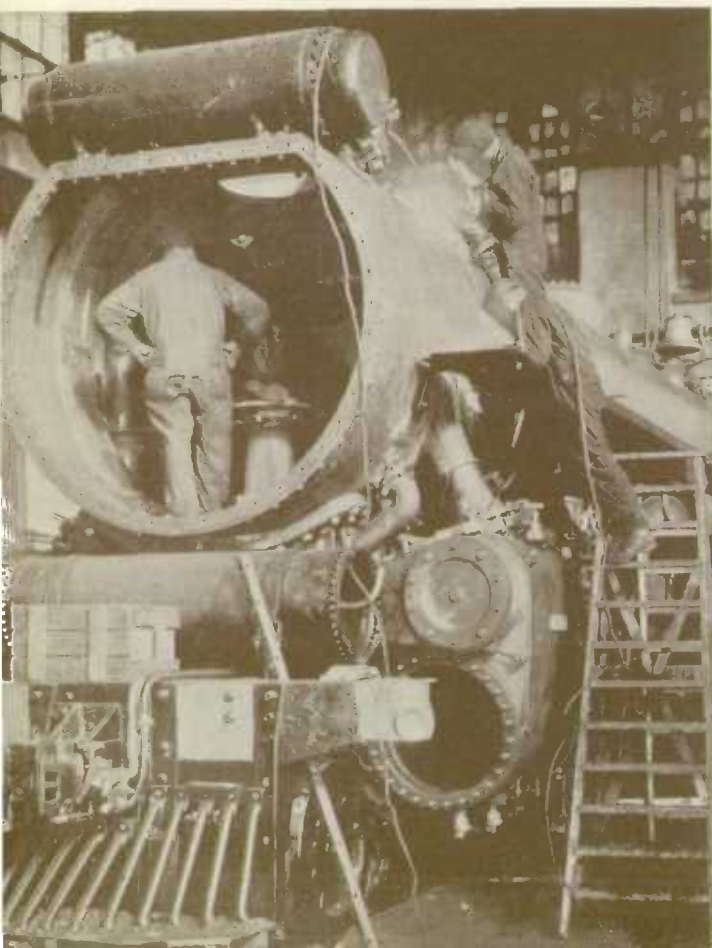
The total investment for 1939 amounted to \$198,482,000, gross earnings to \$42,185,000, and miles of track to 1,592.

Roads and Highways.—Construction of roads suitable for motor traffic has been one of the principal items of provincial expenditures during the past twenty 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 1938 was 110,637 miles of surfaced roads, and 385,101 miles of earth roads. Of the surfaced roads, 96,663 miles were gravel or crushed stone; 9,435 bituminous surfaces; 2,253 portland cement concrete and sheet asphalt; and the remainder were other surfaces.

The expenditures for 1938 amounted to \$103,863,791, including \$71,559,903 for construction of roads, \$5,138,791 for construction of bridges, \$21,815,501 for maintenance of roads, \$2,149,476 for maintenance of bridges, \$21,874 for foot paths and sidewalks, and the remainder for administration and general expenses.

Motor Vehicles.—The number of motor vehicles registered in Canada has increased steadily and rapidly from 3,054 in 1908 to 276,893 in 1918, 1,069,343 in 1928, and 1,439,245 in 1939, an average of one vehicle for each 7.9 persons. This density is exceeded only by the United States 4, New Zealand 7, and Hawaiian Islands 7.



Working In and
Around the Smoke
Box of a Locomotive
under Construction.



A Section of the Toronto-Hamilton Highway System.

Courtesy, Airmaps Limited.

Preliminary provincial data for 1939 show \$27,961,132 collected from motor-vehicle registrations, drivers' permits, etc., and \$51,954,360 from gasoline tax, a total of \$79,915,492.

During 1939 there were 1,584 persons killed in motor-vehicle accidents. This number was exceeded only in 1937 when there were 1,642 fatal motor-vehicle accidents.

Motor Vehicles Registered in Canada, in Recent Calendar Years

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada ¹
1920....	1,418	12,450	11,121	41,562	177,561	38,257	60,325	38,015	28,000	408,790
1925....	2,947	22,745	18,863	97,418	342,174	50,884	77,940	54,538	56,427	724,043
1930....	7,376	43,029	34,699	178,548	562,506	78,850	127,193	101,119	98,938	1,232,489
1931....	7,744	43,758	33,627	177,485	562,216	75,210	107,830	94,642	97,932	1,200,668
1932....	6,982	41,013	28,041	165,730	531,597	70,840	91,273	86,781	91,042	1,113,533
1933....	6,940	40,648	26,867	160,012	520,353	68,590	84,944	86,041	88,554	1,083,178
1934....	7,206	41,932	29,094	165,526	542,245	70,430	91,461	89,309	92,021	1,129,532
1935....	8,231	43,952	31,227	170,644	564,076	70,660	94,792	93,870	98,411	1,176,116
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	197,917	623,918	80,860	105,064	100,434	116,341	1,319,702
1938....	7,992	51,214	37,110	205,463	669,088	88,219	109,014	107,191	119,220	1,394,853
1939....	8,040	53,008	38,116	213,148	682,891	88,864	119,016	113,702	122,087	1,439,245

¹ Includes Yukon.

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 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 on disconnected waterways.

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 in 1929 reached a peak of 92,616,898 tons, more than through the Panama and Suez Canals combined. The greater part of this traffic is iron ore from Lake Superior to United States ports on Lake Erie and return cargoes of coal, and grain down-bound destined to St. Lawrence ports, Buffalo, Port Colborne, and other lower lake ports.

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 very small tonnage, cannot sail up into the lakes; a few such vessels have been engaged in the Great Lakes traffic for several years, bringing over cargoes from European ports. Traffic using the St. Lawrence canals reached a new high record in 1938 with 9,236,318 tons, which dropped to 8,340,165 tons in 1939. Traffic using the Welland Ship Canal has increased steadily, the total of 12,629,054 tons for 1938 being more than double the 1930 traffic and over five times the 1920 traffic; in 1939 it was 11,727,553 tons.

Shipping.—Canadian shipping may be divided into three classes: (1) ocean or sea-going shipping; (2) inland or river and lake international shipping (exclusive of ferriage); and (3) coasting trade or coastwise shipping. Ocean shipping covers the sea-going vessels arriving or departing from Atlantic and Pacific Coast ports, including St. Lawrence River ports up to Montreal. Inland international shipping covers shipping between Canadian and United States ports on the Great Lakes and international

Lake Freighters in Fort William Harbour.

Courtesy, Civic Tourist Bureau, Fort William, Ont.



rivers. Coastwise shipping covers shipping between one Canadian port and another on the Atlantic Coast, on the Pacific Coast, and on the inland international lakes and rivers but not on isolated Canadian waterways, such as the Mackenzie River, Lake Winnipeg, Lake St. John, etc.

Sea-Going Vessels Entered and Cleared at Canadian Ports with Cargo and in Ballast, Fiscal Years 1929-39

Year	Totals Entered			Totals Cleared			Totals, Entered and Cleared		
	No.	Tons Register	Freight Tons ¹	No.	Tons Register	Freight Tons ¹	No.	Tons Register	Freight Tons ¹
		'000	'000		'000	'000		'000	'000
1929.	22,531	27,464	7,155	22,895	26,944	18,045	45,426	54,409	25,200
1930.	21,583	27,156	8,471	21,885	25,836	12,294	43,468	52,992	20,765
1931.	20,737	28,065	7,814	20,860	26,535	10,842	41,597	54,600	18,656
1932.	19,175	27,003	6,821	19,102	25,337	10,690	38,277	52,340	17,520
1933.	17,778	25,044	6,571	18,150	24,722	11,803	35,928	49,767	18,373
1934.	19,501	28,210	7,668	19,904	27,236	11,217	39,405	55,446	18,885
1935.	21,410	28,512	9,100	21,784	28,548	11,235	43,203	57,060	20,336
1936.	22,835	28,896	10,026	23,328	29,157	12,297	46,163	58,053	22,323
1937.	25,348	31,145	11,142	26,136	31,803	15,791	51,484	62,948	26,934
1938.	26,407	31,422	12,699	27,359	31,402	13,882	53,766	62,824	26,581
1939.	27,500	31,354	10,423	28,736	32,044	17,268	56,236	63,398	27,690

¹ Includes freight in both tons weight and tons measurement.

Air Navigation.—The aeroplane has provided a vastly improved means of transportation in the undeveloped northern areas of Canada where the only alternatives were canoe in summer and dog team in winter. Air travel soon proved not only much quicker, but much cheaper, and a rapid expansion took place without the aid of government subsidy. The mileage flown by aircraft increased from 185,000 in 1922 to 10,969,271 in 1939, when 161,503 passengers, 21,253,364 lb. of freight, and 1,900,347 lb. of mail were carried. Furthermore, the aeroplane has proved a great boon to Canada in the administrative field for the development and conservation of her vast natural resources. Aerial forest-fire patrols are now carried on over large parts of almost every province; fishery patrols by aeroplane protect territorial waters and enforce fishing regulations; and by the use of aeroplanes equipped with special cameras, preliminary surveys, which would have taken years by the older methods, are now made quickly over large tracts of difficult country. This development in Canada has differed from that in other countries where air traffic between the chief centres of population has received most attention. The Trans-Canada Airway is designed to facilitate progress along this line.

Trans-Canada Airway.—The Trans-Canada Airway is now in operation all the way across the continent from Vancouver to Toronto, Montreal, and Moncton, and from Toronto to London and Windsor. Intermediate aerodromes lighted for night flying are established at approximately 100-mile intervals. Meteorological services provide weather maps four times daily, and district forecasts for the ensuing six hours. As part of the facilities of the Trans-Canada route and its feeders, there are now in operation 40 radio range stations at approximately 100-mile intervals, except in the mountain regions where closer spacing is necessary.

Work on the eastern section has been completed, and mail and passenger air services are now operating twice daily, except Sunday, by Canadian Airways Limited, from Moncton to Charlottetown, Halifax, and

Saint John, connecting with T.C.A. at Moncton. This company also operates a daily service as an extension of the Trans-Canada Airway System from Vancouver to Victoria, B.C. A daily service is also operated by Prairie Airways from Regina to Moose Jaw, Saskatoon, Prince Albert, North Battleford and return, connecting with the through service of T.C.A. at Regina.

OPERATION OF TRANS-CANADA AIRWAY SERVICES

Montreal-Vancouver ¹	2 trips each way daily
Moncton-Montreal ²	1 trip - " " "
Montreal-Toronto ³	2 trips " " "
Toronto-Windsor ⁴	2 " " " "
Lethbridge-Edmonton.....	2 " " " "
Vancouver-Seattle.....	2 " " " "

¹ Eastbound flights terminate at Toronto, connecting at North Bay with a shuttle service from Toronto to Montreal.

² Westbound Moncton-Montreal is a section of the Transcontinental flight. Eastbound Montreal-Moncton is a continuation of the Toronto-Montreal inter-city service.

³ Actually there are 4 trips each way daily between Montreal and Toronto, 2 being sections of the Transcontinental service.

⁴ The Toronto-Windsor service is actually a section of through flights Montreal-Windsor.

In addition to these services, licences have been granted to 13 operators to carry out mail and passenger operations over 49 routes, not only from the main centres of population, but also from the remoter districts where mining activity is great, thus giving fast and reliable transportation by air to all parts of the Dominion.

Telegraphs.—Six telegraph systems are operated in Canada, five in conjunction with the railways and one small system operated independently. The Western Union, a United States company, operates lines across Canadian territory; the Canadian Marconi 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 367,235 miles of telegraph wire in Canada, 7,315 miles outside of Canada, and 32,799 nautical miles of submarine cable between Canada and other countries. Multiple circuits normally use



New Canadian National
Telegraphs Operating
Room,
Saskatoon, Sask.

Courtesy, Canadian
National Railways.

TRANS-CANADA AIRLINES



↑
Trans-Canada
Lockheed Aeroplane
Taking off a
Runway.



↑
Servicing a Trans-Canada
Aeroplane for Gas and Oil at
Regina, Sask., Airport on the
Twice-daily Service between
Montreal and Vancouver.



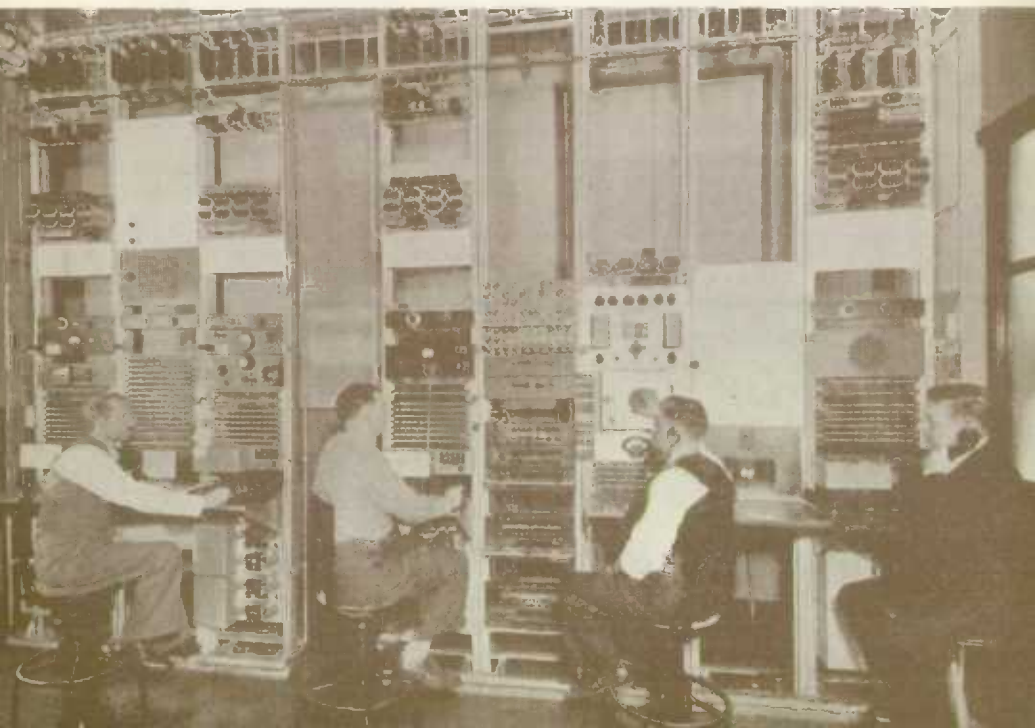
102,574 miles of these wires and produce 483,827 miles of channels for telegraphic use. During 1939 a total of 12,462,912 telegrams and 1,492,389 cablegrams, excluding messages between foreign countries, were handled over these wires.

Telephones.—There were 3,203 telephone systems in Canada in 1938, operating 5,397,244 miles of wire and 1,359,417 telephones. The estimated number of conversations during the year was 2,623,092,000 or 1,930 per telephone. Almost half of the telephones are dial telephones and are operated by automatic switch boards, the increase in dial telephones during 1938 being 26,673 as against an increase of 9,950 telephones connected with manually operated switchboards.

The telephone plays an important part in radio broadcasting, which has been brought to a standard of efficiency on this continent not approached anywhere else in the world. A radio hook-up or network is in reality a web of high-grade long-distance telephone lines linking together a given number of broadcasting stations. Each telephone company that undertakes to provide program facilities is responsible for supplying and maintaining high-quality long-distance circuits especially designed to carry programs. The ordinary long-distance circuit requires the use of devices and instruments to enable it to carry and maintain the tone quality of an orchestra, or even of a flute or violin. Almost any point that may be reached by telephone can be quickly prepared as the originating or pick-up point for a radio program by engineers equipped to make the necessary changes.

Lining Up the Long-Distance Lines to Carry a Radio Program over
a Canadian Hook-up.

Courtesy, Bell Telephone Company.



National Radio.—In 1940 the Canadian Broadcasting Corporation completed its fourth year, having succeeded the Canadian Radio Broadcasting Commission on Nov. 2, 1936. The CBC, established on a basis somewhat similar to that of the British Broadcasting Corporation, has a board of nine governors, a General Manager, and an Assistant General Manager. It operates under the Canadian Broadcasting Act, 1936, which gives it regulatory powers over all broadcasting stations in Canada as far as programs are concerned.

The Board of Governors (members are appointed for three years in rotation) acts as "trustees of the national interest in broadcasting", and is responsible for the policies of the Corporation. It is thus a guarantee to the public that broadcasting is being administered in a non-partisan and business-like manner. The CBC is responsible to Parliament through the Minister of Munitions and Supply. Members of the Board of Governors are unpaid.

During the past four years the coverage of the CBC has been greatly increased. At its inception the Corporation served less than 50 p.c. of the population; it now serves over 84 p.c. This has been made possible mainly by the inauguration of four 50,000-watt transmitting stations: CBL at Hornby, Ont., serving the Province of Ontario; CBF at Verchères, Que., for the Province of Quebec; CBA at Sackville, N.B., for the Maritime Provinces; and CBK at Watrous, Sask., for the Prairie Provinces. A 5,000-watt transmitter, CBR, at Vancouver, serves the Pacific Coast, and there are five other CBC transmitters at various points. The progress of the Corporation has been directed towards completion of the plan envisaged in the report of the Royal Commission on Radio Broadcasting appointed in 1928 to investigate the whole problem of broadcasting in Canada. Reception and program service have also been greatly improved.

The technical facilities of the CBC were further extended by the addition to its equipment of a completed armoured Mobile Unit capable of operating under war conditions on any front. This unit has been sent to England, while two other Mobile Units, which include short-wave sending and receiving apparatus, recording machines, and pack sets, are used in Canada. The pack sets can be carried by commentators to ordinarily inaccessible territory. A staff of three commentators and two engineers was established in England by the CBC during 1940.

Transmission facilities enabling CBC programs to be broadcast over a national network in all five Canadian time zones for sixteen hours a day are maintained. This nation-wide network carries both sustaining programs of the Corporation and a limited number of commercial features. In addition to the ten stations owned and operated by the CBC, the national network includes a large number of privately owned transmitters throughout Canada.

During the first year of the War the CBC National Network carried more than 1,600 special war broadcasts, exclusive of news bulletins and summaries, the number of which was also increased. The exchange of programs with the BBC, arranged in 1939 when the General Manager and the Chairman of the Board of Governors spent some time in England, was continued during 1940, with increased co-operation between the two systems. The daily schedule of news broadcasts was augmented to include



Armoured Mobile Unit of the
CBC Operating in
England.

Courtesy, Canadian
Broadcasting Corporation.

three 15-minute and five 3-minute news bulletins provided by the CBC in co-operation with the Canadian Press, and two half-hour periods of BBC news, via short-wave from London. The Sunday schedule provides a slightly higher ratio of news summaries. The facilities of the BBC in England have also been available to the CBC Overseas Unit.

Specialized talks and discussions by experienced commentators, expert students, and international figures in both Great Britain and Canada have been provided regularly. The Corporation is the point of contact between the Wartime Censorship Co-ordination Committee and radio stations and other organizations throughout Canada in disseminating the important information and instructions associated with broadcasting. The Corporation has also worked to advantage with the Director of Public Information.

Expenditures.—Despite the comparatively large expenditures necessary for lines and for the cost of providing, maintaining and operating network transmitting facilities in a country like Canada, almost 50 p.c. of CBC total revenues are being spent on programs. Below is shown an analysis of all CBC expenditures from the Corporation's inception, including the nine-month period ended Dec. 31, 1940.

Canadian Broadcasting Corporation Expenditures, Fiscal Years 1937-40

Item	1937		1938		1939		1940 ¹	
	\$	p.c.	\$	p.c.	\$	p.c.	\$	p.c.
Administration.....	125,360	8-07	146,686	6-77	139,828	4-86	162,940	4-81
Programs.....	645,816	41-53	1,088,420	50-28	1,460,105	50-77	1,604,198	47-32
Operation of stations.....	206,961	13-38	286,763	13-24	468,117	16-28	597,394	17-62
Lines.....	434,247	27-82	477,902	22-07	571,496	19-87	674,183	19-89
Depreciation.....	-	-	106,846	4-94	202,815	7-05	316,274	9-33
Leases of time on private stations.....	143,037	9-20	58,494	2-70	16,810	0-58	11,125	0-33
Interest on Government loan.....	Nil	-	Nil	-	16,906	0-59	23,838	0-70
Totals.....	1,555,421	100-00	2,165,111	100-00	2,876,077	100-00	3,389,952	100-00

¹ Nine months ended Dec. 31.

On Aug. 5, 1940, the War Co-operation Committee of the Senate, in its report to the Upper Chamber, recommended the erection in Canada "without delay" of a 50,000-watt short-wave transmitting station as an aid to war-time Empire co-operation. The cost involved was estimated at between \$350,000 and \$400,000. Prior to this, successive committees of Parliament had unanimously recommended the construction of a high-powered short-wave transmitter.

The CBC maintains constant touch with developments in television, frequency modulation, and facsimile in both Great Britain and the United States.

The Post Office.—The number of post offices has increased from about 3,470 in 1867 to over 12,000 in 1940, with a total revenue in 1939-40 of approximately \$44,208,369. The Post Office Department, in the fiscal year 1939-40 issued money orders to the amount of \$148,560,566 payable in Canada and \$7,779,972 payable in other countries, a combined net increase over the previous year of \$11,135,753. In addition, postal notes to the value of \$12,966,378 were issued in 1939-40.

During the War of 1914-18, there was a general increase in postage rates, but these were gradually reduced again between 1926 and 1930. They were increased once more on July 1, 1931, and since that date the letter rate of postage for Canada, Great Britain, the British Empire, France, the United States and all other places in North and South America, has remained at 3 cents for the first ounce and 2 cents for each additional ounce.

Sorting
Mail in a
Railway
Postal Car.



Courtesy,
Post Office
Dept.

Official air-mail service was inaugurated in October, 1927. Since that time great advances have been made, both in the number of services and in the volume of mail conveyed, as shown by the following statistics:—

	Miles Flown No.	Mail Carried lb.		Miles Flown No.	Mail Carried lb.
1931-32.....	1,229,021	443,501	1937-38.....	1,474,041	1,367,972
1935-36.....	852,108	1,189,982	1938-39.....	3,711,948	1,822,344
1936-37.....	977,864	1,200,831	1939-40.....	5,769,257	2,351,172

The institution of air-mail service to remote and otherwise inaccessible areas, too numerous to itemize, has been of the greatest importance in developing the natural resources of Canada. For example, mails from Vancouver now reach White Horse within 24 hours and those from Edmonton reach Aklavik on the Arctic Ocean within a week, a small part of the time required for surface transport. The gold-mining industry, in particular, has been greatly assisted by the efficiency of the postal service rendered by air. During the winter season Pelee Island in Lake Erie, remote settlements on the north shore of the Gulf of St. Lawrence, Anticosti Island, the Magdalen Islands, and Telegraph Creek in northern British Columbia, which formerly relied on dog teams or were entirely isolated from civilization, are now given regular air-mail service.

