Official Copy—Not for Sale*

DOMINION BUREAU OF STATISTICS

DEPARTMENT OF TRADE AND COMMERCE, CANADA

THE CANADA YEAR BOOK 1940

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

Published by Authority of

The Honourable JAMES A. MACKINNON, M.P.

MINISTER OF TRADE AND COMMERCE

4195

OTTAWA
J. O. PATENAUDE, I.S.O.
KING'S PRINTER
1940

*Copies may be purchased from the King's Printer at $1·50.

PREFACE.

The Canada Year Book had its beginning in the first year of the Dominion when the semi-official "Year Book and Almanac of British North America"—being (to quote its sub-title) "an Annual Register of political, vital, and trade statistics, customs tariffs, excise and stamp duties, and all public events of interest in Upper and Lower Canada, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland, and West Indies"—was founded.

Subsequently the Year Book experienced many metamorphoses under the able editorship of such men as Dr. George Johnson and Dr. Archibald Blue, whose names are outstanding in the field of early statistical work in the Dominion, and, after the reorganization of statistics that followed the report of the Royal Commission on Statistics of 1912 and the establishment of the Dominion Bureau of Statistics in 1918, by E. H. Godfrey, and by S. A. Cudmore now Assistant Dominion Statistician.

The editorial task of keeping the contents of each edition of the Year Book within convenient limits is becoming more difficult each year. It is no longer possible to cover the entire field of information in a single edition. The plan adopted, therefore, has been to save space by making reference in the text and in the classified list at pp. vii-x to special articles and significant historical or descriptive matter in earlier editions that have not been subject to wide change and are therefore not repeated. To this extent the Year Book must now be regarded as a series of publications rather than as a single volume.

This edition of the Year Book gives a picture of Canada once again at war and in this instance engaged in a conflict that threatens to tax the Dominion's strength, financial and economic, to the utmost. The period covered by the 1940 Year Book spans ten months of war effort and the effects of the vast changes incidental to that effort are shown in several directions. In the Introduction a co-ordinated résumé of all that has been accomplished is presented, followed by a review of economic conditions; these throw into clear perspective the changes in Canada's economy that the War has been instrumental in provoking. In Chapter IX—Forestry—there appears at pp. 251-258 an article on Canadian Forest Resources: Their Relation to the War of 1914-18 and to the Present Effort; and at pp. 298-309, Chapter XII—Mines and Minerals—a special treatment entitled The Development of Canada's Mineral Resources in Relation to the Present War Effort is given. These features, along with the Special War Chronology at pp. 36-40 (carried down to July 8, 1940, in Appendix I) and in conjunction with the revisions of the general chapter material, reflect the economic and other adjustments that are now under way. All parts of the volume have been carefully revised: the latest information appearing to the date when each section was sent to press is included.

The following are among the more important additional new features incorporated in the present edition: Chapter XIII, formerly devoted to a treatment of water-power development, has been recast and broadened to cover all power, however generated, and its utilization. This has involved careful study and co-ordination of material from other chapters of the Year Book as well as from outside sources, more especially in relation to power equipment. The result is more in line with the purpose of the Year Book, viz., to bring together all related information from official sources in a way most convenient and accessible to the reader. The chapter is introduced by a special article on Water-Power Resources, more comprehensive than any on this subject that has appeared heretofore in the Year Book. Considerable editing and rearrangement has been undertaken in Chapter VIII—Agriculture—where special features appear on: Agricultural Marketing Legislation

at pp. 181-185, a review of Provincial Agricultural Colleges and Schools at pp. 190-198, and a treatment of Special Types of Farming in the Prairie Provinces at pp. 230-234. In Chapter XVIII—Transportation and Communications—several of the *lacunæ* that formerly could not be bridged have been more completely linked up and a special section on the National Harbours Board is presented at pp. 679-682. In Chapter XIX—Labour and Wages—the more logical arrangement now followed will, it is hoped, be found helpful by the reader.

The Currency and Banking Chapter contains at pp. 888-892 a pertinent article on the Royal Canadian Mint, and the insurance field—Chapter XXIII—is broadened in scope by a summary treatment of Insurance as it Affects the Balance of International Payments. The chapter on Education—Chapter XXV—has been supplemented by a special article on the Background of Scientific and Industrial Research in Canada. In former editions, research has been dealt with under the subject headings of each chapter: the result has been that a complete picture of research effort was impossible. Moreover, effort in the research field is so interlocked and interrelated that it can no longer be dealt with satisfactorily in such a piecemeal fashion. It is felt to be more useful to introduce a complete article, along the lines of that which now appears at pp. 979-1012, at intervals of about five years, than to continue the former disjointed method of treatment.

Since Chapter III—Constitution and Government—went to press, information on votes polled, etc., at the Dominion General Election of Mar. 26, 1940, has been issued by the Chief Electoral Officer; this is published in tabular form as Appendix III. On July 8, 1940, the Prime Minister, the Rt. Hon. W. L. Mackenzie King, gave details to the House of Commons regarding the reorganization of the Dominion Cabinet. The constitution as at that time is shown in Appendix VII. The Report of the Royal Commission on Dominion-Provincial Relations (the Rowell-Sirois Report) was tabled in the House of Commons on May 16. The recommendations made therein are far-reaching and are charged with significance for all Canadians. A summary of the principal recommendations is given in Appendix V and certain summary financial statistics of all governments in Canada in Appendix VI.

In many other respects changes have been introduced with the object of making the Year Book more useful both as a general reference work and as a compendium of information on the institutions and social and economic conditions of Canada.

The present volume has been edited by A. E. Millward, Editor of the Canada Year Book. Charts, graphs, and layouts, except as otherwise credited, have been made by, or under the supervision of, J. W. Delisle, Senior Draughtsman of the Dominion Bureau of Statistics.

Grateful acknowledgements are hereby tendered to the numerous officials of the Dominion and Provincial Governments, and to other individuals who have assisted in the collection of information. Credit is apportioned to the various persons and services concerned by means of footnotes to those chapters and sections that have been contributed, or in the compilation of which co-operation has been received.

While every care has been taken in preparation, there are doubtless imperfections and, with a view to the improvement of future editions, the Bureau will be glad to hear of any errors that may have escaped notice, and to receive suggestions with regard to omissions or to methods of treatment.

R. H. COATS,
Dominion Statistician.

Dominion Bureau of Statistics,
Ottawa, July 15, 1940.

TABLE OF CONTENTS.

CHAPTER.	SUBJECT.	PAGE.
	LIST OF ILLUSTRATIONS, MAPS, AND DIAGRAMS	vi
	LIST OF ARTICLES PUBLISHED IN FORMER EDITIONS OF THE YEAR BOOK	vii
	STATISTICAL SUMMARY, 1871-1939	xi
	INTRODUCTION	xxiv
I	PHYSIOGRAPHY	1
II	HISTORY AND CHRONOLOGY	25
III	CONSTITUTION AND GOVERNMENT	41
IV	POPULATION	69
V	VITAL STATISTICS	104
VI	IMMIGRATION AND COLONIZATION	144
VII	SURVEY OF PRODUCTION	167
VIII	AGRICULTURE	180
IX	FORESTRY	244
X	FUR RESOURCES AND FUR PRODUCTION	277
XI	THE FISHERIES	285
XII	MINES AND MINERALS	298
XIII	POWER GENERATION AND UTILIZATION IN CANADA	353
XIV	MANUFACTURES	394
XV	CONSTRUCTION	468
XVI	EXTERNAL TRADE	480
XVII	INTERNAL TRADE	590
XVIII	TRANSPORTATION AND COMMUNICATIONS	631
XIX	LABOUR AND WAGES	743
XX	PRICES	808
XXI	PUBLIC FINANCE	826
XXII	CURRENCY AND BANKING; MISCELLANEOUS COMMERCIAL FINANCE	882
XXIII	INSURANCE	926
XXIV	COMMERCIAL FAILURES	957
XXV	EDUCATION AND RESEARCH	965
XXVI	PUBLIC HEALTH AND RELATED INSTITUTIONS	1013
XXVII	JUDICIAL AND PENITENTIARY STATISTICS	1032
XXVIII	MISCELLANEOUS ADMINISTRATION	1056
XXIX	SOURCES OF OFFICIAL STATISTICAL AND OTHER INFORMATION	1079
XXX	THE ANNUAL REGISTER, 1939-40	1117
	APPENDIX I—SPECIAL WAR CHRONOLOGY, 1940	1143
	APPENDIX II—EXTERNAL TRADE OF CANADA, 1939	1149
	APPENDIX III—MEMBERS OF THE HOUSE OF COMMONS, DOMINION ELECTION, MAR. 26, 1940 AND REORGANIZATION OF THE DOMINION CABINET, JULY 8, 1940	1150
	APPENDIX IV—SURVEY OF PRODUCTION, 1937-38	1156
	APPENDIX V—REPORT OF THE ROYAL COMMISSION ON DOMINION-PROVINCIAL RELATIONS	1157
	APPENDIX VI—BALANCE SHEET AND REVENUES AND EXPENDITURES OF ALL GOVERNMENTS	1164
	INDEX	1166

List of Illustrations, Maps, and Diagrams.

PAGE.

Map: Dominion of Canada.....*insert facing page* vi

Map: Orographical Map of Canada.....*insert facing page* 10

Map: Census Divisions of Western Canada, 1931..... 79

Diagram: Death Rates per 100,000 Population in Canada, 1926-38..... 127

Diagram: Birth Rates, Death Rates, and Rates of Natural Increase in Canada, 1926-38..... 140

Diagram: Percentage Distribution of the Sexes in Each Decennial Age Group for the Total, the Native Born and the Immigrant Populations in Canada, 1931 compared with 1921..... 149

Diagram: Value of Net Production, 1937 Compared with 1936..... 175

Map: Main Types of Farming in Canada.....*insert facing page* 180

Diagram: Trends in Gross Revenues for Agricultural Products, 1918-38.... 198

Diagram: Quantities and Values of Chief Grains Grown in Canada, 1918-38.. 199

Map: Type-of-Farming Areas in the Prairie Provinces, 1935..... 232

Map: Forest Classification.....*insert facing page* 248

Canada's Forest Resources.....*insert facing page* 253

Diagram: Pulpwood Production, Consumption, Exports, and Value per Cord, 1908-38..... 268

Diagram: Newsprint Production, 1913-38..... 270

Diagram: Value of the Products of the Fisheries of Canada, 1917-38..... 289

Map: Sources of Present Mineral Production of Canada.....*insert facing page* 308

Diagram: Value of Mineral Production, by Classes, in Canada, 1907-39..... 315

Map: Water Powers of the Dominion of Canada.....*insert facing page* 354

Diagram: Provincial Distribution of Installed Water Power, Dec. 31, 1939.. 357

Diagram: Progress of Water-Power Development in Canada, Dec. 31, 1900-39 358

Diagram: Central Electric Stations, 1924-39..... 368

Diagram: Growth of Manufacturing Industries, 1917-37..... 395

Diagram: Manufacturing Production, 1917-38..... 447

Diagram: Exports and Imports of Canada, 1910-39..... 525

Map: Movement of the Canadian Wheat Crop, 1938-39..... 594

Diagram: Department and Chain Store Sales, 1933-39..... 620

Diagram: Percentages of Used and New Motor Vehicles Sold in Canada, 1937. 623

Diagram: The Trend of Employment, 1926-39..... 753

Diagram: Estimated Employment and Unemployment of Wage-Earners, 1921-39..... 759

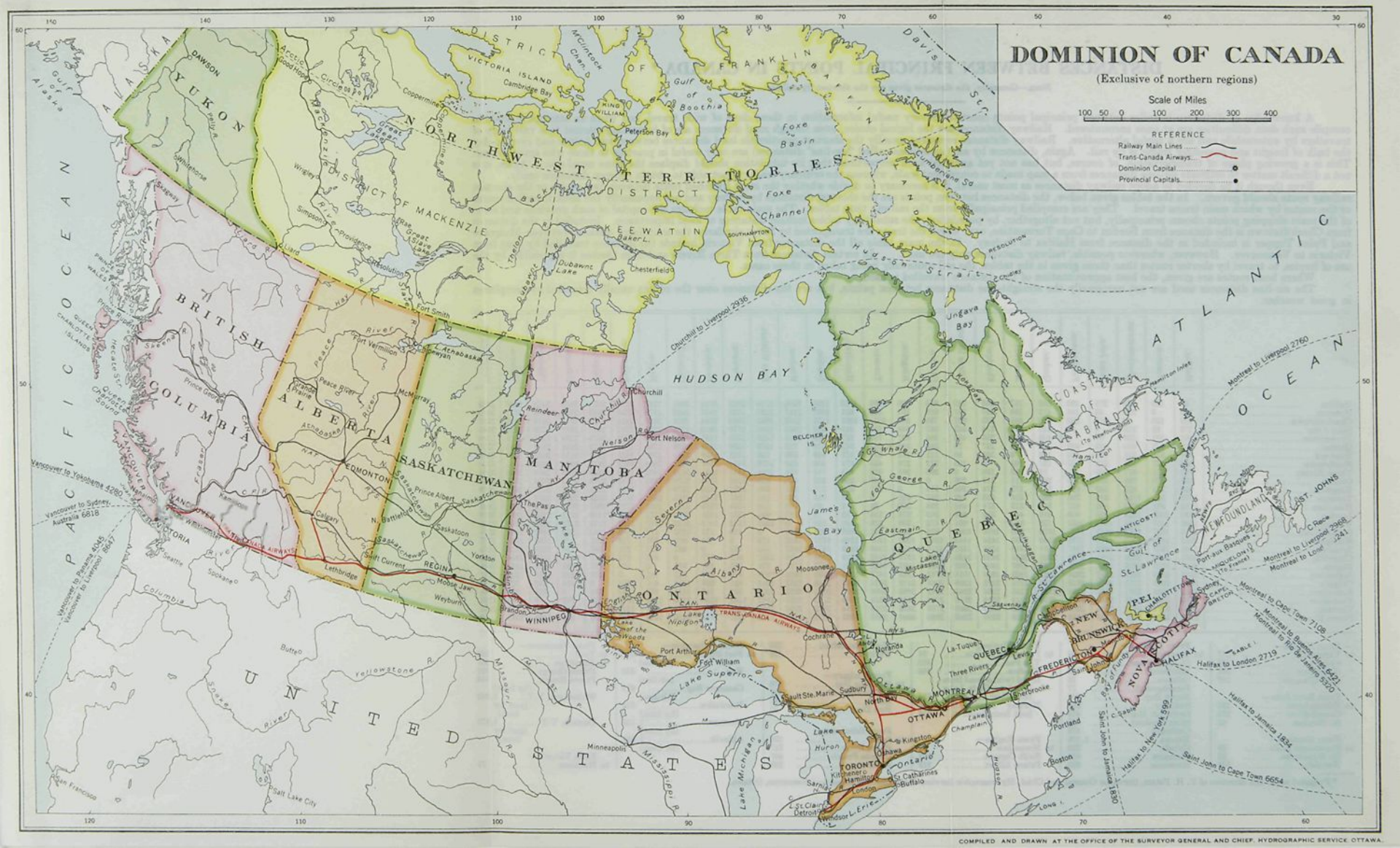
Diagram: Index Numbers of Wholesale Prices and Living Costs, 1914-39.... 808

Diagram: Index Numbers of Industrial Materials, 1926-39..... 811

Diagram: Public Debt of Canada..... 827

Diagram: Bank of Canada—Sources and Distribution of Cash..... 886

Diagram: Percentage Distribution of the Total Assets of the Chartered Banks, 1867-1939..... 898


DOMINION OF CANADA
(Exclusive of northern regions)
Scale of Miles
100 50 0 100 200 300 400
REFERENCE
Railway Main Lines
Trans-Canada Airways
Dominion Capital
Provincial Capitals
YUKON
DISTRICT OF MACKENZIE
NORTHWEST TERRITORIES
KEEWATIN
DISTRICT OF FRANKLIN
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
ONTARIO
QUEBEC
LABRADOR
NEWFOUNDLAND
NEW BRUNSWICK
NOVA SCOTIA
P.E.I.
HUDSON BAY
PACIFIC OCEAN
ATLANTIC OCEAN
UNITED STATES
Davis Str.
Hudson Strait
Foxe Basin
Foxe Channel
Gulf of Boothia
Gulf of St. Lawrence
Cumberland Sd.
Ungava Bay
James Bay
Baffin I.
Southampton I.
Belcher Is.
Prince of Wales I.
Queen Charlotte Is.
Vancouver I.
Anticosti I.
Cape Breton I.
Prince Edward I.
Vancouver to Yokohama 4280
Vancouver to Sydney, Australia 6818
Vancouver to Panama 4045
Vancouver to Liverpool 8547
Churchill to Liverpool 2936
Montreal to Liverpool 2760
Montreal to Liverpool 2968
Montreal to London 3241
Montreal to Cape Town 7106
Montreal to Buenos Aires 6421
Montreal to Rio de Janeiro 5320
Halifax to London 2719
Halifax to Jamaica 1834
Halifax to New York 699
Saint John to Jamaica 1830
Saint John to Cape Town 6654
VANCOUVER
VICTORIA
EDMONTON
CALGARY
REGINA
WINNIPEG
TORONTO
OTTAWA
MONTREAL
QUEBEC
HALIFAX
SAINT JOHN
FREDERICTON
CHARLOTTETOWN
SYDNEY
ST. JOHNS
CHURCHILL
FORT SMITH
YELLOWKNIFE
DAWSON
WHITEHORSE
COMPILED AND DRAWN AT THE OFFICE OF THE SURVEYOR GENERAL AND CHIEF HYDROGRAPHIC SERVICE OTTAWA.

DISTANCES BETWEEN PRINCIPAL POINTS IN CANADA.*

NOTE.—Generally, the distances given are the shortest by railway.

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

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

Where boat routes are given, the best approximation of the distance travelled is used.

The air-line distances used are not necessarily the straight-line distances between points, but are the distances over the routes usually travelled by aeroplanes in good weather.

Place.	Halifax.	Moncton.	Charlottetown.	Saint John.	Fredericton.	Quebec.	Montreal.	Sherbrooke.	Three Rivers.	Ottawa.	Kingston.	Toronto.	Hamilton.	London.	Windsor.	Fort William.	Winnipeg.	Brandon.	Churchill.	Regina.	Saskatoon.	Calgary.	Edmonton.	Vancouver.	Victoria.	Prince Rupert.
Halifax	0	189	239	278	292	662	747	646	740	858	920	1081	1120	1196	1306	1716	2012	2146	2991	2367	2483	2834	2813	3475	3560	3769
Moncton	189	0	126	89	104	473	558	457	551	669	731	892	931	1007	1117	1527	1823	1957	2802	2178	2294	2645	2624	3286	3371	3580
Charlottetown	239	126	0	215	230	600	684	583	677	795	857	1018	1057	1133	1243	1653	1950	2084	2929	2305	2421	2772	2751	3413	3498	3707
Saint John	278	89	215	0	67	426	476	375	503	587	649	810	849	925	1035	1445	1776	1910	2755	2131	2247	2598	2577	3239	3324	3533
Fredericton	292	104	230	67	0	403	454	353	481	565	627	788	827	903	1013	1423	1753	1887	2732	2108	2224	2575	2554	3216	3301	3510
Quebec	662	473	600	426	403	0	169	127	78	280	342	503	542	618	728	1079	1350	1484	2329	1705	1821	2172	2151	2813	2898	3107
Montreal	747	558	684	476	454	169	0	101	95	111	173	334	373	449	559	969	1353	1486	2331	1707	1823	2174	2153	2815	2900	3109
Sherbrooke	646	457	583	375	353	127	101	0	196	212	274	435	474	550	660	1070	1454	1587	2432	1808	1924	2275	2254	2916	3001	3210
Three Rivers	740	551	677	503	481	78	95	196	0	206	268	429	468	544	654	1064	1448	1581	2426	1802	1918	2269	2248	2910	2995	3205
Ottawa	858	669	795	587	565	280	111	212	206	0	112	247	286	362	472	858	1242	1375	2220	1596	1712	2063	2042	2704	2789	2998
Kingston	920	731	857	649	627	342	173	274	268	112	0	161	200	276	386	908	1292	1426	2270	1647	1763	2113	2093	2754	2839	3049
Toronto	1081	892	1018	810	788	503	334	435	429	247	161	0	39	115	225	811	1207	1340	2185	1562	1677	2028	2008	2670	2755	2964
Hamilton	1120	931	1057	849	827	542	373	474	468	286	200	39	0	80	190	850	1246	1379	2224	1601	1716	2067	2047	2709	2794	3003
London	1196	1007	1133	925	903	618	449	550	544	362	276	115	80	0	110	926	1322	1455	2300	1677	1792	2143	2123	2785	2870	3079
Windsor	1306	1117	1243	1035	1013	728	559	660	654	472	386	225	190	110	0	1036	1432	1565	2410	1787	1902	2253	2233	2895	2980	3189
Fort William	1716	1527	1653	1445	1423	1079	969	1070	1064	858	908	811	850	926	1036	0	419	552	1397	774	889	1240	1220	1882	1967	2176
Winnipeg	2012	1823	1959	1776	1753	1350	1353	1454	1448	1242	1292	1207	1246	1322	1432	419	0	133	978	355	470	821	801	1463	1548	1757
Brandon	2146	1957	2084	1910	1887	1484	1486	1587	1581	1375	1426	1340	1379	1455	1565	552	133	0	937	221	384	688	715	1330	1415	1671
Churchill	2991	2802	2929	2755	2732	2329	2331	2432	2426	2220	2270	2185	2224	2300	2410	1397	978	937	0	845	813	1217	1144	1859	1944	2100
Regina	2367	2178	2305	2131	2108	1705	1707	1808	1802	1596	1647	1562	1601	1677	1787	774	355	221	845	0	163	467	493	1108	1193	1449
Saskatoon	2483	2294	2421	2247	2224	1821	1823	1924	1918	1712	1763	1677	1716	1792	1902	889	470	384	813	163	0	404	330	1046	1131	1287
Calgary	2834	2645	2772	2598	2575	2172	2174	2275	2269	2063	2113	2028	2067	2143	2253	1240	821	688	1217	467	404	0	194	642	727	1150
Edmonton	2813	2624	2751	2577	2554	2151	2153	2254	2248	2042	2093	2008	2047	2123	2233	1220	801	715	1144	493	330	194	0	761	846	956
Vancouver	3475	3286	3413	3239	3216	2813	2815	2916	2910	2704	2754	2670	2709	2785	2895	1882	1463	1330	1859	1108	1046	642	761	0	85	1158
Victoria	3560	3371	3498	3324	3301	2898	2900	3001	2995	2789	2839	2755	2794	2870	2980	1957	1548	1415	1944	1193	1131	727	846	85	0	1243
Prince Rupert	3769	3580	3707	3533	3510	3107	3109	3210	3205	2998	3049	2964	3003	3079	3189	2176	1757	1671	2100	1449	1287	1150	956	1158	1243	0

From Halifax—
- to Yarmouth 217
- Sydney 289
- Glace Bay 304
- New Glasgow 107

From Saint John—
- to Edmundston 236
- Campbellton 276
- St. Stephen 83

From Montreal—
- to Shawinigan Falls 89
- St. Hyacinthe 35
- Noranda 542

From Toronto—
- to Brantford 64
- St. Catharines 71
- Kitchener 62
- Oshawa 33
- Peterborough 77
- North Bay 228
- Sudbury 260
- Sault Ste. Marie 439
- Sioux Lookout 955
- Cochrane 479
- Kenora 1,105
- Cobalt 330
- Timmins 485
- Moosonee 666

From Winnipeg—
- to Portage la Prairie 54
- The Pas 468
- Flinflon 560
- Ilford (winter road from Ilford to Gods Lake 132 miles) 754
- Norway House (by boat from Selkirk) 313

From Regina—
- to Moose Jaw 42
- Swift Current 152
- Prince Albert 219
- North Battleford 259
- Yorkton 123

From Calgary—
- to Medicine Hat 176
- Lethbridge 127
- Banff 82
- Red Deer 95

From Edmonton—
- to Jasper 236
- Peace River 317
- Grande Prairie 407
- Waterways 305

From Waterways—
- to Fort Smith 242 (air-line)
- Rae 380 (air-line)
- Cameron Bay 614 (air-line)
- Resolution 512 (by boat)
- Norman 1,123 (by boat)
- Aklavik 1,606 (by boat)

From Vancouver—
- to Trail 507
- Kamloops 251
- Prince George 691
- Prince Rupert 546 (by boat)
- Whitehorse, Y.T. 1,082 (part by boat)
- Dawson, Y.T. 1,473 (part by boat)

From Victoria—
- to Nanaimo 73

* Prepared under the direction of F. H. Peters, Surveyor General and Chief, Hydrographic Service, Department of Mines and Resources, Ottawa.

ARTICLES AND MISCELLANEOUS TEXT MATERIAL (PUBLISHED IN FORMER EDITIONS) CLASSIFIED BY SUBJECT.

NOTE.—As explained in the Preface, it is not possible to include in a single edition of the Year Book all articles and descriptive text of previous editions, and the following list has been compiled as an index or key to miscellaneous material and special articles, contributed by authorities in their particular fields, that appear in earlier editions. This list links up the 1940 Year Book with its predecessors in respect to matters that have not been subject to wide change. Those sections of chapters, such as Population, which are automatically revived when new material is made available from a later census, and to which adequate references are made in the text, are not listed unless they are in the nature of special contributions. Only the latest published article on each subject is shown except when an earlier article takes in ground not covered in the later one. When articles cover more than one subject they are listed under each heading.

Article.	Contributor.	Volume.	Page.
Agriculture—			
Geology in Relation to Agriculture	WYATT MALCOLM.	1921	68–72
The Grain Trade	–	1922–23	581–583
The Development of Agriculture in Canada	J. H. GRISDALE, D.Sc.A.	1924	186–191
Provincial Departments of Agriculture	–	1930	191–205
The Functions of the Dominion Department of Agriculture	–	1936	212–226
Agricultural Progress and Experimental Farms System	–	1937	221–228
Historical Background of Canadian Agriculture	G. S. H. BARTON, C.M.G., B.S.A., D.Sc.A.	1939	187–190
The Canadian Wheat Board	T. W. GRINDLEY, Ph.D.	1939	569–580
Art, Literature and the Press—			
Public Libraries in Canada	–	1921	168–169
Art in Canada	–	1924	886–888
Select Bibliography of the History of Canada	ADAM SHORTT, C.M.G., LL.D., F.R.S.C.	1925	53–55
The Development of the Fine Arts in Canada	NEWTON MACTAVISH, M.A., D. Litt.	1931	995–1009
Bibliography of Canadian Flora	JOHN ADAMS, M.A. (Cantab.)	1938	56–59
A Bibliography of Canadian History	GUSTAVE LANCTOT, LL.M. D. Litt., LL.D. K.C., F.R.S.C.	1939	36–40
The Development of the Press in Canada	A. E. MILLWARD, B.A., B. Com.	1939	737–773
Banking and Finance—			
Life Insurance—A Historical Sketch	A. D. WATSON.	1925	860–864
Banking Legislation	–	1931	891–896
The Bank of Canada and its Relation to the Financial System		1937	881–885
Historical Sketch of Currency and Banking	–	1938	900–906
Climate and Meteorology—			
Climate and Meteorology	A. J. CONNOR, M.A.	1913	113–122
General Survey of the Climate of Canada	SIR FREDERICK STUPART, F.R.S.C.	1914	128–139
The Meteorological Service of Canada	SIR FREDERICK STUPART, F.R.S.C.	1922–23	43–48
Climate of Canada Since Confederation	SIR FREDERICK STUPART, F.R.S.C.	1924	31–34
Factors Which Control Canadian Weather	SIR FREDERICK STUPART, F.R.S.C.	1925	36–40
The Distribution of Precipitation	A. J. Connor, M.A.	1926	42–46

ARTICLES AND MISCELLANEOUS TEXT MATERIAL, ETC.—continued.

Article.	Contributor.	Volume.	Page.
Climate and Meteorology—concluded.			
The Climate of Canada	Sir Frederick Stupart, F.R.S.C.	1929	42–51
Temperature and Precipitation in Northern Canada	A. J. Connor, M.A.	1930	41–56
Droughts in Western Canada	A. J. Connor, M.A.	1933	47–59
Constitution and Government—			
Constitution and Government of Canada	Thomas Flint, M.A., LL.B., D.C.L.	1914	1–17
Constitution and Government of Canada	S. A. Cudmore, B.A. (Tor.), M.A. (Oxon.), F.S.S., F.R. Econ. Soc.	1922–23	89–100
Provincial and Local Government in—			
Maritime Provinces	Thomas Flint, M.A., LL.B., D.C.L.	1922–23	102–105
Quebec	C. J. Magnan.	1915	8–10
Quebec	G. E. Marquis.	1922–23	105–107
Ontario	S. A. Cudmore, B.A. (Tor.), M.A. (Oxon.), F.S.S., F.R. Econ. Soc.	1922–23	107–109
Prairie Provinces	Rev. E. H. Oliver, Ph.D., F.R.S.C.	1922–23	110–113
British Columbia	S. D. Scott.	1915	23–26
British Columbia	John Hosie.	1922–23	113–115
The Government of Canada's Arctic Territory	R. A. Gibson.	1938	92–93
Criminal Law—			
A Historical Sketch of Criminal Law and Procedure	R. E. Watts.	1932	897–899
Education and Scientific Societies—			
Public Libraries in Canada	–	1921	168–169
Royal Canadian Institute	Prof. McMurrich, M.A., Ph.D., LL.D., F.R.S.C.	1924	885
Royal Society of Canada	Prof. McMurrich, M.A., Ph.D., LL.D., F.R.S.C.	1924	884
Honorary Advisory Council for Scientific Research		1920	53–57
National Research Council	F. E. Lathe, M.Sc.	1932	867–870
Fauna and Flora—			
Faunas of Canada	P. A. Taverner.	1922–23	32–36
Faunas of Canada	R. M. Anderson, Ph.D.	1937	29–52
Flora of Canada	John Adams, M.A. (Cantab.)	1938	29–58
Forestry—			
A Sketch of the Canadian Lumber Trade	A. R. M. Lower, M.A.	1925	318–323
Physiography, Geology, and Climate as Affecting the Forests	–	1934–35	311–313
Noxious Forest Insects and Their Control	J. J. deGryse, Ph. Cand. (Louv.)	1939	254–263
Fur Trade—			
Historical Sketch		1934–35	343–344
Geology—			
Geology and Economic Minerals	R. W. Brock, M.A., LL.D., F.G.S.	1921	65–68

ARTICLES AND MISCELLANEOUS TEXT MATERIAL, ETC.—continued.

Article.	Contributor.	Volume.	Page.
Geology—concluded.			
Geology in Relation to Agriculture	WYATT MALCOLM, M.A., F.R.S.C.	1921	68–72
Geological Formation	–	1925	16–24
Geological Survey of Canada	WYATT MALCOLM, M.A., F.R.S.C.	1926	34–36
Economic Geology of Canada	WYATT MALCOLM, M.A., F.R.S.C.	1929	27–35
(Annual articles reviewing publications in the field of economic geology, 1915-27)			
(Do. 1928–34)	P. J. MORAN, B.Sc.	1936	29–37
Geology of Canada	WYATT MALCOLM, M.A., F.R.S.C.	1936	18–28
Geology and Economic Minerals	F. J. ALCOCK, Ph.D.	1937	16–28
Geology of Canada	F. J. ALCOCK, Ph.D.	1939	309–310
Harbours—			
Administration of Harbours in Canada	–	1930	1013
History—			
The Story of Confederation	SIR JOSEPH POPE, K.C.M.G., C.V.O., I.S.O.	1918	1–13
Fifty Years of Canadian Progress	E. H. GODFREY, F.S.S.	1918	23–72
History of the Great War (1914-18)	E. A. CRUIKSHANK, LL.D., F.R.S.C.	1919	1–65
Reconstruction in Canada	S. A. CUDMORE, B.A. (Tor.), M.A. (Oxon.), F.S.S., F.R. Econ. Soc.	1920	1–64
History of Canada	ARTHUR DOUGHTY, C.M.G., LL.D.	1922–23	60–80
Select Bibliography of the History of Canada	ADAM SHORTT, C.M.G., LL.D., F.R.S.C.	1925	53–55
Canada on Vimy Ridge	A. F. DUGUID, D.S.O., B.Sc., R.C.A.	1936	50–60
Historic Sites and Monuments	W. D. CROMARTY.	1938	78–90
The Relationship of the Public Archives to the Historical Records of Canada and a Bibliography of Canadian History	GUSTAVE LANCTOT, LL.M., D. Litt., LL.D., K.C., F.R.S.C.	1939	34–36
Hospitals and Institutions—			
Historical Review of Hospitals and Other Institutions	J. C. BRADY.	1936	1006–1009
Labour—			
The Co-operative Movement in Canada	MISS M. MACKINTOSH, M.A.	1925	704–720
Legislation Respecting Combinations in Restraint of Trade	F. A. MCGREGOR.	1927–28	765–770
Wages Statistics of the Census of 1921	MISS M. E. K. ROUGHSEDGE.	1927–28	774–783
Occupations of the People	MISS M. E. K. ROUGHSEDGE.	1929	134–147
The Occupations of the Canadian People	A. H. LENEVEU, M.A.	1937	128–146
Labour Legislation in Canada	MISS M. MACKINTOSH, M.A.	1938	787–796
The National Employment Commission	–	1938	778–779
Manufactures—			
The Iron and Steel Industry	–	1922–23	452–456

ARTICLES AMD MISCELLANEOUS TEXT MATERIAL, ETC.—concluded.

Article.	Contributor.	Volume.	Page.
Mining—			
Geology and Economic Minerals	R. W. Brock, M.A., LL.D., F.G.S.	1921	68–72
Geology and Economic Minerals	F. J. Alcock, Ph.D.	1937	16–28
Mining—An Historical Sketch	-	1939	309–310
Miscellaneous Administration—			
Geological Survey of Canada	Wyatt Malcolm, M.A., F.R.S.C.	1926	34–36
(See p. 1078 for references to articles on: the Dominion Observatories; the International Joint Commission; the Geodetic Survey; and the Topographical Survey.)			
Natural Resources—			
Natural Resources of the Dominion	Watson Griffith.	1916–17	1–61
Geology and Economic Minerals	R. W. Brock, M.A., LL.D., F.G.S.	1921	68–72
A Sketch of the Canadian Lumber Trade	A. R. M. Lower, M.A.	1925	318–323
Fur Trade—An Historical Sketch		1934–35	343–344
Geology and Economic Minerals	F. J. Alcock, Ph.D.	1937	16–28
Mining—An Historical Sketch	-	1939	309–310
Population—			
Occupations of the People, 1921	Miss M. E. K. Roughsedge.	1929	134–147
Immigration Policy	R. J. C. Stead.	1931	189–192
Organization for the Census of 1931	-	1932	94–95
Areas and Populations of Countries of the British Empire and of the World, 1921 and 1931	-	1934–35	165–169
Colonization Activities	-	1936	201–202
The Occupations of the Canadian People, 1931	A. H. LeNeveu, M.A.	1937	128–146
Occupational Trends in Canada, 1891-1931	A. H. LeNeveu, M.A.	1939	774–778
Radio—			
A Historical Sketch of Radio Communications	Commander C. P. Edwards, O.B.E.	1932	607–610
The Canadian Radio Broadcasting Commission	Hector Charlesworth	1933	731–733
Research—			
Scientific and Industrial Research in Canada	-	1932	866–872
Seismology—			
Seismology in Canada	E. A. Hodgson, Ph.D.	1938	27–30
Time and Time Zones—			
Standard Time and Time Zones in Canada	C. C. Smith.	1934–35	50–53
Times of Sunrise and Sunset	-	1938	66–68
Trade—			
Advisory Board on Tariff and Taxation		1930	1018
Harbour Commissions		1930	1013
The Grain Trade		1922–23	581–583
Preferential Tariff and Trade Treaties	W. Gilchrist.	1934–35	520–526
Transportation—			
The Development of Aviation in Canada	J. A. Wilson.	1938	710–712
The Trans-Canada Airway	J. A. Wilson.	1938	713–715
Harbour Commissions	-	1930	1013

THE
STATISTICAL SUMMARY
OF THE
PROGRESS OF CANADA
1871-1939.

NOTE.—In the following Summary, the statistics of fisheries (1871-1916), trade, shipping, the Post Office, the public debt, revenue and expenditure, and the Post Office and Government savings banks relate to the fiscal years ended June 30 up to 1906; subsequently to years ended Mar. 31. Agricultural, dairying, fisheries (from 1922), mineral, manufacturing, banking, insurance, loan and trust companies, construction, road transportation, vital, hospital, and immigration statistics relate to the calendar years, and railway statistics to the years ended June 30, 1871-1916, and to the calendar years 1921 and 1926-39. Canal statistics are those of the navigation seasons. The telegraph statistics relate to the fiscal years for Government lines and to the calendar years for other lines.

89187—8½

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA.

Area of the Dominion of Canada in square miles: Land, 3,466,556; Fresh Water, 228,307; Total, 3,694,863.

NOTE.—Dashes in this table indicate that comparable data are not available for the years so indicated.

	Item.		1871.	1881.	1891.	1901.	1906.
	Population—[1, 2]						
1	Prince Edward Island	No.	94,021	108,891	109,078	103,259	96,000
2	Nova Scotia	"	387,800	440,572	450,396	459,574	465,000
3	New Brunswick	"	285,594	321,233	321,263	331,120	334,000
4	Quebec	"	1,191,516	1,359,027	1,488,535	1,648,898	1,784,000
5	Ontario	"	1,620,851	1,926,922	2,114,321	2,182,947	2,299,000
6	Manitoba	"	25,228	62,260	152,506	255,211	366,000
7	Saskatchewan	"	–	–	–	91,279	258,000
8	Alberta	"	–	–	–	73,022	185,000
9	British Columbia	"	36,247	49,459	98,173	178,657	279,000
10	Yukon	"	–	–	–	27,219	18,000
11	Northwest Territories	"	48,000	56,446	98,967	20,129	13,000
	Canada	"	3,689,257	4,324,810	4,833,239	5,371,315	6,097,000
	Vital Statistics—[3]						
12	Births (live)	No.	–	–	–	–	
	Rates per 1,000		–	–	–	–	
13	Deaths, all causes	No.	–	–	–	–	–
	Rates per 1,000		–	–	–	–	
14	Diseases of the heart[7]	No.	–	–	–	–	
15	Cancer	"	–	–	–	–	
16	Diseases of the arteries[7]	"	–	–	–	–	
17	Tuberculosis (all forms)[7]	"	–	–	–	–	
18	Pneumonia	"	–	–	–	–	
19	Nephritis	"	–	–	–	–	
20	Marriages	"	–	–	–	–	
	Rates per 1,000		–	–	–	–	–
21	Divorces	No.	4	7	10	19	37
	Immigration (calendar years)—						
22	From United Kingdom	No.	–	17,033	22,042	11,810[8]	86,796[8]
23	From United States	"	–	21,822	52,516	17,987[8]	52,796[8]
24	From other countries	"	–	9,136	7,607	19,352[8]	44,472[8]
	Totals	"	27,773	47,991	82,165	49,149[8]	184,064[8]
	Agriculture—						
25	Area of occupied farms	acre	36,046,401	45,358,141	58,997,995	63,422,338	
26	Improved lands	"	17,335,818	21,899,181	27,729,852	30,166,033	
27	Gross value of agricultural production	$	–	–	–	–	
	Field Crops—[9]						
28	Wheat	acre	1,646,781	2,366,554	2,701,213	4,224,542	
		bu.	16,723,873	32,350,269	42,223,372	55,572,368	
		$	16,993,265	38,820,323	31,667,529	36,122,039	
29	Oats	acre	–	–	3,961,356	5,367,655	
		bu.	42,489,453	70,493,131	83,428,202	151,497,407	
		$	15,966,310	23,967,665	31,702,717	51,509,118	
30	Barley	acre	–	–	868,464	871,800	
		bu.	11,496,038	16,844,868	17,222,795	22,224,366	
		$	8,170,735	11,791,408	8,611,397	8,889,746	
31	Corn	acre	–	–	195,101	360,758	
		bu.	3,802,830	9,025,142	10,711,380	25,875,919	
		$	2,283,145	5,415,085	5,034,348	11,902,923	
32	Potatoes	acre	403,102	464,289	450,190	448,743	
		bu.	47,330,187	55,368,790	53,490,857	55,362,635	
		$	15,211,774	13,288,510	21,396,342	13,840,658	
33	Hay and clover	acre	3,650,419	4,458,349	5,931,548	6,543,423	
		ton	3,818,641	5,055,810	7,693,733	6,943,715	
		$	38,869,900	40,446,480	69,243,597	85,625,315	
	Total Areas, Field Crops	acre	–	–	15,662,811	19,763,740	
	Total Values, Field Crops[11]	$	111,116,606	155,277,427	194,766,934	237,682,285	

[1] Estimates of population since the 1931 Census are subject to adjustment as later data are made available. [2] Figures for 1939 are subject to revision. [3] Estimated populations are given for intercensal and post-censal years. [4] Revised in accordance with the Labrador Award of the Privy Council, Mar. 1, 1927. [5] Includes Canadian Navy. [6] Exclusive of the Territories. [7] For these causes of death the comparability between the figures for the year 1926 and those for later years

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued.

The length of the Canada-United States boundary is 3,986·8 miles, and that of the Canada-Alaska boundary is 1,539·8 miles.

NOTE.—Dashes in this table indicate that comparable data are not available for the years so indicated.

1911.	1916.	1921.	1926.	1931.	1937.[1]	1938.[1]	1939.[1,2]	
93,728	92,000	88,615	87,000	88,038	93,000	94,000	95,000	1
492,338	505,000	523,837	515,000	512,846	542,000	548,000	554,000	2
351,889	368,000	387,876	396,000	408,219	440,000	445,000	451,000	3
2,005,776	2,154,000	2,360,665[4]	2,603,000	2,874,255	3,135,000	3,172,000	3,210,000	4
2,527,292	2,713,000	2,933,662	3,164,000	3,431,683	3,711,000	3,731,000	3,752,000	5
461,394	554,000	610,118	639,000	700,139	717,000	720,000	727,000	6
492,432	648,000	757,510	821,000	921,785	939,000	941,000	949,000	7
374,295	496,000	588,454	608,000	731,605	778,000	783,000	789,000	8
392,480	456,000	524,582	606,000	694,263	751,000	761,000	774,000	9
8,512	7,000	4,157	4,000	4,230	4,000	4,000	4,000	10
6,507	8,000	7,988	8,000	9,723	10,000	10,000	10,000	11
7,206,643	8,001,000	8,788,483[5]	9,451,000	10,376,786	11,120,000	11,209,000	11,315,000	
–	–	–	232,750	240,473	220,235	229,446	–	12
–	–	–	24·7	23·2	19·8	20·5	–	
–	–	–	107,454	104,517	113,824	106,817	–	13
–	–	–	11·4	10·1	10·2	9·5	–	
–	–	–	11,415	13,734	16,840	17,372	–	14
–	–	–	*7,614*	*9,578*	*11,963*	*12,038*	–	15
–	–	–	4,981	5,957	9,609	9,970	–	16
–	–	–	7,929	7,616	6,669	6,126	–	17
–	–	–	8,427	7,011	7,731	7,432	–	18
–	–	–	5,138	5,168	6,530	6,492	–	19
–	–	–	66,658	66,591	87,800	88,438	–	20
–	–	–	7·1	6·4	7·9	7·9	–	
57	67	548	608	692	1,870	1,885	2,022	21
144,076	8,596	43,772	48,819	7,678	2,859	3,389	3,544	22
112,028	41,779	23,888	20,941	15,195	5,555	5,833	5,649	23
75,184	5,539	24,068	66,219	4,657	6,687	8,022	7,801	24
331,288	55,914	91,728	135,932	27,530	15,101	17,244	16,994	
108,968,715	–	140,887,903	–	163,119,231	–	–	–	25
48,733,823	–	70,769,548	–	85,733,309	–	–	–	26
–	–	1,386,126,000	1,714,477,000	839,881,000	1,039,492,000	1,062,645,000	1,170,943,000	27
8,864,514	15,369,709	17,835,734	22,895,649	26,355,136	25,570,200	25,930,500	26,756,500	28
132,077,547	262,781,000	226,508,411	407,136,000	321,325,000	180,210,000	360,010,000	489,623,000	
104,816,825	344,096,400	374,178,601	442,221,000	123,550,000	184,651,000	211,265,000	252,779,000	
8,656,179	10,996,487	13,879,257	12,741,340	12,837,736	13,048,500	13,009,700	12,789,900	29
245,393,425	410,211,000	364,989,218	383,416,000	328,278,000	268,442,000	371,382,000	384,407,000	
86,796,130	210,957,500	180,989,587	184,098,000	77,970,000	114,093,000	89,335,000	105,963,000	
1,283,094	1,802,996	2,043,669	3,647,462	3,791,395	4,331,400	4,453,900	4,347,400	30
28,848,310	42,770,000	42,956,049	99,987,100	67,382,600	83,124,000	102,242,000	103,147,000	
14,653,697	35,024,000	33,514,070	52,059,000	17,465,000	42,020,000	28,446,000	33,147,000	
293,951	173,000	204,775	209,725	131,829	165,600	180,100	183,200	31
14,417,599	6,282,000	10,822,278	7,815,000	5,449,000	5,415,000	7,690,000	8,097,000	
5,774,039	6,747,000	7,081,140	7,780,000	2,274,000	3,466,000	3,614,000	4,453,000	
464,504	472,992	534,621	523,112	591,804	531,200	521,900	517,700	32
55,461,473	63,297,000	62,230,052	46,937,000[10]	52,305,000[10]	42,547,000[10]	35,938,000[10]	36,390,000[10]	
27,426,765	50,982,300	44,635,547	69,204,000	22,359,000	26,650,000	33,093,000	39,040,000	
8,289,407	7,821,257	8,678,883	9,516,125	9,114,457	8,693,300	8,819,800	8,836,600	33
10,406,367	14,527,000	8,829,915	14,058,000	14,539,600	13,030,000	13,798,000	13,377,000	
90,115,531	168,547,900	174,110,386	170,473,000	110,110,000	98,136,000	104,529,000	107,068,000	
30,556,168	38,930,333	47,553,418	56,097,836	58,862,305	57,826,900	58,059,500	59,235,500	
384,513,795	886,494,900	933,045,936	1,104,983,100	435,966,400	556,222,000	550,069,000	634,130,000	

is not exact owing to changes in classification. [8] Fiscal year. [9] Figures for the decennial census years 1871-1921 are for the next preceding years; those for 1871 are for the four original provinces only. [10] Cwt. [11] See Monthly Bulletin of Agricultural Statistics for May, 1921, for particulars of the values of field crops for the years 1871, 1881, and 1901.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued.

	Item.		1871.	1881.	1891.	1901.	1906.
	Live Stock and Poultry—						
1	Horses	No.	836,743	1,059,358	1,470,572	1,577,493	
		$	–	–	–	118,279,419	
2	Milk cows	No.	1,251,209	1,595,800	1,857,112	2,408,677	
		$	–	–	–	69,237,970	*
3	Other cattle	No.	1,373,081	1,919,189	2,263,474	3,167,774	*
		$	–	–	–	54,197,341	
4	Sheep	No.	3,155,509	3,048,678	2,563,781	2,510,239	
		$	–	–	–	10,490,594	
5	Swine	No.	1,366,083	1,207,619	1,733,850	2,353,828	
		$	–	–	–	16,445,702	
6	All poultry	No.	–	–	14,105,102	17,922,658	
		$	–	–	–	5,723,890	
	Total Values, Live Stock and Poultry	$	–	–	–	274,374,916	
	Dairying—[2]						
7	Total milk production	'000 lb.	–	–	–	6,866,834	–
8	Cheese, factory	lb.	–	54,574,856	97,418,855	220,833,269	204,788,583[3]
		$	–	5,457,486	9,741,886	22,221,430	23,597,639[3]
9	Butter, creamery	lb.	–	1,365,912	3,654,364	36,066,739	45,930,294[3]
		$	–	341,478	913,591	7,240,972	10,949,062[3]
10	Butter, dairy	lb.	–	102,545,169	111,577,210	105,343,076	–
		$	–	–	–	21,384,644	
11	Other dairy products[4]	$	–	–	–	15,623,907	
	Total Values, Dairy Products	$	–	22,743,939	30,315,214	66,470,953	
	Furs—						
12	Pelts taken	No.	–	–	–	–	
		$	–	–	–	–	
13	Value of animals on fur farms	$	–	–	–	–	
	Forestry—						
14	Primary forest production	$	–	–	–	–	
15	Lumber production	M ft. b.m.	–	–	–	–	
		$	–	–	–	–	
16	Total sawmill products	$	–	–	–	–	
17	Pulp and paper products	$	–	–	–	–	
18	Exports of wood, wood products, and paper	$	–	–	25,351,085	33,099,915	45,716,762
19	**Fisheries**	$	7,573,199	15,817,162	18,977,874	25,737,153	26,279,485
	Mineral Production—						
20	Gold[6]	oz.	105,187	63,524	45,018	1,167,216	556,415
		$	2,174,412	1,313,153	930,614	24,128,503	11,502,120
21	Silver	oz.	–	355,083[7]	414,523	5,539,192	8,473,379
		$	–	347,271[7]	409,549	3,265,354	5,659,455
22	Copper	lb.	–	3,260,424[7]	9,529,401	37,827,019	55,609,888
		$	–	366,798[7]	1,226,703	6,096,581	10,720,474
23	Lead	lb.	–	204,800[7]	88,665	51,900,958	54,608,217
		$	–	9,216[7]	3,857	2,249,387	3,089,187
24	Zinc	lb.	–	–	–	788,000[8]	1,154
		$	–	–	–	36,011[8]	23,800
25	Nickel	lb.	–	830,477[9]	4,035,347	9,189,047	21,490,955
		$	–	498,286[9]	2,421,208	4,594,523	8,948,834
26	Pig iron	long ton	–	22,167[7]	21,331	244,979	534,295
27	Coal	short ton	1,063,742[10]	1,537,106	3,577,749	6,486,325	9,762,601
		$	1,763,423[10]	2,688,621	7,019,425	12,699,243	19,732,019
28	Natural gas	M cu. ft.	–	–	–	–	–
		$	–	–	150,000[11]	339,476	583,523
29	Petroleum, crude	bbl.	–	368,987	755,298	622,392	569,753
		$	–	–	1,010,211	1,008,275	761,760
30	Asbestos	short ton	–	–	9,279	40,217	82,185
		$	–	–	999,878	1,259,759	2,060,143
31	Cement	bbl.	–	69,843[7]	93,479	450,394	2,128,374
		$	–	81,909[7]	108,561	660,030	3,170,859
	Totals, Mineral Production[12]	$	–	10,221,255[13]	18,976,616	65,797,911	79,286,697

[1] Figures for 1939 are subject to revision. [2] Figures for the decennial census years 1881-1921 are for the next preceding years. In the Censuses of 1881 and 1891 values only were given of factory butter and cheese; quantities have been calculated by reckoning cheese at 10 cents per lb. and butter at 25

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued.

1911.	1916.	1921.	1926.	1931.	1937.	1938.	1939.[1]	
2,598,958	3,246,430	3,624,262	3,398,114	3,113,909	2,882,990	2,820,700	2,824,340	1
381,915,505	418,686,000	440,502,040	245,119,000	155,908,000	206,957,000	198,938,000	189,768,000	
2,595,255	2,835,552	3,324,653	3,839,191	3,371,923	3,940,400	3,873,800	3,873,500	2
109,575,526	198,896,000	203,555,836	201,236,000	143,616,000	156,467,000	154,732,000	179,807,000	
3,930,828	3,763,155	5,194,831	4,731,688	4,601,108	4,900,100	4,637,400	4,601,100	3
86,278,490	204,477,000	139,590,484	148,742,000	114,201,000	123,731,000	123,354,000	151,087,000	
2,174,300	2,025,023	3,203,966	3,142,476	3,627,116	3,339,900	3,415,000	3,365,800	4
10,701,691	20,927,000	20,704,509	31,417,000	18,596,000	18,741,000	19,761,000	22,511,000	
3,634,778	3,484,982	3,404,730	4,359,582	4,699,831	3,963,300	3,486,900	4,294,000	5
26,986,621	60,700,000	36,893,244	69,958,000	32,773,000	48,802,000	46,078,000	59,213,000	
31,793,261	–	50,325,248	50,108,516	65,468,000	57,510,100	57,237,000	62,405,000	6
14,653,773	–	31,750,247	51,037,000	43,138,000	42,954,000	42,350,000	47,062,000	
630,111,606	–	872,996,360	747,509,000	508,232,000	597,652,000	585,213,000	649,448,000	
9,806,741	–	10,976,235	13,407,340	15,772,852	15,326,728	16,133,852	16,108,451	7
199,904,205	192,968,597	149,201,856	171,731,631	113,956,639	130,625,838	123,971,308	122,771,800	8
21,587,124	35,512,622	39,100,872	28,807,841	12,824,695	17,965,123	16,809,861	14,598,700	
64,489,398	82,564,130	111,691,718	177,209,287	225,955,246	247,056,746	267,347,271	267,368,100	9
15,597,807	26,966,355	63,625,203	61,753,390	50,198,878	64,217,332	66,534,568	61,045,300	
137,110,200	–	103,487,506	95,000,000	103,310,000	108,084,000	105,076,000	103,722,000	10
30,269,497	–	50,180,952	28,252,777	21,450,000	22,622,000	20,957,000	19,098,000	
35,927,426	–	–	158,490,971	106,916,119	110,818,807	121,853,867	122,974,029	11
103,381,854	–	–	277,304,979	191,389,692	215,623,262	226,155,296	217,716,029	
–	–	2,936,407	3,686,148	4,060,356	6,237,640	4,745,927	–	12
–	–	10,151,594	15,072,244	11,803,217	17,526,365	13,196,354	–	
–	–	5,977,545	11,153,838	8,497,237	9,676,431	8,929,754	–	13
–	–	168,054,024	204,436,328	141,123,930	163,249,887	148,265,857	–	14
4,918,202	3,490,550	2,869,307	4,185,140	2,497,553	4,005,601	3,768,551	–	15
75,830,954	58,365,349	82,448,585	101,071,260	45,977,843	82,776,822	72,633,418	–	
–	115,884,905[5]	116,891,191	135,182,592	62,769,253	104,849,785	92,855,906	–	16
–	92,074,684[5]	149,216,005	215,370,274	174,733,954	226,255,915	183,897,503	–	17
56,334,695	83,116,282	284,561,478	278,674,960	230,604,474	223,918,476	253,434,860	214,488,484	18
29,965,142	35,860,708	34,931,935	56,360,633	30,517,306	38,976,294	40,492,976	–	19
473,159	930,492	926,329	1,754,228	2,693,892	4,096,213	4,725,117	5,095,176	20
9,781,077	19,234,976	19,148,920	36,263,110	58,093,396	143,326,493	166,205,990	184,144,756	
32,559,044	25,459,741	13,543,198	22,371,924	20,562,247	22,977,751	22,219,195	23,116,861	21
17,355,272	16,717,121	8,485,355	13,894,531	6,141,943	10,312,644	9,660,239	9,359,553	
55,648,011	117,150,028	47,620,820	133,094,942	292,304,390	530,028,615	571,249,664	608,101,714	22
6,886,998	31,867,150	5,953,555	17,490,300	24,114,065	68,917,219	56,554,034	60,860,234	
23,784,969	41,497,615	66,679,592	283,801,265	267,342,482	411,999,484	418,927,660	388,378,914	23
827,717	3,532,692	3,828,742	19,240,661	7,260,183	21,053,173	14,008,941	12,307,727	
1,877,479	23,364,760	53,089,356	149,938,105	237,245,451	370,337,589	381,506,588	394,533,860	24
108,105	2,991,623	2,471,310	11,110,413	6,059,249	18,153,949	11,723,698	12,108,244	
34,098,744	82,958,564	19,293,060	65,714,294	65,666,320	224,905,046	210,572,738	226,105,865	25
10,229,623	29,035,498	6,752,571	14,374,163	15,267,453	59,507,176	53,914,494	50,920,305	
819,228	1,043,979	593,829	757,317	420,038	898,855	705,427	755,731	26
11,323,388	14,483,395	15,057,493	16,478,131	12,243,211	15,835,954	14,294,718	15,519,464	27
26,467,646	38,817,481	72,451,656	59,875,094	41,207,682	48,752,048	43,982,171	48,258,199	
–	25,467,458	14,077,601	19,208,209	25,874,723	32,380,991	33,444,791	35,394,087	28
1,917,678	3,958,029	4,594,164	7,557,174	9,026,754	11,674,802	11,587,450	12,538,954	
291,092	198,123	187,540	364,444	1,542,573	2,943,750	6,966,084	7,838,310	29
357,073	392,284	641,533	1,311,665	4,211,674	5,399,353	9,230,173	10,353,351	
127,414	154,149	92,761	279,403	164,296	410,026	289,793	364,472	30
2,943,108	5,228,869	4,906,230	10,099,423	4,812,886	14,505,791	12,890,195	15,859,212	
5,692,915	5,369,560	5,752,885	8,707,021	10,161,658	6,168,971	5,519,102	5,731,264	31
7,644,537	6,547,728	14,195,143	13,013,283	15,826,243	9,095,867	8,241,350	8,511,211	
103,220,994	177,201,534	171,923,342	240,437,123	230,434,726	457,359,092	441,823,237	473,107,021	

cents.
[3] 1907.
[4] Prior to 1931 this item does not include skim milk and buttermilk.
[5] 1917.
[6] As from 1932 the values include exchange equalization.
[7] 1887.
[8] 1898.
[9] 1889.
[10] 1874.
[11] 1892.
[12] Includes other items not specified.
[13] 1886.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued.

	Item.		1871.	1881.	1891.	1901.	1906.
	Central Electric Stations—						
1	Power houses	No.	–	–	80	58	157
2	Capital invested	$	–	–	4,113,771	11,891,025	80,393,445
3	Kilowatt hours generated[2]	No.	–	–	–	–	–
4	Customers	"	–	–	–	–	
	Water Power—						
5	Turbine H.P. installed	No.	–	–	71,219	238,902	608,002
	Manufactures—[3]						
6	Employees	No.	187,942	254,935	272,033	339,173	383,920
7	Capital	$	77,964,020	165,302,623	353,213,000[4]	446,916,487	833,916,155
8	Salaries and wages	$	40,851,009	59,429,002	79,234,311	113,249,350	162,155,578
9	Values of materials used in	$	124,907,846	179,918,593	250,759,292[4]	266,527,858	–
10	Products—						
	Gross	$	221,617,773	309,676,068	368,696,723	481,053,375	706,446,578
	Net	$	96,709,927	129,757,475	117,937,431	214,525,517	–
	Construction—						
11	Values of contracts awarded	$			–	–	
	Wholesale and Retail Trade—						
	Wholesale—						
12	Establishments	No.	–	–	–	–	
13	Employees	"	–	–	–	–	
14	Net sales	$	–	–	–	–	
	Retail—						
15	Stores	No.	–	–	–	–	
16	Employees, full-time	"	–	–	–	–	
17	Net sales	$	–	–	–	–	
	Retail Services—						
18	Establishments	No.	–	–	–	–	
19	Employees, full-time	"	–	–	–	–	
20	Receipts	$	–	–	–	–	
	External Trade (fiscal years)—						
21	Exports[8]	$	57,630,024	83,944,701	88,671,738	177,431,386	235,483,956
22	Imports[9]	$	84,214,388	90,488,329	111,533,954	177,930,919	283,740,280
	Totals, External Trade	$	141,844,412	174,433,030	200,205,692	355,362,305	519,224,236
23	Total exports to British Empire	$	–	–	47,137,203	100,748,097	138,421,222
24	Exports to United Kingdom	$	21,733,556	42,637,219	43,243,784	92,857,525	127,456,465
25	Total imports from British Empire	$	–	–	44,337,052	46,653,228	83,789,434
26	Imports from United Kingdom	$	48,498,202	42,885,142	42,018,943	42,820,334	69,183,915
27	Exports to United States	$	29,164,358	34,038,431	37,743,430	67,983,673	83,546,306
28	Imports from United States	$	27,185,586	36,338,701	52,033,477	107,377,906	169,256,452
	Exports, Domestic, by Chief Items—						
29	Wheat	bu.	1,748,977	2,523,673	2,108,216	9,739,758	40,399,402
		$	1,981,917	2,593,820	1,583,084	6,871,939	33,658,391
30	Wheat flour	bbl.	306,339	439,728	296,784	1,118,700	1,532,014
		$	1,609,849	2,173,108	1,388,578	4,015,226	6,179,825
31	Oats	bu.	542,386	2,926,532	260,569	8,155,063	2,700,303
		$	231,227	1,191,873	129,917	2,490,521	1,083,347
32	Hay	ton	23,487	168,381	65,083	252,977	206,714
		$	290,217	1,813,208	559,489	2,097,882	1,529,941
33	Bacon and hams, shoulders and sides	cwt.	103,444	103,547	75,541	1,055,495	1,029,079
		$	1,018,918	758,334	628,469	11,778,446	12,086,868
34	Butter	lb.	15,439,266	17,649,491	3,768,101	16,335,528	34,031,525
		$	3,065,234	3,573,034	602,175	3,295,663	7,075,539
35	Cheese	lb.	8,271,439	49,255,523	106,202,140	195,926,397	215,834,543
		$	1,109,906	5,510,443	9,508,800	20,696,951	24,433,169
36	Gold, raw	$	163,037	767,318	554,126	24,445,156	12,991,916
37	Silver	oz.	–	–	–	4,022,019	7,261,527
		$	595,261	34,494	238,367	2,420,750	4,310,528
38	Copper[11]	lb.	6,246,000	39,604,000	10,994,498	26,345,776	44,282,348
		$	120,121	150,412	505,196	2,659,261	7,148,633

[1] Figures for 1939 are subject to revision. [2] In thousands. [3] The statistics of manufactures in 1871 and 1881 include works employing fewer than 5 hands; those of 1891, 1901, 1911, and 1916 are for works employing only 5 hands or over except in the case of butter and cheese factories, flour and grist mills, electric light plants, lumber, lath and shingle mills, lime kilns, brick and tile works, and fish canneries. The figures shown are for the preceding years in each case. From 1922 statistics are exclusive of construction, hand trades, repair and custom work. Figures for 1926-38 include non-ferrous metal smelting not included in earlier years. [4] Includes all establishments irrespective of the number of employees.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued.

1911.	1916.	1921.	1926.	1931.	1937.	1938.	1939.[1]	
266	307	510	595	559	568	589	–	1
110,838,746	248,573,546	484,669,451	756,220,066	1,229,988,951	1,497,330,231	1,545,416,592	–	2
–	–	5,614,132	12,093,445	16,330,867	27,687,646	26,154,160	–	3
–	–	973,212	1,337,562	1,632,792	1,805,995	1,873,621	–	4
1,363,134	2,222,169	2,754,157	4,549,383	6,666,337	8,112,751	8,190,772	8,289,212	5
515,203	–	456,076	581,539	557,426	660,451	642,016	–	6
1,247,583,609	1,958,705,230	3,190,026,358	3,981,569,590	4,961,312,408	3,465,227,831	3,485,683,018	–	7
241,008,416	283,311,505	518,785,137	653,850,933	624,545,561	721,727,037	705,668,589	–	8
601,509,018	791,943,433	1,366,893,685	1,728,624,192	1,223,880,011	2,006,926,787	1,807,478,028	–	9
1,165,975,639	1,381,547,225	2,488,987,148[5]	3,100,604,637[5]	2,555,126,448[5]	3,625,459,500[6]	3,337,681,366	–	10
564,466,621	589,603,792	1,123,694,263[5]	1,305,168,549[5]	1,252,017,248[5]	1,508,924,867[5]	1,428,286,778	–	
345,425,000	99,311,000	240,133,300	372,947,900	315,482,000	224,056,700	187,277,900	187,178,500	11
–	–	–	–	13,140[6]	–	–	–	12
–	–	–	–	90,564[6]	–	–	–	13
–	–	–	–	3,325,210,300[6]	–	–	–	14
–	–	–	–	125,003[6]	–	–	–	15
–	–	–	–	238,683[6]	–	–	–	16
–	–	–	–	2,755,569,900[6]	2,453,715,000[7]	2,404,756,000[7]	–	17
–	–	–	–	42,223[6]	–	–	–	18
–	–	–	–	55,257[6]	–	–	–	19
–	–	–	–	249,455,900[6]	–	–	–	20
274,316,553	741,610,638	1,189,163,701	1,320,568,147	799,742,667	1,061,181,906	1,070,2–8,609	926,962,245	21
452,724,603	508,201,134	1,240,158,882	927,328,732	906,612,695	671,875,566	799,069,918	658,228,034	22
727,041,156	1,249,811,772	2,429,322,583	2,247,896,879	1,706,355,362	1,733,057,472	1,869,298,527	1,585,190,279	
148,967,442	482,529,733	403,452,219	598,567,995	292,864,396	495,598,105	517,439,020	428,233,398	23
132,156,924	451,852,399	312,844,871	508,237,560	219,246,499	407,996,698	409,411,682	325,465,011	24
129,467,647	105,229,977	266,002,688	208,820,128	204,898,426	198,165,842	233,205,416	180,707,225	25
109,934,753	77,404,361	213,973,562	163,731,210	149,497,392	129,507,885	145,008,771	115,633,047	26
104,115,823	201,106,488	542,322,967	480,199,723	349,660,563	435,014,544	423,131,091	375,939,361	27
275,824,265	370,880,549	856,176,820	608,618,542	584,407,018	393,720,662	487,279,507	412,479,787	28
45,802,115	157,745,469	129,215,157	249,679,470	217,243,037	227,996,513	89,628,923	120,847,635	29
45,521,134	172,896,445	310,952,138	364,364,388	177,419,769	223,461,009	116,273,709	84,494,433	
3,049,046	6,400,214	6,017,032	10,084,974	7,218,188	4,771,007	3,904,888	4,072,943	30
13,854,790	35,767,044	66,520,490	69,687,598	32,876,234	21,587,038	23,221,366	15,777,707	
5,431,662	26,816,322	14,321,048	43,058,283	3,258,501	8,142,122	4,727,833	7,675,058	31
2,144,846	14,637,849	14,152,033	24,237,692	1,146,266	3,176,469	2,572,102	2,726,956	
326,132	255,407	179,398	368,787	156,722	204,592	115,443	77,448	32
2,723,291	5,849,426	4,210,594	3,711,840	1,590,657	1,521,953	835,741	624,671	
598,745	1,536,517	982,338	1,253,760	121,770	1,757,048	1,922,064	1,634,109	33
8,526,332	27,090,113	31,492,407	28,590,301	2,914,273	28,801,291	33,404,206	29,812,724	
3,142,682	3,441,183	9,739,414	23,303,865	1,162,900	5,140,600	4,134,900	9,718,500	34
744,288	1,018,769	5,128,831	8,773,125	389,419	1,183,633	1,163,288	2,092,518	
181,895,724	168,961,583	133,620,340	148,333,500	79,590,400	80,739,100	87,947,500	82,470,300	35
20,739,507	26,690,500	37,146,722	33,718,587	12,989,726	11,236,543	12,938,568	12,052,703	
5,344,465	16,870,394	3,038,779	25,968,094	17,832,608	6,497,281[10]	7,461,614[10]	8,111,940[10]	36
33,731,010	27,794,566	13,331,050	18,382,415	24,695,827	16,187,592	22,214,077	26,756,102	37
17,269,168	14,298,351	11,127,432	12,365,576	8,927,216	7,243,750	9,913,475	11,509,345	
55,005,342	111,046,300	36,167,900	61,090,600	62,997,100	52,172,900	89,224,800	110,396,400	38
5,575,033	14,670,073	4,336,972	7,037,206	5,629,512	3,963,652	8,050,159	7,678,847	

[5] See p. 397 of this volume. [6] Census figure for calendar year 1930. [7] Estimated on basis of intercensal survey of larger establishments. [8] Exports of domestic merchandise only. [9] Imports of merchandise for home consumption. [10] Exclusive of exports of domestic gold bullion which, valued at the average current market price, amounted to $76,667,269 in 1937, $86,203,736 in 1938, and $87,590,120 in 1939. [11] Copper, fine, contained in ore, matte, regulus, etc.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued.

	Item.		1871.	1881.	1891.	1901.	1906.
	Exports, Domestic, by Chief Items—concluded.						
1	Nickel	lb.	–	–	5,352,043	9,537,558	23,959,841
		$	–	–	240,499	958,365	2,166,936
2	Coal	ton	318,287	420,055	833,684	1,888,538	1,820,511
		$	662,451	1,123,091	2,916,465	5,307,060	4,643,198
3	Asbestos	ton	–	–	7,022	26,715	57,075
		$	–	–	513,909	864,573	1,578,137
4	Wood-pulp	cwt.	–	–	–	–	–
		$	–	–	280,619	1,937,207	3,478,150
5	Newsprint paper	cwt.	–	–	–	–	–
		$			–	–	
	Exports, Domestic, by Classes—						
6	Vegetable products (except chemicals, fibres, and wood)	$		–	13,742,557	25,541,567	55,828,252
7	Animals and their products (except chemicals and fibres)	$	–	–	36,399,140	68,465,332	84,570,644
8	Fibres, textiles, and textile products	$	–	–	872,628	1,880,539	2,602,903
9	Wood, wood products, and paper	$	–	–	25,351,085	33,099,915	45,716,762
10	Iron and its products	$	–	–	556,527	3,778,897	4,705,296
11	Non-ferrous metals and their products	$	–	–	1,618,955	33,395,096	28,455,786
12	Non-metallic minerals and their products (except chemicals)	$	–	–	3,988,584	7,356,444	7,817,475
13	Chemicals and allied products	$	–	–	851,211	791,855	1,784,800
14	All other commodities	$	–		5,291,051	3,121,741	4,002,038
	Totals, Exports, Domestic	$	57,630,024	83,944,701	88,671,738	177,431,386	235,483,956
	Imports for Consumption—						
15	Vegetable products (except chemicals, fibres, and wood)	$		–	24,212,140	38,036,146	50,307,368
16	Animals and their products (except chemicals and fibres)	$		–	8,080,862	14,022,896	23,616,835
17	Fibres, textiles, and textile products	$	–	–	28,670,141	37,284,752	59,292,868
18	Wood, wood products, and paper	$	–	–	5,203,490	8,196,901	14,341,947
19	Iron and its products	$	–	–	15,142,615	29,955,936	49,436,840
20	Non-ferrous metals and their products	$	–	–	3,810,626	7,167,318	17,533,430
21	Non-metallic minerals and their products (except chemicals)	$	–	–	14,139,024	21,255,403	33,757,284
22	Chemicals and allied products	$	–	–	3,697,810	5,684,999	8,269,169
23	All other commodities	$	–	–	8,577,246	16,326,568	27,184,539
	Totals, Imports	$	84,214,388	90,488,329	111,533,954	177,930,919	283,740,280
	Steam Railways—						
24	Miles in operation	No.	2,695	7,331	13,838	18,140	21,423
25	Capital	$	257,035,188[2]	284,419,293	632,061,440	816,110,837	1,065,881,629
26	Passengers	No.	5,190,416[3]	6,943,671	13,222,568	18,385,722	27,989,782
27	Freight	ton	5,670,836[3]	12,065,323	21,753,021	36,999,371	57,966,713
28	Earnings	$	19,470,539[3]	27,987,509	48,192,099	72,898,749	125,322,865
29	Expenses	$	15,775,532[3]	20,121,418	34,960,449	50,368,726	87,129,434
	Electric Railways—						
30	Miles in operation	No.	–	–	–	553	814
31	Capital	$	–	–	–	–	–
32	Passengers	No.	–	–	–	120,934,656	237,655,074
33	Freight	ton	–	–	–	287,926	506,024
34	Earnings	$	–	–	–	5,768,283	10,966,871
35	Expenses	$	–	–	–	3,435,162	6,675,037
	Road Transportation—						
36	Highways, total mileages		–	–	–	–	–
37	Capital expenditure on	$	–	–	–	–	
38	Motor vehicles registered	No.	–	–	–	–	1,447
39	Total provincial revenue from licences and operation	$	–	–	–	–	
	Canals—						
40	Passengers carried	No.	100,377	118,136	146,336	190,428	256,500
41	Freight	ton	3,955,621	2,853,230	2,902,526	5,665,259	10,523,185

[1] Figures for 1939 are subject to revision. [2] 1876. [3] 1875. [4] Duplication eliminated.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued.