While the great majority of Canadian air-mail services are to remote areas, there are several interurban and international services that effect considerable time-saving between important mailing centres in Canada and the United States. This year has witnessed an intensification of regular air-mail service over the Trans-Canada Airway, and this system, with its feeder lines, has given a direct service to most of Canada's leading cities. By utilizing this service a letter mailed at the close of the business day in Montreal reaches an address in Vancouver the following afternoon. Corresponding gains over ordinary conveyance are effected between most other points in Canada.

CHAPTER XI

Construction

Construction has received considerable stimulus in the past two or three years from the Dominion Housing Act, 1935, the National Housing Act, 1938, the Home Improvement Loans Guarantee Act, 1937, and the Municipal Improvements Assistance Act, 1938. All these Acts are administered by the Dominion Department of Finance.

National Housing Act, 1938.—The National Housing Act, 1938, was designed to serve a twofold purpose: (1) to assist in the improvement of housing conditions; and (2) to assist in absorption of the unemployed by stimulation of the construction and building material industries. The Act has three Parts.

Part I re-enacts the main features of the Dominion Housing Act, 1935. Under the original terms loans were available to finance either single-family, two-family, or multiple-family houses. Beginning Jan. 1, 1940, however, as a war-time measure to conserve resources, the maximum loan was restricted to \$4,000 and loans were also restricted to the financing of single-family houses only. The other features of the Act were not changed.

The Minister of Finance is empowered under Part I to make advances up to \$20,000,000, less approximately \$5,500,000 already advanced under the Dominion Housing Act. All loans are made through approved lending institutions, the security being in the form of a first mortgage running jointly to the approved lending institution and to the Government. Loans may be for an amount not exceeding 80 p.c. of the lending value of the property, or 90 p.c. where the lending value is \$2,500 or less and the house is being built for an owner-occupant. The other 20 p.c. or 10 p.c., respectively, is to be provided by the borrower. Provision is also made for loans ranging between 70 p.c. and 80 p.c., when the lending value exceeds \$2,500, and for loans ranging between 50 p.c. and 90 p.c. when the lending value does not exceed \$2,500. Special substantial guarantees are provided to encourage the lending institutions to extend the facilities to the smaller and more remote communities. The interest rate paid by the borrower on all loans made under Part I is 5 p.c. This is made possible by the fact that the Government advances one-quarter of the total mortgage money on an interest basis of 3 p.c. Loans are made for a period of 10 years subject to renewal for a further period, usually for another 10 years. Interest, principal, and taxes are payable in monthly instalments. Amortization of principal is effected at a rate sufficient to pay off the entire loan in 20 years, but more rapid amortization may be arranged.

Part II of the National Housing Act is designed to assist local housing authorities (including limited-dividend housing corporations) to provide decent, safe, and sanitary housing to be rented only to families of low income who are unable to afford an 'economic rental'. Dominion assistance under this Part involved high-percentage loans at a very low rate of interest. Municipal assistance involved a low fixed rate of taxation. The authority to make this type of loan lapsed on Mar. 30, 1940.

Part III of the National Housing Act authorizes the Minister of Finance to pay a large share of the municipal taxes, in respect of new low-

cost dwellings, for a period of three years. On Dec. 5, 1939, as a measure designed to conserve resources for war purposes, this Part was restricted to apply only to houses commenced prior to May 31, 1940.

Loans Made under the Dominion Housing Act and Part I of the National Housing Act to Aug. 31, 1940

Province	Loans	Family Units Provided	Amount	Province	Loans	Family Units Provided	Amount
	No.	No.	\$		No.	No.	\$
P.E.I.....	18	18	97,834	Sask.....	57	128	321,497
N.S.....	619	636	2,611,380	Alta.....	Nil	-	-
N.B.....	178	202	799,947	B.C.....	2,540	2,817	8,655,903
Que.....	1,721	3,695	13,855,721	Totals.....	13,019	18,116	61,505,503
Ont.....	7,170	9,694	31,797,804				
Man.....	716	926	3,365,417				

The Home Improvement Loans Guarantee Act, 1937.—This Act provides for a limited guarantee to chartered banks and certain other approved lending institutions in respect of loans made to owners of residential property to finance repairs, alterations, and additions to urban and rural dwellings (including farm buildings). The lending institutions are guaranteed against loss to the extent of 15 p.c. of the aggregate of such loans made by each, but the total amount guaranteed is \$50,000,000 and the maximum liability of the Government is therefore \$7,500,000. No loan may exceed \$2,000 on any single property. In the case of a multiple-family dwelling the loan may not exceed \$1,000 plus \$1,000 for each family unit provided. Loans of \$1,000 or less are made for a term not exceeding 3 years and loans in excess of \$1,000 for a term not exceeding 5 years; they are repayable in convenient instalments. The maximum charge for loans is 3½ p.c. discount for a one-year loan repayable in equal monthly instalments, and proportionately for other periods.

Loans Made under the Government Home Improvement Plan to Aug. 31, 1940

Province	Loans	Amount	Province	Loans	Amount
	No.	\$		No.	\$
P.E.I.....	1,082	261,443	Sask.....	2,216	832,097
N.S.....	8,090	2,475,450	Alta.....	8,959	3,868,957
N.B.....	4,197	1,370,110	B.C.....	11,790	3,730,005
Que.....	17,753	8,952,291	Totals.....	117,894	47,086,513
Ont.....	56,260	22,656,380			
Man.....	7,547	2,939,780			

The Municipal Improvements Assistance Act, 1938.—The sum of \$30,000,000 is available under this legislation for the purpose of creating employment on productive undertakings by providing funds to municipalities at a low interest rate to assist in constructing or making extensions or improvements to, or renewals of, self-liquidating projects for which there is urgent need and which will assist in the relief of unemployment. A municipality may apply for loans up to an amount equal to

\$2.89 per head of its population. There is a further provision under which a loan not exceeding \$200,000 may be made available to any municipality, however small. All loans bear interest at the rate of 2 p.c. per annum, payable semi-annually, and are to be amortized by semi-annual payments sufficient to pay off the entire loan during a period not exceeding the useful life of the project. As security for such loan the municipality must deliver its debentures or other securities, equal in principal amount to the loan, and may also be required to give a first mortgage, hypothec, or other charge on the project.

Each project and application for loan must be approved, and the loan itself, both in respect of interest and principal, must be guaranteed by the government of the province concerned.

Loans Approved under the Municipal Improvements Assistance Act, 1938 to Sept. 1, 1940

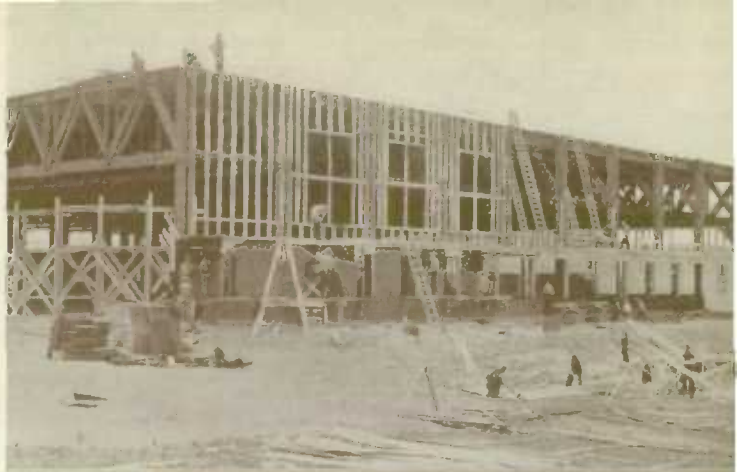
Province	Loans No.	Amount \$	Province	Loans No.	Amount \$
Prince Edward Island.....	1	7,000	Saskatchewan.....	28	991,400
Nova Scotia.....	7	641,437	Alberta.....	24	914,387
New Brunswick.....	7	467,514	British Columbia.....	20	2,022,917
Quebec.....	6	751,950			
Manitoba.....	5	207,948	Totals.....	95	6,004,553

Railways.—The expenditures of railways on maintenance of way, and structures and equipment are not included in the census figures of the construction industries given below and are therefore summarized here. For steam railways expenditures for these purposes in 1939 amounted to \$128,618,702 as against \$124,450,528 in 1938 and \$194,000,000 in 1929. For electric railways the total for 1939 was \$5,973,288 as against \$5,916,564 in 1938 and \$9,000,000 in 1929. Expenditures of steam railways on new line were \$3,398,311 in 1939 compared with \$2,065,146 in 1938, whereas in the years 1928-31 they averaged \$30,000,000 per year.

Annual Census of the Construction Industries.—A census of construction was first made by the Dominion Bureau of Statistics for 1934 but the basis of compilation was not standardized until 1935 so that, with the compilation of the 1936 figures, data are now available on a comparable basis for the years shown in the table on p. 129. It should be pointed out that no relationship exists between these figures and those of values of contracts awarded as shown at the foot of p. 130. In the latter case all values are included since awards are made irrespective of whether the contract is completed or even begun in that year, whereas the industrial statistics show only the work performed in the years specified.

Since September, 1939, war construction has been rapidly increasing, but this influence is not apparent in the figures; indeed, 1939 is shown to be a less-than-average year. War contracts of any size let in the latter part of 1939 would not, of course, in many cases, be under way before 1940. Undoubtedly the vast amount of Government construction going on across Canada, apart from the indirect stimulus to private construction that rising costs encourage, will mean wide activity for this industry which has suffered severely throughout the depression and has lagged behind other branches of the economy.

CONSTRUCTION
UNDER THE
BRITISH
COMMONWEALTH
AIR TRAINING
PLAN



Large Buildings and Hangars like the
above Are Being Built at Training
Centres.



A Type of Barrack
Building Constructed
under the Plan.

*Courtesy, Engineering and
Contract Record.*



Statistics of the Construction Industry, 1939, with Totals for 1936-38

Province or Group	Persons Employed	Salaries and Wages Paid	Cost of Materials Used	Value of Work Performed
	No.	\$	\$	\$
Totals, 1936	142,346	112,846,284	122,189,238	258,840,400
Totals, 1937	151,652	150,637,291	175,844,435	351,874,114
Totals, 1938	147,191	147,405,398	176,562,208	353,223,285
Province, 1939				
Prince Edward Island	716	779,094	831,105	1,948,064
Nova Scotia	7,369	8,014,055	10,103,054	19,890,449
New Brunswick	6,279	5,670,654	6,332,255	14,886,121
Quebec	55,721	52,601,852	58,532,370	118,529,690
Ontario	52,338	56,910,926	76,293,682	144,829,394
Manitoba	4,997	5,581,860	8,279,246	14,848,706
Saskatchewan	4,660	4,688,141	5,656,210	13,429,064
Alberta	5,583	6,824,331	8,868,976	17,856,669
British Columbia	10,751	12,355,530	14,610,444	26,955,533
Totals, 1939	148,414	153,442,443	189,497,312	373,263,650
Group, 1939				
Contractors, builders, etc.	91,147	103,883,416	160,521,326	286,712,459
Municipalities	13,980	14,109,547	7,758,012	23,723,692
Harbour Commissions	833	815,223	7,375,080	1,407,686
Provincial Govt. Depts.	34,440	26,443,065	14,107,593	46,249,892
Dominion Govt. Depts.	8,104	8,191,192	6,735,421	15,109,951

Of the 1939 total value of work performed 69 p.c. was represented by entirely new construction as compared with 68 p.c. for the previous year. The remainder was for alterations, repairs, maintenance, etc. With regard to type of construction, engineering contracts (such as for streets, highways, harbour and river work, etc.) accounted for 45 p.c. as compared with 49 p.c. in 1938. Buildings accounted for 43 p.c. compared with 38 p.c. in 1938.

Volume of Construction, 1940.—The recovery in construction, on the whole, has not paralleled that indicated in many other industries, although substantial improvement has been reported recently. According to the records of the construction contracts awarded, as maintained by MacLean Building Reports, Limited, the value of such contracts rose from \$162,588,000 in 1936 to \$224,056,700 in 1937, but dropped to \$187,277,900 in 1938, and \$187,178,500 in 1939. The effect of the War on the construction industry is not apparent in these figures.

The Dominion Bureau of Statistics collects monthly statistics showing the anticipated cost of the building represented by the permits taken out in 58 cities, the record going back to 1920. The value of the construction work authorized in these cities was estimated at \$60,272,379 in 1939, as compared with \$60,817,332 in 1938, a decrease of 0.9 p.c. but an increase of 7.9 p.c. from 1937; as a matter of fact, the 1938 total exceeded that for any other year since 1931, but, throughout this period, the construction industries have generally operated at a low level. During the first 11 months of 1940, the value of the buildings for which permits were granted was \$73,799,268. This was about 37 p.c. higher than the figure for the months January to November, 1939, and exceeded the total for the first 11 months in any other year since 1931.



Modern Earth-Hauling and Excavating Units Used in Road Construction.

Courtesy, Engineering and Contract Board.

**Construction Contracts Awarded in Canada, Jan. 1 to Oct. 31,
1939 and 1940**

(MacLean Building Reports, Limited.)

Type of Construction	1939		1940	
	No.	Value	No.	Value
		\$		\$
Apartments.....	366	9,077,700	363	7,445,300
Residences.....	20,350	54,491,400	19,569	55,943,700
<i>Totals, Residential.....</i>	<i>20,716</i>	<i>63,569,100</i>	<i>19,932</i>	<i>63,389,000</i>
Churches.....	318	4,641,100	218	2,502,300
Public garages.....	735	3,509,100	660	2,421,400
Hospitals.....	128	7,352,500	99	8,516,100
Hotels and clubs.....	321	3,022,900	305	3,742,900
Office buildings.....	377	4,532,000	376	4,780,800
Public buildings.....	453	9,472,800	513	54,176,300
Schools.....	315	7,293,500	219	8,011,600
Stores.....	1,949	6,927,900	1,823	7,460,600
Theatres.....	76	1,280,300	71	1,146,000
Warehouses.....	538	4,841,100	1,608	8,183,000
<i>Totals, Business.....</i>	<i>5,210</i>	<i>52,873,200</i>	<i>5,892</i>	<i>98,941,000</i>
<i>Totals, Industrial.....</i>	<i>881</i>	<i>20,633,600</i>	<i>1,023</i>	<i>116,695,100</i>
Bridges.....	186	3,028,800	96	2,633,500
Dams and wharves.....	242	7,880,500	57	3,789,500
Sewers and watermains.....	302	3,986,600	223	3,455,800
Roads and streets.....	624	22,969,100	516	28,409,300
General engineering.....	75	2,808,400	28	12,780,300
<i>Totals, Engineering.....</i>	<i>1,429</i>	<i>40,673,400</i>	<i>920</i>	<i>51,068,400</i>
Grand Totals.....	28,216	177,749,300	27,766	329,091,500

The population of the 58 centres mentioned at the foot of p. 129 constituted about 36 p.c. of the total population of the Dominion as enumerated in the Census of 1931; during the year 1939, their building

authorizations amounted to 32.2 p.c. of the total value of the construction contracts awarded throughout Canada. This ratio was rather lower than the average proportion in the years 1920-39 which was 39.2 p.c. In the first 11 months of 1940, the proportion was lower than that of 1939, standing at 22.4 p.c.

Employment in Construction.—The level of employment in the construction industries as a whole was lower in 1940 than in 1939, owing to curtailment of work on the highways; building construction, however, was decidedly more active, the number employed by the co-operating contractors being greater than in any other year since 1931. Work on the railroads also showed improvement in 1940 over immediately preceding years. The general index of employment in construction, based on the 1926 average as 100, was 89.3 in the first 11 months of the year, compared with 114.7 in the same period of 1939, while the index in the building division was 79.6 or 30 p.c. higher than that of 61.0 in the months Jan. 1-Nov. 1 of 1939.

Wholesale prices of building materials moved gradually upward from 94.0 to 97.9 during the first 3 quarters of 1940 (on the base 1926 = 100). This was in continuation of an advance dating from the beginning of 1939 when this series stood at 87.2. The preliminary 1940 index of wage rates, as prepared by the Department of Labour, stood at 174.6 p.c. of the 1913 average as compared with 170.7 for 1939.

CHAPTER XII

External Trade*

Statistics presented in the various sections of this handbook show that the operations of Canadian industry and agriculture have expanded from small beginnings to a point where, to-day, in peace or in war, they make Canada a leading factor in the world economy. External trade has advanced with the growth of industry and agriculture. Empire and foreign commerce provide the consumer, the manufacturer, and farmer with materials and equipment that are lacking or not available in adequate supply within the Dominion, and an outlet for production where, through wealth of natural resources or the extensive development of industrial plants, capacity exceeds Canadian consumption.

Canadian imports in 1939 were 10.9 p.c. above 1938 and higher than any year since 1930, with the exception of 1937. Domestic exports represented an increase of 10.4 p.c. over 1938, but were exceeded by both 1936 and 1937. The favourable balance of trade shown for 1939 has been exceeded only three times since 1926.

The rise in the declared value of imports in 1939 was due entirely to increase in physical volume. All of the nine main groups show larger volume than in 1938. Prices changed by only 0.2 p.c. for imports, as a whole, and the largest change among the main groups was less than 5 p.c. In exports a decline in average prices of 5 p.c. from the preceding year was shown; so that the increase in volume—16 p.c.—was greater than that in declared values.

* In statistics of imports in this chapter, excise duty, which had been included in the value of distilled spirits (chiefly whisky) imported into Canada from countries entitled to the British Preferential Tariff since the fiscal year 1920-21, is excluded as from Apr. 1, 1935. Such imports from the United Kingdom, which constitute the major part of this item, were valued at \$4,555,617 in the calendar year 1939.

Summary of Total Imports and Exports of Canada

Calendar Year	Total Imports	Exports ¹			Excess: Imports—Exports+
		Canadian Produce	Foreign Produce	Total	
	\$	\$	\$	\$	\$
1919	941,013,613	1,235,958,483	53,834,766	1,289,793,249	+348,779,636
1920	1,336,921,021	1,268,014,533	30,147,672	1,298,162,205	- 38,758,816
1921	799,478,483	800,149,296	13,994,461	814,143,757	+ 14,665,274
1922	762,409,309	880,408,645	13,815,268	894,223,913	+131,814,604
1923	903,030,515	1,002,401,467	13,584,849	1,015,986,316	+112,955,801
1924	808,144,573	1,029,699,449	12,553,718	1,042,253,167	+234,108,594
1925	890,193,348	1,239,554,207	12,111,941	1,251,666,148	+361,472,800
1926	1,008,341,911	1,261,241,525	15,357,292	1,276,598,817	+268,256,906
1927	1,087,117,930	1,210,596,998	20,445,231	1,231,042,229	+143,924,299
1928	1,222,317,916	1,339,409,562	24,378,794	1,363,788,356	+141,470,440
1929	1,298,982,692	1,152,416,330	25,926,117	1,178,342,447	-120,650,245
1930	1,008,479,479	863,683,761	19,463,987	883,147,748	-125,331,731
1931	628,098,386	587,653,440	11,907,020	599,560,460	- 28,537,926
1932	452,614,257	489,883,112	8,030,485	497,913,597	+ 45,299,340
1933	401,214,311	529,449,529	6,034,260	535,483,789	+134,269,478
1934	513,469,497	649,314,236	6,991,992	656,306,228	+142,836,731
1935	550,314,551	724,977,459	12,958,420	737,935,879	+187,621,328
1936	635,190,844	937,524,933	12,684,319	950,509,252	+315,318,408
1937	808,896,325	997,366,918	14,754,862	1,012,121,780	+203,225,455
1938	677,451,354	837,583,917	11,100,216	848,684,133	+171,232,779
1939	751,055,534	924,926,104	10,995,609	935,921,713	+184,866,179

¹ Excluding gold.

Gross revenue collected on imports increased from \$92,297,000 to \$103,366,000. This rise of 12.0 p.c. was somewhat greater than the rise in the value of imports, and the average ad valorem rate of duty (i.e., the amount collected, expressed as a percentage of the value of imports), was accordingly higher than in the preceding year. The percentage of imports that were free of duty stood at 43.1 p.c. in 1939, and 44.1 p.c. in 1938.

Canada's Trade by Countries and Commodities.—The two countries that lead in Canada's external trade are the United States and the United Kingdom. Geographic contiguity and economic bonds with the one, political ties and economic bonds with the other, make it natural that, extending back as far as the figures are available, these two countries should account for nearly four-fifths of Canada's imports and three-quarters of the exports. With the advent of war and the closing off of large sections of the world to international trade, the intimate relationship in trading matters between Canada, the United States, and the United Kingdom, has grown even closer.

The United States leads among the countries supplying commodities to Canada in 1939. The United Kingdom is second. Of the first five countries in the list of those from which Canada imports, four are British countries. The rise in import trade with the United States between 1938 and 1939, which amounted to over \$70,000,000, was entirely accounted for in the last four months of the year, imports in each of these being about \$20,000,000 higher than in the corresponding month of the previous year.