1911.	1916.	1921.	1926.	1931.	1937.	1938.	1939.[1]	
34,767,523	70,443,000	47,018,300	71,081,400	81,929,300	179,036,100	227,087,900	196,684,500	1
3,842,332	7,714,769	9,405,291	12,829,244	18,246,375	45,882,184	61,918,600	49,565,526	
2,315,171	1,971,124	2,277,202	753,842	534,710	408,157	335,715	339,668	2
6,014,095	6,032,765	16,501,478	4,083,713	2,896,837	1,755,548	1,408,670	1,483,044	
69,829	88,833	191,299	269,652	219,541	320,987	360,978	296,048	3
2,076,477	2,962,010	12,633,389	9,920,900	7,719,974	10,569,302	13,721,394	13,265,885	
6,588,655	8,144,019	14,363,006	19,846,381	13,862,122	15,792,020	15,739,081	11,173,247	4
5,715,532	10,376,548	71,552,037	49,909,870	35,061,689	33,210,237	39,960,178	26,814,418	
–	9,264,080	15,112,586	29,537,366	44,848,479	62,899,709	63,815,792	49,507,879	5
3,092,437	17,974,292	78,922,137	102,238,568	127,352,706	110,176,448	120,007,550	107,360,211	
84,368,425	257,019,215	482,140,444	606,058,672	292,280,037	346,450,628	235,324,412	182,875,417	6
69,693,263	138,375,083	188,359,937	190,975,417	83,714,772	133,940,776	136,112,957	121,242,053	7
1,818,931	15,097,691	18,783,884	8,940,046	6,504,182	12,830,212	14,225,183	13,250,837	8
56,334,695	83,116,282	284,561,478	278,674,960	230,604,474	223,918,476	253,434,860	214,488,484	9
9,884,346	66,127,099	76,500,741	74,735,077	38,937,661	53,173,175	69,744,157	58,682,214	10
34,000,996	66,036,542	45,939,377	102,688,626	95,652,063	230,152,314	292,452,554	272,632,850	11
10,038,493	12,096,973	40,345,345	24,712,584	21,107,780	26,081,028	29,342,764	24,578,888	12
3,088,840	15,961,226	20,142,826	17,354,389	12,825,852	19,237,697	20,926,267	20,583,506	13
5,088,564	87,780,527	32,389,669	16,428,376	18,115,846	15,397,600	18,665,455	18,627,996	14
274,316,553	741,610,638	1,189,163,701	1,320,568,147	799,742,667	1,061,181,906	1,070,228,609	926,962,245	
79,214,041	95,421,161	259,431,110	203,417,431	177,597,464	131,400,217	146,335,406	121,266,523	15
30,671,908	38,657,514	61,722,390	49,185,558	45,995,756	27,863,224	30,399,795	24,399,286	16
87,916,282	96,191,485	243,608,342	184,761,831	130,717,022	104,811,304	108,932,093	84,984,145	17
26,851,936	18,277,420	57,449,384	40,403,096	46,073,343	28,927,720	34,221,181	31,941,864	18
91,968,180	92,065,895	245,625,703	181,196,800	192,614,200	150,239,139	209,236,711	154,056,578	19
27,579,572	29,431,592	55,651,319	47,692,985	61,899,298	37,037,954	47,063,972	36,254,270	20
53,430,475	53,490,284	206,095,113	139,033,940	153,578,658	116,948,261	136,662,502	121,306,624	21
12,471,730	19,217,505	37,887,449	28,404,276	35,650,772	33,105,448	36,890,149	34,890,675	22
42,620,479	65,448,278	72,688,072	53,232,815	62,486,182	41,542,299	49,328,109	49,128,069	23
452,724,603	508,201,134	1,240,158,882	927,328,732	906,612,695	671,875,566	799,069,918	658,228,034	
25,400	36,985	39,192	40,350	42,280	42,727	42,742	–	24
1,528,689,201	1,893,125,774	2,164,687,636	3,506,758,047	4,232,022,088	3,374,070,150	3,405,152,322	–	25
37,097,718	43,503,459	46,793,251	42,686,166	26,396,812	22,038,709	20,911,196	–	26
79,884,282	89,237,156[4]	83,730,829[4]	105,221,906[4]	74,129,694[4]	82,220,374[4]	76,175,305[4]	–	27
188,733,494	261,888,654	458,008,891	493,599,754	358,549,382	355,103,271	336,833,400	–	28
131,034,785	180,542,259	422,581,205	389,503,452	321,025,588	300,652,548	295,705,638	–	29
1,224	1,674	1,680	1,677	1,379	1,222	1,154	–	30
111,532,347	154,895,584	177,187,436	215,808,520	215,818,096	205,772,809	204,606,491	–	31
426,296,792	580,064,167	719,305,441	748,710,836	720,468,361	631,894,662	629,778,738	–	32
1,228,362	1,936,674	2,282,292	3,489,183	1,977,441	2,612,928	2,151,309	–	33
20,356,952	27,416,285	44,536,832	51,723,199	49,088,310	42,991,444	42,537,767	–	34
12,096,134	18,099,906	35,945,316	36,453,709	35,367,068	29,545,641	29,683,131	–	35
–	–	–	378,269	378,094	559,040	495,738	–	36
–	–	–	–	66,250,229	69,465,154	76,720,568	–	37
21,783	128,328	464,805	832,268	1,200,668	1,319,702	1,394,853	1,439,245	38
–	–	–	21,795,184	42,231,027	64,367,852	67,475,045	–	39
304,904	263,648	230,129	197,561	126,633	67,334	50,140	62,790	40
38,030,353	23,583,491	9,407,021	13,477,663	16,189,074	23,351,000	24,636,462	23,391,077	41

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued.

	Item.		1871.	1881.	1891.	1901.	1906.
	Shipping—						
1	Vessels on the registry	No.	–	7,394	7,015	6,697	7,516
		ton	–	1,310,896	1,005,475	666,276	663,415
	Sea-Going—						
2	Entered	ton	2,521,573	4,032,946	5,273,935	7,514,732	8,895,353
3	Cleared	"	2,594,460	4,071,391	5,421,261	7,028,330	7,948,076
4	Totals	"	5,116,033	8,104,337	10,695,196	14,543,062	16,843,429
	Inland International—						
5	Entered	ton	4,055,198	2,934,503	4,098,434	5,720,575	9,352,653
6	Cleared	"	3,954,797	2,763,592	4,009,018	5,766,171	8,536,090
7	Totals	"	8,009,995	5,698,095	8,107,452	11,486,746	17,888,743
	Coastwise—						
8	Entered	ton	–	7,664,863	12,835,774	17,927,959	23,543,604
9	Cleared	"	–	7,451,903	12,150,356	16,516,837	22,780,458
10	Totals	"	–	15,116,766	25,986,130	34,444,796	46,324,062
	Air Transportation—						
11	Mileages flown	No.	–	–	–	–	–
12	Passenger miles	"	–	–	–	–	
13	Freight carried	lb.	–	–	–	–	
14	Mail carried	"	–	–	–	–	
	Communications—						
15	Telegraphs, Govt. miles of line	No.	–	1,947	2,699	5,744	6,829
16	Telegraphs, other, miles of line	"	–	–	27,866	30,194	31,506
17	Telephones	No.	–	–	–	63,192	–
18	Telephones, employees	"	–	–	–	–	
19	Radio receiving sets	No.	–	–	–	–	
	Post Office—						
20	Revenues	$	803,637	1,344,970	2,515,824	3,421,192	5,933,342
21	Expenditures	$	994,876	1,876,658	3,161,676	3,837,376	4,921,577
22	Money orders issued	$	4,546,434	7,725,212	12,478,178	17,956,258	37,355,673
	Dominion Finance—						
23	Customs revenues	$	11,841,105	18,406,092	23,305,218	28,293,930	46,053,377
24	Excise revenues	$	4,295,945	5,343,022	6,914,850	10,318,266	14,010,220
25	War tax revenues	$	–	–	–	–	–
26	Income tax	$	–	–	–	–	
27	Sales tax	$	–	–	–	–	–
28	Total receipts from taxation	$	16,320,369	23,942,139	30,220,068	38,612,196	60,063,597
29	Per capita receipts from taxes	$	4·42	5·54	6·25	7·19	9·69
30	Total revenues	$	19,335,561	29,635,298	38,579,311	52,514,701	80,139,360
31	Revenues per capita	$	5·24	6·85	7·98	9·78	12·93
32	Total expenditures	$	19,293,478	33,796,643	40,793,208	57,982,866	83,277,642
33	Expenditures per capita	$	5·23	7·82	8·44	10·79	13·44
34	Gross debt	$	115,492,683	199,861,537	289,899,230	354,732,433	392,269,680
35	Assets	$	37,786,165	44,465,757	52,090,199	86,252,429	125,226,703
36	Net debt	$	77,706,518	155,395,780	237,809,031	268,480,004	267,042,977
	Provincial Finance—						
37	Revenue, ordinary, totals	$	5,518,946	7,858,698	10,693,815	14,074,991	23,027,122
38	Expenditure, ordinary, totals	$	4,935,008	8,119,701	11,628,353	14,146,059	21,169,868
	Note Circulation—						
39	Bank notes	$	20,914,637	28,516,692	33,061,042	50,601,205	70,638,870
40	Dom. or Bank of Canada notes[7]	$	7,244,341	14,539,795	16,176,316	27,898,509	49,941,426
	Chartered Banks—						
41	Capital, paid-up	$	37,095,340	59,534,977	60,700,697	67,035,615	91,035,604
42	Assets	$	125,273,031	200,613,879	269,307,032	531,829,324	878,512,076
43	Liabilities to the public	$	80,250,974	127,176,249	187,332,325	420,003,743	713,790,553
44	Deposits payable on demand	$	–	–	–	95,169,631	165,144,569
45	Deposits payable after notice	$	–	–	–	221,624,664	381,778,705
46	Totals, Deposits[7,8]	$	56,287,391	94,346,481	148,396,968	349,573,327	605,968,513
	Savings Banks—						
47	Deposits in Post Office	$	2,497,260	6,208,227	21,738,648	39,950,813	45,736,488
48	Deposits in Government banks	$	2,072,037	9,628,445	17,661,378	16,098,146	16,174,134
49	Deposits in special banks	$	5,766,712	7,685,888	10,982,232	19,125,097	27,399,194
	Loan Companies (Dominion)—						
50	Assets	$	8,392,464	73,906,638	125,041,146	158,523,307	232,076,447
51	Liabilities	$	8,392,958	71,965,017	123,915,704	158,523,307	232,076,447

[1] Figures for 1939 are subject to revision. [2] Revised since the publication of the 1939 Year Book. [3] Excluding United States lines of Canadian National Telegraphs. [4] As at June 30. [5] Excluding employees on rural lines in Saskatchewan. [6] Active assets only. [7] As at June 30

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued.

1911.	1916.	1921.	1926.	1931.	1937.	1938.	1939.[1]	
8,088	8,659	7,482	8,193	8,966	8,909[2]	8,201	8,419	1
770,446	943,131	1,223,973	1,348,935	1,484,423	1,328,726[2]	1,276,676	1,287,365	
11,919,339	12,616,927	12,516,503	22,837,720	28,064,762	31,145,065	31,421,775	31,353,871	2
10,377,847	12,210,723	12,400,226	22,817,276	26,535,387	31,802,946	31,402,043	32,044,242	3
22,297,186	24,827,650	24,916,729	45,654,996	54,600,149	62,948,011	62,823,818	63,398,113	4
13,286,102	16,486,778	14,828,454	14,117,099	17,769,690	15,564,121	14,181,280	13,421,245	5
11,846,257	16,406,670	14,903,447	15,474,732	18,542,037	16,074,614	14,364,168	15,008,129	6
25,132,359	32,893,448	29,731,901	29,591,831	36,311,727	31,638,735	28,545,448	28,429,374	7
34,280,669	35,624,074	28,567,545	41,770,480	47,134,652	45,973,830	44,471,834	45,386,457	8
32,347,265	33,085,350	27,773,668	41,117,175	47,540,555	45,447,342	44,259,779	43,183,652	9
66,627,934	68,709,424	56,341,213	82,887,655	94,675,207	91,421,172	88,731,613	88,570,109	10
–	–	294,449	393,103	7,046,276	10,755,524	12,294,088	10,969,271	11
–	–	–	631,715	4,073,552	14,511,930[2]	14,886,718	26,107,750	12
–	–	79,850	724,721	2,372,467	26,279,156	21,704,587	21,253,364	13
–	–	–	3,960	470,461	1,450,473	1,901,711	1,900,347	14
8,446	10,699	11,207	10,722	9,300	8,929	9,049	9,080	15
33,905	38,552	41,577	42,239[3]	43,928	44,072	43,659	43,684	16
302,759[4]	548,421[4]	902,090	1,201,008	1,364,200	1,322,794	1,359,417	–	17
10,425[4,5]	15,247[4,5]	19,943[5]	23,083[5]	23,825[5]	18,413[5]	17,925[5]	–	18
–	–	–	134,486	523,100	1,038,500	1,104,207	1,223,502	19
9,146,952	18,858,410	26,331,119	31,024,464	30,416,106	34,274,552	35,546,161	35,288,220	20
7,954,223	16,009,139	24,661,262	30,499,686	36,292,603	30,538,575	32,296,805	35,456,181	21
70,614,862	94,469,871	173,523,322	177,840,231	167,749,651	133,155,222	144,445,972	145,204,787	22
71,838,089	98,617,695	163,266,804	127,355,144	131,208,955	83,771,091	93,455,750	78,751,111	23
16,869,837	22,428,492	37,118,367	42,923,549	57,746,808	45,956,857	52,037,333	51,313,658	24
–	3,620,782	168,385,327	157,296,320	107,320,633	256,822,921	303,157,977	305,642,025	25
–	–	46,381,824	55,571,962	71,048,022	102,365,242	120,365,531	142,026,138	26
–	–	38,114,539	74,025,093	20,783,944	112,832,259	138,054,536	122,139,067	27
88,707,926	124,666,969	368,770,498	327,575,013	296,276,396	386,550,869	448,651,061	435,706,794	28
12·31	15·58	41·96	34·66	28·55	34·76	40·03	38·51	29
117,780,409	172,147,838	436,292,185	382,893,009	356,160,876	454,153,747	516,692,749	502,171,354	30
16·34	21·52	49·64	40·52	34·32	40·84	46·10	44·38	31
122,861,250	339,702,502	528,302,513	355,186,423	440,008,855	532,005,432	534,408,118	553,063,098	32
17·04	42·46	60·11	37·59	42·41	47·84	47·68	48·88	33
474,941,487	936,987,802	2,902,482,117	2,768,779,184	2,610,265,698	3,542,521,139	3,540,237,614	3,638,320,816	34
134,899,435	321,831,631	561,603,133[6]	379,048,085[6]	348,653,762[6]	458,568,937[6]	438,570,044[6]	485,761,502[6]	35
340,042,052	615,156,171	2,340,878,984	2,389,731,099	2,261,611,937	3,083,952,202	3,101,667,570	3,152,559,314	36
40,706,948	50,015,795	102,030,458	146,450,904	179,143,480	268,497,670	–	–	37
38,144,511	53,826,219	102,569,515	144,183,178	190,754,202	253,443,737	–	–	38
89,982,223	126,691,913	194,621,710	168,885,995	141,969,350	110,259,134	99,870,493	94,064,907	39
99,921,354	176,816,006	271,531,162	190,004,824	153,079,362	141,053,457	161,137,059	184,904,919	40
103,009,256	113,175,353	129,096,339	116,638,254	144,674,853	145,500,000	145,500,000	145,500,000	41
1,303,131,260	1,839,286,709	2,841,782,079	2,864,019,213	3,066,018,472	3,317,087,132	3,348,708,580	3,591,564,586	42
1,097,661,393	1,596,905,337	2,556,454,190	2,604,601,786	2,741,554,219	3,025,721,653	3,056,684,905	3,298,351,099	43
304,801,755	428,717,781	551,914,643	553,322,935	578,604,394	691,319,545	690,485,877	741,733,241	44
568,976,209	780,842,383	1,289,347,063	1,340,559,021	1,437,976,749	1,573,654,555	1,630,481,857	1,699,224,304	45
980,433,788	1,418,035,429	2,264,586,736	2,277,192,043	2,422,834,828	2,775,530,413	2,823,686,934	3,060,859,111	46
43,330,579	40,008,418	29,010,619	24,035,669	24,750,227	21,879,593	22,587,233	23,045,576	47
14,673,752	13,519,855	10,150,189	8,794,870	[9]	[9]	[9]	[9]	48
34,770,386	40,405,037	58,576,775	67,241,344	69,820,422	73,450,133	77,260,433	81,566,754	49
389,701,988	70,872,297	96,698,810	120,321,095	147,094,183	136,262,516	136,139,642	–	50
389,701,988	70,872,297	95,281,122	119,425,417	146,046,087	136,250,000	136,133,719	–	51

from 1871 to 1906. Monthly averages from 1911 to 1939. [4] Including amounts deposited elsewhere than in Canada from 1901. [5] Included in Post Office Savings Banks.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued.

	Item.		1871.	1881.	1891.	1901.	1906.
	Small Loans Companies (Dominion)—						
1	Assets	$	–	–	–	–	
2	Liabilities	$	–	–	–	–	
	Loan Companies (Provincial)—						
3	Assets	$		–	–	–	
4	Liabilities	$	–	–		–	
	Trust Companies (Dominion)—						
	ASSETS—						
5	Company funds	$	[4]	[4]	[4]	[4]	[4]
6	Guaranteed funds	$	[4]	[4]	[4]	[4]	[4]
	LIABILITIES—						
7	Company funds	$	[4]	[4]	[4]	[4]	[4]
8	Guaranteed funds	$	[4]	[4]	[4]	[4]	[4]
9	ESTATES, TRUST AND AGENCY FUNDS	$	[4]	[4]	[4]	[4]	[4]
	Trust Companies (Provincial)—[5]						
	ASSETS—						
10	Company funds (par value)	$	–	–	–	–	
11	Guaranteed funds (par value)	$	–	–	–	–	
12	ESTATES, TRUST AND AGENCY FUNDS	$		–	–	–	
	Dominion Fire Insurance—						
13	Amounts at risk, Dec. 31	$	228,453,784	462,210,968	759,602,191	1,038,687,619	1,443,902,244
14	Premium income for each year	$	2,321,716	3,827,116	6,168,716	9,650,348	14,687,963
15	Losses paid during each year	$	1,549,199	3,169,824	3,905,697	6,774,956	6,584,291
	Provincial Fire Insurance—						
16	Amounts at risk, Dec. 31	$	–	–	–	–	
17	Premium income for each year	$	–	–	–	–	
18	Losses paid during each year	$	–	–	–	–	–
	Dominion Life Insurance—[7]						
19	Amounts at risk, Dec. 31	$	45,825,935	103,290,932	261,475,229	463,769,034	656,260,900
20	Premium income for each year	$	1,852,974	3,094,689	8,417,702	15,189,854	22,364,456
21	Net amounts of policies become claims during each year	$	–	–	–	7,182,358	8,881,776
	Provincial Life Insurance—						
22	Amounts at risk, Dec. 31	$	–	–	–	–	
23	Premium income for year	$	–	–	–		
24	Net amounts of policies become claims during each year.	$	–	–		–	
	Business Transacted—						
25	Bank clearings	$'000	–	–	580,644	1,871,062	3,950,701
26	Bank debits	"	–	–	–	–	–
27	**Commercial Failures**	No.		–	1,861	1,341	1,184
28	Assets	$		–	–	7,686,823	6,499,052
29	Liabilities	$	–	–	16,723,939	10,811,671	9,085,773
	Education (Provincially-Controlled Schools only)—						
30	Enrolment	No.	803,000	891,000	993,000	1,092,633	1,173,009
31	Averages of daily attendance	"	–	–	–	669,000	743,299
32	Teachers	"	13,559	18,016	23,718	27,126	32,250
33	Public expenditures on	$	–	–	–	11,044,925	16,368,244
	Criminal Statistics—[10]						
34	Convictions, indictable offences	No.	–	3,509[11]	3,974	5,638	8,092
35	Convictions, non-indictable offences	"	–	30,365[11]	33,643	36,510	62,811
	Hospitals—						
36	Other than mental	No.	–	–	–	–	
37	Patients under treatment[12]	"	–	–	–	–	
38	Bed capacity	"	–	–	–	–	
39	Mental	"	–	–			
40	Patients under treatment[12]	"	–	–	–	–	
41	Receipts	$	–	–	–	–	
42	Expenditures	$	–	–	–	–	

[1] Figures for 1939 are subject to revision. [2] 1928 figures; first year available. [3] 1922 figures; first year provincial figures made available by the Department of Insurance. [4] Previous to 1920 when the Dominion Department of Insurance took over the administration of the legislation concerning loan companies, the figures are not comparable. They are shown, however, at pp. xl and xli of the 1938 Year Book. [5] Compiled from data supplied voluntarily to the Superintendent of Insurance by

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—concluded.

1911.	1916.	1921.	1926.	1931.	1937.	1938.	1939.[1]	
–	–	–	159,239[2]	827,373	5,174,552	5,208,808	–	1
–	–	–	157,453[2]	823,120	5,137,760	5,176,626	–	2
–	–	86,144,153[3]	84,402,833	65,728,238	56,912,506	57,537,845	–	3
–	–	87,385,807[3]	83,198,515	66,387,987	57,155,191	58,096,294	–	4
[4]	[4]	10,237,930	13,195,277	15,459,347	17,408,307	20,247,474	–	5
[4]	[4]	8,774,185	17,979,412	25,718,219	35,784,676	37,016,143	–	6
[4]	[4]	9,907,331	12,954,225	15,066,431	16,570,649	19,455,846	–	7
[4]	[4]	8,549,642	17,979,412	25,718,221	35,784,676	37,016,143	–	8
[4]	[4]	79,252,639	139,777,235	215,698,469	228,155,009	236,467,735	–	9
–	–	31,418,403[3]	33,172,710	66,338,148	64,435,443[6]	61,081,680	–	10
–	–	32,885,302[3]	52,321,267	125,829,165	123,492,136	115,175,854	–	11
–	–	629,953,917[3]	733,149,544	1,961,948,175	2,330,701,359	2,346,323,940	–	12
2,279,868,346	3,720,058,236	6,020,513,832	8,051,444,136	9,544,641,293	9,773,324,476	9,953,905,417	10,202,388,022	13
20,575,255	27,783,852	47,312,564	52,595,923	50,342,669	42,498,127	42,439,688	41,092,009	14
10,936,948	15,114,063	27,572,560	25,705,975	29,938,409	14,821,536	17,363,670	15,729,854	15
–	849,915,678	1,269,764,435	1,286,255,476	1,341,184,333	976,220,698	1,214,374,556	–	16
–	3,902,504	5,545,549	6,068,701	7,185,066	3,643,190	5,310,452	–	17
–	2,188,438	3,544,820	3,062,846	4,985,605	1,834,691	3,123,726	–	18
950,220,771	1,422,179,632	2,934,843,848	4,610,196,334	6,622,267,793	6,541,625,046	6,630,183,594	6,776,558,399	19
31,619,626	48,093,105	98,864,371	159,872,965	225,100,571	199,095,527	198,628,079	198,027,486	20
11,434,901	20,259,534	24,014,465	34,642,526	54,410,589	62,623,692	67,119,023	73,951,283	21
–	348,097,229	222,871,178	147,821,972	202,094,301	125,982,716	133,855,123	–	22
–	5,311,003	4,389,008	3,991,126	5,178,615	3,332,991	3,248,121	–	23
–	4,592,420	2,812,077	1,741,735	2,603,453	2,095,626	2,445,845	–	24
7,346,382	10,315,854	16,811,287	17,715,090	16,827,603	18,850,385	17,263,574	17,742,785	25
–	–	27,157,474[8]	30,358,034	31,586,468	35,166,061	30,924,363	31,617,352	26
1,332	1,685[9]	2,451[9]	2,196[9]	2,563[9]	952	1,049	1,299	27
9,964,404	19,670,542[9]	57,158,397[9]	25,668,509[9]	37,613,810[9]	4,813,000	7,186,000	7,327,000	28
13,491,196	25,069,534[9]	73,299,111[9]	37,082,882[9]	52,987,554[9]	7,426,000	11,036,000	11,635,000	29
1,361,205	1,626,144	1,880,805	2,085,473	2,264,106	2,186,557	2,185,100	–	30
870,532	1,118,522	1,349,256	1,564,830	1,801,955	1,846,038	1,867,241	–	31
40,516	50,307	56,607	63,840	71,246	73,859	73,937	–	32
37,971,374	57,362,734	112,976,543	122,701,259	144,748,823	112,250,554	115,130,016	–	33
12,627	19,160	19,396	22,538	36,853	42,372	48,654	–	34
100,633	104,631	157,777	172,654	330,235	422,704	416,644	–	35
–		–	–	806[13]	895	950	–	36
–		–	–	697,183[13]	915,776	945,862	–	37
–	–	–	–	55,285[13]	70,036	70,881	–	38
–		–	–	56[13]	57	57	–	39
–	–	–	–	39,986[13]	54,855	56,758	–	40
–	–	–	–	–	14,051,528	15,786,701	–	41
–	–	–	–	–	14,017,403	16,053,872	–	42

provincial companies, but estimated to cover about 90 p.c. of all provincial business. The figures include all the large and most of the small provincial companies. [6] Revised since the publication of the 1939 Year Book. [7] Not including fraternal insurance. [8] Figures are for 1924, the first year for which bank debits are available. [9] Includes Newfoundland. [10] Year ended Sept. 30. [11] 1886 figures; first year available. [12] During the respective fiscal years. [13] Census figures, applying to calendar year 1930.

INTRODUCTION.

Canada's War Effort and Economic Conditions at the End of June, 1940.

On Sept. 1, when the German army invaded Poland and a general war seemed inevitable, the Prime Minister of Canada announced that Parliament was being summoned to meet in Emergency Session on Sept. 7 and that, if the United Kingdom became involved in war, the Government would seek authority from Parliament for effective co-operation by the side of the United Kingdom. On Sept. 3, as soon as it was learned that the United Kingdom and Germany were at war, the Prime Minister, in a broadcast to the people of Canada, outlined the steps that had already been taken by the Government to meet the emergency. By the War Measures Act of 1914, all necessary power is given to the Government to meet such circumstances as the outbreak of hostilities had precipitated. This legislation enabled the Government to act quickly; as soon as there was valid reason for apprehending the outbreak of hostilities, steps were taken to ensure the proper defence of Canada until Parliament could be convoked. By Sept. 10, Parliament had assembled and acted, and a state of war between Canada and Germany was proclaimed by His Majesty The King in the following words:

> "We do hereby declare and proclaim that a state of war with the German Reich exists and has existed in our Dominion of Canada as and from the tenth day of September, 1939."

The General Organization of Canada's War Effort.—As indicated, the immediate steps to organize the war effort were taken under authority of the War Measures Act of 1914 even before the United Kingdom declared war on Sept. 3; they were concerned with the defence forces. The militia, naval service, and air force were placed on active service, and certain other provisions were made for the defence of the coasts and for internal security.

The establishment of the first special economic organization—the War-time Prices and Trade Board—was announced the night of Sept. 3; it was charged with the duty of protecting the Canadian public against increases in the costs of the necessities of life. The "Defence of Canada Regulations" and other emergency regulations under the War Measures Act were brought into force and the censorship organization was established.

At the emergency session of Parliament ten measures were enacted. These measures included financial provisions to meet the cost of the War (see pp. 1131-1133) as well as an Act providing for the creation, when necessary, of a Department of Munitions and Supply.

Several months of what might be termed the organizational phase of Canada's war activity followed. Immediate consideration was given to the most effective way in which Canada could make her maximum contribution to the War. Consultations were held with the Allied authorities and their views were learned. Certain programs were announced and put into operation immediately. These included the preparation of two Divisions for overseas service and the doubling of the strength of the Canadian naval service. Representatives of the United Kingdom, Australia, and New Zealand came to Canada at the suggestion of the United Kingdom, and conferred with the Canadian authorities on the establishment of the British Commonwealth Air Training Plan. The Agreement on the details of this plan was signed on Dec. 17. Action had already begun to put it into effect (see p. xxviii).

On the economic side, organization proceeded equally rapidly. Plans made at that time were based on the assumption that the War would last at least three years, and that economic forces might well prove to be the determining factor in bringing

victory. Consequently, the creation of an effective economic war organization was an essential part of the war effort. This is dealt with in detail at pp. xxxi-xxxvii.

The various economic agencies, together with internal and subsidiary organizations that have developed out of them, have enabled the transition from a peace-time to a war-time economy to be made smoothly. This transition was marked by rapid economic expansion until January, with only a very minor set-back in the following two or three months despite the relatively sharp recession in the United States.

By the time the new Parliament assembled on May 16 the War had entered a new and much more active phase. Germany had successfully invaded Denmark and Norway in April, and on May 10 had commenced the 'blitzkrieg' against Holland, Belgium, Luxemburg, and France. Holland was conquered, and the Germans had broken through into France the day before Parliament met. Parliament acted quickly to meet the new emergencies. A War appropriation of $700,000,000 was the first measure passed. The powers of the Minister of Munitions and Supply were revised and enlarged in the light of experience and necessity. On May 20 the Prime Minister announced, among other changes, that the 2nd Division would be dispatched overseas as soon as possible, that a Canadian Corps would be formed in the field, and that a 3rd Division would be raised. A Minister of National Defence for Air was appointed. It was later decided to recruit as soon as possible some units of a Fourth Division and to raise, from veterans of the War of 1914-18, certain forces for guard duty in Canada. Additional precautions were taken to meet the dangers of sabotage or treachery in the light of experience in Norway and the Low Countries. Dangerous and subversive elements were arrested or interned. The greatly increased demand for supplies and equipment in Britain and France had important effects on the Canadian supply situation and also on training. Allied orders for equipment and munitions were greatly accelerated. Much greater supplies were to be needed for Canadian forces, and much of those normally obtained from the United Kingdom would have to be obtained in Canada or elsewhere. All aircraft, equipment, and munitions that could possibly be spared were rushed to the United Kingdom in answer to her urgent requests. As a consequence, various special measures were taken by the Department of Munitions and Supply to accelerate orders and production. The diversion of equipment and of personnel to Great Britain necessitated some revisions in the Air Training Plan, but it was stated that the construction of aerodromes in Canada and other work related to the Plan would be accelerated.

War was declared on Italy when that country declared war on the United Kingdom and France. The climax to the legislative action consisted in the introduction and passage, during the third week of June, of the National Resources Mobilization Act, authorizing the Governor in Council to require "persons to place themselves, their services and their property at the disposal of His Majesty in the right of Canada as may be deemed necessary or expedient for securing the public safety, the Defence of Canada, the maintenance of public order, or the efficient prosecution of the War, or for maintaining supplies or services essential to the life of the community", with the exception that persons could not be compelled to serve in the armed forces outside of Canada and her territorial waters. It was announced that a National Registration of Canada's man-power would be instituted at once. A second War Budget of June 24, provided for substantial increases in taxes (see p. xxxv).

The following sections review in more detail the various war activities of the nation, first as regards the armed forces, and secondly in relation to economics and finance.*

National Defence.

The Administration of National Defence.—During the first eight months of war the defence of Canada was the responsibility of the Department of National Defence, as organized under the National Defence Act. This legislation, passed during the session of 1922, had consolidated the former Department of Militia and Defence, the Department of Naval Service, and the Air Board under one Minister; a Defence Council was set up by Order in Council to advise the Minister.

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 of National Defence for Air 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 and the absence of conflict of authority.

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. Changed conditions in Europe and the increased importance of the Navy, not only in the defence of Canadian coasts and harbours but in co-operation with the naval forces of the United Kingdom, resulted in the Government's decision to add to the existing Defence Departments a separate Department of National Defence for Naval Services. The Hon. Angus L. Macdonald, Premier of Nova Scotia, was appointed Minister of National Defence for Naval Services.

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. Matters dealt with from time to time by the Minister and the Associate Minister, respectively, are adjusted entirely between the Ministers concerned, the Government being always finally responsible. The Minister of National Defence is the Senior Minister with directing and complete ministerial authority.

The Army.—Prior to the War a joint Naval, Army, and Air Plan had been prepared for the defence of Canada in the event of a major war. It was on this Plan that the actions taken by the Militia Service were based during the period leading up to, and immediately following, the outbreak of war.

In so far as the Militia Service was concerned the 'Defence of Canada' envisaged the following principal defensive measures:

* See unrevised Hansard for July 29, pp. 2233-2235, and for July 30, pp. 2260-2277, where this subject is debated.

1. *Coast and Anti-Aircraft Defence.*—The mobilization of local garrisons required for the defence of seaports and harbours on both coasts of Canada and the manning of coast defence and anti-aircraft armament.

2. *Protection of Vulnerable Points.*—The provision of guards for certain vulnerable points of national importance on railways, canals, and elsewhere.

3. *Reserve Force.*—The mobilization of a reserve force in Canada; such troops to provide an expeditionary force for overseas if and when required.

On Aug. 25, 1939, the Government decided to man all coast and anti-aircraft defences as a precautionary measure. The Non-Permanent Active Militia forces required were called out on a voluntary basis. The response was excellent and more than adequate for the occasion. Further precautionary measures were taken on Sept. 1, 1939. By Sept. 10, when war was declared, the mobilization of the coastal garrisons was well advanced and was completed during the succeeding weeks.

At the same time the Government also decided that protection should be afforded to all vulnerable points that were considered of vital importance to the national war effort. As in the case of the coastal garrisons, the guards were formed from the Non-Permanent Active Militia. The units selected for this duty instantly responded to the call and within a few days guards were placed at all points except a very few in remote parts of the country. Towards the end of the year a change in policy was introduced and the Royal Canadian Mounted Police took over the protection of the majority of the vulnerable points.

On Sept. 1 the Government authorized the mobilization of a reserve force. The mobilization was carried out in accordance with plans prepared in peace-time, the organization of the force being based, with a few minor exceptions, on existing units of the Militia. The composition of each division of the force was carefully worked out in advance, to give proportional representation on a basis of population to every part of the Dominion.

In October a decision was taken by the Government to dispatch the 1st Division and some ancillary troops overseas. The organization of the 1st Division was, therefore, pressed to completion as quickly as possible, and arrangements for its transportation abroad were made in consultation with the British authorities. Elaborate and thorough precautions were taken to safeguard the convoys. By the end of January, 1940, the 1st Division, with a quota of ancillary troops, was concentrated overseas, where training was to be completed.

At the outbreak of war, living accommodation for troops in Canada was practically non-existent, the small number of Permanent Force barracks being completely occupied by Permanent Force units. It was, therefore, necessary to provide accommodation for all of the C.A.S.F. immediately, either by taking over existing commercial buildings that could be adapted for use as barracks, or by building wartime hutments. The policy adopted was to utilize existing buildings wherever possible, and to construct hutments only in localities where buildings were not available. Rehabilitation of existing buildings was begun very shortly after the commencement of mobilization and was continued as rapidly as the buildings could be acquired. All accommodation was completed and occupied by the troops by the end of November. The accommodation provided has been on a reasonably liberal scale as to space, and everything practicable has been done to make the troops comfortable and to protect their health.

In order to maintain units of the Canadian Active Service Force at war establishment, it is necessary to provide a steady flow of trained reinforcements to replace casualties that may be expected to occur overseas and at home. In order that reinforcements may be trained, an estimate of wastage over a considerable period

must be made, based on statistics accumulated in the past and adjusted, as well as can be foreseen, to the conditions of the present War. Reinforcements for the C.A.S.F. are being provided through the medium of depots and training centres. The men are enlisted at a depot and then proceed to a training centre in the district in which the unit was mobilized. Training units for the various arms have been established in many centres across Canada.

On May 21 the Government authorized the mobilization of an additional division for service in Canada or overseas, as might be required; soon after, the mobilization of still another division was authorized. As was the case in the first instance, the organization of these additional divisions was based on existing units of the Militia and their composition was worked out most carefully to give proportional representation, on the basis of population, to every part of the Dominion.

In May the Government also authorized the formation of thirteen companies of Veterans Home Guards, to be composed entirely of veterans of the War of 1914-18 and to be stationed at various points in Canada for home defence, as circumstances might require. This was immediately followed by the authorization of reserve companies of Veterans Home Guards. These reserve companies were to be formed, as may be deemed necessary, in various parts of Canada and were to be attached to units of the Militia for training and administration.

On June 18 further measures for home defence were taken by the Government when all Militia infantry units were authorized to recruit to full establishment where such a course was possible, having regard to armoury accommodation and training facilities available. Development work in connection with the provision of special types of mechanically propelled vehicles has been energetically pressed, and substantial orders for the requirements of the C.A.S.F., aggregating over 10,000 vehicles, had been placed. Of this total 7,500 were vehicles of special types, for which a large number of specification data and manufacturers' drawings had to be prepared.

A bill authorizing the conscription of the man-power for service in Canada and of the material resources of Canada for the prosecution of the War was passed by Parliament on June 19.

In the early part of July the formation of the Canadian Forestry Corps was authorized. This Corps is to provide companies of skilled personnel to assist the British Government in exploiting the timber resources of Great Britain for the furtherance of the war effort, and to economize on shipping.

On July 15 the Government announced the formation in the United Kingdom of a new Corps, to be composed of both United Kingdom and Canadian troops, including the 1st Division.

The Air Force.—Canada's numerically small but efficient air force responded quickly to the call to active service when war broke out in September, 1939. The highly trained peace-time nucleus was expanded quickly to meet the needs of war. Even while pre-arranged plans for building the Royal Canadian Air Force to war-time strength were being put into effect, the various permanent squadrons moved by air to their war stations.

Squadrons from central Canada flew to the Atlantic and Pacific Coasts to supplement naval and military defence forces. On the Atlantic, in co-operation with the Royal Canadian Navy and allied naval units, R.C.A.F. bombers and flying boats ranged far out to sea in search of enemy raiders. An unceasing coastal patrol was maintained from the air, convoys were escorted for the first few hundred miles of their journey across the ocean, and low-flying planes watched the depths for submarines. Special air squadrons became the eyes of the long-range coastal defence guns.

It was announced early in the War that Canada would be called upon to provide trained airmen for overseas service. Thereupon training plans were formulated on a large scale. Auxiliary air-force squadrons (the non-permanent units) were trained intensively for active service and made up a large percentage of the personnel of the composite squadrons formed during the autumn and winter.

Equipment was expanded as rapidly as possible in order to provide training facilities and to equip the squadrons necessary for home defence. It was announced in May that nine home-defence squadrons had been organized out of an estimated twelve squadrons required for that duty. In addition, three squadrons of the R.C.A.F., together with equipment, replacements, and reinforcements, had been dispatched overseas.

Agreement of the four Governments concerned, on the principle of the British Commonwealth Air Training Plan, was announced on Oct. 10, 1939, and, by early November, representatives of the United Kingdom, Australia, and New Zealand had all arrived in Ottawa to work out the details of the Plan with the Canadian Government. A joint Agreement for the large-scale training of air crews was signed Dec. 17; under this Agreement the Commonwealth partners are to share *pro rata* in the training program, the total cost of which was estimated at $600,000,000, with Canada's share $350,000,000. The Agreement runs until Mar. 31, 1943, but it may be extended by mutual consent.

The Plan calls for progressive establishment of 71 training schools for pilots, air observers, air gunners, and wireless operators from Australia, New Zealand, the United Kingdom, and Canada. The schools, supplemented by technical branches for maintenance and supply, will require a maintenance and instruction personnel of about 40,000 persons.

The United Kingdom and the participating Dominions agreed to have their recruits temporarily attached to the R.C.A.F. for the training period on Canadian soil, and Great Britain sent over 71 officers and 200 trained airmen specialists for administrative and instruction duties.

In keeping with the co-operative nature of the program, the whole Plan is administered by the Canadian Department of National Defence for Air, assisted by a Supervisory Board at Ottawa composed of three Canadian Cabinet Ministers, representatives of the other participating governments, the Deputy Minister of National Defence for Air, and the Chief of the Air Staff.

Construction of the necessary additional aerodromes and hangars and other buildings went forward throughout the winter in co-operation with the Department of Munitions and Supply and the airport engineers of the Department of Transport.

Under the joint Agreement, the United Kingdom was to supply the bulk of the training aircraft, equipment, and armament, supplemented by Canadian-made aircraft and some purchased in the United States. However, because of developments in the spring, Britain needed all available aircraft at home and the normal delivery of planes to Canada was interrupted. In the emergency, Canada ordered a shipment of aircraft *en route* to Canada to be turned back to the United Kingdom. At the same time, all available aircraft that could be spared by Canada were rushed overseas. Canadian pilots, trained as instructors, were diverted to active service.

To meet the interruption of aircraft supply from Great Britain, immediate steps were instituted to increase Canadian production and to seek elsewhere the aeroplanes needed for the training schools and for replacements for the home-defence squadrons.

The Navy—At the outbreak of hostilities, the Naval Staff was enlarged to cope with the new responsibilities and sudden expansion demanded by events. As

of September, 1939, the combined total of Canadian naval personnel, both permanent and reserve, was 3,604; ten months later the number had increased to over 9,000, all of whom were on active service. Reserve units reported many more applicants than it was possible to handle. In addition to the permanent and reserve members, some men and craft of the newly formed Fishermen's Reserve on the West Coast were called up and did yeoman service in their new duties.

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. To do this, there must be complete accord and understanding between the various commands responsible for these duties, the Admiralty, the Ministry of Shipping, and other British authorities. Since the start of the War, 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 any delay being occasioned for additional training.

One of the most perplexing problems facing officials of the Royal Canadian Navy is that it must protect two coasts divided by 3,000 miles of land, the shortest line of marine communication being about 14,000 miles via the Panama Canal. The gigantic construction program already under way is rapidly relieving the strain placed on the protective force and a competent patrol fleet will be available when the present contracts are completed.

Protection and expansion were emphasized from the beginning. H.M.C.S. *Assiniboine* of the flotilla-leader type was acquired from the Royal Navy and added to the force of six destroyers already a part of the Royal Canadian Navy. Seventy-five vessels of all types were pressed into service as minesweepers, patrol vessels, etc. Some of these were bought outright both from other branches of the Government and from private interests. Some, indeed, were donated to the naval cause by public-spirited citizens of the Dominion. Three liners of the "Prince" class, owned by the Canadian National Railways and used as luxury cruise liners to the West Indies and coastwise excursions on the Pacific, were bought by the Navy for conversion into armed merchant cruisers. A two-year building program was launched and contracts for ninety modern patrol vessels were given.

Unlike the War of 1914-18, when the greater share of convoy duty both to and from Canada was undertaken by the Royal Navy, the Dominion, from the very beginning of hostilities, assumed a fair portion of the responsibility for patrol duty of trans-oceanic convoys. Halifax, from which large numbers of vessels sail under the watchful eye of the North Atlantic Patrol, composed of ships from both the Royal Navy and the Royal Canadian Navy, has become one of the most important ports in the world. The convoy duty is one of the most important functions for which the Canadian Navy is responsible as these armadas carry to Great Britain the vital foodstuffs that are the very lifeblood of the nation. Troop convoys, although equally important, make up a very small percentage of the total sailings.

Elaborate preparations have been made for protection of this all-important base. Anti-submarine nets seal the entrance of the harbour and along the shore modern, long-range guns stand guard day and night. Bombers keep a watchful lookout from overhead and small patrol craft skim over the water. The latest and most efficient defensive equipment, developed by British naval engineers in recent years, has already been installed and more is to be added. Other ports have also been fortified.

From Naval Service Headquarters at Ottawa, control of merchant shipping is maintained, including the administration of Naval Control staffs.

As in the War of 1914-18, when 1,700 men from Canada saw service in ships of the Royal Navy, young men from the Dominion are being trained as members

of the Royal Canadian Naval Volunteer Reserve and some are being transferred to the Royal Navy, following a rigorous period of training in their own country. This training period usually begins with three to four months' drill and lectures at the divisions in the principal Canadian cities. Upon transfer to one of Canada's coasts, this training period is continued, with practical experience in many of the finer points of naval technique.

By June, 1940, the first detachments of officers from the Royal Canadian Naval Volunteer Reserve completed training in England. The first group, 50 in number and all sub-lieutenants, so impressed the Commanding Officer of the training establishment where they were stationed that he forwarded a memorandum to the Chief of Naval Staff, in which he said he and his staff officers were "greatly impressed by their keenness and bearing" and that "without doubt such material will be a very valuable asset to the Royal Navy. Some of the young officers have been detailed to important duty in close contact with the enemy and have acquitted themselves admirably".

Canadian Naval vessels have been on 24-hour duty since the outbreak of the War, not only on convoy service but on patrol work as well. 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. One vessel of the Royal Canadian Navy has been lost to date, viz., H.M.C.S. *Fraser*. The official announcement of the disaster, read in the House of Commons by Prime Minister King on June 28th, ran as follows: "Naval Service Headquarters regrets to announce that while engaged in the pursuance of hazardous duties off the mouth of the Gironde River near Bordeaux, France, H.M.C.S. *Fraser* was lost". Of the total complement of 160 officers and men, 45 were reported dead or missing. A sequel to this sinking was the sterling work done by another Canadian naval vessel, H.M.C.S. *Restigouche*, in rescuing a majority of the survivors in the dead of night, despite bad weather conditions.

Soon after, 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. For gallantry displayed during the evacuation from France, three officers of the Royal Canadian Naval Volunteer Reserve were awarded Distinguished Service Crosses while three others were mentioned in dispatches; these were the first awards made during the War to Canadians serving overseas as members of Canadian units.

To replace the *Fraser*, H.M.C.S. *Margaree*, a class D destroyer, was acquired from the Royal Navy and commissioned for service in late August, 1940.

The Economic Effort and the Organization Established for its Effective Operation.

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 her Allies 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. The available margin of production above what is needed for consumption, and the ability to mobilize it quickly, are the real things that determine

what can be done. Canada has ample resources of labour, capital, and material, some of which have 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.

Taken as a whole, the nation's equipment for production has never been worked to capacity. When account is taken of this and the reserve of labour available, it seems clear that under the stimulus of war-time demands production can be substantially increased even without longer working hours or the employment of those not normally seeking work. A vast emergency reserve exists beyond this in the increased production that would be made possible by sacrificing leisure and working more intensively. The margin of this production that can be spared for war depends upon the extent to which consumption can be reduced and capital outlays and replacements postponed. It should be realized that these emergency measures are not necessary until available and unemployed resources are brought into production and until production generally can be usefully and effectively diverted to war-time purposes.

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.

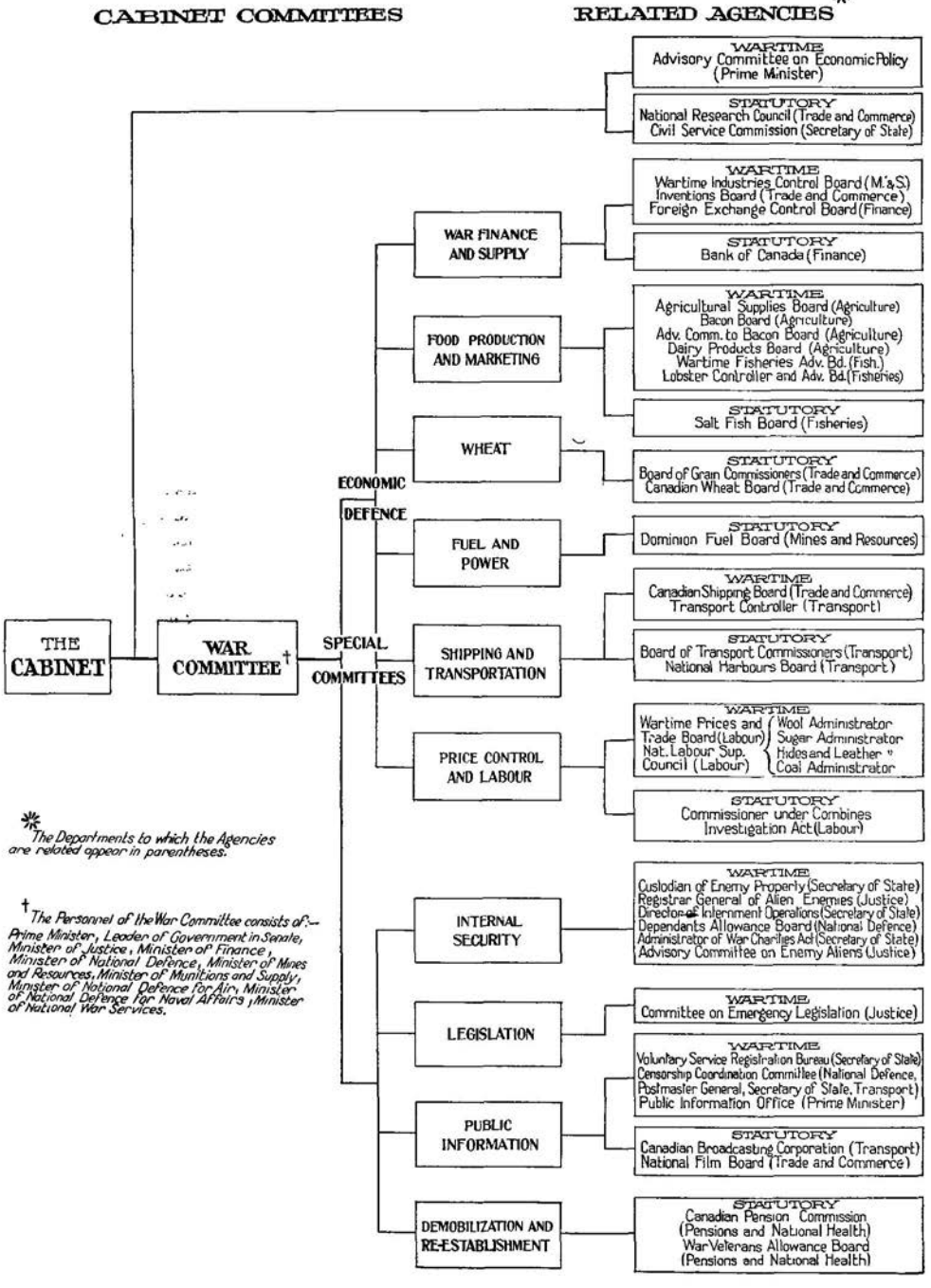
On Apr. 9 the War Supply Board was superseded by the Department of Munitions and Supply, which retained and expanded the organization and personnel that the Board had built up. As the need for supplies became more acute, the purchasing work of the Department was extended and accelerated. On May 22 the Acting Minister of Munitions and Supply stated in the House of Commons* that the Department and its predecessor Boards had purchased $225,000,000 worth of equipment, material, and munitions for the Canadian forces and $75,000,000 worth of orders for Great Britain and France. The Department has also commenced to exercise some of the broader duties conferred upon it to examine into and organize sources of supply. In this connection it has set up four Controllers to deal with steel, oil, timber, and mines and metals, respectively. A War-time Industries Control Board, composed of these Controllers, was formed to co-ordinate their work. In addition, several Government-owned corporations have been established to carry out special functions in connection with the purchasing of equipment, supplies, or materials necessary for war purposes.

Within a few hours of the outbreak of war in Europe, the Government took steps to protect consumers in this country from shortages and profiteering by setting up the War-time Prices and Trade Board. 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

* The speech appears at pages 142-149 of unrevised Hansard and contains much information on the supply situation as it existed at that time.

WAR ORGANIZATION

CABINET COMMITTEES AND RELATED AGENCIES



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

† *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 Munitions and Supply, Minister of National Defence for Air, Minister of National Defence for Naval Affairs, Minister of National War Services.*

89187—c

profiteering and, when and where necessary, for instituting systems of rationing and control. Special administrative organizations have been appointed by the Board to deal with such commodities as sugar, wool, hides and leather, and coal. 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.

Because agricultural supplies are an important Canadian contribution to the support of the Allied Powers in the War, and because war poses special problems for agriculture, the Government appointed a special Agricultural Supplies Committee (later changed to a Board) to deal with problems of agricultural supplies and marketing under war-time conditions.* The Board has been active in arranging that exports of essential foods and fibres to the United Kingdom be stimulated and also in meeting the difficulties arising from the dislocation of Canada's normal export trades. 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 National Labour Supply Council, composed of representatives both of labour and of employers, was established in June, 1940, to advise the Minister of Labour on all matters touching upon the supply of labour for war purposes. Other boards, agencies, or controllers have been established to deal with certain minor economic fields.

Being aware that it is essential to have an understanding of economic problems as a whole, as well as in particular, and that proper co-ordination of all economic activities and controls is necessary to produce the maximum war effort, the Government appointed an Advisory Committee on Economic Policy to advise the Cabinet directly on these broad questions. 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, and it has played an active role in assisting the Cabinet by reporting to it on many questions of economic and financial policy.

After the enactment of the National Resources Mobilization Act, a Department of National War Services was established in July, under a separate Minister, 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 immediate task of the new Department was the preparation for the National Registration. It was announced that this was to take place Aug. 19, 20, and 21. Preliminary preparations had previously been made for some aspects of this registration by an interdepartmental committee under the chairmanship of the Dominion Statistician. The new Department, with the co-operation of the Chief Electoral Officer, quickly laid the plans for the nation-wide task of registering every man and woman in the country, with information as to their age, status, education, and occupational experience. The most immediate use of the registration will be for the selection of single men of specified age groups to be called up for military training for service in Canada. Provisions have been made to ensure that this calling up is done in

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

such a way as to 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 June 30 is shown in the chart at p.xxxiii.

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. Canadians have learned not only to save but to invest their savings through the strong financial institutions, such as banks, insurance and trust companies, and also directly in bonds and shares. They are more able now than in 1914 to understand readily and to respond to what is required of them financially. Moreover, far more is known about the country's financial capacity, due to the valuable statistics that are collected and published. The statistics show, among other things, that in recent years Canada has been able to export substantial amounts of capital which have been used, in the main, to reduce indebtedness abroad.

The major financial problem of the War is, of course, to obtain the money to pay the cost of equipping and maintaining the Canadian forces. In addition, however, Canada has undertaken to assist the United Kingdom in obtaining the Canadian dollars needed for British purchases in Canada. 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 this excess are provided by the repatriation of securities, under arrangements by which Canada buys back or reduces 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.

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, and introduced the first war taxes. The general policy outlined was to meet as much of the costs of the war by taxation as was possible without interfering with the volume and efficiency of production, and to meet the balance of the cost by borrowing the savings of the people at interest rates that would not be materially different from those of peace time. It was noted however, that in the early months of the war financial policy must be directed to encouraging a rapid increase of employment and production. 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.

The first borrowing operation during the War was of a short-term character and was facilitated by a small and carefully controlled expansion in bank credit. The borrowing took the form of the sale to the chartered banks of 2-year 2 p.c. notes to the value of $200,000,000. Of the proceeds of this issue about $92,000,000

was devoted to the repatriation of Canadian securities held in the United Kingdom, in order to provide the latter with Canadian dollars as explained above, about $28,000,000 was for meeting maturing obligations in Canada, and the remaining $80,000,000 was available for meeting current expenses.

By January it was considered that production incomes and savings had expanded sufficiently to ensure the success of a large public loan, and consequently the First War Loan was announced on Jan. 12. It took the form of 3¼ p.c. bonds, issued at par, redeemable by lot over the five years 1948 to 1952, at par the years 1948 to 1950, at a premium of ½ p.c. in 1951 and 1 p.c. in 1952. The amount offered for cash subscriptions was limited to $200,000,000 but the bonds were also offered in conversion for an issue maturing Mar. 1, 1940. Subscription lists were opened on Jan. 14, and the issue was oversubscribed within two days, but the lists were kept open until Jan. 19 to permit reception of subscriptions from distant points. Total cash subscriptions amounted to $321,276,850, and conversion subscriptions to $53,300,000. The amount allotted for cash subscriptions was $200,000,000 and for conversion $50,000,000. The total number of subscriptions received was more than 178,000, and nearly 46 p.c. was subscribed for in amounts of $5,000 or less.

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 offered in denominations of $5, $10, $25, $50, and $100, and 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. The Stamps and Certificates are on sale by post offices, banks, many stores, and other dealers throughout the country. Special arrangements have been made to enable employees to purchase these Saving Certificates by regular deductions from their wages or salaries.

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 from $1,000 to $750 for single persons and from $2,000 to $1,500 for married persons. A National Defence Tax was introduced applying to married persons with incomes over $1,200 and amounting to 2 p.c. of total income; for single persons the tax was to be 2 p.c. of income if the total annual income was more than $600 but less than $1,200, and 3 p.c. if total income was more than $1,200. So far as possible this tax was to be deducted at the source. The Excess Profits Tax was entirely 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. The over-all deficit for the fiscal year 1940-41 was set at about $550,000,000 or $600,000,000 if war expenditures amounted to $850,000,000 or $900,000,000.

Among the most important financial war measures has been the establishment and operations of the Foreign Exchange Control Board. The Board was established and its powers defined in an Order in Council of Sept. 15 and control began the 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 supreme necessity of conserving Canada's capital and receipts of foreign exchange for war purposes made control essential. 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. It has in general adopted the policy of interfering as little as possible with normal business and travel, but of keeping outward movements of capital to the reasonable minimum made necessary by various considerations. Ordinary small transactions have usually been exempted from regulation and particular care is taken to see that tourists coming to Canada are not restricted in any way. 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 also 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 agency responsible for managing the exchanges. The Exchange Fund, established in 1935 and used by the Board in its operations, was enlarged by $325,000,000 in order to enable the Board to purchase the gold and foreign exchange referred to above.

Economic Review, 1939-40.*

The industrial outlook in Canada for the current year is and will be, to an increasing extent, associated with the character of war demands. There are also prospects of business from export fields by reason of the interference of war conditions with the ordinary trade channels and the fact that Canada occupies a preferred geographical and economic position in its ability to supply Empire needs under existing conditions.

At the outbreak of the present war, Canada faced the future with a near-record harvest, industry operating considerably below capacity, vast reserves of electric power and raw materials, over 750,000 persons on relief (a labour reservoir and potential recruiting force), banking assets at record levels, and a plentiful supply of capital available for investment.

The marked expansion in business operations during the first eight months of the present war is only a preview of future activity. Apart from the tax on Canadian production that the exigencies of war would in any case bring about, the German occupation of most of Europe and the strangulation of the normal sources of Allied supplies, especially food-stuffs, on that Continent have made it imperative that Canadian output be increased immediately to make up the deficiency.

A comprehensive index of industrial production from Sept. 1, 1939, to the end of April, 1940, showed an average gain of 17 p.c. over the corresponding period of the previous year. Practically all representative factors had places in the general advance and the initial changes in the turnover to a war economy were effected without undue dislocation. Strong governmental action served to allay fears of short-

*Prepared by Sydney B. Smith, M.A., Statistician, Dominion Bureau of Statistics.

ages of raw materials, and prices consequently showed remarkable stability after an initial rise in the early months of hostilities. The wholesale price index rose less than five points from September to April and the cost of living has recorded little or no change since November, 1939.

Agriculture.—The volume of crop production in 1939 (142 p.c. of the crop year of 1913-14) reached the highest level since 1931 and the gross value of all agricultural production was estimated at $1,171,000,000. The increase was due chiefly to a return of favourable crop conditions in Western Canada, particularly in Saskatchewan. The Canadian wheat crop totalled 490,000,000 bushels compared with 360,000,000 bushels in 1938 and it is estimated that the carry-over will be sufficient to offset any shortage should the crop of the present year be below average.

Following the favourable feed conditions of 1938, live-stock production for 1939 was at a high level. Output of hogs showed a gain of 14 p.c. as compared with 1938, while cattle marketings were 10 p.c. greater. Some decline from the high levels of 1939 was noted in marketings in the first quarter of the present year, but statistics for April indicate that the forward movement has been resumed. Butter production is now considerably in advance of 1939 levels and efforts are being made to compensate for the loss to Britain of Danish and Netherland supplies. Similarly, cheese output has been increased in the early months of 1940.

The effects of the war on agriculture have been somewhat uneven. While prices obtained for Canadian farm products rose, on the average, nearly 6 p.c. in the first eight months of hostilities compared with one year earlier, certain restrictions imposed by importing countries have operated to the disadvantage of such products as tobacco, apples, and canned fruits and vegetables, which are regarded at present as non-essentials by the allied importing countries. However, it is anticipated that the stimulus of war industries and large governmental expenditures will be reflected in increased demand for these farm products both here and abroad. Prices of farm products have increased more rapidly than prices of goods that the farmer must purchase, with consequent improvement in his net position.

Mining.—Canada's mineral production, valued at $470,000,000, reached a new high in 1939, a gain of 10 p.c. over the preceding year. Metal prices have been largely pegged under government purchase plans (see p. 303) and the industry is being called upon to play a foremost part in the present struggle; it is able to produce abundant supplies of a greatly diversified list of minerals most essential to war industries.

New output records were established during 1939 in eleven metals and minerals. Iron ore was produced on a commercial scale for the first time in 16 years. Several new gold mines reached the production stage and 20 new mills began operation. The gold output from all sources passed the 5,000,000-ounce mark for the first time. In the production of base metals, Canada has held a leading place for many years. Production figures are given at pp. 314-319 of this volume.

Turner Valley continued to be the focal point of interest in the petroleum industry of Canada. Thirty-four new wells were brought into production and an extensive program of exploration was conducted. Production of crude petroleum and natural gasoline reached a new maximum at 7,743,000 barrels worth $10,409,000.

In the first eight months of war, exports of Canadian base metals reached record levels and the output of gold increased over 3 p.c. from the corresponding period September, 1938, to April, 1939. Petroleum production also registered an advance of nearly 19 p.c.

Manufacturing.—Recovery in industrial activity took place after the early months of the year. The index of the volume of manufacturing production rose

from 107·5 in 1938 to 118·9 in 1939, a gain of 10·6 p.c. Industrial activity in Canada is based mainly on the utilization of domestic raw materials. Of the forty leading industries only the automobile, cotton textile, and petroleum industries are definitely unrelated to basic extractive activity within the Dominion: nevertheless, the prominent part played by manufacturing in the Canadian economy has led to large imports of certain raw materials including rubber, cotton, oil, silk, iron ore, and bauxite. Imports of sixty-five leading commodities required as raw materials for Canadian industries were valued at $227,000,000 in 1938, or 33·5 p.c. of the total imports.

The forestry industries have been prominent in the recovery movement, the exports of planks and boards increasing 26·8 p.c. over the preceding year. Newsprint output increased 9·3 p.c.; expanding circulation in the United States, the elimination of overseas export shipments from Germany, and uncertainty over the future of Scandinavian shipments from the Baltic, have all combined to accentuate the usual seasonal pick-up in operations. Production in the last quarter of the year rose to over 75 p.c. of capacity, the highest level since 1937. The demands on the home market gave a stimulus to the British cotton trade and less attention was paid to exports, so that the primary cotton industry in Canada showed improvement during the year. The greater purchasing power in the western provinces and the reduction of imports was also a factor in a greater volume of business for Canadian mills. The domestic consumption of raw cotton was 128,100,000 pounds compared with 110,200,000 pounds in 1938. The output of steel showed a gain of nearly 20 p.c. Pig-iron production rose from 705,427 long tons to 756,182, a gain of 7·2 p.c. In the latter part of the year, the automotive industry had to contend with the adverse effects of war on external trade.

In the first four months of 1940, the index of manufacturing production averaged 26 p.c. above the same months of 1939 while in a comparison with the first eight months of war over the same months one year before, a gain of 21 p.c. was shown.

Retail and Wholesale Trade.—Average monthly sales by retail stores were 3 p.c. higher during 1939 than in 1938, nine of twelve lines of business reporting an increase. Sales for each of the first four months lagged behind figures for the same months of 1938. Then a series of increases began that, except for a slight lapse in July, continued throughout the remainder of the year and at a generally accelerating rate. The uncertainty attendant upon the outbreak of war in September caused abnormal purchasing and a gain of 12 p.c. in sales over September, 1938, was recorded.

The average annual index of sales by department stores was 3·5 p.c. greater than in 1938, declines in the early months being more than offset by gains in the latter part of the year. Annual increases ranging from 2 p c. in British Columbia to 7 p.c. in the Maritimes were recorded.

Wholesale trade was 7 p.c. greater than in the preceding year. Results on a regional basis indicate that the improvements varied very little for each section of the country. Each of the nine classes of business showed increased sales in 1939. The footwear trade showed the largest improvement with sales up 19 p.c.; the clothing group was second with a gain of 11 p.c. in the year-to-year comparison.

Fish and Furs.—Since the domestic consumption of fish is relatively small, the industry depends largely on outside markets. Between 60 p.c. and 70 p.c. of the annual catch is exported, the United States taking about one-half and Great Britain one-quarter. The value of fish and fish products exported in 1939

was $28,900,000, a gain of nearly 9 p.c. over the preceding year. The Atlantic deep-sea fisheries produced 5,449,300 cwt. compared with 5,201,000 cwt. in 1938, a gain of 4·8 p.c. in volume (but 2·6 p.c. in value). Conditions on the Pacific Coast were not so favourable, and the total production for the Dominion showed a slight decrease.

Measured by the export trade, the fur industry was slightly more than maintained in 1939. The outward shipment of furs was valued at $14,600,000 during the preceding year. Present world conditions are unfavourable and export trade to Great Britain and Europe is adversely affected. Prices, particularly of luxury furs, are expected to decline.

Transportation.—Railway earnings have benefited from the upward swing in business activity and the heaviest crop in Western Canada since 1928. A considerable demand for transportation facilities has also developed in connection with Canada's war effort and much additional equipment was purchased during 1939. Railway freight shipments recorded a good increase over the preceding year, the total having been 2,548,964 cars compared with 2,428,526. In the first eight months of war, the revenues of the two main railway systems registered advances of nearly 25 p.c. for the C.N.R. and 16 p.c. for the C.P.R. as compared with the same months of the preceding year. Carloadings in the first thirty weeks of 1940 totalled 1,521,000 cars, a gain of over 221,000 cars or 17 p.c. over the same weeks of 1939.

Rapid strides in air transportation were made in Canada during 1939. The Trans-Canada Air Lines inaugurated main-line passenger flights from Moncton to Vancouver with feeder lines to the principal cities in each province and a daily mail service is now available. Assistance has been given to municipalities desiring to construct or improve existing airports. Nearly 2,000,000 pounds of mail and 22,000,000 pounds of freight were estimated to have been transported during the year.

Shipping.—Unsettled international conditions greatly disturbed the shipping world during 1939-40 and considerable confusion as to rates, insurance risks, embargoes, and controls has played havoc with normal movements. Shipping using the harbour of Montreal showed a decline of 12 p.c. in 1939 as compared with 1938, due in part to a late spring and to the increased use of nearby ports. Total inland shipping on the canal systems registered general improvement in 1939. The heavy movement of iron ore and wheat through the Sault Ste. Marie locks increased the total tonnage from 40,000,000 tons in 1938 to nearly 70,000,000. At Welland the reduction in the movement of corn and barley more than offset gains in coal, iron ore, iron and steel, and petroleum, the net result being a decline of 900,000 tons or 7 p.c. The St. Lawrence system also reflected the decline at Welland, the total dropping from 9,236,318 tons in 1938 to 8,340,165 tons. Statistics for the early months of 1940 show a further considerable advance in shipping through Canadian canals.

Construction.—The amount of new business obtained by the construction industry in 1939 was virtually maintained at the level of the preceding year. The total was $187,178,500, of which $82,600,000 was placed in Ontario. New construction and additions made up 12·2 p.c. of all construction for the year. The sum of $23,565,400 in awards for roads was an increase of 40·8 p.c. over 1938.

Building permits were $59,500,000 as compared with $60,900,000 in 1938, a decline of 2·3 p.c. It is probable that building operations will not experience a notable slump such as occurred in 1915, in view of the extensive construction program contemplated for war purposes apart from private building. In the first six months of the current year, contracts awarded advanced 50 p.c. over the same months of

1939, while building permits also registered an excellent advance from $26,900,000 to $34,200,000, a gain of 28 p.c.

Electric Power.—The use of hydro-electric power has grown rapidly in Canada, and has played a prominent part in the development of Canadian industries (see Chapter XIII). The year 1937 recorded a peak of electric power production in the Dominion and 1939 showed a gain of 3 p.c. over that year. During the past decade the capacity of hydro-electric installations in Canada has more than doubled.

A survey of hydro-electric progress in Canada during 1939 shows that considerable activity took place not only in the installation of new generating capacity but also in the extension of transmission and distribution facilities in many parts of the Dominion. New water-power installations in the year under review aggregated 97,040 h.p., which brought the total at the end of the year to 8,289,212 h.p. The firm power made available in Canada for ordinary use, computed by deducting the sum of exports to the United States and the amount supplied for use in electric boilers, was 19,847,000,000 kwh., a gain of nearly 8 p.c. over the 18,435,000,000 kwh. made available in 1938.

Employment.—In the field of employment the year was featured by a sharp reversal in the downward trend occasioned by a late spring. The slackening in industry apparent during 1938 continued into the first four months of 1939. The commencement of seasonal operations, the Royal Visit, the revival in United States business, and increased buying of raw materials for armament purposes all served to start the index on the upward swing that was continued to a peak of 123·6 on Nov. 1—a gain of nearly 19 points from the April position and the third highest November figure on record. The year 1940 opened with employment at the highest point in history for Jan. 1 and, after seasonal adjustment, a high point for any month since September, 1929.

The net result for the year showed a moderate increase from 1938, the index having risen two points to 113·9. The main groups registering gains were manufacturing, mining, transportation, construction, services, and trade. Logging experienced considerable recession averaging 16·5 p.c. below the 1938 figure, while communications showed a minor decrease due mainly to technological improvements.

Employment was well maintained in 1940 as shown by statistics to May 1, when industrial activity was at a higher level than at the same date in any other year with the exception of 1929. The index of manufacturing employment reached a new record. Heightened activity was indicated in all provinces except Prince Edward Island.

Owing to improvement in general business, a near-record crop on the Prairies, and the war effort, a material decrease has been shown in the total number of persons on relief from 1,028,000 in March, 1939, to 768,000 in March, 1940—over 25 p.c. The greatest decline was shown in the number on agricultural relief. The number of wage-earners unemployed was placed at 367,000 in April of this year compared with 473,000 in the same month of 1939, a decrease of 22·5 p.c.

Banking.—During the past year the commercial banks continued to consolidate their strong liquid position. Assets, one of the best measures of expansion, reached a total of $3,822,000,000 at the year end, a gain of nearly $400,000,000 or 11 p.c. over the same date in 1938. The demand for current loans improved during 1939, the average being $854,500,000 compared with $786,100,000 in the preceding year. The peak, $972,800,000, was reached at the end of November.

Bank deposits continued their upward surge to a new record. Total securities held by the banks were also at new highs, the monthly average reaching

$1,540,000,000 compared with $1,440,000,000 in the preceding year. Bank profits registered a minor advance over 1938.

At the end of April, 1940, total assets of the chartered banks showed an improvement of nearly 7 p.c. over the same date in 1939, while current loans were up about 15 p.c. in a similar comparison. Notice and demand deposits have been steady, advancing nearly 4 p.c. to more than $2,500,000,000. Security holdings, at $1,592,000,000 increased 5·5 p.c. over the same date one year ago. Note circulation advanced 18 p.c. compared with an increase of 13 p.c. in wholesale prices.

Wholesale Prices.—The reaction in wholesale prices noticeable during the first half of 1937 continued unabated until August, 1939. This movement was counter to that of industrial production which, both in Canada and on a world basis, showed an upward movement after a temporary low point had been reached in the early part of 1938. The outbreak of war was the signal for a sharp advance that continued during the last four months of the year. The standing in December, 1939, however, was 81·7 against 73·3 in the closing month of the preceding year. During the year the price index of raw and partly manufactured products advanced from 64·9 to 74·2. The rise in Canadian farm products from 64·6 to 69·1 was relatively moderate.

The effect of war on the wholesale price structure, as measured by the average for the first eight months of hostilities, was an advance of over 10·5 p.c. as compared with the same period one year previously; raw material prices increased 14 p.c. in the same period.

External Trade and the Balance of Payments.—Exports in 1939, exclusive of gold, were valued at close to $1,000,000,000 (actually $936,000,000) against $849,000,000 in the preceding calendar year. The net export of non-monetary gold at $184,800,000 was 15 p.c. greater than in 1938. Imports of merchandise were $751,600,000 against $677,500,000. The excess of exports over imports, excluding gold, was $184,300,000 compared with $171,200,000.

About three-quarters of Canada's exports during the past two years went to the markets of Great Britain and the United States. Owing to the lowering of tariff barriers and the revival of demand due to improvement in business conditions, the United States market has become much more important as an outlet for Canadian goods in the past twelve months. While Britain necessarily has first call upon Canada's surplus production, trade with other countries is also vital in maintaining a supply of foreign exchange for the Allied cause.

Canada's place as the world's fifth largest trading nation (estimated on the basis of total exports and imports) and the fourth largest exporting nation was maintained in 1939. The large active balance, characteristic of Canada's commodity trade in recent years, was continued. A marked expansion was also shown in the net export of gold supplementing the commodity balance. Canada's net interest and dividend payments to investors residing abroad continued as an important debit but the continued retirement of Canadian securities held abroad has greatly reduced the burden of external debt charges compared with a few years ago. The large net balance of credits in the current account indicated above was available for reducing external obligations. Canada's important tourist trade in its relation to external trade is dealt with at pp. 582-583 of this volume.

Summary Index of Economic Conditions in Canada.—A summary of economic conditions in Canada is best provided by the index of physical volume of business computed by the Dominion Bureau of Statistics. The index is a composite

of 46 significant factors and is based on the year 1926. The statement below gives the index by months for 1937, 1938, 1939, and the first half of 1940.