Imports of Twenty-five Leading Commodities, Calendar Year 1939 Compared with 1938

Rank		Commodity (In order of value, 1939)	Total Imports, 1939		Increase or Decrease 1939 Compared with 1938	
1938	1939		Quantity	Value	Quantity	Value
				\$		\$
3	1	Machinery, except farm	—	42,828,021	—	+5,912,502
2	2	Coal.....ton	14,998,645	41,678,685	+1,986,154	+5,752,771
1	3	Petroleum, crude....gal.	1,298,367,561	39,677,194	+69,737,478	-1,423,670
4	4	Automobile parts.....	—	25,308,323	—	+614,132
7	5	Plates and sheets, iron.....cwt.	6,521,997	22,790,958	+1,565,282	+4,722,283
5	6	Farm implements and machinery.....	—	20,917,407	—	+597,861
6	7	Sugar for refining....cwt.	10,343,626	20,225,605	+767,194	+2,664,030
12	8	Cotton, raw.....lb.	159,532,357	16,425,282	+24,771,822	+3,552,477
10	9	Automobiles.....No.	18,284	15,673,770	+3,130	+2,953,573
9	10	Fruits, fresh.....	—	15,383,945	—	+1,772,176
8	11	Books and printed matter.....	—	15,152,187	—	-124,911
11	12	Electrical apparatus.....	—	13,751,833	—	+698,307
15	13	Rubber, crude.....lb.	72,828,736	11,612,958	+15,252,443	+3,661,888
14	14	Tea.....	43,393,607	10,090,807	+5,802,543	+510,905
13	15	Oils, vegetable....gal.	19,445,440	9,414,601	-5,519,928	-2,454,924
17	16	Paper.....	—	8,653,987	—	+1,133,659
16	17	Gasoline.....gal.	109,021,177	7,998,336	-10,016,943	+278,429
18	18	Clay and products.....	—	7,934,630	—	+277,428
22	19	Glass and glassware.....	—	7,915,113	—	+1,244,852
21	20	Stone and products.....	—	7,612,473	—	+732,682
19	21	Engines and boilers.....	—	7,605,616	—	-153,490
25	22	Furs.....	—	7,133,052	—	+1,482,428
20	23	Alcoholic beverages.....	—	6,539,969	—	-430,077
33	24	Silk, raw.....lb.	2,304,618	6,340,725	-203,064	+2,034,866
32	25	Dyeing and tanning materials.....	45,231,571	6,257,072	+16,407,028	+1,943,994

In Canadian exports, excluding gold, the United States led in 1939 for the first time in some years. The United Kingdom was second. Each of these two was more than ten times as important a market for Canadian goods as Australia—the country ranking next (third) in the list of importers of Canadian goods. Five of Canada's first eight customers are members of the British Empire.

The destinations of Canada's exports are varied. In 1939, thirty-eight countries each received more than \$1,000,000 worth of Canadian goods. In imports thirty countries each supplied more than \$1,000,000 worth of goods to Canada.

After the United States and the United Kingdom, the British Straits Settlements (\$13,145,000), Australia (\$11,269,000), British India (including Burma) (\$10,358,000), lead the list of countries from which Canadian imports are received. In domestic exports the United States and the United Kingdom again take precedence; the third, fourth and fifth countries are Australia (\$32,029,000), Japan (\$28,168,000), and British South Africa (\$17,965,000).

Domestic Exports of Twenty-five Leading Commodities, Calendar Year 1939 Compared with 1938

Rank		Commodity (In order of value, 1939)	Total Domestic Exports, 1939		Increase or Decrease 1939 Compared with 1938	
1938	1939		Quantity	Value	Quantity	Value
				\$		\$
1	1	Newsprint paper....cwt.	53,173,817	115,685,970	+4,680,725	+11,070,928
3	2	Wheat.....bu.	162,904,586	109,050,542	+48,726,285	+19,656,728
4	3	Nickel.....cwt.	2,347,813	37,933,511	+370,773	+5,437,094
6	4	Planks and boards.M ft.	2,113,160	48,829,466	+446,072	+12,941,985
5	5	Copper in forms.....cwt.	3,903,770	40,232,379	-256,646	-1,393,249
7	6	Meats.....	-	37,445,336	-	+1,136,535
8	7	Wood-pulp.....cwt.	14,110,308	31,000,602	+3,029,566	+3,269,864
9	8	Fish....."	3,296,628	27,742,020	+438,244	-2,448,762
10	9	Aluminium bars....."	1,411,579	29,684,476	+117,092	+2,631,924
11	10	Automobiles.....No.	56,503	22,551,011	+735	+314,341
12	11	Wheat flour.....bbl.	5,342,172	16,378,301	+1,430,286	-1,259,442
19	12	Cattle.....No.	293,424	15,353,121	+114,201	+6,171,922
14	13	Asbestos, raw.....ton	346,018	14,365,288	+57,131	+1,255,102
13	14	Furs, raw.....	-	14,130,188	-	+539,964
16	15	Cheese.....cwt.	909,448	12,248,650	+99,557	+374,427
15	16	Pulpwood.....cord	1,392,311	11,901,480	-195,218	-1,740,316
18	17	Copper ore and blister.....cwt.	1,526,127	11,618,806	+122,793	+824,984
21	18	Machinery, except farm.	-	10,873,125	-	+1,090,406
29	19	Tobacco, raw.....lb.	32,210,012	10,182,967	+15,866,963	+4,708,488
25	20	Zinc.....cwt.	3,571,682	9,922,232	+445,390	+106,224
23	21	Lead....."	3,696,759	9,850,076	+526,495	+866,885
28	22	Fertilizers....."	7,277,471	9,179,148	+1,645,884	+2,112,962
17	23	Silver ore and bullion.oz.	21,030,580	8,525,173	-7,520,934	-3,854,149
30	24	Shingles, wood.....sq.	2,935,349	8,224,756	+1,035,715	+3,067,187
26	25	Tires and tubes, rubber.....No.	1,187,739	8,023,335	-40,274	+118,783

EXTERNAL TRADE

Summary of Trade with British Empire and Foreign Countries

Calendar Year	Canada's Trade with—					
	United Kingdom	United States	Other British Empire	Other Foreign Countries	Total, British Empire	Total, Foreign Countries
Imports—	\$	\$	\$	\$	\$	\$
1928.....	190,756,730	825,951,549	63,401,247	142,508,384	254,157,983	968,159,933
1929.....	194,777,650	893,585,482	62,321,200	148,308,360	257,098,860	1,041,893,842
1930.....	162,632,466	853,076,496	65,219,110	126,951,407	227,851,576	780,627,903
1931.....	109,468,081	393,775,289	42,531,841	82,323,175	151,999,922	476,098,464
1932.....	93,508,143	263,549,346	34,549,472	61,007,296	128,057,615	324,556,642
1933.....	97,878,232	217,291,498	34,806,405	51,238,176	132,684,637	268,529,674
1934.....	113,415,984	293,779,813	43,650,726	82,622,974	157,066,710	356,402,787
1935.....	116,670,227	312,416,604	57,218,583	64,009,137	173,888,810	376,425,741
1936.....	122,971,264	369,141,513	66,347,757	76,730,310	189,319,021	445,871,823
1937.....	147,291,551	490,504,978	89,304,287	81,795,509	236,595,838	572,300,487
1938.....	119,292,430	424,730,567	66,806,174	66,622,183	186,098,604	491,352,750
1939.....	114,007,409	496,898,466	74,892,867	65,256,792	188,900,276	502,155,258
Exports (Domestic)—¹						
1928.....	446,128,667	481,531,086	99,197,726	312,331,836	545,326,393	793,862,922
1929.....	290,294,564	492,685,606	105,006,494	264,429,666	395,301,058	757,115,272
1930.....	235,213,959	373,424,236	81,128,537	173,882,933	310,342,496	547,307,169
1931.....	170,597,455	240,196,849	49,183,951	127,675,185	219,781,406	367,872,034
1932.....	178,171,680	158,705,050	38,985,273	114,021,109	217,156,953	272,726,159
1933.....	210,697,224	168,242,840	44,483,457	106,026,008	255,180,681	274,268,848
1934.....	270,491,857	218,597,071	64,926,281	95,299,027	335,418,138	313,896,098
1935.....	303,500,846	261,685,372	74,143,267	85,647,974	377,644,113	347,333,346
1936.....	395,351,950	333,916,949	84,294,078	124,261,956	479,646,028	458,178,903
1937.....	402,062,094	360,012,143	104,159,107	131,133,574	506,221,201	491,145,717
1938.....	339,688,665	270,461,189	103,213,752	124,220,291	442,902,437	394,681,480
1939.....	328,099,242	360,392,047	102,707,304	113,727,511	430,806,546	494,119,558

¹ Excluding gold.

Canadian Douglas Fir 'Squares' being Unloaded at Bombay Docks.



Courtesy, Dept. of Trade and Commerce.

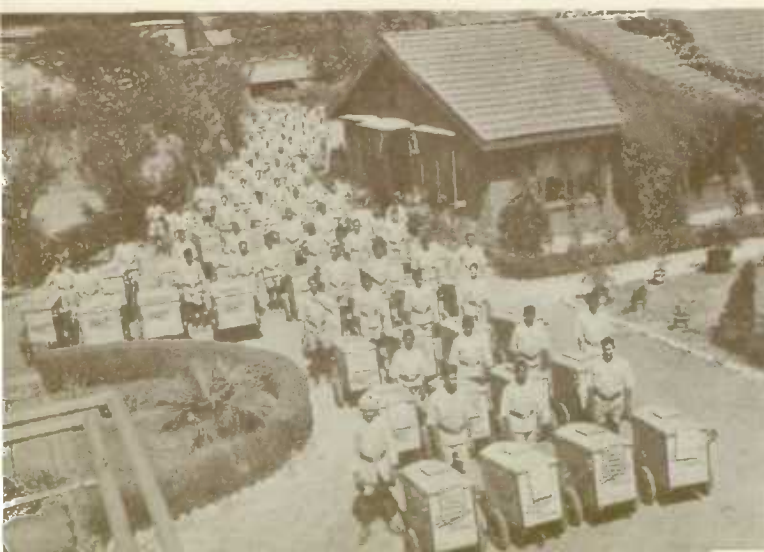


Canadian Dairy
Cattle being
Landed at
Hong Kong.

*Courtesy, Dept. of
Trade and
Commerce.*

Review of Canada's Trade, by Months.—The totals for the period September, 1939, to August, 1940, were \$992,000,000 in imports, and \$1,130,000,000 in exports, compared with the preceding twelve-month period totals of \$670,000,000 and \$870,000,000, respectively.

Imports and exports of gold are subject to influences that do not apply to trade in other commodities. It has been considered advisable for the present, as from September, 1939, to exclude the gross figure of gold imports and exports from the ordinary trade reports. This is in line with procedure adopted in other countries. However, the figure for net non-monetary gold exports will continue to be published as a footnote to the regular trade statistics. All export statistics for earlier years given have been revised so as to be comparable with current figures.



Vendors of Ice Cream
Manufactured from
Canadian Milk
Powder.
Calcutta, India.

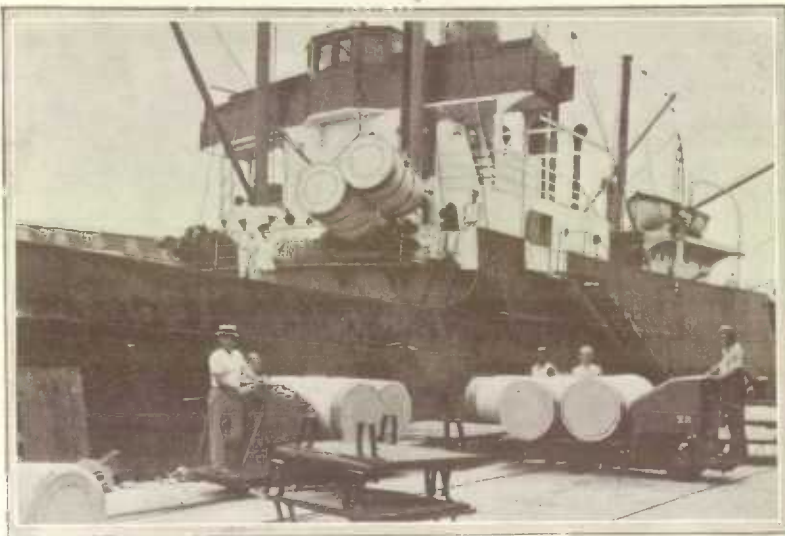
*Courtesy, Dept. of
Trade and
Commerce.*

Imports and Exports by Months, January, 1937, to October, 1940

Month	Imports				Exports of Canadian Produce ¹			
	1937	1938	1939	1940	1937	1938	1939	1940
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
January.....	51,583	49,720	43,743	71,104	70,663	70,300	70,083	90,100
February.....	48,681	46,952	40,380	71,042	64,018	59,619	57,572	71,079
March.....	70,990	65,056	58,381	76,734	83,371	73,329	69,270	82,719
April.....	56,886	48,895	41,908	85,980	58,494	50,860	50,311	83,565
May.....	78,707	67,123	72,958	100,537	89,170	66,998	70,932	109,853
June.....	75,669	58,947	63,709	90,705	94,026	65,944	76,367	110,823
July.....	71,996	55,823	57,980	89,496	90,820	66,181	75,753	100,782
August.....	69,966	57,026	62,708	96,836	89,216	69,111	75,560	110,548
September.....	70,240	56,412	73,564	85,287	82,505	72,206	81,461	101,440
October.....	82,113	63,909	70,053	108,645	93,288	88,169	90,433	102,972
November.....	80,641	63,304	84,561	-	100,724	85,979	97,163	117,457
December.....	53,125	44,286	72,109	-	75,093	68,888	101,022	-

¹ Excluding gold.

World Trade During 1939.—The rising trend of world trade in the years 1933-37 was replaced in 1938 by a definite decline. In 1939 the rising tendency was resumed and the statistics of most countries, like those of Canada, indicate a somewhat greater foreign trade activity than in 1938, though in few cases were the high levels of 1937 attained.



Unloading Canadian Newsprint at Havana, Cuba.

Courtesy, Department of Trade and Commerce.

The attempts of many countries to balance imports and exports with each country with which they deal, and the formation of trading blocs (united by the acceptance of a common currency) were adverse factors of previous years, which continued to operate during the first eight months of 1939. These attempts result in a smaller volume of world trade and production, and tend to make the smaller production more costly per unit.

The trade of most of the countries of the world fell in the first month or two after the outbreak of war. As ocean transport was adapted to war conditions, and increased trade of the Allies made up for the lessened trade of Germany, the total of world trade has shown progressive increase to equal or surpass pre-war levels.

Net Imports and Domestic Exports of Seventeen Countries with Percentage Increase or Decrease, 1939 Compared with 1938

Country	Net Imports		Domestic Exports		Percentage of Increase or Decrease 1939 Compared with 1938	
	1938	1939	1938	1939	Imports	Exports
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	p.c.	p.c.
Argentina.....	446	429	441	505	-3.8	+14.5
Australia.....	519	353	522	444	-31.9	-14.9
Belgium.....	776	684	734	762	-11.9	+3.8
Brazil.....	298	314	298	354	+5.4	+18.8
British India.....	554	536	598	628	-3.2	+5.0
Canada.....	677	751	838 ¹	925 ¹	+10.9	+10.4
Denmark.....	360	369	340	334	+2.5	-1.8
France.....	1,334	"	881	"	-	-
Germany ²	2,473	"	2,294	"	-	-
Italy.....	589	"	550	"	-	-
Japan.....	763	784	768	962	+2.8	+25.3
Netherlands.....	783	842	574	537	+7.5	-6.4
Sweden.....	523	622	465	469	+18.9	+0.9
Switzerland.....	270	443	303	304	+64.1	+0.3
Union of South Africa.....	452	"	479	"	-	-
United Kingdom.....	4,525	3,880	2,318	2,027	-14.3	-12.6
United States.....	1,962	2,371	3,076	3,253	+20.8	+5.8
Comparable Totals, 13 Countries Given for 1939	12,456	12,378	11,275	11,504	-0.6	+2.0

¹ Excluding gold.

² Not available.

³ Includes Austria.

The Commercial Intelligence Service

The Commercial Intelligence Service, maintained by the Department of Trade and Commerce, is designed to further the interests of Canadian trade in other parts of the Empire and in foreign countries. To this end there are established throughout the world offices administered by Trade Commissioners. These Trade Commissioners make periodical reports upon trade and financial conditions, variations in markets, and the current demand or opportunities for Canadian products. They also secure and forward to the Department at Ottawa inquiries for Canadian goods and, in general, promote the development of overseas markets.

Organization at Ottawa.—The headquarters staff at Ottawa is presided over by a Director, who administers the work assigned to the various Trade Commissioners and is assisted by the following divisions: Directories—Exporters Directory, listing Canadian exporters, with their agents abroad, commodities handled, etc., and Foreign Importers Directory; Editorial; Commodity Records—where information regarding markets for Canadian export commodities is indexed; Economics; Animal and Fish Products; Vegetable Products; Metals and Chemical Products; Forest Products; and Miscellaneous Manufactures.

Organization Abroad.—There are twenty-nine Canadian Trade Commissioners or commercial diplomatic officers conveniently located abroad. In some countries or territories, such as the United Kingdom, Australia, British West Indies, South Africa, and the United States, there is more than one commercial officer; in other cases an officer covers adjacent countries. Besides the five mentioned above, countries in which officers are located are as follows: Argentina, Brazil, British Malaya, China, Cuba, Egypt, Hong Kong, India and Ceylon, Ireland (Eire) and Northern Ireland, Mexico, New Zealand, Panama, and Peru.

Under an arrangement made by the Minister of Trade and Commerce with the British Foreign Office, Canadians interested in trade matters may secure information and advice from British commercial diplomatic officers and British consuls in all countries in which Canada is not represented by her own Commercial Intelligence Service.

Commercial Intelligence Journal.—The Commercial Intelligence Journal, containing the reports of the Trade Commissioners and other pertinent material relating to export trade, is published weekly by the Department of Trade and Commerce in both English and French editions. The subscription price for either edition is \$1 per annum in Canada and \$3.50 outside of the Dominion. Special reports dealing with various phases of Canada's export trade are also issued from time to time, as supplements to the Commercial Intelligence Journal.

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.

Hall Harbour on the Fundy Coast of Nova Scotia.

Courtesy, Bureau of Information, Halifax, N.S.





Trail Riders, Blue Creek, Jasper National Park.

Courtesy, National Parks Bureau.

The Tourist Trade.—An item in exchange that deserves special mention is the tourist trade. By far the most important factor is the automobile traffic between Canada and the United States, it being estimated that such United States tourists spent \$168,607,000 in Canada in 1939, while Canadian automobile tourists spent about \$44,000,000 in the United States. Tourist expenditures are, in part, the return that Canada derives from her picturesque scenery, fish and game, winter sports, etc.

The Rugged North Shore of Lake Superior near Fort William and Port Arthur.

Courtesy, Civic Tourist Bureau, Fort William, Ont.



Summary of Tourist Expenditures, 1929, and 1933-39

Year	Expenditures of Outside Tourists in Canada (A)	Expenditures of Canadian Tourists in Other Countries (B)	Excess of (A) over (B)
	\$	\$	\$
1929.....	309,379,000	121,645,000	187,734,000
1933.....	117,124,000 ¹	50,860,000	66,264,000
1934.....	145,974,000	63,658,000	82,316,000
1935.....	214,778,000	95,600,000	119,178,000
1936.....	251,299,000	110,400,000	140,899,000
1937.....	290,581,000	124,422,000	166,159,000
1938.....	281,850,000 ²	121,958,000 ²	159,892,000 ²
1939.....	274,771,000 ¹	108,796,000	165,975,000

¹ Converted into Canadian funds at average rates of exchange for the period.
figures.

² Revised

Apart from the revenue that Canada derives directly from the tourist trade there are many other important results. First-hand knowledge of the country, its products and resources, serves to stimulate the demand for such products and attracts new capital for investment here. There is, too, a value, which cannot be measured in dollars and cents, derived from neighbours becoming better acquainted and through the exchange of ideas. A more widely diffused knowledge of the culture, interests, and difficulties of other nations leads to a richer social and intellectual life for all and the mutual understanding that springs from such contacts is an invaluable source of international goodwill.

The Canadian Balance of International Payments.—There are other important exchanges of services as well as numerous movements of capital between Canada and other countries. In order to summarize all of the nation's commercial and financial transactions with other countries and to reveal their general significance, a statement called the balance of international payments is drawn up. A statement of this kind segregates all of the current exchanges of merchandise, gold, and services from operations on capital account, those which, for example, usually directly affect Canada's foreign assets and liabilities.

By doing this it is possible to observe the various sources of external income and disbursements and their relationships. When current income exceeds current disbursements, as has been the experience of Canada for a period of years, this is indirect evidence that the movement of capital is outward on balance. The direct study of capital movements shown in the capital account of the statement confirms these indirect estimates and reveals the general character of the movements. By making an analysis of capital movements it is possible to appraise their general consequences. Such an analysis discloses, for instance, whether the nation is increasing

or reducing its foreign obligations. It makes it possible to judge the character of the changes, such as whether their effects are of a relatively permanent or temporary nature.

The accompanying statement of the Canadian balance of international payments reveals that in 1939, as in 1938, Canada continued to have a substantial credit balance from its trade in merchandise, gold, and services with other countries. These receipts from exports of merchandise, sales of gold, and the expenditure of tourists in Canada exceeded all current payments to other countries for imported merchandise and services including the large volume of interest and dividends paid to investors in other countries. The resulting balance of credits in 1939 amounted to over \$209,000,000. These surplus credits from exports of goods and services were available for the transfer of capital from Canada, and the outflow of capital therefore continued in large volume. As in other recent years, the volume of retirements of Canadian bond issues held abroad was greater than the new issues floated in capital markets outside of Canada. In contrast, in the trade in outstanding securities there was an inflow of capital as sales by Canada of outstanding securities—United States stocks, as well as Canadian stocks and bonds—exceeded Canadian purchases. Other capital movements were very substantial and predominantly outwards. Among these movements were those arising from the operations of insurance companies and international direct investments (in 'branch plants'), changes in short-term assets, and certain accounting adjustments to entries, such as the gold item, elsewhere in the statement.

The credit balance in 1939 was larger than in 1938. This was mainly the result of larger credits from the merchandise trade and gold. Net revenue from the tourist trade was only slightly higher than in 1938. Heavier payments on account of interest and dividends and freight partly offset the gains in the three principal sources of revenue noted. Capital movements in 1939 were more varied and on a larger scale than in 1938. The larger outflow for the retirement of securities owned abroad was, in part, a reflection of the repatriation operations that commenced in November as a part of the Canadian contribution to the Allied War effort. In the trade in outstanding securities there were larger inflows of capital from the United States and continental Europe. Other capital movements were outward on balance in both years. In 1939 they were larger and affected by some large unusual transactions. In general, it should be pointed out that there were more diverse influences affecting the balance of payments in 1939 than the changes discussed above indicate. Among the more notable new factors was the introduction of foreign exchange control and the setting of official foreign exchange rates shortly after the outbreak of war.

In both years, it may be perceived, the net credits on account of exchanges of merchandise, gold, and services were greater than the net payments traced in the capital account. If all of the estimated values of transactions entering the accounts were exactly accurate, and if there were no omissions, these balancing items would offset one another. Such perfect accuracy is unattainable in practice, of course, owing to the magnitude and complex character of the transactions.