The monthly indexes for the first seven months of 1939 were, in each case, higher than those for the corresponding months of 1938, but lower than the 1937 figures. In August, however, the index rose sharply to the second highest point on record for that month. After the outbreak of war, the index continued to rise and from September to October rose over 7½ points to 133·1, setting a new high record; it remained at approximately this level until December but showed another gain for January, 1940. After a temporary seasonal slowing-up, the pressure of Canada's war effort forced the index to record levels in the second quarter of the current year.

MONTHLY INDEX OF PHYSICAL VOLUME OF BUSINESS, 1937 TO MAY, 1940.

Month.	1937.	1938.	1939.	1940.	Month.	1937.	1938.	1939.
January	116·9	111·8	113·0	138·6	August	123·4	110·5	125·2
February	115·0	106·7	111·7	131·2	September	123·8	119·2	125·8
March	118·7	108·8	113·2	123·0[1]	October	127·4	118·6	133·1
April	124·0	112·4	116·7	151·0[1]	November	127·9	123·4	133·0
May	122·0	110·7	121·4	140·6	December	121·4	115·6	133·3
June	126·0	108·4	121·4	141·3				
July	126·5	109·1	120·5	–	AVERAGES	122·7	112·9	122·4

[1] Owing to a change in reporting trade statistics, March is artificially reduced and April artificially increased in all comparisons.

A development of some importance was the shift from the production of consumer goods to producer commodities. War orders persistently placed subsequent to the outbreak had an important bearing on industrial activity. A number of new plants were constructed and existing plants engaged on war demands accelerated operations.

As between producers goods and consumers goods, the monthly index of the former averaged 14·5 p.c. higher in the first ten months of war compared with the same months of the previous year, while, owing to active consumer buying in anticipation of price advances, the index of production of consumers goods rose over 9·9 p.c.

ERRATA.

P. 12, Table 3, read "sq. miles" for "ft." in right-hand column.

P. 137, line 8, for "Toronto had, in 1936" read "1938" for "1936"

P. 210, in introductory paragraph to Table 9, read "Table 8" for "Table 5".

P. 215, line 6, for "1940 clip" read "1939" for "1940"

CHAPTER I.—PHYSIOGRAPHY.

CONSPECTUS.

	Page.
Part I.—Geographical Features	1
Section 1. Orography	9
Section 2. Lakes and Rivers	12
Section 3. Islands	15
Part II.—Geology	16
Section 1. Geology of Canada	16
Section 2. Economic Geology	16
Part III.—Seismology in Canada	16
Part IV.—The Flora of Canada	16
Part V.—Faunas of Canada	17
Part VI.—Lands, Parks, Scenic and Game Resources of Canada	17
Part VII.—Climate and Meteorology	24
Section 1. The Climate of Canada	24
Section 2. The Factors that Control Canadian Weather	24
Section 3. The Distribution of Precipitation in Canada	24
Section 4. The Temperature and Precipitation of Northern Canada	24
Section 5. The Meteorological Service of Canada	24
Section 6. Meteorological Tables	24
Section 7. Droughts in Western Canada	24
Section 8. Standard Time and Time Zones in Canada	24

PART I.—GEOGRAPHICAL FEATURES.*

Situation.—The Dominion of Canada comprises the whole northern part of the North American Continent with its islands, except the United States territory of Alaska and the territory of Newfoundland (which includes Labrador). It takes in the whole Arctic Archipelago between Davis Strait and the connecting waters northward to the 60th Meridian on the east and the 141st Meridian on the west.

The Dominion is bounded on the west by the Pacific Ocean and Alaska; on the south by the United States; on the east by the Atlantic Ocean, the waters between Newfoundland and the Gulf of St. Lawrence, Labrador, Davis Strait, and the dividing waters between the Danish territory of Greenland and Ellesmere Island; northward it extends to the North Pole.

The southernmost point is Middle Island in Lake Erie, in north latitude 41° 41′, and from east to west Canada extends from about west longitude 57° at Belle Isle Strait to west longitude 141°, the boundary of Alaska. Canadian territory thus extends over 84° of longitude and 48° of latitude.

Area.—The area of the Dominion is 3,694,863 square miles, a figure that may be compared with that of 3,738,395 square miles for the United States and its dependent territories, 3,776,700 the total area of Europe, 2,974,581 the area of Australia, 3,275,510 the area of Brazil, 1,805,252 the area of India, 121,633 the area of the British Isles. Canada's area is over 27 p.c. of the total area of the British Empire as it is shown on p. 165 of the 1934-35 Year Book.

Political Subdivisions.—Canada is divided from east to west into the following provinces: the Maritime Provinces of Nova Scotia, Prince Edward Island, and New Brunswick, all three comparatively small in area; Quebec, covering a strip south of the St. Lawrence River and the whole territory north of the St. Lawrence River and east of the Ottawa River to Hudson Strait, except the Coast of Labrador; Ontario, extending northward from the Great Lakes to Hudson Bay; Manitoba, Saskatchewan, and Alberta, the provinces of the interior continental plain, extending from the boundary of the United States to 60° north latitude; and British

*Revised by F. H. Peters, Surveyor General and Chief, Hydrographic Service, Department of Mines and Resources, Ottawa.

Columbia, the province of the Cordilleran region, also extending from the International Boundary to 60°N. North of the area included in the provinces the country is divided into the Yukon Territory to the west, abutting on Alaska, and the Northwest Territories. The latter is subdivided into three provisional districts: that of Mackenzie comprises the mainland between Yukon and the meridian of longitude 102°W.; the District of Keewatin comprises the remainder of the mainland between the District of Mackenzie and Hudson Bay, and includes the off-shore islands in Hudson and James Bays; the District of Franklin comprises, in general, the Arctic Archipelago.

Prince Edward Island.—This, the smallest province of the Dominion, lies just off the coast east of New Brunswick and north of Nova Scotia; it is separated from both provinces by Northumberland Strait from ten to twenty-five miles wide. It is about 120 miles in length and, with an average width of 20 miles, covers an area of 2,184 square miles, approximately 200 square miles more than the State of Delaware. The Island is almost trisected by the deep indentations of Malpeque Bay north of Summerside and by the mouth of the Hillsborough River at Charlottetown, which nearly meets Tracadie Bay on the north side. Its rich, red soil and red sandstone formations are distinctive features, and no point on the Island attains a greater altitude than about 450 feet above sea-level. Its climate, tempered by the surrounding waters of the Gulf and yet free from the rigours of Atlantic storms, combined with a fertile soil and sheltered harbours, offers great inducements to the pursuits of agriculture and fishing. The Province is noted for its relative predominance in the fox-farming industry, its lobster canneries, its oyster beds, and its production of seed potatoes.

Nova Scotia.—The Province of Nova Scotia is 381 miles in length by from 50 to 105 miles in width, a long, narrow strip of land lying parallel to the Maine and New Brunswick Coasts and joined to the latter province by the Isthmus of Chignecto, which is 15 miles in width. It includes to the north the Island of Cape Breton, which is separated from the mainland by the narrow Strait of Canso. The total area of the Province is 21,068 square miles, a little over 2,000 square miles less than the combined areas of Belgium and Holland. Cape Breton Island, south of the main entrance to the Gulf of St. Lawrence and sheltering Prince Edward Island from the Atlantic, is roughly 100 miles in length with an extreme breadth of 87 miles. Its area of 3,970 square miles encloses the salt-water lakes of Bras d'Or, connected with the sea at the north by two natural channels and at the south by the St. Peters Ship Canal. The ridge of low, mountainous country running through the centre of the Nova Scotia mainland, the highest altitude of which is less than 1,500 feet, divides it roughly into two slopes. That facing the Atlantic is generally rocky and open to the sweep of Atlantic storms, but the other, facing the Bay of Fundy and Northumberland Strait, consists, for the most part, of fertile plains and river valleys noted for general farming and for fruit-farming districts which produce the famous Nova Scotian apples. The Atlantic Coast is deeply indented with numerous excellent harbours, many of which provided splendid homes and refuges for the old sail fishing fleets. The Province is still the home of an extensive fishing industry. The mineral resources of Nova Scotia were among the first in the Dominion to be exploited as some of its coal deposits outcropped on the sea-coast. These valuable coal measures make Nova Scotia still one of the chief coal-producing provinces of the Dominion. In addition, there are extensive areas of gold-bearing formations and valuable deposits of gypsum.

New Brunswick.—With a total area of 27,985 square miles, New Brunswick may be compared in size to Scotland with its area of 30,405 square miles. The Province is very compact and in shape nearly rectangular, with its depth not greatly exceeding its width. The conformation is, in general, undulating and of low relief. In the southeastern half of the Province the ground elevation does not generally exceed 500 feet above sea-level except for a narrow strip in the south which produces the highlands bordering the Bay of Fundy east of Saint John. In the northwestern half the ground elevation is, in general, from 500 to 1,000 feet above sea-level and reaches its greatest elevation of about 2,690 feet in Northumberland County northeast of Grand Falls. The St. John, rising in the sister province of Quebec and the bordering State of Maine, is a river with many distinctive beauties, while its length of nearly 400 miles makes it quite noteworthy as to size. In the northeastern half of the Province there are very extensive areas of Crown lands still carrying valuable stands of merchantable timber. The Bay of Chaleur at the north, the Gulf of St. Lawrence and Northumberland Strait at the east, the Bay of Fundy at the south, and Passamaquoddy Bay at the southwest, provide the Province with a very extensive sea-coast. To its southwest is a group of islands belonging to the Province, the most important of which are Grand Manan, Campobello, and the West Isles. New Brunswick has been called "the best-watered country in the world"; numerous rivers provide access to extensive lumbering areas in its interior and to many of the most attractive hunting and fishing resorts in the Dominion. While its forest resources are an important economic feature, extensive areas of rich agricultural lands are found in the river valleys and the broad plains near the coasts. The Minto coalfields have shown an expanding tendency recently though production has been on a moderate scale for many years, and the Province also produces a limited quantity of petroleum and natural gas.

Quebec.—Quebec might well be included among the Maritime Provinces, for with the St. Lawrence River, the Gulf of St. Lawrence, the Atlantic, Hudson Strait and Bay, salt water washes the coasts of the Province for a length of over 2,700 miles. Besides including a narrow strip of land between the St. Lawrence and the International and New Brunswick boundaries, Quebec extends northward from the St. Lawrence and Ottawa Rivers to Labrador and Hudson Strait, covering over 17° of latitude and an area of 594,534 square miles, about 38 p.c. of which lies south of the isotherm of 60° F. mean July temperature.* The combined area of France, Germany, and Spain is about 2,600 square miles less than the area of Quebec. The conformity of the surface of Quebec is that characteristic of the Precambrian rocks, being quite even in general but much diversified by minor hills and hollows. North of the St. Lawrence the land takes the form of a ridge, parallel to the river and rising from sea-level to the Height of Land at an elevation of from 1,000 to 3,000 feet and then descending gently again to the sea-level of Hudson Bay to the northwest; but to the northeast the ridge carries its height to end abruptly in the high headlands of Labrador. South of the river, the area is comprised of the St. Lawrence Lowlands between Montreal and Quebec which, rising to the east, produce the highest known elevation in the province, viz., 4,160 feet, that of Jacques Cartier Peak of Tabletop Mountain in the Gaspe Peninsula. With the exception of the treeless zone extending somewhat south of Ungava Bay, most of the Province supports a valuable tree growth varying from the mixed forest in the southwest to the

*The isotherm of 60° F. mean July temperature is generally considered as the northern limit for the economic production of cereals.

eastern and northern coniferous in the areas of higher latitude. Apart from its importance as the threshold of Canada and the Atlantic gateway through which ocean vessels must pass on their way to the interior of the continent, Quebec is also noted for its natural resources. The extensive timber limits of its northern areas form the basis for the great pulp and paper industry of this part of Canada. Its rivers, many of them as yet comparatively unknown, may be harnessed to supply about two-fifths of the electric power available in Canada. Its asbestos deposits have long been known for their quality and extent, while more recently there have been extensive developments of deposits of gold and copper in the western part of the Province, with further discoveries extending the mineralized area into the Chibougamau district. These developments have brought the Province up to third place in mineral production in Canada. The fisheries of the St. Lawrence River and Gulf are well known. Agriculturally, the climate and soil of the upper St. Lawrence River Valley and the plains of the Eastern Townships are eminently adapted to general farming operations.

Ontario.—The Province of Ontario is the section of the Dominion contained between the great international lakes and Hudson Bay and between the western boundary of Quebec and the eastern limits of Manitoba. Although generally regarded as an inland province, Ontario has a fresh-water shore line on the Great Lakes of more than 2,362 miles and on the north a salt-water shore line of about 680 miles with a tidal port at Moosonee at the southern end of James Bay. The southernmost point of Ontario, which is also the southernmost point of the Dominion, is in north latitude 41° 41′—a little farther south than the northern boundary of the State of California—and its most northern, in north latitude 56° 50′. The total area comprised within its limits, of which about 82 p.c. lies south of the isotherm of 60° F. mean July temperature,* is 412,582 square miles, of which its fresh-water area of 49,300 square miles forms the unusually large proportion of 12 p.c. The Province is over 5,000 square miles greater in area than are France and Spain together, and when compared with the States to the south, Ontario is found to be almost equal in extent to the combined areas of the six New England States, together with New York, New Jersey, Pennsylvania, Ohio, Indiana, Illinois, Michigan, and Wisconsin. Except in the southwestern part, the surface conformity of Ontario is influenced by the characteristics of the Precambrian rocks. In northern Ontario a large area with elevations of 1,000 feet or over adjoins the north shore of the Great Lakes and, going north a short distance over the Height of Land, the slope descends very gently to Hudson Bay, which has a wide marginal strip less than 500 feet above sea-level. The highest point in Ontario is 2,120 feet, on the promontory at the north-eastern corner of Lake Superior. The whole Province supports a valuable covering of trees, varying, from south to north, from the mixed forest to the eastern and northern coniferous. Many varieties of climate and soil are encountered, from the distinctively southern conditions found along the shores of Lake Erie to the very different ones of Hudson and James Bays. Ontario, of all the provinces, is the centre of the country's manufacturing industries, owing to its abundant water-power resources and its proximity to the coalfields of Pennsylvania, but the many resources of its rural districts are not on this account neglected. Mining is a very important industry in the widespread Precambrian area and, although the most important districts are Sudbury, Porcupine, and Kirkland Lake, profitable mining operations, principally of gold, are now being carried on from the Manitoba boundary

* See footnote, p. 3.

eastward across northern Ontario and down into eastern Ontario. Petroleum and natural gas, salt, and gypsum are also produced on an important scale in the southwestern part of the Province. Fruit farming in the Niagara District and general farming throughout the entire southern part of the Province are carried on extensively under unusually favourable conditions, while timber, pulp, and furs are other important products of more northern parts.

Manitoba.—Manitoba, the most easterly of the Prairie Provinces, and also the oldest of them in point of settlement, includes the area between Ontario on the east and Saskatchewan on the west. Its southerly limit is the International Boundary, while its northerly boundary is the 60th parallel of latitude and Hudson Bay, where its coast of over 400 miles includes the harbour and port of Churchill. The total area of Manitoba, of which about 56 p.c. lies south of the isotherm of 60° F. mean July temperature,* is 246,512 square miles—3,246 square miles greater than twice the total area of the British Isles. The conformity of the surface of Manitoba is quite even; commencing on the north with a strip bordering on Hudson Bay—perhaps 100 miles wide and less than 500 feet in elevation—the surface rises gradually towards the west and south. The bulk of the Province has an elevation of between 500 and 1,000 feet, and the greatest height of 2,727 feet is attained in Duck Mountain, northwest of Lake Dauphin. East and north of Lake Winnipeg the Canadian Shield is found with its Precambrian rock formation, but the remainder of the Province is overlain by very fertile soil of great depth. The treeless prairie belt extends into the southwest corner of the Province, but the greater portion of the developed area is in the grove belt, characterized by groves of poplar interspersed with open prairie patches; to the north there are great areas of northern mixed forest, blending into the northern coniferous, which thin again to some treeless areas along the coast-line farther north. The Province has been regarded as typically agricultural, its southern lands being specially adapted to this form of industry. Its northern districts, however, are of importance in the production of timber and furs and its numerous large lakes in the production of fresh-water fish, chiefly whitefish. About three-fifths of the area of this Province is underlain by the Precambrian rocks which have been found so rich in minerals in northern Ontario and Quebec. Two large deposits of copper-gold-zinc ore have been developed, south of the Churchill River near the Manitoba-Saskatchewan boundary, while to the east and north of Lake Winnipeg recent years have witnessed great activity in the prospecting and development of gold properties, a number of which are now producing The Province also possesses important water-power resources in the rivers of the Precambrian area.

Saskatchewan.—This central prairie province lies between Manitoba and Alberta; it extends from the International Boundary on the south to the 60th parallel of latitude, which divides it from the Northwest Territories. The area, of which about 89 p.c. lies south of the isotherm of 60° F. mean July temperature,* is 251,700 square miles, approximating that of Manitoba, and greater by 5,000 square miles than the combined areas of the British Isles and Norway. Approximately one-third of the total area, generally lying north of the Churchill River, is underlain by the Precambrian rocks which have been found so richly mineralized in other parts of Canada. The Flinflon copper-gold-zinc deposit on the Manitoba-Saskatchewan boundary is an evidence of economic mineralization in the east, while in the Lake Athabaska region of the northwest promising discoveries of gold have been made recently. The northern districts, abundantly watered by lakes and rivers, in addition to potential mineral wealth, are rich in timber resources while the southerly

* See footnote, p. 3.

two-thirds of the Province, overlain by generally fertile soil of great depth, includes a large portion of the famous western wheat fields. The larger part of the developed area in the south is comprised in the great treeless prairie belt, fringed to the north with a zone of poplar interspersed with open prairie, which gradually changes into the northern mixed forest covering all the northerly parts. Apart from the southern prairies, which are extraordinarily smooth, the surface topography is generally of low relief with a gradually rising slope towards the west. Most of the Province has a general elevation of between 1,000 and 2,000 feet, with the maximum elevation of about 4,500 feet on the eastern point of the Cypress Hills in the southwest corner. The climate in the southern parts is quite different from that of Eastern Canada, with less precipitation and perhaps more severe features than are encountered in many other parts of the country, but is nevertheless most favourable to plant growth, when sufficient moisture is available.

Alberta.—Lying between Saskatchewan on the east and the Rocky Mountains and the 120th Meridian on the west, and bounded on the north and south by the Northwest Territories and the United States, respectively, is the Province of Alberta. Its area is slightly greater than that of Saskatchewan or Manitoba, comprising a total of 255,285 square miles, of which about 90 p.c. lies south of the isotherm of 60° F. mean July temperature.* The area of the Province is over 8,600 square miles greater than the combined areas of the British Isles and Norway. Like Saskatchewan, the southern part of the Province is comprised in the dry, treeless prairie belt, changing to the north into a zone of poplar interspersed with open prairie, which again gives way to the northern mixed forest covering the northerly parts. The Precambrian rocks just touch Alberta at its northeast corner, so that, excepting the fringe of mountainous country on its western border, practically the whole of the Province is overlain by arable soil of great depth. Alberta has two marked features: (1) the great valley of the Peace River, which has already resulted in the extension of settlement farther north than in any other part of Canada; and (2) the wonderful grazing lands in the foothills district, which, rising sharply on the west, commence the ascent which continues to the very peaks of the Rocky Mountains. The southern half of the Province, rising towards the west, lies at a general elevation of from 2,000 to 4,000 feet; in the northern half, the slope descends until elevations of well under 1,000 feet are reached at Lake Athabaska in the northeast corner. Mount Columbia, with an elevation of 12,294 feet, is the highest point in the Province. Alberta has the most extensive coal resources of any province of the Dominion and has also become the leading producer of petroleum and natural gas. Lumbering is important in the more mountainous western parts and in the north, but ranching is still pursued in the less populous sections. In the southern prairies there are considerable areas where the quantity and distribution of the natural precipitation makes permanent agriculture precarious and in these areas a number of large irrigation projects have been developed, taking their water supply from rivers rising in the mountains which form the western boundary of the Province. The climate of Alberta is a particularly pleasant one, cooler in summer than more eastern parts of the country and tempered in winter by the Chinook winds.

British Columbia.—British Columbia, the most westerly province of the Dominion, comprises an area of 366,255 square miles, slightly more than three times the area of the British Isles. The boundaries of the Province extend from Alberta on the east to the Pacific Ocean and Alaska on the west, and from the International

* See footnote, p. 3.

Boundary northward to Yukon. The predominant feature of the Province is the parallel ranges of mountains which cover all of it except the northeast corner and produce a conformation characterized by high mountain ranges interspaced with valleys many of which are extremely fertile, with climatic conditions well adapted to mixed agriculture or fruit growing. Apart from the smoother area in the northeast corner, which extends up from the "Peace River Block", there is another notably large area of smoother terrain in the Stuart Lake district, traversed by the Canadian National Railway running west from Fort George to Prince Rupert. The highest point in the Province is Mount Fairweather (15,287 feet). The shore line of the Pacific is deeply indented with many inlets ideal for harbourage and with wonderful scenic aspects. With two ocean ports served by transcontinental railways, British Columbia is well situated and equipped to carry on trade with the Orient, and its great stands of fir, spruce, and cedar timber constitute a natural resource of great value. The Province includes many islands of the Pacific, notably the Queen Charlotte group and Vancouver Island; the latter, with an area of about 12,408 square miles, is noted for its temperate climate and abundant natural resources. The wealth of the forest resources supports the lumbering and pulp and paper industries and puts British Columbia ahead of any other province in the production of lumber and timber. The Province also excels in fishery products, chiefly on account of its catches of the famous Pacific salmon. The mineral resources are remarkable for their variety and wealth. The production of the metals, gold, copper, silver, lead, and zinc, has played an important role in the economic life of the Province since its early days, while valuable coal deposits on Vancouver Island, and at Crowsnest and Fernie in the interior, have been worked for many years.

Yukon Territory.—Yukon Territory extends from British Columbia on the south to the Arctic Ocean on the north and from the Northwest Territories on the east to Alaska on the west. The meridian of longitude 141° W., the western boundary of the Territory, is also the most westerly extent of the Dominion. Its area is 207,076 square miles or slightly more than one-half that of Ontario.

The greater part of the Yukon Territory is mountainous although in the extreme north and southeast the relief is low. The mountainous part is divided into a number of ranges and a central plateau area, all of which exhibit a general northwest trend. The St. Elias Mountains in the southwest are the highest mountains in Canada and, in Mount Logan (19,850 feet elevation), contain the second highest peak in North America. The Coast Mountains lie northeast of the St. Elias Mountains and are followed by the Yukon Plateau, which is bounded on the east and north by the Mackenzie Mountains and their western spur, the Ogilvie Range. The Plateau, which covers most of the southern part of the Territory, is isolated on three sides by mountains through which there is no natural easy route of access; it contains a number of isolated mountain ranges distributed over it, with peaks of 6,000 to 8,000 feet in elevation. Otherwise the higher levels of the Plateau are from 4,000 to 5,000 feet. This plateau area forms the central part of the basin of the Yukon River that drains the central and western parts of the Territory to the Bering Sea, 1,100 miles distant. The territory to the east is drained by the tributaries of the Mackenzie River to the Arctic Ocean; that to the southwest by the Alsek River to the Pacific Ocean. The tributaries of the Yukon River within the plateau area form 1,250 miles of connected waterways, navigable by stern-wheel steamboats. After the discovery of rich deposits of alluvial gold, a railway was built from tidewater at Skagway on the Alaskan coast over the Coast Mountains by

White Pass to Whitehorse, and this railway, with the waterway, has made the Plateau easily accessible.

Dawson, the capital, chief commercial, and placer-mining centre of the Territory, is on the Yukon River and has an elevation of 1,038 feet. Whitehorse, situated at the head of navigation of Lewes River, ranks next in importance, being the junction of rail and water transport and the distributing centre. The elevation at Whitehorse is 2,081 feet above sea-level. Mayo is the centre of the silver-lead mining industry. In recent years roads for use throughout the year have been built in the neighbourhoods of these three places. Aeroplanes are now an important means of travel and a chain of landing fields has been built along the chief air routes.

The chief industries are mining, fur trade, tourist traffic, and big-game hunting: mining is by far the most important. For over fifty years Yukon has been a producer of gold and in more recent years silver, lead, copper, and coal have also been mined in important quantities. A wide variety of other mineral resources have been discovered throughout the Territory, promising greater importance for mining in future. The relatively warm and dry climate for such northern latitudes enjoyed by the Plateau of southern Yukon enables a wide range of garden produce and hardy grains to be grown throughout its extent. The break-up of the ice in the lakes and rivers takes place in May and navigation opens in the fourth week of that month and closes in the latter part of October.

The Northwest Territories.—The Northwest Territories consists of the provisional districts of Mackenzie, Keewatin, and Franklin. It embraces all of Canada north of the 60th parallel of latitude and east of the Yukon Territory (including also the islands in Hudson and James Bays and Hudson Strait), except that portion of Quebec which extends north of the 60th parallel. Its area is 1,309,682 square miles, or nearly as large as the combined areas of Argentina and Chile in South America, or over twelve times the area of Great Britain and Northern Ireland.

Much of the area is still unexplored. The highest part of the mainland is in the Mackenzie Mountains, where Keele Peak has an elevation of 8,500 feet and elevations of 11,000 feet have been reported near the headwaters of the South Nahanni River. From the Mackenzie Mountains the land drops to an elevation of less than 500 feet at the Mackenzie River, on the east side of which the Horn and Franklin Mountains reach altitudes of about 2,000 feet. A large depression is formed by a trough-like valley in which Great Bear and Great Slave Lakes are the principal topographical features. To the east of this the land rises to an elevation of 1,400 feet in the great interior plateau, which in turn gradually falls away to the beach-made plains on the west side of Hudson Bay. There are some high mountains in the northeastern Arctic islands, particularly in northern Ellesmere Island where the Shackleton Expedition of 1935 recorded an elevation of 10,000 feet.

Roughly speaking, about one-third of the mainland and all the Arctic islands are treeless. This is not due to inadequate summer temperature, but more likely to insufficient precipitation coupled with the extreme dryness of the air during winter. Some form of plant life is in evidence wherever there is soil. In the wooded areas there is little difficulty in securing forest products sufficient for the needs of the residents.

Photography from the air has assisted in the mapping of areas adjacent to the better-known transportation routes and the areas in which minerals have been discovered. The silver, radium, and copper deposits near the east end of Great Bear Lake, and the gold discoveries in the Yellowknife area north and east of Great Slave

Lake are the most important mineral discoveries. Oil is being refined at the Imperial Oil Company's wells some 42 miles below Norman on the Mackenzie River. Coal has been reported at several points both on the mainland and in the Arctic Archipelago.

Development of the resources of, and communications in, the Northwest Territories and Yukon are dealt with in Chapter XXVIII, Subsection 1 of Section 1.

Summary of Land and Water Areas.—The total land and fresh-water areas of the Dominion, together with their distribution by provinces and territories, are shown in Table 1.

1.—Land and Fresh-Water[1] Areas of Canada, by Provinces and Territories, 1939.

NOTE.—A classification of land area as agricultural, forested, or unproductive will be found under Part VI of this Chapter at p. 18.

Province or Territory.	Land.[2]	Fresh Water.[2]	Total.[2]	Per Cent of Total Area.
	sq. miles.	sq. miles.	sq. miles.	
Prince Edward Island	2,184	[3]	2,184	0·1
Nova Scotia	20,743	325	21,068	0·6
New Brunswick	27,473	512	27,985	0·8
Quebec	523,534	71,000	594,534	16·1
Ontario	363,282	49,300	412,582	11·1
Manitoba	219,723	26,789	246,512	6·7
Saskatchewan	237,975	13,725	251,700	6·8
Alberta	248,800	6,485	255,285	6·9
British Columbia	359,279	6,976	366,255	9·9
Yukon	205,346	1,730	207,076	5·6
Northwest Territories—				
Franklin	546,532	7,500	554,032	15·0
Keewatin	218,460	9,700	228,160	6·2
Mackenzie	493,225	34,265	527,490	14·2
Canada	**3,466,556**	**228,307**	**3,694,863**	**100·0**

[1] The salt-water areas of Canada are excluded. [2] Approximate. [3] Too small to be enumerated.

Section 1.—Orography.

The outstanding and predominant orographical feature in Canada is the great Cordilleran mountain system which, extending up from the south, parallels the coast of the Pacific Ocean, and, continuing on, comprises the bulk of the United States territory of Alaska. Throughout Canada this mountain system has a width of about 400 miles and, covering about 530,000 square miles in area, includes nearly all of British Columbia and Yukon. This region is definitely the most rugged and elevated in the Dominion, many of the summits reaching heights of 10,000 feet with occasional peaks over 13,000 feet above sea-level. The principal named peaks exceeding 11,000 feet in elevation are given in Table 2. The main mountain ranges forming the system are the Coast Mountains and the St. Elias Mountains on the Pacific side, the Selkirks and the Rockies on the east side of the system to the south, and farther north on the east side the Stikine and the Mackenzie Mountains. This great mountainous tract is a formidable barrier between the ocean and the interior of Western Canada; by precipitating a great part of the moisture out of the winds coming from the Pacific, it has a marked effect on the climate of the western country. On the west side, the Cordilleras are drained by mountain streams pitching swiftly down to the Pacific. The Yukon Territory is drained to the north by that remarkable river of the same name which runs through a wide valley over

1,700 miles long before reaching the Bering Sea. On the east side of the mountains and their foothills, the land slopes gently away to the east and to the north.

2.—Mountain Peaks over 11,000 Feet in Elevation, by Province and Mountain Range.

NOTE.—The highest point on the mainland of Eastern Canada (peaks of the Torngats in Labrador rise to about 5,500 feet) is Mount Jacques Cartier, a peak of Tabletop Mountain in N. lat. 48° 59′, W. long. 65° 56′, Gaspe district, Quebec, the summit of which is 4,160 feet above sea-level.

Province, Mountain Range, and Peak.	Elevation.
	ft.
Alberta.	
Rocky Mountains—	
Columbia[1]	12,294
Brazeau	12,250
The Twins	12,085
	11,675
Forbes	11,902
Alberta	11,874
Assiniboine[1]	11,870
Temple	11,636
Kitchener	11,500
Lyell[1]	11,495
Hungabee[1]	11,457
Athabaska	11,452
King Edward[1]	11,400
Victoria[1]	11,365
Snow Dome[1]	11,340
Stutfield	11,320
Joffre[1]	11,316
Murchison	11,300
Deltaform[1]	11,235
Lefroy[1]	11,230
Alexandra[1]	11,214
Sir Douglas[1]	11,174
Woolley	11,170
Lunette[1]	11,150
Hector	11,135
Diadem	11,060
Clearwater	11,044
Edith Cavell	11,033
Fryatt	11,026
Coleman	11,000
Wilson	11,000
British Columbia.	
Coast Mountains—	
Waddington	13,260
Tiedemann	12,000
Selkirk Mountains—	
Sir Sandford	11,590
Farnham	11,342
Hasler	11,113
Delphine	11,076
Huber	11,051
Wheeler	11,023
Selwyn	11,013

Province, Mountain Range, and Peak.	Elevation.
	ft.
British Columbia—concluded.	
Rocky Mountains—	
Robson	12,972
Clemenceau	12,001
Goodsir	11,676
Bryce	11,507
Chown	11,500
Resplendent	11,240
King George	11,226
Jumbo	11,217
The Helmet	11,160
Whitehorn	11,101
Bush	11,000
Sir Alexander	11,000
St. Elias Mountains—	
Fairweather[2]	15,287
Root[2]	12,860
Yukon.[3]	
St. Elias Mountains—	
Logan	19,850
St. Elias	18,008
Lucania	17,150
King	17,130
Steele	16,439
Wood	15,885
Vancouver	15,696
Hubbard	14,950
Alverstone	14,500
Walsh	14,498
McArthur	14,400
Augusta	14,070
Strickland	13,818
Newton	13,811
Cook	13,760
Craig	13,250
Badham	12,625
Malaspina	12,150
Jeannette	11,700
Baird	11,375

[1] This peak is on the interprovincial border between Alberta and British Columbia. [2] This peak is on the international boundary between British Columbia and Alaska. [3] The enumerated peaks in Yukon are on or near the Yukon-Alaska boundary.

The southern portion of the eastern declivity, from the Rocky Mountains down to Lake Winnipeg, is comprised in the Nelson River drainage emptying into Hudson Bay; representing the presently settled part of Western Canada, it includes the treeless prairies and comprises the lands which, in the main, produce Canada's great wheat crops. This area is characteristically different from other parts of Canada in

Compiled, drawn, and printed at the office of the Surveyor General, Ottawa.

ELEVATIONS OF RAILWAY STATIONS IN CITIES AND TOWNS WITH OVER 5,000 INHABITANTS (Census of 1931).*

Province.	Station.	Elevation Above Sea-Level
		feet.
Prince Edward Island	Charlottetown (C.N.R.)	9
Nova Scotia	Amherst (C.N.R.)	60
	Dartmouth (C.N.R.)	13
	Glace Bay (S. and L. Rly.)	74
	Halifax (new C.N.R.)	24
	New Glasgow (C.N.R.)	31
	New Waterford (Junction)	103
	North Sydney (C.N.R.)	41
	Springhill (C. Rly. and C. Co.)	435
	Stellarton (C.N.R.)	62
	Sydney (C.N.R.)	7
	Sydney Mines (C.N.R.)	62
	Truro (Union)	62
	Yarmouth (C.N.R.)	15
New Brunswick	Campbellton (C.N.R.)	42
	Edmundston (C.P.R.)	479
	Fredericton (C.P.R.)	33
	Moncton (C.N.R.)	50
	Saint John	21
Quebec	Cap de la Madeleine (C.P.R.)	123
	Chicoutimi (C.N.R.)	21
	Drummondville (C.P.R.)	266
	Granby (C.N.R.)	387
	Grand'Mère (C.P.R.)	426
	Hull (C.P.R.)	167
	Joliette (C.P.R.)	193
	Jonquière (C.N.R.)	487
	Lachine (C.N.R.)	81
	La Tuque (C.N.R.)	545
	Lévis (C.N.R.)	16
	Longueuil (C.N.R.)	56
	Magog (C.P.R.)	689
	Montreal (C.P.R.—Windsor)	109
	Outremont (C.P.R.)	206
	Quebec (C.P.R. and C.N.R.)	21
	Rimouski (C.N.R.)	77
	Rivière du Loup (C.N.R.)	315
	St. Hyacinthe (C.P.R.)	109
	St. Jérôme (C.P.R.)	308
	St. Lambert (C.N.R.)	75
	Shawinigan Falls (C.P.R.)	306
	Sherbrooke (C.P.R.)	593
	Sorel (C.N.R.)	49
	Thetford Mines (Q.C. Rly.)	1,028
	Three Rivers (C.P.R.)	52
	Valleyfield (C.N.R.)	161
	Victoriaville (C.N.R.)	433
	Westmount (C.P.R.)	152
Ontario	Barrie (C.N.R.)	726
	Belleville (C.P.R.)	260
	Brampton (C.P.R.)	721
	Brantford (C.N.R.)	706
	Brockville (C.P.R. and C.N.R.)	283
	Chatham (C.P.R.)	594
	Cobourg (C.P.R.)	296
	Collingwood (C.N.R.)	589
	Cornwall (C.P.R.)	183
	Dundas (C.N.R.)	513
	Fort Frances (C.N.R.)	1,122
	Fort William (C.P.R.)	617
	Galt (C.P.R.)	936
	Guelph (C.P.R.)	1,042
	Hamilton (King St.)	305
	Hawkesbury (C.N.R.)	163
	Ingersoll (C.P.R.) (South)	880
	(North)	890
Ontario—*concluded*	Kenora (C.P.R.)	1,090
	Kingston (C.P.R.)	253
	Kitchener	1,101
	Lindsay (C.P.R.)	832
	London (C.P.R.)	805
	Midland	593
	Mimico	307
	Niagara Falls (C.N.R.)	572
	North Bay (C.P.R.)	662
	Orillia (C.P.R.)	725
	Oshawa (C.P.R.)	330
	Ottawa (Union)	215
	Owen Sound (C.P.R.)	585
	Pembroke (C.P.R.)	381
	Peterborough (C.P.R.)	632
	Port Arthur (C.P.R.)	614
	Port Colborne (C.N.R.)	583
	Preston	926
	Renfrew (C.P.R.)	418
	St. Catharines (C.N.R.)	348
	St. Thomas (C.N.R.)	756
	Sarnia (C.N.R.)	612
	Sault Ste. Marie (C.P.R.)	636
	Simcoe (North)	724
	(South)	714
	Smith's Falls (C.P.R.)	428
	Stratford (C.N.R.)	1,193
	Sudbury (C.P.R.)	857
	Thorold (C.N.R.)	565
	Timmins (T. and N.O. Rly.)	1,029
	Toronto (Union)	273
	Trenton (C.P.R.)	295
	Walkerville (C.P.R. and C.N.R.)	587
	Waterloo (C.N.R.)	1,058
	Welland (C.N.R.)	600
	Whitby (C.N.R.)	286
	Windsor (M.C. Rly.)	606
	Woodstock (C.P.R.)	948
Manitoba	Brandon (C.P.R.)	1,206
	(C.N.R.)	1,262
	North Transcona (C.P.R.)	768
	Portage la Prairie (C.P.R.)	858
	St. Boniface (C.P.R.)	759
	Winnipeg (C.P.R.)	772
Saskatchewan	Moose Jaw (C.P.R.)	1,778
	North Battleford (C.N.R.)	1,688
	Prince Albert (C.P.R. and C.N.R.)	1,414
	Regina	1,896
	Saskatoon (C.P.R.)	1,596
	Swift Current (C.P.R.)	2,432
	Weyburn (C.P.R.)	1,857
	Yorkton (C.P.R.)	1,657
Alberta	Calgary (C.P.R.)	3,439
	Edmonton (C.P.R.)	2,183
	(C.N.R.)	2,186
	Lethbridge (C.P.R.)	2,983
	Medicine Hat (C.P.R.)	2,182
British Columbia	Kamloops (C.P.R.)	1,160
	Nanaimo (C.P.R.)	129
	Nelson (C.P.R.)	1,766
	New Westminster (C.P.R.)	12
	(C.N.R.)	34
	North Vancouver	12
	Prince Rupert (C.N.R.)	19
	Trail (C.P.R.)	1,362
	Vancouver (C.P.R.)	16
	Victoria (E. and N. Rly.)	29

* Prepared under the direction of F. H. Peters, Surveyor General and Chief, Hydrographic Service, Department of Mines and Resources, Ottawa, from information supplied by the Geodetic Service of Canada.

that any exposure of surface rock is rare. Generally, it is overlain by great depths of clay soil, through which the streams have cut themselves down into deep coulées and the rivers into deep wide valleys. Lakes of any considerable extent are infrequent and usually quite shallow; in the dry prairie section there are many places where the evaporation from the broad and shallow bodies of water is so great that they have little or no outflowage and consequently the concentration of mineral salts in the water makes it unfit for domestic use. The terrain is generally smooth or gently undulating and, from an elevation of 3,400 feet at Calgary, falls away gradually to an elevation of 800 feet around Lake Winnipeg 700 miles to the east. Just north of Edmonton a height of land turns the waters to flow north into the great Mackenzie River, over 2,500 miles long, whose valley with its low elevation above the sea is the outstanding feature of the Northwest Territories. In this watershed the terrain becomes less smooth with prominent elevations in the Caribou, Horn, and Franklin Mountains and the clay soils of the prairies give way to more of sand and gravel. Great Slave and Great Bear Lakes, each half as large again as Lake Ontario and less elevated above the sea than Lake Erie, are notable features; north and east of these two great lakes the country comes within the Canadian Shield* and the rock with some shallow overburden slopes gently down to the Arctic Ocean without any large uplifts to break the monotony.

Going east again, in the more northerly part there is encountered the orographical influence of Hudson Bay which, indenting the continent so deeply and with rivers running in from west, south, and east, has an enormous drainage basin mainly in Manitoba, Ontario, and Quebec. Practically all of this great basin, excepting the Nelson River drainage, is included in the Canadian Shield, the surface characteristic of which is hard rock either exposed or overlain with shallow soil generally confining agriculture to the valleys or small basins. With only small areas in northeastern Quebec rising above 2,000 feet in elevation, there are no great eminences, but the surface is generally accidented by many hills and hollows with countless numbers of lakes and streams. On its west and south sides, Hudson Bay is bordered by a strip of low land under 500 feet in elevation and varying in width from one hundred to two hundred miles; in the southerly part of these flat, low lands the rock is overlain with a considerable depth of soil sometimes referred to as the clay belt of northern Ontario.

South and east of Hudson Bay the predominating feature, both orographically and economically, is the very extensive depression containing the Great Lakes and the St. Lawrence River which connects them with the Atlantic Ocean. The bulk of the drainage basin of the Great Lakes and the St. Lawrence lies within the limits of the Canadian Shield with the same characteristics as already described. The very important exception is the valley of the St. Lawrence River from Kingston to Quebec and the peninsula of Ontario formed by the Great Lakes which together are generally known as the St. Lawrence Lowlands, about 35,000 square miles in area. Containing as it does the greater part of the population of Canada, this industrial area is of great economic importance; the climatic conditions and fertile soil combine to make it most suitable for mixed farming.

The Maritime Provinces, New Brunswick, Nova Scotia, and Prince Edward Island, together with the southeastern portion of Quebec, embrace an extension

* Excepting the St. Lawrence Lowlands, the Maritime Provinces, and the Hudson Bay Lowland, the Canadian Shield embraces all of Canada east of a line commencing at Darnley Bay on the Arctic Coast and running south and east through Great Bear Lake, Great Slave Lake, Lake Athabaska, Lake Winnipeg, and Lake of the Woods on the International Boundary.

northward of the Appalachian Mountains but, excepting the Notre Dame Mountains of Gaspe Peninsula, the comparatively low elevations are better described as hills. The whole area may be regarded as a peninsula jutting out with bold and broken coast-line to separate the Gulf of St. Lawrence from the Atlantic and it is this situation that dominates the orography; with the exception of the St. John, the rivers are not of great length in their courses down to the sea. It is a beautiful country of diversified character with areas of good farm lands; the broken coast provides many good harbours and the only ocean ports open throughout the whole year that Canada possesses on the Atlantic seaboard.

Section 2.—Lakes and Rivers.

The fresh-water area of Canada is unusually large constituting over 6 p.c. of the total area of the country. The outstanding feature is the Great Lakes, details concerning which are given in Table 3.

Particularly notable are the depth of Lake Superior and the shallowness of Lake St. Clair and Lake Erie.

3.—Areas, Elevations, and Depths of the Great Lakes.

Lake.	Elevation Above Sea-level.	Length.	Breadth.	Maximum Depth.	Total Area.	Area on Canadian Side of Boundary.
	ft.	miles.	miles.	ft.	sq. miles.	ft.
Superior	602·23	383	160	1,302	31,820	11,200
Michigan	580·77	321	118	923	22,400	Nil
Huron	580·77	247	101	750	23,010	13,675
St. Clair	575·30	26	24	23	460	270
Erie	572·40	241	57	210	9,940	5,094
Ontario	245·88	193	53	774	7,540	3,727

Lake Superior, with an area of 31,820 square miles, is the largest body of fresh water in the world. As the International Boundary between Canada and the United States passes through the waters of Lakes Superior, Huron, St. Clair, Erie, and Ontario, only the parts of the areas of these lakes given in the final column of the above statement are Canadian, while the whole of Lake Michigan is within United States territory. The total length of the St. Lawrence waterway, from the head of the St. Louis River in Minnesota to Pointe-des-Monts at the entrance of the Gulf of St. Lawrence, is 1,900 miles. The great obstacle to navigation on this waterway was the rise of 326 feet between Lakes Ontario and Erie, which is now surmounted by the Welland Ship Canal; the river itself dropping over the escarpment at Niagara creates perhaps the most famous waterfall in the world. The Great Lakes, with the St. Lawrence River, form the most important system of waterways on the continent

4.—Areas and Elevations of Canadian Lakes with Areas of 300 or More Square Miles, Exclusive of the Great Lakes, by Provinces.

Province and Lake.	Elevation.	Area.	Province and Lake.	Elevation.	Area.
	ft.	square miles.		ft.	square miles.
Nova Scotia—			**Saskatchewan—**		
Bras d'Or[1]	tidal	360	Athabaska (total, 3,058) part	699	2,165
			Reindeer (total, 2,444) part	1,150	2,058
			Wollaston	1,300	768
Quebec—			Cree	1,570	555
Mistassini	1,243	840	La Ronge	1,250	450
Minto	[2]	485	Peter Pond	1,382	302
Clearwater	790	410			
Bienville	[2]	392			
Kaniapiskau	1,850	375			
St. John	321	375	**Alberta—**		
Abitibi (total, 350) part	868	55	Athabaska (total, 3,058) part	699	893
Payne	[2]	300	Claire	699	545
			Lesser Slave	1,893	461
Ontario—					
Nipigon	852	1,870	**British Columbia—**		
Woods, Lake of the (total, 1,346) part	1,062[3]	1,127	Atlin (total 308) part	2,200	307
Seul (reservoir)	1,172[4]	416			
Rainy (total, 366) part	1,107	292	**Northwest Territories—**		
Abitibi (total, 350) part	868	295	Great Bear	391	11,490
Nipissing	643	330	Great Slave	495	11,170
			Dubawnt	500	1,600
			Garry	[2]	980
			Baker	30	975
			Yathkyed	300	860
Manitoba—			Martre, Lac la	[2]	840
Winnipeg	712	9,398	Maguse	[2]	540
Reindeer (total 2,444) part	1,150	386	Aberdeen	130	475
Winnipegosis	831	2,086	Hottah	[2]	377
Manitoba	813	1,817	Kaminuriak	320	360
Southern Indian	800	1,200	Nutarawit	[2]	350
Island	744	550	Gras, Lac de	1,300	345
Etawnei	[2]	546	Aylmer	1,230	340
Cedar	829	537	Nueltin (total, 336) part	[2]	260
Moose	838	525	Pelly	[2]	331
Gods	585	432	Nonacho	1,160	305
Nueltin (total 336) part	[2]	76			

[1] This is a salt-water lake. [2] Elevation not available. [3] High water figure—low water elevation is 1,055 ft. [4] High water figure—low water elevation is 1,156 ft.

and one of the world's most notable fresh-water transportation routes. In addition to the Great Lakes there are many other remarkably large lakes as is shown by Table 4: it will be noted that there are eleven lakes over 1,000 square miles in area. Apart from these lakes, named as notable for their size, there are innumerable other lakes scattered all over that major portion of the area of Canada lying within the Canadian Shield. In an area of 6,094 square miles, accurately mapped, just south and east of Lake Winnipeg, there are 3,000 lakes; in an area of 5,294 square miles, accurately mapped, southwest of Reindeer Lake in Saskatchewan, there are 7,500 lakes. A table at pp. 12-13 of the 1938 Year Book gives a more extended list of the principal lakes of Canada, by provinces, with their elevations in feet and their areas in square miles.

The river systems of Canada, excluding the Arctic islands, are best studied by segregating the main drainage basins as shown in Table 5.*

5.—Drainage Basins in Canada.

Drainage Basin.	Area Drained.[1]	Drainage Basin.	Area Drained.[1]
	sq. miles.		sq. miles.
Atlantic Basin.		**Arctic Basin.**	
Atlantic or Maritime Provinces	61,151	Great Slave Lake	370,681
Great Lakes and St. Lawrence River	359,312	Arctic	559,676
Total	420,463	**Total**	930,357
Hudson Bay Basin.		**Pacific Basin.**	
Northern Quebec	343,259	Pacific	273,540
Southwest Hudson Bay	283,997	Yukon River	127,190
Nelson River	368,182	**Total**	400,730
Western Hudson Bay	383,722	**Gulf of Mexico Basin**	10,121
Total	1,379,160	**Canada, Less Arctic Archipelago**	3,140,831

[1] Areas are approximate and are exclusive, for all rivers, of those portions of their basins that lie in United States territory.

It is noteworthy that the greater part of the Dominion drains into Hudson Bay and the Arctic Ocean; the Nelson River drainage is exceptional in running *through* the most arable and the most settled part of the West, but, otherwise, the rivers run *away* from the settled areas towards the cold northern salt waters and this adversely affects their industrial utility. The Mackenzie, which drains Great Slave Lake, is, with its headwaters, the longest river in Canada (2,514 miles) and its valley constitutes the natural transportation route through the Northwest Territories down to the Arctic Ocean. From Fort Smith, on the Slave River, large river boats run without any obstruction down to Aklavik in the delta of the Mackenzie, a distance of 1,292 miles. In Eastern Canada it is the Great Lakes and St. Lawrence drainage basin that dominates, and has undergone the greatest degree of development. The St. Lawrence River and the Great Lakes provide a water route from the Atlantic as far as Fort William and Port Arthur, twin cities situated on Lake Superior and only 419 miles from Winnipeg, the half-way mark in distance across the Dominion. The main tributaries of the St. Lawrence all flowing south (most of which have lakes available for reservoiring), together with the main river itself, have developed and undeveloped water powers whose economic value it would be difficult to overestimate. Apart from the plains region of the West, the rivers of Canada have a vast power potentiality well distributed over the country, as may be seen by reference to the water-power map at the beginning of Chapter XIII. Table 6 shows Canadian rivers and tributaries 300 miles or more in length, by drainage basins. A table at p. 15 of the 1938 Year Book gives a more extended list of the principal rivers with their tributaries classified according to the four major drainage basins.

* This classification is that of the Dominion Water and Power Bureau, Department of Mines and Resources.

6.—Canadian Rivers and Tributaries 300 Miles or More in Length.

NOTE.—In this table the tributaries and sub-tributaries are shown by indentation of the names. Thus the Winnipeg River is shown as tributary to the Nelson, and the English River as tributary to the Winnipeg.

River.	Length.	River.	Length.
	miles.		miles.
Flowing into the Atlantic Ocean.		**Flowing into Hudson Bay**—concluded.	
St. Lawrence (to head of St. Louis, Minn.)	1,900	Great Whale	365
Ottawa	696	George	365
Saguenay (to head of Peribonka)	405	Moose (to head of Mattagami)	340
St. Maurice	325	Abitibi	340
Manikuagan	310	Hayes	300
St. John	399		
Flowing into Hudson Bay.		**Flowing into the Pacific Ocean.**	
Nelson (to Lake Winnipeg)	400	Yukon (mouth to head of Nisutlin)	1,765
Nelson (to head of Bow)	1,600	Yukon (int. boundary to head of Nisutlin)	655
Saskatchewan (to head of Bow)	1,205	Lewes	338
North Saskatchewan	760	Pelly	330
South Saskatchewan (to head of Bow)	865	Stewart	320
Red Deer	385	Columbia (total)	1,150
Bow	315	Columbia (in Canada)	459
Red (to head of Lake Traverse)	355	Kootenay (total)	407
Red (to head of Sheyenne)	545	Kootenay (in Canada)	276
Assiniboine	590	Fraser	850
Souris	450	Thompson (to head of North Thompson)	304
Winnipeg (to head of Firesteel)	475	Porcupine	525
English	330	Skeena	360
Churchill	1,000	Stikine	335
Beaver	305		
Albany (to head of Cat)	610	**Flowing into the Arctic Ocean.**	
Dubawnt	580		
Koksoak (to head of Kaniapiskau)	535	Mackenzie (to head of Finlay)	2,514
Kaniapiskau	445	Peace (to head of Finlay)	1,054
Fort George	520	Athabaska	765
Attawapiskat	465	Liard	570
Kazan	455	Peel	365
Severn	420	Hay	350
Nottaway (to head of Waswanipi)	400	Back	605
Rupert	380	Coppermine	525
Eastmain	375	Anderson	465

Section 3.—Islands.

The islands of Canada are among its most remarkable geographic features. They include the very large group lying in the Arctic Ocean, the fringe of both large and small islands off the Pacific Coast, those of the Maritime Provinces and Quebec in the Atlantic Ocean and the Gulf of St. Lawrence, together with the islands of the Great Lakes and other inland waters. The Arctic islands are of vast extent, Baffin, Victoria, and Ellesmere, the three largest, being approximately 201,600, 80,450, and 75,024 square miles in area, respectively, but Banks, Devon, Somerset, Prince of Wales, Melville, and Axel Heiberg are each larger than Prince Edward Island; Southampton, another very large island, lies just within the wide mouth of Hudson Bay. Their economic potentialities, have not been fully established, though coal and other minerals exist. The Pacific Coast islands, with the exception of Vancouver Island and the Queen Charlotte group, are small and dot the western coast of British Columbia from Dixon Entrance to the southern boundary of the

Province. Vancouver Island is 285 miles long and from 40 to 80 miles broad, covering an area of about 12,408 square miles; the mountain range which forms its backbone rises again to form the Queen Charlotte Islands farther north. These islands figure largely in the mining, lumbering, and fishing industries of the West, and together with the bold and deeply-indented coast-line provide a region for scenic cruises rivalling those of Norway.

On the eastern coast of the Dominion are the island province of Prince Edward Island, the Islands of Cape Breton (an integral part of Nova Scotia), Anticosti, and the Magdalen group (included in the Province of Quebec), and the Islands of Grand Manan and Campobello (part of the Province of New Brunswick) in the Bay of Fundy. Prince Edward Island is 2,184 square miles in area, Cape Breton 3,970 and Anticosti about the same. Fishing activities in these eastern islands are important, while agriculture on Prince Edward Island and mining on Cape Breton are the chief occupations of the inhabitants.

Manitoulin Island and the Georgian Bay islands in Lake Huron and the Thousand Islands group in the St. Lawrence River, at its outlet from Lake Ontario, are the more important islands of the inland waters.

PART II.—GEOLOGY.

Section 1.—Geology of Canada.

An article on this subject, prepared by F. J. Alcock, Ph.D., Mines and Geology Branch, Department of Mines and Resources, Ottawa, appears at pp. 14-25 of the 1939 Year Book.

Section 2.—Economic Geology.

An article on this subject, prepared by F. J. Alcock, Ph.D., Mines and Geology Branch, Department of Mines and Resources, Ottawa, appears at pp. 16-28 of the 1937 Year Book.

PART III.—SEISMOLOGY IN CANADA.

An article on this subject, prepared by Ernest A. Hodgson, Ph.D., of the Dominion Observatory, Department of Mines and Resources, appears at pp. 27-30 of the 1938 Year Book.

PART IV.—THE FLORA OF CANADA.

An article on this subject, together with a bibliography, prepared by John Adams, M.A. (Cantab.), Division of Botany, Experimental Farm, Ottawa, appears at pp. 30-59 of the 1938 Year Book.

PART V.—FAUNAS OF CANADA.

An article under this heading, by Rudolph M. Anderson, Ph.D., Chief, Division of Biology, Department of Mines and Resources, appears at pp. 29-52 of the 1937 Year Book.

PART VI.—LANDS, PARKS, SCENIC AND GAME RESOURCES OF CANADA.

Canada is distinctly a new country, and her resources are, for the most part, in the early stages of development. The fur, fishery, and forest resources have, it is true, been the basis of trade for two or three hundred years, but exploitation on the present commercial scale is of relatively recent growth. A notable feature, especially in so young a country, has been the effort directed to conservation and, in the cases of those resources that admit of such methods, the actual replenishment or augmentation of the sources of supply by the practice of reforestation, silviculture, fur farming, or the establishment of fish hatcheries.

Numerous surveys and investigations of the extent and value of the resources have been made and broad outlines of the resources of the provinces supplement the information on physical geography given on pp. 1 to 16. Detailed information regarding individual natural resources will be found in the later chapters—Agriculture, Furs, Fisheries, Forestry, Minerals, Power Generation and Utilization—of this volume.

The treatment of resources considered below is concerned only with those phases of the subject that can be properly regarded as falling under the definition of physiography used in its wider interpretation, and that do not specifically relate to individual subjects, treated elsewhere in this volume. A classification of lands resources, information on the National Parks, and resources in game and scenery properly fall under this head.

Lands Resources.—Table 1 presents a broad classification of the potential lands resources of Canada, by provinces. Figures are, in the main, based on estimates of the Dominion Forest Service of the Lands, Parks and Forests Branch, and by the Surveyor General and Chief, Hydrographic and Map Service of the Surveys and Engineering Branch, both of the Department of Mines and Resources; they show how the total land area of Canada is made up as between present and potential agricultural lands, present and potential forest lands, and lands that are unproductive as regards surface resources. Between the totals of present and potential agricultural lands and the totals of forest lands there is, of course, duplication to the extent of the agricultural lands under forest.

1.—Land Area of Canada, Classified as Agricultural, Forested, or Unproductive.

NOTE.—The land area of Canada is shown classified by tenure in Chapter XXVIII.

Description.	Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.	Manitoba.
Agricultural Land (Present and Potential)—	sq. miles.	sq. miles.	sq. miles.	sq. miles.	sq. miles.	sq. miles.
Occupied	*1,861*	*6,722*	*6,488*	*27,038*	*35,689*	*23,644*
Improved and pasture	1,331	2,811	2,686	17,608	28,342	20,489
Forested	530	3,911	3,802	9,430	7,347	3,155
Unoccupied	*105*	*5,922*	*10,259*	*41,314*	*67,181*	*26,960*
Grass, brush, etc.	25	2,922	759	1,314	7,181	10,950
Forested	80	3,000	9,500	40,000	60,000	16,000
Totals, Agricultural Land[1]	**1,966**	**12,644**	**16,747**	**68,352**	**102,870**	**50,594**
Non-forested	1,356	5,733	3,445	18,922	35,523	31,439
Forested	610	6,911	13,302	49,430	67,347	19,155
Forested Land—						
Productive	725	11,950	21,773	303,500	170,000	30,500
Unproductive	[2]	50	189	70,000	70,000	62,500
Tenure Classification—						
Privately owned	723	10,473	11,100	31,048	7,972	8,500
Crown land	2	1,527	10,862	342,452	232,028	84,500
Size Classification—						
Merchantable	485	7,470	13,384	213,500	56,100	4,615
Young growth	240	4,480	8,389	90,000	113,900	25,885
Type Classification—						
Softwood	725	8,000	8,329	218,400	65,000	10,950
Mixed wood	[2]	1,150	11,223	66,100	83,000	6,220
Hardwood	[2]	2,800	2,221	19,000	22,000	13,330
Totals, Forested Land	**725**	**12,000**	**21,962**	**373,500**	**240,000**	**93,000**
Net Productive Land[3]	**2,081**	**17,733**	**25,407**	**392,422**	**275,523**	**124,439**
Waste and Other Land[4]	**103**	**3,010**	**2,066**	**131,112**	**87,759**	**95,284**
Totals, Land Area	**2,184**	**20,743**	**27,473**	**523,534**	**363,282**	**219,723**

Description.	Saskatchewan.	Alberta.	British Columbia.	Yukon and N.W.T.	Canada.
Agricultural Land (Present and Potential)—	sq. miles.	sq. miles.	sq. miles.	sq. miles.	sq. miles.
Occupied	*86,989*	*60,901*	*5,534*	*7*	*254,873*
Improved and pasture	81,508	54,817	3,640	4	213,236
Forested	5,481	6,084	1,894	3	41,637
Unoccupied	*38,127*	*75,740*	*15,166*	*14,063*	*294,827*
Grass, brush, etc.	15,127	30,740	5,760	10,063	84,841
Forested	23,000	45,000	9,406	4,000	209,986
Totals, Agricultural Land[1]	**125,116**	**136,641**	**20,700**[5]	**14,070**	**549,700**
Non-forested	96,635	85,557	9,400	10,067	298,077
Forested	28,481	51,084	11,300	4,003	251,623
Forested Land—					
Productive	42,160	93,075	85,780	10,000	769,463
Unproductive	40,000	37,560	123,760	50,000	454,059
Tenure Classification—					
Privately owned	6,250	10,044	17,519[6]	3	103,632[6]
Crown land	75,910	120,591	192,021[6]	59,997	1,119,890[6]
Size Classification—					
Merchantable	7,305	20,680	36,010	1,000	360,549[6]
Young growth	34,855	72,395	49,770[6]	9,000	408,914[6]
Type Classification—					
Softwood	8,900	31,770	85,780	4,500	442,354
Mixed wood	9,395	40,800	[2]	3,250	221,138
Hardwood	23,865	20,505	[2]	2,250	105,971
Totals, Forested Land	**82,160**	**130,635**	**209,540**	**60,000**	**1,223,522**
Net Productive Land[3]	**178,795**	**216,192**	**218,940**	**70,067**	**1,521,599**
Waste and Other Land[4]	**59,180**	**32,608**	**140,339**	**1,393,496**	**1,944,957**
Totals, Land Area	**237,975**	**248,800**	**359,279**	**1,463,563**	**3,466,556**

[1] These totals embrace present agricultural land of all possible classes and land which has agricultural possibilities in any sense. [2] Very small or negligible. [3] Total agricultural land plus forested land, minus forested agricultural land. [4] Includes open muskeg, rock, road allowances, urban land, etc. [5] An estimate from provincial sources places the total area of land suitable for tillage at 6,626 sq. miles. [6] Revised since the publication of the 1939 Year Book.

National Parks of Canada.*—The Dominion Government maintains, as the medium through which regions of outstanding beauty or interest are preserved for all time, the National Parks of Canada. Differing widely in character, and varying in purpose, these areas include: the scenic and recreational parks that extend from the Atlantic Coast to the Rocky and Selkirk Mountains; the national wild-animal parks or preserves—large fenced areas established for the protection and propagation of species once in danger of extinction; and the national historic parks. They are administered by the National Parks Bureau of the Lands, Parks and Forests Branch, Department of Mines and Resources. Under the supervision of this same body are the historic sites of national interest that have been acquired throughout the country. (See pp. 78–90 of the 1938 Year Book.)

In the national parks all wild life is rigidly protected, and primal natural conditions are maintained as far as possible. The local administration of the larger parks is carried out by resident superintendents, assisted by a warden service which is responsible for the necessary game and forest patrols. Opportunities for outdoor life and recreation have been increased by the provision of equipped camp-grounds, bath-houses, and playgrounds, as well as by the construction of golf courses, tennis courts, and outdoor swimming pools. Accommodation is provided in many parks by modern hotels, bungalow camps, and chalets operated by private enterprise. Railways and motor roads serve the parks, and nearly 700 miles of motor highways and 3,000 miles of trails have been built to provide access to the outstanding scenic regions.

The scenic and recreational parks include regions of unsurpassed grandeur in the Rocky and Selkirk Mountains of Western Canada. Among these are: Banff, Jasper, and Waterton Lakes National Parks in Alberta, on the eastern slope of the Rockies; Kootenay and Yoho Parks in British Columbia, on the western slope of the Rockies; and Glacier and Mount Revelstoke Parks (also in British Columbia), in the Selkirks. While these parks bear a general resemblance to one another, each possesses individual characteristics and phenomena, varying fauna and flora, and different types of scenery. Banff Park contains the famous resorts, Banff and Lake Louise, and in Jasper Park is the well-known tourist centre, Jasper. Direct motor-highway connection between these points will be provided by the Banff-Jasper Highway, which is now completed and will be officially opened about July 1, 1940.

Eastward from the mountains are found Prince Albert National Park in Saskatchewan, a typical example of the forest-and-lake country bordering the northwestern plains region, and Riding Mountain National Park in Manitoba, a well-timbered area dotted with numerous lakes, and at a general altitude of 2,000 feet above sea-level. In Ontario are three small park units established primarily as recreational areas. They are Point Pelee, Georgian Bay Islands, and St. Lawrence Islands National Parks.

The most recent additions to Canada's National Park system are in the Maritime Provinces. Cape Breton Highlands National Park, established in 1936, is situated in the northern part of Cape Breton Island. Among its chief attractions are its rugged but picturesque shoreline, and its rolling mountain interior resembling the Highlands of Scotland; these are accessible by the Cabot Trail, a motor road that

* Prepared under the direction of R. A. Gibson, Director, Lands, Parks and Forests Branch, Department of Mines and Resources, Ottawa.

girdles the northern part of the park. Recent developments include highway construction and the provision of facilities for camping and recreation, including a golf course, bath-house, and tennis courts at the administrative headquarters near Ingonish. Prince Edward Island National Park, which extends for 25 miles along the north shore of that province, possesses among its outstanding features miles of magnificent sand beaches, which provide wonderful opportunities for surf-bathing. The park also contains Green Gables, famous in Canadian literature, where recreational facilities, including bath-houses and a golf course, have been constructed. Additional developments have been completed at Dalvay House, the administrative headquarters, and at Brackley Beach, both of which are approximately 14 miles from Charlottetown.

The special animal parks were established for the protection of such species of mammalian wild life as buffalo, elk, and pronghorned antelope, which, once in danger of extinction, now thrive under natural conditions in large fenced enclosures especially suited to their requirements. These reserves include Elk Island National Park in Alberta, 30 miles from Edmonton, which contains a large herd of buffalo and numerous deer, elk, and moose. This park also includes a recreational development at Astotin Lake, where bathing, camping, tennis, and golf may be enjoyed. Nemiskam National Park, also in Alberta, forms a sanctuary for pronghorned antelope.

The national historic parks include Fort Anne, at Annapolis Royal, Nova Scotia, and Fort Beauséjour, near Sackville, New Brunswick, which surround sites notable in early Canadian history. At both of these parks are historical museums housing many exhibits pertaining to the regions in which they are located.

National Historic Sites.—The National Parks Bureau is also charged with the preservation, restoration, and marking of historic sites throughout Canada. In the work of acquiring and selecting sites worthy of commemoration, the Bureau has the assistance of the Historic Sites and Monuments Board of Canada, a group of recognized authorities on the history of the section of the country they represent. Of the total number of sites that have been considered by the Board, nearly 300 have been suitably marked by the Department of Mines and Resources and many others recommended for future attention. At a number of the largest and most important sites, historical museums have been constructed or established to house exhibits relating to the region. Such sites include Louisbourg Fortress, Nova Scotia; Forts Lennox and Chambly, Quebec; and Fort Wellington at Prescott, and Fort Malden at Amherstburg, in Ontario.

Migratory Birds Treaty.—This Treaty and the legislation making it effective throughout Canada are administered by the National Parks Bureau of the Department of Mines and Resources. The Treaty, which has been effective since 1916, has as its object the protection of the valuable migratory bird life of Canada and the United States. Information concerning the treaty, and regulations enacted for its enforcement, may be obtained from the Controller, National Parks Bureau, Department of Mines and Resources, Ottawa.

2.—Locations, Dates Established, Areas, and Characteristics of the National Parks of Canada and Dominion Reserves, 1939.

(Twenty in number with a total area of approximately 29,703 square miles.)

Park.	Location.	Date Established.	Area.	Characteristics.
Scenic and Recreational Parks.			sq. miles.	
Banff	Western Alberta, on east slope of Rockies.	1885	2,585·00	Mountain playground containing famous resorts, Banff and Lake Louise. Typical example of central Rockies, with massive ranges, ice-fields, alpine valleys, glacier-fed lakes, and hot mineral springs. Big game sanctuary. Recreations: climbing, motoring, riding, bathing, golf, tennis, fishing, skiing.
Yoho	Eastern British Columbia, on west slope of Rockies.	1886	507·00	Rugged scenery on western slope of Rockies. Contains famous Yoho Valley, with its numerous waterfalls; Kicking Horse Valley; Emerald, O'Hara, and Wapta Lakes; natural bridge. Alpine climbing centre.
Glacier	Southeastern British Columbia, on the summit of the Selkirk Range.	1886	521·00	Superb example of Selkirk Mountain region, with snow-capped peaks, glaciers, luxuriant forests, alpine flower-gardens, numerous big game. Illecillewaet and Asulkan Glaciers; Rogers Pass; and famed Macdonald tunnel.
Waterton Lakes	Southern Alberta, adjoining Glacier Park in Montana, U.S.A.	1895	220·00	Canadian section, Waterton-Glacier International Peace Park. Mountains noted for beauty of colouring; lovely lakes, picturesque trails, waterfalls. Recreations: motoring, riding, fishing, tennis, golf, camping.
Jasper	Western Alberta, on east slope of Rockies.	1907	4,200·00	Largest national park in North America, rich in historical associations. Immense region of majestic peaks, deep canyons, beautiful lakes, containing famous resort, Jasper. Also Miette Hot Springs, Maligne Lake, Mount Edith Cavell, and Columbia Ice-field. Big game sanctuary. Recreations: motoring, climbing, riding, bathing, fishing, golf, tennis, skiing.
Mount Revelstoke	Southeastern British Columbia, on the west slope of Selkirks.	1914	100·00	Alpine plateau on summit of Mount Revelstoke, accessible by spectacular 18-mile drive. Contains mountain lakes, alpine flora, camp-sites. Game sanctuary; winter sports centre.
St. Lawrence Islands	In St. Lawrence River between Morrisburg and Kingston, Ont.	1914	185·60 (acres)	Mainland reservation and thirteen islands among "Thousand Islands". Recreational area; camping, fishing, bathing.
Point Pelee	Southern Ontario, on Lake Erie.	1918	6·04	Most southerly mainland point in Canada (41° 54′ N.). Recreational area with unique flora and fine beaches. Resting place for many migratory birds. Bathing, camping.
Kootenay	Southeastern British Columbia, on the west slope of Rockies.	1920	587·00	Mountain park bordering Vermilion-Sinclair section of Banff-Windermere Highway. Contains Sinclair Canyon, Radium Hot Springs, Marble Canyon. Big game sanctuary. Recreations: motoring, bathing, camping.
Prince Albert	Central Saskatchewan, north of Prince Albert.	1927	1,869·00 (approx.)	Forested lakeland of northwestern Canada, with extensive waterways and fine beaches. Interesting fauna; summer resort. Recreations: boating, bathing, fishing, camping, tennis, golf.

2.—Locations, Dates Established, Areas, and Characteristics of the National Parks of Canada and Dominion Reserves, 1939—concluded.

Park.	Location.	Date Established.	Area.	Characteristics.
Scenic and Recreational Parks—conc.			sq. miles.	
Riding Mountain.....	Southwestern Manitoba, west of Lake Winnipeg.	1929	1,148·04	Rolling woodland, with crystal lakes, on summit of Manitoba escarpment. Natural home for big game, including elk, deer, moose. Summer resort. Recreations: bathing, boating, fishing, tennis, golf, camping.
Georgian Bay Islands (including Flowerpot Island Reserve)	In Georgian Bay, near Midland, Ont.	1929	5·37	Thirty islands in Georgian Bay. Recreational and camping area; boating, bathing, fishing. Unique limestone formations and caves on Flowerpot Island.
Cape Breton Highlands.	Northern part of Cape Breton Island, Nova Scotia.	1936	390·00 (approx.)	Outstanding example of rugged coastline with mountain background. Remarkable views of Atlantic Ocean and Gulf of St. Lawrence visible from highway, Cabot Trail. Recreations: bathing, boating, golf, tennis, deep-sea fishing, camping.
Prince Edward Island.	North shore of Prince Edward Island.	1937	7·00	Strip 25 miles long on north shore. Recreational area with magnificent beaches. Contains famed Green Gables farmstead. Recreations: bathing, boating, fishing, golf, bowling, camping.
Animal Parks and Reserves.				
Buffalo.....	Eastern Alberta, near Wainwright.	1908	197·50	Fenced area originally set aside for the preservation of buffalo and other big game. Animal population since withdrawn; principal preserve now at Elk Island National Park.
Elk Island.....	Central Alberta, near Lamont.	1911	51·20	Fenced preserve containing a large herd of plains buffalo; also numerous deer, elk, and moose. Recreational area at Astotin Lake; camping, boating, bathing, tennis, and golf.
Nemiskam.....	Southern Alberta, near Foremost.	1922	8·50	Fenced preserve containing a herd of pronghorned antelope, a species native to the region.
Wood Buffalo[1].....	Partly in Alberta (13,675 sq. miles) and partly in Northwest Territories (3,625 sq. miles), west of Athabaska and Slave Rivers.	1922	17,300·00 (approx.)	Immense unfenced area of forests and open plains, dotted with lakes and coursed by numerous streams and rivers. Contains a large herd of buffalo, including the "woodland" type and also surplus plains buffalo from Buffalo National Park; also bear, beaver, caribou, deer, moose, and waterfowl. Area as yet undeveloped.
Historic Parks.				
Fort Anne.....	Nova Scotia (Annapolis Royal).	1917	31·00 (acres)	Site of early Acadian settlement of Port Royal. Contains well-preserved fortifications of earthworks type; also museum housing a fine historical library and numerous exhibits relating to early periods.
Fort Beauséjour.....	New Brunswick, near Sackville.	1926	59·00 (acres)	Site of French fort erected in middle of 18th century. Renamed Fort Cumberland by British on capture in 1755; original name since restored. Contains museum with many exhibits relating to history of region.

[1] Administered by the Bureau of Northwest Territories and Yukon Affairs of the Lands, Parks and Forests Branch, Department of Mines and Resources, Ottawa.

Provincial Parks.—In addition to the national parks throughout Canada administered by the Dominion Government, most of the provinces also maintain provincial parks for the protection of wild life and as recreational areas. Among the largest of these are the Algonquin Park (2,740 square miles) in Ontario, the Laurentides Park (3,565 square miles) in Quebec, and Tweedsmuir Park (approximately 5,400 square miles) in British Columbia.

Game and Scenery.—The resources of Canada from the standpoints of the sportsman and tourist are both unique and varied. Owing to the growth of tourist travel and its demands (the statistics of the tourist trade are dealt with in Chapter XVI as a phase of External Trade), great areas of uninhabited land have become accessible, and hitherto almost unknown parts may now be reached and traversed with ease. In the wooded and unsettled areas of every province there are many moose, deer, bear, and smaller game, while in the western parts of the Dominion there are also wapiti, caribou, mountain sheep, mountain goat, grizzly bear, and lynx. Mountain lion, or cougar, are found in British Columbia and in the mountains of Alberta, while in the Northwest and the Far North there still exist herds of buffalo and musk-ox, which, however, are given absolute protection by the Dominion Government.

Ruffed and spruce grouse are found in the wooded areas of Canada from coast to coast. Prairie chicken and Hungarian partridge inhabit the open prairies and the partly timbered areas of the three mid-western provinces. Franklin grouse are native to the mountains of the West and the ptarmigan, an Arctic grouse, lives in the treeless northern plains and is also found in the high mountains of Alberta and British Columbia.

Canada is the natural habitat of many kinds of waterfowl and it is difficult to imagine any finer field for the shot-gun sportsman than is afforded by many of the myriad lakes which form so large a feature of Canadian scenery. This is particularly true of the three mid-western provinces, where the lakes are of the shallow, surface type that furnishes the most abundant feed for waterfowl.

The valleys of Nova Scotia and New Brunswick, the broken lake country of northern Quebec, Ontario, Manitoba, and Saskatchewan, as well as the mountain districts of British Columbia and Alberta, offer to the tourist, the hunter, and the fisherman new scenic effects and innumerable game preserves, and have won for the Dominion a reputation as a paradise for sportsmen and campers. And not only is this possible for those who travel by land; the series of lakes and rivers which form a network over the eastern part of the country particularly, has made water travel in smaller craft both feasible and attractive. Further, facilities for winter sports, the unusual attractions of winter scenery and the bracing though rigorous winter climate, have done much to add to the reputations of resorts formerly noted for their advantages in the summer season. In both Dominion and provincial parks, while angling is permitted, the hunting of game is forbidden, and the wild-life resources preserved. Elsewhere, however, there is available for the hunter, at proper seasons, a wealth of game species.

PART VII.—CLIMATE AND METEOROLOGY.

Section 1.—The Climate of Canada.

An article on this subject by Sir Frederick Stupart, at that time Director of the Dominion Meteorological Service, Toronto, appears in the 1929 edition of the Year Book at pp. 42-51.

Section 2.—The Factors that Control Canadian Weather.

Under the above heading, Sir Frederic Stupart, at that time Director of the Dominion Meteorological Service, Toronto, contributed an article which appears at pp. 26-31 of the 1924 edition of the Year Book, also at pp. 36-40 of the 1925 edition.

Section 3.—The Distribution of Precipitation in Canada.

An article on "The Distribution of Precipitation in Canada", contributed by A. J. Connor, Climatologist, Dominion Meteorological Office, Toronto, appears at pp. 42-46 of the 1926 edition of the Year Book.

Section 4.—The Temperature and Precipitation of Northern Canada.

An article on the climate of Northern Canada, accompanied by meteorological tables showing the normal temperature and precipitation at selected northern stations, was contributed by A. J. Connor, of the Meteorological Service of the Department of Marine, Toronto, to the 1930 edition of the Year Book, where it will be found at pp. 41-56.

Section 5.—The Meteorological Service of Canada.

Under the above heading Sir Frederic Stupart contributed a short article descriptive of the growth and present activities of the Meteorological Service, to the 1922-23 edition of the Year Book (pp. 43-47); to it the interested reader is referred.

Section 6.—Meteorological Tables.

An article accompanied by tables giving the times of sunrise and sunset for places in certain latitudes across Canada appears at pp. 66-68 of the 1938 Year Book.

Section 7.—Droughts in Western Canada.

An article on the above subject by A. J. Connor, of the Meteorological Service of the Department of Marine, Toronto, accompanied by diagrams and tables showing the precipitation and sun-spot incidence in the Prairie Provinces, appears at pp. 47-59 of the 1933 edition of the Year Book.

Section 8.—Standard Time and Time Zones in Canada.

A summary, based on a paper "Standard Time and Time Zones in Canada", by C. C. Smith, Dominion Observatory, Ottawa, accompanied by a map diagram appears at pp. 50-53 of the 1934-35 edition of the Year Book.

CHAPTER II.—HISTORY AND CHRONOLOGY.

CONSPECTUS.

	Page.
Part I.—History	25
Section 1. Outlines of Canadian History	25
Section 2. A Bibliography of Canadian History	25
Section 3. Historical Records	25
Part II.—Chronology, 1497-1940	25
Section 1. General Chronology	25
Section 2. Special War Chronology	36

PART I.—HISTORY.

Section 1.—Outlines of Canadian History.

The late Sir Arthur Doughty prepared an outline of the history of Canada which appears at pp. 1-29 of the 1913 edition of the Year Book, and in somewhat abridged form at pp. 60-80 of the 1922-23 edition of the Year Book.

A special article, "Canada on Vimy Ridge", prepared by Colonel A. Fortescue Duguid, D.S.O., B.Sc., R.C.A., Director of the Historical Section, Department of National Defence, was published at pp. 50-60 of the 1936 edition of the Year Book.

Section 2.—A Bibliography of Canadian History.

A Bibliography of Canadian History prepared by Gustave Lanctot, LL.M., D. Litt., LL.D. K.C., F.R.S.C., Deputy Minister, and Dominion Archivist appears at pp. 36-40 of the 1939 edition of the Year Book.

Section 3.—Historical Records.

A special article, "Historic Sites and Monuments in Canada" was published at pp. 78-90 of the 1938 edition of the Year Book.

A special article, "The Relationship of the Department of Public Archives to the Historical Records of Canada", prepared by Gustave Lanctot, LL.M., D. Litt., LL.D., K.C., F.R.S.C., Deputy Minister, and Dominion Archivist, appears at pp. 33-36 of the 1939 edition of the Year Book.

PART II.—CHRONOLOGY, 1497 to 1940.

Section 1.—General Chronology.

1497. June 24, Eastern coast of North America discovered by John Cabot.

1498. Cabot discovered Hudson Strait.

1501. Gaspar Corte Real visited Newfoundland and Labrador.

1524. Verrazano explored the Coast of Nova Scotia.

1534. July 24, Jacques Cartier, on his first voyage, erected a cross at Gaspe, claiming the land for the King of France.

1535. Cartier's second voyage. He ascended the St. Lawrence to Stadacona (Quebec), Sept. 14, and Hochelaga (Montreal), Oct. 2.

1541. Cartier's third voyage. He planted wheat, cabbages, turnips, and lettuces near Cap Rouge River.

1542-3. De Roberval and his party wintered at Cape Rouge, and were rescued by Cartier on his fourth voyage.

1557. Sept. 1, Death of Cartier at St. Malo, France.

1592. Straits of Juan de Fuca discovered by de Fuca.

1603. June 22, Champlain's first landing in Canada, at Quebec.

1604. De Monts settled colony on island in the St. Croix River.

1605. Founding of Port Royal (Annapolis, N.S.).

1608. Champlain's second visit. July 3, Founding of Quebec.

1609. July, Champlain discovered Lake Champlain.

1610-11. Hudson explored Hudson Bay and James Bay.

1611. Brûlé ascended the Ottawa River.

1612. Oct. 15, Champlain made Lieutenant-General of New France.

1613. June, Champlain ascended the Ottawa.

1615. Champlain explored Lakes Nipissing, Huron, and Ontario (discovered by Brûlé and Le Caron).

1616. First schools opened at Tadoussac and on the site of the City of Three Rivers.

1617. Arrival at Quebec of the first colonist, Louis Hébert and his family.

1620. Population of New France, 60 persons.

1621. Code of laws issued and register of births, deaths, and marriages opened in Quebec. Nova Scotia granted to Sir William Alexander by King James I.

1622. Lake Superior discovered by Brûlé.

1623. First British settlement of Nova Scotia.

1627. New France and Acadia granted to the Company of 100 Associates.

1628. Port Royal taken by Sir David Kirke.

1629. Apr. 24, Treaty of Susa between France and England. July 20, Quebec taken by Sir David Kirke.

1632. Mar. 29, Canada and Acadia restored to France by the Treaty of St. Germain-en-Laye.

1633. May 23, Champlain made first Governor of New France.

1634. July 4, Founding of Three Rivers.

1634-35. Exploration of the Great Lakes by Nicolet.

1635. Dec. 25, Death of Champlain at Quebec. Founding of the first college at Quebec.

1640. Discovery of Lake Erie by Chaumonot and Brébeuf.

1641. Resident population of New France, 240.

1642. May 17, Founding of Ville-Marie (Montreal) by Maisonneuve.

1646. Exploration of the Saguenay by Dablon.

1647. Lake St. John discovered by de Quen.

1648. Mar. 5, Council of New France created.

1649. Mar. 16-17, Murder of Fathers Brébeuf and Lalemant by Indians and massacre of the Hurons.

1650. Population of New France, 675.

1654. August, Acadia taken by an expedition from New England.

1656. Acadia granted by Cromwell to La Tour, Temple, and Crowne.

1659. June 16, François de Laval arrived in Canada as Vicar-Apostolic.

1660. May 21, Dollard des Ormeaux and sixteen companions killed by Iroquois at the Long Sault, Ottawa River.

1663. Company of 100 Associates dissolved. Feb. 5, severe earthquake. April, Sovereign Council of New France established. Population of New France, 2,500, of whom 800 were in Quebec. Foundation of the "Grand Seminary" at Quebec by Laval.

1664. May, Company of the West Indies founded.

1665. Mar. 23, Talon appointed Intendant.

1666. Feb.-Mar., First census; population of New France, 3,215.

1667. July 21, Acadia restored to France by the Treaty of Breda. Sept.-Oct., Second census; white population of New France, 3,918.

1668. Foundation of the "Little Seminary" at Quebec by Laval. Mission at Sault Ste. Marie founded by Marquette.

1670. May 2, Charter of the Hudson's Bay Company granted.

1671. Population of Acadia, 392.

1672. Population of New France, 6,705. April 6, Comte de Frontenac, Governor.

1673. June 13, Cataraqui (Kingston) founded.

1674. Oct. 1, Laval became first Bishop of Quebec.

1675. Population of New France, 7,832.

1678. Niagara Falls visited by Hennepin.

1679. Ship *Le Griffon* built on Niagara River above the Falls by La Salle. Third census; population of New France, 9,400; of Acadia, 515.

1681. Fourth census; population of New France, 9,677.

1682. Frontenac recalled.

1683. White population of New France, 10,274; settled Indians, 1,512.

1685. First issue of card money. Fifth census; population of New France, 12,515, including 1,538 settled Indians.

1686. Population of New France, 12,566, including 1,436 settled Indians; of Acadia, 894.

1687. Mar. 18, La Salle assassinated.

1688. Sixth census; population of New France, 11,782, including 1,259 settled Indians.

1689. June 7, Frontenac reappointed Governor. Aug. 5, Massacre of whites by Indians at Lachine.

1690. May 21, Sir William Phips captured Port Royal, but was repulsed in an attack on Quebec (Oct. 16-21).

1692. Seventh census; population of New France, 12,431. Oct. 22, Defence of Verchères against Indians by Madeleine de Verchères.

1693. Population of Acadia, 1,018.

1695. Eighth census; population of New France, 13,639, including 853 settled Indians.

1697. Sept. 20, By the Treaty of Ryswick, places taken during King William's War were mutually restored affecting French possessions in America. D'Iberville defeated the Hudson's Bay Company's ships on Hudson Bay.

1698. Nov. 28, Death of Frontenac. Ninth census; population of New France, 15,361.

1701. La Motte Cadillac built a fort at Detroit.

1703. June 16, Sovereign Council of Canada became Superior Council and membership increased from 7 to 12.

1706. Tenth census; population of New France, 16,745.

1708. Death of Laval.

1709. British invasion of Canada.

1710. Oct. 13, Port Royal taken by Nicholson.

1711. Sept. 1, Part of Sir H. Walker's fleet, proceeding against Quebec, wrecked off the Seven Islands.

1713. Apr. 11, Treaty of Utrecht; Hudson Bay, Acadia, and Newfoundland ceded to Great Britain. August, Louisbourg founded by the French. Population of New France, 18,469.

1718. Foundation of New Orleans in carrying out French plan to control the Mississippi as well as the St. Lawrence.

1719. Census population of New France, 22,503.

1720. Population of New France, 24,594; of Ile St. Jean (P.E.I.), about 100. Apr. 25, Governor and Council of Nova Scotia appointed.

1721. June 19, Burning of about one-half of Montreal. Census population of New France, 25,923.

1727. Population of New France, 31,184.

1728. Population of Ile St. Jean (P.E.I.), 336.

1731. Population of the north of the Peninsula of Acadia, 6,000.

1733. Discovery of Lake Winnipeg by La Vérendrye.

1734. Road opened from Quebec to Montreal. Census population of New France, 37,716.

1737. Iron smelted on St. Maurice. French population of the north of the Acadia Peninsula, 6,958.

1739. Census population of New France, 43,362.

1743. The younger La Vérendrye discovered the Rocky Mountains.

1745. June 17, Taking of Louisbourg by Pepperell and Warren.

1748. Oct. 18, Treaty of Aix-la-Chapelle. Louisbourg restored to France in exchange for Madras.

1749. June 21, Founding of Halifax—British immigrants brought to Nova Scotia by Governor Cornwallis, 2,544 persons. Fort Rouillé (Toronto) built.

1750. St. Paul's Church, Halifax (oldest Anglican church in Canada), built.

1752. Mar. 25, Issue of the Halifax *Gazette*, first newspaper in Canada. British and German population of Nova Scotia, 4,203.

1754. Census population of New France, 55,009.

1755. Establishment at Halifax of first post office in what is now Canada, together with direct mail communication with Great Britain. June 16, Surrender of Fort Beauséjour on the Isthmus of Chignecto to the British. Sept. 10, Expulsion of the Acadians from Nova Scotia.

1756. Seven Years' War between Great Britain and France began.

1758. July 26, Final capture of Louisbourg by the British. Oct. 7, First meeting of the Legislature of Nova Scotia.

1759. July 25, Taking of Fort Niagara by the British. July 26, Beginning of the siege of Quebec. July 31, French victory at Beauport Flats. Sept. 13, Defeat of the French on the Plains of Abraham. Death of Wolfe. Sept. 14, Death of Montcalm. Sept. 18, Surrender of Quebec.

1760. Apr. 28, Victory of the French under Lévis at Ste. Foy. Sept. 8, Surrender of Montreal. Military rule set up in Canada.

1762. British population of Nova Scotia, 8,104. First British settlement in New Brunswick.

1763. Feb. 10, Treaty of Paris, by which Canada and its dependencies were ceded to the British. May, Rising of Indians under Pontiac, who took a number of forts and defeated the British at Bloody Run (July 31). Oct. 7, Civil government proclaimed. Cape Breton and Ile St. Jean (P.E.I.) annexed to Nova Scotia; Labrador, Anticosti, and Magdalen Isands to Newfoundland. Nov. 21, General James Murray appointed Governor-in-Chief. Canadian post offices established at Montreal, Three Rivers, and Quebec.

1764. June 21, First issue of the Quebec *Gazette*. Aug. 13, Civil government established.

1765. Publication of the first book printed in Canada, "Catéchisme du Diocèse de Sens". May 18, Montreal nearly destroyed by fire. Population of Canada, 69,810.

1766. July 24, Peace made with Pontiac at Oswego.

1768. Charlottetown, Ile St. Jean (P.E.I.), founded. Apr. 11, Great fire at Montreal. Apr. 12, Sir Guy Carleton (Lord Dorchester) Governor-in-Chief.

1769. Ile St. Jean (P.E.I.) separated from Nova Scotia.

1770-72. Hearne's journey to the Coppermine and Slave Rivers and Great Slave Lake.

1773. Suppression of the order of Jesuits in Canada and escheat of their estates.

1774. June 22, The Quebec Act passed.

1775. May 1, The Quebec Act came into force. Outbreak of the American Revolution. Montgomery and Arnold invaded Canada. Nov. 12, Montgomery took Montreal; Dec. 31, was defeated and killed in an attack on Quebec.

1776. The Americans were defeated and driven from Canada by Carleton.

1777. Sept. 18, General Frederick Haldimand Governor-in-Chief.

1778. Captain Jas. Cook explored Nootka Sound and claimed the northwest coast of America for Great Britain. June 3, First issue of the Montreal *Gazette*.

1783. Sept. 3, Treaty of Versailles, recognizing the independence of the United States. Organization of the Northwest Company at Montreal. Kingston, Ont., and Parrtown (Saint John), N.B., founded by the United Empire Loyalists.

1784. Population of Lower Canada, 113,012. Aug. 16, New Brunswick and (Aug. 26) Cape Breton separated from Nova Scotia.

1785. May 18, Incorporation of Parrtown (Saint John), N.B.

1786. April 22, Lord Dorchester again Governor-in-Chief. Oct. 23, Government of New Brunswick moved from Saint John to Fredericton.

1787. C. Inglis appointed Anglican Bishop of Nova Scotia—the first colonial bishopric in the British Empire.

1788. King's College, Windsor, N.S., opened. Sailing packet service restored between Great Britain and Halifax.

1789. Quebec and Halifax Agricultural Societies established.

1790. Spain surrendered her exclusive rights on the Pacific Coast. Population of Canada, 161,311. (This census did not include what became, in the next year, Upper Canada.)

1791. The Constitutional Act divided the Province of Quebec into Upper and Lower Canada, each with a lieutenant-governor and legislature. The Act went into force Dec. 26. Sept. 12, Colonel J. G. Simcoe, first Lieutenant-Governor of Upper Canada.

1792. Sept. 17, First Legislature of Upper Canada opened at Newark (Niagara). Dec. 17, First Legislature of Lower Canada opened at Quebec. Vancouver Island circumnavigated by Vancouver.

1793. April 18, First issue of the *Upper Canada Gazette*. June 28, Jacob Mountain appointed first Anglican Bishop of Quebec. July 9, Importation of slaves into Upper Canada forbidden. Rocky Mountains crossed by (Sir) Alexander Mackenzie, who reached the Pacific Ocean. York (Toronto) founded by Simcoe.

1794. Nov. 19, Jay's Treaty between Great Britain and the United States.

1795. Pacific Coast of Canada finally given up by Spaniards.

1796. Government of Upper Canada moved from Niagara to York (Toronto).

1798. St. John's Island (Ile St. Jean, population 4,372) renamed Prince Edward Island.

1800. Founding of New Brunswick College, Fredericton (now University of N.B.). The Rocky Mountains crossed by David Thompson.

1801. Incorporation of the Company of Proprietors of the Montreal Water Works.

1803. Settlers sent by Lord Selkirk to Prince Edward Island.

1806. Nov. 22, Issue of *Le Canadien*—first wholly French newspaper. Population—Upper Canada, 70,718; Lower Canada, 250,000; New Brunswick, 35,000; P.E.I., 9,676; Nova Scotia, 65,000; Cape Breton, 2,513.

1807. Simon Fraser explored the Fraser River.

1809. Nov. 4, First Canadian steamer ran from Montreal to Quebec.

1811. Lord Selkirk's Red River Settlement founded on land granted by Hudson's Bay Company.

1812. June 18, Declaration of war by the United States. July 12, Americans under Hull crossed the Detroit River. Aug. 16, Detroit surrendered by Hull to Brock. Oct. 13, Defeat of the Americans at Queenston Heights and death of General Brock.

1813. Jan. 22, British victory at Frenchtown. Apr. 27, York (Toronto) taken and burned by the Americans. June 5, British victory at Stoney Creek. June 24, British, warned by Laura Secord, captured an American force at Beaver Dams. Sept. 10, Commodore Perry destroyed the British flotilla on Lake Erie. Oct. 5, Americans under Harrison defeated the British at Moraviantown, Tecumseh killed. Oct. 26, Victory of French-Canadian troops under de Salaberry at Châteauguay. Nov. 11, Defeat of the Americans at Crysler's Farm. British stormed Fort Niagara and burned Buffalo.

1814. Mar. 30, Americans repulsed at La Colle. May 6, Capture of Oswego by the British. July 5, American victory at Chippawa. July 25, British victory at Lundy's Lane. July, British from Nova Scotia invaded and occupied northern Maine. Sept. 11, British defeat at Plattsburg on Lake Champlain. Dec. 24, Treaty of Ghent ended the war. Population—Upper Canada, 95,000; Lower Canada, 335,000.

1815. July 3, Treaty of London regulated trade with the United States. The Red River Settlement destroyed by the Northwest Company but restored by Governor Semple.

1816. June 19, Governor Semple killed. The Red River Settlement again destroyed.

1817. July 18, First Treaty with the Northwest Indians. Lord Selkirk restored the Red River Settlement. Opening of the Bank of Montreal; first note issue Oct. 1. Population of Nova Scotia, 81,351. Rush-Bagot Convention with the United States, limiting naval armament on the Great Lakes, signed.

1818. Oct. 20, Convention at London regulating North American fisheries. Dalhousie College, Halifax, founded. Bank of Quebec founded.

1819–22. Franklin's overland Arctic expedition.

1820. Oct. 16, Cape Breton re-annexed to Nova Scotia.

1821. Mar. 26. The Northwest Company absorbed by the Hudson's Bay Company. Charter given to McGill College.

1822. Population of Lower Canada, 427,465.

1824. Population of Upper Canada, 150,066; of New Brunswick, 74,176.

1825. Oct. 6, Great fire in the Miramichi district, N.B. Opening of the Lachine Canal. Population of Lower Canada, 479,288.

1826. Founding of Bytown (Ottawa).

1827. Sept. 29, Convention of London relating to the territory west of the Rocky Mountains. Population of Nova Scotia (not including the County of Cape Breton), 123,630.

1828. The Methodist Church of Upper Canada separated from that of the United States.

1829. Nov. 27, First Welland Canal opened. McGill University opened. Upper Canada College founded.

1831. June 1, The North Magnetic Pole discovered by (Sir) James Ross. Population—Upper Canada, 236,702; Lower Canada, 553,134; Assiniboia, 2,390.

1832. Outbreak of cholera in Canada. Incorporation of Quebec and Montreal. Bank of Nova Scotia founded. May 30, Opening of the Rideau Canal.

1833. Aug. 18, The steamer *Royal William*, built at Quebec, crossed the Atlantic from Pictou to England.

1834. Feb. 21, The Ninety-Two Resolutions on public grievances passed by the Assembly of Lower Canada. Mar. 6, Incorporation of Toronto. Population of Upper Canada, 321,145; of New Brunswick, 119,457; of Assiniboia, 3,356.

1836. July 21, Opening of the first railway in Canada from Laprairie to St. Johns, Que. Victoria University opened at Cobourg (afterwards moved to Toronto).

1837. Report of the Canada Commissioners. Rebellion in Lower Canada (Papineau) and Upper Canada (W. L. Mackenzie). Nov. 23, Gas lighting first used in Montreal.

1838. Feb. 10, Constitution of Lower Canada suspended and Special Council created. Mar. 30, The Earl of Durham, Governor-in-Chief. Apr. 27, Martial law revoked. June 28, Amnesty to political prisoners proclaimed. Nov. 1, Lord Durham, censured by British Parliament, resigned. Population—Upper Canada 339,442; Assiniboia, 3,966; Nova Scotia, 202,575.

1839. Feb. 11, Lord Durham's report submitted to Parliament. John Strachan ordained first Anglican Bishop of Toronto. Oct. 19, Charles Poulett Thomson (Lord Sydenham) arrived in Canada as Governor-in-Chief.

1840. July 23, Passing of the Act of Union.

1841. Feb. 10, Union of the two provinces as the Province of Canada, with Kingston as capital. Feb. 13, Draper-Ogden Administration. Apr. 10, Halifax incorporated. June 13, Meeting of the first United Parliament. Sept. 19, Death of Lord Sydenham. Population of Upper Canada, 455,668; of P.E.I., 47,042.

1842. Mar. 10, Opening of Queen's University, Kingston. Aug. 9, The Ashburton Treaty. Sept. 16, Baldwin-Lafontaine Administration.

1843. June 4, Victoria, B.C., founded. Dec. 12, Draper-Viger Administration. King's (now University) College, Toronto, opened.

1844. May 10, Capital moved from Kingston to Montreal. Knox College, Toronto, founded. Population of Lower Canada, 697,084.

1845. May 28 and June 28, Great fires at Quebec. Franklin started on his last Arctic expedition.

1846. May 18, Kingston incorporated. June 15, Oregon Boundary Treaty. June 18, Draper-Papineau Administration. First telegraph, operated by Toronto, Hamilton and Niagara Electro-Magnetic Telegraph Co., opened.

1847. May 29, Sherwood-Papineau Administration. Nov. 25, Montreal-Lachine Railway opened.

1848. Mar. 11, Lafontaine-Baldwin Administration. May 30, Fredericton incorporated. St. Lawrence Canals opened to navigation.

1849. Apr. 25, Signing of the Rebellion Losses Act; rioting in Montreal and burning of the Parliament Buildings. Nov. 14, Toronto made the capital. Vancouver Island granted to the Hudson's Bay Company. Population of Assiniboia, 5,391.

1851. Apr. 6, Transfer of the postal system from the British to the Provincial Government; uniform rate of postage introduced. Apr. 23, Postage stamps issued. Aug. 2, Incorporation of Trinity College, Toronto. Sept. 22, Quebec became the capital. Oct. 28, Hincks-Morin Administration. Responsible government granted to Prince Edward Island. Population — Upper Canada, 952,004; Lower Canada, 890,261; New Brunswick, 193,800; Nova Scotia, 276,854.

1852. July 8, Great fire at Montreal. Dec. 8, Laval University, Quebec, opened. Grand Trunk Railway chartered.

1853. Opening of Grand Trunk Railway from Montreal to Portland.

1854. June 5, Reciprocity Treaty with the United States. Sept. 11, MacNab-Morin Ministry. Seigneurial tenure in Lower Canada abolished. Secularization of the clergy reserves.

1855. Jan. 1, Incorporation of Ottawa. Jan. 27, MacNab-Taché Administration. Mar. 9, Opening of the Niagara Railway suspension bridge. Apr. 17, Incorporation of Charlottetown. Oct. 20, Government moved to Toronto.

1856. The Legislative Council of Canada made elective. First meeting of the Legislature of Vancouver Island. May 24, Taché-J. A. Macdonald Administration. Oct. 27, Opening of the Grand Trunk Railway from Montreal to Toronto. Population of Assiniboia, 6,691.

1857. Nov. 26, J. A. Macdonald-Cartier Administration. Dec. 31, Ottawa (Bytown) chosen by Queen Victoria as future capital of Canada.

1858. February, Discovery of gold in Fraser River Valley. July 1, Introduction of Canadian decimal currency. Aug. 2, Brown-Dorion Administration. Aug. 5, Completion of the Atlantic cable; first message sent. Aug. 6, Cartier - J. A. Macdonald Administration. Aug. 20, Colony of British Columbia established. Control of Vancouver Island surrendered by the Hudson's Bay Company.

1859. January, Canadian silver coinage issued. Sept. 24, Government moved to Quebec.

1860. Aug. 8, The Prince of Wales (King Edward VII) arrived at Quebec. Sept. 1, Laying of the corner-stone of the Parliament Buildings at Ottawa by the Prince of Wales. Prince of Wales College, Charlottetown, founded.

1861. Aug. 14, Great flood at Montreal. Sept. 10, Meeting of the first Anglican Provincial Synod. Population—Upper Canada, 1,396,091; Lower Canada, 1,111,566; New Brunswick, 252,047; Nova Scotia, 330,857; Prince Edward Island, 80,857.

1862. May 24, Sandfield Macdonald-Sicotte Administration. Aug. 2, Victoria, B.C., incorporated.

1863. May 16, Sandfield Macdonald-Dorion Administration.

1864. Mar. 30, Taché-J. A. Macdonald Administration. Conferences on confederation of British North America; Sept. 1, at Charlottetown; Oct. 10-29, at Quebec. Oct. 19, Raid of American Confederates from Canada on St. Albans, Vermont.

1865. Feb. 3, The Canadian Legislature resolved on an address to the Queen praying for union of the provinces of British North America. Aug. 7, Belleau-J. A. Macdonald Administration. Oct. 20, Proclamation fixing the seat of government at Ottawa.

1866. Mar. 17, Termination of the Reciprocity Treaty by the United States. May 31, Raid of Fenians from the United States into Canada; they were defeated at Ridgeway (June 2) and retreated across the border (June 3). June 8, First meeting at Ottawa of the Canadian Legislature. Nov. 17, Proclamation of the union of Vancouver Island with British Columbia.

NOTE.—*The Ministries and the dates of elections and lengths of sessions of all Dominion Parliaments following Confederation are given in Tables 2 and 4, respectively, of Chapter III. Changes in Provincial Legislatures and Ministries from Confederation to 1923 are given at pp. 75-84 of the 1924 Year Book, and from 1924 to 1937 at pp. 110-118 of the 1938 Year Book. References regarding these matters have therefore been dropped from the Chronology below. Changes since 1937 are included.*

1867. Mar. 29, Royal Assent given to the British North America Act. July 1, The Act came into force; Union of the provinces of Canada, Nova Scotia, and New Brunswick as the Dominion of Canada; Upper and Lower Canada made separate provinces as Ontario and Quebec; Viscount Monck, first Governor General; Sir John A. Macdonald, Premier. Nov. 6, Meeting of the first Dominion Parliament.

1868. Apr. 7, Murder of D'Arcy McGee at Ottawa. July 31, The Rupert's Land Act authorized the acquisition by the Dominion of the Northwest Territories.

1869. June 22, Act providing for the government of the Northwest Territories. Nov. 19, Deed of surrender to the Crown of the Hudson's Bay Company's territorial rights in the Northwest. Outbreak of the Red River Rebellion under Riel.

1870. May 12, Act to establish the Province of Manitoba. July 15, Northwest Territories transferred to the Dominion and Manitoba admitted into Confederation. Aug. 24, Wolseley's expedition reached Fort Garry (Winnipeg); end of the rebellion.

1871. Apr. 2, First Dominion Census (populations at this and succeeding enumerations given on p. 70). Apr. 14, Act establishing uniform currency in the Dominion. May 8, Treaty of Washington, dealing with questions outstanding between the United Kingdom and the United States. July 20, British Columbia entered Confederation.

1873. May 23, Act establishing the North West Mounted Police. July 1, Prince Edward Island entered Confederation. Nov. 8, Incorporation of Winnipeg.

1874. May, Ontario Agricultural College, Guelph, opened.

1875. Apr. 8, The Northwest Territories Act established a Lieutenant-Governor and a Northwest Territories Council. April-May, Letting of first contract and commencement of work upon the Canadian Pacific railway as a Government line; work commenced at Fort William. June 15, Formation of the Presbyterian Church in Canada.

1876. June 1, Opening of the Royal Military College, Kingston. June 5, First sitting of the Supreme Court of Canada. July 3, Opening of the Intercolonial Railway from Quebec to Halifax. Branch of Laval University established at Montreal.

1877. June 20, Great fire at Saint John, N.B. October, First exportation of wheat from Manitoba to the United Kingdom. Founding of the University of Manitoba.

1878. July 1, Canada joined the International Postal Union.

1879. May 15, Adoption of a protective tariff ("The National Policy").

1880. Royal Canadian Academy of Arts founded; first meeting and exhibition, Mar. 6. May 11, Sir A. T. Galt appointed first Canadian High Commissioner in London. Sept. 1, All British possessions in North America and adjacent islands except Newfoundland and its dependencies annexed to Canada by Imperial Order in Council of July 31. Oct. 21, Signing of the contract with the present Canadian Pacific Railway Co. for the completion of the Canadian Pacific railway.

1881. Apr. 4, Second Dominion Census. May 2, First sod of the Canadian Pacific railway as a company line turned.

1882. May 8, Provisional Districts of Assiniboia, Saskatchewan, Athabaska, and Alberta formed. May 25, First meeting of the Royal Society of Canada. Aug. 23, Regina established as seat of government of the Northwest Territories.

1883. Sept. 5, Formation of the Methodist Church in Canada; united conference.

1884. May 24, Sir Charles Tupper, High Commissioner in London. Aug. 11, Order in Council settling the boundary of Ontario and Manitoba.

1885. Mar. 26, Outbreak of Riel's second rebellion in the Northwest. Apr. 24, Engagement at Fish Creek. May 2, Engagement at Cut Knife. May 12, Taking of Batoche. May 16, Surrender of Riel. Aug. 24, First census of the Northwest Territories. Nov. 7, Last spike of Canadian Pacific Railway main line driven at Craigellachie. Nov. 16, Execution of Riel.

1886. Apr. 6, Incorporation of Vancouver. June 7, Archbishop Taschereau of Quebec made first Canadian Cardinal. June 13, Vancouver destroyed by fire. June 28, First through train of the Canadian Pacific Railway left Montreal for Port Moody. July 31, First quinquennial census of Manitoba.

1887. Interprovincial Conference at Quebec. Apr. 4, First Colonial Conference in London.

1888. Feb. 15, Signing of Fishery Treaty between United Kingdom and United States at Washington. August, Rejection of Fishery Treaty by United States Senate.

1890. Mar. 31, The Manitoba School Act abolished separate schools.

1891. Apr. 5, Third Dominion Census. June 6, Death of Sir John A. Macdonald.

1892. Feb. 29, Washington Treaty, providing for arbitration of the Bering Sea Seal Fisheries question. July 22, Boundary Convention between Canada and United States.

1893. Apr. 4, First sitting of the Bering Sea Arbitration Court. Dec. 18, Archbishop Machray, of Rupert's Land, elected first Anglican Primate of all Canada.

1894. June 28, Second Colonial Conference at Ottawa. Dec. 12, Death of Sir John Thompson at Windsor Castle.

1895. Sept. 10, Opening of new Sault Ste. Marie Canal.

1896. Apr. 24, Sir Donald Smith (Lord Strathcona) High Commissioner in London. August, Gold discovered in the Klondyke.

1897. June 22, Celebration throughout the Empire of the Diamond Jubilee of H.M. Queen Victoria. July, Third Colonial Conference in London. Dec. 17, Award of the Bering Sea Arbitration Court.

1898. June 13, The Yukon District established as a separate Territory. Aug. 1, The British Preferential Tariff went into force. Aug. 23, Meeting at Quebec of the Joint High Commission between Canada and the United States. Dec. 25, British Imperial penny (2 cent) postage introduced.

1899. Oct. 1, Mgr. Diomède Falconio arrived at Quebec as first permanent Apostolic Delegate to Canada. Oct. 11, Beginning of the South African War. Oct. 29, First Canadian Contingent left Quebec for South Africa.

1900. Feb. 27, Battle of Paardeberg. Apr. 26, Great fire at Ottawa and Hull.

1901. Jan. 22, Death of Queen Victoria and accession of King Edward VII. Apr. 1, Fourth Dominion Census. Sept. 16-Oct. 21, Visit to Canada of the Duke and Duchess of Cornwall and York (King George V and Queen Mary).

1902. May 31, End of South African War; peace signed at Vereeniging. June 30, Meeting of Fourth Colonial Conference in London. Aug. 9, Coronation of H. M. King Edward VII. Dec., First message sent by wireless from Canada to the United Kingdom via Cape Breton, N.S.

1903. Jan. 24, Signing of the Alaskan Boundary Convention. June 19, Incorporation of Regina. Oct. 20, Award of the Alaskan Boundary Commission.

1904. Feb. 1, Dominion Railway Commission established. Apr. 19, Great fire in Toronto. Oct. 8, Incorporation of Edmonton.

1905. Sept. 1, Creation of the Provinces of Alberta and Saskatchewan.

1906. Roald Amundsen, in the schooner *Gjoa*, arrived at Nome, Alaska, on completion of the first traverse of the North-West Passage. University of Alberta founded. Oct. 8, Interprovincial Conference at Ottawa.

1907. Apr. 15-May 14, Fifth Colonial Conference in London. Oct. 17, Transatlantic wireless open for limited public service. University of Saskatchewan founded. Dec. 6, First recorded flight in Canada of a heavier-than-air machine carrying a passenger (Dr. Graham Bell's tetrahedral kite, *Cygnet*).

1908. Jan. 2, Establishment of Ottawa Branch of Royal Mint. June 21-23, Bicentenary of Bishop Laval celebrated at Quebec. July 20-31, Quebec tercentenary celebrations. Visit of Prince of Wales to Quebec. Aug. 2, Great fire in Kootenay Valley, B.C. University of British Columbia founded.

1909. Jan. 11, Signing of International Boundary Waters Convention between Canada and United States. Feb. 23, First flight in Canada of a heavier-than-air machine under its own power (McCurdy's *Silver Dart*).

1910. May 6, Death of King Edward VII and accession of King George V. Sept. 7, North Atlantic Coast Fisheries Arbitration Award of The Hague Tribunal. New trade agreements made with Germany, Belgium, Holland, and Italy. Oct. 11, Inauguration at Kitchener of Ontario hydro-electric power transmission system.

NOTE.—For references regarding Dominion Government changes, and Provincial Government changes prior to 1937, see Note on p. 31.

1911. May 23-June 20, Imperial Conference in London. June 1, Fifth Dominion Census. June 22, Coronation of H. M. King George V. July 11, Disastrous fires in Porcupine district.

1912. Mar. 29-Apr. 9, First Canada-West Indies Trade Conference held at Ottawa. Apr. 15, Loss of the steamship *Titanic*. Appointment of Dominions Royal Commission. May 15, Extension of the boundaries of Quebec, Ontario, and Manitoba.

1914. May 20, Loss of the steamship *Empress of Ireland*. Aug. 4, War with Germany; Aug. 12, with Austria-Hungary; Nov. 5, with Turkey. Aug. 18-22, Special war session of Canadian Parliament. Oct. 16, First Canadian Contingent of over 33,000 troops landed at Plymouth, England.

1915. February, First Canadian Contingent landed in France and proceeded to Flanders. Apr. 22, Second Battle of Ypres. Apr. 24, Battle of St. Julien. May 20-26, Battle of Festubert. June 15, Battle of Givenchy.

1916. Jan. 12, Order in Council authorizing increase in number of Canadian troops to 500,000. Feb. 3, Destruction by fire of the Houses of Parliament at Ottawa. Apr. 3-20, Battle of St. Eloi. June 1, Census of Prairie Provinces. June 1-3, Battle of Sanctuary Wood. July 1, Commencement of the Battle of the Somme. Sept. 1, Corner-stone of new Houses of Parliament laid by Duke of Connaught.

1917. Feb. 12-May 15, Imperial Conference. Mar. 20-May 2, Meetings in London of Imperial War Cabinet. Mar. 21-Apr. 27, Imperial War Conference. Apr. 6, United States declared war against Germany. Apr. 9, Capture of Vimy Ridge. Aug. 15, Battle of Loos, capture of Hill 70. Aug. 29, Passing of Military Service Act. Sept. 20, Completion of Quebec Bridge. Parliamentary franchise extended to women. Oct. 26-Nov. 10, Battle of Passchendaele. Dec. 6, Serious explosion at Halifax, N.S.

1918. Mar. 31, Germans launched critical offensive on West Front. March-April, Second Battle of the Somme. Apr. 17, Secret session of Parliament. June-July, Prime Minister and colleagues attended Imperial War Conference in London. July 18, Allies assumed successful offensive on West Front. Aug. 12, Battle of Amiens. Aug. 26-28, Capture of Monchy le Preux. Sept. 2-4, Breaking of Drocourt-Quéant line. Sept. 16, Austrian peace note. Sept. 27-29, Capture of Bourlon Wood. Sept. 30, Bulgaria surrendered and signed armistice. Oct. 1-9, Capture of Cambrai. Oct. 6, First German peace note. Oct. 20, Capture of Denain. Oct. 25-Nov. 2, Capture of Valenciennes. Oct. 31, Turkey surrendered and signed armistice. Nov. 4, Austria-Hungary surrendered and signed armistice. Nov. 11, Capture of Mons. Germany surrendered and signed armistice.

1919. Feb. 17, Death of Sir Wilfrid Laurier. May 1-June 15, General strike at Winnipeg and other western cities. June 28, Signing at Versailles of Peace Treaty and Protocol. Aug. 15, Arrival of the Prince of Wales for official tour in Canada. Aug. 22, Formal opening of Quebec Bridge by the Prince of Wales. Sept. 1, The Prince of Wales laid foundation stone of Peace Tower, Parliament Buildings, Ottawa. Sept. 1-Nov. 10, Special peace session, thirteenth Parliament of Canada. Dec. 20, Organization of "Canadian National Railways" by Order in Council.

1920. Jan. 10, Ratifications of the Treaty of Versailles. Feb. 19, Shareholders ratified agreement for sale of the Grand Trunk Railway to the Dominion Government. May 31-June 18, Trade Conference at Ottawa between Dominion and West Indian Governments. July 16, Ratifications of the Treaty of St. Germain-en-Lay. Aug. 9, Ratifications of the Treaty of Neuilly-sur-Seine. Nov. 15, First meeting of League of Nations Assembly began at Geneva, Switzerland.

1921. May 10, Preferential tariff arrangement with British West Indies became effective. June 1, Sixth Dominion Census. June 20-Aug. 5, Imperial Conference. Nov. 11, Opening of Conference on limitation of armament at Washington.

1922. Feb. 1, Arms Conference at Washington approved five-power treaty, limiting capital ships, and disapproving unrestricted submarine warfare and use of poison gas. Apr. 10, General Economic Conference opened at Genoa. July 13, Conference between Canada and the United States *re* perpetuating the Rush-Bagot Treaty regarding armament on the Great Lakes.

NOTE.—For references regarding Dominion Government changes, and Provincial Government changes prior to 1937, see Note on p. 31.

Aug. 7, Allies' Conference on war debts and reparations opened at London. Oct. 10, Mudania Armistice signed by Britain, France, and Turkey. Dec. 9, Reparations Conference opened at London.

1923. Apr. 1, Removal of British embargo on Canadian cattle effective. Oct. 1, Imperial Conference and Economic Conference at London.

1924. Apr. 23, British Empire Exhibition opened by King George at Wembley, England, with the Prince of Wales as President. Aug. 6-16, Meeting of the British Association for the Advancement of Science at Toronto. Aug. 11-16, Meeting of International Mathematical Congress at Toronto.

1925. June 10, Inauguration of the United Church of Canada. Nov. 20, Death of Queen Alexandra.

1926. June 1, Census of Prairie Provinces. July 1, Two-cent domestic rate of postage restored. Oct. 19-Nov. 23, Imperial Conference in London. Nov. 26, Hon. C. Vincent Massey appointed Envoy Extraordinary and Minister Plenipotentiary to the United States.

1927. June 1, Hon. Wm. Phillips, first U.S. Minister to Canada, reached Ottawa. July 1-3, Diamond Jubilee of Confederation celebrated throughout the Dominion. July 30, The Prince of Wales, Prince George, the Rt. Hon. Stanley Baldwin and party, arrived at Quebec on a visit to Canada. September, Canada elected as a non-permanent member of the Council of the League of Nations at Geneva. November, Dominion-Provincial Conference on the relations between the Dominion and the provinces.

1928. Apr. 25, Sir Wm. H. Clark appointed first British High Commissioner to Canada. May 31, Legislative Council of Nova Scotia ceased to exist, leaving Quebec the only province with a bi-cameral legislature. July 20, Japanese Legation opened in Ottawa. Nov. 15, First French Minister to Canada arrived at Ottawa.

1929. Oct. 15-25, The Rt. Hon. J. Ramsay MacDonald, Prime Minister of the United Kingdom, visited Canada. Dec. 14, Transfer of natural resources to Manitoba and Alberta.

1930. Jan. 21, Five-power Naval Arms Conference opened at London; Canada represented by Hon. J. L. Ralston. Feb. 20, Transfer of natural resources to British Columbia. Mar. 20, Transfer of natural resources to Saskatchewan. Aug. 1, H. M. Airship R-100 arrived at Montreal, being the first transatlantic lighter-than-air craft to reach Canada. Oct. 1, Imperial Conference in London.

1931. June 1, Seventh Dominion Census. June 30, The Statute of Westminster exempting the Dominion and the provinces from the operation of the Colonial Laws Validity Act and the Merchant Shipping Act approved by the House of Commons. Sept. 21, United Kingdom suspended specie payments, following which Canada restricted the export of gold. Nov. 21, Abnormal Importations Act, extending preference to Empire products, assented to in the United Kingdom. Dec. 12, Statute of Westminster establishing complete legislative equality of the Parliament of Canada with that of the United Kingdom became effective.

1932. July 21-Aug. 20, Imperial Economic Conference at Ottawa. Aug. 6, Official opening of the Welland Ship Canal.

1933. Jan. 17-19, Dominion-Provincial Conference. May 18, Celebration of the 150th anniversary of the landing of the Loyalists at Saint John.

1934. August, Celebration at Gaspe of the 400th anniversary of the first landing of Jacques Cartier.

1935. Mar. 11, Bank of Canada commenced business. May 6, Celebrations throughout the Empire of the 25th anniversary of the accession of King George V to the Throne. Sept. 15, Conference of British Commonwealth Statisticians met in Ottawa. Dec. 9, Dominion-Provincial Conference met in Ottawa; Naval Limitation Conference met in London.

1936. Jan. 20, Death of H.M. King George V and accession of H.M. King Edward VIII. Mar. 8, German forces reoccupied the Rhineland in defiance of the Treaty of Versailles. June 1, Quinquennial Census of the Prairie Provinces taken. July 1-Sept. 7, Celebration in Vancouver of the Golden Jubilee of that city and of the C.P.R. July 26, Unveiling of Vimy Memorial in France by H.M. King Edward VIII. Dec. 11, Abdication of H.M. King Edward VIII and accession of H.M. King George VI.

NOTE.—For references regarding Dominion Government changes, and Provincial Government changes prior to 1937, see Note on p. 31.

1937. Jan. 1, Belgium represented in Canada by a Minister Plenipotentiary. Mar. 30, The Governor General and Lady Tweedsmuir visited the White House at Washington to return the official visit made by President Roosevelt at Quebec on July 30, 1936. May 12, Coronation of H.M. King George VI. July 8, Imperial Airways flying boat *Caledonia* arrived at Montreal from Southampton, inaugurating the experimental phase of the Transatlantic Airways. Aug. 17, Dominion Government disallowed three Alberta statutes on the ground of invasion of the legislative field assigned to the Dominion Parliament. Nov. 29, Rowell Commission on Constitutional Relations opened sittings at Winnipeg.

1938. Mar. 4, Unanimous judgments of the Supreme Court of Canada on the Alberta constitutional references made in favour of the Dominion Government regarding each of the questions submitted: powers of the Governor General in Council to disallow provincial legislation, and powers of the Lieutenant-Governor to reserve provincial legislation for the signification of the pleasure of the Governor General, were found to be valid and unrestricted; the press, credit regulation, and banking taxation measures were found unconstitutional. The Court also held the Social Credit Act unconstitutional, although this was not a subject of specific reference. Mar. 13, Seizure of Austria by Germany. June 9, Provincial general election in Saskatchewan. Liberal Government of Hon. W. J. Patterson returned to power. June 15, Disallowance of Alberta Home Owners' Security Act and Securities Tax Act. July 7, Privy Council declined to rule on Alberta Acts for control of the Press and regulation of credit. July 15, Privy Council dismissed Alberta's appeal from judgment of Supreme Court of Canada on legislation to tax chartered banks. Aug. 15, Bank of Canada became a wholly government-owned institution. Sept. 12, Herr Hitler's speech at Nuremberg followed by clashes on the Czechoslovak border, developed into an international crisis. Convention between Canada and United States placed control of waters in Rainy Lake watershed under International Joint Commission. Sept. 15, Meeting of Mr. Chamberlain and Herr Hitler at Berchtesgaden. Sept. 19, Royal Commission of inquiry into circumstances surrounding the letting of a contract for the manufacture of Bren machine guns opened at Ottawa, with Mr. Justice H. H. Davis as Commissioner. Sept. 22-23, Meeting of Mr. Chamberlain and Herr Hitler at Godesberg. Sept. 28, Mobilization of British fleet. Sept. 30, Crisis terminated following four-power conference at Munich. Oct. 1, Occupation of Sudeten areas of Czechoslovakia by Germany. Oct. 11, Serious forest fires in Fort Frances area. Oct. 17, Inauguration of express service on Trans-Canada Air Lines. Nov. 4, Written Judgment of Privy Council stating reasons for rejection of appeal in Alberta Bank Tax Act. Nov. 17, Trade Agreement between Canada and United States signed at Washington.

1939. Jan. 13, Report of the Royal Commission of Inquiry into the Bren gun contract tabled in the House of Commons. Mar. 1, Opening of Trans-Canada air-mail service. Mar. 14, Invasion of Czechoslovakia by Germany. Mar. 27, Dominion Government disallowed Alberta Government's legislation concerning Limitation of Actions Act of 1935, designed to outlaw certain debts contracted prior to July 1, 1936. Mar. 31, The Prime Minister of the United Kingdom announced arrangements for a treaty guaranteeing armed support to Poland in defence of its independence.

Apr. 6. Supreme Court of Canada ruled that Eskimos are 'Indians' within the meaning of the B. N. A. Act. Apr. 28, Denunciation of German-Polish non-aggression agreement by Germany. May 17-June 15, Visit of Their Majesties King George VI and Queen Elizabeth to Canada and the United States. May 18, Provincial general election in Prince Edward Island; Liberal Government of Hon. T. A. Campbell returned to power. June 16, First appointment of a High Commissioner to Canada by the Government of Eire. June 16-24, Celebration in Charlottetown of the 75th anniversary of the "Charlottetown Conference" which led to Confederation. June 27, Inaugural mail flight of the *Yankee Clipper* from Port Washington, N.Y., to Southampton, Eng., via Shediac, N.B., and Botwood, Nfld. Aug. 6, Imperial Airways flying boat *Caribou* arrived at Montreal and offici-

NOTE.—For references regarding Dominion Government changes, and Provincial Government changes prior to 1937, see Note on p. 31.

ally opened British air-mail service. Aug. 23, Chancellor Hitler, in an interview with the British Ambassador, demanded possession of Danzig and the Polish Corridor and the institution of a German protectorate over Poland. Aug. 24, Germany and Soviet Russia signed a mutual non-aggression treaty. Aug. 25, United Kingdom signed an agreement with Poland, in which each Power pledged aid to the other in case of hostilities in consequence of aggression or of action which would menace the independence of either Power. Japan protested to Germany that the Russo-German non-aggression agreement violated the spirit of the Anti-Comintern Agreement. Sept. 1, Poland invaded by Germany. Proclamation issued declaring an apprehended state of war in Canada since Aug. 25. Sept. 3, War with Germany declared by the United Kingdom and France. Sept. 10, Canada declared war upon Germany. *(For special War chronology see Section 2.)*

Oct. 4, Disallowance of Alberta Limitations of Actions Act, which was re-enacted after a previous disallowance. Oct. 16, Arrival in Ottawa of first Minister of the Netherlands to Canada. Oct. 25, Provincial general election in Quebec. Union Nationale Government of Hon. M. Duplessis defeated by Liberals under Adelard Godbout. Nov. 1, Commencement of daily flights from the Atlantic to the Pacific Coasts by Trans-Canada Air Lines. Nov. 2, First appointment of a Canadian High Commissioner to Australia. Nov. 20, Provincial general election in New Brunswick. Liberal Government of Hon. A. A. Dysart returned to power. Dec. 3, Death of H.R.H. Princess Louise, C.I., V.A., G.B.E., Duchess of Argyll, great-aunt of H.M. the King. Dec. 9, Special meeting of the Council of the League of Nations to consider the Russian invasion of Finland. Dec. 14, Russia expelled from the League of Nations. Dec. 25, H.M. the King broadcasted a Christmas message to the Commonwealth. Dec. 29, Appointment of Canada's first High Commissioners to Ireland (Eire) and New Zealand.

1940. Jan. 1, First municipal government in the Northwest Territories inaugurated at Yellowknife. Jan. 8, Opening of consultations at Ottawa between Canadian and United States Governments on the St. Lawrence Seaway. Jan. 15, First War Loan, 1940, offered to the Canadian public and heavily oversubscribed. Jan. 18, Appointment of Canada's first High Commissioner to the Union of South Africa. Jan. 25, Opening of the fifth session and dissolution of the Eighteenth Parliament. Feb. 11, Death of the Rt. Hon. Baron Tweedsmuir of Elsfield, P.C., G.C.M.G., G.C.V.O. C.H., Governor General and Commander in Chief of the Dominion of Canada, at Montreal, Que. This was the first instance since Confederation of the death of a Governor General while in office. Feb. 12, The Dominion Government ordered seven days of mourning for Lord Tweedsmuir. Feb. 14, State funeral at Ottawa of Lord Tweedsmuir.

NOTE.—For references regarding Dominion Government changes, and Provincial Government changes prior to 1937, see Note on p. 31.

Section 2.—Special War Chronology.

1939.

Sept. 1, German forces crossed Polish border. General mobilization ordered in United Kingdom. Proclamation issued declaring an apprehended state of war in Canada since Aug. 25.

Sept. 3, Declaration of war by the United Kingdom and France. S.S. *Athenia* torpedoed by German submarine; loss of life 112.

Sept. 4, Royal Air Force successfully attacked German warships in Wilhelmshaven and Brunsbuttel.

Sept. 4-18, Germans advanced into Poland in four drives and, despite heroic resistance, continued their advance until Polish forces were dispersed.

Sept. 6, Poles checked German advance on a line a few miles from Warsaw.

Sept. 7, First British troops landed in France. Polish fortress of Westerplatte surrendered after a week's siege.

Sept. 8, Royal Air Force attacked German air bases in the Black Forest and Allied aircraft attacked the Island of Sylt.

Sept. 9, The Parliament of Canada voted to declare that a state of war existed with Germany.

Sept. 10, Canada formally proclaimed a state of war with Germany.

Sept. 11, The Canadian Government prohibited trading with the enemy and custodian of enemy property appointed. Greatest battle of German-Polish War opened on a 250-mile front.

Sept. 12, Canada's War Budget (See Chap. XXI) passed and plans for a voluntary national registration announced. Poles recaptured Lodz.

Sept. 13, Prorogation of first War Session of Dominion Parliament.

Sept. 14, Gdynia surrendered.

Sept. 15, Formation of Canadian Foreign Exchange Control Board announced. Canadian dealings on the New York Stock Exchange ceased the following day.

Sept. 16, Przemysl surrendered.

Sept. 17, H.M.S. *Courageous* sunk with loss of 518 lives. In a surprise invasion, Russian troops advanced against Poland from the East as Germans continued pressure from the West, South, and North. Polish Government fled to Roumania. Russo-Japanese truce signed.

Sept. 18, Russian troops penetrated fifty miles into Poland. Vilna occupied and Russian and German forces met at Brest-Litovsk. Meeting of Norwegian, Swedish, Danish, and Finnish premiers to discuss Russian threats to Baltic States. President Roosevelt made a renewed appeal regarding the bombing of civilian populations.

Sept. 19, Canada announced the preparation of two divisions for overseas service and the doubling of her naval strength. Reorganization of Canadian Cabinet. Russia blockaded the Estonian Coast.

Sept. 21, Canada and Australia announced large-scale recruiting for the British Air Service. Assassination of Prime Minister Armand Calinescu of Roumania. Completion of French general mobilization.

Sept. 22, Poland partitioned between Russia and Germany. Belgium and Holland flooded strategic areas as a precaution against German invasion.

Sept. 25, War Supply Board commenced operations. Heavy artillery of the Maginot line first opened fire on German main defences.

Sept. 26, The United States, at Panama Conference, proposed a safety zone in American waters.

Sept. 27, Heavy German attacks on Western Front.

Sept. 28, Russia offered to open trade negotiations with the United Kingdom.

Sept. 29, British aeroplanes raided German fleet in Heligoland Bight. Warsaw capitulated. Russia obtained right to build two naval bases on Estonian islands. .Under pressure of French advance, Germany ordered complete evacuation of Saar mining regions. Canada announced list of units to form First Division.

Sept. 30, Royal Air Force aeroplanes flew over and photographed Siegfried line.

Oct. 1, Polish troops finally surrendered. Premier of Poland announced the raising of a Polish army of 250,000 in Canada and the United States. Russia demanded the Latvian ports of Libau and Windau as trade export harbours.

Oct. 2, Canadian Order in Council extended the list of articles for which export licences were required, including scrap iron and steel. Pan-American Neutrality Congress at Panama set a neutrality limit of 300 miles around coasts of neutral American nations. United States refused to recognize German-Russian partition of Poland.

Oct. 3, French claimed to hold 150 square miles of German territory. Russia demanded railway rights to Latvian port of Libau.

Oct. 5, Russo-Latvian agreement signed, granting Russia naval bases and aerodromes on Latvian territory.

Oct. 6, Canadian War Supply Board appointed as agent in Canada for British Purchasing Commission. Major-General A. G. L. McNaughton appointed to command First Canadian Division.

Oct. 7, Canada reported 60,000 recruits had joined C.A.S.F. Herr Hitler proposed peace upon German terms.

Oct. 8, Russian troops occupied Latvia.

Oct. 9, Counter-attacks by German forces on Western Front. Soviet troops entered Estonia.

Oct. 10, France rejected Herr Hitler's peace proposal. Russo-Lithuanian treaty signed.

Oct. 11, Russo-British agreement for exchange of timber for rubber and tin concluded.

Oct. 12, Mr. Chamberlain announced that the United Kingdom found it impossible to accept German peace terms. German troops attacked on sixty-mile front without success.

Oct. 13, Russia made demands upon Finland for naval bases and an agreement for mutual military assistance.

Oct. 14, H.M.S. *Royal Oak* sunk in Scapa Flow with loss of 786 lives. German submarines commenced sinking Allied merchant ships without warning.

Oct. 16, First air raid on Rosythe and Forth Bridge. H.M.S. *Southampton, Edinburgh*, and *Mohawk* damaged; 17 killed and 45 injured. Four German aeroplanes lost. First Canadian War Loan of $200,000,000 sold to chartered banks.

Oct. 17, Mr. Chamberlain announced that one-third of the German submarines in commission at the outbreak of war had been sunk or seriously damaged.

Oct. 18, Meeting at Stockholm of the Kings of Sweden, Norway, and Denmark and the President of Finland. The United States closed its ports to belligerent submarines.

Oct. 19, Treaty with United Kingdom and France signed by Turkey, giving Allies access to Black Sea. Germany warned neutrals that any of their ships joining Allied convoys would be sunk without warning.

Oct. 20, Norway, Sweden, and Finland moved troops to border. Compulsory training reintroduced into Australia.

Oct. 23, Germany seized United States vessel *City of Flint*.

Oct. 24, Allied and neutral shipping losses to date were announced as 90 ships, with a tonnage of 399,319 and the loss of 1,774 lives.

Oct. 26, Germany closed her frontiers abutting on Belgium, Switzerland, and the Netherlands, and cut off her communications to those countries.

Oct. 27, Encyclical by Pope Pius XII denounced totalitarianism.

Oct. 28, Canadian delegation to Empire War Conference arrived in London.

Oct. 29, H.M.C.S. *Assiniboine* taken over from the Royal Navy. Lithuanian troops occupied Vilna.

Oct. 31, Re-arrangement of Italian Cabinet, pro-German ministers being replaced by neutrals.

Nov. 1, War Supply Board took over the functions of the Defence Purchasing Board.

Nov. 3, London announced that total seizures of contraband by the Allies amounted to 560,000 tons, including 12,000,000 gallons of gasoline. Finland answered Russian demands, accepting most but rejecting requests for naval bases.

Nov. 4, Neutrality Act signed by President Roosevelt, thus releasing war materials consigned to the Allies.

Nov. 6, Opening of Empire Air Training Conference at Ottawa. Admiralty announced merchant shipping losses as 55 British of 238,793 tons; 7 French of 47,933 tons; and 34 neutrals of 93,823 tons.

Nov. 7, The British Supply Board announced co-ordination of British war purchases in Canada and the United States, with a prominent Canadian industrialist as Director-General of British war purchases in the United States. The Queen of the Netherlands and the King of the Belgians offered to mediate between the Allies and Germany.

Nov. 8, Attempt upon the life of Herr Hitler in the Buergerbrau beer cellar in Munich. Work commenced on first Canadian military hospital in England.

Nov. 9, Germany renewed pressure on Holland and Belgium to ease their strict neutrality.

Nov. 10, Britain announced the signing of an agreement with Italy to facilitate economic collaboration. Finland reported no basis of discussion reached in Finnish-Russian negotiations.

Nov. 12, H.M. King George and the President of France replied to the mediation offer of the Queen of the Netherlands and the King of the Belgians, stating that the Allies would not lay down their arms until the fear of repeated German aggression had been banished.

Nov. 13, Finnish delegation left Moscow.

Nov. 14, Germany published a list of Allied ships which would be sunk on sight. Germany refused Belgian-Netherlands offer of mediation.

Nov. 16, Canadian staff arrived in London to open military headquarters.

Nov. 17, United Kingdom and France agreed to pool their economic as well as their diplomatic and military operations. The British Ministry of Supply announced that it was spending £2,000,000 per day. Germans shot 124 students in Prague and jailed 8,000 persons as a result of anti-German demonstrations.

Nov. 18, Netherlands liner *Simon Bolivar* and several British and neutral ships sunk by a new pattern of unmoored German mine, with a combined loss of over 150 lives. Further arrests in Bohemia.

Nov. 21, United Kingdom announced that all exports of German origin or ownership would be seized in retaliation for Germany's use of unmoored and uncharted mines. The Admiralty announced that to date 13 German merchant vessels of a tonnage of 53,244 had been captured and 12, of 53,068 tons, sunk. Argentina introduced a new import policy favouring United Kingdom and France.

Nov. 23, Hon. C. D. Howe named as ministerial head of the War Supply Board, vice Hon. J. L. Ralston. Admiralty announced that 26 Allied and neutral vessels had been sunk in a week by German mines and submarines. German aeroplanes sowed mines in the Thames Estuary. The Netherlands protested United Kingdom's policy of seizing German exports. British armed merchant cruiser *Rawalpindi* sunk by German battleship *Deutschland* after an heroic resistance.

Nov. 24, Hon. J. L. Ralston, Minister of Finance, announced over the radio that the first year of war will cost Canada $315,000,000. Port of London closed for a few hours due to German mines sown by aeroplanes.

Nov. 27, Empire air-training scheme completed and sent to the Governments concerned for final approval.

Nov. 28, Russia denounced the Russo-Finnish non-aggression treaty.

Nov. 29, Russia broke off diplomatic relations with Finland.

Nov. 30, Russians invaded Finland. French Chamber of Deputies granted the Government decree powers until the end of the War.

Dec. 1. Canadian squadron of the R.A.F. formed from Canadians already serving with that Force. Finnish Cabinet resigned in an effort to placate Russia. Helsingfors bombed. Finnish communists set up a 'People's Government' at Terijoki.

Dec. 2, Sweden further strengthened her forces. Russia recognized the 'People's Government' of Finland.

Dec. 3, Women and children evacuated from Helsingfors. British aeroplanes attacked German cruisers and destroyers near Heligoland. League of Nations Council convened to consider Russian invasion of Finland.

Dec. 4, Britain undertook to buy 4,480,000 lb. of Canadian bacon per week. H.M. King George VI arrived in France to visit his troops. Finland commenced to fortify the Aaland Islands. The Finnish Government announced the capture of 1,500 Russians.

Dec. 6, Finns repulsed Russians on all fronts. Britain sold 30 aeroplanes to Finland.

Dec. 8, Fascist Grand Council reaffirmed Italy's neutrality. Russo-German commission organized for the mutual exchange of populations between Poland and Germany commenced operations. Russia established a blockade of Finnish ports. Finns reported that they had halted 200,000 Russian troops and had disabled 100 tanks.

Dec. 9, League of Nations Council met at Geneva.

Dec. 10, H.M. the King returned from visit to the British troops in France. Italian reports stated that 50 Italian aeroplanes with pilots and ground crews had been sent to Finland. United Kingdom gave Finland facilities for the purchase of military equipment and the United States granted a $10,000,000 credit for the purchase of civilian supplies.

Dec. 11, Russian troops reached points from 40 to 60 miles from the border, despite strong Finnish resistance which entailed heavy casualties. Italy's resignation from the League of Nations became effective.

Dec. 12, Russia rejected a League of Nations proposal to mediate the Russo-Finnish War. United Kingdom and France announced a financial alliance to last until six months after the War.

Dec. 13, German 'pocket' battleship *Admiral Graf Spee*, while attacking a British convoy off the South American Coast, damaged by British cruisers *Exeter*, *Ajax*, and *Achilles*, and forced to take refuge in Montevideo Harbour.

Dec. 14, Russia expelled from the League of Nations.

Dec. 16, Russians claimed to have occupied town of Salmijaervi, the centre of the Finnish nickel-mining area. Uruguay ordered the *Admiral Graf Spee* to sail by Dec. 17 or be interned.

Dec. 17, First Canadian troops landed in United Kingdom. Empire air-training plan signed in Ottawa by United Kingdom, Canada, Australia, and New Zealand. First British casualties in France announced. *Admiral Graf Spee* blown up by her captain in the mouth of the River Plate.

Dec. 19, Meeting of the Allied Supreme War Council in Paris and recognition of the Czechoslovak National Committee.

Dec. 20, New trade agreement between Germany and Roumania doubling oil exports to Germany.

Dec. 21, Russians retreated in northern sectors of Finnish war area.

Dec. 22, The Minister of Finance announced the setting up of the National War Loan Committee.

Dec. 25, Finnish troops drove Russians across the border in the Karelian Isthmus. The 21 American republics protested to United Kingdom, France, and Germany against naval engagements in the American 'neutrality zone'. Pope Pius presented a 5-point peace program.

Dec. 26, Canadian Shipping Board assumed duties of former Ships Licensing Board.

Dec. 27, Finns announced that Russians had been forced to retreat over 50 miles in northern Finland, with losses of 4,000 in 3 days. Laying of coast-wise mine belt from Scapa Flow to the Thames announced by British Admiralty. British Indian troops landed in France.

Dec. 29-30, Finnish troops defeated Russians on the northeastern frontier.

Dec. 31, Second part of the First Canadian Division landed in the United Kingdom.

(For events in the War Chronology from the beginning of 1940, see Appendix I.)

CHAPTER III.—CONSTITUTION AND GOVERNMENT.

CONSPECTUS.

	PAGE.
Part I.—Constitution and General Government	42
Part II.—Provincial and Local Government	42
Part III.—Legislative and Executive Authorities	42
SECTION 1. DOMINION PARLIAMENT AND MINISTRY	42
Subsection 1. The Governor General of Canada	42
Subsection 2. The Ministry	43
Subsection 3. The Senate	47
Subsection 4. The House of Commons	50
Subsection 5. The Dominion Franchise	57
SECTION 2. PROVINCIAL GOVERNMENTS.	58
Part IV.—Representatives in Other Countries	64
SECTION 1. HIGH COMMISSIONERS WITHIN THE BRITISH COMMONWEALTH OF NATIONS	64
SECTION 2. DIPLOMATIC REPRESENTATIVES IN FOREIGN COUNTRIES	65
Part V.—Representatives of Other Countries in Canada	66
SECTION 1. REPRESENTATIVES OF MEMBERS OF THE BRITISH COMMONWEALTH OF NATIONS	66
SECTION 2. DIPLOMATIC REPRESENTATIVES OF FOREIGN COUNTRIES	67
Part VI.—Canada and the League of Nations	67

The Government of the Dominion of Canada was established under the provisions of the British North America Act of 1867. This Statute of the Imperial Parliament, as from time to time amended, forms the written basis of the Constitution of Canada. Subsequent sections of this chapter describe in some detail the institutions and processes by which Canada is governed.

The several stages in the development of its status as a Dominion have been authoritatively described in the reports of successive Imperial Conferences including that held in London in 1926, which defined the group of self-governing communities consisting of the United Kingdom and the Dominions as "autonomous communities within the British Empire, equal in status, in no way subordinate one to another in any aspect of their domestic or foreign affairs, though united by a common allegiance to the Crown and freely associated as members of the British Commonwealth of Nations" That Conference also recognized that, as a consequence of this equality of status, the Governor General of a Dominion "is the representative of the Crown, holding in all essential respects the same position in relation to the administration of public affairs in the Dominion as is held by His Majesty the King in Great Britain", and that "it is the right of the Government of each Dominion to advise the Crown in all matters relating to its own affairs". Simultaneously, with this change in the constitutional relationship between the several parts of the British Commonwealth of Nations, there developed as a complementary aspect of nationhood the assumption by the several Dominions of further responsibilities and rights of sovereign States in their relations with other members of the community of nations. Membership in the League of Nations, the exercise of treaty-making powers, and the establishment of separate diplomatic representation in a number of foreign countries have characterized this phase in the growth of the Dominion of Canada. More explicit recognition of the implications of the principles of equality of status was accorded in the Statute of Westminster of 1931 which provided for the removal of the remaining limitations on the legislative autonomy of the Dominions.

89187—4

PART I.—CONSTITUTION AND GENERAL GOVERNMENT.

Under the above heading a brief historical and descriptive account of the evolution of the general government of Canada is given on pp. 89-100 of the Canada Year Book, 1922-23.

PART II.—PROVINCIAL AND LOCAL GOVERNMENT.

Under the heading "Provincial and Local Government in Canada", a brief account of the government of each of the provinces of Canada and of its municipal institutions and judicial organization was published on pp. 101-115 of the 1922-23 edition of the Year Book. The 1938 edition of the Year Book includes at pp. 92-93 an article entitled "The Government of Canada's Arctic Territory".

PART III.—LEGISLATIVE AND EXECUTIVE AUTHORITIES.

Section 1.—Dominion Parliament and Ministry.

The Dominion Parliament is composed of the King (represented by the Governor General), the Senate, and the House of Commons. The Governor General is appointed by the King on the advice of the Government of Canada. Members of the Senate are appointed for life by the Governor General in Council and members of the House of Commons are elected by the people. As a result of the working out of the democratic principle, the part played by the King's Representative and the Upper Chamber of Parliament in the country's legislation has been, in Canada as in the United Kingdom, a steadily decreasing one, the chief responsibilities involved in legislation being assumed by the House of Commons.

In Subsections 3 and 4, pp. 47–57, a brief résumé of the history of parliamentary representation will be found. Attention may be drawn to the growth in the number of members of both the Senate and the House of Commons since Confederation and to the greatly increased unit of representation in the Lower House.

Subsection 1.—The Governor General of Canada.

The Governor General is appointed by the King as his representative in Canada, usually for a term of five years, with a salary fixed at £10,000 sterling per annum, which is a charge against the consolidated revenue of the country. The Governor General is bound by the terms of his commission and can exercise only such authority as is expressly entrusted to him. He acts under the advice of his Ministry, which is responsible to Parliament, and, as the acting head of the Executive, summons, prorogues, and dissolves Parliament, and assents to or reserves bills. In the discharge of these and other executive duties, he acts entirely by and with the advice of his Ministry (the Governor General in Council). The royal prerogative of mercy in capital cases, formerly exercised on the Governor General's own judgment and responsibility, is now exercised pursuant to the advice of the Ministry. The practice whereby the Governor General served as the medium of communication between the Canadian and the British Governments has been given up; since July 1, 1927, direct communication between His Majesty's Government in Canada and His Majesty's Government in the United Kingdom has been instituted.

A list of the Governors General from the time of Confederation, with the dates of their appointment and assumption of office, is given in Table 1.

1.—Governors General of Canada, 1867-1940.

Name.	Date of Appointment.	Date of Assumption of Office.
Viscount Monck, G.C.M.G.	June 1, 1867	July 1, 1867
Lord Lisgar, G.C.M.G.	Dec. 29, 1868	Feb. 2, 1869
The Earl of Dufferin, K.P., K.C.B., G.C.M.G.	May 22, 1872	June 25, 1872
The Marquis of Lorne, K.T., G.C.M.G.	Oct. 5, 1878	Nov. 25, 1878
The Marquis of Lansdowne, G.C.M.G.	Aug. 18, 1883	Oct. 23, 1883
Lord Stanley of Preston, G.C.B.	May 1, 1888	June 11, 1888
The Earl of Aberdeen, K.T., G.C.M.G.	May 22, 1893	Sept. 18, 1893
The Earl of Minto, G.C.M.G.	July 30, 1898	Nov. 12, 1898
Earl Grey, G.C.M.G.	Sept. 26, 1904	Dec. 10, 1904
Field Marshal H.R.H. the Duke of Connaught, K.G.	Mar. 21, 1911	Oct. 13, 1911
The Duke of Devonshire, K.G., G.C.M.G., G.C.V.O.	Aug. 19, 1916	Nov. 11, 1916
General the Lord Byng of Vimy, G.C.B., G.C.M.G., M.V.O.	Aug. 2, 1921	Aug. 11, 1921
Viscount Willingdon of Ratton, G.C.S.I., G.C.I.E., G.B.E.	Aug. 5, 1926	Oct. 2, 1926
The Earl of Bessborough, G.C.M.G.	Feb. 9, 1931	Apr. 4, 1931
Lord Tweedsmuir of Elsfield, G.C.M.G., G.C.V.O., C.H.	Aug. 10, 1935	Nov. 2, 1935

Subsection 2.—The Ministry.