Estimated Balance of International Payments, 1938 and 1939

Item	1938		1939 ¹	
	Gross Value of Transactions	Net Receipts (+), Net Payments (-)	Gross Value of Transactions	Net Receipts (+), Net Payments (-)
Exchanges of Commodities, Gold, and Services	\$'000,000	\$'000,000	\$'000,000	\$'000,000
Merchandise sold to other countries.....	847.1	+181.9	933.6	+202.0
Merchandise bought from other countries.....	665.2		731.6	
Receipts from gold sold to other countries.....	-	+156.5	-	+184.4
Expenditures in Canada of tourists from abroad	282.7	+161.7	275.0	+165.0
Expenditures of Canadian tourists abroad	121.0		110.0	
Interest and dividends received from abroad	66.0	-251.0	53.2	-260.8
Interest and dividends paid abroad	317.0		314.0	
Receipts from abroad for freight transportation	79.6	-25.4	86.0	-40.8
Payments abroad for freight transportation	105.0		126.8	
Receipts from other trade and service transactions.....	23.4	-43.5	29.1	-40.8
Payments for other trade and service transactions.....	66.9		69.9	
Net Receipts (Credits).....	-	+180.2	-	+209.0
Capital Movements				
Sales of new issues of Canadian securities abroad	88.8	-61.9	144.5	-90.2
Retirements of Canadian securities owned abroad.....	150.5		234.7	
Receipts from the sale of other securities abroad.....	369.2	+28.9	311.0	+72.1
Payments for the purchase of other securities abroad.....	340.3		238.9	
Other capital movements.....	-	-102.0	-	-144.0
Net Outward Movement (Net Payments)	-	-135.0	-	-162.1

¹ Preliminary.

CHAPTER XIII

Internal Trade—Cost of Living—Prices

Internal trade is of primary importance. The task of providing goods and services for home consumption by 11,422,000 people requires a greater expenditure of economic activity than that required for the prosecution of external trade, even though Canada ranked fifth among trading countries of the world, according to the latest pre-war figures (1938). Internal trade includes 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, theatres, hospitals, 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 the latest year for which figures have been published (1933), the national income arising from those gainfully occupied in Canada was estimated at \$4,265,000,000, while the value of exports of Canadian produce was \$1,015,000,000 in that year.

Current Trends.—A moderate but sudden increase in consumer purchasing occurred immediately following the outbreak of war in 1939: dollar volume of retail trading for 12 lines of business, principally those dealing in food, clothing, and household requirements, averaged 12 p.c. higher in September, 1939, than in the corresponding month of 1938. Anticipation of rising prices was the stimulating factor at this time. Grocery and meat-store sales averaged 15 p.c. above September, 1938. Remembrance of the high levels to which prices of such staple products as flour, sugar, and tea, rose during the War of 1914-18, resulted in a heavy demand for these items in September, 1939; comparative figures for these three items alone, if available, would reveal much larger increases. Demand for textile products was also strong. Sales figures for individual commodities are not available but aggregate sales for stores specializing in men's clothing and furnishings were 17 p.c. higher; women's apparel store sales and the piece goods departments of department stores increased by 15 p.c., and 21 p.c., respectively, from September, 1938.

Apart from a partial return to pre-war conditions in November, the underlying trend in retail trading was maintained at the September level until the beginning of May, 1940, when intensified war operations induced a further slightly upward movement. The composite index of sales averaged 11 p.c. higher for the year ended Aug. 31, 1940, than for the preceding twelve-month period. Music- and radio-store sales were up 19 p.c.; furniture stores, 17 p.c.; men's clothing stores, 14 p.c.; women's apparel stores, 13 p.c.; and food-store sales, 10 p.c. Thus, it may be seen that food and textile products have been surpassed by the more durable consumer goods in point of view of sales increases, anticipation of higher price levels being replaced by augmented purchasing power in the hands of consumers as the chief stimulus to retail trading.

A significant development in chain store policy in the food-retailing field during recent years is the trend towards larger stores and the closing

Display of
Canadian Canned
Goods at
Cape Town,
South Africa.



Courtesy, Department
of Trade and
Commerce.

out of smaller units. In 1934 there were only 152 individual units of food chains with annual sales of \$100,000 or more each, and these transacted 21.7 p.c. of the total food chain business. In 1939 there were 313 stores in the same size class and these accounted for 47.1 p.c. of the total sales.

Retail Services.—More than 40,000 establishments are engaged in supplying services of various kinds to the Canadian public. The provision of amusement and domestic and personal services forms the chief business of the service groups. In 1930, \$249,000,000 was spent by consumers in such establishments; employment was provided for 64,000 persons.

Motion Picture Theatres.—Conditions prevailing during the first four months of the War apparently had but little effect upon attendance at motion picture theatres. There were 138,497,043 paid admissions to 1,186 theatres in Canada in 1939 compared with 137,976,052 admissions to 1,133 theatres in the preceding year. Box office receipts (exclusive of amusement taxes) were \$34,010,115 for 1939, up 1.1 p.c. from the amount recorded for 1938. Per capita expenditure at motion picture theatres was \$3.03 for 1939, and \$3.02 for 1938.

Laws Regarding Combinations in Restraint of Trade

Dominion legislation for the promotion of trade and industry has consistently included laws designed to encourage competitive enterprise and protect the interests of consumers and others by specific prohibition of private monopolistic restrictions in undue restraint of trade. An "Act for the Prevention and Suppression of Combinations Formed in Restraint of Trade", first passed in 1889, is now replaced by Sect. 498 of the Criminal Code, which provides penalties for the offences of agreeing to unduly lessen competition, production, or trade facilities or to unreasonably enhance prices. The Combines Investigation Act (R.S.C. 1927, c. 26), which succeeded earlier similar statutes, makes provision for the investigation of restrictive trade combinations and monopolies of this type.

The Combines Investigation Act.—A combine, as defined in the Combines Investigation Act, is a trade combination, merger, trust, or monopoly, operating against the public interest through fixing common prices, enhancing prices, preventing competition or otherwise restraining

or injuring trade or commerce. Investigations of alleged combines are conducted under the direction of a Combines Investigation Commissioner, who reports to the Minister of Labour. Participation in or knowing assistance in the formation or operation of a combine is an indictable offence. In cases where prosecution is necessary the Commissioner's report is remitted to the proper authorities for action. Operations under the present Combines Investigation Act have involved continuous investigation into complaints, applications, and inquiries relating to restrictive or potentially monopolistic trade conditions in particular industries and trades. The more extensive investigations have involved such products as bread, coal, fruits and vegetables, proprietary medicines and druggist's supplies, plumbing and electrical installations, motion pictures, tobacco, and shipping containers.

Wholesale Trade.—Notwithstanding the development during recent years of the modern chain store with its own warehousing facilities, the wholesale merchant still plays an important part in the distribution of goods in Canada. Indexes of wholesale sales showed an increase of 6.1 p.c. from 1938 to 1939.

Indexes of Sales of Retail and Wholesale Establishments, 1936-39

(1930=100)

Province	Retail Stores					Wholesale Establishments ¹				
	1930	1936	1937	1938	1939	1930	1936	1937	1938	1939
Prince Edward Island.....	100.0	82.4	85.3	80.7	83.0	100.0	83.8	83.9	74.7	86.8
Nova Scotia.....	100.0	88.7	89.8	96.3	99.3	100.0	91.2	102.3	96.9	110.3
New Brunswick.....	100.0	79.4	90.9	84.9	88.0	100.0	84.9	98.7	94.1	98.7
Quebec.....	100.0	76.5	86.9	86.2	86.7	100.0	84.7	100.2	93.1	98.8
Ontario.....	100.0	83.0	92.9	89.9	91.1	100.0	91.5	105.1	99.4	104.3
Manitoba.....	100.0	78.5	85.2	84.0	85.5	100.0	88.3	101.4	102.8	107.9
Saskatchewan.....	100.0	69.7	68.3	68.4	76.4	100.0	70.9	70.8	74.8	82.7
Alberta.....	100.0	78.7	86.3	91.5	93.0	100.0	79.3	86.6	89.0	93.5
British Columbia.....	100.0	84.0	93.6	89.5	90.0	100.0	84.0	97.2	93.8	100.3
Yukon and N.W.T.....	100.0	61.2	75.2	75.1	68.0	—	—	—	—	—
Canada	100.0	80.1	89.0	87.3	88.8	100.0	86.2	98.7	94.6	100.4

¹ Regular wholesale houses. For a full description of the index, see the report "Wholesale Trade in Canada, 1930-33", obtainable from the Dominion Statistician.

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. The 1931 Census of Merchandising and Service Establishments showed that there were 125,000 retail stores in Canada in 1930, with annual sales amounting to \$2,756,000,000.

Conforming with the trend in general business conditions, retail trading declined during the period following the census year until in 1933 dollar value of retail sales was 35 p.c. below the 1930 level. A gradual improvement that commenced in the latter part of 1933 continued until 1937 when dollar sales were 37 p.c. above the mid-depression period and came within 11 p.c. of the amount recorded for 1930. Sales in 1938 and 1939 varied but little from the 1937 level.

INTERNAL TRADE

Chain Stores.—The annual survey of chain stores made in connection with the Census of Merchandising shows that chain stores (other than department store chains) did approximately 18 p.c. of the total retail business in 1939. In earlier years the ratio of chain to total sales varied from 17 to 19 p.c.

Summary Statistics of Chain Stores, 1931-39

Calendar Year	Chains	Chain Stores	Value of Chain Sales	
			Amount	P.C. of Total Sales
	No.	No.	\$	
1931.....	506	8,557	434,199,700	18.7
1932.....	480	8,398	360,805,200	18.8
1933.....	461	8,230	328,902,600	18.5
1934.....	445	8,210	347,186,100	17.9
1935.....	445	8,024	364,589,800	17.9
1936.....	457	8,124	394,935,000	17.9
1937.....	447	7,815	414,133,300	16.9
1938.....	457	7,682	414,448,300	17.2
1939.....	446	7,595	432,026,100	17.7

Co-operative Associations.—There is no definite information as to the extent of the co-operative movement in Canada. The Co-operative Union of Canada is a Dominion body carrying on educational work. Only a small proportion of the organizations which claim to conduct business by co-operative methods are affiliated with it. Of 65 retail societies affiliated with the Union in 1939, 48 reported a membership of over 20,000 and aggregate sales of more than \$5,500,000. Three wholesale societies in the Prairie Provinces reported an increasing business. Of the 164,449 members of co-operative organizations reporting to the Union, over 136,000 were members of farmers' marketing organizations.

Fruit Market at Hamilton, Ont.

Courtesy, Canadian Government Motion Picture Bureau.



In contrast to the slow development of retail societies has been the expansion of credit unions in recent years. Of these there are about 850. In Quebec, where "People's Banks" have been in existence for many years, 338 were reported in 1938, while in Nova Scotia there were 196 credit unions in July, 1940, with loans for the last nine months of 1939 amounting to over \$589,000. In New Brunswick and Prince Edward Island the movement has also shown considerable strength. In 1939, 119 New Brunswick societies reported \$375,000 in loans and in Prince Edward Island 44 societies reported \$124,600 in loans. In the other provinces credit unions have been organized and the number is increasing.

Cost of Living

Statistics of cost of living constitute a very important phase of price statistics. Index numbers of retail prices, rents, and costs of services, issued by the Bureau of Statistics, are constructed to measure the general movement of such prices and costs in the Dominion as a whole. They are computed in such a manner as to make comparisons possible with other general index numbers constructed on similar principles, as, for example, the index of wholesale prices. Calculated as they are on the aggregative principle, i.e., the total consumption of each commodity, the Bureau's index numbers afford an excellent measurement of changes in the average cost of living in the Dominion as distinguished from that of any particular class or section.

Index Numbers of Living Costs in Canada, 1935-39, and by Months, 1940

(Av. 1935-39 = 100)

Year or Month	Food	Rent	Fuel and Light	Clothing	Home Furnishings	Sundries	Total
1935.....	94.6	94.0	100.9	97.6	95.4	98.7	96.2
1936.....	97.8	96.1	101.5	99.3	97.2	99.1	98.1
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—							
January.....	104.5	104.4	105.5	103.3	104.3	101.8	103.8
February.....	104.5	104.4	105.8	103.3	104.3	101.9	103.8
March.....	104.8	104.4	105.7	107.8	105.9	101.9	104.6
April.....	104.8	104.4	105.9	107.8	106.1	101.8	104.6
May.....	104.4	106.9	106.1	107.8	106.2	101.8	104.9
June.....	103.8	106.9	106.0	109.1	106.5	101.8	104.9
July.....	105.3	106.9	107.9	109.1	106.9	102.2	105.6
August.....	105.4	106.9	108.4	109.1	106.9	103.0	105.9
September.....	105.4	106.9	108.5	112.4	108.9	102.8	106.4
October.....	106.1	107.7	108.0	113.5	109.7	102.8	107.0
November.....	108.7	107.7	108.5	113.5	110.0	102.8	107.8
December.....	—	—	—	—	—	—	—

¹ Preliminary figures.

Cost of living indexes shown in the above table are the first in a new series prepared by the Dominion Bureau of Statistics in consultation with the Dominion Department of Labour and the Wartime Prices and Trade Board. Price averages for the five-year period 1935 to 1939 were taken as equal to 100.0 while changes in weighting were based upon the expenditure experience of 1,439 urban wage-earner families in the year ended Sept. 30, 1938.

The gradual easing in prices apparent in 1938 continued through the first eight months of 1939. In the ensuing twelve months under war-time conditions, prices advanced rapidly, with the most pronounced increases in clothing, foods, fuel and light, and home furnishings. The composite index showed a net rise of 5.6 p.c. from August, 1939, to Sept. 1, 1940. Of this amount 2.5 p.c. was accumulated in the first eight months of 1940.

Review of Wholesale Prices, August, 1939-June, 1940

The first phase of wholesale price index movements extending from September, 1939, to March, 1940, opened with a sharp advance concentrated largely in September and early October. Further gradual gains in the next four months resulted in a net increase of 14.7 p.c. by the first week in March. In the next two and one-half months certain commodity markets recorded varying declines, and by the week ended May 24, the Bureau's general wholesale price index was only 12.2 p.c. above the August, 1939, level. In the month following, early increases were partially lost towards the close, leaving the index 12.7 p.c. above August, 1939.

The most striking feature of the autumn rise in 1939 was the small number of commodities responsible for the major part of the advance. Grains, milled products, sugar, butter, cheese, textiles, pulp, and newsprint accounted for more than 70 p.c. of the increase in the general index, although they were responsible for less than one-third of the value of all items represented. By the week ended June 28, 1940, these same items accounted for barely 50 p.c. of the net increase over pre-war levels.

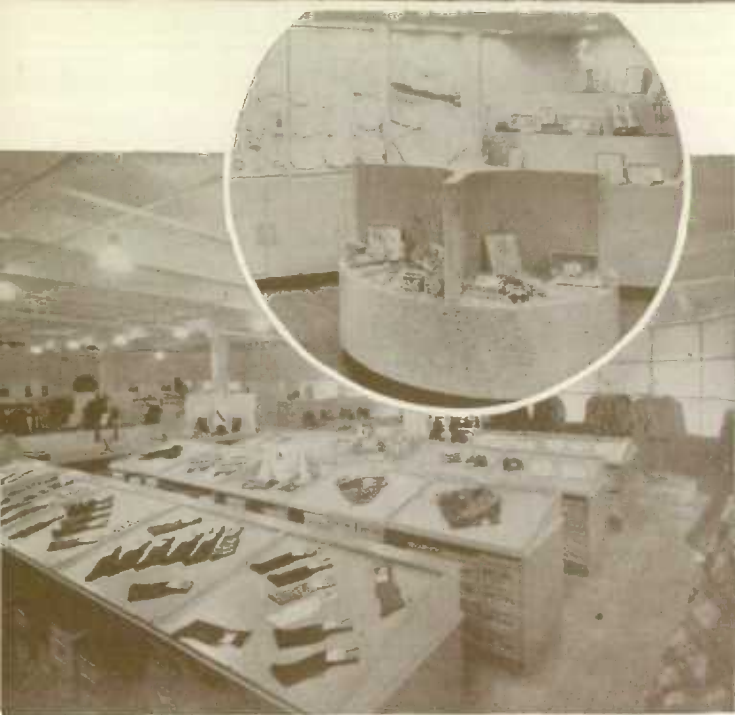
The subsequent reaction was due mainly to sharp declines in Canadian farm products including grains, hides, butter, and cheese. Lower prices for these commodities were sufficiently severe to overbalance continued moderate increases for a wide range of other commodities including meats, scrap metals, coal, wool fabrics, sugar, wood-pulp, lumber, and miscellaneous fabrics.

Percentage Change of Wholesale Prices in 36 Principal Commodity Groups, between August, 1939, and the Week Ended June 28, 1940

Commodity Group	Percentage Change		Commodity Group	Percentage Change	
	Aug., 1939, to June 28, 1940	Mar. 8, 1940, to June 28, 1940		Aug., 1939, to June 28, 1940	Mar. 8, 1940, to June 28, 1940
Cloth, woollen.....	+53.7	+2.8	Aluminium.....	+9.6	0.0
Miscellaneous fibres.....	+44.0	+2.8	Rubber products.....	+9.3	-1.1
Wood-pulp.....	+39.5	+3.2	Newsprint and paper.....	+8.8	+0.5
Iron and steel, scrap.....	+33.1	+5.4	Coal.....	+8.2	+4.1
Fabrics, silk.....	+30.4	0.0	Copper and its products.....	+8.2	-0.6
Zinc.....	+28.1	+0.3	Silver.....	+6.7	0.0
Meats, fresh.....	+26.9	+11.0	Milk and its products.....	+6.0	-13.1
Grains.....	+26.6	-22.0	Pine lumber and timber.....	+5.6	+2.6
Cotton, raw.....	+25.3	-1.6	Rolling-mill products.....	+5.5	-0.5
Milled products.....	+21.3	-12.5	Paint, prepared.....	+5.0	0.0
Fish products.....	+20.3	-1.9	Petroleum products.....	+3.7	-0.4
Sugar products.....	+18.5	+5.9	Fir lumber and timber.....	+3.5	-0.8
Fabrics, cotton.....	+15.6	+0.5	Hardware.....	+2.7	0.0
Lead.....	+15.0	0.0	Chemicals, inorganic.....	+2.0	-2.0
Paint materials.....	+12.3	-0.4	Clay and allied products.....	+0.9	+0.9
Furniture.....	+11.9	+3.0	Wire.....	0.0	0.0
Pig-iron.....	+11.3	0.0	Meats, prepared.....	-4.5	-4.4
Hides and skins.....	+10.2	-36.4	Asbestos products.....	-4.9	+0.1



Part of the Shipping
Floor in a Wholesale
Grocery Warehouse.



Men's Furnishings
Department in a Wholesale
Dry Goods Showroom.

Inset:
Babies Wear Department.



Attractive Display Shelves
in a Modern Retail
Provision Store.

*Courtesy, Canadian
Grocer, Toronto.*

Grain
Elevators at
Port Arthur,
Oat.



*Courtesy, Canadian
Gov't. Motion
Picture Bureau.*

The slight rise of late May and June was fairly general in character. It was curtailed somewhat by further weakness in several commodity groups that had participated in the April-May decline, notably grains, milled products, milk products, hides, copper, silver, and petroleum products. The most substantial gains in May and June were recorded for fresh meats, fish, raw cotton, and scrap metals. There was a tendency towards diffusion in wholesale price movements in early summer in which decreases were more pronounced than increases.

CHAPTER XIV

Public Finance

Dominion Finance

Among the powers conferred on the Dominion Government by the British North America Act were: the right to deal with the public debt and property; the right to raise money by any system of taxation (the provinces were limited to direct taxation); and the borrowing of money on the credit of the Dominion. The Department of Finance was established in 1869 to have supervision, control and direction of all matters relating to financial affairs, public accounts, etc., of the Dominion.

At Confederation the revenues, notably the customs and excise duties that had previously accrued to the treasuries of the provinces, were transferred to the Dominion and combined into a consolidated revenue fund against which certain specific charges, such as cost of collection, interest on public debt, and salary of the Governor General, were made. The remainder of the fund was appropriated by Parliament. The public works, cash assets, and other property of the provinces, except lands, mines, minerals, and royalties, also became Dominion property. In its turn the Dominion became responsible for the pre-existing debts of the provinces.

Since the main source of the revenues of the provinces was now taken over, the Dominion undertook to pay annual subsidies to the provinces for the support of their governments and legislatures. With the growth of the Dominion, the principle of subsidy payments has been extended to the western provinces; from time to time adjustments have been made.

Dominion Finances, 1868-1940

Fiscal Year	Revenue Receipts	Per Capita Receipts ¹	Total Expenditure	Per Capita Expenditure ¹	Net Debt at End of Year	Net Debt Per Capita
	\$	\$	\$	\$	\$	\$
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	237,809,631	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 ²	60-12	2,340,878,084	266-37
1926.....	382,893,009	40-51	355,186,423 ²	37-58	2,389,731,099	252-85
1931.....	357,720,435	34-48	441,568,413 ²	42-56	2,261,611,937	217-94
1932.....	334,508,081	31-84	448,742,316 ²	42-71	2,375,846,172	226-14
1933.....	311,735,285	29-19	532,369,940 ²	49-84	2,596,480,826	243-09
1934.....	324,660,590	30-00	458,157,905 ²	42-33	2,729,978,140	252-22
1935.....	361,973,763	33-10	478,106,581 ²	43-72	2,846,110,958	260-28
1936.....	372,595,996	33-79	532,585,555 ²	48-29	3,006,100,517	272-59
1937.....	454,153,747	40-84	532,005,432 ²	47-84	3,083,952,202	277-33
1938.....	516,692,749	46-10	534,408,117 ²	47-68	3,101,667,570	276-71
1939.....	502,171,354	44-37	553,063,095 ²	48-88	3,152,559,314	278-62
1940.....	562,093,459	49-21	680,793,792 ²	59-60	3,271,259,647	286-40

¹ Per capita figures for census years are based upon census populations and for intervening years on official estimates. ² Includes advances to railways and transfers from active to non-active assets.