A system of government based upon the British, by which a Cabinet or Ministry (composed of members of the House of Commons or the Senate), responsible to Parliament, holds office while it enjoys the confidence of the people's representatives, is found in Canada. The Cabinet is actually a committee of the King's Privy Council for Canada. Without enlarging upon the features of the system, it may be sufficient to note that the Cabinet is responsible to the House of Commons, and, following established precedent, resigns office when it becomes evident that it no longer holds the confidence of the people's representatives. Members of the Cabinet are chosen by the Prime Minister; each generally assumes charge of one of the various Departments of Government, although a Minister may hold more than one portfolio at the same time, or may be without portfolio.

The Prime Ministers since Confederation and the dates of their tenures of office, together with the members of the Sixteenth Ministry, are given in Table 2. The complete list of the members of the King's Privy Council for Canada, as at Mar. 15, 1940, is added as Table 3.

2.—Ministries since Confederation and Members of the Sixteenth Ministry.

NOTE.—A complete list of the members of Dominion Ministries from Confederation to 1913 appears in the Year Book of 1912, pp. 422-429. A list of the members of Dominion Ministries from 1911 to 1921 appears in the Year Book of 1920, pp. 651-653. A list of the members of the Twelfth and Thirteenth Ministries appears on pp. 76-77 of the 1927-28 Year Book. Members of the Fourteenth Ministry are listed at p. 69 of the 1930 Year Book and members of the Fifteenth Ministry at p. 67 of the 1934-35 Year Book.

1. Rt. Hon. Sir John A. Macdonald, Prime Minister. From July 1, 1867, to Nov. 6, 1873.
2. Hon. Alexander Mackenzie, Prime Minister. From Nov. 7, 1873, to Oct. 16, 1878.
3. Rt. Hon. Sir John A. Macdonald, Prime Minister. From Oct. 17, 1878, to June 6, 1891.
4. Hon. Sir John J. C. Abbott, Prime Minister. From June 16, 1891, to Dec. 5, 1892.
5. Hon. Sir John S. D. Thompson, Prime Minister. From Dec. 5, 1892, to Dec. 12, 1894.
6. Hon. Sir Mackenzie Bowell, Prime Minister. From Dec. 21, 1894, to Apr. 27, 1896.
7. Hon. Sir Charles Tupper, Prime Minister. From May 1, 1896, to July 8, 1896.
8. Rt. Hon. Sir Wilfrid Laurier, Prime Minister. From July 11, 1896, to Oct. 6, 1911.
9. Rt. Hon. Sir Robert L. Borden, Prime Minister. (Conservative Administration.) From Oct. 10, 1911, to Oct. 12, 1917.
10. Rt. Hon. Sir Robert L. Borden, Prime Minister. (Unionist Administration.) From Oct. 12, 1917, to July 10, 1920.
11. Rt. Hon. Arthur Meighen, Prime Minister. (Unionist—"National Liberal and Conservative Party".) From July 10, 1920, to Dec. 29, 1921.
12. Rt. Hon. William Lyon Mackenzie King, Prime Minister. From Dec. 29, 1921, to June 28, 1926.
13. Rt. Hon. Arthur Meighen, Prime Minister. From June 29, 1926, to Sept. 25, 1926.
14. Rt. Hon. William Lyon Mackenzie King, Prime Minister. From Sept. 25, 1926, to Aug. 6, 1930.
15. Rt. Hon. Richard Bedford Bennett, Prime Minister. From Aug. 7, 1930, to Oct. 23, 1935.
16. Rt. Hon. William Lyon Mackenzie King, Prime Minister. From Oct. 23, 1935.

SIXTEENTH DOMINION MINISTRY.

(According to precedence of the Ministers.)

Office.	Occupant.	Date of Appointment.[1]
Prime Minister, President of the Privy Council, Secretary of State for External Affairs	Right Hon. W. L. Mackenzie King, C.M.G.	Oct. 23, 1935
Member of the Administration and Minister without portfolio	Hon. Raoul Dandurand, K.C.	Oct. 23, 1935
Minister of Mines and Resources[2]	Hon. Thomas Alexander Crerar	Oct. 23, 1935
Minister of Justice, Attorney General of Canada, an Acting Secretary of State	Right Hon. Ernest Lapointe, K.C.	Oct. 23, 1935
Minister of Public Works	Hon. Pierre Joseph Arthur Cardin, K.C.	Oct. 23, 1935
Minister of Trade and Commerce	Hon. William Daum Euler	Oct. 23, 1935
Minister of Finance	Hon. James Layton Ralston	Sept. 6, 1939
Minister of Pensions and National Health	Hon. Ian Alistair Mackenzie	Oct. 23, 1935 Sept.19, 1939
Postmaster General	Hon. Charles Gavan Power, M.C., K.C.	Oct. 23, 1935 Sept.19, 1939
Minister of National Revenue	Hon. James Lorimer Ilsley, K.C.	Oct. 23, 1935
Minister of Fisheries	Hon. Joseph Enoil Michaud, K.C.	Oct. 23, 1935
Minister of National Defence	Hon. Norman McLeod Rogers	Oct. 23, 1935 Sept.19, 1939
Minister of Transport[3]	Hon. Clarence Decatur Howe	Oct. 23, 1935
Minister of Agriculture	Hon. James Garfield Gardiner	Oct. 28, 1935
Minister of Labour	Hon. Norman Alexander McLarty	Jan. 23, 1939 Sept.19, 1939
Minister without portfolio	Hon. James Angus MacKinnon	Jan. 23, 1939

[1] Where two dates are shown, the first indicates the date of first appointment to the present Cabinet and the second the date of appointment to the portfolio held at present. [2] The Departments of Mines, Interior, Immigration and Colonization, and Indian Affairs were organized into the new Department of Mines and Resources on Dec. 1, 1936. [3] The Department of Railways and Canals and the Department of Marine, together with the Civil Aviation Branch of the Department of National Defence were organized into the new Department of Transport on Nov. 2, 1936.

3.—Members of the King's Privy Council for the Dominion of Canada, According to Seniority Therein,[1] as at Feb. 15, 1940.

NOTE.—In this list the prefix Rt. Hon. indicates membership in the British Privy Council. Besides those mentioned in this list, the Rt. Hon. Sir Lyman P. Duff, G.C.M.G., Chief Justice of the Supreme Court, is a Canadian member of the British Privy Council.

Name.	Date When Sworn In.
The Rt. Hon. Sir William Mulock	July 12, 1896
The Rt. Hon. Sir Charles Fitzpatrick[2]	Feb. 11, 1902
The Hon. Sir A. B. Aylesworth	Oct. 16, 1905
The Rt. Hon. George P. Graham	Aug. 30, 1907
The Hon. R. Dandurand[3]	Jan. 20, 1909
The Rt. Hon. W. L. Mackenzie King[4]	June 2, 1909
The Rt. Hon. Sir Thomas White	Oct. 10, 1911
The Hon. Wilfrid Bruno Nantel	Oct. 10, 1911
The Hon. Pierre Edouard Blondin	Oct. 20, 1914
The Rt. Hon. Arthur Meighen	Oct. 2, 1915
The Hon. Esioff Léon Patenaude	Oct. 6, 1915
The Rt. Hon. William Morris Hughes	Feb. 18, 1916
The Hon. Albert Sévigny	Jan. 8, 1917
The Hon. Charles Colquhoun Ballantyne	Oct. 3, 1917
The Hon. James Alexander Calder	Oct. 12, 1917
The Hon. Newton Wesley Rowell	Oct. 12, 1917
The Hon. Sydney Chilton Mewburn	Oct. 12, 1917
The Hon. Thomas Alexander Crerar[3]	Oct. 12, 1917
The Hon. Alexander K. Maclean	Oct. 23, 1917
The Hon. Sir Henry Lumley Drayton	Aug. 2, 1919
The Hon. Fleming Blanchard McCurdy	July 13, 1920
The Hon. Edgar N. Rhodes	Feb. 22, 1921
The Hon. John Babbington Macaulay Baxter	Sept. 21, 1921
The Hon. Henry Herbert Stevens	Sept. 21, 1921
The Hon. Robert James Manion[5]	Sept. 22, 1921
The Hon. James Robert Wilson	Sept. 26, 1921
The Rt. Hon. Richard Bedford Bennett	Oct. 4, 1921
The Rt. Hon. Ernest Lapointe[3]	Dec. 29, 1921
The Hon. Arthur Bliss Copp	Dec. 29, 1921
The Hon. Charles Stewart	Dec. 29, 1921
The Hon. William Richard Motherwell	Dec. 29, 1921
The Hon. James Murdock	Dec. 29, 1921
The Hon. John Ewan Sinclair	Dec. 30, 1921
The Hon. James H. King	Feb. 3, 1922
The Hon. Edward Mortimer Macdonald	Apr. 12, 1923
The Hon. Edward James McMurray	Nov. 14, 1923
The Hon. Pierre Joseph Arthur Cardin[3]	Jan. 30, 1924
The Hon. George Newcombe Gordon	Sept. 7, 1925
The Hon. Charles Vincent Massey[6]	Sept. 16, 1925
The Hon. Walter Edward Foster	Sept. 26, 1925
The Hon. Philippe Roy	Feb. 9, 1926
The Hon. Charles A. Dunning	Mar. 1, 1926
The Hon. John C. Elliott	Mar. 8, 1926
The Hon. George Burpee Jones	July 13, 1926
The Hon. Donald Sutherland	July 13, 1926
The Hon. Raymond Ducharme Morand	July 13, 1926
The Hon. John Alexander Macdonald	July 13, 1926
The Hon. Eugène Paquet	Aug. 23, 1926
The Hon. Guillaume André Fauteux	Aug. 23, 1926
The Hon. William D. Euler[3]	Sept. 25, 1926
The Hon. Peter Heenan	Sept. 25, 1926
The Hon. James Layton Ralston[3]	Oct. 8, 1926
H.R.H. The Duke of Windsor	Aug. 2, 1927
The Rt. Hon. Earl Baldwin of Bewdley	Aug. 2, 1927
The Hon. William Frederick Kay	June 17, 1930
The Hon. Cyrus Macmillan	June 17, 1930
The Hon. Ian Alistair Mackenzie[3]	June 27, 1930
The Hon. Arthur C. Hardy	July 31, 1930
The Hon. Arthur Sauvé	Aug. 7, 1930
The Hon. Murray MacLaren	Aug. 7, 1930
The Hon. Hugh Alexander Stewart	Aug. 7, 1930
The Hon. Charles Hazlitt Cahan	Aug. 7, 1930
The Hon. Donald Matheson Sutherland	Aug. 7, 1930
The Hon. Alfred Duranleau	Aug. 7, 1930
The Hon. Thomas Gerow Murphy	Aug. 7, 1930
The Hon. Maurice Dupré	Aug. 7, 1930
The Hon. Wesley Ashton Gordon	Aug. 7, 1930
The Hon. G. Howard Ferguson	Jan. 14, 1931
The Hon. W. D. Herridge	June 17, 1931
The Hon. Robert Charles Matthews	Dec. 6, 1933
The Hon. Richard Burpee Hanson	Nov. 17, 1934
The Hon. Grote Stirling	Nov. 17, 1934
The Hon. George Reginald Geary	Aug. 14, 1935
The Hon. James Earl Lawson	Aug. 14, 1935
The Hon. Samuel Gobeil	Aug. 14, 1935
The Hon. Lucien Henri Gendron	Aug. 30, 1935
The Hon. William Earl Rowe	Aug. 30, 1935
The Hon. Onésime Gagnon	Aug. 30, 1935
The Hon. Charles Gavan Power[3]	Oct. 23, 1935
The Hon. James Lorimer Ilsley[3]	Oct. 23, 1935
The Hon. Joseph Enoil Michaud[3]	Oct. 23, 1935
The Hon. Norman McLeod Rogers[3]	Oct. 23, 1935
The Hon. Clarence Decatur Howe[3]	Oct. 23, 1935
The Hon. James Garfield Gardiner[3]	Nov. 4, 1935
The Hon. Norman Alexander McLarty[3]	Jan. 23, 1939
The Hon. James Angus MacKinnon[3]	Jan. 23, 1939
The Hon. Pierre F. Casgrain	[7]

[1] As in the case of Privy Councillors of the United Kingdom, members of His Majesty's Privy Council for Canada take rank *inter se* according to the dates of their being sworn in. [2] Ranks as retired Chief Justice of Canada. [3] Ranks as a member of the Cabinet. [4] Ranks as the Prime Minister of Canada. [5] Ranks as the Leader of the Opposition. [6] High Commissioner in United Kingdom. [7] Not sworn in at time of going to press (March 5, 1940).

In Table 4 are given the dates of the opening and prorogation of the sessions of the various Dominion Parliaments from 1867 to 1940.

4.—Duration and Sessions of Dominion Parliaments, 1867-1940.

Order of Parliament.	Session.	Date of Opening.	Date of Prorogation.	Days of Session.	Date of Election, Writs Returnable, Dissolution, and Length of Parliament.[1]
1st Parliament	1st	Nov. 1, 1867	May 22, 1868	182	Aug., Sept., 1867.[3]
	2nd	Apr. 15, 1869	June 22, 1869	69	Sept. 24, 1867.[4]
	3rd	Feb. 15, 1870	May 12, 1870	87	July 8, 1872.[5]
	4th	Feb. 15, 1871	Apr. 14, 1871	59	4 y., 9 m., 15 d.[6]
	5th	Apr. 11, 1872	June 14, 1872	65	
2nd Parliament	1st	Mar. 5, 1873	Aug. 13, 1873	807	July, Aug., Sept., 1872.[3]
	2nd	Oct. 23, 1873	Nov. 7, 1873	16	Sept. 3, 1872.[4]
					Jan. 2, 1874.[5]
					1 y., 4 m., 0 d.[6]
3rd Parliament	1st	Mar. 26, 1874	May 26, 1874	62	Jan. 22, 1874[3]
	2nd	Feb. 4, 1875	Apr. 8, 1875	64	Feb. 21, 1874.[4]
	3rd	Feb. 10, 1876	Apr. 12, 1876	63	Aug. 17, 1878.[5]
	4th	Feb. 8, 1877	Apr. 28, 1877	80	4 y., 5 m., 25 d.[6]
	5th	Feb. 7, 1878	May 10, 1878	93	
4th Parliament	1st	Feb. 13, 1879	May 15, 1879	92	Sept. 17, 1878.[3]
	2nd	Feb. 12, 1880	May 7, 1880	86	Nov. 21, 1878.[4]
	3rd	Dec. 9, 1880	Mar. 21, 1881	103	May 18, 1882.[5]
	4th	Feb. 9, 1882	May 17, 1882	98	3 y., 5 m., 28 d.[6]
5th Parliament	1st	Feb. 8, 1883	May 25, 1883	107	June 20, 1882.[3]
	2nd	Jan. 17, 1884	Apr. 19, 1884	94	Aug. 7, 1882.[4]
	3rd	Jan. 29, 1885	July 20, 1885	173	Jan. 15, 1887.[5]
	4th	Feb. 25, 1886	June 2, 1886	98	4 y., 5 m., 10 d.[6]
6th Parliament	1st	Apr. 13, 1887	June 23, 1887	72	Feb. 22, 1887.[3]
	2nd	Feb. 23, 1888	May 22, 1888	90	Apr. 7, 1887.[4]
	3rd	Jan. 31, 1889	May 2, 1889	92	Feb. 3, 1891.[5]
	4th	Jan. 16, 1890	May 16, 1890	121	3 y., 9 m., 27 d.[6]
7th Parliament	1st	Apr. 29, 1891	Sept. 30, 1891	155	
	2nd	Feb. 25, 1892	July 9, 1892	136	Mar. 5, 1891.[3]
	3rd	Jan. 26, 1893	Apr. 1, 1893	66	Apr. 25, 1891.[4]
	4th	Mar. 15, 1894	July 23, 1894	131	Apr. 24, 1896.[5]
	5th	Apr. 18, 1895	July 22, 1895	96	5 y., 0 m., 0 d.[6]
	6th	Jan. 2, 1896	Apr. 23, 1896	111	
8th Parliament	1st	Aug. 19, 1896	Oct. 5, 1896	48	June 23, 1896.[3]
	2nd	Mar. 25, 1897	June 29, 1897	97	July 13, 1896.[4]
	3rd	Feb. 3, 1898	June 13, 1898	131	Oct. 9, 1900.[5]
	4th	Mar. 16, 1899	Aug. 11, 1899	149	4 y., 2 m., 26 d.[6]
	5th	Feb. 1, 1900	July 18, 1900	168	
9th Parliament	1st	Feb. 6, 1901	May 23, 1901	107	Nov. 7, 1900.[3]
	2nd	Feb. 13, 1902	May 15, 1902	90	Dec. 5, 1900.[4]
	3rd	Mar. 12, 1903	Oct. 24, 1903	227	Sept. 29, 1904.[5]
	4th	Mar. 10, 1904	Aug. 10, 1904	154	3 y., 9 m., 26 d.[6]
10th Parliament	1st	Jan. 11, 1905	July 20, 1905	191	Nov. 3, 1904.[3]
	2nd	Mar. 8, 1906	July 13, 1906	128	Dec. 15, 1904.[4]
	3rd	Nov. 22, 1906	Apr. 27, 1907	157	Sept. 17, 1908.[5]
	4th	Nov. 28, 1907	July 20, 1908	236	3 y., 9 m., 4 d.[6]
11th Parliament	1st	Jan. 20, 1909	May 19, 1909	120	Oct. 26, 1908.[3]
	2nd	Nov. 11, 1909	May 4, 1910	175	Dec. 3, 1908.[4]
	3rd	Nov. 17, 1910	July 29, 1911	1968	July 29, 1911.[5]
					2 y., 7 m., 28 d.[6]
12th Parliament	1st	Nov. 15, 1911	Apr. 1, 1912	139	
	2nd	Nov. 21, 1912	June 6, 1913	1739	Sept. 21, 1911.[3]
	3rd	Jan. 15, 1914	June 12, 1914	148	Oct. 7, 1911.[4]
	4th	Aug. 18, 1914	Aug. 22, 1914	5	Oct. 6, 1917.[5]
	5th	Feb. 4, 1915	Apr. 15, 1915	71	6 y., 0 m., 0 d.[6]
	6th	Jan. 12, 1916	May 18, 1916	127	
	7th	Jan. 18, 1917	Sept. 20, 1917	20710	

* For footnotes see end of Table, see p. 47.

4.—Duration and Sessions of Dominion Parliaments, 1867-1940—concluded.

Order of Parliament.	Session.	Date of Opening.	Date of Prorogation.	Days of Session.	Date of Election, Writs Returnable, Dissolution, and Length of Parliament.[1]
13th Parliament	1st	Mar. 18, 1918	May 24, 1918	68	Dec. 17, 1917.[3]
	2nd	Feb. 20, 1919	July 7, 1919	138	Feb. 27, 1918.[4]
	3rd	Sept. 1, 1919	Nov. 10, 1919	71	Oct. 4, 1921.[5]
	4th	Feb. 26, 1920	July 1, 1920	127	3 y., 7 m., 6 d.[6]
	5th	Feb. 14, 1921	June 4, 1921	111	
14th Parliament	1st	Mar. 8, 1922	June 28, 1922	113	Dec. 6, 1921.[3]
	2nd	Jan. 31, 1923	June 30, 1923	151	Jan. 14, 1922.[4]
	3rd	Feb. 28, 1924	July 19, 1924	143	Sept. 5, 1925.[5]
	4th	Feb. 5, 1925	June 27, 1925	143	3 y., 7 m., 26 d.[6]
15th Parliament	1st	Jan. 7, 1926	July 2, 1926	177[11]	Oct. 29, 1925.[3] Dec. 7, 1925.[4] July 2, 1926.[5] 6 m., 26 d.[6]
16th Parliament	1st	Dec. 9, 1926	Apr. 14, 1927	73[12]	Sept. 14, 1926.[3]
	2nd	Jan. 26, 1928	June 11, 1928	138	Nov. 2, 1926.[4]
	3rd	Feb. 7, 1929	June 14, 1929	128	May 30, 1930.[5]
	4th	Feb. 20, 1930	May 30, 1930	100	3 y., 7 m., 0 d.[6]
17th Parliament	1st	Sept. 8, 1930	Sept. 22, 1930	15	
	2nd	Mar. 12, 1931	Aug. 3, 1931	145	July 28, 1930.[3]
	3rd	Feb. 4, 1932	May 26, 1932	113	Aug. 18, 1930.[4]
	4th	Oct. 6, 1932	May 27, 1933	169[13]	Aug. 15, 1935.[5]
	5th	Jan. 25, 1934	July 3, 1934	160	4 y., 11 m., 29 d.[6]
	6th	Jan. 17, 1935	July 5, 1935	170	
18th Parliament	1st	Feb. 6, 1936	June 23, 1936	139	
	2nd	Jan. 14, 1937	Apr. 10, 1937	87	Oct. 14, 1935.[3]
	3rd	Jan. 27, 1938	July 1, 1938	156	Nov. 9, 1935.[4]
	4th	Jan. 12, 1939	June 3, 1939	143	Jan. 25, 1940.[5]
	5th	Sept. 7, 1939	Sept. 13, 1939	7	4 y., 3 m., 13 d.[6]
	6th	Jan. 25, 1940	Jan. 25, 1940	1	

[1] The ordinary legal limit of duration for each Parliament is five years. [2] Adjourned from Dec. 21, 1867, to Mar. 12, 1868, to allow the local legislatures to meet. [3] Period of general elections. [4] Writs returnable. [5] Dissolution of Parliament. [6] Duration of Parliament in years, months, and days. The life of a Parliament is counted from the date of return of election writs to the date of dissolution, both days inclusive. [7] Not including days (81) of adjournment from May 23 until Aug. 13. [8] Not including days (59) of adjournment from May 19 to July 18. [9] Not including days (25) of adjournment from Dec. 19, 1912, to Jan. 14, 1913. [10] Not including days (39) of adjournment from Feb. 7 to Mar. 19, 1917. [11] Including days (13) of adjournment from Mar. 3 to Mar. 15. [12] Not including days (54) of adjournment from Dec. 15 to Feb. 8. [13] Not including days (65) of adjournment from Nov. 25 to Jan. 30

Subsection 3.—The Senate.

The British North America Act, 1867, provides in Sects. 21 and 22 that "the Senate shall consist of seventy-two members, who shall be styled Senators."* In relation to the constitution of the Senate, Canada shall be deemed to consist of three divisions—(1) Ontario; (2) Quebec; (3) The Maritime Provinces—Nova Scotia, and New Brunswick; which three divisions shall be equally represented in the Senate as follows: Ontario by twenty-four senators; Quebec by twenty-four senators; and the Maritime Provinces by twenty-four senators, twelve thereof representing New Brunswick and twelve thereof representing Nova Scotia. In the case of Quebec, each of the twenty-four senators representing the province shall be appointed for

* A senator's sessional indemnity is $4,000.

one of the electoral divisions of Lower Canada, specified in Schedule A to Chapter I of the Consolidated Statutes of Canada". Further, under Sect. 147 of the same Act, it is provided that "in the case of the admission to Confederation of Newfoundland or Prince Edward Island . . . each shall be entitled to a representation in the Senate of four members. Prince Edward Island, when admitted, shall be deemed to be comprised in the third of the three divisions into which Canada is divided by this Act" and on its admission "the representation of Nova Scotia and New Brunswick shall, as vacancies occur, be reduced from twelve to ten members, respectively". In case of the admission of Newfoundland, the normal membership of the Senate of 72 members was to be increased to 76, while the maximum number of 78 (Sect. 28) was to be 82, Sect. 26 containing a provision for the appointment of three or six additional members in certain cases, to represent equally the three divisions of Canada.

By 33 Vict., c. 3, an Act to establish and provide for the government of the Province of Manitoba, passed in 1870, the newly-formed Province was given representation of two members in the Senate, provision being made at the same time for increases in representation to three and four on increases of population, according to the decennial census, to 50,000 and 75,000, respectively. In the following year, British Columbia, on being admitted to the Union by an Imperial Order in Council of May 16, 1871, was given representation by three senators. Two years later, when Prince Edward Island was admitted to Confederation by an Imperial Order in Council of June 26, 1873, it was granted representation in the Senate of four members under the terms of the British North America Act, as cited above. Thus, in 1873, the seven provinces—Ontario, Quebec, Nova Scotia, New Brunswick, Manitoba, British Columbia, and Prince Edward Island—were represented by a total of 77 members in the Senate, their individual representation at the time being 24, 24, 10, 10, 2, 3, and 4 members, respectively.

In 1882, following the Census of 1881 and an increase of population in Manitoba to 62,260 persons, the representation of this Province was increased to three members under authority of the Manitoba Act, 1870. Later, by 50-51 Vict., c. 38, an Act of 1887, the representation of the Northwest Territories in the Senate was fixed at two members. A subsequent increase resulted from the growth of population in Manitoba to 152,506, as shown by the Census of 1891, the Province being granted a fourth senator under the terms of the Manitoba Act of 1870. An Act passed in the session of 1903 (3 Edw. VII, c. 42) provided for an increase in the representation of the Northwest Territories from two to four members, bringing the total representation at this date to 83 members.

On the establishment of the Provinces of Alberta and Saskatchewan out of the former Northwest Territories in 1905, under 4-5 Edw. VII, cc. 3 and 42, provision was made for their representation in the Senate by 4 members each, which might be increased by Parliament to 6 on the completion of the next decennial census. This change in representation brought the membership of the Upper Chamber to a total of 87.

In 1915, by an amendment to the British North America Act (5-6 Geo. V, c. 45), an important change was made with regard to the constitution of the Senate. The number of divisions provided for by Sect. 22 of the original Act was increased from three to four, the fourth comprising the four western provinces of Manitoba, Saskatchewan, Alberta, and British Columbia. Each of these Provinces was to be represented by 6 members under the Act, the division being thus represented by 24 members and placed on an equality with the others with respect to membership.

A corresponding change was made in the number of additional senators provided for by the original British North America Act by substituting increases of four or eight members for the three or six cited in Sect. 26 of the Act of 1867. Normal representation, therefore, is at present fixed at 96, which number may be increased if necessary to 100 or to a maximum of 104.

The entry of Newfoundland to the Union is still provided for by the above Act; s-s 6 of Sect. 1 would allow it a representation of 6 members instead of the 4 granted by the Act of 1867. If Newfoundland were admitted to the Dominion, the normal number of senators would, therefore, be 102 with a maximum of 110.

In Table 5 the growth of membership in the Senate is shown by divisions and provinces from 1867 to 1915, since when no change has taken place. The names and addresses of the senators from each province are given, as at Mar. 15, 1940, in Table 6.

5.—Growth of Representation in the Senate, 1867-1940.

Province.	1867.	1870.	1871.	1873.	1882.	1887.	1892.	1903.	1905.	1915-1940.
Ontario	24	24	24	24	24	24	24	24	24	24
Quebec	24	24	24	24	24	24	24	24	24	24
Maritime Provinces	24	24	24	24	24	24	24	24	24	24
Nova Scotia	*12*	*12*	*12*	*10*	*10*	*10*	*10*	*10*	*10*	*10*
New Brunswick	*12*	*12*	*12*	*10*	*10*	*10*	*10*	*10*	*10*	*10*
Prince Edward Island	–	–	–	*4*	*4*	*4*	*4*	*4*	*4*	*4*
Western Provinces		2	5	5	6	8	9	11	15	24
Manitoba		*2*	*2*	*2*	*3*	*3*	*4*	*4*	*4*	*6*
British Columbia			*3*	*3*	*3*	*3*	*3*	*3*	*3*	*6*
Saskatchewan			–	–	–	*2*	*2*	*4*	*4*	*6*
Alberta									*4*	*6*
Totals	72	74	77	77	78	80	81	83	87	96

6.—Representation in the Senate of Canada, by Provinces, as at Feb. 15, 1940.

Name of Senator.	Post Office Address.
Prince Edward Island—(4 senators).	
Hughes, James J.	Souris.
MacArthur, Creelman	Summerside.
Sinclair, John E., P.C.	Emerald.
Macdonald, John A., P.C.	Cardigan.
Nova Scotia—(10 senators).	
Tanner, C. E.	Pictou.
Logan, H. J.	Parrsboro.
Dennis, W. H.	Halifax.
Macdonald, J. A.	St. Peters.
Rhodes, Edgar N., P.C.	Amherst.
Cantley, Thomas	New Glasgow.
Quinn, Felix P.	Bedford.
Robicheau, John L. P.	Maxwellton.
Duff, William	Lunenburg.
MacLennan, Donald, K.C., LL.B.	Inverness.
New Brunswick—(10 senators)	
Bourque, T. J.	Richibucto.
McDonald, J. A.	Shediac.
Black, Frank B.	Sackville.
Turgeon, Onésiphore	Bathurst.
Robinson, C. W.	Moncton.
Copp, A. B., P.C.	Sackville.
Foster, W. E., P.C. (Speaker)	Saint John.
Jones, George B., P.C.	Apohaqui.
Léger, Antoine J.	Moncton.
Smith, Benjamin F.	East Florenceville.
Quebec—(24 senators).	
Dandurand, R., P.C.	Montreal.
Pope, Rufus H.	Cookshire.
Beaubien, C. P.	Montreal.

6.—Representation in the Senate of Canada, by Provinces, as at Feb. 15, 1940—concl.

Name of Senator.	Post Office Address.	Name of Senator.	Post Office Address.
Quebec—concluded.		**Ontario**—concluded.	
L'Espérance, D. O.	Quebec.	Lambert, Norman P.	Ottawa.
Blondin, P. E., P.C.	St.François du Lac.	Marshall, Duncan M.	Toronto.
Chapais, Sir Thomas, K.B.	Quebec.	Elliott, Hon. J. C., P.C.	London.
Webster, L. C.	Montreal.	Hayden, S. A., K.C.	Toronto.
Raymond, Donat.	Montreal.	Paterson, N. M.	Fort William.
Parent, G.	Quebec.	Duffus, Joseph James.	Peterborough.
Prevost, J.-E.	St. Jérôme.		
Ballantyne, C. C., P.C.	Montreal.		
Rainville, J. H.	St. Lambert.	**Manitoba**—(6 senators).	
Fauteux, G. A., P.C.	Outremont.	Sharpe, W. H.	Manitou.
Moraud, L.	Quebec.	McMeans, L.	Winnipeg.
Sauvé, Arthur, P.C.	Outremont.	Molloy, J. P.	Winnipeg.
Paquet, Eugène, P.C.	St. Romuald.	Mullins, Henry A.	Winnipeg.
Bourgeois, Charles.	Three Rivers.	Haig, John T.	Winnipeg.
Hugessen, A. K.	Montreal.	Beaubien, A. L.	St. Jean-Baptiste.
Fafard, J. Fernand.	L'Islet.		
Howard, C. B.	Sherbrooke.		
Beauregard, Elie., K.C.	Montreal.	**Saskatchewan**—(6 senators).	
David, L. A., K.C.	Montreal.	Laird, H. W.	Regina.
St-Père, E. C.	Montreal.	Calder, J. A., P.C.	Regina.
Hushion, William James.	Westmount.	Marcotte, A.	Ponteix.
		Horner, R. B.	Blaine Lake.
Ontario—(24 senators).		Aseltine, W. M.	Rosetown.
Gordon, George.	North Bay.	Stevenson, J. J.	Regina.
Smith, E. D.	Winona.		
Donnelly, J. J.	Pinkerton.		
Lynch-Staunton, G.	Hamilton.	**Alberta**—(6 senators).	
White, G. V.	Pembroke.	Michener, Edward.	Calgary.
Hardy, A. C., P.C.	Brockville.	Harmer, William J.	Edmonton.
Aylesworth, Sir A. B., P.C.	Toronto.	Griesbach, W. A., C.B., C.M.G.	Edmonton.
Graham, Rt. Hon. George P., P.C.	Brockville.	Buchanan, W. A.	Lethbridge.
McGuire, William H.	Toronto.	Riley, Daniel E.	High River.
Little, Edgar S.	London.	Blais, Aristide.	Edmonton.
Lacasse, Gustave.	Tecumseh.		
Horsey, H. H.	Cressy.	**British Columbia**—(6 senators).	
Wilson, Cairine R.	Ottawa.	Barnard, G. H.	Victoria.
Murdock, James, P.C.	Ottawa.	Taylor, J. D.	New Westminster.
Meighen, Rt. Hon. A., P.C.	Toronto.	Green, R. F.	Victoria.
Coté, L.	Ottawa.	King, J. H., P.C.	Victoria.
Sutherland, Donald, P.C.	Ingersoll.	McRae, A. D., C.B.	Vancouver.
Fallis, Iva C.	Peterborough, R.R. No. 3.	Farris, J. W. de B.	Vancouver.

Subsection 4.—The House of Commons.

In Sect. 37 of the original British North America Act of 1867 (30 Vict., c. 3), it is provided that "The House of Commons shall...consist of one hundred and eighty-one members, of whom eighty-two shall be elected for Ontario, sixty-five for Quebec, nineteen for Nova Scotia and fifteen for New Brunswick" * Further, under Sect. 51, it is enacted that after the completion of the Census of 1871 and of each subsequent decennial census, the representation of the four provinces should be readjusted by such authority, in such manner, and from such time, as the Parliament of Canada provided, subject to and according to the following rules:—

"(1) Quebec shall have the fixed number of Sixty-five Members;

"(2) There shall be assigned to each of the other Provinces such a Number of Members as will bear the same Proportion to the Number of its Population (ascertained at such Census) as the Number Sixty-five bears to the Number of the Population of Quebec (so ascertained);

"(3) In the Computation of the Number of Members for a Province a fractional Part not exceeding One Half of the whole Number requisite for entitling the Province to a Member shall be disregarded; but a fractional Part exceeding One Half of that Number shall be equivalent to the whole Number;

* The sessional indemnity of a member of the House of Commons is $4,000.

"(4) On any such Re-adjustment the Number of Members for a Province shall not be reduced unless the Proportion which the Number of the Population of the Province bore to the Number of the aggregate Population of Canada at the then last preceding Re-adjustment of the Number of Members for the Province is ascertained at the then latest Census to be diminished by One Twentieth Part or upwards;

"(5) Such Re-adjustment shall not take effect until the Termination of the then existing Parliament."

Again, in Sect. 52, it is enacted that "the number of members of the House of Commons may be from time to time increased by the Parliament of Canada, provided the proportionate representation of the Provinces prescribed by this Act is not thereby disturbed".

Later on, by the British North America Act of 1886 (49-50 Vict., c. 35), provision was made in Sect. 1 that "the Parliament of Canada may from time to time make provision for the representation in the Senate and House of Commons of Canada, or in either of them, of any territories which for the time being form part of the Dominion of Canada, but are not included in any province thereof"

Again in 1915, an amendment to the British North America Act (5-6 Geo. V, c. 45) was passed by the Imperial Parliament, providing that "notwithstanding anything in the said Act, a province shall always be entitled to a number of members in the House of Commons not less than the number of senators representing such province".

Readjustments in Representation.—As set out in the above-mentioned provisions of the British North America Act, the representation in the House of Commons has been readjusted following each of the seven decennial censuses since taken, also as a result of the admission of Manitoba, British Columbia, and Prince Edward Island to Confederation and the creation of portions of the Northwest into Saskatchewan, Alberta, and Yukon. At pp. 74-77 of the 1934-35 Year Book, the problems of redistribution are dealt with in detail, especially those arising out of the 1931 Census. Summarized accounts are also carried in later Year Books down to 1937 (see pp. 79 and 80 of the 1937 Year Book).

The number of representatives of each province elected at each of the eighteen general elections since Confederation is given in Table 7.

7.—Representation in the House of Commons as at Dominion General Elections, 1867-1935.

Province.	1867.	1872.	1874.	1878.	1882.	1887.	1891.	1896.	1900.	1904.	1908	1911.	1917.	1921.	1925.[1]	1935.
Ont.	82	88	88	88	92	92	92	92	92	86	86	86	82	82	82	82
Que.	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
N.S.	19	21	21	21	21	21	21	20	20	18	18	18	16	16	14	12
N.B.	15	16	16	16	16	16	16	14	14	13	13	13	11	11	11	10
Man.	·	4	4	4	5	5	5	7	7	10	10	10	15	15	17	17
B.C.		6	6	6	6	6	6	6	6	7	7	7	13	13	14	16
P.E.I.		·	6	6	6	6	6	5	5	4	4	4	4	4	4	4
Sask.	–		·			4	4	4	4	10	10	10	16	16	21	21
Alta.											7	7	12	12	16	17
Yukon						–				1	1	1	1	1	1	1
Totals	**181**	**200**	**206**	**206**	**211**	**215**	**215**	**213**	**213**	**214**	**221**	**221**	**235**	**235**	**245**	**245**

[1] The representation at the general elections of 1926 and 1930 was the same as in 1925.

The Unit of Representation.—While the number of members of the House of Commons has been growing fairly steadily since Confederation, the unit of representation—one sixty-fifth of the population of Quebec as taken at each census

within its 1911 boundaries—has also been increased after each census in consequence of the growth of the population of Quebec. The units of representation, as determined by the decennial censuses taken since Confederation, are as follows: 1871, 18,331 persons; 1881, 20,908; 1891, 22,901; 1901, 25,368; 1911, 30,819; 1921, 36,283; 1931, 44,186, being one sixty-fifth of the population of Quebec exclusive of Ungava.

Constituencies and Representatives in the Eighteenth Parliament.—A complete list of the constituencies, with their 1931 populations, the voters on the list and votes polled at the general election of Oct. 14, 1935, together with the names and addresses of those then elected to the House of Commons of the eighteenth Parliament of Canada, will be found in Table 8. Changes occurring at subsequent by-elections to Jan. 25, 1940, the date of dissolution, are indicated in the foonotes.

8.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons as Elected at the Eighteenth General Election, Oct. 14, 1935.

NOTE.—A list of new Members as elected at the Dominion election Mar. 26, 1940, is given in Appendix III.

Province and Electoral District.	Population, 1931.	Voters on List.	Votes Polled.	Name of Member.	Party Affiliation.	P.O. Address.
Prince Edward Island— (4 members).						
Kings	19,147	11,536	9,710	Grant, T. V.	Lib.	Montague, P.E.I.
Prince	31,500	18,281	14,355	MacLean, A. E.[1]	Lib.	Summerside, P.E.I.
Queens	37,391	23,467	37,576[2]	Larabee, J. J.[3]	Lib.	Eldon, P.E.I.
				Sinclair, P.[4]	Lib.	Charlottetown, P.E.I.
Nova Scotia— (12 members).						
Antigonish-Guysborough	25,516	15,030	11,606	Duff, W.[5]	Lib.	Lunenburg, N.S.
Cape Breton North-Victoria	31,615	17,542	13,965	Cameron, D. A.[6]	Lib.	Sydney, N.S.
Cape Breton South	65,198	34,969	28,472	Hartigan, D. J.	Lib.	New Waterford, N.S.
Colchester-Hants	44,444	26,953	21,064	Purdy, G. T.	Lib.	Truro, N.S.
Cumberland	36,366	22,239	17,270	Cochrane, K. J.	Lib.	Port Greville, N.S.
Digby-Annapolis-Kings	50,859	32,079	23,119	Ilsley, Hon. J. L.	Lib.	Ottawa, Ont.
Halifax	100,204	60,503	85,986[2]	Isnor, G. B.	Lib.	Halifax, N.S.
				Finn, R. E.	Lib.	Halifax, N.S.
Inverness-Richmond	35,768	21,206	16,929	McLennan, D.	Lib.	Inverness, N.S.
Pictou	39,018	23,197	19,240	McCulloch, H. B.	Lib.	New Glasgow, N.S.
Queens-Lunenburg	42,286	26,562	19,935	Kinley, J. J.	Lib.	Lunenburg, N.S.
Shelburne-Yarmouth-Clare	41,572	24,033	17,937	Pottier, V. J.	Lib.	Yarmouth, N.S.
New Brunswick— (10 members).						
Charlotte	21,337	13,577	10,622	Hill, B. M.	Lib.	St. Stephen, N.B.
Gloucester	41,914	20,442	15,993	Veniot, Hon. P. J.[7]	Lib.	Bathurst, N.B.
Kent	23,478	12,375	9,628	Robichaud, L.P.A.	Lib.	Richibucto, N.B.
Northumberland	34,124	17,859	13,744	Barry, J. P.	Lib.	Chatham, N.B.
Restigouche-Madawaska	54,386	26,407	17,858	Michaud, Hon. J. E.	Lib.	Ottawa, Ont.
Royal	31,026	19,543	15,723	Brooks, A. J.	Cons.	Sussex, N.B.
St. John-Albert	69,292	41,404	31,948	Ryan, W. M.[8]	Lib.	Saint John, N.B.
Victoria-Carleton	35,703	20,290	15,831	Patterson, J. E. J.	Lib.	Florenceville, N.B.
Westmorland	57,506	32,549	26,177	Emmerson, H. R.	Lib.	Dorchester, N.B.
York-Sunbury	39,453	24,820	19,961	Clark, W. G.	Lib.	Fredericton, N.B.

[1] Mr. MacLean died Oct. 28, 1939, and Hon. J. L. Ralston (Lib.) was elected by acclamation Jan. 2, 1940. [2] Each voter could vote for two members. [3] Mr. Larabee having accepted an office of emolument under the Crown, Hon. Charles A. Dunning (Lib.) was elected by acclamation, Dec. 31, 1935. [4] Mr. Sinclair died Mar. 13, 1938, and Mr. James L. Douglas (Lib.) was elected by acclamation, Apr. 25, 1938. [5] Mr. W. Duff was appointed to the Senate on Feb. 28, 1936, and Mr. J. R. Kirk (Lib.) was elected by acclamation, Mar. 16, 1936. [6] Mr. Cameron died Sept. 4, 1937, and Mr. Matthew MacLean (Lib.) was elected by acclamation, Oct. 18, 1937. [7] Hon. Mr. Veniot died July 6, 1936, and Mr. C. J. Veniot (Lib.) was elected by acclamation, Aug. 17, 1936. [8] Mr. Ryan died Jan. 4, 1938, and Mr. Allan G. McAvity (Lib.) was elected by acclamation, Feb. 21, 1938.

8.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons as Elected at the Eighteenth General Election, Oct. 14, 1935—continued.

Province and Electoral District.	Population, 1931.	Voters on List.	Votes Polled.	Name of Member.	Party Affiliation.	P.O. Address.
Quebec— (65 members).						
Argenteuil	19,379	11,122	9,059	Perley, Rt. Hon. Sir George[1]	Cons.	Ottawa, Ont.
Beauce	51,614	24,342	17,363	Lacroix, E.	Lib.	Lacroix, Que.
Beauharnois-Laprairie	42,104	20,582	14,158	Raymond, M.	Lib.	Montreal, Que.
Bellechasse	27,480	13,485	9,320	Boulanger, O. L.	Lib.	Quebec, Que.
Berthier-Maskinongé	35,545	19,650	15,607	Ferron, J. E.	Lib.	Louiseville, Que.
Bonaventure	36,184	18,571	14,616	Marcil, Hon. C.[2]	Lib.	Ottawa, Ont.
Brome-Missisquoi	32,069	18,951	15,225	Gosselin, L.	Lib.	Notre Dame de Stanbridge, Que.
Chambly-Rouville	39,648	23,183	18,385	Dupuis, V.	Lib.	Laprairie, Que.
Champlain	37,526	18,860	15,598	Brunnelle, H. E.	Lib.	Cap de la Madeleine, Centre, Que.
Chapleau	24,328	13,120	9,101	Blais, F., Sr.	Ind.-Lib.	Amos, Que.
Charlevoix-Saguenay	55,594	25,661	18,869	Casgrain, Hon. P. F.	Lib.	Montreal, Que.
Châteauguay-Huntingdon	24,412	13,756	11,163	Black, D. E.	Lib.	Aubrey, Que.
Chicoutimi	55,724	25,558	20,703	Dubuc, J. E. A.	Lib.	Chicoutimi, Que.
Compton	31,858	16,432	13,886	Blanchette, J. A.	Lib.	Chartierville, Que.
Dorchester	27,156	12,775	10,588	Tremblay, L. D.	Lib.	St. Malachie, Que.
Drummond-Arthabaska	53,338	29,348	22,778	Girouard, W.[3]	Lib.	Arthabaska, Que.
Gaspe	47,160	23,130	17,904	Brasset, M.	Lib.	Percé, Que.
Hull	49,196	25,312	21,137	Fournier, A.	Lib.	Hull, Que.
Joliette-L'Assomption-Montcalm	56,444	30,363	18,008	Ferland, C. E.	Lib.	Joliette, Que.
Kamouraska	30,853	15,180	10,514	Bouchard, G.	Lib.	Ste. Anne de la Pocatière, Que.
Labelle	36,953	18,299	12,825	Lalonde, M.	Lib.	Mont Laurier, Que.
Lake St. John-Roberval	50,253	22,996	19,672	Sylvestre, A.	Lib.	Roberval, Que.
Laval-Two Mountains	26,224	13,828	11,649	Lacombe, L.	Lib.	Ste. Scholastique, Que.
Lévis	28,548	14,645	12,770	Dussault, J. E.	Lib.	Lévis, Que.
Lotbinière	38,546	20,376	15,268	Verville, J. A.[4]	Lib.	St. Flavien, Que.
Matapedia-Matane	39,977	18,524	14,433	Lapointe, A. J.	Lib.	Price, Que.
Mégantic-Frontenac	44,440	20,370	16,304	Roberge, E.	Lib.	Laurierville, Que.
Montmagny-L'Islet	30,869	15,636	11,843	Fafard, J. F.	Lib.	L'Islet, Que.
Nicolet-Yamaska	39,219	20,790	16,592	Dubois, L.	Lib.	Gentilly, Que.
Pontiac	43,045	28,147	18,465	McDonald, W. R.	Ind.-Lib.	Chapeau, Que.
Portneuf	37,383	19,046	15,602	Cannon, Hon. L.[5]	Lib.	Quebec, Que.
Quebec East	58,145	30,330	25,442	Lapointe, Rt. Hon. E.	Lib.	Ottawa, Ont.
Quebec South	33,441	23,027	18,167	Power, Hon. C. G.	Lib.	Ottawa, Ont.
Quebec West and South	43,617	23,337	19,365	Parent, C.	Lib.	Quebec, Que.
Quebec-Montmorency	40,274	20,386	17,359	Lacroix, W.	Lib.	Quebec, Que.
Richelieu-Verchères	35,901	20,067	14,567	Cardin, Hon. P. J. A.	Lib.	Ottawa, Ont.
Richmond-Wolfe	36,568	18,258	14,946	Mullins, J. P.	Lib.	Bromptonville, Que.
Rimouski	40,208	19,827	14,581	Fiset, Sir Eugène[6]	Lib.	Rimouski, Que.
St. Hyacinthe-Bagot	42,820	25,133	16,089	Fontaine, T. A.	Lib.	St. Hyacinthe, Que.
St. Johns-Iberville-Napierville	32,259	18,502	10,910	Rhéaume, M.	Lib.	St. Jean, Que.
St. Maurice-Laflèche	45,450	21,943	17,035	Crète, J. A.	Lib.	Grand'mère, Que.
Shefford	28,262	16,499	13,595	Leclerc, J. H.	Lib.	Granby, Que.
Sherbrooke	37,386	21,979	18,085	Howard, C. B.	Lib.	Sherbrooke, Que.
Stanstead	25,118	15,636	11,765	Davidson, R. G.	Lib.	North Hatley, Que.
Témiscouata	42,679	20,718	15,347	Pouliot, J. F.	Lib.	Rivière du Loup, Que.
Terrebonne	38,940	20,748	15,389	Parent, L. E.	Lib.	Ste. Agathe, Que.
Three Rivers	44,223	25,547	20,587	Gariépy, W.	Ind.-Lib.	Trois Rivières, Que.
Vaudreuil-Soulanges	21,114	11,643	8,848	Thauvette, J.	Lib.	Vaudreuil, Que.
Wright	27,107	14,284	10,783	Perras, F. W.[7]	Lib.	Gracefield, Que.

[1] Rt. Hon. Sir George Perley died Jan. 4, 1938, and Mr. Georges Héon (Cons.) was elected Feb. 28, 1938. [2] Hon. Charles Marcil died Jan. 29, 1937, and Mr. P. E. Côté (Lib.) was elected Mar. 22, 1937. Mr. Côté resigned Oct. 6, 1939. [3] Mr. Girouard resigned Oct. 3, 1939. [4] Mr. Verville died Nov. 20, 1937, and Mr. Joseph N. Francoeur (Lib.) was elected Dec. 27, 1937. [5] Hon. Mr. Cannon having accepted an office of emolument under the Crown, Dr. P. Gauthier (Lib.) was elected by acclamation, Jan. 29, 1936. [6] Sir Eugène Fiset, having accepted an office of emolument under the Crown, resigned. [7] Mr. Perras died June 28, 1936, and Mr. R. Leduc (Lib.) was elected by acclamation, Aug. 3, 1936.

8.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons as Elected at the Eighteenth General Election, Oct. 14, 1935—continued.

Province and Electoral District.	Population, 1931.	Voters on List.	Votes Polled.	Name of Member.	Party Affiliation.	P.O. Address.
Quebec—concluded.						
Montreal Island—						
Cartier	61,280	41,375	21,390	Jacobs, S. W.[1]	Lib.	Westmount, Que.
Hochelaga	78,353	44,009	30,688	St-Père, E. C.	Lib.	Montreal, Que.
Jacques-Cartier	42,671	20,957	16,120	Mallette, V.[2]	Lib.	Pte. Claire, Que.
Laurier	68,784	41,160	28,134	Bertrand, E.	Lib.	Westmount, Que.
Maisonneuve-Rosemount	64,845	35,455	26,150	Fournier, S.	Lib.	Montreal, Que.
Mercier	66,651	34,906	24,706	Jean, J.	Lib.	Montreal, Que.
Mount Royal	65,012	46,133	33,224	Walsh, W. A.	Cons.	Outremont, Que.
Outremont	46,136	28,804	20,616	Vien, T.	Lib.	Montreal, Que.
St. Ann	38,673	20,665	15,803	Hushion, W. J.	Lib.	Westmount, Que.
St. Antoine-Westmount	50,009	35,330	22,322	White, R. S.	Cons.	Westmount, Que.
St. Denis	76,930	44,936	31,049	Denis, A.	Lib.	Montreal, Que.
St. Henry	78,127	42,606	30,096	Mercier, P.[3]	Lib.	Montreal, Que.
St. James	89,374	54,760	37,672	Rinfret, Hon. F.[4]	Lib.	Ottawa, Ont.
St. Lawrence-St. George	40,213	22,549	14,329	Cahan, Hon. C. H.	Cons.	Montreal, Que.
St. Mary	77,472	46,573	32,951	Deslauriers, H.	Lib.	Montreal, Que.
Verdun	63,144	36,338	25,347	Wermenlinger, E. J.	Cons.	Verdun, Que.
Ontario—						
(82 members).						
Algoma East	27,925	14,617	10,627	Farquhar ,T.	Lib.	Mindemoya, Ont.
Algoma West	35,618	20,152	14,949	Hamilton, H .S.	Lib.	Sault Ste. Marie, Ont.
Brant	21,202	12,257	9,727	Wood, G. E.	Lib.	Cainsville, Ont.
Brantford City	32,274	20,969	16,897	Macdonald, W. R.	Lib.	Brantford, Ont.
Bruce	29,842	18,903	15,007	Tomlinson, W. R.	Lib.	Port Elgin, Ont.
Carleton	31,305	19,585	16,311	Hyndman, A. B.	Cons.	Carp, Ont.
Cochrane	58,284	34,225	19,844	Bradette, J. A.	Lib.-Lab.	Cochrane, Ont.
Dufferin-Simcoe	27,394	20,518	15,654	Rowe, Hon. W. E.[5]	Cons.	Newton Robinson, Ont.
Durham	25,782	17,084	13,964	Rickard, W. F.	Lib.	Newcastle, Ont.
Elgin	43,436	29,382	22,694	Mills, W. H.	Lib.	Sparta, Ont.
Essex East	51,718	26,224	19,470	Martin, P.	Lib.	Walkerville, Ont.
Essex South	31,970	18,088	13,144	Clark, S. M.	Lib.	Harrow, Ont.
Essex West	75,350	41,706	26,630	McLarty, Hon. N. A.	Lib.	Windsor, Ont.
Fort William	34,656	17,362	13,895	McIvor, D.	Lib.	Fort William, Ont.
Frontenac-Addington	26,455	17,399	14,512	Campbell, C. A.[6]	Lib.	Northbrook, Ont.
Glengarry	18,666	11,073	8,858	MacRae, J. D.	Lib.	Apple Hill, Ont.
Grenville-Dundas	32,425	22,044	17,199	Casselman, A. C.	Cons.	*Prescott*, Ont.
Grey-Bruce	35,736	23,394	18,110	Macphail, A. C. (Miss)	U.F.O.-Lab.	Ceylon, Ont.
Grey North	34,407	23,136	17,908	Telford, W. P.	Lib.	Owen Sound, Ont.
Haldimand	21,428	13,927	11,388	Senn, M. C.	Cons.	Caledonia, Ont.
Halton	26,558	17,430	13,262	Cleaver, H.	Lib.	Burlington, Ont.
Hamilton East	66,771	40,715	28,421	Brown, A. A.	Cons.	Hamilton, Ont.
Hamilton West	56,305	33,726	23,961	Wilton, H. E.[7]	Cons.	Hamilton, Ont.
Hastings-Peterborough	27,160	16,955	12,910	Ferguson, R. S.	Lib.	Norwood, Ont.
Hastings South	39,327	25,122	20,603	Cameron, C. A.	Lib.	Belleville, Ont.
Huron North	26,095	17,897	14,067	Deachman, R. J.	Lib.	Wingham, Ont.
Huron-Perth	22,661	14,672	10,851	Golding, W. H.	Lib.	Seaforth, Ont.
Kenora-Rainy River	39,834	21,892	14,736	McKinnon, H. B.	Lib.	Kenora, Ont.
Kent	50,994	29,576	18,964	Rutherford, J. W.[8]	Lib.	Chatham, Ont.
Kingston City	26,180	17,020	13,367	Rogers, Hon. N. M.	Lib.	Ottawa, Ont.
Lambton-Kent	34,686	21,053	15,246	McKenzie, H. A.	Lib.	Watford, Ont.
Lambton West	32,601	20,912	15,157	Gray, R. W.	Lib.	Sarnia, Ont.
Lanark	32,856	21,679	17,763	Thompson, T. A.	Cons.	Almonte, Ont.
Leeds	35,157	22,975	19,229	Stewart, Hon. H. A.	Cons.	Brockville, Ont.
Lincoln	54,199	34,429	26,425	Lockhart, N. J. M.	Cons.	St. Catharines, Ont.
London	59,821	41,871	30,522	Betts, F. C.[9]	Cons.	London, Ont.
Middlesex East	34,788	22,173	16,012	Ross, D. G.	Lib.	Lucan, Ont.

[1] Mr. Jacobs died Aug. 21, 1938, and Mr. Peter Bercovitch (Lib.) was elected by acclamation Nov. 7, 1938. [2] Mr. Mallette died Apr. 17, 1939, and Mr. Elphege Marier (Lib.) was elected Dec. 18, 1939. [3] Mr. Mercier having accepted an office of emolument under the Crown, Mr. Joseph A. Bonnier (Lib.) was elected Jan. 17, 1938. [4] Hon. Mr. Rinfret died July 12, 1939, and Mr. Eugène Durocher (Lib.) was elected Dec. 18, 1939. [5] Hon. Mr. Rowe resigned Sept. 28, 1937, and was re-elected by acclamation Oct. 7, 1937. [6] Mr. Campbell resigned Aug. 11, 1937, and Mr. Angus N. McCallum (Lib.) was elected by acclamation Nov. 1, 1937. [7] Mr. Wilton died Feb. 1, 1937, and Mr. J. A. Marsh (Cons.) was elected Mar. 22, 1937. [8] Mr. Rutherford died Feb. 27, 1939, and Mr. A. L. Thompson (Lib.) was elected by acclamation Oct. 11, 1939. [9] Major Betts died May 3, 1938, and Hon. R. J. Manion (Cons.) was elected Nov. 14, 1938.

8.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons as Elected at the Eighteenth General Election, Oct. 14, 1935—continued.

Province and Electoral District.	Population, 1931.	Voters on List.	Votes Polled.	Name of Member.	Party Affiliation.	P.O. Address.
Ontario—concluded.						
Middlesex West	23,632	15,269	11,719	Elliott, Hon. J. C.	Lib.	Ottawa, Ont.
Muskoka-Ontario	35,513	23,012	17,428	Furniss, S. J.	Lib.	Brechin, Ont.
Nipissing	88,597	47,870	33,649	Hurtubise, J. R.	Lib.	Subdury, Ont.
Norfolk	31,359	19,503	14,521	Taylor, W. H.	Lib.	Scotland, Ont.
Northumberland	30,727	20,294	16,583	Fraser, W. A.	Lib.	Trenton, Ont.
Ontario	45,139	27,291	20,947	Moore, W. H.	Lib.	Dunbarton, Ont.
Ottawa East	51,667	33,259	26,407	Chevrier, E. R. E.[1]	Lib.	Ottawa, Ont.
Ottawa West	78,656	55,759	44,671	Ahearn, T. F.	Lib.	Ottawa, Ont.
Oxford	47,825	30,980	24,119	Rennie, A. S.	Lib.	Tillsonburg, Ont.
Parry Sound	26,198	15,526	11,543	Slaght, A. G.	Lib.	Toronto, Ont.
Peel	28,156	19,303	16,045	Graydon, G.	Cons.	Brampton, Ont.
Perth	47,816	30,670	23,702	Sanderson, F. G.	Lib.	St. Mary's, Ont.
Peterborough West	37,042	23,566	19,022	Duffus, J. J.	Lib.	Peterborough, Ont.
Port Arthur	35,313	17,608	12,623	Howe, Hon, C. D.	Lib.	Ottawa, Ont.
Prescott	24,596	13,665	11,343	Bertrand, E. O.	Lib.	L'Orignal, Ont.
Prince Edward-Lennox	28,697	18,960	15,056	Tustin, G. J.	Cons.	Napanee, Ont.
Renfrew North	27,230	16,033	12,212	McKay, M.[2]	Lib.	Pembroke, Ont.
Renfrew South	26,986	15,800	11,960	McCann, J. J.	Lib.	Renfrew, Ont.
Russell	26,899	14,761	11,717	Goulet, A.	Lib.	Bourget, Ont.
Simcoe East	36,572	21,156	16,385	McLean, G. A.	Lib.	Orillia, Ont.
Simcoe North	29,224	18,852	14,608	McCuaig, D. F.	Lib.	Barrie, Ont.
Stormont	32,524	20,627	17,036	Chevrier, L.	Lib.	Cornwall, Ont.
Timiskaming	37,594	23,306	15,890	Little, W.	Lib.	Kirkland Lake, Ont.
Victoria	31,841	21,338	17,060	McNevin, B.	Lib.	Omemee, Ont.
Waterloo North	53,777	32,847	20,369	Euler, Hon. W. D.	Lib.	Ottawa, Ont.
Waterloo South	36,075	22,823	16,912	Edwards, A. M.[3]	Cons.	Galt, Ont.
Welland	82,731	47,071	34,614	Damude, A. B.	Lib.	Fonthill, Ont.
Wellington North	27,677	16,319	12,878	Blair, J. K.	Lib.	Arthur, Ont.
Wellington South	35,856	22,614	16,988	Gladstone, R. W.	Lib.	Guelph, Ont.
Wentworth	66,943	40,843	30,488	Lennard, F. E., Jr.	Cons.	Dundas, Ont.
York East	66,194	46,215	33,703	McGregor, R. H.	Cons.	Toronto, Ont.
York North	43,323	26,148	20,000	Mulock, W. P.	Lib.	Toronto, Ont.
York South	60,350	42,998	31,237	Lawson, Hon. J. E.	Cons.	Toronto, Ont.
York West	55,881	34,441	25,930	Streight, J. E. L.	Lib.	Toronto, Ont.
City of Toronto—						
Broadview	57,523	39,804	28,053	Church, T. L.	Cons.	Toronto, Ont.
Danforth	41,824	29,034	21,135	Harris, J. H.	Cons.	Toronto, Ont.
Davenport	57,039	40,454	27,772	MacNicol, J. R.	Cons.	Toronto, Ont.
Eglinton	54,859	43,141	31,894	Baker, R. L.	Cons.	Toronto, Ont.
Greenwood	57,296	39,089	27,878	Massey, D.	Cons.	Toronto, Ont.
High Park	52,971	37,131	27,550	Anderson, A. J.	Cons.	Toronto, Ont.
Parkdale	51,398	34,994	24,408	Spence, D.	Cons.	Toronto, Ont.
Rosedale	53,081	36,755	23,793	Clarke, H. G.	Cons.	Toronto, Ont.
St. Paul's	62,283	43,115	26,821	Ross, D. G.	Cons.	Toronto, Ont.
Spadina	82,127	52,160	34,318	Factor, S.	Lib.	Toronto, Ont.
Trinity	60,806	39,643	26,973	Plaxton, H. J.	Lib.	Toronto, Ont.
Manitoba— (17 members).						
Brandon	40,483	22,262	17,059	Beaubier, D. W.[4]	Cons.	Brandon, Man.
Churchill	32,133	13,863	9,084	Crerar, Hon. T. A.	Lib.	Ottawa, Ont.
Dauphin	37,703	20,491	15,405	Ward, W. J.	Lib.	Dauphin, Man.
Lisgar	30,547	14,412	10,282	Winkler, H. W.	Lib.	Morden, Man.
Macdonald	34,948	18,567	14,290	Weir, W. G.	Lib.-Prog.	Carman, Man.
Marquette	37,468	20,842	15,849	Glen, J. A.	Lib.	Russell, Man.
Neepawa	28,346	16,456	12,767	MacKenzie, F. D.	Lib.	Neepawa, Man.
Portage la Prairie	25,569	13,946	11,015	Leader, H.	Lib.	Portage la Prairie, Man.
Provencher	32,613	15,172	10,179	Beaubien, A. L.	Lib.	St. Jean Baptiste, Man.
St. Boniface	31,289	16,484	13,082	Howden, J. P.	Lib.	Norwood Grove, Man.
Selkirk	52,222	26,411	19,650	Thorson, J. T.	Lib.-Prog.	Winnipeg, Man.
Souris	25,094	13,051	10,675	McDonald, G. W.	Lib.	Boissevain, Man.
Springfield	42,359	21,276	14,593	Turner, J. M.	Lib.	Winnipeg, Man.
Winnipeg North	74,762	37,764	29,321	Heaps, A. A.	C.C.F.	Winnipeg, Man.

[1] Mr. Chevrier having accepted an office of emolument under the Crown, Mr. J. A. Pinard (Lib.) was elected, Oct. 26, 1936. [2] Dr. McKay died Feb. 14, 1937, and Mr. R. M. Warren (Lib.) was elected Apr. 5, 1937. [3] Mr. Edwards died June 3, 1938, and Mr. Karl K. Homuth (Cons.) was elected Nov 14, 1938. [4] Mr. Beaubier died Sept. 1, 1938, and Mr. J. E. Matthews (Lib.) was elected Nov. 14, 1938.

8.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons as Elected at the Eighteenth General Election, Oct. 14, 1935—continued.

Province and Electoral District.	Population, 1931.	Voters on List.	Votes Polled.	Name of Member.	Party Affiliation.	P.O. Address.
Manitoba—concluded.						
Winnipeg North Centre	59,004	34,253	24,797	Woodsworth, J. S.	C.C.F.	Winnipeg, Man.
Winnipeg South	51,518	31,160	25,085	Mutch, I. A.	Lib.	Winnipeg, Man.
Winnipeg South Centre	64,090	41,323	31,456	Maybank, R.	Lib.	Fort Garry, Man.
Saskatchewan—(21 members).						
Assiniboia	41,036	18,833	14,975	McKenzie, R.[1]	Lib.	Stoughton, Sask.
Humboldt	41,172	20,051	15,120	Fleming, H. R.	Lib.	Humboldt, Sask.
Kindersley	39,632	17,798	13,891	Elliott, O. B.[2]	Soc. Cr.	Edmonton, Alta.
Lake Centre	42,532	19,169	15,441	Johnston, J. F.	Lib.	Bladworth, Sask.
Mackenzie	46,171	23,634	15,424	MacMillan, J. A.	Lib.	Wadena, Sask.
Maple Creek	42,428	19,572	15,023	Evans, C. R.	Lib.	Piapot, Sask.
Melfort	40,687	24,567	19,004	McLean, M.	Lib.	Eldersley, Sask.
Melville	48,910	23,175	18,455	Motherwell, Hon. W. R.	Lib.	Abernethy, Sask.
Moose Jaw	43,668	21,562	16,505	Ross, J. G.	Lib.	Moose Jaw, Sask.
North Battleford	41,513	23,025	15,718	McIntosh, C. R.	Lib.	North Battleford, Sask.
Prince Albert	39,869	21,085	16,724	King, Rt. Hon. W. L. M.	Lib.	Ottawa, Ont.
Qu'Appelle	38,015	19,392	15,811	Perley, E. E.	Cons.	Wolseley, Sask.
Regina City	53,209	30,823	24,969	McNiven, D. A.	Lib.	Regina, Sask.
Rosetown-Biggar	40,512	18,735	15,277	Coldwell, M. J. W.	C.C.F.	Regina, Sask.
Rosthern	43,885	19,153	13,291	Tucker, W. A.	Lib.	Rosthern, Sask.
Saskatoon City	47,362	26,138	19,415	Young, A. M.[3]	Lib.	Saskatoon, Sask.
Swift Current	46,447	19,206	14,789	Bothwell, C. E.	Lib.	Swift Current, Sask.
The Battlefords	45,064	23,752	18,417	Needham, J.	Soc. Cr.	Unity, Sask.
Weyburn	44,710	19,635	16,290	Douglas, T. C.	C.C.F.	Weyburn, Sask.
Wood Mountain	44,558	18,875	15,046	Donnelly, T. F.	Lib.	Meyronne, Sask.
Yorkton	50,405	23,206	17,951	McPhee, G. W.	Lib.	Yorkton, Sask.
Alberta—(17 members).						
Acadia	37,423	16,104	10,594	Quelch, V.	Soc. Cr.	Morrin, Alta.
Athabaska	39,102	19,339	10,580	Rowe, P. J.	Soc. Cr.	Peterborough, Ont.
Battle River	41,881	21,223	13,613	Fair, R.	Soc. Cr.	Paradise Valley, Alta.
Bow River	44,491	20,687	14,317	Johnston, C. E.	Soc. Cr.	Three Hills, Alta.
Calgary East	44,745	25,449	18,184	Landeryou, J. C.	Soc. Cr.	Calgary, Alta.
Calgary West	41,418	24,919	18,361	Bennett, Rt. Hon. R. B.[4]	Cons.	Ottawa, Ont.
Camrose	42,717	20,344	13,392	Marshall, J. A.	Soc. Cr.	Bashaw, Alta.
Edmonton East	46,086	24,956	16,449	Hall, W. S.[5]	Soc. Cr.	Edmonton, Alta.
Edmonton West	39,712	25,919	18,134	MacKinnon, J. A.	Lib.	Edmonton, Alta.
Jasper-Edson	47,394	25,316	14,846	Kuhl, W. F.	Soc. Cr.	Spruce Grove, Alta.
Lethbridge	44,708	18,009	12,898	Blackmore, J. H.	Soc. Cr.	Raymond, Alta.
Macleod	44,325	20,456	14,583	Hansell, E. G.	Soc. Cr.	Vulcan, Alta.
Medicine Hat	40,986	18,601	13,099	Mitchell, A. H.	Soc. Cr.	Medicine Hat, Alta.
Peace River	43,761	22,443	11,756	Pelletier, R. A.	Soc. Cr.	Falher, Alta.
Red Deer	39,758	21,989	13,379	Poole, E. J.	Soc. Cr.	Calgary, Alta.
Vegreville	47,168	20,678	13,620	Hayhurst, W.	Soc. Cr.	Vegreville, Alta.
Wetaskiwin	45,330	22,524	13,302	Jaques, N.	Soc. Cr.	Mirror, Alta.
British Columbia—(16 members).						
Cariboo	26,094	15,202	10,480	Turgeon, J. G.	Lib.	Vancouver, B.C.
Comox-Alberni	28,379	13,533	10,041	Neill, A. W.	Ind.	Alberni, B.C.
Fraser Valley	31,377	16,579	12,758	Barber, H. J.	Cons.	Chilliwack, B.C.
Kamloops	29,249	15,931	11,296	O'Neill, T. J.	Lib.	Kamloops, B.C.
Kootenay East	25,662	12,708	10,175	Stevens, Hon. H. H.	Recon.	Ottawa, Ont.

[1] Mr. McKenzie having accepted an office of emolument under the Crown, Mr. J. G. Gardiner (Lib.) was elected Jan. 6, 1936. [2] Mr. Elliott resigned Oct. 20, 1939. [3] Dr. Young died July 9, 1939, and Rev. W. G. Brown (United Reform) was elected Dec. 18, 1939. [4] Rt. Hon. Mr. Bennett resigned Jan. 28, 1939, and Col. D. G. L. Cunnington (Cons.) was elected by acclamation Sept. 18, 1939. [5] Mr. Hall died Jan. 26, 1938, and Mr. O. A. Kennedy (Soc. Cr.) was elected Mar. 21, 1938.

8.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons as Elected at the Eighteenth General Election, Oct. 14, 1935—concluded.

Province and Electoral District.	Population, 1931.	Voters on List.	Votes Polled.	Name of Member.	Party Affiliation.	P.O. Address.
British Columbia—concluded.						
Kootenay West	32,556	15,507	11,923	Esling, W. K.	Cons.	Rossland, B. C.
Nanaimo	45,767	26,266	20,431	Taylor, J. S.	C.C.F.	Vancouver, B.C.
New Westminster	59,170	33,768	27,280	Reid, T.	Lib.	Newton, B.C.
Skeena	30,391	11,732	8,382	Hanson, O.	Lib.	Prince Rupert, B.C.
Vancouver-Burrard	59,583	36,144	28,483	McGeer, G. G.	Lib.	Vancouver, B.C.
Vancouver Centre	65,683	32,428	22,789	Mackenzie, Hon. I. A.	Lib.	Ottawa, Ont.
Vancouver East	58,921	34,312	27,105	MacInnis, A.	C.C.F.	Vancouver, B.C.
Vancouver North	48,906	28,122	21,804	MacNeil, C. G.	C.C.F.	Vancouver, B.C.
Vancouver South	63,122	39,274	31,251	Green, H. C.	Cons.	Vancouver, B.C
Victoria	48,599	28,902	21,585	Plunkett, D. B.[1]	Cons.	Victoria, B.C.
Yale	40,804	21,729	16,640	Stirling, Hon. G.	Cons.	Kelowna, B.C.
Yukon—(1 member).						
Yukon	4,230	1,805	1,265	Black, M. L. (Mrs.)	Ind-Cons.	Ottawa, Ont.

[1] Mr. Plunkett died May 3, 1936, and Hon. S. F. Tolmie (Cons.) was elected June 8, 1936. Hon. Mr. Tolmie died Oct. 13, 1937, and Mr. Robert W. Mayhew (Lib.) was elected Nov. 29, 1937.

Subsection 5.—The Dominion Franchise.

An article by Col. J. T. C. Thompson, Dominion Franchise Commissioner, appears at pp. 86-88 of the 1937 edition of the Year Book. Briefly, the qualifications for the Dominion franchise are that one must be a British subject, of the full age of 21 years, and have been ordinarily resident in Canada for at least one year, and resident for three months in the electoral district in which application is being made for registration.

The Use of the Franchise.—The numbers of voters on the lists and the numbers of votes polled at the general elections of 1925, 1926, 1930, and 1935 are given in Table 9.

9.—Voters on the List and Votes Polled at the General Elections of 1925, 1926, 1930, and 1935.