The single item of railways and canals accounted for almost the entire increase in the net direct debt of from \$76,000,000 in 1868 to \$336,000,000 in 1914. To a very great extent, therefore, the national debt down to the War of 1914-18 represented expenditures for productive purposes and tangible assets were acquired by the Dominion therefor. More-

over, this debt was held largely outside Canada. The next decade witnessed the tremendous increase in the direct debt from \$336,000,000 to a maximum of \$2,453,777,000 in 1923—an increase of over two billions of dollars not represented, in the main, by corresponding assets, and upon which interest charges were relatively high. One redeeming feature was that the major portion of this debt was held within the country, for the abnormal prosperity induced by the war provided Canadians with the funds to invest in Government issues and the added desire of the Government to tap the rapidly accumulating resources of the masses was instrumental in instructing the man-in-the-street how to invest his money in bonds. Following 1923 there was a steady fall in the net direct debt to \$2,177,764,000 in 1930, but the depression, with accompanying railway deficits and large necessary expenditures for unemployment relief and, more recently, the heavy expenditures included in the War effort, have established a new high level of indebtedness of \$3,271,259,647, as at Mar. 31, 1940, or an equivalent of \$286.40 net debt per capita.

The First War Budget.—On Sept. 12, 1939, at a special session of Parliament called following on the outbreak of war in Europe, the Acting Minister of Finance, Hon. J. L. Ilsley, presented a comprehensive program of tax changes intended to provide revenues to meet the additional expenditures arising out of Canada's participation in the War. The most important feature of this program was the Excess Profits Tax Act, which embodied a graduated tax on profits when calculated as a percentage of capital employed in the undertaking, or a tax of 50 p.c. on the increase in profits over the average profits for the four years 1936-39, or the four fiscal periods of the taxpayer ending therein. It was provided that, in either case, the ordinary income tax paid could be deducted as an expense before calculating the Excess Profits Tax. Increases were made in the rates of income tax payable by both individuals and corporations.

Under the Excise Act the duty was increased on: spirits, Canadian brandy, manufactured tobacco, cigarettes, malt, malt liquor and malt syrup.

Under the Customs Tariff, increases were made in the duty on imported beers, liquors, wines, and tobaccos to correspond with the increases made in the tax on these products when manufactured domestically. In addition, there was imposed an increase of 10 cents per pound in the duty on coffee and of 5 cents per pound on tea valued less than 35 cents per pound, 7½ cents per pound on tea valued 35 cents or more but less than 45 cents per pound, and 10 cents per pound on tea valued 45 cents or more per pound.

Although no increase was made in the rate of sales tax, important items were removed from the exempt list, including canned fish, salted or smoked meats, and electricity and gas when used in a dwelling place. Carbonic acid gas and similar preparations used for aerating non-alcoholic beverages were taxed at the rate of 2 cents per pound under the Special War Revenue Act, while the tax on wines of all kinds, except sparkling wines containing not more than 40 p.c. proof spirit, was increased to 15 cents per gallon; the tax on champagne and all other sparkling wines was increased to \$1.50 per gallon.

The Second War Budget.—On June 24, 1940, the Hon. J. L. Ralston, following the policy in war financing of attempting, as far as possible, to "pay as we go", submitted to Parliament a tax program that undoubtedly



The Royal Canadian Mint, Ottawa.

Courtesy, Canadian Government Motion Picture Bureau.

surpassed in severity any that the Canadian people have ever been asked to accept. In order to ensure that the war burdens will be distributed as far as possible according to ability to pay, a substantial part of the additional revenue is to be raised by direct taxes on income.

Personal exemptions under the Income War Tax Act were lowered from \$2,000 and \$1,000 to \$1,500 and \$750 for married and single persons, respectively. The entire structure was revised upward with particularly heavy increase in the middle and lower brackets. Supplementing the regular graduated income tax, there was levied a flat-rate tax of 2 p.c. on total income where income exceeds \$600 in the case of single persons and \$1,200 in the case of married persons. The rate of tax is 3 p.c. on single persons with incomes of more than \$1,200. An annual tax credit of \$8 is allowed for each dependant.

The Excess Profits Tax was extensively revised in the June Budget. Under the amended Act excess profits are taxed at 75 p.c. (previously 50 p.c.) and a minimum tax of 12 p.c. of total profits is provided for. A Board of Referees is given power under the new Act to make adjustments in certain cases.

Taxes on smokers' supplies were again raised substantially and new levies were imposed on radios, radio tubes, cameras, and phonographs.

Under the Customs Tariff the rates on tobacco were increased to compensate for higher domestic taxes, and the special duties on tea were readjusted to produce additional revenue. Other tariff changes were confined almost exclusively to products related to war production. They were technical in nature and did not involve any significant change in the general level of rates.

In addition to the above taxes whose primary purpose is provision of revenue, the Budget introduced a War Exchange Tax of 10 p.c. on all imports from non-Empire countries. This measure is designed to restrict the demand for exchange in hard currencies although the revenue aspect is also important. Steeply graduated taxes were imposed on automobiles; this is also to conserve exchange as well as to conserve productive capacity for war equipment in Canadian plants. These new taxes and tax increases were estimated to yield approximately \$280,000,000 in a year.

The Public Accounts.—In the Public Accounts, receipts on ordinary account are classified under two headings: (1) receipts from taxation; and (2) non-tax revenue resulting from public services maintained by the Government. Special receipts, which are usually of a non-recurring character, are included in a third category. Expenditures are classified under four headings: (1) ordinary expenditures, which include the ordinary operating costs of government, pensions, subsidies to provinces, etc.; (2) capital expenditures on account of railways, canals, and public works; (3) special expenditures consisting chiefly of expenditures designed to relieve unemployment and agricultural distress, and, since the outbreak of war, of expenditure under the Special War Appropriation; and (4) Government-owned enterprises, representing losses of, or non-active advances to Government-owned enterprises that are operated as separate corporations. Previous to the fiscal year 1935-36, this latter type of expenditure was shown under special expenditure or loans and advances (non-active).

Summary of Total Receipts and Expenditures, Fiscal Years 1937-40

Item	1937	1938	1939	1940
	\$'000	\$'000	\$'000	\$'000
Receipts				
Customs Import Duties.....	83,771	93,456	78,751	104,301
Excise Duties.....	45,957	52,037	51,314	61,032
War Tax Revenue—				
Banks.....	1,210	1,107	1,014	949
Insurance companies.....	775	867	891	925
Income tax.....	102,365	120,366	142,025	134,449
Sales tax.....	112,832	138,055	122,139	137,446
Tax on cheques, excise taxes, etc.....	39,641	42,764	39,572	28,582
Totals, Receipts from Taxation.....	386,551	448,652	435,707	467,685
Non-tax Revenues.....	58,478	61,646	62,310	73,931
Totals, Consolidated Fund Receipts.....	445,029	510,298	498,017	541,616
Special Receipts and Other Credits.....	9,125	6,395	4,154	20,477
Totals, Receipts.....	454,154	516,693	502,171	562,093
Expenditures				
Ordinary Expenditures.....	387,112	414,891	413,032	398,323
Capital Expenditures.....	3,492	4,430	5,424	7,030
Special Expenditures ¹	78,004	68,535	71,895	207,404
Government-owned Enterprises ²	44,218	44,833	58,944	42,079
Other Charges.....	19,179	1,719	3,768	25,958
Totals, Expenditures.....	532,005	534,408	553,063	680,794

¹ Includes \$69,253,000 grants-in-aid to provinces and relief projects and \$8,751,000 special drought area relief in 1936-37; \$43,948,000 grants-in-aid to provinces and relief projects and \$24,586,000 special drought area relief in 1937-38; \$25,000,000 and \$27,000,000 reserve against estimated losses on wheat marketing guarantees for 1938-39 and 1939-40, respectively. Also includes War Appropriation expenditure of \$118,291,000 in 1939-40.

² Includes net income deficit of the Canadian National Railways (including Eastern Lines) incurred in the calendar years 1936 to 1939 as follows: \$43,303,000, \$42,346,000, \$54,314,000, and \$40,096,000 taken into the accounts of the Dominion in the fiscal year after the close of the calendar year.

It will be seen from the table on p. 155 that, for the fiscal year ended Mar. 31, 1940, total receipts of \$562,093,000 compared with total expenditures of \$680,794,000. Expenditures include net income deficit of the Canadian National Railways amounting to \$40,096,000 and War Appropriation items amounting to \$118,291,000; a reserve against losses on wheat marketing guarantees of \$27,000,000 was also provided for. Thus, the total deficit for the year was \$118,701,000. This is substantially more than the deficit of \$50,892,000 shown in the preceding year and was due, to a considerable degree, to the heavy expenditures following the outbreak of war.

Incomes Assessed for Income War Tax in Canada.—In the fiscal year ended 1939, individuals and corporations paid Dominion income tax on 1937 incomes aggregating \$1,127,211,180. About one-third of the national income appears to be subject to income tax by Dominion authorities.

As regards the amount of income tax paid by various income groups, it is noteworthy that, in 1939, about 37 p.c. of the amount collected from individuals with classified incomes (\$47,799,203) was from those with deficit of \$50,892,000 shown in the preceding year and was due to the War. incomes of \$50,000 or over (such individuals might be considered as in the millionaire class and numbered only 457 out of a total of 264,804 individual taxpayers). On the other hand, individuals with incomes under \$10,000, who numbered 255,674, or about 97 p.c. of the total individual taxpayers in 1939, contributed 23 p.c. of the total for that year. In the case of corporations, those with incomes of \$50,000 or over contributed by far the major part (over 86 p.c.) of the total gross receipts (\$85,696,565) from all corporations, but the number of such companies was a very much higher proportion of the total than in the case of individuals.

Kirkland Lake Mining
District showing
Teck-Hughes Mine
in the Foreground and
Lake Shore Mine
in the Distance.

Courtesy, Airmaps, Limited.



Preparing to Weigh
a Bead of Gold in the
Assay Room of a
Canadian Mine.—
The bead of gold is
being poured from the
crucible.

Courtesy, Photographic Arts.

Provincial and Municipal Finance

Provincial Finance

Provincial Governments in Canada are in the position, under Sect. 118 of the British North America Act, 1867 (30 and 31 Vict., c. 3), and the British North America Act, 1907 (7 Edw. VII, c. 11), of having a considerable assured income in subsidies from the Dominion Treasury. In addition, through the ownership of their lands, minerals, and other natural resources, the provinces are in a position to raise considerable revenues through land sales, sales of timber, mining royalties, leases of water powers, etc. Further, under Sect. 92 of the B.N.A. Act, provinces are given authority to impose direct taxation within the province for provincial purposes and to borrow on the sole credit of the province.

Among the chief methods of taxation to be employed has been the taxation of corporations and estates. Prominent among the objects of increased expenditure are: education, public buildings and works (especially roads and highways), labour protection, charities, hospitals, etc.

Aggregate Provincial Revenues and Expenditures

Fiscal Year	Ordinary Revenue	Ordinary Expenditure	Direct Liabilities ¹
	\$	\$	\$
1901.....	14,074,991	14,146,059	3
1921.....	102,030,458	102,569,515	565,470,552
1926.....	146,450,904	144,183,178	893,499,812
1929.....	183,598,024	177,542,192	1,034,071,284
1930.....	188,154,910	184,804,203	1,140,953,696
1935.....	160,567,695 ²	181,175,687 ²	1,717,370,436
1936.....	232,616,182	248,141,808	1,839,322,142
1937.....	268,497,670	283,443,737	1,862,303,955
1938.....	266,578,260 ⁴	252,151,331 ⁴	1,909,727,805
1939 ⁴	275,535,514 ⁴	267,624,783 ⁴	2,032,684,173
Prince Edward Island.....	2,042,050	2,196,717	11,296,698
Nova Scotia.....	12,296,917	12,032,107	109,809,250
New Brunswick.....	8,475,068	9,350,155	107,439,955
Quebec.....	60,836,100	55,948,091	340,459,318
Ontario.....	97,235,891	96,913,396	723,665,806
Manitoba.....	16,960,854	16,969,854	143,647,101
Saskatchewan.....	20,958,913	21,342,813	215,820,448
Alberta.....	24,269,817	21,242,625	173,461,154
British Columbia.....	32,459,904	31,638,825	207,084,443

¹ Sinking funds are not deducted.

² Not available.

³ Nova Scotia figures are for

fourteen months and Ontario for five months.

⁴ Figures of ordinary revenue and expenditure

for 1938 and 1939 are not all-inclusive and are therefore not entirely comparable with those for previous years.

⁵ Subject to revision.

The Growth of Provincial Taxation.—Whereas in earlier years the Dominion subsidies, together with provincial revenues, rendered a resort to taxation for provincial purposes practically unnecessary in most of the provinces, the great increase in the functions of government since the commencement of the present century has put an end to this state of affairs. Ordinary provincial taxation (covering succession duties and taxation of incomes, corporations, lands, mines or minerals, amusements, etc.) amounted to \$12,575,159 in 1916, to \$42,593,417 in 1929, \$51,621,242 in 1930, \$48,383,044 in 1933, \$46,741,293 in 1934, \$82,279,924 in 1937 and \$131,755,348 in 1938. In recent years, in addition to this ordinary taxation, provincial revenues have been augmented by liquor traffic control profits as follows: 1929, \$27,599,687; 1931, \$32,128,693; 1934, \$12,814,120; 1935, \$10,818,228; 1937, \$23,457,320; 1938, \$27,962,194. Motor vehicles (including licences and permits): 1929, \$21,735,827; 1931, \$19,952,575; 1934, \$20,840,513;

1935, \$19,754,336; 1937, \$26,052,580; 1938, \$25,606,890. Gasoline tax: 1929, \$17,237,017; 1931, \$23,859,067; 1934, \$26,812,275; 1935, \$20,474,977; 1936, \$32,310,353; 1937, \$35,415,061; 1938, \$39,688,974. Revenues derived from these sources alone have far exceeded those from ordinary taxation.

The increasing use of automobiles for both commercial purposes and pleasure is clearly demonstrated by the revenue figures for motor vehicles and gasoline taxes shown above. The rate of gasoline tax has been increased repeatedly in all provinces since its inception and many of these increases were made in the period of the depression after 1930; gasoline tax revenue is therefore not a good criterion as to mileage run unless these changes in taxes are considered.

Bonded Indebtedness of the Provinces.—The bonded indebtedness of the provinces amounts to about 78·8 p.c. of their total direct liabilities. In recent years, the aggregate bonded indebtedness of the provinces has increased steadily. The total for the nine provinces was \$704,225,134 in 1925, \$817,940,202 in 1929, \$1,224,372,822 in 1933, \$1,329,684,651 in 1934, \$1,373,321,604 in 1935, \$1,426,293,679 in 1936, \$1,440,294,809 in 1937, \$1,533,524,253 in 1938, and \$1,602,448,018 in 1939. This bonded indebtedness for 1939 was divided by provinces as follows: P.E.I., \$7,218,000; N.S., \$101,733,513; N.B., \$103,568,573; Que., \$294,673,099; Ont., \$607,788,555; Man., \$93,399,481; Sask., \$123,800,274; Alta., \$127,998,287; B.C., \$142,268,236. The development of the principle of public ownership is largely responsible for the high bonded indebtedness in certain provinces, particularly in Ontario where the hydro-electric system and the provincially owned Temiskaming and Northern Ontario Railway largely account for the bonded indebtedness of the province. These public utilities are, of course, revenue-producing.

Municipal Finance

There are 4,324 municipal governments in Canada including the local government districts of Saskatchewan and Alberta. These 4,324 municipal governments have together probably 20,000 members described as mayors, reeves, controllers and councillors.

The cost of municipal government, like the cost of provincial and Dominion government, has greatly increased compared with 1914 and earlier years, principally because of the services demanded from municipal bodies. Among such public services that play a large part in municipal expenditures may be mentioned education, roads and highways, sanitation, fire and police protection, and charities and social relief. The cost of these services is met almost entirely by municipal governments through local taxation. In the Province of Prince Edward Island there is no municipal system outside Charlottetown and seven small incorporated towns.

Municipal System of Taxation and Bonded Debt.—Throughout the Dominion, the chief basis of municipal taxation is the real estate within the limits of the municipalities; in certain provinces, however, personal property, income, and business carried on are also taxed. General taxes are normally levied at the rate of so many mills on the dollar of the assessed valuations, although the basis of assessment varies widely in different provinces and in municipalities within the same province. In some provinces Equalization Boards have placed a more equitable valuation on lands as among the various rural municipalities.



City of Ottawa Water Works Pumping Station.

Inset: Liquid Chlorine Installation at the Purification Plant.



Courtesy, City Water Department, Ottawa.

The heavy taxation upon real estate, resulting from the depression and the municipalities' share of unemployment relief, has tended to curtail new building for commercial and industrial as well as residential purposes and is responsible, in no small measure, for the slow recovery of the construction industry (p. 129) in spite of the encouragement of residential construction by the National Housing Act (p. 125).

Municipal Bonded Debt for 1919 and 1938 and Sinking Funds for 1938, by Provinces

Province	Total Gross Bonded Indebtedness of Municipalities		Sinking Funds Offsetting Gross Bonded Indebtedness
	1919	1938	1938
	\$	\$	\$
Prince Edward Island.....	970,100	2,924,650	471,643
Nova Scotia.....	17,863,881	35,107,542	12,965,781
New Brunswick.....	11,188,467	26,351,143	8,202,400
Quebec.....	199,705,568	513,137,878	82,392,458
Ontario.....	243,226,877	404,290,461	61,660,139
Manitoba.....	55,582,788	91,867,809	44,644,755
Saskatchewan.....	39,585,388	54,440,737	19,512,450
Alberta.....	66,870,464	52,910,082	9,630,128
British Columbia.....	94,741,615	121,170,198	30,246,921
Totals	729,715,148	1,382,261,400	269,735,675

CHAPTER XV

Currency—Banking—Insurance

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 nickel) 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 the external obligations, and Canadian mines now dispose of their gold through the Royal Canadian Mint according to definite conditions of purchase.

Bank Notes.—Under the Bank Act the chartered banks may issue notes of the denominations of \$5 and multiples thereof to the amount of their paid-up capital. This amount is to be reduced by 5 p.c. per annum for a period of five years from Jan. 1, 1936, and by 10 p.c. per annum for a period of five years from Jan. 1, 1941. In case of insolvency, bank notes are a first lien on assets and for over sixty years no note holder has lost a dollar.

In addition to notes of the chartered banks, there are also now in circulation notes of the Bank of Canada. These notes may be issued to any amount as long as the Bank maintains a reserve in gold equal to at least 25 p.c. of its note and deposit liabilities. Prior to the establishment of the Bank of Canada, the Government issued notes under certain statutory authorities, backed in part by gold and securities. The Dominion's liability in respect of these notes was assumed by the Bank of Canada on Mar. 11, 1935.

Notes Outstanding, 1900-40
(Yearly Averages)

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.....	23,550,465	46,574,780	1934.....	190,261,981	135,537,793
1910.....	89,628,509	82,120,303	1935.....	127,335,340 ¹	125,644,102
1920.....	305,806,288	288,800,379	1936.....	105,275,223 ¹	119,507,305
1929.....	204,381,492	178,291,030	1937.....	141,053,457 ¹	110,259,134
1931.....	153,079,362	141,969,350	1938.....	161,137,059 ¹	99,870,493
1932.....	165,878,510	132,165,912	1939.....	184,904,919 ¹	94,054,907
1933.....	179,217,446	130,362,488	1940.....	262,970,220 ^{1,2}	91,892,082 ²

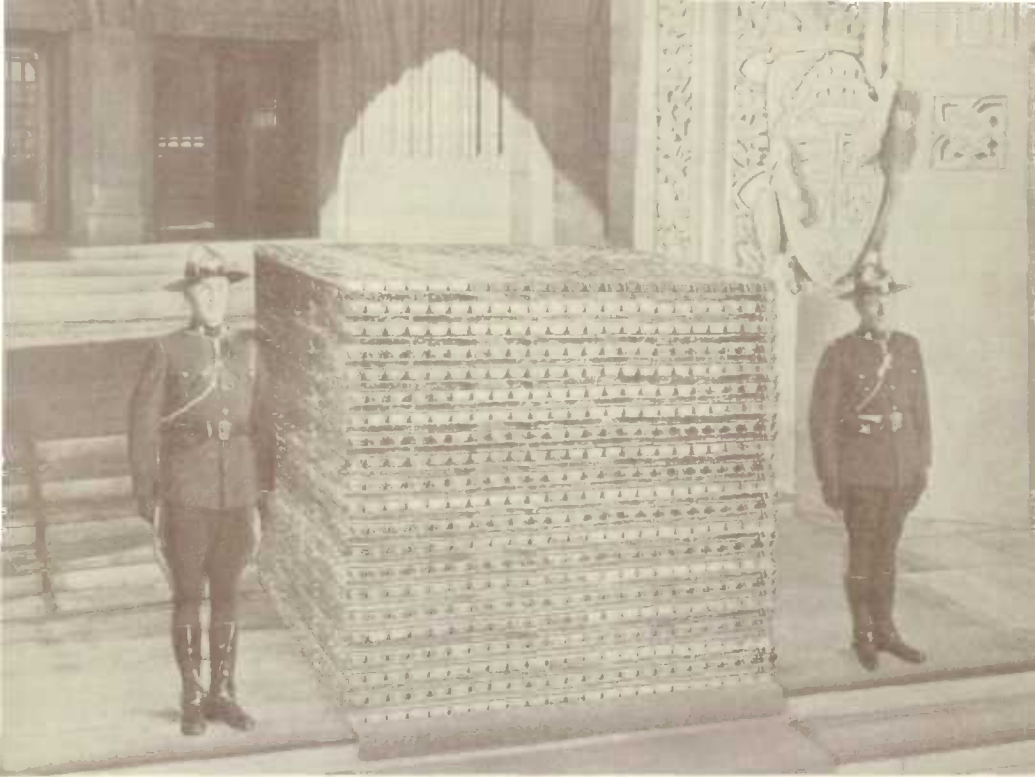
¹ Since Mar. 11, 1935, the figures used represent Bank of Canada notes.
ten months.

² Averages for

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.



One Hundred Million Dollars in Fine Gold Bars.

Courtesy, Royal Canadian Mint.

(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 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, are the main source of paper money in Canada and will become increasingly so as the chartered banks gradually reduce their note issues to 25 p.c. of their paid-up capital (see p. 160).

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 Foreign Exchange Acquisition Order, 1940, the Bank

transferred its reserve of gold and foreign exchange 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.

Commercial Banking.—The number of chartered banks, which was 36 in 1881 and 34 in 1901, decreased to 25 in 1913 and is now only 10. This lessening of the number of banks has been accompanied by a great increase in the number of branches. In 1868 there were only 123 branch banks in Canada. By 1902 the number, including sub-agencies, had grown to 747, by 1916 to 3,198 and by 1929 to 4,069, but by the beginning of 1940 the number had decreased to 3,319. From 1867 to October, 1940, the total assets have grown from \$78,000,000 to \$3,711,000,000.

Statistics of Individual Chartered Banks as at Oct. 31, 1940

Bank	Branches in Canada and Abroad ¹	Total Assets	Liabilities to Shareholders	Liabilities to the Public	Total Liabilities	Loans and Discounts	Deposits by the Public
	No.	\$ '000,000	\$ '000,000	\$ '000,000	\$ '000,000	\$ '000,000	\$ '000,000
Bank of Montreal	486	961	75	885	960	293	824
Bank of Nova Scotia	297	330	36	292	328	118	270
Bank of Toronto	171	169	15	151	163	58	143
Banque Provinciale du Canada	137	56	5	51	56	19	48
Canadian Bank of Commerce	526	705	50	654	704	284	605
Royal Bank	693	955	55	897	952	355	840
Dominion Bank	131	158	14	144	158	81	131
Banque Canadienne Nationale	223	161	12	147	159	65	140
Imperial Bank of Canada	195	192	15	176	191	78	166
Barclay's Bank (Canada) ²	2	24	2	22	24	3	16
Totals, Oct., 1940	-	3,711	279	3,419	3,698	1,354	3,183
Totals, 1939³	2,861	3,592	279	3,298	3,578	1,214	3,061
Totals, 1938³	2,875	3,419	279	3,057	3,336	1,201	2,821
Totals, 1937³	2,899	3,347	279	3,020	3,305	1,201	2,776
Totals, 1936³	2,961	3,145	278	2,856	3,134	1,141	2,615
Totals, 1935³	2,978	2,957	278	2,668	2,946	1,276	2,427
Totals, 1930³	3,598	3,237	305	2,910	3,215	2,065	2,517
Totals, 1920³	1,876	3,064	252	2,784	3,036	1,935	2,438
Totals, 1910³	2,621	1,211	179	1,019	1,198	870	910
Totals, 1900³	641	460	98	356	454	279	305

¹ As at Dec. 31 of previous year. Does not include sub-agencies.

measured operations in Canada in September, 1929.

² Barclay's Bank commenced operations in Canada in September, 1929.

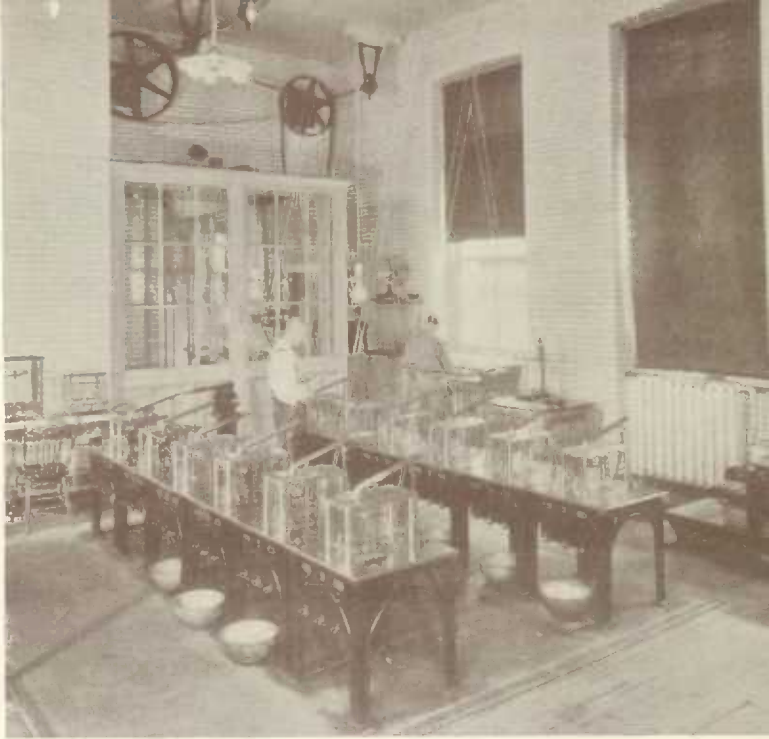
³ Averages from the respective monthly statements, except in the case of the numbers of branches in Canada and abroad which are as at Dec. 31.

⁴ 1911.

Of late years the banks of Canada have extended their business outside of the country itself and at the beginning of 1940 had among them 138 branches (not including sub-agencies) in foreign countries, mainly in Newfoundland, the West Indies, Central and South America.

Bank Clearings and Bank Debits.—Through the clearing houses, inter-bank transactions have been recorded since 1889; they form a valuable indication of the trend of business. However, they do not tell the whole story, since numerous transactions between persons who carry their accounts in the same bank are not recorded in bank clearings; also, every amalgamation of banks lessens the total volume of clearings. Again, head office clearings have been effected through the Bank of Canada since Mar. 11, 1935, and this has tended to increase exchanges compared

**Weighing and
Testing Coin at the
Royal Canadian
Mint.**



*Courtesy, Canadian
Government Motion
Picture Bureau.*

with previous years. For these reasons, a record of cheques debited to accounts at all branches at clearing-house centres is considered to possess greater reliability as a barometer of economic conditions and such a record was instituted in 1924; between that date and 1929 the grand total of bank debits for Canada increased from \$27,157,000,000 to \$46,670,000,000. From 1929 there was a steady decline to the 1932 level of \$25,844,000,000, but in the next four years the movement was generally upward, reaching \$35,929,000,000 in 1936. In 1937 and 1938 there were recessions, but a slight increase was shown for 1939.

**Bank Debits at the Clearing-House Centres, by Economic Areas,
1935-39**

Economic Area	1935	1936	1937	1938	1939
	\$	\$	\$	\$	\$
Maritime Provinces.....	574,052,860	630,402,014	733,359,446	639,682,953	679,947,972
Quebec.....	8,977,529,023	10,938,647,731	11,568,421,542	9,965,182,391	9,820,399,452
Ontario.....	13,876,626,476	15,778,679,837	15,939,149,497	13,810,063,008	13,618,490,448
Prairie Provinces.....	6,445,395,764	6,505,518,677	4,827,021,407	4,572,383,521	5,478,229,879
British Columbia.....	1,672,462,218	2,075,358,484	2,098,109,246	1,937,050,859	2,020,284,080
Totals.....	31,516,066,341	35,928,686,743	35,166,061,138	30,924,362,732	31,617,351,831

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, and possibly several more, competing for the available business in Canada, as against 38 active companies registered by the

Dominion and a few provincial companies in 1939. Of the 38 active companies registered by the Dominion, 28 were Canadian, 3 British, and 7 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 companies, was only \$35,680,000 as compared with approximately \$6,777,000,000 at the end of 1939. This latter figure was equal to \$599 per head of population. In addition, there was \$177,000,000 of fraternal insurance in force by Dominion licensees and \$135,000,000 of insurance in force by provincial licensees. Thus the total life insurance in force in the Dominion at the end of 1939 was approximately \$7,089,000,000. 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, but decreased to \$198,000,000 in 1939.

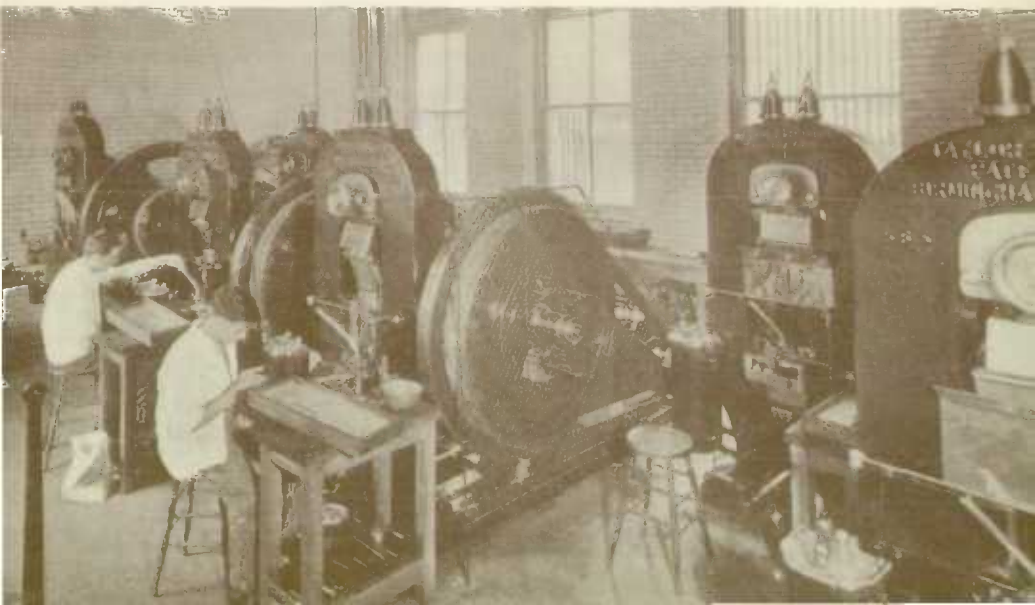
Fire Insurance.—Fire insurance in Canada began with the establishment of agencies by British fire insurance companies. These agencies were usually situated in the seaports and operated by local merchants. The oldest existing agency of a British company is that of the Phoenix Fire Office of London, now the Phoenix Assurance Co., Ltd., which opened in Montreal in 1804.

The Halifax Fire Insurance Co. is the first purely Canadian company of which any record is obtainable. Founded in 1809 as the Nova Scotia Fire Association, it was chartered in 1819 and operated in the province of Nova Scotia until 1919, when it was granted a Dominion licence.

The report of the Superintendent of Insurance for the year ended Dec. 31, 1939, shows that at that date there were 279 fire insurance companies doing business in Canada under Dominion licences, of which 56 were Canadian, 70 were British, and 153 were foreign companies, whereas in

Coining Presses at the Royal Canadian Mint.

Courtesy, Canadian Government Motion Picture Bureau.



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 80 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 1939, besides \$10,202,388,022 of fire insurance in force in companies with Dominion licences, there was also \$1,284,998,454 in force in companies with provincial licences, or about \$11,487,386,476 in force with 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, employers' and property liability, and accidental damage to personal property); sickness; falling aircraft; earthquake; automobile; aviation; burglary; explosion; forgery; fraud; credit; guarantee; hail; inland transportation; live stock; machinery; personal property; plate glass; property; sprinkler-leakage; steam boiler; title; tornado; weather insurance; etc. Whereas, in 1880, 18 companies were licensed for such insurance, in 1939 there were 241 companies, of which 52 were Canadian, 65 British and 124 foreign.

The total net premium income for 1939 was \$39,817,366 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 twenty-one years; although decreases were shown for a few years prior to 1935, there has been an increase each year from 1935 to 1939. As recently as 1910, the premium income of companies doing an automobile insurance business was only \$80,466; in 1916 it was \$909,503 and in 1939, \$18,859,851. The premium income of personal accident insurance came second with \$3,228,375. Combined accident and sickness insurance was third in 1939 with \$3,091,018. The premium income of all accident and sickness insurance combined totalled \$10,839,769.

Canadian Government Annuities.—The Government Annuities Act authorizes the issue of Government annuities in order to encourage the people of Canada to provide, during the earning period of their lives, for old age. 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, 1940, the total number of individual contracts issued was 58,915 (including participants in 46

retirement annuity plans) and, in addition, 4 group contracts covering 1,240 employees. The net receipts for the entire period totalled \$153,300,030.

On Mar. 31, 1940, the value of all outstanding annuities was \$140,420,970, which covered 20,416 vested contracts, 33,644 individual deferred contracts, and 4 group contracts. The amount of annuity being paid out was \$8,363,114.

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.

The number of loan and savings societies in operation and making returns to the Government at Confederation was 19, with an aggregate paid-up capital of \$2,110,403 and deposits of \$577,299. In 1939 there were 46 loan companies which reported, with a paid-up capital of \$37,289,840 (Dominion companies \$19,284,714 and provincial companies \$18,005,126).

The reserve funds of all real-estate-mortgage loan companies at the end of 1939 was \$24,674,320 (Dominion companies \$14,764,868 and provincial companies \$9,909,452); liabilities to the public \$130,495,165 (Dominion companies, \$100,881,760 and provincial companies, \$29,613,405); and liabilities to shareholders, \$64,182,678 (Dominion companies, \$35,262,412 and provincial companies, \$28,920,266).

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 1939 were \$2,896,691,560 as compared with \$805,000,000 in 1922 (the earliest year for which figures are available). The bulk of these assets (\$2,664,589,751 in 1939) was represented by estates, trusts and agency funds. The assets of Dominion companies in 1939 amounted to \$298,572,335 and of provincial companies to \$2,598,119,225.

Small Loans Companies

These companies, 3 in number and incorporated in recent years by the Parliament of Canada, make small loans usually not exceeding \$500 each on the promissory notes of borrowers, additionally secured, in most cases, by endorsements or chattel mortgages. Such companies, at the end of 1939, had an aggregate paid-up capital of \$1,234,250; reserve funds, \$669,850; liabilities to the public, \$2,770,281; liabilities to shareholders, \$2,653,766.

On Jan. 1, 1940, the Small Loans Act, 1939 (c. 23, 3 George VI) passed by the Parliament of Canada, came into force under which licensed money-lenders making personal loans of \$500 or less are limited to a rate of



Stock Exchanges.—The upper picture shows the Vancouver Stock Exchange and the lower one the interior of the Toronto Stock Exchange; to the left is one of the murals of the Toronto Exchange, which symbolizes the mining industry—this mural is 20 feet high.

Courtesy, Toronto and Vancouver Stock Exchanges.

cost 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 Oct. 1, 1940, licences had been issued to 71 money-lenders. Figures covering their operations are not yet available.

British and Foreign Capital Invested in Canada

In the opening decades of the century, the marked expansion in Canada was based largely on capital imported from the United Kingdom, at least \$1,500,000,000 being imported during 1900-12. During the War of 1914-18 the latent capital resources of Canada itself were for the first time exploited on a large scale, nearly \$2,000,000,000 being raised by the Dominion Government.

The rapid growth in United States investments in Canada took place after 1914. Between 1926 and 1930 these investments increased from \$3,161,200,000 to \$4,298,400,000. This influx of capital followed two contrasting channels. A large part of the capital was raised through the sale of new issues in New York but the capital coming to Canada through the channel of direct investment has been increasingly heavy. Since 1930 there has been a reduction in the value of United States investments in Canada, as a result of the redemption of Canadian securities owned in the United States, changes in the values of equity investments in Canada, and other factors.

Because of the great variety of forms these investments take and the difficulties inherent in arriving at satisfactory valuations, along with the continual changes in ownership in some cases, these estimates should be considered as approximations rather than exact representations.

Capital Invested in Canada by Other Countries

Country	1914 ¹	1919 ²	1926 ²	1930 ²	1936 ²	1937 ²
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
United Kingdom.....	2,712	2,607	2,598	2,766	2,719	2,685
United States.....	904	1,800	3,161	4,298	3,974	3,932
Other countries.....	178	173	132	132	130	148
Totals.....	3,794	4,580	5,891	7,196	6,823	6,765

¹ Estimated by various authorities.

² Estimated by the Dominion Bureau of Statistics

In spite of this large external indebtedness, Canadian capital controls a large proportion of business capital of enterprises operating in Canada.

In considering these statistics of outside capital invested in Canada, it should also be borne in mind that Canada has large investments in other countries. The Bureau estimates that Canadian investments in other countries amounted to \$1,694,000,000 at the end of 1937. Of this \$1,017,000,000 was invested in the United States, \$53,000,000 in the United Kingdom, and \$624,000,000 in countries other than these, not including assets of Canadian insurance companies held abroad. There are also liabilities abroad that must be considered in connection with these assets, but the totals are not materially affected.

Miscellaneous

Canadian Bond Financing.—The declining trend in sales of railway and corporation bond issues, so clearly in evidence for 1933, was reversed in 1934, and showed substantial improvement in 1935 and 1936. Recession set in again in 1937 and 1938, but 1939 showed a very large increase of \$167,266,100, or 221·7 p.c., over 1938.

In the year 1939, sales under this head were valued at \$242,708,600. Corporation bond financing accounted for \$236,208,600 of this, so that only \$6,500,000 remained for railway issues.

Canadian investors purchased over 90 p.c. of the total offerings, the remainder being sold on the New York and London markets.

Sales of Canadian Bonds, 1929 and 1933-39

Year	Class of Bonds		Distribution of Sales			Total
	Government and Municipal	Railway and Corporation	Sold in Canada	Sold in the United States	Sold in the United Kingdom	
	\$	\$	\$	\$	\$	\$
1929.....	218,028,309	442,530,600	378,395,909	263,654,000	19,109,000	661,158,909
1933.....	564,171,513	5,385,000	434,556,513	60,000,000	75,050,000	569,556,513
1934.....	564,558,132	73,402,696	529,630,828	50,000,000	58,330,000	637,960,828
1935.....	907,590,200	109,005,700	853,940,900	162,065,000	500,000	1,016,505,900
1936.....	916,091,067	352,983,224	1,211,824,311	86,000,000	1,250,000	1,299,074,311
1937.....	1,145,499,475	119,946,800	1,177,196,275	88,250,000	Nil	1,265,446,275
1938.....	1,057,438,011	75,442,500	1,044,038,844	40,175,000	48,666,667	1,132,880,511
1939 ¹	1,205,542,589	242,708,600	1,316,651,189	127,500,000	100,000	1,448,251,189 ²

¹ Preliminary figures.

² Includes \$4,000,000 distributed elsewhere.

Interest Rates.—There does not exist in Canada as yet a market for money in the same sense as in great financial centres such as London and New York. However, since the War of 1914-18, the importance of Dominion financing in the domestic market has made it possible to compile a Dominion index of bond yields that is representative of interest rates in Canada. Fluctuations in the Dominion of Canada long-term bond yields for the past ten years are shown below.

Indexes of Dominion of Canada Long-Term Bond Yields, 1931-40

(1926 = 100)

NOTE.—Figures for years subsequent to 1932 have been revised since the publication of *Canada 1940*.

Month	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940 ²
January.....	93·9	112·4	97·9	94·9	73·6	76·6	67·8	71·5	67·4	74·4
February.....	93·6	111·5	97·5	93·6	76·2	74·6	71·3	71·0	67·5	73·4
March.....	91·9	109·0	99·0	88·6	74·9	73·6	75·6	70·4	66·3	73·4
April.....	90·0	109·1	97·8	85·5	75·2	73·3	76·5	69·3	67·5	72·4
May.....	89·3	109·1	96·7	84·0	74·0	72·6	75·3	68·2	68·4	71·8
June.....	88·3	112·3	94·9	83·8	76·1	70·5	73·8	68·6	67·0	73·0
July.....	88·3	108·7	94·9	82·4	75·7	68·7	73·3	68·9	66·8	72·8
August.....	88·3	101·0	94·0	80·3	75·1	66·6	72·6	69·2	68·1	72·0
September.....	88·3	100·1	94·1	79·8	81·2	66·0	72·5	70·6	78·3	71·3
October.....	95·5	97·3	94·9	81·0	81·9	69·1	74·0	70·0	76·5	71·0
November.....	105·2	98·2	95·2	80·1	78·0	68·1	73·7	68·1	74·0	70·5
December.....	107·7	98·2	96·0	74·6	78·5	67·2	72·0	67·7	75·1	—

CHAPTER XVI

Labour—Employment—Old Age Pensions

Labour Legislation in Canada

The Dominion and Provincial Fields.—Most labour laws in Canada relate to the contract of employment, which affects civil rights, or to local works and undertakings; and civil rights and local works and undertakings are subjects within the jurisdiction of the provincial Legislatures, under the British North America Act.* All provinces except Prince Edward Island have statutes dealing with wages, hours of work, employment of women and children, and workmen's compensation, as well as laws for the regulation of mines, factories, shops, and other workplaces. Other laws affecting civil rights that have been enacted in some provinces protect the right of association; require trade unions to register, and employers to bargain with the chosen representatives of their employees or with trade union officers; and prohibit the stopping of work until the dispute has been investigated.

The Dominion regulates working conditions of its own employees and provides compensation for accidents and disease incurred in the course of their employment; requires the observance of specified wage and hour conditions in the execution of Dominion public works and of contracts for supplies; and enacts laws relating to employment on railways and at sea. Under the power to enact criminal law, Dominion legislation has been framed freeing trade unions from liability to prosecution as conspiracies, permitting peaceful picketing, and prohibiting employment on Sunday except under certain conditions.

A Dominion statute, the Industrial Disputes Investigation Act, prohibits a strike or lockout (pending investigation of the dispute by a tripartite board) in the case of mines, agencies of transportation and communication, and certain public service utilities, if they come within Dominion jurisdiction, as well as any such works that may fall within provincial jurisdiction if the provincial Legislature has declared the statute to apply. In all provinces, except British Columbia and Prince Edward Island, there is legislation to this effect. Co-operation between the Dominion and the provinces has enabled provincial systems of employment offices to be linked together for the interprovincial clearance of labour and publication of information, but, under a recent amendment to the B.N.A. Act giving the Dominion power over unemployment insurance, a Dominion system of employment offices is now being set up as part of the insurance scheme. (See p. 179.)

The Dominion Department of Labour was established in 1900 under the Conciliation Act to aid in improving labour conditions and settling disputes through mediation and the dissemination of information. The Department was charged, too, with the administration of the fair-wages policy for Government contracts. Other statutes now under the Minister of Labour are the Industrial Disputes Investigation Act, Government

*Lines of railways, steamships, telephones and telegraphs, and other works extending beyond the limits of one province and also such as may be declared by the Dominion Parliament to be for the general advantage of Canada are, however, excepted from local works under provincial control.

Annuities Act, Combines Investigation Act, legislation providing for youth training and unemployment relief and the Unemployment Insurance Act, 1940. Information on the operation of these statutes is published in the Annual Report of the Department and in the *Labour Gazette*, issued monthly.

Departments of Labour in all provinces except Alberta, Saskatchewan, and Prince Edward Island administer most provincial labour laws but in the four western provinces the Workmen's Compensation Boards are independent and in New Brunswick the Board, which is under the Provincial Secretary, enforces the Factory Act. 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 Saskatchewan Bureau of Labour and Public Welfare is in charge of the Minister of Municipal Affairs. In all provinces laws for the protection of miners are administered by the respective Departments of Mines.

Gainfully Occupied and Wage-Earners

Gainfully Occupied.—Statistics of the gainfully occupied by sex and age are obtained at each decennial census, but for intercensal years, estimates are made by applying the percentage of gainfully occupied in the population, as in 1931, to the intercensal estimates of population. Experience has shown that this percentage does not vary much from census to census (especially in the total of gainfully employed, although the numbers at various ages, particularly in the lower age groups, need some adjustment).