Province.	Voters on the Lists.				Votes Polled.			
	1925.	1926.	1930.	1935.	1925.	1926.	1930.	1935.
	No.	No.	No	No.	No	No	No.	No.
P.E. Island	45,454	46,208	46,985	53,284	49,558[1]	55,569[1]	59,519[1]	61,641[1]
Nova Scotia	277,073	273,712	275,762	304,313	222,883[2]	229,846[2]	268,727[2]	275,523[2]
New Brunswick	211,190	210,028	207,006	229,266	152,652[3]	162,777[3]	186,277[3]	177,485
Quebec	1,124,998	1,133,633	1,351,585[4]	1,576,458	805,492	809,295	1,029,480[4]	1,162,862
Ontario	1,821,906	1,847,512	1,894,624	2,174,188	1,223,027[5]	1,226,267[5]	1,364,960[5]	1,608,244
Manitoba	250,505	257,244[4]	328,089	377,733	171,124	198,028[4]	235,192	284,589
Saskatchewan	346,791	353,471	410,400	451,386	197,246	246,460	331,652	347,536
Alberta	283,529	279,463	304,475[4]	368,956	161,423	157,993	201,635[4]	241,107
British Columbia	244,352	262,262	333,326	382,117	183,748	185,345	243,631	292,423
Yukon	1,621	1,848	1,719	1,805	1,259	1,482	1,408	1,265
Totals	**4,607,419**	**4,665,381**[6]	**5,153,971**[6]	**5,919,506**	**3,168,412**	**3,273,062**[6]	**3,922,481**[6]	**4,452,675**

[1] Each voter in the double-member constituency of Queens County, P.E.I., had two votes; in 1935, 23,467 voters on the list cast 37,576 votes. [2] Each voter in the double-member constituency of Halifax, N.S., had two votes; in 1935, 60,503 voters on the list cast 85,986 votes. [3] Each voter in the double-member constituency of St. John-Albert, N.B., had two votes; in 1930, 37,067 voters on the list cast 50,121 votes. [4] Not including one electoral district in which the return was by acclamation. [5] Each voter in the double-member constituency of Ottawa, Ont., had two votes; in 1930, 61,535 voters on the list cast 97,369 votes. [6] Not including two electoral districts in which the returns were by acclamation.

Section 2.—Provincial Governments.

Table 10 gives the names and areas, as in 1940, of the several provinces, territories, and provisional districts of the Dominion, together with the dates of their creation or admission into the Confederation and the legislative process by which this was effected.

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

Province, Territory, or District.	Date of Admission or Creation.	Legislative Process.	Present Area (square miles).		
			Land.	Fresh Water.	Total.
Ontario	July 1, 1867	Act of Imperial Parliament — The British North America Act, 1867 (30-31 Vict., c. 3), and Imperial Order in Council of May 22, 1867	363,282	49,300	412,582[1]
Quebec	" 1, 1867		523,534	71,000	594,534[2]
Nova Scotia	" 1, 1867		20,743	325	21,068
New Brunswick	" 1, 1867		27,473	512	27,985
Manitoba	" 15, 1870	Manitoba Act, 1870 (33 Vict., c. 3) and Imperial Order in Council, June 23, 1870	219,723	26,789	246,512[3]
British Columbia	" 20, 1871	Imperial Order in Council, May 16, 1871	359,279	6,976	366,255
P. E. Island	" 1, 1873	Imperial Order in Council, June 26, 1873	2,184	[4]	2,184
Yukon	June 13, 1898	Yukon Territory Act, 1898 (61 Vict., c. 6)	205,346	1,730	207,076
Saskatchewan	Sept. 1, 1905	Saskatchewan, Act 1905 (4-5 Edw. VII, c. 42)	237,975	13,725	251,700[5]
Alberta	" 1, 1905	Alberta Act, 1905 (4-5 Edw. VII, c. 3)	248,800	6,485	255,285[5]
Mackenzie	Jan. 1, 1920	Order in Council, Mar. 16, 1918	493,225	34,265	527,490[6]
Keewatin	" 1, 1920		218,460	9,700	228,160[6]
Franklin	" 1, 1920		546,532	7,500	554,032
		Totals	**3,466,556**	**228,307**	**3,694,863**

[1] The area of Ontario was extended by the Ontario Boundaries Extension Act, 1912 (2 Geo. V, c. 40). [2] Extended by Quebec Boundaries Extension Act, 1912 (2 Geo. V, c. 45), and diminished in consequence of the award of the Judicial Committee of the British Privy Council (Mar. 1, 1927), whereby some 112,400 square miles of territory, formerly considered as part of Quebec, were assigned to Newfoundland. [3] Extended by Extension of Boundaries of Manitoba Act, 1881, and Manitoba Boundaries Extension Act, 1912 (2 Geo. V, c. 32). [4] Too small to be enumerated. [5] Alberta and Saskatchewan now cover approximately the area formerly comprised in the districts of Assiniboia, Athabaska, Alberta, and Saskatchewan, established May 17, 1882, by minute of Canadian P.C., concurred in by Dominion Parliament and Order in Council of Oct. 2, 1895. [6] By Order in Council, June 23, 1870, Rupert's Land, acquired under the Rupert's Land Acts of 1867 and 1868, and the undefined Northern Territories were admitted into the Confederation. The original Northwest Territories, mentioned in the Manitoba Act, 1870, were established by the Northwest Territories Act, 1880 (43 Vict., c. 25), the district of Keewatin having been previously defined by an Act of the Dominion Parliament (39 Vict., c. 21). The provisional districts of Yukon, Mackenzie, Franklin, and Ungava were defined in an Order in Council of Oct. 2, 1895, their boundaries being changed by Order in Council of Dec. 18, 1897. By Order in Council of July 24, 1905, the area of Keewatin, not included in the Northwest Territories, was annexed to the latter from Sept. 1, 1905. By the Extension of Boundaries Act, 1912, Ungava was made a part of the Province of Quebec, and the remaining area of the Northwest Territories south of 60° N. latitude was divided between Manitoba and Ontario.

In each of the provinces the King is represented by a Lieutenant-Governor appointed by the Governor General in Council and governs with the advice and assistance of his Ministry or Executive Council, which is responsible to the Legislature and resigns office when it ceases to enjoy the confidence of that body. The Legislatures of all the provinces with the exception of Quebec are now unicameral, consisting of a Legislative Assembly elected by the people. In Quebec there is a Legislative Council as well as a Legislative Assembly. For detailed description of the Provincial Governments, the reader is referred to pp. 101-115 of the 1922-23 edition of the Year Book.

11.—Lieutenant-Governors of Provinces, 1867-1940, and Present Ministries.

NOTE.—The Lieutenant-Governor of a province is styled "His Honour" and is also styled "Honourable" throughout his life. Legislatures and Ministries from Confederation to 1923 will be found on pp. 75-84 of the 1924 Year Book, and for 1924-37 at pp. 110-118 of the 1938 Year Book.

PRINCE EDWARD ISLAND.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
W. C. F. Robinson	June 10, 1873	Benjamin Rogers	June 1, 1910
Sir Robert Hodgson	July 4, 1874	A. C. Macdonald	June 2, 1915
Thomas H. Haviland	July 14, 1879	Murdock McKinnon	Sept. 3, 1919
Andrew Archibald Macdonald	Aug. 1, 1884	Frank R. Heartz	Sept. 8, 1924
Jedediah S. Carvell	Sept. 21, 1889	Charles Dalton	Nov. 29, 1930
George W. Howlan	Feb. 21, 1894	George D. Deblois	Dec. 28, 1933
P. A. McIntyre	May 13, 1899	Bradford W. LePage	Oct. 2, 1939
D. A. Mackinnon	Oct. 3, 1904		

TWENTY-FIRST MINISTRY.

Office.	Name.	Date of Appointment.
Premier, President of the Executive Council, Provincial Secretary-Treasurer, Attorney and Advocate General	Hon. Thane A. Campbell, K.C., LL.D.	Aug. 15, 1935 Jan. 14, 1936 Sept. 14, 1939
Minister of Public Works and Highways	Hon. James P. McIntyre	Aug. 15, 1935
Minister of Agriculture	Hon. William H. Dennis	Jan. 14, 1936
Minister of Education and Public Health	Hon. Mark R. McGuigan, K.C.	Aug. 15, 1935
Minister without portfolio	Hon. John A. Campbell	Aug. 15, 1935
Minister without portfolio	Hon. Marin Gallant	Aug. 15, 1935
Minister without portfolio	Hon. Horace Wright	Sept. 14, 1939
Minister without portfolio	Hon. Harry H. Cox	Sept. 14, 1939
Minister without portfolio	Hon. Dougald McKinnon	Sept. 14, 1939

NOVA SCOTIA.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
Lt.-Gen. Sir William F. Williams	July 1, 1867	Duncan C. Fraser	Mar. 27, 1906
Major-Gen. Sir C. Hastings Doyle	Oct. 18, 1867	James D. McGregor	Oct. 18, 1910
Lt.-Gen. Sir C. Hastings Doyle	Jan. 31, 1868[1]	David MacKeen	Oct. 19, 1915
Joseph Howe	May 1, 1873	MacCallum Grant	Nov. 29, 1916
Sir Adams G. Archibald	July 4, 1873	MacCallum Grant	Mar. 21, 1922[1]
Matthew Henry Richey	July 4, 1883	J. Robson Douglas	Jan. 23, 1925
A. W. McLelan	July 9, 1888	James C. Tory	Sept. 24, 1925
Sir Malachy Bowes Daly	July 11, 1890	Frank Stanfield	Dec. 2, 1930
Sir Malachy Bowes Daly	July 29, 1895[1]	Walter H. Covert	Oct. 5, 1931
Alfred G. Jones	Aug. 7, 1900	Robert Irwin	May 1, 1937

[1] Second term.

TWELFTH MINISTRY.

Office.	Name.	Date of Appointment.
Premier and President of Council, Provincial Secretary and Treasurer	Hon. Angus Lewis Macdonald, K.C.	Sept. 5, 1933
Attorney General, Minister of Lands and Forests, and Minister of Municipal Affairs	Hon. Josiah H. MacQuarrie, K.C.	Sept. 5, 1933
Minister of Highways and Public Works	Hon. A. Stirling MacMillan	Sept. 5, 1933
Minister of Agriculture and Marketing	Hon. John A. McDonald	Sept. 5, 1933
Minister of Public Health	Hon. Frank R. Davis, M.D., C.M.	Sept. 5, 1933
Minister of Mines and Minister of Labour	Hon. Lauchlin D. Currie, K.C.	Feb. 6, 1939
Minister of Industry	Hon. George E. Hagen	Oct. 24, 1939
Minister without portfolio	Hon. J. Willie Comeau	Sept. 5, 1933

11.—Lieutenant-Governors of Provinces, 1867-1940, and Present Ministries—continued.

NEW BRUNSWICK.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
Major-Gen. Sir C. Hastings Doyle	July 1, 1867	A. R. McClelan	Dec. 9, 1896
Col. F. P. Harding	Oct. 18, 1867	Jabez B. Snowball	Feb. 5, 1902
L. A. Wilmot	July 14, 1868	L. J. Tweedie	Mar. 2, 1907
Samuel Leonard Tilley	Nov. 5, 1873	Josiah Wood	Mar. 6, 1912
E. Baron Chandler	July 16, 1878	G. W. Ganong	June 29, 1916
Robert Duncan Wilmot	Feb. 11, 1880	William Pugsley	Nov. 6, 1917
Sir Samuel Leonard Tilley	Oct. 31, 1885	William F. Todd	Feb. 24, 1923
John Boyd	Sept. 21, 1893	Major-Gen. Hugh H. McLean	Dec. 28, 1928
John A. Fraser	Dec. 20, 1893	Murray MacLaren	Feb. 5, 1935

TWENTIETH MINISTRY.

Office.	Name.	Date of Appointment.
Premier	Hon. A. A. Dysart, K.C	July 16, 1935
Minister of Public Works	Hon. W. S. Anderson	July 16, 1938
Minister of Lands and Mines	Hon. F. W. Pirie	July 16, 1935
Minister of Agriculture	Hon. Austin C. Taylor	July 16, 1935
Attorney General	Hon. J. B. McNair, K.C	July 16, 1935
Minister of Health and Labour	Hon. J. B. McNair, K.C	July 29, 1939
Provincial Secretary-Treasurer	Hon. C. T. Richard	July 16, 1935
Minister of Education, Federal and Municipal Relations	Hon. A. P. Paterson	July 16, 1935
President, Executive Council	Hon. E. J. Henneberry	July 16, 1938

QUEBEC.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
Sir Narcisse F. Belleau	July 1, 1867	Sir Charles A. P. Pelletier	Sept. 4, 1908
Sir Narcisse F. Belleau	Jan. 31, 1868[1]	Sir François Langelier	May 5, 1911
René Edouard Caron	Feb. 11, 1873	Sir Pierre Evariste Leblanc	Feb. 9, 1915
Luc Letellier de St-Just	Dec. 15, 1876	Right Hon. Sir Charles Fitzpatrick	Oct. 21, 1918
Théodore Robitaille	July 26, 1879	L. P. Brodeur	Oct. 31, 1923
L. F. R. Masson	Nov. 7, 1884	N. Pérodeau	Jan. 8, 1924
A. R. Angers	Oct. 24, 1887	Sir Lomer Gouin	Jan. 10, 1929
Sir Joseph A. Chapleau	Dec. 5, 1892	H. G. Carroll	Apr. 2, 1929
Louis A. Jetté	Feb. 2, 1898	E. L. Patenaude	May 3, 1934
Sir Louis A. Jetté	Feb. 2, 1903[1]	Major-Gen. Sir Eugène Fiset, K.B., C.M.G., D.S.O., M.D.	Dec. 30, 1939

[1] Second term.

TWENTIETH MINISTRY.

Office.	Name.	Date of Appointment.
Premier, President of the Council, Minister of Agriculture and Colonization	Hon. Adelard Godbout	Nov. 8, 1939
Minister of Roads and Public Works	Hon. T. Damien Bouchard	Nov. 8, 1939
Provincial Treasurer	Hon. J. Arthur Mathewson, K.C	Nov. 8, 1939
Attorney General	Hon. Wilfrid Girouard, K.C	Nov. 8, 1939
Minister of Lands and Forests and Fish and Game	Hon. Pierre Emile Côté, K.C	Nov. 8, 1939
Minister of Labour and Mines	Hon. Edgar Rochette, K.C	Nov. 8, 1939
Minister of Trade and Commerce and Municipal Affairs	Hon. Oscar Drouin, K.C	Nov. 8, 1939
Provincial Secretary and Minister of Health	Hon. Henri Groulx	Nov. 8, 1939
Minister without portfolio	Hon. Léon Casgrain	Nov. 8, 1939
Minister without portfolio	Hon. Cléophas Bastien	Nov. 8, 1939
Minister without portfolio	Hon. L. J. Thisdel	Nov. 8, 1939
Minister without portfolio	Hon. Georges Dansereau	Nov. 8, 1939
Minister without portfolio	Hon. Frank Connors	Nov. 8, 1939
Minister without portfolio	Hon. Wilfrid Hamel	Nov. 8, 1939

11.—Lieutenant-Governors of Provinces, 1867-1940, and Present Ministries—continued.

ONTARIO.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
Major-Gen. H. W. Stisted	July 1, 1867	Sir William Mortimer Clark	Apr. 20, 1903
W. P. Howland	July 14, 1868	Sir John M. Gibson	Sept. 22, 1908
John W. Crawford	Nov. 5, 1873	Lt.-Col. Sir John S. Hendrie	Sept. 26, 1914
D. A. Macdonald	May 18, 1875	Lionel H. Clarke	Nov. 27, 1919
John Beverly Robinson	June 30, 1880	Col. Henry Cockshutt	Sept. 10, 1921
Sir Alexander Campbell	Feb. 8, 1887	William Donald Ross	Dec. 30, 1926
Sir George A. Kirkpatrick	May 30, 1892	Col. Herbert Alexander Bruce	Oct. 25, 1932
Sir Oliver Mowat	Nov. 18, 1897	Albert Matthews	Nov. 30, 1937

ELEVENTH MINISTRY.

Office.	Name.	Date of Appointment.
President of the Council and Treasurer	Hon. Mitchell F. Hepburn	July 10, 1934
Secretary and Registrar	Hon. Harry C. Nixon	July 10, 1934
Minister of Lands and Forests	Hon. Peter Heenan	July 10, 1934
Minister of Education	Hon. Leonard J. Simpson, M.D.	July 10, 1934
Minister of Highways	Hon. Thomas B. McQuesten, K.C.	July 10, 1934
Minister of Mines	Hon. Paul Leduc, K.C.	July 10, 1934
Minister of Health	Hon. Harold J. Kirby, K.C.	Oct. 12, 1937
Minister of Labour	Hon. N. O. Hipel	Sept. 2, 1938
Minister of Agriculture	Hon. P. M. Dewan	Oct. 12, 1937
Minister of Public Works	Hon. Colin A. Campbell	Oct. 12, 1937
Attorney General	Hon. Gordon D. Conant, K.C.	Oct. 12, 1937
Minister of Municipal Affairs and Public Welfare	Hon. Eric W. B. Cross, K.C.	Oct. 12, 1937
Minister without portfolio	Hon. William L. Houck	Oct. 12, 1937
Minister without portfolio	Hon. A. St. Clair Gordon	Oct. 12, 1937

MANITOBA.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
A. G. Archibald	May 20, 1870	Sir Daniel H. McMillan	May 11, 1906[1]
Francis Goodschall Johnson	Apr. 9, 1872	Sir Douglas C. Cameron	Aug. 1, 1911
Alexander Morris	Dec. 2, 1872	Sir James A. M. Aikins	Aug. 3, 1916
Joseph E. Cauchon	Dec. 2, 1877	Sir James A. M. Aikins	Aug. 7, 1921[1]
James C. Aikins	Sept. 22, 1882	Theodore A. Burrows	Oct. 9, 1926
J. C. Schultz	July 1, 1888	J. D. McGregor	Jan. 25, 1929
J. C. Patterson	Sept. 2, 1895	William Johnston Tupper	Nov. 17, 1934
Sir Daniel H. McMillan	Oct. 16, 1900		

[1] Second term.

TWELFTH MINISTRY.

Office.	Name.	Date of Appointment.
Premier, President of the Council, Provincial Secretary, and Railway Commissioner	Hon. John Bracken	Aug. 8, 1922 Jan. 12, 1925
Attorney General, Minister of Telphones and Telegraphs, and Municipal Commissioner	Hon. W. J. Major, K.C.	Apr. 29, 1927 Sept. 21, 1936
Minister of Public Works and Labour	Hon. W. R. Clubb	Aug. 8, 1922
Minister of Agriculture and Immigration	Hon. D. L. Campbell	Sept. 21, 1936
Minister of Education	Hon. Ivan Schultz, K.C.	Sept. 21, 1936
Minister of Health and Public Welfare	Hon. I. B. Griffiths	May 28, 1935
Minister of Mines and Natural Resources	Hon. J. S. McDiarmid	May 27, 1932
Provincial Treasurer	Hon. S. S. Garson, K.C.	Sept. 21, 1936
Minister without portfolio	Hon. S. Marcoux	Sept. 21, 1936

11.—Lieutenant-Governors of Provinces, 1867-1940, and Present Ministries—continued.

SASKATCHEWAN.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
A. E. Forget	Sept. 1, 1905	H. W. Newlands	Feb. 22, 1926[1]
George W. Brown	Oct. 5, 1910	Lt.-Col. H. E. Munroe, O.B.E.	Mar. 31, 1931
Sir Richard Stuart Lake	Oct. 6, 1915	A. P. McNab	Oct. 1, 1936
H. W. Newlands	Feb. 17, 1921		

[1] Second term.

SEVENTH MINISTRY.

Office.	Name.	Date of Appointment.
Premier, President of the Council, Provincial Treasurer, and Minister of Telephones and Telegraphs	Hon. W. J. Patterson	Nov. 1, 1935
Attorney General and Minister in Charge of the Loan Companies Act and Trust Companies Act	Hon. J. W. Estey, K.C.	June 30, 1939
Minister of Public Health and Minister of Public Works	Hon. J. M. Uhrich, M.D.	July 19, 1934
Minister of Education, and Minister in Charge of the Saskatchewan Power Commission Act	Hon. J. W. Estey, K.C.	July 19, 1934
Minister of Agriculture	Hon. J. G. Taggart, B.S.A.	July 19, 1934
Minister of Municipal Affairs, Minister in Charge of the Employment Agencies Act, the Minimum Wage Act, and Bureau of Labour and Public Welfare	Hon. R. J. M. Parker	July 19, 1934
Minister of Natural Resources and Minister in Charge of the Saskatchewan Insurance Act, the Fire Prevention Act, and the Prairie and Forest Fires Act	Hon. W. F. Kerr	Nov. 5, 1935
Minister of Highways and Transportation, Minister in Charge of the Child Welfare Act, and the Old Age Pensions Act	Hon. A. T. Procter, K.C.	Dec. 1, 1938
Provincial Secretary, and Minister in Charge of the Theatres and Cinematographs Act, the Provincial Tax Commission Act, The Public Printing Act, and the Bureau of Publications	Hon. E. M. Culliton	Dec. 1, 1938

ALBERTA.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
George H. V. Bulyea	Sept. 1, 1905	William Egbert	Oct. 20, 1925
George H. V. Bulyea	Oct. 5, 1910[1]	William L. Walsh	Apr. 24, 1931
Robert George Brett	Oct. 6, 1915	Philip C. H. Primrose	Oct. 1, 1936
Robert George Brett	Oct. 20, 1920[1]	J. C. Bowen	Mar. 20, 1937

[1] Second term.

SEVENTH MINISTRY.

Office.	Name.	Date of Appointment.
Premier and Minister of Education	Hon. William Aberhart	Sept. 3, 1935
Attorney General	Hon. William Aberhart	Sept. 15, 1937
Provincial Treasurer	Hon. Solon Low	Feb. 2, 1937
Minister of Lands and Mines	Hon. Nathan E. Tanner	Jan. 5, 1937
Minister of Agriculture	Hon. D. B. Mullen	May 1, 1937
Minister of Public Works and Minister of Railways and Telephones	Hon. William A. Fallow	Sept. 3, 1935
Minister of Health	Hon. W. W. Cross, M.D.	Sept. 3, 1935
Provincial Secretary and Minister of Trade and Industry	Hon. E. C. Manning	Sept. 3, 1935
Minister of Municipal Affairs	Hon. Lucien Maynard	Jan. 20, 1937

11.—Lieutenant-Governors of Provinces, 1867-1940, and Present Ministries—continued.

BRITISH COLUMBIA.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
J. W. Trutch	July 20, 1871	T. W. Patterson	Dec. 3, 1909
Albert Norton Richards	July 20, 1876	Sir Frank S. Barnard	Dec. 5, 1914
Clement F. Cornwall	July 20, 1881	Col. Edward G. Prior	Dec. 9, 1919
Hugh Nelson	Feb. 8, 1887	Walter C. Nichol	Dec. 24, 1920
Edgar Dewdney	Nov. 1, 1892	R. Randolph Bruce	Jan. 21, 1926
Thomas R. McInnes	Nov. 18, 1897	J. W. Fordham Johnson	Aug. 1, 1931
Sir Henri G. Joly de Lotbinière	June 21, 1900	Eric W. Hamber	May 1, 1936
James Dunsmuir	May 11, 1906		

TWENTY-SECOND MINISTRY.

Office.	Name.	Date of Appointment.
Premier and President of Executive Council	Hon. T. D. Pattullo	Nov. 15, 1933
Minister of Finance	Hon. John Hart	Nov. 15, 1933
Provincial Secretary and Minister of Education	Hon. G. M. Weir	Nov. 15, 1933
Attorney General	Hon. G. S. Wismer	July 5, 1937
Minister of Lands and Municipalities	Hon. A. Wellesley Gray	Nov. 15, 1933
Minister of Agriculture	Hon. K. C. MacDonald	Nov. 15, 1933
Minister of Railways and Labour and Commissioner of Fisheries	Hon. G. S. Pearson	Nov. 15, 1933
Minister of Public Works	Hon. G. S. Leary	Dec. 5, 1939
Minister of Mines and Trade and Industry	Hon. W. J. Asseltine	Dec. 23, 1937

THE YUKON TERRITORY.

COMMISSIONERS OF THE YUKON.

Name.	Date of Appointment.	Name.	Date of Appointment.
James Morro Walsh	Aug. 17, 1897	George Black	Feb. 1, 1912
William Ogilvie	July 4, 1898	George Patton Mackenzie (Gold Commissioner)	Apr. 1, 1918
James H. Ross	Mar. 11, 1901	Percy Bearisto Reid (Gold Commissioner)	Apr. 1, 1925
Fred Tennyson Congdon	Mar. 1, 1930	George Ian MacLean (Gold Commissioner)	Apr. 1, 1928
Wm. Wallace Burns McInnes	May 27, 1905	George Allan Jeckell (Controller)	June 30, 1932
Alexander Henderson	June 17, 1907		

TERRITORIAL COUNCIL.

(Three members elected 1937, for 3 years.)

Dawson District.....John A. McDonald, Granville.
Whitehorse District.....G. W. Wilson, Whitehorse.
Mayo District.....Ernest J. Corp, Keno.

11.—Lieutenant-Governors of Provinces, 1867-1940, and Present Ministries—concluded.

THE NORTHWEST TERRITORIES.

NOTE.—In 1888 the districts of Alberta, Assiniboia, Athabaska, and Saskatchewan, then called the Northwest Territories, with their capital at Regina, were given local responsible government, and the old Northwest Council was replaced by the Northwest Legislature, which existed until Aug. 31, 1905. When the area included in these districts was formed into the Provinces of Alberta and Saskatchewan, on Sept. 1, 1905, these Provinces were given systems of government similar to the other provinces of the Dominion. The resources of the remaining areas (Yukon and the Provisional Districts of Franklin, Keewatin, and Mackenzie) are now administered by the Lands, Parks and Forests Branch, Department of Mines and Resources.

LIEUTENANT-GOVERNORS.

Name.	Date of Appointment.	Name.	Date of Appointment.
A. G. Archibald	May 10, 1870	Joseph Royal	July 1, 1888
Francis Goodschall Johnson	Apr. 9, 1872	C. H. Mackintosh	Oct. 31, 1893
Alexander Morris	Dec. 2, 1872	M. C. Cameron	May 30, 1898
David Laird	Oct. 7, 1876	A. E. Forget	Oct. 11, 1898
Edgar Dewdney	Dec. 3, 1881	A. E. Forget	Mar. 30, 1904[1]

[1] Second term.

TERRITORIAL COUNCIL.

(Appointed by the Governor General in Council.)

Commissioner—Charles Camsell, C.M.G., LL.D., F.R.S.C.
Deputy Commissioner—Roy Alexander Gibson.

Members of the Council—Austin Louis Cumming; Kenneth Robinson Daly; Howard Wigmore McGill, M.C., M.D.; Oscar Douglas Skelton, C.M.G., M.A., Ph.D., LL.D.; Brigadier Stuart Taylor Wood.

Secretary—David Livingstone McKeand.

PART IV.—REPRESENTATIVES OF CANADA IN OTHER COUNTRIES.*

Section 1.—High Commissioners Within the British Commonwealth of Nations.

United Kingdom.—The present High Commissioner for Canada in the United Kingdom is the HON. VINCENT MASSEY, who was appointed on Nov. 8, 1935. His office is in Canada House, Trafalgar Square, London, S.W. 1.

Following is the list of previous High Commissioners:—

SIR ALEXANDER GALT, 1880-83

SIR CHARLES TUPPER, 1884-87, 1888-96

LORD STRATHCONA AND MOUNT ROYAL, 1896-1914

SIR GEORGE PERLEY, 1917-22, (Acting High Commissioner 1914-17)

THE HON. P. C. LARKIN, 1922-30

THE HON. G. HOWARD FERGUSON, 1930-35

* Revised by the Department of External Affairs, Ottawa. An annual report on the organization and activities of Canadian Government representation abroad is contained in the Report of the Department of External Affairs, which may be obtained from the King's Printer, price 25 cents.

Australia.—The present and first High Commissioner for Canada in Australia is MR. CHARLES J. BURCHELL, who was appointed on Nov. 1, 1939. His office is in Canberra.

New Zealand.—The present and first High Commissioner for Canada in New Zealand is DR. W. A. RIDDELL, who was appointed on Feb. 1, 1940. His office is in Wellington.

South Africa.—The present and first High Commissioner for Canada in the Union of South Africa is Dr. Henry Laureys, who was appointed on Feb. 1, 1940. His office is in Pretoria.

Ireland.—The present and first High Commissioner for Canada in Ireland is MR. JOHN HALL KELLY, who was appointed on Feb. 1, 1940. His office is in Dublin.

Section 2.—Diplomatic Representatives in Foreign Countries.

United States of America.—The present Canadian Minister to the United States is MR. LORING C. CHRISTIE, who presented his credentials on Sept. 25, 1939. The address of the Canadian Legation is 1746 Massachusetts Avenue, Washington, D.C.

Following is the list of previous Ministers:—

THE HON. VINCENT MASSEY, 1927-30
THE HON. W. D. HERRIDGE, 1931-35
THE HON. SIR HERBERT MARLER, 1936-39

France.—The present Canadian Minister to France is LT.-COL. GEORGE P. VANIER, who presented his credentials on Feb. 13, 1939. The address of the Canadian Legation is 1, rue François premier, Paris.

His predecessor, the first Canadian Minister to France, was the HON. PHILIPPE ROY, who served from 1928 until 1938.

Until his appointment as Minister, Mr. Roy was Commissioner General for Canada in France from 1911. From 1882 until 1911, the Canadian Government maintained an agency in Paris, the post being held by the HON. HECTOR FABRE.

Japan.—The post of Canadian Minister to Japan is vacant. The Chargé d'Affaires of the Canadian Legation is MR. E. D. MCGREER. The Legation is at 16 Omote-Cho, Sanchome, Akasaka-ku, Tokyo.

Following is the list of previous Ministers:—

THE HON. SIR HERBERT MARLER, 1929-36
THE HON. R. RANDOLPH BRUCE, 1936-38

Belgium.—The present and first Canadian Minister to Belgium is MR. JEAN DESY, who presented his credentials on Feb. 4, 1939. The Canadian Legation is at 176 Avenue Brugmann, Brussels.

Netherlands.—The present and first Canadian Minister to the Netherlands is MR. JEAN DESY, who presented his credentials on Feb. 24, 1939. The Canadian Legation is at 61 Nieuwe Parklaan, The Hague.

League of Nations.—The Permanent Delegate of Canada to the League of Nations is MR. H. H. WRONG.

Canada's first permanent representative at Geneva accredited to the League was DR. W. A. RIDDELL, who was appointed in 1925 with the title of Canadian Advisory Officer. He was succeeded in 1937 by Mr. Wrong, and on Apr. 1, 1938, the title of the position was changed to Permanent Delegate of Canada to the League of Nations. The office of the Permanent Delegate is at 41 Quai Wilson, Geneva.

PART V.—REPRESENTATIVES OF OTHER COUNTRIES IN CANADA.

Section 1.—Representatives of Members of the British Commonwealth of Nations.

High Commissioner for the United Kingdom: (Office established 1928.)

Address: Earnscliffe, Ottawa.

The present High Commissioner is SIR GERALD CAMPBELL, who assumed office in October, 1938. The previous High Commissioners were:—

SIR W. H. CLARK, 1928-34
SIR FRANCIS FLOUD, 1935-38

High Commissioner for the Commonwealth of Australia: (Office established 1939.)

Address: Ottawa.

The present and first High Commissioner is MAJOR GENERAL THE HON. SIR THOMAS W. GLASGOW, who assumed office in 1940.

Accredited Representative of the Union of South Africa: (Office established 1938.)

Address: 56 Sparks Street, Ottawa.

The present and first Accredited Representative is MR. DAVID DE WAAL MEYER, who assumed office in April, 1938.

High Commissioner for Ireland: (Office established 1939.)

Address: 140 Wellington Street, Ottawa.

The present and first High Commissioner is MR. JOHN J. HEARNE, who assumed office in August, 1939.

Section 2.—Diplomatic Representatives of Foreign Countries.

Legation of the United States of America: (Established 1927.)

Address: Wellington Street, Ottawa. *Envoy Extraordinary and Minister Plenipotentiary:* THE HON. JAMES H. R. CROMWELL.

Legation of France: (Established 1928.)

Address: 42 Sussex Street, Ottawa. *Envoy Extraordinary and Minister Plenipotentiary*: COUNT ROBERT DE DAMPIERRE.

Legation of Japan: (Established 1928.)

Address: 140 Wellington Street, Ottawa. *Envoy Extraordinary and Minister Plenipotentiary*: BARON TOMII.

Legation of Belgium: (Established 1937.)

Address: Stadacona Hall, 395 Laurier Avenue East, Ottawa. *Envoy Extraordinary and Minister Plenipotentiary*: BARON SILVERCRUYS.

Legation of the Netherlands: (Established 1939.)

Address: 18 Range Road, Ottawa. *Envoy Extraordinary and Minister Plenipotentiary*: MR. F. E. H. GROENMAN.

PART VI.—CANADA AND THE LEAGUE OF NATIONS.*

General.—The League of Nations is an association of self-governing States whose relations are governed by the Covenant. The League of Nations acts through an Assembly and a Council composed of representatives of Governments. Fifty-one States are (at January, 1940) Members of the League, as compared with forty-two at the time of the First Assembly in 1920. Canada, as a signatory of the Treaties of Peace, is an original Member of the League.

The Organs of the League.—The organs of the League are:—

(1) The Assembly
(2) The Council
(3) The Secretariat

The Assembly.—The Assembly consists of representatives of the Members of the League. The annual ordinary session of the Assembly, which should have taken place in September, 1939, was held in December, 1939.

The Council.—The Council, which originally consisted of five permanent members and four non-permanent members now consists of two permanent members, (the United Kingdom and France), and eleven non-permanent members. The non-permanent members at January, 1940, were Belgium, Iran, Peru, Yugoslavia, Dominican Republic, Greece, Union of South Africa, Finland, Bolivia, Egypt, and China. Canada was a member of the Council from 1927 to 1930.

* The League of Nations Society in Canada, 124 Wellington Street, Ottawa, is the authorized agent for the publications of the League of Nations.

The Secretariat.—The Permanent Secretariat is the Civil Service of the League. The staff is appointed by the Secretary General with the approval of the Council. The officials of the Secretariat of the League are exclusively international officials, having international and not national duties. The First Secretary General, Sir Eric Drummond, who was named in the Annex to the Covenant, resigned in 1933 and was succeeded by M. Joseph Avenol.

The International Labour Organization.—(See Chapter XIX.)

The Permanent Court of International Justice.—The Permanent Court of International Justice was established by the Protocol of Dec. 16, 1920, in accordance with Article 14 of the Covenant of the League of Nations. It is composed of a body of fifteen judges elected by the Assembly and Council of the League of Nations for a term of nine years, and sits at The Hague. The Court is competent to hear and determine any dispute of an international character that the parties thereto submit to it; it may also give an advisory opinion upon any dispute or question referred to it by the Council or the Assembly. Canada has been a member of the Court from its establishment.

Membership of the League of Nations.—The States that are members of the League (January, 1940) are as follows:—

Afghanistan
Union of South Africa
Albania[1]
Argentine Republic
Australia
Belgium
Bolivia
Bulgaria
Canada
Chile[1]
China
Colombia
Cuba
Czechoslovakia
Denmark
Dominican Republic
Ecuador
Egypt
Estonia
Ethiopia
Finland
France
Greece
Haiti
Hungary[1]
India
Iran
Iraq
Ireland (Eire)
Latvia
Liberia
Lithuania
Luxemburg
Mexico
Netherlands
New Zealand
Norway
Panama
Peru[1]
Poland
Portugal
Roumania
Siam
Spain[1]
Sweden
Switzerland
Turkey
United Kingdom of Great Britain and Northern Ireland
Uruguay
Venezuela[1]
Yugoslavia

[1] Chile, on June 2, 1938, gave notice of her intention to withdraw from the League. Venezuela gave such notice on July 11, 1938; Peru on Apr. 8, 1939; Hungary on Apr. 11, 1939; Albania on Apr. 13, 1939; and Spain on May 8, 1939. The notices cannot take effect until two years after they are given.

CHAPTER IV.—POPULATION.*

CONSPECTUS.

	Page.
Section 1. Census Statistics of General Population	70
Section 2. Sex Distribution	81
Section 3. Conjugal Condition	83
Section 4. Age Distribution	84
Section 5. Racial Origins	85
Section 6. Religions	87
Section 7. Birthplaces	89
Section 8. Citizenship and Naturalization	90
Section 9. Language Spoken and Mother Tongue	91
Section 10. Rural and Urban Population	92
Section 11. Literacy	100
Section 12. School Attendance	101
Section 13. Blind and Deaf-Mutes	101
Section 14. Dwellings and Family Households	101
Section 15. Occupations of the Canadian People	102
Section 16. Quinquennial Census of the Prairie Provinces	102
Section 17. Annual Estimates of Population	102
Section 18. Area and Population of the British Empire	103
Section 19. Area and Population of the World	103

The Population chapter of the Year Book is a *précis* of the results of investigations into the number and the constitution of the population made in the seven censuses of Canada since Confederation, summarizing the growth and distribution of population between 1871 and 1931, as shown by the successive decennial censuses, in regard to the chief matters investigated at the censuses. Owing to the extent of the field covered, it is quite impossible to include in each edition of the Year Book a full digest of population statistics. The policy adopted, therefore, is to maintain the skeleton of the chapter and the historical tables as a permanent feature and build up each section as statistics are available following each census. After complete and accurate summary statistics have been given publicity, the chapter is cut down to skeleton limits, with adequate references, until the next census. The 1934-35 Year Book gives at pp. 98-169 as complete a picture of the 1931 Census statistics as will appear in one Year Book.

Under the Canadian constitution, the legal *raison d'être* of the census is to determine representation in the House of Commons; after each decennial census a redistribution of seats in the House, following the course of the movement of population, is made in the manner described on pp. 50-52 of this volume. But the census, especially since the introduction of methods of mechanical tabulation, has become far more than a mere counting of heads. It is a great periodical stock-taking of the people and their affairs, designed to show as fully as possible the stage that has been reached in the progress of the nation. Thus the numbers, local distribution, age, sex, racial origin, nationality, language, religion, education, housing, and occupations of the people, severally, constitute investigations of enormous importance, to which all the continuous and routine statistics collected in the ordinary course of administration must be related if their full value is to be realized. The census, in fine, rounds out and completes the scheme of information upon which the Government relies in conducting the business of the country.

* This chapter has been revised by A. J. Pelletier, F.S.S., Chief, Demography Branch, Dominion Bureau of Statistics. A list of the publications of this Branch will be found in Chapter XXIX, Section 1, under "Population".

On account of the requirements as to parliamentary representation and the payment of provincial subsidies, which are based on population, the Canadian census is taken on the *de jure* principle, i.e., each person is counted as belonging to the locality in which he is regularly domiciled, irrespective of where he may be at the date of the enumeration. Under the *de facto* method, adopted in the United Kingdom, each individual is counted as belonging to the locality where he is found on the census date. The *de facto* method is undoubtedly simpler, but the *de jure* plan better portrays the permanent condition of the population. The chief difficulty in the application of the latter method is found in connection with holiday resorts, in the segregation of "visitors" and the tracing of "absentees". A date prior to the opening of the holiday season is accordingly chosen for the date of the census. In the Canadian census, students and inmates of hospitals are assigned to their home localities, while inmates of prisons, gaols, lunatic asylums, etc., are counted where found.

Section 1.—Census Statistics of General Population.

Since the creation of the Dominion of Canada, in 1867, decennial censuses have been taken on the *de jure* plan as of the dates April 2, 1871, April 4, 1881, April 5, 1891, April 1, 1901, June 1, 1911, 1921, and 1931. The population of Canada and its percentage distribution as on each date, together with the absolute and percentage increases from decade to decade, are given in Tables 1 to 4 immediately following. The population is given by counties or census divisions on pp. 103-107 of the 1934-35 Year Book and corresponding areas and densities of population for 1931 on pp. 109-110 of the same edition.

1.—Population of Canada, by Provinces and Territories, Census Years 1871 to 1931

NOTE.—The population of the Prairie Provinces in 1906, 1916, 1926, and 1936, is shown on p. 147 of the 1937 Year Book. For intercensal estimated populations, see table on p. 103.

Province or Territory.	1871.	1881.	1891.	1901.	1911.	1921.	1931.
	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island	94,021	108,891	109,078	103,259	93,728	88,615	88,038
Nova Scotia	387,800	440,572	450,396	459,574	492,338	523,837	512,846
New Brunswick	285,594	321,233	321,263	331,120	351,889	387,876	408,219
Quebec	1,191,516	1,359,027	1,488,535	1,648,898	2,005,776[1]	2,360,665[2]	2,874,255
Ontario	1,620,851	1,926,922	2,114,321	2,182,947	2,527,292[1]	2,933,662	3,431,683
Manitoba	25,228	62,260	152,506	255,211	461,394[1]	610,118	700,139
Saskatchewan	–	–	–	91,279	492,432	757,510	921,785
Alberta	–	–	–	73,022	374,295[3]	588,454	731,605
British Columbia	36,247	49,459	98,173	178,657	392,480	524,582	694,263
Yukon	–	–	–	27,219	8,512	4,157	4,230
Northwest Territories[4]	48,000	56,446	98,967	20,129	6,507[1,3]	7,988	9,723
Canada	**3,689,257**	**4,324,810**	**4,833,239**	**5,371,315**	**7,206,643**	**8,787,949[2]**	**10,376,786**

[1] Corrected as a result of the Boundaries Extension Acts, 1912. [2] Revised in accordance with the Labrador Award of the Privy Council, Mar. 1, 1927. The total for Canada includes 485 members of the Royal Canadian Navy who were recorded separately in 1921. [3] Corrected by transfer of population of Fort Smith (368) to Northwest Territories. [4] 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.

2.—Percentage Distribution of Canadian Population, by Provinces and Territories, 1871 to 1931.

Province or Territory.	1871.	1881.	1891.	1901.	1911.	1921.	1931.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Prince Edward Island	2·55	2·52	2·25	1·92	1·30	1·01	0·85
Nova Scotia	10·51	10·19	9·32	8·56	6·83	5·96	4·94
New Brunswick	7·74	7·43	6·65	6·16	4·88	4·41	3·94
Quebec	32·30	31·42	30·80	30·70	27·83[1]	26·86[2]	27·70
Ontario	43·94	44·56	43·74	40·64	35·07[1]	33·39	33·07
Manitoba	0·68	1·44	3·16	4·75	6·40[1]	6·94	6·75
Saskatchewan	–	–	–	1·70	6·84	8·62	8·88
Alberta	–	–	–	1·36	5·19[3]	6·70	7·05
British Columbia	0·98	1·14	2·03	3·33	5·45	5·97	6·69
Yukon	–	–	–	0·51	0·12	0·05	0·04
Northwest Territories[4]	1·30	1·30	2·05	0·37	0·09[1, 3]	0·09	0·09
Canada	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0[2]**	**100·0**

For footnotes, see end of Table 1.

3.—Population of Canada, by Provinces and Territories, 1871 and 1931, Numerical Increase in Each Decade from 1871 to 1931, and Total Increase.

Province or Territory.	Population in 1871.	Increases or Decreases in Each Decade.						Population in 1931.	Total Change in 60 Years.
		1871 to 1881.	1881 to 1891.	1891 to 1901.	1901 to 1911.	1911 to 1921.	1921 to 1931.		
	No.	No.	No.	No.	No.	No.	No.	No.	No.
P.E.I.	94,021	14,870	187	−5,819	−9,531	−5,113	−577	88,038	−5,983
N.S.	387,800	52,772	9,824	9,178	32,764	31,499	−10,991	512,846	125,046
N.B.	285,594	35,639	30	9,857	20,769	35,987	20,343	408,219	122,625
Que.	1,191,516	167,511	129,508	160,363	356,878	354,889[1]	513,590	2,874,255	1,682,739
Ont.	1,620,851	306,071	187,399	68,626	344,345	406,370	498,021	3,431,683	1,810,832
Man.	25,228	37,032	90,246	102,705	206,183	148,724	90,021	700,139	674,911
Sask.	–	–	–	91,279	401,153	265,078	164,275	921,785	921,785
Alta.	–	–	–	73,022	301,273	214,159	143,151	731,605	731,605
B.C.	36,247	13,212	48,714	80,484	213,823	132,102	169,681	694,263	658,016
Yukon	–	–	–	27,219	−18,707	−4,355	73	4,230	4,230
N.W.T.[2]	48,000	8,446	42,521	−78,838	−13,622	1,481	1,735	9,723	−38,277
Canada	**3,689,257**	**635,553**	**508,429**	**538,076**	**1,835,328**	**1,581,306[1]**	**1,588,837**	**10,376,786**	**6,687,529**

[1] Revised in accordance with the Labrador Award of the Privy Council, Mar. 1, 1927. The total for Canada includes 485 members of the Royal Canadian Navy who were recorded separately in 1921. [2] 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.—Population of Canada, by Provinces and Territories, in 1871, and Percentage Increase, by Decades, from 1871 to 1931.

Province or Territory.	Population in 1871.	Percentage Increases or Decreases in Each Decade.						Percentage Change in 60 Years.
		1871 to 1881.	1881 to 1891.	1891 to 1901.	1901 to 1911.	1911 to 1921.	1921 to 1931.	
	No.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Prince Edward Island	94,021	15·82	0·17	−5·33	−9·23	−5·46	−0·65	−6·36
Nova Scotia	387,800	13·61	2·23	2·04	7·13	6·40	−2·10	32·24
New Brunswick	285,594	12·48	0·01	3·07	6·27	10·23	5·24	42·94
Quebec	1,191,516	14·06	9·53	10·77	21·64	17·69[1]	21·76	141·23
Ontario	1,620,851	18·88	9·73	3·25	15·77	16·08	16·98	111·72
Manitoba	25,228	146·79	144·95	67·34	80·79	32·23	14·75	2,675·25
Saskatchewan	–	–	–	–	439·48	53·83	21·69	–
Alberta	–	–	–	–	412·58	57·22	24·33	–
British Columbia	36,247	36·45	98·49	81·98	119·68	33·66	32·35	1,815·37
Yukon	–	–	–	–	−68·73	−51·16	1·76	–
Northwest Territories[2]	48,000	17·60	75·33	−79·66	−67·67	22·76	21·72	−79·74
Canada	**3,689,257**	**17·23**	**11·76**	**11·13**	**34·17**	**21·94[1]**	**18·08**	**181·27**

For footnotes, see end of Table 3.

Early Censuses.—The credit of taking the first census of modern times belongs to Canada; the year was 1666, the census that of the colony of New France. Still earlier records of settlement at Port Royal (1605) and Quebec (1608) are extant; but the Census of 1666 was a systematic 'nominal' enumeration of the people, taken on the *de jure* principle on a fixed date, showing age, sex, occupation, and conjugal and family condition. A second census in 1667 included the areas under cultivation and the numbers of sheep and cattle. When it is recalled that in Europe the first census dates only from the eighteenth century (those of France and England from the first year of the nineteenth) and that, in the United States, the census begins only with 1790, the achievement of the primitive St. Lawrence colony in instituting what is to-day one of the principal instruments of government throughout the civilized world, may call for more than passing appreciation.

The Census of 1666 (the results occupy 154 pages in manuscript, and are still to be seen in the Archives of Paris, or in a transcript at Ottawa) showed some 3,215 souls. It was repeated at intervals more or less regularly for a hundred years. By 1685 the total had risen to 12,515, including 1,538 Indians settled in villages and living a civilized life under the supervision of the missionaries. By the end of the century it had passed 15,000, and this was doubled in the next twenty-five years. Not to present too much detail, some of which is in the Chronology on pp. 25-36, it may be said that at the time of the cession (1763) the population of New France was nearly 70,000 (69,810 in 1765), while another 10,000 French (thinned to these proportions by the explusion of the Acadians) were scattered through what are now Nova Scotia, New Brunswick, and Prince Edward Island. The British population of Nova Scotia was 8,104 in 1762, thirteen years after the foundation of Halifax in 1749.

The chief sources of statistics for half a century and more after the cession are the reports—more or less sporadic—of colonial governors, though censuses of the different sections under British rule were taken at irregular intervals. British settlement on a substantial scale in the Gulf provinces and in Ontario dates only from the Loyalist movement that followed the American Revolution, at the end of which, i.e., about the year of the Constitutional Act (1791), the population of Lower Canada was approximately 163,000, while the newly constituted Province of Upper Canada, under Lieutenant-Governor Simcoe, numbered perhaps 15,000, and the addition of the maritime colonies brought the total to well over 200,000. A decade later Canada began the nineteenth century with a population of probably not less than 250,000 or 260,000. Subsequent censuses gave the populations of the different colonies as follows: Upper Canada (1824) 150,066, (1840) 432,159; Lower Canada (1822) 427,465, (1844) 697,084; New Brunswick (1824) 74,176, (1840) 156,162; Nova Scotia (1817) 81,351, (1838) 202,575; Prince Edward Island (1822) 22,600, (1841) 47,042.*

The policy of irregular census-taking was supposed to have been ended after the union of Upper and Lower Canada by an Act, passed on Sept. 18, 1841, which provided for a census in the year 1842 and every fifth year thereafter, but under this Act only the census of Upper Canada was taken and the following year, on Dec. 9, the Act was amended, the reason being stated as follows: "Whereas the Census of the inhabitants of Lower Canada, for the year one thousand eight hundred and forty-two as required by an Act of this Legislature, . . . hath not been duly taken . . .

* A résumé of the results of all the censuses taken in Canada between 1666 and 1931 has been published in bulletin form and is included in Vol. I, Census of 1931.

and whereas it is of the greatest importance that such Census should be taken. . . . Be it therefore enacted ". The Census of 1844 of Lower Canada was taken under this Act.

Another Act was passed and given Royal Assent on July 28, 1847, creating a "Board of Registration and Statistics" with instructions "to collect statistics and adopt measures for disseminating or publishing the same" and providing for a census to be taken in the year 1848, to be repeated in 1850 and every fifth year thereafter. Under this Act a census of Upper Canada was taken in 1848.

Finally an Act was passed on Aug. 30, 1851, providing for a census to be taken in January, 1852, then in the year 1861 and thereafter every tenth year, and that better provision should be made for taking the census. The first census thereunder was taken in January, 1852, and, as similar censuses were taken by New Brunswick and Nova Scotia, there is a regular measure of population growth in Canada over the past 80 years. The 'fifties saw a very rapid development, especially in Ontario, and the 'sixties showed only less substantial gains. In the years following Confederation there was a spurt, the increase between 1871 and 1881 (which included several lean years towards the end) being 635,553, or 17·23 p.c. In neither of the last two decades of the nineteenth century, however, was this record equalled either absolutely or relatively, the gains in each being under 550,000, or 12 p.c. By the end of the century the population of Canada had reached approximately five and a third millions, or twenty times that of 1800. It has increased by five millions in the past thirty years.

Expansion in the Twentieth Century.—It is within the present century that the most spectacular expansion of the population of Canada has taken place. The outstanding feature was, of course, the opening to settlement of the West. The unorganized territories of British North America had been ceded to the Dominion soon after Confederation, and the West had been tapped and traversed by the Canadian Pacific Railway in the 'eighties and 'nineties. But, though western population was doubled in each of these decades, it was only with the launching of a large-scale immigration movement after 1900 that western settlement and production became a first-rate economic factor. Simultaneously an almost equally striking development occurred in the industrial centres of Eastern Canada, forming the immediate basis for the move upon the West. At the back, of course, was the heavy inflow of British and other capital—a total of $1,500,000,000 between 1900 and 1912—to finance large constructive undertakings (chiefly railway, municipal, and industrial) which characterized the movement. The years 1901 to 1911, in brief, form the *decas mirabilis* of Canadian expansion. The immigration movement just mentioned, which had previously run well under 50,000 per annum, rose rapidly to over five times that volume, eventually passing 400,000 in a single year. In the ten years between 1901 and 1911 it exceeded 1,800,000 and, though at least a third of these were lost (partly in the return to Europe of labour temporarily attracted by the railway and other developments in progress, and partly in the never-ceasing and natural 'drag' of the United States upon a virile and less wealthy people), it formed the chief factor in the gain of 34 p.c. which the total population of Canada registered in that decade, and which was larger than the relative growth of any other country during the same period. The movement was continued and even intensified in the first three years of the second decade of the century, after which a recession set in, to which the outbreak of war gave a new and wholly unexpected turn. Nevertheless, the decade that closed with the Census of 1921

showed over 1,700,000 immigrant arrivals in Canada, and, though the proportionate loss of these was very heavy (probably as much as two-thirds), Canada's relative gain for the decade was again among the largest in the world.

Results of the Census of 1931.—The total population of the Dominion on June 1, 1931, was 10,376,786, as compared with 8,787,949 on June 1, 1921, an increase of 1,588,837 or 18·08 p.c. in the decade, as compared with 21·94 p.c. and 34·17 p.c. during the decades 1911 to 1921 and 1901 to 1911, respectively.

During the decade 1911-21 the countries that comprise the British Empire, and more especially the United States (which was in the Great War for only nineteen months as against Canada's fifty-two,) had suffered less in actual loss of life from the War and its consequences than the continental countries of Europe. None of them declined in population during the period, as many continental European countries did. Their percentage increases, however, were in almost all cases lower than in the previous decade. Thus the population of England and Wales increased between 1911 and 1921 only from 36,070,492 to 37,886,699, or 5·0 p.c., as compared with an increase of 10·9 p.c. in the previous decade; Scotland, again, increased only from 4,760,904 to 4,882,497, or 2·6 p.c., as compared with 6·5 p.c. between 1901 and 1911. Nor has this situation been much improved in the post-war decade 1921-31, for the increase in England and Wales during these years was but 5·4 p.c. and Scotland actually showed a decrease of 0·8 p.c. Of the overseas Dominions, New Zealand, according to the official estimate* increased her population from 1,218,913 to 1,452,747, or by about 19 p.c. for the decade ended 1931, as compared with 20·9 p.c. and 30·5 p.c., respectively, for the decades ended 1921 and 1911. In the case of the white population of South Africa, much the same condition obtained. The Commonwealth of Australia, the only Dominion to grow more rapidly in the second decade of the twentieth century than in the first, increased from 4,455,005 in 1911 to 5,435,734 in 1921, or by 22·01 p.c., as compared with 18·05 p.c. for 1901-11, and to 6,552,606 in 1931 according to the official estimate,* or by 20·5 p.c. in the decade 1921-31. The population of the continental United States increased between 1920 and 1930 from 105,710,620 to 122,775,046, an increase of 16·1 p.c. as compared with 14·9 p.c. in the decade 1910-20 and 21 p.c. in the decade 1900-10.

Considering now the movement of population within the Dominion of Canada itself, it is evident from Table 1 that in this country, as formerly in the United States, there has been a distinct movement of population from east to west. In the decade from 1911 to 1921 this was clearly apparent, for the four western provinces then increased their population by no less than 44 p.c. This growth occurred chiefly in the three Prairie Provinces for their combined population increased in the decade by 47·3 p.c., while that of British Columbia increased by 33·6 p.c. In the first two decades of the century the economic factor that had the greatest influence on population growth and movement in Canada was undoubtedly the agricultural settlement of the Prairie Provinces. The growth of population in these provinces was assisted both by immigration into Canada and by movement of domestic population from east to west.

While the agricultural industry of the Prairie Provinces has encountered periods of serious difficulty since the War of 1914-18, major economic developments have

* In both New Zealand and Australia the 1931 censuses were postponed and were taken in March, 1936, and June, 1933, respectively

been in progress in the mining, forest products, and hydro-electric power industries of Quebec, Ontario, and British Columbia. Furthermore, in this period immigration has been less important as a factor in population growth (see Table 1, p. 70) than in pre-war years, and thus the high rate of natural increase in Quebec (see Table 32, p. 141) has become a relatively greater factor. The Census of 1931 revealed the changing trends resulting from these influences, for in this latest decade the population of British Columbia increased 32·3 p.c. and of Quebec 21·7 p.c. compared with 20·3 p.c. for the Prairie Provinces. This change is also indicated by the percentage figures of Table 2, p. 71. The 1936 Quinquennial Census of the Prairie Provinces showed very little growth of population in those provinces in the five-year period after 1931.

Microphotography as Applied to Canadian Census Records.—This method of preserving records in condensed form was introduced in the Dominion Bureau of Statistics in June, 1939. The principle of the method is that each page of record is photographed in very reduced size on a roll of film. The completed film is indexed and stored in specially-constructed steel cabinets fitted with apparatus to regulate the moisture content of the air, since this factor has a pronounced effect on the preservation of the film. When it becomes necessary to consult the records, the film is placed in a projector which magnifies the photographed records so that they can be read easily.

Up to the present time, the Census Branch alone is making use of microphotography, although its value for library records is also under consideration. The space required to house the census records is very great as all primary records from 1871 to the present time must be kept in readily available form. Census records provide basic data for many purposes; among other things they are used to verify applications for old-age pensions, the number of which has increased rapidly since all the provinces have come under the Act, and are fundamental to many other administrative departments of government. The micro-film, which becomes the record to which ready access is made, can be stored in less than 1 p.c. of the space required for the original records; the latter can then be stored away permanently in less valuable space.

Another advantage of the system is that constant handling of original schedules, which results in their rapid deterioration, is eliminated. The microphotographic method permits the original records to be maintained in good condition indefinitely. Again, the weight of the micro-film is infinitesimal as compared to the weight of the folders containing the original schedules, and, as many trips to the record stacks are required each day, considerable effort has been involved in the task of lifting and carrying the heavy schedules. The cabinets containing the films can be conveniently brought to the point where the clerks are working.

Centres of Population.*—The centre of population for the Dominion of Canada was carefully worked out for each census from 1851 to 1931, inclusive, and

* The centres of population are the centres of gravity (not the intersections of median lines). The units of area in which the moments (i.e., population multiplied by distance from a fixed point) were calculated, were the permanent counties or census divisions, of which there are about 220, the same units being used so far as possible for all censuses from 1851 to 1931. The geographical centre of the unit area was assumed to be the centre of population of that unit except in the cases of the thinly settled northern areas and of counties with very large cities, where special adjustments were made.

showed a definite north-westward movement up to 1911, westward for the next decade, and northward for 1931. For the censuses of 1851 to 1881 the location was near Valleyfield, Que.; in 1891, it was 25 miles west of Ottawa; in 1901, near Pembroke; in 1911, 45 miles west of Sudbury; in 1921, 50 miles northeast of Sault Ste. Marie; and in 1931, 35 miles north of Sault Ste. Marie.

Density of Population.—The density of population in 1931 (i.e., the number of persons per square mile of the land area as in that year), as compared with 1921, 1911, and 1901, is shown by provinces and for the country as a whole in Table **5.**

5.—Area and Density of Population of Canada, by Provinces, 1901-31.

Province or Territory.	Land Area in Sq. Miles.	Population, 1901.[1]		Population, 1911.[1]		Population, 1921.		Population, 1931.	
		Total.	Per Sq. Mile.	Total.	Per Sq. Mile.	Total.	Per Sq. Mile.	Total.	Per Sq. Mile.
P. E. Island	2,184	103,259	47·28	93,728	42·92	88,615	40·57	88,038	40·31
Nova Scotia	20,743	459,574	22·16	492,338	23·74	523,837	25·25	512,846	24·72
New Brunswick	27,473	331,120	12·06	351,889	12·81	387,876	14·12	408,219	14·86
Quebec	523,534	1,648,898	3·15	2,005,776	3·83	2,360,665[2]	4·51	2,874,255	5·49
Ontario	363,282	2,182,947	6·01	2,527,292	6·96	2,933,662	8·08	3,431,683	9·45
Manitoba	219,723	255,211	1·16	461,394	2·10	610,118	2·78	700,139	3·19
Saskatchewan	237,975	91,279	0·38	492,432	2·07	757,510	3·18	921,785	3·87
Alberta	248,800	73,022	0·29	374,295	1·50	588,454	2·37	731,605	2·94
British Columbia	359,279	178,657	0·50	392,480	1·09	524,582	1·46	694,263	1·93
Canada (Exclusive of the Territories)	**2,002,993**	**5,323,967**	**2·66**	**7,191,624**	**3·59**	**8,775,319[2]**	**4·38**	**10,362,833**	**5·17[3]**
Yukon	205,346	27,219	0·13	8,512	0·04	4,157	0·02	4,230	0·02
N.W.T.	1,258,217	20,129[1]	[1]	6,507	0·01	7,988	0·01	9,723	0·01
Canada	**3,466,556**	**5,371,315**	**1·55**	**7,206,643**	**2·08**	**8,787,949[2]**	**2·53**	**10,376,786**	**2·99**

[1] The populations of Ontario, Quebec, Manitoba, and Northwest Territories were adjusted for 1911 according to the provisions of the Boundary Extensions Acts, 1912, but such adjustment was not carried back to 1901 and this accounts for the apparent decrease of population of the Northwest Territories from 1901 to 1911. [2] Populations of Northwest River Arm and Rigolet, on Hamilton Inlet have been deducted from Quebec, as these parts were awarded to Newfoundland by decision of the Judicial Committee of the Privy Council, Mar. 1, 1927. The grand total for Canada also contains 485 members of the Royal Canadian Navy who were recorded separately in 1921. [3] Revised since the publication of the 1939 Year Book.

Figures showing the density of population in 1931, by counties and census divisions, are given in Table **6.** Generally speaking, the density of population decreases as one travels westward, but the enormous area of the Province of Quebec unduly reduces the density of its population, which was 5·49 in 1931. As among the nine provinces, the density of population is greatest in Prince Edward Island and least in British Columbia.

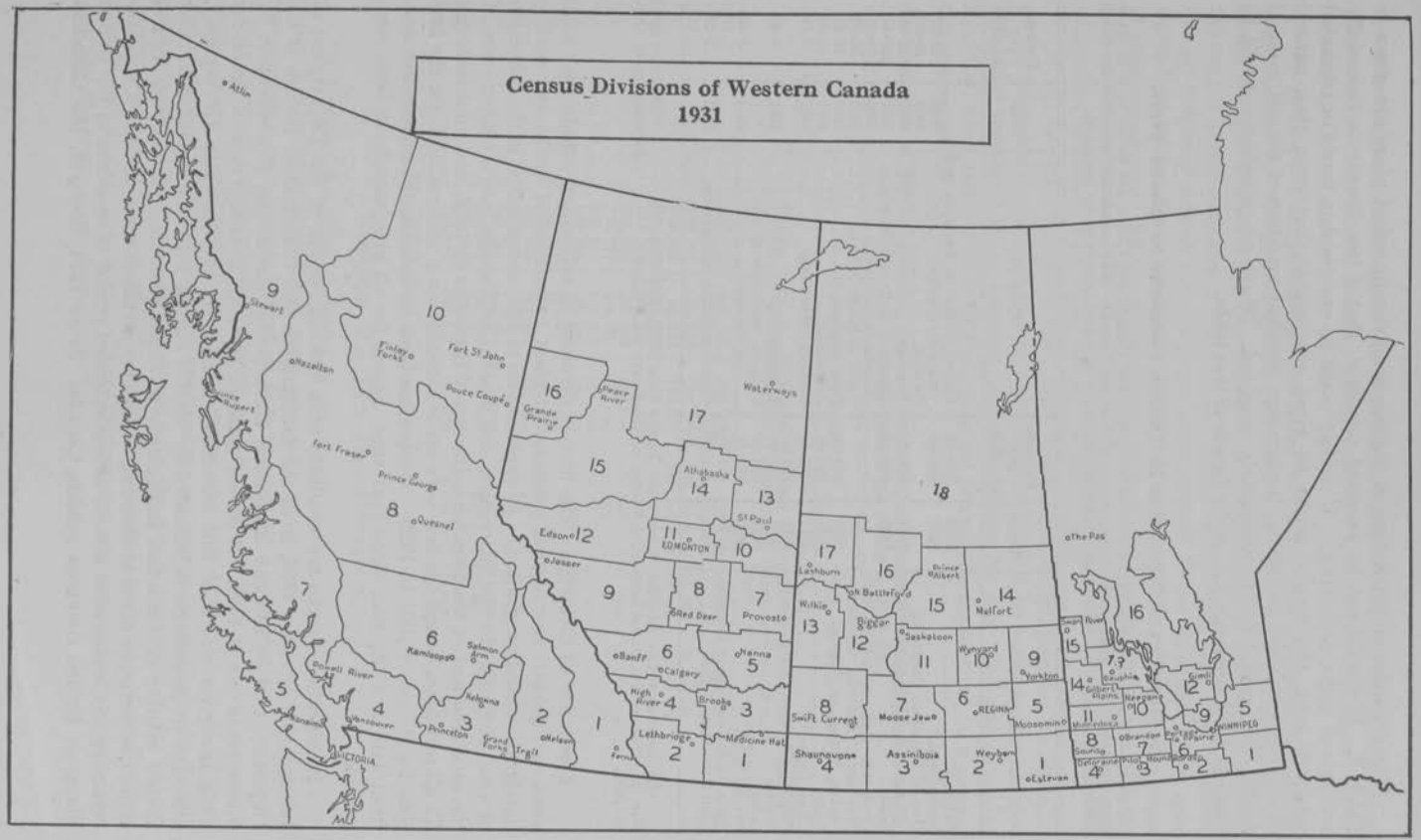
6.—Area and Density of Population, by Counties or Census Divisions, 1931.

Province and County.	Land Area.	Population.	
		Total.	Per Sq. Mile.
	sq. miles.	No.	No.
CANADA	**3,466,556**	**10,376,786**	**2·99**
Prince Edward Island	**2,184**	**88,038**	**40·31**
Kings	641	19,147	29·87
Prince	778	31,500	40·49
Queens	765	37,391	48·88
Nova Scotia	**20,743**	**512,846**	**24·72**
Annapolis	1,285	16,297	12·68
Antigonish	541	10,073	18·62
Cape Breton	972	92,419	95·08
Colchester	1,451	25,051	17·26
Cumberland	1,683	36,366	21·61
Digby	970	18,353	18·92
Guysborough	1,611	15,443	9·59
Halifax	2,066	100,204	48·57
Hants	1,229	19,393	15·78
Inverness	1,409	21,055	14·94
Kings	842	24,357	28·93
Lunenburg	1,169	31,674	27·09
Pictou	1,124	39,018	34·71
Queens	983	10,612	10·80
Richmond	489	11,098	22·70
Shelburne	979	12,485	12·75
Victoria	1,105	8,009	7·25
Yarmouth	838	20,939	24·99
New Brunswick[1]	**27,473**	**408,319**	**14·86**
Albert	681	7,679	11·28
Carleton	1,300	20,796	16·00
Charlotte	1,243	21,337	17·17
Gloucester	1,854	41,914	22·61
Kent	1,734	23,478	13·54
Kings	1,374	19,807	14·42
Madawaska	1,262	24,527	19·44
Northumberland	4,671	34,124	7·31
Queens	1,373	11,219	8·17
Restigouche	3,242	29,859	9·21
St. John	611	61,613	100·84
Sunbury	1,079	6,999	6·49
Victoria	2,074	14,907	7·19
Westmorland	1,430	57,506	40·21
York	3,545	32,454	9·15
Quebec	**523,534**	**2,874,255**	**5·49**
Abitibi[2]	76,725	23,692	0·31
Argenteuil	783	18,976	24·23
Arthabaska	666	27,159	40·78
Bagot	346	16,914	48·88
Beauce	1,128	44,793	39·71
Beauharnois	147	25,163	171·18
Bellechasse	653	22,006	33·70
Berthier	1,816	19,506	10·74
Bonaventure	3,464	32,432	9·36
Brome	488	12,433	25·48
Chambly	138	26,801	194·21
Champlain	8,586	59,935	6·98
Charlevoix	2,273	22,940	10·09
Châteauguay	265	13,125	49·53
Chicoutimi	17,800	55,724	3·13
Compton	933	21,917	23·49
Deux-Montagnes	279	14,284	51·20
Dorchester	842	27,994	33·25
Drummond	532	26,179	49·21
Frontenac	1,370	25,681	18·75
Gaspe	4,551	45,617	10·02
Hull	2,432	63,870	26·26
Huntingdon	361	12,345	34·20
Iberville	198	9,402	47·48
Joliette	2,506	27,585	11·01
Kamouraska	1,038	23,954	23·08
Labelle	2,392	20,140	8·42
Lac-St-Jean	23,590	50,253	2·13
Laprairie	170	13,491	79·36
L'Assomption	247	15,323	62·04
Lévis	272	35,656	131·09
L'Islet	773	19,404	25·10
Lotbinière	726	23,034	31·73
Maskinongé	2,378	16,039	6·74
Matane	3,496	45,272	12·95
Mégantic	780	35,492	45·50
Missisquoi	375	19,636	52·36
Montcalm	3,894	13,865	3·56
Montmagny	630	20,239	32·13
Montmorency	2,137	16,955	7·93
Montreal and			
Jesus Islands	294	1,020,018	3,469·54
Montreal Island	*201*	*1,003,868*	*4,994·37*
Jesus Island	*93*	*16,150*	*173·66*
Napierville	149	7,600	51·01
Nicolet	626	28,673	45·80
Papineau	1,581	29,246	18·50
Pontiac	9,560	21,241	2·22
Portneuf	1,440	35,890	24·92
Quebec	2,745	170,915	62·26
Richelieu	221	21,483	97·21
Richmond	544	24,956	45·88
Rimouski	2,089	33,151	15·87
Rouville	243	13,776	56·69
Saguenay[3]	315,176	21,754	0·07
Shefford	567	28,262	49·84
Sherbrooke	238	37,386	157·08
Soulanges	136	9,099	66·90
Stanstead	432	25,118	58·14
St-Hyacinthe	278	25,854	93·00
St-Jean	205	17,649	86·09
St-Maurice	1,820	69,095	37·96
Temiskaming	8,977	20,609	2·30
Témiscouata	1,806	50,294	27·85
Terrebonne	782	38,611	49·37
Vaudreuil	201	12,015	59·78
Verchères	199	12,603	63·33
Wolfe	680	16,911	24·87
Yamaska	365	16,820	46·08
Ontario	**363,282**	**3,431,683**	**9·45**
Addington	873	6,879	7·88
Algoma	19,320	46,444	2·40
Brant	421	53,476	127·02
Bruce	1,650	42,286	25·63
Carleton	947	170,040	179·56
Cochrane	52,237	58,033	1·11
Dufferin	557	14,892	26·74
Dundas	384	16,098	41·92
Durham	629	25,782	40·99
Elgin	720	43,436	60·33
Essex	707	159,780	226·00
Frontenac	1,599	45,756	28·62
Glengarry	478	18,666	39·05
Grenville	463	16,327	35·26
Grey	1,708	57,699	33·78
Haldimand	488	21,428	43·91
Haliburton	1,486	5,997	4·04

[1] The areas of the counties in New Brunswick have been revised since the Census of 1931. [2] Includes Districts of Abitibi and Mistassini. [3] Includes District of New Quebec.

6.—Area and Density of Population, by Counties or Census Divisions, 1931—concluded.