Estimated Numbers and Percentages of the Population Normally Gainfully Occupied in Each Age Group, 1940

Age Group	Male		Female	
	No.	P.C.	No.	P.C.
	'000		'000	
10-13.....	5	1.17	1	0.24
14.....	12	10.81	2	1.85
15.....	30	26.55	7	6.36
16-17.....	124	55.11	46	20.72
18-19.....	183	80.26	91	40.44
20-24.....	479	92.65	215	42.41
25-34.....	921	97.67	199	21.77
35-44.....	726	97.84	88	12.94
45-54.....	643	96.54	68	11.62
55-64.....	454	90.80	45	10.77
65-69.....	118	75.64	12	8.82
70 or over.....	95	42.22	10	4.63
Totals, 10 Years or Over¹.....	3,790	78.08	784	17.26

¹ Persons of unstated age are omitted.

Wage-Earners.—The number of wage-earners is less than the total gainfully occupied because the latter includes large numbers working on their own account such as farmers, doctors, etc., who are not wage-earners. Again, the number of wage-earners employed at any time depends on industrial activity. Correlation has been made of wage-earners actually employed in June, 1931 (as collected by the Employment Statistics Branch of the Dominion Bureau of Statistics), with the distribution of total wage-

earners enumerated in the Census as at work on June 1, 1931. This shows that the employment statistics collected monthly by the Bureau of Statistics from employers having 15 or more persons on their staffs are broadly representative and can, therefore, be used to estimate reliably the total number of wage-earners employed during intercensal years. On this basis, the estimate of wage-earners employed in the twelve-month period September, 1939, to August, 1940, averaged 2,477,000, which represents 88.7 p.c. of the total wage-earners. Men who joined the armed forces, in some cases employed and in others unemployed before enlistment, are considered as being in their former status, for the purpose of this estimate.

Estimated Numbers of Wage-Earners Actually Employed

Month and Year	Wage-Earners Employed	P.C. Employed ¹	Month and Year	Wage-Earners Employed	P.C. Employed ¹
	'000			'000	
Sept. 1938.....	2,402	87.4	Sept. 1939.....	2,506	89.3
Oct. 1938.....	2,359	86.2	Oct. 1939.....	2,545	90.0
Nov. 1938.....	2,346	85.5	Nov. 1939.....	2,525	89.5
Dec. 1938.....	2,225	82.5	Dec. 1939.....	2,393	86.8
Jan. 1939.....	2,193	81.9	Jan. 1940.....	2,355	86.2
Feb. 1939.....	2,193	81.7	Feb. 1940.....	2,338	85.8
Mar. 1939.....	2,161	81.4	Mar. 1940.....	2,304	85.5
Apr. 1939.....	2,186	82.2	Apr. 1940.....	2,353	86.5
May 1939.....	2,329	85.5	May 1940.....	2,489	89.1
June 1939.....	2,385	86.6	June 1940.....	2,568	90.3
July 1939.....	2,419	87.3	July 1940.....	2,634	91.7
Aug. 1939.....	2,461	88.1	Aug. 1940.....	2,709	93.1
Averages.....	2,305	84.7	Averages.....	2,477	88.7

¹ Estimated on the basis of the number of normally gainfully occupied, the proportions employed among labour unions, and the bearing of these factors on general employment among wage-earners in the past.

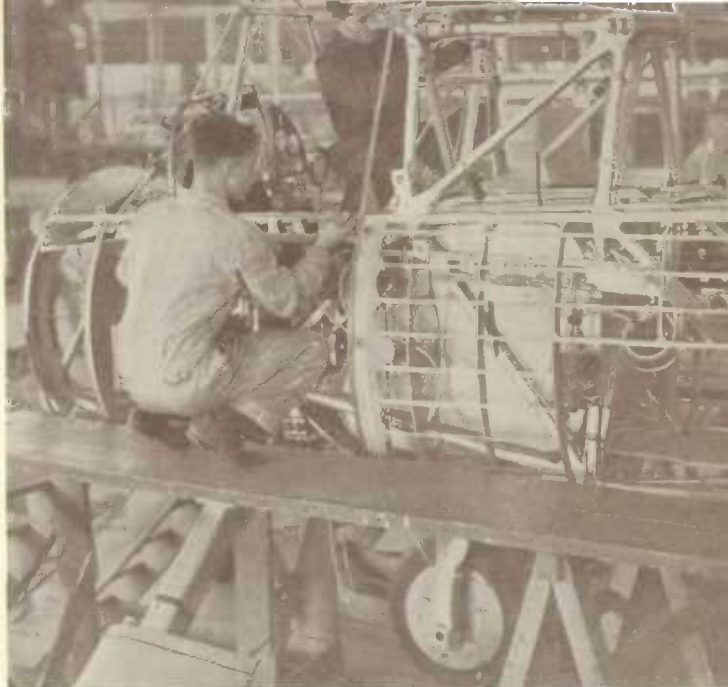
Wages and Hours of Labour

In building and construction, wages for the skilled trades in cities are chiefly from 60 cents to \$1 per hour and from 30 to 40 cents for labourers, with some receiving up to 50 cents, especially in the western provinces. For skilled metal trades, rates are from 50 cents to 90 cents per hour; for printing trades, \$25 to \$45 per week; for street-car operators, 50 to 65 cents per hour; for steam-railway shop mechanics, 72 to 79 cents per hour; for sectionmen, 38 to 43 cents per hour; for truck drivers, \$20 to \$27 per week; for coal miners, \$6 to \$8 per day, with labourers at \$3 to \$5 per day; and for metal miners, \$4.80 to \$6. In manufacturing, semi-skilled workers, male, receive generally 35 to 40 cents per hour, and female workers, 20 to 30 cents. The more highly skilled trades, such as cutters in clothing factories, are paid \$35 to \$45 and upward per week, while paper-makers receive \$1 to \$1.75 per hour.

Hours of labour in factories are 48 per week or less for nearly 50 p.c. of the employees, with approximately 33 p.c. at 50 to 55 hours per week. The 8-hour day prevails for building trades in cities, in steam-railway employment, and in mining.

During 1940 there was a tendency to extend hours of work, especially in connection with the construction of defence projects and the manufacture of war supplies. To some extent, wage adjustments have taken the form of bonuses based on changes in the cost of living.

Electricians Wiring a Canadian Lysander Bomber before the Outside Metal Plates are Attached.—Labour costs bear a high ratio to total costs in aircraft production.



Courtesy, Department of Munitions and Supply.

Organized Labour in Canada

At the end of 1939 there were 3,296 local unions in Canada, having 358,967 members, as compared with 3,318 local unions and a total membership of 385,039 in 1938, when the highest level was reached.

In 1939 international organizations had 2,091 local branches in the Dominion, with a combined membership of 216,661. Organizations operating only in Canada had 1,205 locals, with a membership of 142,306.

Following the outbreak of war in September, 1939, the principal labour organizations expressed their desire to co-operate with the Government in order to ensure that the industrial capacity of Canada requisite to the successful prosecution of the War be utilized to the fullest possible extent; similar expressions were received from representative employers' organizations. In June, 1940, the Government passed an Order in Council setting forth principles for the maintenance of industrial harmony during the War, among these being the principle that labour should be free to organize and bargain collectively. At the same time there was established a National Labour Supply Council, to advise the Minister of Labour on matters regarding the availability of essential labour. It is composed of an impartial chairman, five representatives of industry and five representatives of labour, the latter having been chosen after consultation with the most representative labour organizations.

Industrial Disputes

During the first eleven months (January to November) of 1940 there were in Canada 153 strikes and lockouts, which involved 57,783 workers and caused a time loss of 276,537 man-working days. During the twelve months of 1939 there were 122 disputes, involving 41,038 workers and causing a time loss of 224,588 man-working days, while in 1938 there were

147 disputes, involving 20,395 workers and causing a time loss of 148,678 man-working days. The minimum time loss since the inception of the record in 1901 was in 1930, when 91,797 man-working days were lost in 67 disputes, involving 13,768 workers. The maximum loss occurred in 1919, when 336 disputes involved 148,915 workers and caused a time loss of 3,400,942 man-working days.

In November, 1939, the scope of the Industrial Disputes Investigation Act was extended to cover disputes between employers and employees engaged in war work. This was defined as including the construction, execution, production, repairing, manufacture, transportation, storage, or delivery of munitions of war or supplies, and also the construction, remodelling, repair, or demolition of defence projects. From the enactment of the statute in 1907 to Mar. 31, 1940, a total of 594 threatened strikes or lockouts had been referred to Boards of Conciliation and Investigation that have been established under provisions set forth in this statute. Cessation of work was averted or ended in all but 41 cases.

Employment and Unemployment

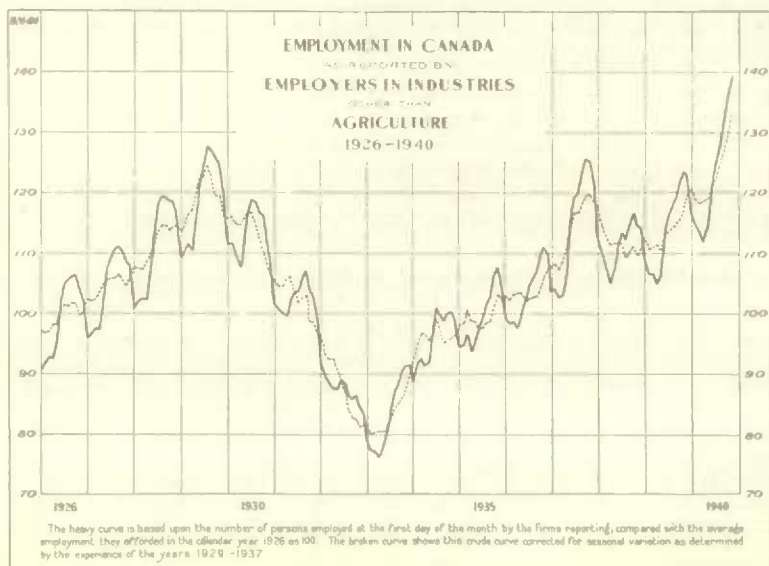
The Employment Service of Canada.—In the first eight months of 1940 there were 563,861 applications for work and 301,996 vacancies registered at the 81 offices of the Employment Service of Canada, while placements effected numbered 278,590. In the same period of 1939, 515,447 applications for work, 268,497 vacancies, and 256,516 placements were reported.

Placements during the first eight months of 1940 were thus nearly 8.6 p.c. higher than during the corresponding period of 1939, the increase reflecting the influence of war work. Placements were nearly 167 p.c. higher in manufacturing and 215 p.c. higher in the building division of construction and maintenance. There were also large percentage gains in transportation and trade. The only decline of importance was in the highway division of construction and maintenance; this was quite substantial owing to the curtailment of road construction which had been undertaken largely in relief of unemployment in previous years. Farming also showed fewer placements.

Employment, 1939 and 1940.—A valuable index to the business situation is found in the record of employment as reported monthly to the Dominion Bureau of Statistics by leading employers. Since 1920, the record has extended to manufacturing, logging, mining, transportation, communications, construction and maintenance, services, and trade, while, in more recent months, data have also been collected from financial institutions. In the first eleven months of 1940, returns were furnished for about 12,100 establishments in the first-named group of industrial divisions, which employed average staffs of 1,201,900 persons. In the period, Jan. 1 to Nov. 1, 1939, the employees of the 11,624 firms reporting in the more general industrial classifications averaged 1,097,298.

During 1940, employment each month was more active than at the same date in the preceding year. Based on the 1926 average as 100, the index averaged 122.8 in the first eleven months of 1940, as compared with 113.0 in the same period of 1939. The 1940 average for these months was higher than in any other year of the record.

Employment by Economic Areas.—In most of the provinces, employment averaged considerably higher in the first eleven months of 1940 than in 1939, and in several cases, industrial activity was also greater, on the whole, than in any other year of the record; in Quebec and Ontario, particularly, an unusually high level was reached.



Employment by Cities.—During the period, Jan. 1 to Nov. 1, 1940, the situation reported in Montreal, Toronto, Ottawa, Hamilton, Windsor, Winnipeg, and Vancouver was more favourable than in 1939, or immediately preceding years; in Quebec City, employment was not so active in the earlier months, but improvement was shown as the year advanced.

Index Numbers of Employment as Reported by Employers, by Economic Areas

NOTE.—These indexes are calculated upon the average for the calendar year 1926 as 100. Indexes are given for 1929, the year of maximum activity in the period preceding the present war, for 1933 when employment generally was at the minimum, and annually from 1938.

Year	Maritime Provinces	Quebec	Ontario	Prairie Provinces	British Columbia	Canada
1929—Averages	114.8	113.4	123.1	126.3	111.5	119.0
1933—Averages	85.3	82.0	84.2	86.2	78.0	83.4
1936—Averages	109.4	100.7	106.7	99.3	101.1	103.7
1937—Averages	121.0	115.4	118.3	99.3	106.8	114.1
1938—Averages	111.5	117.0	113.7	100.0	104.2	111.8
1939—Averages	110.5	120.8	114.3	103.2	107.5	113.9
Averages, 11 mos.—						
1939	109.4	120.0	113.4	102.6	107.3	113.0
1940	121.2	125.9	128.0	108.1	112.4	122.8

Employment by Industries.—From the beginning of 1940, employment in manufacturing showed rapid expansion and, after the first quarter, was generally in greater volume than in any other period on record. At the peak at Nov. 1, the index was 144.6, a figure 18.4 p.c. higher than at the same date in 1939. Employment in practically all divisions of manufacturing was more active than in the preceding year, while many lines attained the highest level reached since the surveys were instituted in 1921. In many cases, notably the metal, chemical, and men's clothing industries, the expansion was a direct result of war-time demands.

Among the non-manufacturing industries, logging, mining, transportation, services, and trade afforded more employment than in the first eleven months of 1939, or immediately preceding years. While building and railway construction and maintenance were active, there was curtailment in work on the highways, with the result that the index in the construction group as a whole averaged rather lower in 1940 than in 1939.

Index Numbers of Employment as Reported by Employers, by Industries

See headnote to table at p. 175.

Year	Manufacturing	Logging	Mining	Communications	Transportation	Construction and Maintenance	Service	Trade	All Industries
1929—Averages...	117.1	125.8	120.1	120.6	109.7	129.7	130.3	126.2	119.0
1933—Averages...	80.9	66.5	97.5	83.9	79.0	74.6	106.7	112.1	83.4
1936—Averages...	103.4	138.7	136.5	81.0	84.1	88.2	124.5	127.4	103.7
1937—Averages...	114.4	189.3	153.2	85.4	85.2	99.5	130.2	132.1	114.1
1938—Averages...	111.0	142.8	155.9	85.0	84.4	105.4	135.2	132.6	111.8
1939—Averages...	112.3	119.1	163.8	84.4	85.6	113.0	137.4	136.6	113.9
Averages, 11 mos.—									
1939	111.4	106.0	163.1	84.3	85.2	114.7	137.9	135.8	113.0
1940	130.1	154.5	168.0	87.0	89.4	89.3	142.7	141.9	122.8

Unemployment in Trade Unions.—Monthly statistics are tabulated in the Department of Labour from reports furnished by trade unions showing the unemployment existing among their members. In the first eight months of 1940, 1,984 organizations reported an average membership of 255,532, of whom 22,488 were, on an average, unemployed: this was a percentage of unemployment of 8.8, compared with 13.4, 13.0 and 11.0 for the first eight months of 1939, 1938 and 1937, respectively. Except for a fractional increase in February, when the percentage stood at 11.7, compared with 11.3 in January, the percentage of unemployment decreased in each month of 1940 and on Aug. 31 had reached 5.2, the lowest point in any year since September, 1929, when the percentage was 3.7.

Unemployment Assistance Measures

National Relief Registration.—The registration of persons on direct relief, instituted by the National Employment Commission, is now carried on by the National Registration Branch of the Department of Labour. An initial registration of all persons receiving direct relief (material aid) from the provinces and municipalities, where the Dominion contributes

financially to such relief, was made in September, 1936, and monthly returns have since been received from municipalities distributing relief. Re-registrations were carried out in September of 1937, 1938, 1939 and 1940.

In addition to providing data in respect to numbers receiving direct relief, separated as to urban and agricultural, the national registration has provided statistical data concerning the degree of employability of adults, domestic status, age, industry, occupation and time of last employment, length of time on relief, etc.

The national relief registration showed a Dominion total on direct relief for August, 1940, of 372,000* persons (individuals on their own, heads of families, and wives and other dependants of heads of families), of whom 323,000 were on urban relief and 49,000 were on agricultural relief; this total of 372,000 in August, 1940, is in comparison with 802,652 in August, 1939; 757,635 in August, 1938; and 744,234 in August, 1937. These figures do not include persons engaged at wages on works to relieve unemployment.

In August, 1940, the total number of persons on urban relief showed a decrease of 40.7 p.c. from the comparable figure for August, 1939. The number of persons on agricultural relief in the same period was reduced by 81.0 p.c. Fully employable persons on relief, 16 years of age or over (but excluding members of farm families), were reduced from 142,298 to 79,500 between August, 1939, and August, 1940, or by 44.1 p.c.

Youth Training.—Under the authority of the Youth Training Act, 1939, the Youth Training Program was continued during 1939-40 in co-operation with the provinces. Following the outbreak of war, the amounts allotted to some of the projects were considerably reduced or entirely eliminated, but training was still given in mining and prospecting, forestry, farm apprenticeships, agriculture, rural homecrafts and handicrafts, and Home Service Training Schools for women.

*Excluding figures for New Brunswick, which has substituted a works program for direct relief assistance; also all figures for August, 1940, are subject to further revision.

Practical Instruction
in Forest Surveying
under the National
Forestry Program.



Greater stress was laid on industrial training, particularly for industries engaged on war work, and, in addition to the regular industrial classes of the Program, special classes were held. The vocational shops of 65 technical schools throughout the country were used for this purpose. From the end of June to the end of September, training was given to over 7,500 persons, chiefly in the following trades: machine shop, bench fitting, motor mechanics, sheet metal, welding, and wood working. The training in the three last occupations was designed particularly for aircraft manufacturing industries. During the year the Program included classes to train ground mechanics for the R.C.A.F. as aero-engine fitters, air-frame mechanics, and wireless operators.

Eleven schools carried on in six provinces with an average enrolment of about 1,200. In the autumn of 1940 this enrolment was increased by over 50 p.c. Arrangements were made to continue during the fall and winter months the specific project begun during the summer to train production workers for war industries. The length of the course of training is approximately four months.

Direct Relief.—At the first session of the 19th Parliament the Unemployment and Agricultural Assistance Act, 1940, was passed, the terms of which are similar to those of its predecessor, the Unemployment and Agricultural Assistance Act, 1939. Administration of the Act is vested in the Minister of Labour. Under its provisions the Dominion continues to assist the provinces in discharging their responsibilities in connection with the granting of direct relief (material aid) to necessitous persons on a dollar-for-dollar basis with the provinces; the maximum to be 40 p.c. Generally speaking, this means a division of the costs between the three participating governments of 40 p.c. by the Dominion, 40 p.c. by the province, and 20 p.c. by the municipality. The Dominion has also agreed to pay 50 p.c. of the expenditures incurred for direct relief supplied to individuals in necessitous circumstances, but who have not established residence in the province wherein they find themselves destitute.

An Order in Council passed pursuant to the War Measures Act provides that expenditures incurred for food, fuel, clothing, shelter, and health services, supplied to any residents in Canada who are necessitous dependants of persons interned or detained in Canada under the Defence of Canada Regulations, be paid by the Dominion and charged to the War Measures Appropriation. This is to be supplied on a scale not exceeding that given by governmental or municipal agencies to necessitous persons in the locality in which the dependants reside. Arrangements have been made for municipal authorities (or the province, where no municipal government exists) to grant assistance to these persons through their usual agencies when approved by the Dominion.

Rehabilitation of Unemployed Higher-Age Individuals.—Provision has been made by the Dominion for the continuation of assistance to the provinces during 1940-41 in the carrying on of projects designed to restore the skill, physique, and morale of those middle-aged workers who, because of the depression and continued unemployment, find themselves unable to compete in the labour market. Nova Scotia, New Brunswick, Ontario, Manitoba, Saskatchewan, Alberta, and British Columbia have

expressed their desire to enter into agreements with the Dominion in respect to rehabilitation of these unemployed higher-age individuals. The cost is to be shared on a 50-50 basis between the Dominion and each of the provinces concerned. It is proposed to carry out such projects as hard-rock mine training, agricultural training, training in skilled trades and industrial occupations, and a farm chore plan.

Relief Settlement.—Under the provisions of the Unemployment and Agricultural Assistance Act, 1940, agreements respecting relief settlement have been entered into with the Provinces of Quebec, Manitoba, and Alberta. These agreements provide for the settlement on the land of selected families who would otherwise be in receipt of direct relief. The Relief Settlement Scheme was originated in 1932, when all of the provinces, except Prince Edward Island and New Brunswick, placed families on the land. From 1932 to Aug. 31, 1940, 9,468 settlers with a total of 41,571 dependants have been approved for settlement under the relief settlement agreements.

Re-establishment of Settlers.—Under the provisions of the Unemployment and Agricultural Assistance Act, 1940, agreements are in effect with the Provinces of New Brunswick, Saskatchewan, Alberta, and British Columbia in respect to the re-establishment of settlers. This is a continuation of the policy of the past three years. The program is designed to assist settlers in pioneer areas to become self-sustaining, and expenditures under the agreements are chiefly made for the breaking and clearing of land and the purchase of building materials, farm implements, and live stock. Under the agreements the Dominion contributes 50 p.c. of the expenditures of the provinces.

Unemployment Insurance

In order to facilitate the enactment of unemployment insurance in Canada, the British North America Act was amended, on July 10, 1940, the consent of the provinces having been obtained. The Dominion Government introduced a bill into the House of Commons on July 16 with the stated purpose of establishing an Unemployment Insurance Commission to administer unemployment insurance, to set up a National Employment Service, and for other related purposes. It was given the short title of the Unemployment Insurance Act, 1940, and received the Royal Assent on Aug. 7.

The Act provides for the compulsory insurance of employed persons, with the exception of workers engaged in agriculture, forestry, fishing, logging and lumbering, transportation by air or water, stevedoring, private domestic service, and workers earning more than \$2,000 in a year. Employed persons under 16 years of age and persons earning less than 90 cents for the full day cannot draw insurance benefit, but may accumulate insurance benefit rights at no cost to themselves.