Province and County.	Land Area.	Population.		Province and County.	Land Area.	Population.	
		Total.	Per Sq. Mile.			Total.	Per Sq. Mile.
	sq. miles.	No.	No.		sq. miles.	No.	No.
Ontario-concluded.				**Saskatchewan**	**237,975**	**921,785**	**3·87**
Halton	363	26,558	73·16	Division No. 1	5,944	41,544	6·99
Hastings	2,323	58,846	25·33	Division No. 2	6,686	42,831	6·41
Huron	1,295	45,180	34·89	Division No. 3	7,646	46,881	6·13
Kenora	18,150	21,946	1·21	Division No. 4	7,579	28,126	3·71
Kent	918	62,865	68·48	Division No. 5	5,760	53,948	9·37
Lambton	1,124	54,674	48·64	Division No. 6	6,787	109,906	16·19
Lanark	1,138	32,856	28·87	Division No. 7	7,471	63,230	8·46
Leeds	900	35,157	39·06	Division No. 8	9,264	49,361	5·33
Lennox	297	12,004	40·42	Division No. 9	5,010	60,539	12·08
Lincoln	332	54,196	163·25	Division No. 10	4,860	41,890	8·62
Manitoulin	1,588	10,734	6·76	Division No. 11	5,979	87,976	14·71
Middlesex	1,240	118,241	95·36	Division No. 12	5,982	40,612	6·79
Muskoka	1,585	20,985	13·24	Division No. 13	6,848	42,632	6·23
Nipissing	7,560	41,207	5·45	Division No. 14	13,419	46,222	3·44
Norfolk	634	31,359	49·46	Division No. 15	8,082	83,697	10·36
Northumberland	734	31,452	42·85	Division No. 16	8,912	48,736	5·47
Ontario	853	59,667	69·95	Division No. 17	6,913	27,315	3·95
Oxford	765	47,825	62·52	Division No. 18	114,833	6,339	0·06
Parry Sound	4,336	25,900	5·97				
Peel	469	28,156	60·03				
Perth	840	51,392	61·18				
Peterborough	1,415	43,958	31·07	**Alberta**	**248,800**	**731,605**	**2·94**
Prescott	494	24,596	49·79	Division No. 1	7,323	28,849	3·94
Prince Edward	390	16,693	42·80	Division No. 2	6,342	57,186	9·02
Rainy River	7,276	17,359	2·39	Division No. 3	7,018	15,066	2·15
Renfrew	3,009	52,227	17·36	Division No. 4	6,119	29,067	4·75
Russell	407	18,487	45·42	Division No. 5	7,681	26,651	3·47
Simcoe	1,663	83,667	50·31	Division No. 6	10,595	140,624	13·27
Stormont	412	32,524	78·94	Division No. 7	6,684	38,106	5·70
Sudbury	18,058	58,251	3·23	Division No. 8	6,510	61,016	9·37
Thunder Bay	52,471	65,118	1·24	Division No. 9	14,415	24,503	1·70
Timiskaming	5,896	37,043	6·28	Division No. 10	6,180	58,049	9·39
Victoria	1,348	25,844	19·17	Division No. 11	4,753	126,832	26·68
Waterloo	516	89,852	174·13	Division No. 12	13,083	13,815	1·06
Welland	387	82,731	213·78	Division No. 13	8,103	24,936	3·08
Wellington	1,019	58,164	57·08	Division No. 14	8,731	39,508	4·53
Wentworth	458	190,019	414·89	Division No. 15	22,845	13,664	0·60
York	882	856,955	971·60	Division No. 16	11,100	27,945	2·52
District of Patricia	135,070	3,973	0·03	Division No. 17	101,318	5,788	0·06
Manitoba	**219,723**	**700,139**	**3·19**	**British Columbia**	**359,279**	**694,263**	**1·93**
Division No. 1	4,281	22,817	5·33	Division No. 1	15,984	22,566	1·41
Division No. 2	2,320	38,810	16·73	Division No. 2	13,343	40,455	3·03
Division No. 3	2,577	26,753	10·38	Division No. 3	10,729	40,523	3·78
Division No. 4	2,466	18,253	7·40	Division No. 4	9,764	379,858	38·90
Division No. 5	5,256	46,228	8·80	Division No. 5	13,206	120,933	9·16
Division No. 6	2,436	283,828	116·51	Division No. 6	31,420	30,025	0·96
Division No. 7	2,578	36,912	14·32	Division No. 7	22,187	12,658	0·57
Division No. 8	2,160	19,846	9·19	Division No. 8	71,985	21 534	0·30
Division No. 9	1,217	45,414	37·32	Division No. 9	88,128	18,698	0·21
Division No. 10	2,377	17,916	7·54	Division No. 10	82,533	7,013	0·08
Division No. 11	2,914	28,100	9·64				
Division No. 12	3,240	24,344	7·51	**Yukon**	**205,346**	**4,230**	**0·02**
Division No. 13	3,324	24,263	7·30				
Division No. 14	3,636	25,978	7·14	**Northwest Territories**	**1,258,217**	**9,723**	**0·01**
Division No. 15	2,304	10,008	4·34				
Division No. 16	176,637	30,669	0·17				


Census Divisions of Western Canada
1931
Atlin
Stewart
Hazelton
Prince Rupert
Fort Fraser
Prince George
Fort St John
Peace River
Grande Prairie
Waterways
Athabasca
St Paul
Edson
Jasper
EDMONTON
Lashburn
Battleford
Prince Albert
Melfort
The Pas
Red Deer
Provost
Wilkie
Biggar
Saskatoon
Wynyard
Yorkton
Banff
Calgary
Hanna
High River
Brooks
Swift Current
Moose Jaw
REGINA
Moosomin
Gilbert Plains
Dauphin
Swan River
Minnedosa
Portage la Prairie
Brandon
Gimli
MINNEDOSA
Kamloops
Salmon Arm
Revelstoke
Kelowna
Princeton
Grand Forks
Trail
Nelson
Fernie
Lethbridge
Medicine Hat
Shaunavon
Assiniboia
Weyburn
Estevan
Deloraine
Souris
Rhodes
Virden
VICTORIA
Vancouver
Nanaimo
Duncan
Powell River

The densities of population in various countries in recent years are given in Table 7. It should not be assumed, however, that a low density is necessarily evidence of under-population. If density could be expressed in terms of estimated habitable area, the figures would be more comparable, but even then natural physical factors, such as climate, topography, physical condition of the soil, mineral wealth, etc., would not be adequately weighted. These considerations should be borne in mind when comparing the figures of this table.

7.—Densities of Population in Various Countries in Recent Years.

NOTE.—The following figures, for countries other than Canada and China, are based on data taken from the Statistical Year Book of the League of Nations, 1938-39. The population figures of the latest census are used and total population is taken except where indicated otherwise by footnotes.

Country.	Year.	Persons per Sq. Mile.	Country.	Year.	Persons per Sq. Mile.
Belgium	1930	698·61	United States of America (not including Alaska)	1930	40·56
Netherlands	1930	604·54	Sweden	1935	36·06
United Kingdom (including Channel Islands and Isle of Man)	1931	488·77	Norway	1930	22·56
Japan	1935	469·55	Russia	1939	20·85
Germany (not including Saar Territory, Austria, Czechoslovakia, Memel, or Poland)	1933	360·81	Russia in Europe[2]	1936	*59·81*
Italy	1936	358·58	Union of South Africa	1936	20·33
China proper[1]	1931	234·87	New Zealand	1936	15·21
Poland (area as at Dec. 1, 1937)	1931	214·32	Argentina[3]	1937	11·83
France	1936	196·99	Southern Rhodesia[3]	1937	8·79
India	1931	195·07	**Canada**	**1931**	**2·99**
British India	1931	*247·67*	Canada, exclusive of the Territories	1931	*5·17*
Spain (including Canary Islands)	1930	121·33			
Irish Free State (Eire)	1936	111·41	Commonwealth of Australia	1933	2·23

[1] Estimate as of Dec. 31, 1931, taken from Canada Year Book, 1934-35, p. 168. [2] Estimate as at Dec. 31, 1936, as the census figures for Russia in Europe are not available. [3] Estimate as at Dec. 31, 1937.

Elements of Growth.—The factors involved in estimating population movement and growth are: natural increase, which is a resultant of births and deaths; immigration; and emigration. As explained on p. 105, co-operation in the collection of vital statistics (births, marriages, and deaths) in Canada was a consequence of the establishment of the Dominion Bureau of Statistics in 1918, and vital statistics for all provinces except Quebec were made available on a uniform basis for the first time for the years 1921 to 1925. Quebec has been included in the registration area from Jan. 1, 1926, and, since that time, figures for all provinces have been comparable.

Immigration figures are available from the old records of the Department of Immigration or, since 1936, from the Immigration and Colonization Branch of the Department of Mines and Resources, for a period antedating Confederation by fifteen years (see p. 147). It is very difficult, however, to obtain correct figures for emigration; no record of this movement is kept by the Canadian Government, although its magnitude is indicated by United States, United Kingdom, and other British returns of Canadian immigrants to those countries. Even these figures cannot, however, be taken at their face value since no allowance is made for Canadians returning to Canada after a more or less extended period of residence in the United States or British countries outside Canada. Since 1924, however, the Canadian

Government immigration officers have been instructed to take note of such Canadians returning from the United States. This group, of course, covers the greater part of "returning Canadians".

Estimates of Canadian emigration based on United States and British returns, supplemented by the known figures for "returning Canadians" are made by the Social Analysis Branch of the Dominion Bureau of Statistics in the process of working out the annual estimates of population. These estimates are the closest available but are naturally subject to a margin of error because of the incomplete data upon which they are based and the fact that they are calculated for a period of time ahead of actual experience. Moreover, the annual estimates of population are not calendar year statistics but are from June 30 to July 1, respectively, and naturally such emigration estimates as are made are on the same basis.

It will be clear, therefore, that, while the *trend* of emigration can be obtained by the interested reader from the statistics given in Table 8, he would not be justified in adding together natural increase and immigration for any year and expecting the total, when subtracted from the estimated increase in population, to represent the emigration for that year.

8.—Summary of Births, Deaths, Natural Increase, and Immigration, Calendar Years, with Estimated Population as at June 1, 1921-39.

Year.	Calendar Year Data.				Data for Year Ended June 1.		
	Births.	Deaths.	Natural Increase.	Immigration.	Estimated Population of Previous Year.	Estimated Population.	Estimated Increase in Population.
1921	257,728	101,155	156,573	91,728	8,556,000	8,788,000	232,000
1922	252,571	102,487	150,084	64,224	8,788,000	8,919,000	131,000
1923	240,476	105,330	135,146	133,729	8,919,000	9,010,000	91,000
1924	244,525	98,553	145,972	124,164	9,010,000	9,143,000	133,000
1925	242,388	98,777	143,611	84,907	9,143,000	9,294,000	151,000
1926	232,750	107,454	125,296	135,982	9,294,000	9,451,000	157,000
1927	234,188	105,292	128,896	158,886	9,451,000	9,637,000	186,000
1928	236,757	109,057	127,700	166,783	9,637,000	9,835,000	198,000
1929	235,415	113,515	121,900	164,993	9,835,000	10,029,000	194,000
1930	243,495	109,306	134,189	104,806	10,029,000	10,208,000	179,000
1931	240,473	104,517	135,956	27,530	10,208,000	10,376,000	168,000
1932	235,666	104,377	131,289	20,591	10,376,000	10,506,000	130,000
1933	222,868	101,968	120,900	14,382	10,506,000	10,681,000	175,000
1934	221,303	101,582	119,721	12,476	10,681,000	10,824,000	143,000
1935	221,451	105,567	115,884	11,277	10,824,000	10,935,000	111,000
1936	220,371	107,050	113,321	11,643	10,935,000	11,028,000	93,000
1937	220,235[1]	113,824[1]	106,411[1]	15,101	11,028,000	11,120,000	92,000
1938	229,446	106,817	122,629	17,244	11,120,000	11,209,000	89,000
1939	-	-	-	-	11,209,000	11,315,000	106,000

[1] Revised since the publication of the 1939 Year Book.

Section 2.—Sex Distribution.

Throughout the older countries of the world there is usually found an excess of female over male population, more especially as in most of these countries the census is taken on a *de facto* instead of, as in Canada, on a *de jure* basis. The causes of this excess of female population are: (1) the normally higher rate of mortality among males; (2) the greater number of males who travel; (3) the effects of war; (4) the employment of males in the army, navy, and merchant marine; and (5) the preponderance of males among emigrants. In the newer countries of the world, however, the preponderance of males among immigrants results in a general excess of male over female population. These phenomena are exemplified for both the older and the newer countries in Table 9.

9.—Masculinity of the Populations of Various Countries in Recent Years.

NOTE.—A minus sign denotes a deficiency of males. The figures are calculated from population figures of the latest census in each case, as given by the League of Nations Year Book, 1938-39.

Country.	Year.	Excess of Males Over Females in Each 100 of Population.	Country.	Year.	Excess of Males Over Females in Each 100 of Population.
Argentina	1928	6·58[1]	Denmark	1935	−1·56[2]
Canada	**1931**	**3·58**	Italy	1936	−1·82
India	1931	3·06	Finland	1930	−2·06
Irish Free State (Eire)	1936	2·42[2]	Spain	1930	−2·42
Australia	1933	1·56	Norway	1930	−2·48
New Zealand	1936	1·52[2]	Northern Ireland	1937	−2·66[2]
United States	1930	1·22	Germany	1933	−2·92
Union of South Africa	1936	0·88	Czechoslovakia	1930	−3·00
Bulgaria	1934	0·50[2]	France	1931	−3·40
Japan	1935	0·30[2]	Switzerland	1930	−3·48[2]
Netherlands	1930	−0·64	Austria	1934	−3·90
Greece	1928	−0·86[2]	Scotland	1931	−3·94
Belgium	1930	−0·96	England and Wales	1931	−4·22[2]
Chile	1930	−0·98	Portugal	1930	−4·60
Sweden	1935	−1·14	U.S.S.R. (Europe)	1926	−4·90

[1] Estimate. [2] Revised since the publication of the 1939 Year Book.

In Canada there has been an excess of male population from the commencement of its history, the first census (1666) showing 2,034 males to only 1,181 females. As the colony increased in numbers, the disproportion between the sexes became smaller, more especially since the French-Canadian population, after about 1680, was not reinforced by immigration from the Old World. In 1784, when the English-speaking immigration to Canada for purposes of settlement was commencing, there were 54,064 males and 50,759 females in the colony. At the middle of the nineteenth century, there were 449,967 males to 440,294 females in Lower Canada, and 499,067 males to 452,937 females in the more newly-settled Upper Canada, and since Confederation the same phenomenon of considerable excess of males has occurred throughout the growing northwest. The great immigration of the first decade of the present century resulted in raising what is called the 'masculinity' of the Canadian population (i.e., the excess of males over females per 100 of population) to the highest point in recent history, viz., 6·07 p.c. in 1911. The War of 1914-18, however, both checked immigration and took about 60,000 young Canadian male lives as its toll, with the result that at the Census of 1921 the masculinity of the population was only 3 p.c.—515 males to 485 females per 1,000 of population.

In 1931 there were 518 males to 482 females for Canada as a whole. It is interesting to note that the masculinity of the population has increased in the eastern provinces and decreased in the western ones, where it was formerly greatest. In Table **10** statistics are presented showing the number of males and females in each of the provinces and territories at each census since 1871. A table showing the proportions of the sexes and excess of males per 1,000 of population, 1871-1931, appears at p. 113 of the 1934-35 Year Book.

10.—Sex Distribution of the People of Canada, by Provinces, 1871-1931.

Province or Territory.	1871.		1881.		1891.	
	Male.	Female.	Male.	Female.	Male.	Female.
Prince Edward Island	47,121	46,900	54,729	54,162	54,881	54,197
Nova Scotia	193,792	194,008	220,538	220,034	227,093	223,303
New Brunswick	145,888	139,706	164,119	157,114	163,739	157,524
Quebec	596,041	595,475	678,175	680,852	744,141	744,394
Ontario	828,590	792,261	978,554	948,368	1,069,487	1,044,834
Manitoba	12,864	12,364	35,123	27,137	84,342	68,164
Saskatchewan	–	–	–	–	–	–
Alberta	–	–	–	–	–	–
British Columbia	20,694	15,553	29,503	19,956	63,003	35,170
Yukon	–	–	–	–	–	–
Northwest Territories	24,274	23,726	28,113	28,333	53,785	45,182
Canada	**1,869,264**	**1,819,993**	**2,188,854**	**2,135,956**	**2,460,471**	**2,372,768**

	1901.		1911.		1921.		1931.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Prince Edward Island	51,959	51,300	47,069	46,659	44,887	43,728	45,392	42,646
Nova Scotia	233,642	225,932	251,019	241,319	266,472	257,365	263,104	249,742
New Brunswick	168,639	162,481	179,867	172,022	197,351	190,525	208,620	199,599
Quebec	824,454	824,444	1,012,815	992,961	1,179,726	1,180,939	1,447,124	1,427,131
Ontario	1,096,640	1,086,307	1,301,272	1,226,020	1,481,890	1,451,772	1,748,844	1,682,839
Manitoba	138,504	116,707	252,954	208,440	320,567	289,551	368,065	332,074
Saskatchewan	49,431	41,848	291,730	200,702	413,700	343,810	499,935	421,850
Alberta	41,019	32,003	223,792	150,503	324,208	264,246	400,199	331,406
British Columbia	114,160	64,497	251,619	140,861	293,409	231,173	385,219	309,044
Yukon	23,084	4,135	6,508	2,004	2,819	1,338	2,825	1,405
Northwest Territories	10,176	9,953	3,350	3,157	4,129	3,859	5,214	4,509
Canada	**2,751,708**	**2,619,607**	**3,821,995**	**3,384,648**	**4,529,643**[1]	**4,258,306**	**5,374,541**	**5,002,245**

[1] Includes 485 members of the Royal Canadian Navy.

Section 3.—Conjugal Condition.

In Table **11** are given, in summary form, the statistics of the conjugal condition of the population, as single, married, widowed, divorced, and legally separated, for 1871 and subsequent censuses. Especially notable is the larger proportion of married in the more recent years. This is mainly attributable to the larger proportion of adults to total population at the present time. Noteworthy also is the larger proportion of divorced and legally separated in later years. A table showing the conjugal condition of the people, as percentages of the total population, is given at p. 110 of the 1936 Year Book. Another table, showing conjugal condition by sex and provinces, will be found at the same place. At pp. 115-116 of the 1934-35 Year Book a table appears showing the conjugal condition of the 1931 population, 15 years of age or over by age groups. The reader is referred to pp. 117-120 of this volume for further information concerning marriages and to pp. 120-121 for details of divorces granted in the years 1918-39.

11.—Conjugal Condition of the Population, as Shown by the Censuses of 1871-1931.

NOTE.—Dashes in this table indicate that no data were reported under the respective headings.

Census Year and Sex.	Single.	Married.	Widowed.	Divorced.	Legally Separated.	Not Given.	Total.
1871[1]—Male	1,183,787	543,037	37,487				1,764,311
Female	1,099,216	542,339	79,895			–	1,721,450
1881—Male	1,447,415	690,544	50,895				2,188,854
Female	1,336,981	689,540	109,435				2,135,956
1891—Male	1,601,541	796,153	62,777	–			2,460,471
Female	1,451,851	791,902	129,015	–			2,372,768
1901—Male	1,748,582	928,952	73,837	337			2,751,708
Female	1,564,011	904,091	151,181	324	–	–	2,619,607
1911—Male	2,369,766	1,331,853	89,154	839	1,286	29,097	3,821,995
Female	1,941,886	1,251,468	179,656	691	1,584	9,363	3,384 648
1921—Male	2,698,564	1,698,297	119,695	3,670	[2]	9,417	4,529,643
Female	2,378,728	1,631,663	236,504	3,731	[2]	7,680	4,258,306
1931—Male	3,179,444	2,033,240	148,954	4,049	[3]	8,854	5,374,541
Female	2,771,968	1,937,950	288,641	3,392	[3]	294	5,002,245

[1] The figures for 1871 cover the four original provinces of Canada only. [2] Legally separated included with divorced. [3] Legally separated included with married.

Section 4.—Age Distribution.

The same causes that have, in the past, rendered the sex distribution of population in Canada somewhat unusual have also affected its age distribution. In the first stages of the settlement of a new colony, men in the prime of life constitute the bulk of the population, and women and children are conspicuous by their absence, so that there will be a disproportionately large male population between the ages of 20 and 50, together with a low birth rate. Later on in the settlement of a new country, where there is land and food for all and where the early disproportion of the sexes has been overcome, there is a very high rate of natural increase, and an extraordinarily large proportion of children among the population. Thus in 1871 (see Table 12), 286·91 out of every 1,000 of the population of Canada were children under 10 years of age, and over half the total population (526·76 out of every 1,000) were under 20 years of age. But, with the growing urbanization of population, the average age at marriage increased and children came to be regarded as a liability rather than an asset. Thus in 1911, out of every 1,000 of the population, only 231·83 were under 10 years of age and 423·42 under 20 years of age. In 1921, however, 239·67 per 1,000 of the population were under 10 years of age and 434·81 per 1,000 under 20 years. In 1931, the number of children under 10 years of age had dropped to 212·70 per 1,000 of the population, and of persons under 20 to 416·39 per 1,000.

12.—Proportion per 1,000 of the Population by Age Periods, Census Years, 1871-1931.

Age Period.	1871.	1881.	1891.	1901.	1911.	1921.	1931.
Under 1 year	30·567	28·019	24·923	24·497	25·734	23·858	19·531
1— 4 years	115·649	108·507	99·964	95·210	97·413	96·482	84·009
5— 9 "	140·691	128·251	121·242	114·664	108·685	119·333	109·162
10—19 "	239·854	227·404	219·710	210·906	191·585	195·138	203·689
20—29 "	171·436	175·957	178·080	173·549	189·335	159·041	163·583
30—39 "	111·404	113·099	122·080	129·259	141·938	146·247	134·656
40—49 "	79·995	83·817	88·441	98·494	100·071	109·481	118·660
50—59 "	54·788	58·087	62·360	67·886	69·121	73·082	82·463
60 or over	55·128	63·270	70·142	76·397	71·027	74·917	83·882
Not given	0·488	13·589	13·059	9·137	5·090	2·419	0·363

Table 13 shows the varying age distribution of the population of the respective provinces. At p. 118 of the 1934-35 Year Book details of the age distribution of the population of the Dominion, by sex, for the census years 1881 to 1931 are given.

13.—Proportion per 1,000 of the Population by Age Periods, by Provinces, 1931, with Totals for 1921.

Province.	0–9 Years.	10–19 Years.	20–44 Years.	45–69 Years.	70 Years or Over.	Age Not Given.
Prince Edward Island	212·47	207·97	308·15	206·52	64·81	0·08
Nova Scotia	215·36	214·17	320·93	198·39	50·93	0·22
New Brunswick	239·83	219·63	317·25	181·18	41·95	0·17
Quebec	245·89	214·20	352·95	157·69	29·05	0·23
Ontario	186·68	185·67	373·92	212·28	41·20	0·25
Manitoba	203·29	219·27	365·99	185·52	25·72	0·20
Saskatchewan	234·80	228·98	353·08	163·81	19·12	0·21
Alberta	217·98	210·00	374·07	178·47	19·32	0·16
British Columbia	160·07	175·97	377·16	254·66	29·97	2·17
Canada, 1931[1]	**212·70**	**203·69**	**360·50**	**189·52**	**33·22**	**0·36**
Canada, 1921[1]	**239·67**	**195·14**	**365·27**	**169·38**	**28·12**	**2·42**

[1] The statistics for Yukon and the Northwest Territories are included in the totals.

Age Distribution by Sex.—An interesting table of quartile and decile age distribution, by sex, with textual interpretation, is given at pp. 119-120 of the 1934-35 Year Book.

Section 5.—Racial Origins.

In six out of seven censuses of Canada since Confederation the racial origin of each person has been secured, the exception being 1891. The object of this information is to ascertain from what basic ethnic stocks the Canadian population, more particularly the recently immigrated population, is derived. The answer "Canadian" is not accepted under this heading, as the purpose of the question is to obtain, in so far as possible, a definition of "Canadian" in terms of racial derivation. Of this procedure of the census, criticism has been received on two main grounds: (*a*) There are Canadians whose families have resided in the country for several generations who may not know their ultimate racial origin, or who may be of very mixed origin. (*b*) The practice tends to perpetuate racial distinctions which it is desirable to obliterate. As against these criticisms the following three points must be considered: (*a*) The Canadian whose family is of three or more generations residence is enumerated and differentiated through the census question on the birthplace of parents for which statistics from the 1931 Census appear at pp. 134-139 of the 1934-35 Year Book. (*b*) Notwithstanding the desirability of racial assimilation, there are special features in connection with the process that require appraisement and study—for example, 271 children of Chinese fathers and 842 of Japanese fathers were born in Canada in 1931. Again, the fact that the constitution of Canada is based on the presence of two dominant races points to the desirability of a measurement of these factors: only recently it has been widely pointed out that the original French colony, numbering 70,000 at the

date of the Conquest, has expanded to over three millions to-day. Measurements of this kind would be impossible if the answer "Canadian" instead of "French" were accepted under the heading of racial origin, yet undoubtedly if the descendants of the original French colonists are not "Canadians", no one is. (*c*) Finally, racial origin is an important subject for study in a new country like Canada from a scientific standpoint, i.e., from the standpoint of the student of ethnology, criminology, and the social and "biometric" sciences in general.

To accept the answer "Canadian" to the question on racial origin would confuse the data and defeat the purpose for which the question is asked.

Racial Distribution.—The total increase in population over the decade 1921-31 was 1,588,837. The population of English origin increased by only 196,061 compared with 674,090 in the previous decade; that of Scottish origin by 172,725 compared with 146,610; and that of Irish origin by 123,005 compared with 33,065. The population of British origin, taken together, increased from 4,868,738 to 5,381,071, or by 512,333, between 1921 and 1931. This represented 32 p.c. of the total increase as compared with 55 p.c. of the total increase for the previous decade. On the other hand, the population of French origin increased from 2,452,743 in 1921 to 2,927,990 in 1931, or by 475,247 (slightly under 30 p.c. of the total increase for the decade) and showed the greatest absolute increase for any decade since 1871. Figures for the minor racial groups that help to compose the nation (see Table **14**) indicate that the people of Scandinavian, German, and Ukrainian origins increased between 1921 and 1931 by 36 p.c., 61 p.c., and 111 p.c., respectively. Owing to the new national and racial alignments in Central and Southeastern Europe following the War of 1914-18, comparison of the post-war numerical strength of certain ethnic stocks in Canada with pre-war returns cannot be made with any certainty. For example, a number of people reported as of Ukrainian stock in the Seventh Census were described in the Censuses of 1921 and 1911 as Galician, Bukovinian, Ruthenian, or Russian.

Together, the British and French groups constituted, in 1931, 80 p.c. of the total population, compared with 83 p.c. in 1921, 84 p.c. in 1911, 88 p.c. in 1901, 89 p.c. in 1881 and no less than 92 p.c. in 1871. The immigration of continental Europeans to Canada during the past thirty years has, of course, been the cause of this decline.

Table **14** gives the origins of the people of Canada for the Censuses of 1871 to 1931. A perspective of the percentage relationship of the origin groups to the population as a whole is given in tabular form for the same years at p. 123 of the 1934-35 Year Book. The percentage figures for 1911 should, however, be changed in accordance with the revised figures for that year as given in Table **14**.

14.—Origins of the People of Canada, Census Years, 1871-1931.

NOTE.—Origins were not taken in the Census of 1891. Dashes in this table indicate that no data were reported under the respective headings.

Origin.	1871.[1]	1881.	1901.	1911.[2]	1921.	1931.
British—						
English	706,369	881,301	1,260,899	1,871,268	2,545,358	2,741,419
Irish	846,414	957,403	988,721	1,074,738	1,107,803	1,230,808
Scottish	549,946	699,863	800,154	1,027,015	1,173,625	1,346,350
Other	7,773	9,947	13,421	26,060	41,952	62,494
Totals, British	2,110,502	2,548,514	3,063,195	3,999,081	4,868,738	5,381,071
French	1,082,940	1,298,929	1,649,371	2,061,719	2,452,743	2,927,990
Austrian, *n.o.p.*	–	–	10,947	44,036	107,671	48,639
Belgian			2,994	9,664	20,234	27,585
Bulgarian and Roumanian		–	354	5,883	15,235	32,216
Chinese		4,383	17,312	27,831	39,587	46,519
Czech (Bohemian and Moravian)	–	–	–	–	8,840	30,401
Dutch	29,662	30,412	33,845	55,961	117,505	148,962
Finnish	–	–	2,502	15,500	21,494	43,885
German	202,991	254,319	310,501	403,417	294,635	473,544
Greek	–	–	291	3,614	5,740	9,444
Hebrew	125	667	16,131	76,199	126,196	156,726
Hungarian	–	–	1,549	11,648	13,181	40,582
Indian and Eskimo[3]	23,037	108,547	127,941	105,611	113,724	128,890
Italian	1,035	1,849	10,834	45,963	66,769	98,173
Japanese	–	–	4,738	9,067	15,868	23,342
Negro	21,496	21,394	17,437	16,994	18,291	19,456
Polish	–	–	6,285	33,652	53,403	145,503
Russian	607	1,227	19,825	44,376	100,064	88,148
Scandinavian[4]	1,623	5,223	31,042	112,682	167,359	228,049
Ukrainian	–	–	5,682	75,432	106,721	225,113
Yugoslavic	–	–	–	–	3,906	16,174
Various	4,182	8,540	7,000	31,381	28,796	27,476
Unspecified	7,561	40,806	31,539	16,932	21,249	8,898
Grand Totals	**3,485,761**	**4,324,810**	**5,371,315**	**7,206,643**	**8,787,949**	**10,376,786**

[1] The figures for 1871 cover the four original provinces of Canada only. [2] Figures for individual origins revised by the redistribution of 130,413 "Unspecified" since the publication of the 1938 Year Book. [3] Incomplete in 1871; includes "half-breeds" in 1901. [4] Includes Danish, Icelandic, Norwegian, and Swedish; in 1921 they numbered, respectively, 21,124, 15,876, 68,856, and 61,503; in 1931, 34,118, 19,382, 93,243, and 81,306.

Section 6.—Religions.

At each of the censuses from 1871 to 1931 every inhabitant of Canada has been asked to state the religious body of which he is a member or an adherent. During the sixty-year period there have been various fluctuations in the proportions of the population belonging to the leading religious bodies, and these fluctuations are, in a new country like this, largely occasioned by the religious affiliations of immigrants.

Throughout the sixty-year period something like two-fifths of the population of Canada has been of the Roman Catholic faith, the 1931 percentage, inclusive of Greek Catholics, being 41·30. Methodists were 16·27 p.c. of the population in 1871 but fell to 13·19 p.c. in 1921, while Presbyterians increased from 15·63 p.c. in 1871 to 16·04 p.c. in 1921, being reinforced by a considerable immigration from Scotland after the beginning of the century. The fusion of the Methodists and Congregationalists in 1925 with a large section of the Presbyterians, as the United Church of Canada, made that body the second largest religious body in the Dominion in 1931 with 19·44 p.c. of the population. The Presbyterians who did not adhere to the United Church of Canada amounted to 8·39 p.c. of the population in 1931. The proportion of Anglicans in the population of Canada fell from 14·17

p.c. in 1871 to 12·69 p.c. in 1901 but thereafter the large immigration from the British Isles raised it to 16·02 p.c. in 1921, followed by a slight falling-off to 15·76 p.c. in 1931. The Baptists have shown a fairly steady decline from 6·87 p.c. in 1871 to 4·27 p.c. in 1931.

The immigration from non-English-speaking countries during the first three decades of the twentieth century led to a great growth of the religious bodies that have as their home the Continent of Europe. Thus the Lutherans, who were only 1·09 p.c. of the population in 1871 and 1·72 p.c. in 1901, rose to 3·80 p.c. in 1931. The Jews, again, who were only 0·03 p.c. in 1871 and 0·31 p.c. in 1901, were 1·50 p.c. in 1931. The adherents of the Greek Orthodox Church, who in earlier years were not distinguished from Greek Catholics (the two together being only 0·29 p.c in 1901) were 0·99 p.c. in 1931.

Of the total population in 1931 (10,376,786), 16,042 or 0·15 p.c. did not state their religion while 54,164 persons, or 0·52 p.c., belonging to small sects, were classed as "various" and 21,071 or 0·20 p.c. as of "no religion". Of the non-Christian sects, 155,614 or 1·50 p.c. were Jews, 24,087 or 0·23 p.c. were Confucians, 15,784 or 0·15 p.c. were Buddhists, and 5,008 or 0·05 p.c. were pagans. In Table **15** the totals for each religion are brought together for all censuses since Confederation. Further analyses showing the percentages of specified religions at each census, 1871-1931, and the numbers accredited to each specified religion, by provinces, are given at pp. 127-129 of the 1934-35 Year Book. In 1931, for the first time in the history of the Dominion Census, the religions of the people were cross-classified according to racial origin. The results, for Canada as a whole, are shown at pp. 116-117 of the 1936 Year Book.

15.—Religions of the People of Canada, Census Years, 1871-1931.

NOTE.—Dashes in this table indicate that no data were reported under the respective headings.

Religion.	1871.[1]	1881.	1891.	1901.	1911.	1921.	1931.
Adventist	6,179	7,211	6,354	8,058	10,406	14,179	16,026
Anglican	494,049	574,818	646,059	681,494	1,043,017	1,407,780	1,635,615
Baptist[2]	239,343[3]	296,525[3]	303,839[3]	318,005	382,720	421,730	443,341
Brethren	2,305	8,831	11,637	8,014	9,278	11,580	13,472
Buddhist	–	–	–	10,407	10,012	11,281	15,784
Christian				7,484	17,421	17,142	11,527
Christian Science		–	–	2,619	5,073	13,826	18,436
Church of Christ, Disciples		20,193	12,763	17,164	14,554	13,107	15,811
Confucian	–	–	–	5,115	14,562	27,114	24,087
Congregationalist	21,829	26,900	28,157	28,293	34,054	30,730	694[4]
Doukhobor	–	–	–	8,775	10,493	12,648	14,913
Evangelical Association	–	–	–	10,193	10,595	13,905	22,213
Friends (Quaker)	7,345	6,553	4,650	4,100	4,027	3,149	2,424
Greek Church	–	–	–	15,630	88,507	169,832	[5]
Greek Orthodox				–	–	–	102,389[5]
Holiness Movement				2,775	3,856	3,245	4,436
International Bible Students	–	–	–	99	925	6,678	13,552
Jewish	1,115	2,393	6,414	16,401	74,564	125,197	155,614
Lutheran	37,935	46,350	63,982	92,524	229,864	286,458	394,194
Mennonite (incl. Hutterite)	[3]	[3]	[3]	31,797	44,625	58,797	88,736
Methodist	567,091	742,981	847,765	916,886	1,079,993	1,159,246	[4]
Mormon	–	–	–	6,891	15,971	19,622	22,005
No religion	5,146	2,634	[6]	4,810	26,027	21,739	21,071
Pagan	1,886	4,478	[6]	15,107	11,840	6,778	5,008
Pentecostal	–	–		–	513	7,003	26,301
Plymouth Brethren	–	–	–	3,040	3,438	6,482	6,983
Presbyterian	544,998	676,165	755,326	842,531	1,116,071	1,409,406	870,728[4]

For footnotes, see end of table, p. 89.

15.—Religions of the People of Canada, Census Years, 1871-1931—concluded.

Religion.	1871.[1]	1881.	1891.	1901.	1911.	1921.	1931.
Protestant	10,146	6,519	12,253	11,612	30,265	30,753	23,296
Roman Catholic	1,492,029	1,791,982	1,992,017	2,229,600	2,833,041	3,389,626	4,285,388[7]
Salvation Army	–	–	13,949	10,308	18,834	24,733	30,716
Unitarian	2,275	2,126	1,777	1,934	3,224	4,926	4,445
United Church	–	–	–	–	–	8,728[4]	2,017,375[4]
All other (various)	35,035	21,382	46,030	16,427	26,383	31,270	54,164
Not given	17,055	86,769	80,267	43,222	32,490	19,259	16,042
Totals	**3,485,761**	**4,324,810**	**4,833,239**	**5,371,315**	**7,206,643**	**8,787,949**	**10,376,786**

[1] The figures for 1871 cover the four original provinces of Canada only. [2] Including Tunkers. [3] Mennonites were included with Baptists prior to 1901. [4] Practically all Methodists and Congregationalists and a large number of Presbyterians united to form the United Church of Canada in 1925, although a relatively small number reported themselves as "United Church" in 1921, chiefly in Western Canada where the movement towards union began. [5] In earlier censuses only small numbers were involved, and Greek Catholics and Greek Orthodox were included under the general term "Greek Church" A rapid increase of both Greek Catholics and Greek Orthodox has been shown for recent censuses and, since the former owe obedience to the Pope in matters of faith, they have been included with the Roman Catholics for 1931. [6] Included with "All other" religions for 1891. [7] Including 186,654 Greek Catholics (see footnote 5).

Section 7.—Birthplaces.

The birthplaces of the population of Canada, as at each of the seven censuses, are shown by "Canadian Born", "Born Elsewhere", and "Foreign Born" ("United States Born" and "Other Foreign Born"), in Table **16.** The table shows that, in 1871, 97·28 p.c. of the population was born under the British flag, while sixty years later the percentage had declined to 89·18. The proportion of Canadian born increased steadily until the opening of the century, but has declined as a result of the increase of immigration after 1900. The Census of 1931 showed declines in the proportions of other British born and United States born as compared with 1921 but an increase in the percentage of other foreign born; the proportion of Canadian born has remained practically unchanged.

Worthy of note is the fairly steady increase of population born in the United States from 1·85 p.c. in 1871 to 4·25 p.c. in 1921, and the subsequent decline to 3·32 p.c. in 1931. Other foreign born increased from 0·87 p.c. in 1871 to 6·23 p.c. in 1911, declined to 5·87 p.c. of the total population by 1921 but, as already noted, increased substantially to 7·50 p.c. by 1931.

16.—Birthplaces of the Population of Canada, by Numbers and Percentages, Census Years, 1871-1931.

Year.	Canadian Born.	Other British Born.[1]	Foreign Born.		Total Population.	Percentages of Total Population.			
			Born in United States.	Born Elsewhere.		Canadian Born.	Other British Born.	Foreign Born.	
								Born in United States.	Born Elsewhere.
	No.	No.	No.	No.	No.	p.c.	p.c.	p.c.	p.c.
1871....	2,894,591	496,502	64,447	30,221	3,485,761	83·04	14·24	1·85	0·87
1881....	3,721,826	478,615	77,753	46,616	4,324,810	86·06	11·07	1·80	1·08
1891....	4,189,368	490,573	80,915	72,383	4,833,239	86·68	10·15	1·67	1·50
1901....	4,671,815	421,051	127,899	150,550	5,371,315	86·98	7·84	2·38	2·80
1911....	5,619,682	834,229	303,680	449,052	7,206,643	77·98	11·58	4·21	6·23
1921....	6,832,224	1,065,448	374,022	516,255	8,787,949	77·75	12·13	4·25	5·87
1931....	8,069,261	1,184,830	344,574	778,121	10,376,786	77·76	11·42	3·32	7·50

[1] Includes some hundreds of persons born at sea.

The birthplaces of the 1931 population are tabulated for the various provinces and territories, by sex, at p. 118 of the 1936 Year Book. In the Maritime Provinces, the population is shown by the Census of 1931 to be about 93 p.c. native born,

and in Quebec about 91 p.c. In Ontario, however, the proportion sinks to about 77 p.c., in Manitoba to about 66 p.c., in Saskatchewan to about 65 p.c., in Alberta to about 58 p.c., and in British Columbia to about 54 p.c.

At pp. 133-140, inclusive, of the 1934-35 Year Book, a very complete analysis is given of the birthplaces of the Canadian people. Tables there published show: population classified by province of residence and province of birth; population, for each province, classified by nativity of parents; Canadian born classified according to nativity of parents, by racial origin; and rural and urban population, other than Canadian born, classified according to year of arrival in Canada.

Section 8.—Citizenship and Naturalization.

At the latest four decennial censuses, those of 1901, 1911, 1921, and 1931, inquiry has been made into the citizenship of the foreign-born population. The relevant instructions given to enumerators at the Census of 1931 are published at p. 141 of the 1934-35 Year Book.

Table **17** deals with the citizenship of the Canadian born, the British born, and the foreign born of the population residing in Canada at the date of the Census of 1931. As regards the total (8,069,261) native-born population, 8,052,459 were "Canadian Nationals" and were made up of 8,051,142 persons with uninterrupted citizenship and 1,317 naturalized repatriates. Of the total native born resident in Canada at the date of the census, 16,802 were aliens owing their allegiance to some foreign country—in the case of females usually as a result of marriage. The table on p. 142 of the 1934-35 Year Book shows the country to which allegiance was owed by these 16,802 Canadian-born aliens.

In the case of British born, 11·4 p.c. had not yet acquired Canadian domicile and of the foreign born 45·2 p.c. were still aliens. A more detailed analysis than that given below will be found at p. 143 of the 1934-35 Year Book.

17.—Citizenship of Native-Born, Other British-Born, and Foreign-Born Residents in Canada in 1931, by Sex, According to Allegiance.

Nationality.	Native Born.			Nationality.	Other British Born.		
	Total.	Male.	Female.		Total.	Male.	Female.
Canadian-born nationals	8,052,459	4,074,715	3,977,744	British-born Canadian nationals	1,044,791	556,043	488,748
				By domicile	*1,042,781*	*555,062*	*487,719*
With uninterrupted citizenship	*8,051,142*	*4,074,053*	*3,977,089*	By repatriation and naturalization	*2,010*	*981*	*1,029*
Repatriated and naturalized	*1,317*	*662*	*655*	British born without acquired domicile	135,426	74,687	60,739
Canadian-born aliens (by renunciation or marriage)	16,802	1,286	15,516	British-born aliens (by renunciation or marriage)	4,613	681	3,932
Owing allegiance to:- European countries[1]	*5,991*	*92*	*5,899*	Owing allegiance to:- European countries[1]	*1,625*	*154*	*1,471*
Asiatic countries	*286*	*20*	*266*	Asiatic countries	*32*	*6*	*26*
United States	*10,477*	*1,170*	*9,307*	United States	*2,914*	*506*	*2,408*
Other countries	*48*	*4*	*44*	Other countries	*42*	*15*	*27*
Totals, Canadian Born	**8,069,261**	**4,076,001**	**3,993,260**	**Totals, Other British Born**	**1,184,830**	**631,411**	**553,419**

[1] The European country of allegiance is given on p. 142 of the 1934-35 Year Book.

17.—Citizenship of Native-Born, Other British-Born, and Foreign-Born Residents in Canada in 1931, by Sex, According to Allegiance—concluded.

Nationality.	Foreign Born.									
	Total.[1]	Continental European Born.			Born in Asia.			United States Born.		
		Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.
anadian nationals.	614,971	351,013	197,043	153,970	12,119	7,826	4,293	249,595	118,104	131,491
Aliens.....	507,724	363,449	241,140	122,309	48,489	44,349	4,140	94,979	57,036	37,943
European[2].....	363,754	358,198	238,366	119,832	330	179	151	4,822	1,991	2,831
Asiatic.....	48,078	63	18	45	47,935	44,047	3,888	64	27	37
United States....	94,984	4,726	2,447	2,279	102	53	49	90,069	55,009	35,060
Other.....	914	462	309	153	122	70	52	24	9	15
Totals, Foreign Born....	**1,122,695**	**714,462**	**438,183**	**276,279**	**60,608**	**52,175**	**8,433**	**344,574**	**175,140**	**169,434**

[1] This column includes foreign-born persons born in places other than continental Europe, Asia, or the United States. [2] The European country of allegiance is given at p. 143 of the 1934-35 Year Book.

The Progress of Naturalization.—The foreign-born residents of Canada numbered 1,122,695 in 1931 as compared with 890,277 in 1921, 752,732 in 1911, and 278,449 in 1901; among these the naturalized numbered 614,971 in 1931, 514,179 in 1921, 344,557 in 1911, and 153,908 in 1901, or 54·78 p.c., 57·75 p.c., 45·77 p.c., and 55·27 p.c., respectively. Alien residents in Canada showed an absolute decline between 1911 and 1921 of from 408,175 to 376,098, i.e., from 5·66 p.c. of the population to 4·28 p.c. Between 1921 and 1931, they increased to 507,724, or 4·89 p.c. of the 1931 population. Among the foreign-born residents of Canada, the United States born exceeded those born in any other country, although by continental groups the Europeans were more numerous. Between 1921 and 1931 the U.S. born declined from 374,022 to 344,574, but there was a substantial net increase in the total foreign born due to the large increase of Europeans. On the other hand, the percentage of the U.S. born who were naturalized to total U.S. born increased from 63·63 in 1921 to 72·44 in 1931, whereas the percentage of continental Europeans who were naturalized fell from 57·88 in 1921 to 49·13 in 1931.

Section 9.—Language Spoken and Mother Tongue.

Official Languages.—In the Census of 1931, 1,322,370 persons were reported as speaking both the official languages of Canada, 6,999,913 speaking English, 1,779,338 speaking French and 275,165 as unable to speak either English or French. In a table on p. 121 of the 1936 Year Book the population is classified by racial origins and ability to speak one, both, or neither of the official languages.

Rural and Urban Distribution.—One interesting sidelight that analysis of the data from the 1931 Census has shown is the respective capacities of rural and urban people to speak the official languages; it is especially interesting to compare the proportions of them that are able to speak both languages and also the proportions unable to speak either. About twice as many speak both French and English in urban localities as in rural localities, and about three times as many of the latter as the former speak neither of these languages. There is, of course, greater opportunity for intermingling in urban residence than rural, and probably also greater necessity for acquiring the official languages in urban occupations. The obvious conclusion or expectation would be that larger proportions among the urban populations than among the rural have *acquired* both official languages. But other

factors enter into the question, since the acquisition of both official languages is as much a matter of capacity to acquire them as of opportunity, intermarriage, necessity, and so on.

Table 18 compares the percentages of the rural and urban population of Canada speaking both official languages and speaking neither of them, classified by sex and age in 1931.

18.—Percentages of the Rural and Urban Populations of Canada Speaking Both or Neither Official Languages, by Quinquennial Age Groups and Sex, 1931.

Age Group.	Percentage Speaking Both French and English.				Percentage Speaking Neither Language.			
	Males.		Females.		Males.		Females.	
	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.
5– 9	4·78	7·69	4·87	7·62	4·28	0·53	4·30	0·52
10–14	7·49	14·72	7·67	14·39	1·07	0·09	1·00	0·06
15–19	10·10	21·96	10·40	19·83	1·00	0·16	1·26	0·26
20–24	12·24	25·58	11·15	20·57	1·71	0·59	2·77	1·05
25–29	12·32	25·23	10·24	19·95	2·92	1·98	4·56	1·63
30–34	12·67	24·77	9·58	18·55	3·15	2·02	4·44	1·43
35–39	12·77	23·63	9·23	16·74	2·36	1·72	4·46	1·11
40–44	12·18	21·14	8·76	15·60	2·14	1·86	4·29	0·93
45–49	11·92	19·42	8·65	14·35	2·09	1·83	4·51	0·91
50–54	11·98	19·20	8·10	13·69	2·32	1·60	4·68	0·84
55–59	12·89	19·63	8·48	13·63	2·43	1·52	4·74	0·92
60–64	12·15	18·75	7·59	12·11	3·08	1·37	5·33	1·13
65–69	12·10	18·59	7·13	11·52	3·35	1·08	5·76	1·24
70–74	11·67	17·27	6·74	10·20	3·89	1·08	6·24	1·29
75–79	11·62	16·31	6·31	9·86	4·00	1·11	5·15	1·30
80–84	11·66	15·32	5·81	9·70	4·12	0·96	5·82	1·04
85–89	11·67	14·89	5·93	8·25	4·34	1·23	5·83	1·24
90–94	13·93	15·72	6·40	9·21	5·20	1·28	8·91	1·52
95–99	14·68	21·21	5·26	10·51	7·54	1·82	13·95	1·81
100 or over	12·24	16·00	8·62	12·90	30·61	8·00	27·59	12·90
Not stated	6·29	8·81	4·61	14·04	16·33	1·28	19·51	0·72

Mother Tongue.—At p. 122 of the 1936 Year Book will be found a table showing the mother tongues of the population, by provinces and for the Dominion.

Section 10.—Rural and Urban Population.

For the purposes of the census the population residing in cities, towns, and incorporated villages has been defined as urban, and that outside of such localities as rural. Thus the distinction here made between 'rural' and 'urban' population is a distinction of provincial legal status rather than of size of aggregations of population within limited areas. Since the laws of the various provinces differ in regard to the population necessary before a municipality may be incorporated as urban (the laws of Saskatchewan, for example, making provision that 50 people actually resident on an area not greater than 640 acres may claim incorporation as a village, while the Ontario law now requires that villages asking for incorporation shall have a population of 750 on an area not exceeding 500 acres), the line of demarcation between rural and urban population is not at all uniformly drawn throughout the Dominion, as far as comparable aggregations of population are concerned.

A table published at p. 147 of the 1934-35 Year Book gives the rural and urban populations, by provinces and sex, and divides the incorporated urban centres into two groups, viz., under one thousand, and one thousand or over, thereby allowing a closer comparison than is possible from Table 19. The population in urban places having less than one thousand is shown to have decreased for the whole of Canada but increased in Prince Edward Island, Nova Scotia, and British Columbia. In Table 19 are given statistics showing the growth of rural and urban

population, respectively, by provinces, since 1891. To a limited extent Table **20** will permit the student of population statistics to make, at least for Canada as a whole, his own line of demarcation between rural and urban populations.*

While a summary comparison between urbanization in Canada in 1931 and in the United States in 1930 would lead us to the conclusion that Canada, though far less densely peopled than the United States, had an almost equally large percentage of its population in urban communities, viz., 53·70 p.c. in Canada as compared with 56·2 p.c. in the United States.* A fairer basis of comparison is secured if the same population limits are taken for both countries, as may be done by using Table **20.** Thus, at the Census of 1930, the United States had 29·5 p.c. of its population resident in cities of 100,000 or over, while Canada in 1931 had only 22·44 p.c. of its population in such places. The United States had an additional 18 p.c. of its population residing in cities of between 10,000 and 100,000 population, and 4·8 p.c. in cities and towns of 5,000 to 10,000, while Canada had in cities of these categories only 14·87 p.c. and 4·42 p.c., respectively, of its population. Thus, taking all places of 5,000 or over—the lowest population for which comparative figures are readily available —52·3 p.c. of the population of the United States resided in such places as compared with 41·73 p.c. of the population of Canada, showing the much higher degree of urbanization that has been reached in the United States—a natural thing in an older settled and more densely peopled country.

On the basis of the census classification, it is apparent from Table **19** that in the decade 1921-31, as in the previous one, urban communities absorbed nearly 77 p.c. of the total increase in population, with the result that the urban population of Canada in 1931 exceeded the rural by 767,330. Out of every 1,000 persons in the country, 463 were resident, on June 1, 1931, in rural and 537 in urban communities, as compared with 505 in rural and 495 in urban communities on June 1, 1921; 546 in rural and 454 in urban communities in 1911; 625 in rural and 375 in urban communities in 1901; and 682 in rural and 318 in urban communities in 1891.

From Table **20,** showing the distribution of urban population in Canada by size of cities and towns, it is seen that Canada possessed, in 1931, two cities of more than half a million population. These are Montreal and Toronto, with 818,577 and 631,207 inhabitants, respectively. Two other cities, Vancouver and Winnipeg, have attained the 200,000 mark and Hamilton, Quebec, and Ottawa each have populations of over 100,000. The two western cities of Calgary and Edmonton are now in the 75,000 to 100,000 class. In this respect London, which excelled Edmonton in 1921, now takes the next lower place with a population of 71,148. Details of the population of these and other smaller cities and towns of 5,000 or over, are given by censuses from 1871 to 1931 in Table **21,** while the populations of urban communities having, in 1931, a population of from 1,000 to 5,000 each, are given for 1901, 1911, 1921, and 1931 in Table **22.**

All the larger cities have in their neighbourhoods growing 'satellite' towns or other densely settled areas in close economic relationship with the central municipality. This phenomenon is to-day of increasing importance largely as a result of the greater ease and speed of transportation by motor vehicle. It has, therefore, been considered advisable to calculate the total populations resident in what the United

* In the United States, urban population, prior to 1930, was classified by the Census Bureau as that residing in cities and other incorporated places having 2,500 inhabitants or more with certain minor qualifications, but in 1930 the definition was slightly modified to include townships and other political divisions not incorporated as municipalities, having a total population of 10,000 or more each, and a population density of 1,000 or more per square mile. The direct result of this modification has been to increase slightly the proportion of urban population.

States census authorities call the "metropolitan districts". On this basis the total populations of the larger cities at the Census of 1931 were as follows: Greater Montreal, 1,000,159; Greater Toronto, 808,864; Greater Vancouver, 308,340; Greater Winnipeg, 284,295; Greater Ottawa (including Hull), 175,988; Greater Quebec, 166,435; Greater Hamilton, 163,710; Greater Windsor, 110,385; Greater Halifax, 74,161; and Greater Saint John, 55,611.*

* See 1931 Census Monograph No. 6, *The Rural and Urban Composition of the Canadian Population*, by S. A. Cudmore and H. G. Caldwell.

19.—Rural and Urban Populations, by Provinces and Territories, Decennial Censuses 1871-1931 and Numerical Increases 1921-31.

Province or Territory.	1871.		1881.		1891.		1901.	
	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.
P. E. Island	86,149	7,872	95,693	13,198	94,823	14,255	88,304	14,955
Nova Scotia	355,718	32,082	377,030	63,542	373,403	76,993	330,191	129,383
New Brunswick	235,381	50,213	262,141	59,092	272,362	48,901[1]	253,835	77,285
Quebec	919,665	271,851	980,515	378,512	988,820	499,715	994,833	654,065
Ontario	1,264,854	355,997	1,351,074	575,848	1,295,323	818,998	1,246,969	935,978
Manitoba	24,170	1,058	52,015	10,245	111,498	41,008	184,775[2]	70,436[2]
Saskatchewan	[3]	--	[3]		[3]	-	77,013[2]	14,266[2]
Alberta	[3]		[3]	-	[3]	-	54,489	18,533
British Columbia	32,977	3,270	40,389	9,070	60,945	37,228	88,478	90,179
Yukon	[3]	-	[3]	-	[3]	-	18,077	9,142
N.W.T.	[3]	-	[3]		[3]		20,129	-
Royal Canadian Navy								
Canada	**2,966,914**[3]	**722,343**	**3,215,303**[3]	**1,109,507**	**3,296,141**[3]	**1,537,098**	**3,357,093**	**2,014,222**

	1911.		1921.		1931.		Numerical Increases in Decade 1921-31.	
	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.
P. E. Island	78,758	14,970	69,522	19,093	67,653	20,385	- 1,869	1,292
Nova Scotia	306,210	186,128	296,799	227,038	281,192	231,654	-15,607	4,616
New Brunswick	252,342	99,547	263,432	124,444	279,279	128,940	15,847	4,496
Quebec	1,038,934[4]	966,842[4]	1,038,096	1,322,569	1,060,649	1,813,606	22,553	491,037
Ontario	1,198,803[5]	1,328,489	1,227,030	1,706,632	1,335,691	2,095,992	108,661	389,360
Manitoba	261,029[5]	200,365	348,502	261,616	384,170	315,969	35,668	54,353
Saskatchewan	361,037[2]	131,395[2]	538,552	218,958	630,880	290,905	92,328	71,947
Alberta	236,633[6]	137,662[6]	365,550	222,904	453,097	278,508	87,547	55,604
British Columbia	188,796	203,684	277,020	247,562	299,524	394,739[7]	22,504	147,177
Yukon	4,647	3,865	2,851	1,306	2,870	1,360	19	54
N.W.T.	6,507[5]	-	7,988		9,723	-	1,735	
Royal Canadian Navy			485		[8]		[8]	
Canada	**3,933,696**	**3,272,947**	**4,435,827**	**4,352,122**	**4,804,728**	**5,572,058**	**368,901**	**1,219,936**

[1] Some of the towns of 1891 were included with rural. [2] As corrected in Census Report, Prairie Provinces, 1916. [3] The populations (48,000, 56,446, and 98,967, respectively) in territory now comprised in the Provinces of Alberta and Saskatchewan and in Yukon and the Northwest Territories was classified as rural in the Censuses of 1871, 1881, and 1891. [4] The urban population of 970,791, shown in Vol. I, Census 1911, is reduced to 966,842 by the transfer of the populations of Maniwaki, Martinville, Moisie, St. Bruno, St. Martin, and St-Vincent de Paul from urban to rural; by adjustments in area of the villages of St. Anne and Ste. Geneviève; and Extension of Boundaries Act, 1912. [5] As changed by Extension of Boundaries Act, 1912. [6] Vol. I, Census 1911, places the urban population of Alberta for that year at 141,937. Included in this figure was the population (5,250) of twelve places that, according to the Report of the Municipal Commissioner for Alberta, were not then incorporated. The places so included were Aetna, Banff, Bankhead, Bellevue, Bickerdike, Canmore, Cardiff, Exshaw, Hillcrest, Passburg, Queenston, and Elmpark. The correction resulting from this and from other small adjustments, consequent upon more definite knowledge as to incorporated areas, places the urban population for 1911 at 137,662. Similar corrections have been made in the urban and rural figures for the Census of 1901. [7] This includes South Vancouver and Point Grey, with 1921 populations of 32,267 and 13,736, respectively, which were then classified as 'rural'. [8] Members of the Royal Canadian Navy were counted at their homes in the Census of 1931.

Population is shown in Table **20** to be increasingly attracted to the larger cities. Thus, not only have cities of over 500,000 population (Montreal and Toronto) increased their proportions to the total, but cities of from 100,000 to 500,000 have increased their aggregate population from 5·90 p.c. of the total to 8·46 p.c., and cities of between 5,000 and 100,000 from 17·68 p.c. to 19·29 p.c. in the decade 1921-31. As will be seen, the large absolute increases in the total population of municipalities of less than 1,000 persons for 1921 and 1931 were due almost entirely to the addition of newly incorporated places.*

* See also reference in text footnote (*) at top of p. 94.

20.—Urban Populations, Classified by Size of Municipality Groups, 1911, 1921, and 1931.

Group.	1911.			1921.			1931.		
	Number of Places.	Population.	Per Cent of Total Pop.	Number of Places.	Population.	Per Cent of Total Pop.	Number of Places.	Population.	Per Cent of Total Pop.
Over 500,000	Nil			2	1,140,399	12·98	2	1,449,784	13·97
Between—									
400,000 and 500,000	1	490,504	6·81	Nil			Nil		
300,000 and 400,000	1	381,833	5·30	"			"		
200,000 and 300,000	Nil	–	–	"	–	–	2	465,378	4·48
100,000 and 200,000	2	236,436	3·28	4	518,298	5·90	3	413,013	3·98
50,000 and 100,000	3	247,221	3·43	5	336,650	3·83	7	470,443	4·53
25,000 and 50,000	7	272,071	3·78	7	2[illegible]9,036	2·72	10	339,521	3·27
15,000 and 25,000	11	193,977	2·69	19	370,990	4·22	23	457,292	4·41
10,000 and 15,000	18	225,423	3·13	18	224,033	2·55	23	275,944	2·66
5,000 and 10,000	44	313,100	4·34	54	382,762	4·36	68	458,784	4·42
3,000 and 5,000	59	222,274	3·08	72	272,720	3·10	71	273,276	2·63
1,000 and 3,000	250	428,250	5·94	293	492,116	5·60	324	557,466	5·37
500 and 1,000	241	174,781	2·43	290	215,648	2·45	322	231,375	2·23
Under 500	419	87,077	1·21	679	159,410	1·81	750	179,782	1·73
Totals	**1,056**	**3,272,947**	**45·42**	**1,443**	**4,352,122**	**49·52**	**1,605**	**5,572,058**	**53·70**

21.—Populations of Cities and Towns having Over 5,000 Inhabitants, Decennial Censuses 1871-1931 and the Quinquennial Census of 1936.[1]

NOTE.—The cities and towns in which a Board of Trade exists are indicated by an asterisk (*), and those in which there is a Chamber of Commerce by a dagger (†). In all cases the populations for previous censuses have been rearranged as far as possible to cover the same area as in 1931.

City or Town.	Province.	Populations.							
		1871.	1881.	1891.	1901.	1911.	1921.	1931.	1936.[1]
*†Montreal	Que.	130,833	177,377	256,723	328,172	490,504	618,506	818,577	
*Toronto	Ont.	59,000	96,196	181,215	209,892	381,833	521,893	631,207	
*Vancouver	B.C.	–	–	13,709	29,432	120,847	163,220	246,593	–
*Winnipeg	Man.	241	7,985	25,639	42,340	136,035	179,087	218,785	215,814
†Hamilton	Ont.	26,880	36,661	48,959	52,634	81,969	114,151	155,547	–
*Quebec	Que.	59,699	62,446	63,090	68,840	78,710	95,193	130,594	
*Ottawa	Ont.	24,141	31,307	44,154	59,928	87,062	107,843	126,872	–
*Calgary	Alta.	–	–	3,876	4,392	43,704	63,305	83,761	83,407
†Edmonton	Alta.	–	–	–	4,176	31,064	58,821	79,197	85,774
†London	Ont.	18,000	27,867	31,977	37,976	46,300	60,959	71,148	–
†Windsor	Ont.	4,253	6,561	10,322	12,153	17,829	38,591	63,108	
†Verdun	Que.	–	278	296	1,898	11,629	25,001	60,745	
*Halifax	N.S.	29,582	36,100	38,437	40,832	46,619	58,372	59,275	–
*Regina	Sask.	–	–	–	2,249	30,213	34,432	53,209	53,354
*Saint John	N.B.	41,325	41,353	39,179	40,711	42,511	47,166	47,514	–
*Saskatoon	Sask.	–	–	–	113	12,004	25,739	43,291	41,734
†Victoria	B.C.	3,270	5,925	16,841	20,919	31,660	38,727	39,082	–
†Three Rivers	Que.	7,570	8,670	8,334	9,981	13,691	22,367	35,450	
*Kitchener	Ont.	2,743	4,054	7,425	9,747	15,196	21,763	30,793	
*Brantford	Ont.	8,107	9,616	12,753	16,619	23,132	29,440	30,107	
†Hull	Que.	3,800	6,890	11,264	13,993	18,222	24,117	29,433	
†Sherbrooke	Que.	4,432	7,227	10,097	11,765	16,405	23,515	28,933	
Outremont	Que.	–	387	795	1,148	4,820	13,249	28,641	
†Fort William	Ont.	–	690	2,176	3,633	16,499	20,541	26,277	
†St. Catharines	Ont.	7,864	9,631	9,170	9,946	12,484	19,881	24,753	

[1] The 1936 figures cover cities and towns of the Prairie Provinces only.

21.—Populations of Cities and Towns having Over 5,000 Inhabitants, Decennial Censuses 1871-1931 and the Quinquennial Census of 1936[1]—continued.

City or Town.	Province.	Populations.							
		1871.	1881.	1891.	1901.	1911.	1921.	1931.	1936.[1]
Westmount	Que.	200	884	3,076	8,856	14,579	17,593	24,235	
†Kingston	Ont.	12,407	14,091	19,263	17,961	18,874	21,753	23,439	
†Oshawa	Ont.	3,185	3,992	4,066	4,394	7,436	11,940	23,439	
*Sydney	N.S.	1,700	2,180	2,427	9,909	17,723	22,545	23,089	
*Sault Ste. Marie	Ont.	879	780	2,414	7,169	14,920	21,092	23,082	
†Peterborough	Ont.	4,611	6,812	9,717	12,886	18,360	20,994	22,327	–
*Moose Jaw	Sask.	–	–	–	1,558	13,823	19,285	21,299	19,805
*Guelph	Ont.	6,878	9,890	10,537	11,496	15,175	18,128	21,075	–
*Glace Bay	N.S.	–	–	2,459	6,945	16,562	17,007	20,706	
*Moncton	N.B.	600	5,032	8,762	9,026	11,345	17,488	20,689	
†Port Arthur	Ont.	–	1,275	2,698	3,214	11,220	14,886	19,818	
†Niagara Falls	Ont.	1,610	2,347	3,349	5,702	9,248	14,764	19,046	
†Lachine	Que.	2,689	3,248	4,819	6,365	11,688	15,404	18,630	
*Sudbury	Ont.	–	–	–	2,027	4,150	8,621	18,518	
†Sarnia	Ont.	2,929	3,874	6,692	8,176	9,947	14,877	18,191	
*Stratford	Ont.	4,313	8,239	9,500	9,959	12,946	16,094	17,742	
*New Westminster	B.C.	–	1,500	6,678	6,499	13,199	14,495	17,524	–
*Brandon	Man.	–	–	3,778	5,620	13,839	15,397	17,082	16,461
*St. Boniface	Man.	817	1,283	1,553	2,019	7,483	12,821	16,305	16,275
*North Bay	Ont.	–	–	1,848	2,530	7,737	10,692	15,528	–
†St. Thomas	Ont.	2,197	8,367	10,366	11,485	14,054	16,026	15,430	
†Shawinigan Falls	Que.	–	–	–	–	4,265	10,625	15,345	
*Chatham	Ont.	5,873	7,873	9,052	9,068	10,770	13,256	14,569	
†East Windsor	Ont.	–	–	–	–	–	5,780	14,251	
*Timmins	Ont.	–	–	–	–	–	3,843	14,200	
*Galt	Ont.	3,827	5,187	7,535	7,866	10,299	13,216	14,006	
†Belleville	Ont.	7,305	9,516	9,916	9,117	9,876	12,206	13,790	–
*Lethbridge	Alta.	–	–	–	2,072	9,035	11,097	13,489	13,523
†St. Hyacinthe	Que.	3,746	5,321	7,016	9,210	9,797	10,859	13,448	–
*Owen Sound	Ont.	3,369	4,426	7,497	8,776	12,558	12,190	12,839	
*Charlottetown	P.E.I.	7,872	10,345	10,098	10,718	9,883	10,814	12,361	
†Chicoutimi	Que.	1,393	1,935	2,277	3,826	5,880	8,937	11,877	
†Lévis	Que.	8,052	8,734	8,797	9,242	8,703	10,470	11,724	
*Valleyfield (Salaberry de)	Que.	1,800	3,906	5,515	11,055	9,449	9,215	11,411	
*Woodstock	Ont.	3,982	5,373	8,612	8,833	9,320	9,935	11,395	
*St. Jean	Que.	3,022	4,314	4,722	4,030	5,903	7,734	11,256	
*Cornwall	Ont.	2,033	4,468	6,805	6,704	6,598	7,419	11,126	
†Joliette	Que.	3,047	3,268	3,372	4,220	6,346	9,039	10,765	
†Sandwich	Ont.	1,160	1,143	1,352	1,450	2,302	4,415	10,715	
*Welland	Ont.	1,110	1,870	2,035	1,863	5,318	8,654	10,709	
Thetford Mines	Que.	–	–	–	3,256	7,261	8,272	10,701	
*Granby	Que.	876	1,040	1,710	3,773	4,750	6,785	10,587	
†Sorel	Que.	5,636	5,791	6,669	7,057	8,420	8,174	10,320	–
†Medicine Hat	Alta.	–	–	–	1,570	5,608	9,634	10,300	9,592
†Walkerville	Ont.		–	933	1,595	3,302	7,059	10,105	–
*Prince Albert	Sask.	–	–	–	1,785	6,254	7,352	9,905	11,049
†Brockville	Ont.	5,102	7,609	8,791	8,940	9,374	10,043	9,736	–
Jonquière	Que.	–	–	–	–	2,354	4,851	9,448	
†Pembroke	Ont.	1,508	2,820	4,401	5,156	5,626	7,875	9,368	
*Dartmouth	N.S.	2,191	3,786	6,252	4,806	5,058	7,899	9,100	
†St. Jérôme	Que.	1,159	2,032	2,868	3,619	3,473	5,491	8,967	
*New Glasgow	N.S.	1,676	2,595	3,776	4,447	6,383	8,974	8,858	
*Fredericton	N.B.	6,006	6,218	6,502	7,117	7,208	8,114	8,830	
Cap de la Madeleine	Que.	–	–	–	–	–	6,738	8,748	
North Vancouver	B.C.	–	–	–	365	8,196	7,652	8,510	
†Rivière du Loup	Que.	1,541	2,291	4,175	4,569	6,774	7,703	8,499	
*Orillia	Ont.	1,322	2,910	4,752	4,907	6,828	7,631	8,183	
*Waterloo	Ont.	1,594	2,066	2,941	3,537	4,359	5,883	8,095	
*Truro	N.S.	2,114	3,461	5,102	5,993	6,107	7,562	7,901	
†La Tuque	Que.	–	–	–	–	2,934	5,603	7,871	
*Barrie	Ont.	3,398	4,854	5,550	5,949	6,420	6,936	7,776	
*Sydney Mines	N.S.	1,494	2,340	2,442	3,191	7,470	8,327	7,769	
*New Waterford	N.S.	–	–	–	–	–	5,615	7,745	
*Trail	B.C.	–	–	–	1,360	1,460	3,020	7,573	
*Lindsay	Ont.	4,049	5,080	6,081	7,003	6,964	7,620	7,505	
*Amherst	N.S.	1,839	2,274	3,781	4,964	8,973	9,998	7,450	
New Toronto	Ont.	–	–	–	209	686	2,669	7,146	
†Smiths Falls	Ont.	1,150	2,087	3,864	5,155	6,370	6,790	7,108	
Lauzon	Que.	2,827	4,578	4,391	4,267	4,982	6,428	7,084	
*Yarmouth	N.S.	4,696	5,324	6,089	6,430	6,600	7,073	7,055	
†Midland	Ont.	–	1,095	2,088	3,174	4,663	7,016	6,920	
Mimico	Ont.	–	–	–	437	1,373	3,751	6,800	

[1] The 1936 figures cover cities and towns of the Prairie Provinces only.

21.—Populations of Cities and Towns having Over 5,000 Inhabitants, Decennial Censuses 1871-1931 and the Quinquennial Census of 1936[1]—concluded.

City or Town.	Province.	Populations.							
		1871.	1881.	1891.	1901.	1911.	1921.	1931.	1936.[1]
*Kenora	Ont.	–	–	1,806	5,202	6,158	5,407	6,766	
*Nanaimo	B.C.	–	1,645	4,595	6,130	6,254	6,559	6,745	
Eastview	Ont.	–	–	–	–	3,169	5,324	6,686	
†Drummondville	Que.	–	900	1,955	1,450	1,725	2,852	6,609	–
*Portage la Prairie	Man.	–	–	3,363	3,901	5,892	6,766	6,597	6,538
*Campbellton	N.B.	–	–	1,782	2,652	3,817	5,570	6,505	–
†Port Colborne	Ont.	988	1,716	1,154	1,253	1,624	3,415	6,503	
†Grand'Mère	Que.	–	–	–	2,511	4,783	7,631	6,461	
*Edmundston	N.B.	–	–	–	–	1,821	4,035	6,430	
*Springhill	N.S.	–	900	4,813	4,559	5,713	5,681	6,355	
†Prince Rupert	B.C.	–	–	–	–	4,184	6,393	6,350	
*Magog	Que.	–	–	2,100	3,516	3,978	5,159	6,302	
*Preston	Ont.	1,408	1,419	1,843	2,308	3,883	5,423	6,280	
†Trenton	Ont.	1,796	3,042	4,363	4,217	3,988	5,902	6,276	
†Victoriaville	Que.	1,425	1,474	1,300	1,693	3,028	3,759	6,213	
*Kamloops	B.C.	–	–	–	–	3,772	4,501	6,167	
*North Sydney	N.S.	1,200	1,520	2,513	4,646	5,418	6,585	6,139	
*St. Lambert	Que.	327	332	906	1,362	3,344	3,890	6,075	
*Nelson	B.C.	–	–	–	5,273	4,476	5,230	5,992	–
*North Battleford	Sask.	–	–	–	–	2,105	4,108	5,986	4,719
†Cobourg	Ont.	4,442	4,957	4,829	4,239	5,074	5,327	5,834	–
*Collingwood	Ont.	2,829	4,445	4,939	5,755	7,090	5,882	5,809	–
Transcona	Man.	–	–	–	–	–	4,185	5,747	5,578
†Rimouski	Que.	1,186	1,417	1,429	1,804	3,097	3,612	5,589	–
†Brampton	Ont.	2,090	2,920	3,252	2,748	3,412	4,527	5,532	
*Fort Frances	Ont.	–	–	1,339	1,163	1,611	3,109	5,470	
Longueuil	Que.	2,083	2,355	2,757	2,835	3,972	4,682	5,407	
St. Laurent	Que.	–	–	1,184	1,390	1,860	3,232	5,348	
*Renfrew	Ont.	865	1,605	2,611	3,153	3,846	4,906	5,296	–
*Swift Current	Sask.	–	–	–	121	1,852	3,518	5,296	5,074
†Ingersoll	Ont.	4,022	4,318	4,191	4,573	4,763	5,150	5,233	–
†Simcoe	Ont.	1,856	2,645	2,674	2,627	3,227	3,953	5,226	
Forest Hill (village)	Ont.	–	–	–	–	–	–	5,207	
*Hawkesbury	Ont.	1,671	1,920	2,042	4,150	4,400	5,544	5,177	
†Thorold	Ont.	1,635	2,456	2,273	1,979	2,273	4,825	5,092	
†Whitby	Ont.	2,732	3,140	2,786	2,110	2,248	3,957	5,046	
Swansea (village)	Ont.	–	–	–	–	–	–	5,031	–
*Yorkton	Sask.	–	–	–	700	2,309	5,151	5,027	4,931
*Dundas	Ont.	3,135	3,709	3,546	3,173	4,299	4,978	5,026	–
*Stellarton	N.S.	1,750	1,599	2,410	2,335	3,910	5,312	5,002	–
*Weyburn	Sask.	–	–	–	113	2,210	3,193	5,002	5,338

[1] The 1936 figures cover cities and towns of the Prairie Provinces only.

22.—Populations of Towns and Villages having Between 1,000 and 5,000 Inhabitants, Decennial Censuses 1901-31 and the Quinquennial Census of 1936.[1]

Province and Town or Village.	1901.	1911.	1921.	1931.	Province and Town or Village.	1901.	1911.	1921.	1931.
Prince Edward Island.					**Nova Scotia**—concluded.				
Summerside	2,875	2,678	3,228	3,759	Bridgetown	858	996	1,086	1,126
Souris	1,140	1,089	1,094	1,063	Mahone Bay	866	951	1,177	1,065
Nova Scotia.					Port Hawkesbury	633	684	869	1,011
Westville	3,471	4,417	4,550	3,946	Joggins	1,088	1,648	1,732	1,000
Bridgewater	2,203	2,775	3,147	3,262					
Pictou	3,235	3,179	2,988	3,152	**New Brunswick.**				
Kentville	1,731	2,304	2,717	3,033	Chatham	4,868	4,666	4,506	4,017
Windsor	2,849	2,894	2,946	3,032	Dalhousie	862	1,650	1,958	3,974
Inverness	306	2,719	2,963	2,900	St. Stephen	2,840	2,836	3,452	3,437
Dominion	1,546	2,589	2,390	2,846	Newcastle	2,507	2,945	3,507	3,383
Lunenburg	2,916	2,681	2,792	2,727	Bathurst	1,044	960	3,327	3,300
Liverpool	1,937	2,109	2,294	2,669	Woodstock	3,644	3,856	3,380	3,259
Trenton	1,274	1,749	2,844	2,613	Sussex	1,398	1,906	2,198	2,252
Parrsboro	2,705	2,224	2,161	1,919	Sackville	1,444	2,039	2,173	2,234
Wolfville	1,412	1,458	1,743	1,818	Devon	–	–	1,924	1,977
Antigonish	1,838	1,787	1,746	1,764	Shediac	1,075	1,442	1,973	1,883
Canso	1,479	1,617	1,626	1,575	Milltown	2,044	1,804	1,976	1,735
Shelburne	1,445	1,435	1,360	1,474	Grand Falls	644	1,280	1,327	1,556
Digby	1,150	1,247	1,230	1,412	Marysville	1,892	1,837	1,614	1,512
Wedgeport	1,026	1,392	1,424	1,294	St. Andrews	1,064	987	1,065	1,207
Oxford	1,285	1,392	1,402	1,133	St. George	733	988	1,110	1,087

[1] The 1936 figures cover towns and villages of the Prairie Provinces only.