An Unemployment Insurance Fund will be created under the Act from the contributions made by employed persons and their employers. To these contributions the Government will add a grant of one-fifth of their aggregate, and also defray the cost of administration of the Act by annual votes of Parliament. An Investment Committee, with the Bank of Canada as fiscal agent, is to arrange for the investment of the Fund in government securities.

Insurance benefits are received as of right on fulfilment of four statutory conditions: (1) the payment of not less than 30 weekly, or 180 daily, contributions within two years, while in insured employment; (2) proper presentation of the claim, and proof of unemployment; (3) evidence that the claimant is capable of, and available for work, but unable to obtain suitable employment; and (4) evidence that the claimant has not refused, when required, to attend a course of instruction or training.

Disqualifications for benefit include: loss of work due to misconduct, incapacity, or a labour dispute in which the claimant is directly involved; and unwillingness to accept suitable employment.

Contributions are graded according to earnings, and the amount of weekly benefits is a multiple of the contributions made by the employed person.

Contribution Rates and Benefits of Unemployment Insurance

Class of Employed Persons	Weekly Rate of Contribution		Weekly Rate of Benefit	
	Employer	Employed Person	Single Person ¹	Person Having Dependant or Dependents ²
	cents	cents	\$	\$
Earning less than 90c. per day or under 16 years of age	18	9 ³	(see text at p. 179)	(see text at p. 179)
Earning \$5.40 but less than \$7.50 per week....	21	12	4.08	4.80
Earning \$7.50 but less than \$9.60 per week....	25	15	5.10	6.00
Earning \$9.60 but less than \$12 per week	25	18	6.12	7.20
Earning \$12 but less than \$15 per week	25	21	7.14	8.40
Earning \$15 but less than \$20 per week	27	24	8.16	9.60
Earning \$20 but less than \$26 per week	27	30	10.20	12.00
Earning \$26 but less than \$38.50 per week, or \$2,000 a year.....	27	36	12.24	14.40

¹ Thirty-four times person's contribution.

² Paid on his behalf by the employer.

³ Forty times person's contribution.

In respect of each class, the daily rate of contribution or insurance benefit is one-sixth of the weekly rate.

No benefits are payable for the first nine days of unemployment in any benefit year.

Thereafter, the number of the weekly benefit payments is related directly to the employment history of the insured individual. This number, in any benefit year, is equal to the difference between one-fifth of the number of weekly contributions made in the previous five years, less one-third of the number of weekly benefit payments received in the previous three years. If, for example, an employed person contributed for forty weeks during the first year of coverage under the Act, eight weeks of benefit would have accrued.

Claims for benefit are made through insurance officers, but appeals from their decision are possible through courts of referees, and finally to an umpire appointed from among the judges of the Exchequer Court or the Superior Courts of the provinces.

OLD AGE PENSIONS

An Advisory Committee, representative of the contributing parties, will advise and assist the Commission, report on the condition of the Insurance Fund, and make recommendations regarding adjustments to, or extensions of the Act.

A National Employment Service with regional and local offices will be organized by the Commission, making possible the offer of work to unemployed persons and the clearing of vacancies and applications for employment to all parts of the country. Loans may be granted to workers travelling to places where work has been found.

National, regional, and local committees, representative of workers and employers, are to be set up to advise and assist the Commission in carrying out the purposes of the Employment Service.

Old Age Pensions and Pensions for Blind Persons

The Old Age Pensions Act, 1927.—The Act provides for a Dominion-Provincial system of non-contributory old age pensions in such provinces as have enacted and given effect to special legislation for this purpose. The provinces are charged with the payment of pensions, the Dominion reimbursing each province, quarterly, to the extent of 75 p.c.* of the net cost of its payments on account of old age pensions. All the provinces are now operating under such agreements. Old age pensions are also payable in the Northwest Territories. Authority was given in 1927 to the Gold Commissioner of the Yukon to enter into an agreement with the Dominion Government for the purpose of obtaining the benefit of the Old Age Pensions Act, but no scheme has as yet been formulated.

Statement of Old Age Pensions, as at June 30, 1940

Province	Effective Date	Pensioners	Average Monthly Pension	Dominion Government Contributions	
				Apr. 1 to June 30, 1940	From Inception of Act
		No.	\$	\$	\$
Prince Edward Island.....	July 1, 1933	2,015	11-29	50,636	1,103,573
Nova Scotia.....	Mar. 1, 1934	14,527	14-83	480,139	11,071,935
New Brunswick.....	July 1, 1936	11,825	14-61	388,127	5,560,712
Quebec.....	Aug. 1, 1936	48,921	17-70	1,942,570	28,069,184
Ontario.....	Nov. 1, 1929	59,342	18-55	2,444,108	80,679,476
Manitoba.....	Sept. 1, 1928	12,704	18-68	520,062	17,276,030
Saskatchewan.....	May 1, 1928	12,783	16-80	466,740	15,643,993
Alberta.....	Aug. 1, 1929	10,653	18-57	440,469	11,890,181
British Columbia.....	Sept. 1, 1927	13,551	19-13	572,157	16,776,317
Northwest Territories.....	Jan. 25, 1929	7	20-00	425	17,131
Totals.....	-	186,328	-	7,325,433	188,068,232

Pensions for Blind Persons.—By an amendment to the Old Age Pensions Act, assented to Mar. 31, 1937, provision is made for the payment of pensions, under certain conditions, to blind persons who have attained the age of forty years. The maximum pension payable to blind persons

*The proportion to be paid by the Dominion as set forth in the Act of 1927 was one-half, but this was increased at the 1931 session of Parliament to 75 p.c., which increase was made effective from Nov. 1, 1931.

is \$240 a year which is subject to reduction by the amount of the pensioner's income in excess of \$200 a year in the case of an applicant who is unmarried or is a widower or a widow without a child or children, and by the amount of income in excess of \$400 a year in the case of an applicant who is married or a widower or widow with a child or children. The Act provides for a reduced pension to a blind person who marries another blind person subsequent to the date on which the Act came into force.

Statement of Pensions for Blind Persons, as at June 30, 1940

Province	Effective Date	Pensioners	Average Monthly Pension	Dominion Government Contributions	
				Apr. 1 to June 30, 1940	From Inception of Amendment
		No.	\$	\$	\$
Prince Edward Island.....	Dec. 1, 1937	116	13.91	3,660	28,046
Nova Scotia.....	Oct. 1, 1937	583	19.12	24,851	202,515
New Brunswick.....	Sept. 1, 1937	668	19.64	29,276	233,414
Quebec.....	Oct. 1, 1937	1,790	19.42	78,995	693,753
Ontario.....	Sept. 1, 1937	1,361	19.59	60,422	523,567
Manitoba.....	Sept. 1, 1937	275	19.52	11,964	94,355
Saskatchewan.....	Nov. 15, 1937	263	19.88	12,349	94,237
Alberta.....	Mar. 7, 1938	189	19.60	8,215	57,569
British Columbia.....	Dec. 1, 1937	291	19.37	12,587	99,563
Totals.....	-	5,536	-	242,323	2,027,019

Pensions for blind persons are administered by the provincial authorities under agreements made by the Lieutenant-Governors of the provinces with the Governor in Council. The Dominion Government assumes responsibility for 75 p.c. of the net sum paid out by the provinces for pensions to blind persons.

INDEX

	PAGE		PAGE
Aborigines, administration of	44-5	Canada, trade, internal	144-51
Accounts, public, the	155-6	— water powers	84-9
Agricultural assistance and Dominion unemployment measures	176-7	Canada's War effort	1-12
— capital and production, values of	51, 56, 59	— defence	9-12
— wealth and revenue	56	— economic	4-9
Agriculture	14, 55-70	— financial	7-9
— provincial assistance to	70	Canadian Air Force, Royal	11-12
Air Force, Royal Canadian	11-12	— banking system	160-3
— mail service	117, 124	— bond financing	169
— navigation	117	— Broadcasting Corporation	121-3
— Training Plan, British Commonwealth	17-26	— chartered banks	162
Airway, Trans-Canada, the	117-8	— fishing grounds	91
Alberta, agriculture	56, 68	— grain trade	59-60
— births	47	— Mounted Police, Royal	27-41
— deaths	47, 48	— railways	113-4
— finance	157, 158, 159	Canals	115-6
— fisheries	92	Canned foods	105-6
— forestry	80	Capital investment in Canada	168
— manufactures	104	Carloadings	113
— marriages	47	Census of manufactures	104
— minerals	75	— merchandising and service establishments	146-8
— population	43	— population	43
— production	51	Central electric stations	15, 86-9
— water powers	84	— average monthly output of	87
Animal products, dairying	65-8	Chain stores	147
— slaughtering and meat packing	111	Chartered banks, statistics of	162
Animals, live stock	60-2	Cheese, production and exports of	65-8
Army, the	10	Cities, employment in	175
Associations, co-operative	147-8	— manufacturing in leading	112
Automobile insurance	165	Civil aviation	117-8
— registration	114-5	Clay products and structural materials, production of	76
Aviation, civil	117-8	Cleaning-house transactions	162-3
Balance of international payments	141-3	Coal, production of	73, 76
Bank clearings and bank debits	162-3	Combines Investigation Act	145-6
— notes	160	Commercial Intelligence Service	138
— of Canada	161-2	Commodity prices	16, 149-50
Banking	160-3	Commonwealth Air Training Plan	17-26
— and currency	160-9	Communications, transportation and	113-24
— commercial	162	Conditions in Canada at close of 1940	14-6
Banks, chartered, statistics of	162	Construction	125-31
Beetroot sugar production	64, 105	— building permits	130-31
Births in Canada	47, 48	— contracts awarded	130
Biscuits and confectionery	105	— electric power during 1940	86-7
Bond financing, Canadian	169	— industries, annual census of	127-8
Bonded indebtedness, municipal	158-9	— railway, expenditures re	127
— provincial	158	— volume of, 1940	129-31
Bonds, Canadian, sales of	169	Co-operative associations	147-8
— yield of Dominion	169	Cost of living	148
British capital in Canada	168	Crops, field	56-9
— Columbia, agriculture	56, 68	— special	62-4
— births	47	Currency and banking	160-9
— deaths	47, 48	— Canadian	160
— finance	157, 158, 159	Customs duties, receipts from	155
— fisheries	92		
— forestry	80	Dairying	65-8
— manufactures	104	Deaths, by provinces	47, 48
— marriages	47	— infant	48
— minerals	75	— main causes of, in Canada	48
— population	43	Debt, bonded, municipal	158-9
— production	51	— Dominion net	152
— water powers	84	— provincial	158
— Commonwealth Air Training Plan	17-26	Defence and military co-operation	9-12
British Empire, area and population	42	Department of Labour	170-1
— trade with	135	Disputes, industrial	173-4
Budget, 1939-40	7-8, 153-5	Dominion Budget, 1939-40	7-8, 153-5
Butter, production and exports of	65-7	— expenditures	152, 155
		— finance	152-6
Cables and cablegrams	118-9	— Housing Act, 1938	125-6
Canada, Bank of	161-2	— notes outstanding	160
— national income	49-51	— public accounts	165-6
— population	54-70	— revenue	152, 155
— production	49-51	— unemployment assistance measures, 1940	176-80
— trade, external	16, 132-43		

	PAGE		PAGE
Economic conditions in Canada at the close of 1940	14-6	Industries, iron and steel	108-10
Eggs, production and exports of.....	68-9	— leading individual.....	105-11
Electric power..... 15, 51, 86-7	86-7	Infant mortality in Canada.....	48
— railways.....	113	Insurance.....	163-8
Employment and unemployment..... 16, 174-6	174-6	— fire.....	164-5
— by cities.....	175	— life.....	163-4
— by economic areas.....	175	— miscellaneous.....	165
— by industries.....	175-6	— unemployment.....	179-80
— Commission, National.....	176	Interest rates.....	169
— in manufactures, indexes of.....	112	Internal trade.....	144-51
— Service of Canada.....	174	International payments, balance of.....	141-3
Eskimos.....	46-7	Investments in Canada, British and foreign.....	168
Excise duties, receipts from.....	155	— in other countries, by Canadians.....	168
Expenditures, Dominion..... 152, 155	155	Iron and steel industries.....	108-10
— provincial.....	157	Labour	170-80
Exports, newsprint.....	134	— Dominion Department of.....	170-1
— of 25 chief commodities.....	134	— organized in Canada.....	173
— to British and foreign countries.....	135	— provincial departments of.....	171
— to 17 countries.....	138	Life insurance.....	163-4
— wheat..... 54, 134	134	Live stock.....	60-2
Express companies.....	113	— marketing of.....	62
External trade..... 16, 132-43	132-43	Living expenditures, family.....	148
Field crops, area, yield, etc.	56-9	— cost of.....	148-9
Finance, public.....	152-9	Loan and trust companies.....	166
— Dominion.....	152-6	Loans companies, small.....	166-7
— municipal.....	158-9	Lumber industry.....	80-1
— provincial.....	157-8	— production, by provinces.....	80
Fire insurance.....	164-5	Manitoba, agriculture	56, 68
Fish, export trade in.....	94-5	— births.....	47
Fisheries of Canada.....	91-5	— deaths.....	47, 48
— Government and the.....	91-2	— finance..... 157, 158, 159	159
— production..... 51, 92-4	92-4	— fisheries.....	92
Flour-milling industry.....	105, 109	— forestry.....	80
Food industries..... 104, 105-6	105-6	— manufactures.....	104
Foreign capital in Canada.....	168	— marriages.....	47
— countries, trade with.....	138	— minerals.....	75
— exchange, non-commodity items of.....	139-43	— population.....	43
Forest wealth of Canada.....	77-83	— production.....	51
Fruit growing.....	69-70	— water powers.....	84
— marketing of.....	70	Manufactures of Canada..... 15-6, 102-12	102-12
Fuel production..... 73, 76	76	— by leading industries.....	110-1
Fur farming..... 98-9	98-9	— by provinces and purpose groups.....	104
— trade..... 97-101	101	— indexes of employment in.....	112
Furs, export trade in.....	101	— in leading cities.....	111-2
Gainfully occupied and wage-earners	171-2	— summary of statistics of.....	103
Gas, natural, production of.....	76	Manufacturing conditions, 1935-40.....	112
Gold, production of..... 71-2, 76	76	Maple sugar and syrup.....	64
Government Home Improvement Loans Guarantee Act.....	126	Marriages.....	47, 48
Grain crops.....	56-9	Material aid to necessitous persons.....	171
— elevators.....	59-60	Meat packing and slaughtering..... 105, 111	111
— trade.....	59-60	Metallics, production of..... 71-3, 75-6	75-6
Highway mileage	114	Military and defence co-operation.....	9-12
Highways and roads.....	114	Milk and cream, production of.....	67-8
— expenditures on.....	114	Milling industry..... 105, 111	111
Home Improvement Loans Guarantee Act, 1937.....	126	Mineral production.....	71-6
Honey production.....	65	Mines and minerals..... 14-5, 71-6	71-6
Housing Act, National.....	125-6	Miscellaneous insurance.....	165
Hydro-electric construction during 1940.....	86-7	Motion picture theatres.....	145
— power production..... 84-6	84-6	Motor vehicles..... 114-5	114-5
Immigration	47	— fatalities caused by.....	115
Imports from British and foreign countries.....	135	— registered in Canada.....	115
— from 17 countries.....	138	Mounted Police, Royal Canadian.....	27-41
— of 25 chief commodities.....	133	Municipal bonded indebtedness.....	159
— wheat.....	57	— finance.....	158-9
Incomes assessed for income war tax.....	154	— Improvements Assistance Act, 1938.....	126-7
Index numbers of cost of living..... 148-9	148-9	— system of taxation.....	158-9
— of employment..... 175, 176	175, 176	National debt, 1868-1940	152
— of employment in manufactures.....	112	— defence.....	9-12
— of sales, wholesale and retail.....	146	— Employment Commission.....	176
— of wholesale prices..... 16, 149-50	149-50	— Housing Act, 1938.....	125-6
Indians.....	44-6	— radio.....	121-3
Industrial disputes.....	173-4	— registration.....	44
Industries, food.....	105-6	— for employment.....	176
		Natural gas and petroleum.....	76
		— increase of population.....	48
		Navigation, air.....	117
		— water.....	115-7

	PAGE		PAGE
Navy, the	10-1	Production, grain	57-9
New Brunswick, agriculture	56, 68	— manufacturing	51, 103-12
— births	47	— mining	51, 71-6
— deaths	47, 48	— survey of	49-53
— finance	157, 158, 159	— by industries	51
— fisheries	92	— by provinces	51
— forestry	80	Provincial assistance to agriculture	70
— manufactures	104	— bonded indebtedness	158
— marriages	47	— departments of labour	171
— minerals	75	— public finance	157-8
— population	43	— revenues and expenditures	157
— production	51	— taxation	157-8
— water powers	84	Public accounts	155-6
Newsprint paper industry	83	— finance	152-9
Non-commodity items of exchange	139-43	— Dominion	152-6
Non-ferrous metals, production of	71-3, 75-6	— municipal	158-9
— smelting and refining	111	— provincial	157-8
Non-metallic minerals, production of	73-5, 76	Pulp and paper industry	81-3, 111
Northwest Territories, minerals	75		
— population	43	Quebec, agriculture	56, 68
— water powers	84	— births	47
Notes, bank or Dominion	160	— deaths	47, 48
Nova Scotia, agriculture	56, 68	— finance	157, 158, 159
— births	47	— fisheries	92
— deaths	47, 48	— forestry	80
— finance	157, 158, 159	— manufactures	104
— fisheries	92	— marriages	47
— forestry	80	— minerals	75
— manufactures	104	— population	43
— marriages	47	— production	51
— minerals	75	— water powers	84
— population	43		
— production	51	Radio, national	121-3
— water powers	84	— expenditures re	122-3
Nutrition and living expenditures	148-9	Railway carloadings	113
		— construction, expenditures re	127
Old age pensions	181-2	— mileage of Canada	113
Ontario, agriculture	56, 68	Railways, electric	113
— births	47	— steam	113
— deaths	47, 48	— gross operating revenues of	113
— finance	157, 158, 159	Re-establishment of settlers	179
— fisheries	92	Registration of unemployed	176
— forestry	80	— national	44
— manufactures	104	Rehabilitation of unemployed	178
— marriages	47	Relief legislation	176-9
— minerals	75	— settlement	178-9
— population	43	— works	176-9
— production	51	Retail sales, index numbers of	146
— water powers	84	— services	145
Organized labour in Canada	173	— trade	146-7
		Revenue, agricultural	51, 56
Paper production	81-3	— Dominion	152, 155
Pelts, numbers and values	97	— provincial	157
Pensions for blind persons	181-2	Roads and highways	114
— old age	181	— expenditures on	114
Petroleum and natural gas	76	Royal Canadian Air Force	11-2
Police, Royal Canadian Mounted	27-41	— Mounted Police	27-41
Population, growth of	42-3	Rural and urban population	43
— of Canada, 1871 to 1931	43		
— (estimated) 1932-40	43	Saskatchewan, agriculture	56, 68
— of the British Empire	42	— births	47
— of the world	42	— deaths	47, 48
— registration of, national	44	— finance	157, 158, 159
— rural and urban	43	— fisheries	92
Post office	123-4	— forestry	80
Poultry farming	68-9	— manufactures	104
Prices, wholesale	149-51	— marriages	47
Prince Edward Island, agriculture	56, 68	— minerals	75
— births	47	— population	43
— deaths	47, 48	— production	51
— finance	157, 158, 159	— water powers	84
— fisheries	92	Sawmilling industry	80-1
— forestry	80	Shipping	116-7
— manufactures	104	— vessels registered	117
— marriages	47	Sickness and accident insurance	185
— population	43	Slaughtering and meat packing	105, 111
— production	51	Small loans companies	166-7
— water powers	84	Special crops	62-4
Production, agricultural	51, 54-70	Steam railways	113
— electric power	51, 84-9	Steel and iron industries	108-10
— fisheries	51, 90-5	Stockyards, public	62
— forestry	51, 77-83	Sugar	64, 105
— fur	51, 96-101		

	PAGE		PAGE
Taxation, Dominion.....	153-5	Unions, trade.....	173, 178
— municipal system of.....	154-9	— unemployment in.....	176
— provincial.....	157-8	United Kingdom, trade with.....	134
— receipts from Dominion.....	153	United States, trade with.....	134
Telegraphs.....	118-9	Urban and rural population.....	43
Telephones.....	119		
Theatres, motion picture.....	145	Vegetables and fruits, production....	64, 69-70
Timber industry.....	80-1	Vehicles, motor.....	114-5
Tobacco, production and exports of....	63-4	Vital statistics.....	47-8
Tourist expenditures.....	140-1		
— highway development.....	114	Wage-earners and gainfully occupied... 171-2	
— trade.....	140-1	War tax revenue.....	156
Trade, external.....	16, 132-43	— budget, special.....	7-8, 153-5
— grain.....	59-60	— effort, Canada's.....	1-13
— internal.....	144-51	— economic.....	4-9
— of Canada, by countries.....	133-5	— financial.....	7-9
— related to world trade.....	137-8	— services.....	6, 9-12
— with the British Empire and for- 134		Water powers of Canada.....	84-9
— review of, by months.....	136-7	— available and developed.....	84
— total Canadian.....	132	— construction during 1940.....	85-6
— tourist, aggregate.....	140-1	— provincial distribution of.....	84-5
— unionism in Canada.....	173, 176	Wealth, forest.....	77-83
— unions, unemployment in.....	176	Welland ship canal.....	116
— wholesale and retail.....	146-8	Wheat production.....	57-8
Training, British Commonwealth Plan 17-26		— imports and exports, 1929-40.....	57
Trans-Canada Airway, the.....	117-8	Wholesale and retail trade.....	146-7
Transportation and communications... 113-24		— prices, index numbers of.....	16, 149
Trust and loan companies.....	166	— sales, index numbers of.....	146
		Wood-pulp production.....	81-2
Unemployed, rehabilitation of.....	178	Woods operations.....	78-9
Unemployment assistance measures... 176-9		Youth training program.....	177-8
— and Agricultural Assistance Act, 1940 178		Yukon, fisheries.....	92
— insurance.....	179-80	— minerals.....	75
— in trade unions.....	176	— population.....	43
— registration.....	176-7	— production.....	51
— relief measures.....	176-9	— water powers.....	84

STATISTICS CANADA LIBRARY
BIBLIOTHEQUE STATISTIQUE CANADA



1010316855

Ca 005