22.—Populations of Towns and Villages having Between 1,000 and 5,000 Inhabitants, Decennial Censuses 1901-31 and the Quinquennial Census of 1936[1]—continued.

Province and Town or Village.	1901.	1911.	1921.	1931.
Quebec.				
St. Jérôme de Matane	1,176	2,056	3,050	4,757
Buckingham	2,936	3,854	3,835	4,638
Montmorency	–	2,710	3,367	4,575
Montreal North	–	–	1,360	4,519
Kénogami	–	–	2,557	4,500
Asbestos	783	2,224	2,189	4,396
Farnham	3,114	3,560	3,343	4,205
St. Pierre	505	2,201	3,535	4,185
Point Claire	555	793	2,617	4,058
Coaticook	2,880	3,165	3,554	4,044
St. Joseph d'Alma	–	–	850	3,970
Montmagny	1,919	2,617	4,145	3,927
Mégantic	2,171	2,816	3,140	3,911
Lachute	2,022	2,407	2,592	3,906
Beauharnois	1,976	2,015	2,250	3,729
Giffard	–	–	1,254	3,573
East Angus	–	–	3,802	3,566
Ste. Thérèse	1,541	2,120	3,043	3,292
Beauport	–	–	3,240	3,242
Rouyn	–	–	–	3,225
Montreal West	352	703	1,882	3,190
Mont Joli	822	2,141	2,799	3,143
Pointe aux Trembles	–	1,167	2,350	2,970
Ste. Agathe des Monts	1,073	2,020	2,812	2,949
Baie St. Paul	1,408	1,857	2,291	2,916
Nicolet	2,225	2,593	2,342	2,868
Aylmer	2,291	3,109	2,970	2,835
Charny	–	1,408	2,265	2,823
St. Joseph de Grantham	–	–	–	2,812
Iberville	1,512	1,905	2,454	2,778
Laprairie	1,451	2,388	2,158	2,774
Roberval	1,248	1,737	2,068	2,770
Windsor	2,149	2,233	2,330	2,720
Laval des Rapides	–	1,014	1,989	2,716
Donnacona	–	–	1,225	2,631
Richmond	2,057	2,175	2,450	2,596
Plessisville	1,586	1,559	2,032	2,536
Bagotville	507	1,011	2,204	2,468
Berthier	1,364	1,335	2,193	2,431
Ste. Anne de Bellevue	1,343	1,416	2,212	2,417
La Malbaie[2]	826	1,449	1,883	2,408
Mont Laurier	–	752	2,211	2,394
Louiseville	1,565	1,675	1,772	2,365
La Salle	–	–	726	2,362
Saindon	–	–	1,793	2,355
Port Alfred		–	1,213	2,342
Priceville	–	–	–	2,310
Pointe Gatineau	1,583	1,751	1,919	2,282
Loretteville	1,555	1,588	2,066	2,251
Noranda	–	–	–	2,246
Montreal East	–	–	1,776	2,242
Waterloo	1,797	1,886	2,063	2,192
Cabano		–	–	2,187
Mont Royal	–	–	160	2,174
Black Lake	–	2,645	2,656	2,167
Amos	–	–	1,488	2,153
Dorval	481	1,005	1,466	2,052
Dolbeau	–	–	–	2,032
Masson	1,012	1,034	950	2,015
Almaville	–	–	1,174	2,010
St. Marc des Carrières	296	1,224	1,492	1,997
Marieville	1,306	1,587	1,748	1,986
St. Tite	991	1,438	1,783	1,969
Terrebonne	1,822	1,990	2,056	1,955
Lennoxville	1,120	1,211	1,554	1,927
Ste. Anne de Beaupré	–	2,381	1,648	1,901
Charlesbourg	–	–	1,267	1,869
St. Joseph (Richelieu)	647	1,416	1,658	1,869
East Broughton	–	996	1,709	1,868
Cowansville	699	881	1,094	1,859
Témiscamingue	–	–	–	1,855
Trois Pistoles		–	1,454	1,837
Quebec West	–	–	130	1,813
Arvida (city)	–	–	–	1,790
Quebec—concluded.				
St. Alexis de la Grande Baie	–	1,355	1,735	1,790
Lac au Saumon	–	1,171	1,354	1,779
St. Raymond	1,272	1,653	1,693	1,772
Acton Vale	1,175	1,402	1,549	1,753
Chandler	–	–	1,756	1,741
Maniwaki		–	–	1,720
L'Epiphanie		–	–	1,705
Courville	–	910	1,293	1,678
Ste. Rose	1,154	1,480	1,811	1,661
Deschaillons	1,213	1,161	1,680	1,650
St. Benoit Joseph Labre	–	1,070	1,416	1,648
St. Joseph (Beauce)	1,117	1,440	1,445	1,625
Huntingdon	1,122	1,265	1,401	1,619
Greenfield Park	–	–	1,112	1,610
Arthabaska	995	1,458	1,234	1,608
St. Félicien		581	1,306	1,599
Ste. Marie	–	–	1,311	1,598
L'Assomption	1,605	1,747	1,320	1,576
Bedford	1,364	1,432	1,669	1,570
St. Georges East	–	1,410	1,058	1,543
Lac St. Louis	–	–	597	1,537
St. Gabriel de Brandon	1,199	1,602	1,667	1,530
St. Jacques	–	–	1,332	1,529
St. Michel de Laval	–	–	493	1,528
Bromptonville	–	1,239	2,603	1,527
Montebello	795	954	977	1,501
Disraeli	1,018	1,606	1,646	1,437
Belœil	–	1,501	1,418	1,434
Rock Island	615	861	1,442	1,424
Causapscal	–	–	–	1,390
Danville	1,017	1,331	1,290	1,354
Pont Rouge	–	–	1,419	1,353
Pierreville	1,108	1,363	1,394	1,352
Baie de Shawinigan	–	1,024	1,213	1,316
St. Casimir	–	–	1,457	1,316
Thurso	525	601	538	1,292
Chambly Basin	849	900	1,068	1,287
Laurentides	934	1,128	1,150	1,284
La Providence	819	894	1,078	1,241
St. Jérôme	498	719	923	1,235
St. Pacôme	–	–	–	1,235
L'Abord-à-Plouffe	–	–	1,011	1,227
St. Rémi	1,080	1,021	1,135	1,201
Scotstown	791	933	987	1,189
St. Eustache	1,079	996	1,098	1,187
Montreal South	–	790	1,030	1,164
Dorion	275	631	833	1,155
Cap Chat	–	–	–	1,139
Fort Coulonge	482	811	973	1,130
St. Joseph de la Rivière Bleue	–	–	864	1,111
Ste. Anne de Chicoutimi	516	657	838	1,102
Rigaud	779	856	939	1,099
Châteauguay	–	–	881	1,067
L'Enfant Jésus	–	–	–	1,066
Rawdon	–	–	1,042	1,066
Beebe Plain	477	808	921	1,053
St. Césaire	865	941	985	1,051
Ville Marie	502	850	840	1,049
Rivière du Moulin	–	–	738	1,040
Val Brillant	–	–	962	1,032
Bic	–	–	912	1,020
Notre-Dame de Portneuf	–	–	877	1,017
Ontario.				
Leamington	2,451	2,652	3,675	4,902
Port Hope	4,188	5,092	4,456	4,723
Weston	1,083	1,875	3,166	4,723
Goderich	4,158	4,522	4,107	4,491
Riverside	–	–	1,155	4,432
Wallaceburg	2,763	3,438	4,006	4,326
Sturgeon Falls	1,418	2,199	4,125	4,234
Paris	3,229	4,098	4,368	4,137

[1] The 1936 figures cover towns and villages of the Prairie Provinces only.

[2] Also known as Murray Bay.

22.—Populations of Towns and Villages having Between 1,000 and 5,000 Inhabitants, Decennial Censuses 1901-31 and the Quinquennial Census of 1936[1]—continued.

Province and Town or Village.	1901.	1911.	1921.	1931.
Ontario—continued.				
Carleton Place	4,059	3,621	3,841	4,105
Perth	3,588	3,588	3,790	4,099
Bowmanville	2,731	2,814	3,233	4,080
Penetanguishene	2,422	3,568	4,037	4,035
Arnprior	4,152	4,405	4,077	4,023
Cochrane	–	1,715	2,655	3,968
Long Branch	–	–	–	3,962
Cobalt	–	5,638	4,449	3,885
Oakville	1,643	2,372	3,298	3,857
Kapuskasing	–	–	926	3,819
St. Marys	3,384	3,388	3,847	3,802
Newmarket	2,125	2,996	3,626	3,748
Gananoque	3,526	3,804	3,604	3,592
Picton	3,698	3,564	3,356	3,580
Bridgeburg	1,356	1,770	2,401	3,521
Parry Sound	2,884	3,429	3,546	3,512
Napanee	3,143	2,807	3,038	3,497
Dunnville	2,105	2,861	3,224	3,405
Tilsonburg	2,241	2,758	2,974	3,385
Copper Cliff	2,500	3,082	2,597	3,173
Hanover	1,392	2,342	2,781	3,077
Burlington	1,119	1,831	2,709	3,046
Prescott	3,019	2,801	2,636	2,984
Strathroy	2,933	2,823	2,691	2,964
New Liskeard	–	2,108	2,268	2,880
Huntsville	2,152	2,358	2,246	2,817
Haileybury	–	3,874	3,743	2,813
Blind River	2,656	2,558	1,843	2,805
Amherstburg	2,222	2,560	2,769	2,759
Hespeler	2,457	2,368	2,777	2,752
Campbellford	2,485	3,051	2,890	2,744
Portsmouth	1,827	1,786	2,351	2,741
Listowel	2,693	2,289	2,477	2,676
Meaford	1,916	2,811	2,650	2,624
Orangeville	2,511	2,340	2,187	2,614
Petrolia	4,135	3,518	3,148	2,596
Fergus	1,396	1,534	1,796	2,594
Aurora	1,590	1,901	2,307	2,587
Merritton	1,710	1,670	2,544	2,523
Humberstone	–	–	1,524	2,490
Kincardine	2,077	1,956	2,077	2,465
Bracebridge	2,479	2,776	2,451	2,436
Walkerton	2,971	2,601	2,344	2,431
Almonte	3,023	2,452	2,426	2,415
Fort Erie	890	1,146	1,546	2,383
Georgetown	1,313	1,583	2,061	2,288
Aylmer	2,204	2,102	2,194	2,283
Grimsby	1,001	1,669	2,004	2,198
Kingsville	1,537	1,427	1,783	2,174
Elmira	1,060	1,782	2,016	2,170
Tecumseh	–	–	978	2,129
Rockland	1,998	3,397	3,496	2,118
Sioux Lookout	–	550	1,127	2,088
Alexandria	1,911	2,323	2,195	2,006
Tilbury	1,012	1,368	1,673	1,992
Wingham	2,392	2,238	2,092	1,959
Essex	1,391	1,353	1,588	1,954
Ridgetown	2,405	1,954	1,855	1,952
Wiarton	2,443	2,266	1,726	1,949
Gravenhurst	2,146	1,624	1,478	1,864
Acton	1,484	1,720	1,722	1,855
Milton	1,372	1,654	1,873	1,839
Mount Forest	2,019	1,839	1,718	1,801
Clinton	2,547	2,254	2,018	1,789
Durham	1,422	1,581	1,494	1,750
Blenheim	1,653	1,387	1,565	1,737
Port Dover	1,177	1,138	1,462	1,707
Chesley	1,734	1,734	1,708	1,699
Seaforth	2,245	1,983	1,829	1,686
Capreol	–	–	1,287	1,684
Exeter	1,792	1,555	1,442	1,666
Port Credit	–	–	1,123	1,635
Thessalon	1,205	1,945	1,651	1,632
Mattawa	1,400	1,524	1,462	1,631
Ontario—concluded.				
Mitchell	1,945	1,766	1,800	1,588
Brighton	1,378	1,320	1,411	1,580
Port Dalhousie	1,125	1,152	1,492	1,547
Palmerston	1,850	1,665	1,523	1,543
Dresden	1,613	1,551	1,339	1,529
Southampton	1,636	1,685	1,537	1,489
Forest	1,553	1,445	1,422	1,480
Deseronto	3,527	2,013	1,847	1,476
Iroquois Falls	–	–	1,178	1,476
New Hamburg	1,208	1,484	1,351	1,436
Keewatin	1,156	1,242	1,327	1,422
Morrisburg	1,693	1,696	1,444	1,420
Rainy River	–	1,578	1,444	1,402
Caledonia	801	952	1,223	1,396
Hagersville	1,020	1,106	1,169	1,385
Vankleek Hill	1,674	1,577	1,499	1,380
Point Edward	780	874	1,258	1,362
Alliston	1,256	1,279	1,376	1,355
Lakefield	1,244	1,397	1,189	1,332
Dryden	140	715	1,019	1,326
Uxbridge	1,657	1,433	1,456	1,325
Cardinal	1,378	1,111	1,241	1,319
Port Elgin	1,313	1,235	1,291	1,305
Harriston	1,637	1,491	1,263	1,296
Richmond Hill	629	652	1,055	1,295
Kemptville	1,523	1,192	1,204	1,286
Tweed	1,168	1,368	1,339	1,271
Chippawa	460	707	1,137	1,266
Niagara	1,258	1,318	1,357	1,228
Waterford	1,122	1,083	1,123	1,213
Englehart	–	670	759	1,210
Beamsville	832	1,096	1,256	1,203
Elora	1,187	1,197	1,136	1,195
Havelock	984	1,436	1,268	1,173
Port Perry	1,465	1,148	1,143	1,163
Norwich	1,269	1,112	1,176	1,158
Stouffville	1,223	1,034	1,053	1,155
Cache Bay	384	889	926	1,151
Victoria Harbour	989	1,616	1,463	1,128
Delhi	823	825	733	1,121
L'Orignal	1,026	1,347	1,298	1,121
Little Current	728	1,208	923	1,101
Shelburne	1,188	1,113	1,072	1,077
Madoc	1,157	1,058	1,058	1,059
Parkhill	1,430	1,289	1,152	1,030
Tavistock	403	981	1,011	1,029
Winchester	1,101	1,143	1,126	1,027
Arthur	1,285	1,102	1,104	1,021
Eganville	1,107	1,189	1,015	1,020
Stayner	1,225	1,039	972	1,019
Colborne	1,017	999	932	1,015
Chesterville	932	883	967	1,012
Markham	967	909	1,012	1,008

Province and Town or Village.	1901.	1911.	1921.	1931.	1936.
Manitoba.					
Selkirk	2,188	2,977	3,726	4,486	4,566
Dauphin	1,135	2,815	3,885	3,971	4,147
The Pas	–	–	1,858	4,030	3,405
Brooklands	–	–	–	2,628	[2]2,246
Neepawa	1,418	1,864	1,887	1,910	2,068
Minnedosa	1,052	1,483	1,505	1,680	1,686
Virden	901	1,550	1,361	1,590	1,481
Souris	839	1,854	1,710	1,661	1,480
Morden	1,522	1,130	1,268	1,416	1,462
Carman	1,439	1,271	1,591	1,418	1,364
Beauséjour	–	847	994	1,139	1,154
Winkler	391	458	812	1,005	1,036
Tuxedo	–	–	1,062	1,173	1,017
Swan River	–	574	903	968	1,016
Stonewall	589	1,005	1,112	1,031	1,009
Killarney	585	1,010	871	1,003	978

[1] The 1936 figures cover towns and villages of the Prairie Provinces only [2] Revised since the publication of the 1939 Year Book.

22.—Populations of Towns and Villages having Between 1,000 and 5,000 Inhabitants, Decennial Censuses 1901-31 and the Quinquennial Census of 1936[1]—concluded.

Province and Town or Village.	1901.	1911.	1921.	1931.	1936.
Saskatchewan.					
Melville	–	1,816	2,808	3,891	3,923
Estevan	141	1,981	2,290	2,936	2,854
Biggar	–	315	1,535	2,369	1,953
Melfort	–	599	1,746	1,809	1,948
Humboldt	–	859	1,822	1,899	1,819
Kamsack	–	473	2,002	2,087	1,810
Shaunavon	–	–	1,146	1,761	1,636
Rosetown	–	317	865	1,553	1,520
Lloydminster[2]	–	663	755	1,516	1,420
Indian Head	768	1,285	1,439	1,438	1,365
Rosthern	413	1,172	1,074	1,412	1,355
Assiniboia	–	–	1,006	1,454	1,257
Canora	–	435	1,230	1,179	1,254
Tisdale	–	250	783	1,069	1,152
Watrous	–	781	1,101	1,303	1,147
Wilkie	–	537	778	1,222	1,220
Battleford	609	1,335	1,229	1,096	1,128
Wynyard	–	515	849	1,042	1,110
Moosomin	868	1,143	1,099	1,119	1,104
Maple Creek	382	936	1,002	1,154	1,032
Kindersley	–	456	1,003	1,037	1,030
Gravelbourg	–	–	1,106	1,137	985
Sutherland	–	421	961	1,148	942
Herbert	–	559	827	1,009	900
Radville	–	233	883	1,005	854
Alberta.					
Drumheller (city)	–	–	2,499	2,987	2,912
Red Deer (city)	323	2,118	2,328	2,344	2,384
Camrose	–	1,586	1,892	2,258	2,263
Coleman	–	1,557	1,590	1,704	2,129
Raymond	–	1,465	1,394	1,849	2,094
Wetaskiwin (city)	550	2,411	2,061	2,125	2,058
Cardston	639	1,207	1,612	1,672	1,711
Blairmore	231	1,137	1,552	1,629	1,682
Vegreville	–	1,029	1,479	1,659	1,672
Edson	–	497	1,138	1,547	1,600
Grande Prairie	–	–	1,061	1,464	1,478
Lacombe	499	1,029	1,133	1,259	1,414
Hanna	–	–	1,364	1,490	1,405
Macleod	796	1,844	1,723	1,447	1,365
High River	153	1,182	1,198	1,459	1,359
Taber	–	1,400	1,705	1,279	1,341
Vermilion	–	625	1,272	1,270	1,291
Alberta—concluded.					
Newcastle	–	–	–	304	1,278
Magrath	424	995	1,069	1,224	1,217
Stettler	–	1,444	1,416	1,219	1,202
Olds	218	917	764	1,056	1,197
Innisfail	317	602	941	1,024	1,124
Claresholm	–	809	963	1,156	1,051
Wainwright	–	788	975	1,147	1,048
Ponoka	151	642	712	836	1,045
Pincher Creek	335	1,027	888	1,024	999
Beverly	–	–	1,039	1,111	998
Redcliff	–	220	1,137	1,192	990
Fort Saskatchewan	306	782	982	1,001	899
British Columbia.					
Kelowna (city)	261	1,663	2,520	4,655	
Vernon (city)	802	2,671	3,685	3,937	
Cranbrook (city)	1,196	3,090	2,725	3,067	
Rossland (city)	6,156	2,826	2,097	2,848	
Revelstoke (city)	1,600	3,017	2,782	2,736	
Fernie (city)	–	3,146	2,802	2,732	
Prince George (city)	–	–	2,053	2,479	
Chilliwack (city)	277	1,657	1,767	2,461	
Cumberland (city)	732	1,237	2,161	2,371	
Port Alberni (city)	–	–	1,056	2,356	
Duncan (city)	–	–	1,178	1,843	
Ladysmith (city)	746	2,517	1,151	1,443	
Mission (village)	–	–	–	1,314	
Port Coquitlam (city)	–	–	1,178	1,312	
Grand Forks (city)	1,012	1,577	1,469	1,298	
Merritt (city)	–	703	1,389	1,296	
Port Moody (city)	–	–	1,030	1,260	
Courtenay (city)	–	–	810	1,219	

[1] The 1936 figures cover towns and villages of the Prairie Provinces only. [2] Under the Saskatchewan Town Act, Lloydminster, Alberta, is merged with Lloydminster, Saskatchewan, for municipal purposes.

Rural and Urban Farm Populations.—At p. 126 of the 1937 Year Book statistics of rural and urban farm population, by provinces, as compiled from the Census of 1931, are given, and at p. 299 of the 1934-35 Year Book details regarding farm workers, those farms employing hired labour, the period of employment, and the cost of labour are shown. The reader is also referred to the item "Wage-earners" (in agriculture) in the Index of the present volume for further information on these topics.

Section 11.—Literacy.

The subject of literacy is discussed at pp. 131-132 of the 1936 Year Book. At p. 157 of the 1934-35 Year Book will be found a table showing the literacy of the population of 5 years or over from 1901 to 1931, at pp. 158-159 of the same edition the same information as is now summarized in Table 23 is given by sex, while on p. 160 is shown the literacy of the population of cities and towns of 30,000 population or over, as in 1931.

23.—Literacy of the Population of 10 Years of Age or Over, by Provinces, 1931.

NOTE.—Corresponding figures for 1921 will be found in the 1924 Year Book, p. 131.

Province or Territory.	Population 10 Years or Over.	Can Read and Write.	Can Read Only.	Can Neither Read Nor Write.	Percentages.		
					Can Read and Write.	Can Read Only.	Can Neither Read Nor Write.
	No.	No.	No.	No.	p.c.	p.c.	p.c.
Prince Edward Island	69,333	66,996	502	1,835	96·63	0·72	2·65
Nova Scotia	402,401	382,472	2,790	17,139	95·05	0·69	4·26
New Brunswick	310,316	286,676	2,200	21,440	92·38	0·71	6·91
Quebec	2,167,517	2,048,778	15,527	103,212	94·52	0·72	4·76
Ontario	2,791,072	2,719,558	7,357	64,157	97·44	0·26	2·30
Manitoba	557,806	530,779	2,151	24,876	95·15	0·39	4·46
Saskatchewan	705,350	672,812	3,441	29,097	95·39	0·49	4·13
Alberta	572,129	549,789	2,671	19,669	96·10	0·47	3·44
British Columbia	583,135	558,417	1,630	23,088	95·76	0·28	3·96
Yukon	3,542	2,710	30	802	76·51	0·85	22·64
Northwest Territories	7,021	2,832	108	4,081	40·34	1·54	58·13
Canada	**8,169,622**	**7,821,819**	**38,407**	**309,396**	**95·74**	**0·47**	**3·79**

Section 12.—School Attendance.

At pp. 132-133 of the 1936 Year Book a treatment of this subject will be found, together with tables showing school attendance: (1) of the population 5-19 years of age, by sex, for the census years 1911, 1921, and 1931, (2) of the total rural and urban populations, by sex, for 1931, and (3) of the population 7-14 years of age, by nativity and sex, for 1931.

Section 13.—Blind and Deaf-Mutes.

The 1936 Year Book shows, at pp. 134-135, figures of the number of blind and deaf-mutes by provinces and sex in 1931, together with the number and proportion of such persons as found at the decennial censuses from 1881 to 1931. Summary statistics are repeated at p. 108 of the 1939 Year Book.

Section 14.—Dwellings and Family Households.

An extensive treatment of this subject, as it came under observation at the Census of 1931, will be found at pp. 136-139 of the 1936 Year Book.

Two additional tables which supplement that treatment are given at pp. 109-110 of the 1939 Year Book.

Section 15.—Occupations of the Canadian People.

An article specially prepared for the Year Book, and analysing comprehensively the occupations of the Canadian people as shown by the 1931 Census, appears at pp. 128-146 of the 1937 Year Book.

Section 16.—Quinquennial Census of the Prairie Provinces.

The latest census of the Prairie Provinces was that taken as of June 1, 1936. The 1937 edition of the Year Book, at pp. 146-152, shows statistics covering the population of each province, by electoral districts, sex, conjugal condition, age distribution, racial origin, birthplace, and by rural or urban habitation. Corrections to these figures with an additional table are given at p. 111 of the 1939 Year Book. The figures are also published in final form in Volumes I and II of the 1936 Census.

Section 17.—Annual Estimates of Population.

While the populations in different countries are actually counted at decennial or quinquennial censuses, annual estimates of populations are required by modern States for many purposes, such as the calculation of birth, death, and marriage rates, and of per capita figures of production, trade, finance, consumption, etc. In different countries various methods of obtaining annual figures of post-censal populations are adopted. For example, it is possible, with good vital statistics and records of arrivals and departures, to obtain the actual population at any particular date with approximate accuracy by the simple method of adding births and arrivals and subtracting deaths and departures during the period elapsed since the census. This method is impracticable for Canada, with 4,000 miles of common boundary line with the United States, crossed in both directions every day by many thousands of people. In almost all civilized countries, the actual methods of making the estimates vary. Thus, the method of arithmetical progression is widely used in estimating the populations in the older countries of the world; this method involves the annual addition to the population of the country and of particular areas within it of one-fifth or one-tenth of the numerical increase in the last quinquennial or decennial intercensal period. In the case of Canada annual figures of population were purely estimates, made on the basis of past increases, prior to the Census of 1931. They have now been worked out on a basis that takes into consideration collateral data back to 1867, and the resulting figures are believed to state the populations at intercensal periods more accurately than any published prior to 1931.

The new method upon which calculations are based is described at pp. 108-109 of the 1932 Year Book.

* The table of estimates and the description of the method upon which calculations are based are the work of M. C. MacLean, M.A., F.S.S., Chief of Social Analysis, Dominion Bureau of Statistics.

24.—Estimates of the Population of Canada, by Provinces, Intercensal Years, 1900-39.

NOTE.—At every census the previous post-censal data are adjusted to the newly recorded population figure. Figures for 1867-99 will be found at p. 141 of the 1936 Year Book.

Year.	Canada.	P.E. Island.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon.	N.W. Territories.
	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000
1900	5,301	103	459	329	1,630	2,172	245	–	–	170	–	193
1901	5,371	103	460	331	1,649	2,183	255	91	73	179	27	20
1902	5,494	101	459	331	1,670	2,194	275	125	96	199	25	19
1903	5,651	100	460	331	1,709	2,217	296	159	119	220	23	17
1904	5,827	99	463	333	1,752	2,246	318	194	142	242	22	16
1905	6,002	99	464	333	1,771	2,289	344	236	166	264	21	15
1906	6,097	96	465	334	1,784	2,299	366	258	185	279	18	13
1907	6,411	96	475	341	1,853	2,365	395	311	236	309	18	12
1908	6,625	95	480	345	1,902	2,412	413	356	266	330	15	11
1909	6,800	94	483	346	1,931	2,444	427	401	301	350	13	10
1910	6,988	94	486	348	1,965	2,482	441	446	336	370	11	9
1911	7,207	94	492	352	2,006	2,527	461	492	374	393	9	7
1912	7,389	94	496	356	2,042	2,572	481	525	400	407	9	7
1913	7,632	94	504	363	2,096	2,639	505	563	429	424	8	7
1914	7,879	95	512	371	2,148	2,705	530	601	459	442	8	8
1915	7,981	94	511	371	2,162	2,724	545	628	480	450	8	8
1916	8,001	92	505	368	2,154	2,713	554	648	496	456	7	8
1917	8,060	90	503	368	2,169	2,724	558	662	508	464	6	8
1918	8,148	89	502	369	2,191	2,744	565	678	522	474	6	8
1919	8,311	89	507	373	2,234	2,789	577	700	541	488	5	8
1920	8,556	89	516	381	2,299	2,863	594	729	565	507	5	8
1921	8,788	89	524	388	2,361	2,934	610	757	588	525	4	8
1922	8,919	89	522	389	2,409	2,980	616	769	592	541	4	8
1923	9,010	87	518	389	2,446	3,013	619	778	593	555	4	8
1924	9,143	86	516	391	2,495	3,059	625	791	597	571	4	8
1925	9,294	86	515	393	2,549	3,111	632	806	602	588	4	8
1926	9,451	87	515	396	2,603	3,164	639	821	608	606	4	8
1927	9,636	87	515	398	2,657	3,219	651	841	633	623	4	8
1928	9,835	88	515	401	2,715	3,278	664	862	658	641	4	9
1929	10,029	88	515	404	2,772	3,334	677	883	684	659	4	9
1930	10,208	88	514	406	2,825	3,386	689	903	708	676	4	9
1931	10,376	88	513	408	2,874	3,432	700	922	732	694	4	9
1932[1]	10,506	89	519	413	2,910	3,475	709	933	740	704	4	10
1933[1]	10,681	89	522	420	2,970	3,564	710	932	748	712	4	10
1934[1]	10,824	89	525	425	3,018	3,629	711	932	756	725	4	10
1935[1]	10,935	89	527	429	3,062	3,673	711	931	764	735	4	10
1936[1]	11,028	92	537	435	3,096	3,690	711	931	772	750	4	10
1937[1]	11,120	93	542	440	3,135	3,711	717	939	778	751	4	10
1938[1]	11,209	94	548	445	3,172	3,731	720	941	783	761	4	10
1939[1]	11,315	95	554	451	3,210	3,752	727	949	789	774	4	10

[1] These estimates are subject to adjustment as later data are made available.

Section 18.—Area and Population of the British Empire.

Statistics of the areas and populations of the territories included in the British Empire in 1931, together with comparative figures of populations for 1921 and 1911, are given in a table at p. 165 of the 1934-35 Year Book.

Section 19.—Area and Population of the World.

Statistics showing the areas and the populations of the various continents, and details of each country, as in 1931, are given in a table at pp. 168-169 of the 1934-35 Year Book.

CHAPTER V.—VITAL STATISTICS.*

CONSPECTUS.

	Page.
Section 1. Births	106
Section 2. Marriages and Divorces	117
Subsection 1. Marriages	117
Subsection 2. Divorces	120
Section 3. Deaths	121
Subsection 1. General Mortality	122
Subsection 2. Infantile Mortality	131
Subsection 3. Maternal Mortality	137
Section 4. Natural Increase	140

The collection of vital statistics commenced in Canada, as in England, with the registration of baptisms, marriages, and burials by the ecclesiastical authorities. These registers, maintained by the priests from the first settlement of the country, have made it possible for the vital statistics of the French colony to be compiled from the year 1610.† The system of registration by the clergy was continued after the cession of the country to the British, and was extended to the newly-formed Protestant congregations of Lower Canada by an Act of 1795, but the registration, particularly of births, among these latter remained seriously defective, both in Lower Canada and in the new province of Upper Canada, the pioneer settlers often going out into the wilds far from the authority of government and the ministrations of religion. An early attempt was made to remedy the situation through the census by including a schedule requesting births and deaths for the preceding year, but the efforts made to secure records of births and deaths at the Censuses of 1851 and 1861 produced most unsatisfactory results. Nevertheless, in spite of the inherent unsoundness of securing, at a point of time in a decennial census, a record of births and deaths occurring over a period of time, this method was followed down to 1911, when the obviously untrustworthy character of the results led to the discarding of the data obtained at the inquiry.

In English-speaking Canada, the earlier scheme of registration of baptisms, burials, and marriages by the clergy was succeeded after Confederation by Acts for the enforcement of registration of births, marriages, and deaths with the civil authorities. Such Acts were passed in Nova Scotia in 1864, in Ontario in 1869, in British Columbia in 1872, in Manitoba in 1881, in New Brunswick in 1887, and in Prince Edward Island in 1906. The Provinces of Saskatchewan and Alberta were not established until 1905 and, until provincial Acts were passed after this date, civil registration in these Provinces was governed by ordinances for the Northwest Territories, the first of which was passed in 1888.

The Dominion Government instituted in the early '80's a plan for compiling the annual mortuary statistics of cities of 25,000 population or over, by subsidizing local boards of health to supply the information under special regulations. A beginning was made with the five cities of Montreal, Toronto, Hamilton, Halifax, and Saint John. By 1891 the list had grown to 25, at a time when, in most of the provinces, the only birth and death statistics were those of the municipalities. Upon the organization of provincial bureaus of vital statistics, however, this work was abandoned, though a conference of Dominion and provincial officials, held in 1893, passed a resolution calling upon the provincial and Dominion authorities to

* This chapter has been revised in the Vital Statistics Branch, Dominion Bureau of Statistics. A list of the publications of this Branch will be found in Chapter XXIX, Sect. 1, under "Population".

† For a summary of the vital statistics of the Roman Catholic population from 1610 to 1883, see the *Statistical Year Book of Quebec, 1921*, English or French edition, p. 51. For details, by years, of this movement of population, see Vol. V of the Census of Canada, 1871, pp. 160-265, and Vol. IV of the Census of Canada, 1881, pp. 134-145.

co-operate in the work of collecting, compiling, and publishing the vital statistics of the Dominion. This resolution had no immediate practical results in securing accurate or comparable vital statistics.

The 1912 Commission on Official Statistics recommended that "for the Dominion, now engaged in building up its national unity, it is important that uniform data should render possible to statisticians the institution of true interprovincial and international comparisons. By effective co-operation of the provinces with the Dominion, this object should be capable of attainment without sacrificing the liberty of each province to satisfy its own special statistical requirements" Yet, prior to 1920, it was impossible to compile any satisfactory series of vital statistics figures for Canada as a whole. Among the obstacles to such a national compilation were the inequalities of registration between the provinces, the lack of uniformity in classification and in the method of presentation, the omission in some cases of important data, the choice in some cases of the fiscal instead of the calendar year as the unit of time, and the fact that for some of the provinces within comparatively recent years the series of publications was broken, while for New Brunswick no provincial vital statistics at all were published from 1895 until 1920.

Co-operation was finally effected as a consequence of the establishment of the Dominion Bureau of Statistics under the Statistics Act of 1918, which specifically provided that the Bureau should publish an annual report on vital statistics. A scheme was first drawn up in the Bureau and submitted to the various provinces; then Dominion-Provincial conferences on vital statistics were held in June and December, 1918, when final discussions took place.

In 1919, as a result of conference, a plan was devised whereby the Bureau of Statistics and the Registrar General's office in each province would co-operate in producing national vital statistics for the Dominion. Under this national system, while registration of births, marriages, and deaths, is carried out as heretofore by the provincial authorities, the legislation of each province conforms in its essentials to a model bill, prepared by the Dominion Bureau of Statistics, one of the features of which was compulsory registration. The Bureau of Statistics undertakes compilation and tabulation.

Under the scheme outlined above, the vital statistics for all the provinces except Quebec were secured and compiled on a uniform basis for the years 1921 to 1925. The annual reports for these years may be obtained on application to the Dominion Statistician.

Quebec has been included in the registration area as from Jan. 1, 1926, from which date her statistics are on a comparable basis with those of the other provinces. The final reports for 1926 to 1937, including the statistics of all the nine provinces, may be procured from the Dominion Statistician, with the exception of the report for 1931, which is out of print.

Two important considerations should be borne in mind by the student who uses either the tables that follow or the detailed reports issued by the Bureau of Statistics for comparative purposes. First, in spite of the improvements of the past decade, registration generally, and the registration of births in particular, is not as yet universally carried out. Secondly, the very considerable differences in the age and sex distribution of the population in different provinces make comparisons of crude birth rates and crude death rates, as among the provinces, unfair and misleading. All rates in this chapter have been recalculated on the basis of the revised estimates of population given at p. 103.

The Vital Statistics Branch has inaugurated a series of reports classifying vital statistics in Canada by place of residence. The first report, based on 1935 figures, was published in 1938 and the report based on 1936 figures was issued in 1939. These reports show: (1) births according to residence of mother; (2) deaths according to place of residence and place of occurrence for cities and towns of 5,000 population or over, and for the remaining parts of counties or census divisions; (3) deaths according to residence and cause of death, by provinces; (4) the same information as in (3) for cities of 40,000 population or over; (5) the same information for places of 5,000 population or over but under 40,000. Deaths according to residences and causes for counties and census divisions, exclusive of places of 5,000 population or over are also given and the 1936 report covers live births, stillbirths, and deaths under one year and under one month. These reports are in three Parts and may be obtained from the Dominion Statistician, price 25 cents for each Part.

Yukon and the Northwest Territories.—The vital statistics of Yukon and the Northwest Territories have been collected and compiled since 1924. They are not, however, presented with those of the nine provinces in the tables of this chapter because the figures are not regarded as complete, the details are in many cases not available, and the small and varying population is not known with sufficient accuracy for each year to enable the rates to be calculated. As these territories contain less than 1/700th of the population of Canada, their vital statistics are a negligible factor in the total. Births, marriages, and deaths in Yukon and the Northwest Territories, for the years 1924-38 are summarized in the following statement.

VITAL STATISTICS OF YUKON AND THE NORTHWEST TERRITORIES, 1924-38.

Year.	Yukon.			Northwest Territories.		
	Births.	Marriages.	Deaths.	Births.	Marriages.	Deaths.
1924	31	5	38	95	39	47
1925	22	17	63	57	35	32
1926	27	12	68	75	3	51
1927	29	19	33	126	20	133
1928	30	13	46	222	30	367
1929	35	10	54	133	29	168
1930	45	17	69	232	36	206
1931	40	24	66	141	36	106
1932	44	26	62	195	33	122
1933	58	15	60	179	26	128
1934	44	29	48	203	47	154
1935	58	27	69	231	63	175
1936	38	26	82	229	68	177
1937	74	37	77	210	45	147
1938[1]	70	36	61	223	63	179

[1] Preliminary figures.

Section 1.—Births.

Throughout almost the whole of the civilized world the birth rate has, in the past generation, been on the decline, though the consequent reduction in the rate of natural increase has been partly offset by the synchronous decline in the death rate.

The crude birth rate of England and Wales, for example, was 35·4 per 1,000 population for the average of the decennium 1871-80, 32·5 in 1881-90, and 29·9 in

1891-1900. In 1913 the birth rate was 24·1, and, though it rose to 25·5 in 1920, it has fallen quite rapidly, with minor fluctuations, to 14·9 in 1937.

Similarly, in France the crude birth rate declined from an average of 25·4 per 1,000 population in the 1870's, 23·9 in the 1880's and 22·2 in the 1890's to 21·4 in 1920, 16·1 in 1934, and 14·7 in 1937. In Germany, again, the crude birth rate was 39·1 in the 1870's, 36·8 in the 1880's, 36·1 in the 1890's, 25·9 in 1920, 17·6 in 1930, and 14·7 in 1933. Since then the rate has recovered to 18·8 in 1937.

In Canada the crude birth rate still stands at a comparatively high figure, being 20·5 per 1,000 in 1938. This, however, is due largely to the influence of Quebec, where the rate, although declining, stood at 24·6 per 1,000 in 1938, as compared with 17·6 per 1,000 in Ontario. In the other provinces the figures varied from a low of 16·4 in British Columbia to a high of 25·7 in New Brunswick.

Birth statistics are given by sex in Table **1**, below. Table **2** gives the number of live births in cities and towns of 10,000 population or over for the years 1934 to 1938, inclusive. For some years previous to 1930 there was a definite tendency for such births to increase but the figures from 1930-36 indicate an opposite trend; since 1936, however, an increase of trend again has been apparent.

Sex of Live Births.—Table **1** shows the numbers and proportions of live male and female births reported for each province of Canada during the calendar years 1936, 1937, and 1938, with averages for the five-year periods 1921-25, 1926-30, and 1931-35. The figures for Quebec commence only with the year 1926, when that province entered the registration area, and the totals for Canada are limited in the same manner in consequence. Every province shows an excess of male births for the years or averages shown in the table. The table shows that among every 1,000 born in 1938 in the whole of Canada, 514 were males and 486 females. In other words, there were 1,056 males born to every 1,000 females.

1.—Live Births by Sex, and Ratio of Males to Females, by Provinces, 1936-38, with Averages, 1921-25, 1926-30, and 1931-35.

NOTE.—For corresponding figures for single years 1921-25, see p. 165 of the Canada Year Book for 1927-28, for those for 1926-30, p. 156 of the Canada Year Book for 1933, those for 1931-33, p. 156 of the 1936 Year Book and those for 1934-35 at p. 159 of the 1938 Year Book.

Province and Year.	Total.	Rate per 1,000 Population.	Males.		Females.		Males to 1,000 Females.
			Number.	Per Cent of Total.	Number.	Per Cent of Total.	
Prince Edward Island...Av. 1921-25	1,966	22·6	993	50·5	973	49·5	1,021
Av. 1926-30	1,734	19·7	898	51·8	836	48·2	1,074
Av. 1931-35	1,961	22·1	1,012	51·6	949	48·4	1,067
1936	1,977	21·5	1,044	52·8	933	47·2	1,119
1937	2,093	22·5	1,108	52·9	985	47·1	1,125
1938	1,974	21·0	1,032	52·3	942	47·7	1,096
Nova Scotia.....Av. 1921-25	12,119	23·4	6,275	51·8	5,844	48·2	1,074
Av. 1926-30	11,016	21·4	5,653	51·3	5,363	48·7	1,054
Av. 1931-35	11,486	22·0	5,906	51·4	5,580	48·6	1,058
1936	11,808	22·0	6,127	51·9	5,681	48·1	1,079
1937	11,572	21·4	6,071	52·5	5,501	47·5	1,104
1938	12,241	22·3	6,278	51·3	5,963	48·7	1,053
New Brunswick.....Av. 1921-25	11,080	28·4	5,708	51·5	5,372	48·5	1,063
Av. 1926-30	10,327	25·8	5,292	51·2	5,035	48·8	1,051
Av. 1931-35	10,440	24·9	5,344	51·2	5,096	48·8	1,049
1936	10,513	24·2	5,368	51·1	5,145	48·9	1,043
1937	10,580	24·0	5,452	51·5	5,128	48·5	1,063
1938	11,447	25·7	5,810	50·8	5,637	49·2	1,031

1.—Live Births by Sex, and Ratio of Males to Females, by Provinces, 1936-38, with Averages, 1921-25, 1926-30, and 1931-35—concluded.

Province and Year.	Total.	Rate per 1,000 Population.	Males.		Females.		Males to 1,000 Females.
			Number.	Per Cent of Total.	Number.	Per Cent of Total.	
Quebec[1]....Av. 1926-30	82,771	30·5	42,644	51·5	40,127	48·5	1,063
Av. 1931-35	78,889	26·6	40,466	51·3	38,423	48·7	1,053
1936	75,285	24·3	38,578	51·2	36,707	48·8	1,051
1937	75,635	24·1	38,985	51·5	36,650	48·5	1,064
1938	78,145	24·6	40,336	51·6	37,809	48·4	1,067
Ontario....Av. 1921-25	71,454	23·7	36,725	51·4	34,729	48·6	1,057
Av. 1926-30	68,703	21·0	35,268	51·3	33,435	48·7	1,055
Av. 1931-35	65,000	18·3	33,324	51·3	31,676	48·7	1,052
1936	62,451	16·9	32,124	51·4	30,327	48·6	1,059
1937	61,645	16·6	31,655	51·4	29,990	48·6	1,056
1938	65,564	17·6	33,605	51·3	31,959	48·7	1,052
Manitoba....Av. 1921-25	16,590	26·8	8,443	50·9	8,147	49·1	1,036
Av. 1926-30	14,391	21·7	7,399	51·4	6,992	48·6	1,058
Av. 1931-35	13,690	19·3	7,005	51·2	6,685	48·8	1,048
1936	12,855	18·1	6,670	51·9	6,185	48·1	1,078
1937	12,888	18·0	6,594	51·2	6,294	48·8	1,048
1938	13,478	18·7	6,910	51·3	6,568	48·7	1,052
Saskatchewan....Av. 1921-25	21,580	27·7	11,119	51·5	10,461	48·5	1,063
Av. 1926-30	21,298	24·7	10,979	51·5	10,319	48·5	1,064
Av. 1931-35	20,325	21·9	10,444	51·4	9,881	48·6	1,057
1936	19,125	20·5	9,839	51·4	9,286	48·6	1,060
1937	18,640	19·9	9,526	51·1	9,114	48·9	1,045
1938	18,230	19·4	9,381	51·5	8,849	48·5	1,060
Alberta....Av. 1921-25	15,461	26·0	7,887	51·0	7,574	49·0	1,041
Av. 1926-30	15,924	24·2	8,153	51·2	7,771	48·8	1,049
Av. 1931-35	16,556	22·1	8,505	51·4	8,051	48·6	1,056
1936	15,786	20·4	8,081	51·2	7,705	48·8	1,049
1937	15,903	20·4	8,027	50·5	7,876	49·5	1,019
1938	15,891	20·3	8,125	51·1	7,766	48·9	1,046
British Columbia....Av. 1921-25	10,256	18·4	5,310	51·8	4,946	48·2	1,074
Av. 1926-30	10,356	16·2	5,266	50·8	5,090	49·2	1,035
Av. 1931-35	10,005	14·0	5,136	51·3	4,869	48·7	1,055
1936	10,571	14·1	5,458	51·6	5,113	48·4	1,067
1937	11,279	15·0	5,725	50·8	5,554	49·2	1,031
1938	12,476	16·4	6,385	51·2	6,091	48·8	1,048
Canada[1] (Exclusive of the Territories)....Av. 1926-30	**236,520**	**24·1**	**121,552**	**51·4**	**114,968**	**48·6**	**1,057**
Av. 1931-35	**228,352**	**21·4**	**117,142**	**51·3**	**111,210**	**48·7**	**1,053**
1936	**220,371**	**20·0**	**113,289**	**51·4**	**107,082**	**48·6**	**1,058**
1937	**220,235**	**19·8**	**113,143**	**51·4**	**107,092**	**48·6**	**1,057**
1938	**229,446**	**20·5**	**117,862**	**51·4**	**111,584**	**48·6**	**1,056**

[1] Quebec was not included in the registration area prior to 1926.

2.—Live Births in Cities and Towns of 10,000 Population or Over, 1934-38, with Averages, 1926-30 and 1931-35.

Province and City or Town.	Census Population, 1931.	Averages, 1926-30.	Averages, 1931-35.	1934.	1935.	1936.	1937.	1938.
P.E. Island—								
Charlottetown	12,361	287	361	358	350	405	398	403
Nova Scotia—								
Glace Bay	20,706	672	702	715	779	803	823	944
Halifax	59,275	1,457	1,629	1,607	1,679	1,755	1,631	1,733
Sydney	23,089	511	586	588	589	602	573	590
New Brunswick—								
Moncton	20,689	518	494	480	459	487	493	508
Saint John	47,514	1,144	1,203	1,211	1,164	1,223	1,216	1,284

2.—Live Births in Cities and Towns of 10,000 Population or Over, 1934-38, with Averages, 1926-30 and 1931-35—concluded.

Province and City or Town.	Census Population, 1931.	Averages 1926-30.	Averages 1931-35.	1934.	1935.	1936.	1937.	1938.
Quebec—								
Chicoutimi	11,877	553	508	486	508	504	515	561
Granby	10,587	298	354	348	308	300	317	318
Hull	29,433	1,001	875	853	810	822	815	818
Joliette	10,765	347	329	285	332	289	280	288
Lachine	18,630	442	398	368	348	355	387	431
Levis	11,724	307	261	242	232	212	242	225
Montreal	818,577	20,205	19,002	18,463	17,786	17,369	17,732	17,754
Outremont	28,641	124	95	82	84	68	50	57
Quebec	130,594	4,379	4,137	4,017	3,871	3,834	3,917	3,873
St. Hyacinthe	13,448	333	352	331	356	379	410	406
St. Jean	11,256	324	295	296	275	307	293	295
Shawinigan Falls	15,345	658	570	530	511	529	485	510
Sherbrooke	28,933	786	753	728	740	783	792	841
Sorel	10,320	297	265	248	236	240	227	235
Thetford Mines	10,701	465	351	364	293	294	337	358
Three Rivers	35,450	1,329	1,187	1,196	1,129	1,121	1,078	1,156
Valleyfield	11,411	317	358	367	357	344	337	324
Verdun	60,745	1,057	1,021	925	851	891	828	844
Westmount	24,235	110	313	312	267	208	245	248
Ontario—								
Belleville	13,790	370	376	367	377	430	381	493
Brantford	30,107	682	627	575	601	666	606	584
Chatham	14,569	485	484	506	528	578	673	764
Cornwall	11,126	468	482	434	600	563	581	612
Fort William	26,277	635	558	474	530	485	503	533
Galt	14,006	277	296	289	278	267	295	321
Guelph	21,075	395	351	327	341	299	296	331
Hamilton	155,547	3,041	2,957	2,730	2,763	2,758	2,768	2,989
Kingston	23,439	595	657	609	687	674	724	755
Kitchener	30,793	754	752	727	759	743	733	796
London	71,148	1,381	1,379	1,337	1,426	1,410	1,472	1,587
Niagara Falls	19,046	466	421	405	437	384	406	421
North Bay	15,528	417	390	368	390	393	385	416
Oshawa	23,439	645	525	510	523	524	534	582
Ottawa	126,872	2,965	2,960	2,824	3,040	3,028	2,983	3,140
Owen Sound	12,839	334	319	323	320	327	326	364
Peterborough	22,327	579	577	545	571	621	628	700
Port Arthur	19,818	542	511	477	524	541	566	649
St. Catharines	24,753	596	589	605	548	577	571	641
St. Thomas	15,430	326	296	323	297	291	296	410
Sarnia	18,191	431	413	400	424	433	418	489
Sault Ste. Marie	23,082	613	574	493	532	554	522	625
Stratford	17,742	384	340	320	350	348	370	425
Sudbury	18,518	498	797	767	876	979	1,165	1,325
Timmins	14,200	491	563	590	631	687	812	873
Toronto	631,207	12,210	11,436	10,615	10,474	10,391	9,942	10,514
Welland	10,709	288	286	254	308	313	310	364
Windsor[1]	98,179	2,791	2,037	1,901	2,032	2,111	2,012	2,220
Woodstock	11,395	246	237	214	224	236	273	283
Manitoba—								
Brandon	16,461[2]	390	303	270	264	250	268	252
St. Boniface	16,275[2]	843	1,064	1,024	1,104	1,129	1,122	1,321
Winnipeg	215,814[2]	4,527	3,944	3,728	3,668	3,559	3,673	3,717
Saskatchewan—								
Moose Jaw	19,805[2]	623	464	426	427	450	477	498
Prince Albert	11,049[2]	334	398	438	469	435	493	513
Regina	53,354[2]	1,368	1,270	1,231	1,172	1,145	1,353	1,343
Saskatoon	41,734[2]	1,058	955	857	872	886	866	903
Alberta—								
Calgary	83,407[2]	1,806	1,695	1,601	1,640	1,623	1,638	1,655
Edmonton	85,774[2]	2,122	2,246	2,148	2,278	2,317	2,606	2,804
Lethbridge	13,523[2]	436	531	458	582	580	590	622
British Columbia—								
New Westminster	17,524	525	558	544	558	639	758	804
Vancouver	246,593	3,776	3,357	3,179	3,248	3,410	3,780	4,095
Victoria	39,082	717	696	714	709	710	758	824

[1] Includes East Windsor, Sandwich, and Walkerville. [2] Census of 1936.

Nativity of Mothers.—Table 3 shows, by provinces, the percentages of legitimate children born alive to Canadian-born, British-born, and foreign-born mothers, respectively, for the years 1936, 1937, and 1938. The influence of the limited immigration in recent years is reflected in the figures. In the Prairie Provinces of Manitoba, Saskatchewan, and Alberta, where the percentages born to foreign-born mothers in 1933 were 25·9, 36·3, and 40·4, respectively, they were 16·4, 23·9, and 27·7, respectively, in 1938. Thus more and more of the children of the West are coming within the class of third generation Canadian.

3.—Percentages of Legitimate Children Born Alive to Canadian-Born, British-Born, or Foreign-Born Mothers, by Provinces, 1936-38.

Province.	Nativity of Mothers.								
	Canadian Born.			British Born.			Foreign Born.		
	1936.	1937.	1938.	1936.	1937.	1938.	1936.	1937.	1938.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Prince Edward Island	94·3	94·5	95·8	1·5	1·6	0·7	4·1	3·8	3·4
Nova Scotia	89·2	90·7	90·8	7·4	6·4	6·2	3·3	2·9	2·9
New Brunswick	93·7	94·3	94·5	2·5	2·3	2·0	3·8	3·5	3·5
Quebec	95·3	95·6	96·1	1·8	1·7	1·4	2·9	2·7	2·5
Ontario	77·8	79·8	81·3	12·9	11·5	10·5	9·3	8·8	8·2
Manitoba	71·6	75·3	77·1	8·0	6·7	6·5	20·4	18·0	16·4
Saskatchewan	64·8	68·6	70·7	6·6	5·8	5·4	28·6	25·7	23·9
Alberta	58·1	60·9	64·4	9·9	9·1	7·9	32·0	30·0	27·7
British Columbia	63·1	66·5	69·9	18·3	15·9	14·3	18·6	17·6	15·8
Canada[1]	**81·7**	**83·4**	**84·8**	**7·4**	**6·6**	**6·0**	**10·9**	**10·0**	**9·2**

[1] Exclusive of the Territories.

Fertility Rates.—The crude birth rate of a young country is subject to influences that vitiate comparison with older lands. These influences are the result, to some extent, of differences in age or sex constitution or in conjugal condition. For this reason birth rates are frequently based on the number of births per thousand women within suitably-chosen age groups. Such rates are commonly known as fertility rates. At pp. 150-152 of the 1936 Year Book specific fertility rates of married women between the ages of 15 and 49 years are given, by provinces, for 1921, 1922, and 1930-32. Such statistics will not again be compiled until 1941 census data are available.

Multiple Births in Canada.—During the thirteen-year period 1926-38, out of a total of 3,044,777 recorded confinements, 36,641 or one in 83·1 were multiple confinements. Of these 36,280 were twin and 359 were triplet confinements, while one, in British Columbia in 1931, was a quadruplet confinement from which all the children died within a few hours of birth. A multiple confinement resulted in the birth of the Dionne quintuplets on May 28, 1934. In 1937 there were 2 quadruplet confinements in Quebec, all children being born alive.

Table 4 shows the incidence of multiple births in each year from 1934 to 1938. In 1938 one in every 87 confinements was a twin confinement, a proportion that is fairly representative for the other years as well. There were only 22 triplet

confinements in 1938. Of the children born alive or dead, one in every 43 resulted from a multiple confinement. For children born alive the proportion was one in 45 and for children stillborn one in 22. In the multiple confinements stillborn children formed 5·5 p.c. of the total births as against 2·7 p.c. in single confinements.

4.—Live Births and Stillbirths Classified as Single and Multiple, by Sex, 1934-38.

NOTE.—For statistics from 1926 to 1933, see p. 162 of the 1938 Year Book.

Year and Sex.	Total Births.		Single Births.		Twins.			Triplets.		
						Children.			Children.	
	Born Alive.	Still-born.	Born Alive.	Still-born.	No.	Born Alive.	Still-born.	No.	Born Alive.	Still-born.
1934—										
Totals	221,303[1]	6,452	216,230	6,150	2,658	5,018	298	18	50	4
Male	113,323	3,636	110,776	3,470	-	2,525	165	-	22	1
Female	107,980[1]	2,816	105,454	2,680	-	2,493	133	-	28	3
1935—										
Totals	221,451	6,449	216,482	6,136	2,590	4,872	308	34	97	5
Male	113,293	3,646	110,763	3,468	-	2,473	175	-	57	3
Female	108,158	2,803	105,719	2,668	-	2,399	133	-	40	2
1936—										
Totals	220,371	6,350	215,377	6,051	2,600	4,913	287	31	81	12
Male	113,289	3,605	110,722	3,433	-	2,528	162	-	39	10
Female	107,082	2,745	104,655	2,618	-	2,385	125		42	2
1937—										
Totals	220,235[2]	6,275	215,276	5,959	2,599	4,890	308	23	61	8
Male	113,143[2]	3,573	110,632	3,392	-	2,477	180		29	1
Female	107,092[2]	2,702	104,644	2,567	-	2,413	128	-	32	7
1938—										
Totals	229,446	6,426	224,315	6,129	2,681	5,068	294	22	63	3
Male	117,862	3,694	115,235	3,527	-	2,597	166	-	30	1
Female	111,584	2,732	109,080	2,602	-	2,471	128	-	33	2

[1] Including Dionne quintuplets, all females, born alive.

[2] Including two sets of quadruplets, all born alive (five males and three females).

Ages of Parents.—Table 5 shows the age distribution of married fathers and mothers in 1926 (the first year for which the figures are available for the whole of Canada) and for 1935 to 1937. The fathers and mothers in each of these years are arranged according to age and then divided into four equal groups. Each point of age at which a separation comes is called a quartile. To obtain these points of age it is assumed that those in the same year of age are evenly distributed from its lower to its upper limit. In similar manner the deciles divide fathers or mothers in each year into ten equal groups.

In 1937 one-quarter of the married fathers were under 27·85 years of age, one-half under 32·35 years and three-quarters under 38·05 years. One-quarter of the married mothers were under 24·00 years of age, one-half under 28·20 years and three-quarters under 33·38 years. Nine-tenths of the fathers were under 43·83 years and nine-tenths of the mothers under 38·07 years. It will be noted that in every case for fathers, the 1926 figure is appreciably greater than that for 1937. In other words, parents, generally speaking, are somewhat younger than in 1926, although for brief intervening periods the trend has been reversed.

5.—Quartile and Decile Ages of Married Fathers and Mothers, in Canada, 1926, and 1935-37.

Position in Array, by Age.	Fathers.				Mothers.			
	1926.	1935.	1936.	1937.	1926.	1935.	1936.	1937.
	years.	years.	years.	years.	years.	years.	years.	years.
First quartiles	28·35	27·99	27·89	27·85	24·43	24·12	24·10	24·00
Second quartiles	33·31	32·62	32·50	32·35	28·89	28·41	28·37	28·20
Third quartiles	39·01	38·56	38·39	38·05	34·26	33·71	33·60	33·38
First deciles	24·91	24·72	24·67	24·66	21·41	21·25	21·26	21·22
Second deciles	27·28	27·01	26·91	26·91	23·50	23·24	23·22	23·16
Third deciles	29·35	28·88	28·79	28·75	25·34	24·99	24·94	24·82
Fourth deciles	31·28	30·67	30·58	30·47	27·79	26·68	26·64	26·48
Fifth deciles	33·31	32·62	32·50	32·35	28·89	28·41	28·37	28·20
Sixth deciles	35·48	34·77	34·60	34·39	30·82	30·26	30·21	30·02
Seventh deciles	37·81	37·16	36·92	36·80	33·41	32·47	32·40	32·18
Eighth deciles	40·40	40·07	39·96	39·62	35·61	35·08	34·99	34·74
Ninth deciles	44·19	44·22	44·09	43·83	38·69	38·36	38·25	38·07

Birthplaces of Parents.—Table 6 classifies the children born in 1926, 1937, and 1938 by country of birth of parents, and furnishes some idea to what extent the coming generation of Canadian born will be the offspring of Canadian-born, British-born, or foreign-born parents. The term "country not specified", under country of birth, includes for the father illegitimate births and births of incomplete record, while for the mother it includes births of incomplete record only. Between 1926 and 1938 the percentage of births for which both parents were born in Canada rose from 61·4 in 1926 to 69·5 and 70·7 for 1937 and 1938, respectively.

6.—Numbers and Percentages of Live Births in Canada to Fathers and Mothers Born in Specified Countries, 1926, 1937, and 1938.

NOTE.—Comparable statistics for earlier years, from 1926, will be found in previous Year Books commencing with the 1929 edition.

Country of Birth of Parents.		Numbers of Births with Father, Mother, or Both Parents Born in Specified Country.			Percentages of Births with Father, Mother, or Both Parents Born in Specified Country.		
		Father.	Mother.	Both Parents.	Father.	Mother.	Both Parents.
Canada	**1926**	**159,438**	**166,999**	**142,882**	**68·5**	**71·8**	**61·4**
	1937	**165,064**	**183,253**	**153,089**	**74·9**	**83·2**	**69·5**
	1938	**174,394**	**194,323**	**162,223**	**76·0**	**84·7**	**70·7**
England	1926	18,304	18,808	9,658	7·9	8·1	4·1
	1937	10,589	7,966	2,627	4·8	3·6	1·2
	1938	10,437	7,659	2,334	4·5	3·3	1·0
Ireland (Eire and N. Ireland)	1926	2,540	2,195	873	1·1	0·9	0·4
	1937	1,914	1,349	448	0·9	0·6	0·2
	1938	1,848	1,249	405	0·8	0·5	0·2
Scotland	1926	6,635	7,165	3,318	2·9	3·1	1·4
	1937	4,213	3,670	1,087	1·9	1·7	0·5
	1938	4,166	3,475	965	1·8	1·5	0·4
Wales	1926	546	508	105	0·2	0·2	1
	1937	467	304	63	0·2	0·1	1
	1938	468	342	52	0·2	0·1	1
Other British Isles	1926	100	90	23	1	1	1
	1937	54	31	6	1	1	1
	1938	59	28	3	1	1	1

For footnotes, see end of table, p. 113.

6.—Numbers and Percentages of Births in Canada to Fathers and Mothers Born in Specified Countries, 1926, 1937, and 1938—concluded.

Country of Birth of Parents.		Numbers of Births with Father, Mother, or Both Parents Born in Specified Country.			Percentages of Births with Father, Mother, or Both Parents Born in Specified Country.		
		Father.	Mother.	Both Parents.	Father.	Mother.	Both Parents.
Newfoundland	1926	1,001	1,051	515	0·4	0·5	0·2
	1937	741	720	259	0·3	0·3	0·1
	1938	731	732	237	0·3	0·3	0·1
Other British Empire	1926	524	413	134	0·2	0·2	0·1
	1937	378	247	77	0·2	0·1	[1]
	1938	347	229	78	0·2	0·1	[1]
Austria	1926	3,473	2,938	2,371	1·5	1·3	1·0
	1937	1,773	1,063	741	0·8	0·5	0·3
	1938	1,647	912	629	0·7	0·4	0·3
Belgium	1926	531	472	307	0·2	0·2	0·1
	1937	386	276	139	0·2	0·1	0·1
	1938	425	286	163	0·2	0·1	0·1
Finland	1926	458	471	364	0·2	0·2	0·2
	1937	363	383	228	0·2	0·2	0·1
	1938	343	349	204	0·1	0·2	0·1
France	1926	512	464	194	0·2	0·2	0·1
	1937	275	181	59	0·1	0·1	[1]
	1938	254	155	44	0·1	0·1	[1]
Germany	1926	711	635	255	0·3	0·3	0·1
	1937	969	623	282	0·4	0·3	0·1
	1938	1,106	626	332	0·5	0·3	0·1
Hungary	1926	512	460	358	0·2	0·2	0·2
	1937	829	646	532	0·4	0·3	0·2
	1938	800	649	517	0·3	0·3	0·2
Italy	1926	2,599	1,946	1,870	1·1	0·8	0·8
	1937	1,375	808	709	0·6	0·4	0·3
	1938	1,330	749	649	0·6	0·3	0·3
Norway	1926	840	618	346	0·4	0·3	0·1
	1937	671	346	175	0·3	0·2	0·1
	1938	698	330	152	0·3	0·1	0·1
Poland	1926	4,249	3,714	3,053	1·8	1·6	1·3
	1937	4,475	3,567	2,676	2·0	1·6	1·2
	1938	4,389	3,379	2,476	1·9	1·5	1·1
Russia[2]	1926	5,443	4,620	3,665	2·3	2·0	1·6
	1937	3,596	2,691	1,777	1·6	1·2	0·8
	1938	3,453	2,588	1,702	1·5	1·1	0·7
Sweden	1926	876	666	387	0·4	0·3	0·2
	1937	673	291	131	0·3	0·1	0·1
	1938	709	267	115	0·3	0·1	0·1
Other European countries	1926	3,474	2,556	1,909	1·5	1·1	0·8
	1937	3,505	2,246	1,645	1·6	1·0	0·7
	1938	3,511	2,139	1,574	1·5	0·9	0·7
China and Japan	1926	1,117	1,052	1,018	0·5	0·5	0·4
	1937	663	445	386	0·3	0·2	0·2
	1938	644	427	363	0·3	0·2	0·2
Other Asiatic countries	1926	362	285	250	0·2	0·1	0·1
	1937	171	109	86	0·1	[1]	[1]
	1938	151	87	66	0·1	[1]	[1]
United States	1926	11,940	13,394	4,096	5·1	5·8	1·8
	1937	8,267	7,893	1,939	3·8	3·6	0·9
	1938	8,111	7,599	1,699	3·5	3·3	0·7
Country not specified	1926	6,565	1,230	204	2·8	0·5	0·1
	1937	8,824	1,127	97	4·0	0·5	[1]
	1938	9,425	867	52	4·1	0·4	[1]
Totals	**1926**	**232,750**	**232,750**	**178,155[3]**	**100·0**	**100·0**	**76·5[4]**
	1937	**220,235**	**220,235**	**169,258[3]**	**100·0**	**100·0**	**76·9[4]**
	1938	**229,446**	**229,446**	**177,034[3]**	**100·0**	**100·0**	**77·2[4]**

[1] Less than one-tenth of one per cent. [2] Includes the Ukraine. [3] This figure gives the number of children whose fathers and mothers were born in the same country. The difference between this figure and the total number of births represents the number of children whose fathers and mothers were born in different countries. [4] This excludes the percentage of mixed parentage, i.e., where the two parents were not born in the same country.

Origins of Parents.—Table 7 gives the numbers and percentages of births during 1926, 1937, and 1938, distributed by the principal origins.

7.—Numbers and Percentages of Live Births in Canada to Fathers and Mothers of Specified Origins, 1926, 1937, and 1938.

NOTE.—Comparable statistics for earlier years, after 1926, will be found in previous Year Books, commencing with the 1929 edition.

Origin of Parents.		Numbers of Births with Father, Mother, or Both Parents of Specified Origin.			Percentages of Births with Father, Mother, or Both Parents of Specified Origin.		
		Father.	Mother.	Both Parents.	Father.	Mother.	Both Parents.
English	1926	52,854	55,908	38,445	22·7	34·0	16·5
	1937	44,061	46,540	27,952	20·0	21·1	12·7
	1938	45,864	49,279	29,134	20·0	21·5	12·7
Irish	1926	21,136	20,071	9,409	9·1	8·6	4·0
	1937	19,691	19,257	7,394	8·9	8·7	3·4
	1938	20,612	20,140	7,501	9·0	8·8	3·3
Scottish	1926	23,120	23,285	11,158	9·9	10·0	4·8
	1937	20,029	20,241	7,678	9·1	9·2	3·5
	1938	21,309	21,064	7,778	9·3	9·2	3·4
Welsh	1926	858	711	129	0·4	0·3	0·1
	1937	898	739	88	0·4	0·3	1
	1938	991	775	78	0·4	0·3	1
French	1926	89,400	92,425	85,139	38·4	39·7	36·6
	1937	83,958	87,591	78,914	38·1	39·8	35·8
	1938	87,341	91,181	81,886	38·1	39·7	35·7
German	1926	9,497	10,047	6,951	4·1	4·3	3·0
	1937	11,440	12,178	7,546	5·2	5·5	3·4
	1938	11,667	12,352	7,536	5·1	5·4	3·3
Armenian	1926	76	72	69	1	1	1
	1937	47	36	35	1	1	1
	1938	27	18	17	1	1	1
Austrian	1926	1,629	1,778	1,393	0·7	0·8	0·6
	1937	627	579	307	0·3	0·3	0·1
	1938	559	513	261	0·2	0·2	0·1
Belgian	1926	571	581	361	0·2	0·2	0·2
	1937	547	532	239	0·2	0·2	0·1
	1938	609	568	264	0·3	0·2	0·1
Bulgarian	1926	74	32	26	1	1	1
	1937	40	26	18	1	1	1
	1938	41	24	20	1	1	1
Chinese	1926	336	310	309	0·1	0·1	0·1
	1937	228	177	169	0·1	0·1	0·1
	1938	225	167	164	0·1	0·1	0·1
Czech and Slovak	1926	325	368	232	0·1	0·2	0·1
	1937	812	793	609	0·4	0·4	0·3
	1938	843	828	619	0·4	0·4	0·3
Danish	1926	491	409	159	0·2	0·2	0·1
	1937	778	533	200	0·4	0·2	0·1
	1938	781	601	193	0·3	0·3	0·1
Dutch	1926	1,933	1,890	927	0·8	0·8	0·4
	1937	2,655	2,577	1,318	1·2	1·2	0·6
	1938	2,735	2,676	1,254	1·2	1·2	0·5
Finnish	1926	498	586	449	0·2	0·3	0·2
	1937	497	688	366	0·2	0·3	0·2
	1938	514	718	379	0·2	0·3	0·2
Greek	1926	290	171	167	0·1	0·1	0·1
	1937	196	132	108	0·1	0·1	1
	1938	166	156	115	0·1	0·1	0·1
Hebrew	1926	2,043	2,023	1,977	0·9	0·9	0·8
	1937	2,050	2,046	1,965	0·9	0·9	0·9
	1938	2,166	2,146	2,070	0·9	0·9	0·9
Hindu	1926	22	20	20	1	1	1
	1937	45	43	41	1	1	1
	1938	45	43	41	1	1	1
Hungarian	1926	474	514	410	0·2	0·2	0·2
	1937	961	955	748	0·4	0·4	0·3
	1938	932	961	739	0·4	0·4	0·3
Icelandic	1926	363	427	264	0·2	0·2	0·1
	1937	401	345	173	0·2	0·2	0·1
	1938	358	384	165	0·2	0·2	0·1
Indian	1926	2,162	2,499	2,040	0·9	1·1	0·9
	1937	3,694	4,303	3,492	1·7	2·0	1·6
	1938	3,859	4,539	3,675	1·7	2·0	1·6

For footnotes, see end of table, p. 115.

7.—Numbers and Percentages of Live Births in Canada to Fathers and Mothers of Specified Origins, 1926, 1937, and 1938—concluded.

Origin of Parents.		Numbers of Births with Father, Mother, or Both Parents of Specified Origin.			Percentages of Births with Father, Mother, or Both Parents of Specified Origin.		
		Father.	Mother.	Both Parents.	Father.	Mother.	Both Parents.
Italian	1926	2,799	2,379	2,239	1·2	1·0	1·0
	1937	1,985	1,751	1,349	0·9	0·8	0·6
	1938	2,058	1,816	1,312	0·9	0·8	0·6
Japanese	1926	800	793	790	0·3	0·3	0·3
	1937	518	516	514	0·2	0·2	0·2
	1938	539	544	536	0·2	0·2	0·2
Negro	1926	350	382	312	0·2	0·2	0·1
	1937	391	457	351	0·2	0·2	0·2
	1938	402	474	354	0·2	0·2	0·2
Norwegian	1926	1,696	1,789	911	0·7	0·8	0·4
	1937	1,818	1,870	620	0·8	0·8	0·3
	1938	1,890	1,906	614	0·8	0·8	0·3
Polish	1926	1,988	2,172	1,487	0·9	0·9	0·6
	1937	2,749	3,039	1,822	1·2	1·4	0·8
	1938	2,804	3,160	1,797	1·2	1·4	0·8
Roumanian	1926	707	601	479	0·3	0·3	0·2
	1937	440	433	246	0·2	0·2	0·1
	1938	428	424	225	0·2	0·2	0·1
Russian	1926	2,210	2,041	1,636	0·9	0·9	0·7
	1937	1,261	1,298	834	0·6	0·6	0·4
	1938	1,282	1,323	825	0·6	0·6	0·4
Serbo-Croatian	1926	208	185	168	0·1	0·1	0·1
	1937	386	351	284	0·2	0·2	0·1
	1938	440	366	313	0·2	0·2	0·1
Swedish	1926	1,370	1,389	633	0·6	0·6	0·3
	1937	1,534	1,394	409	0·7	0·6	0·2
	1938	1,584	1,488	378	0·7	0·6	0·2
Swiss	1926	269	215	91	0·1	0·1	[1]
	1937	253	190	52	0·1	0·1	[1]
	1938	281	218	53	0·1	0·1	[1]
Syrian	1926	284	219	203	0·1	0·1	0·1
	1937	188	158	112	0·1	0·1	0·1
	1938	183	156	111	0·1	0·1	[1]
Ukrainian[2]	1926	5,072	5,255	4,665	2·2	2·3	2·0
	1937	5,776	6,777	5,057	2·6	3·1	2·3
	1938	5,950	6,965	5,049	2·6	3·0	2·2
Other	1926	210	165	96	0·1	0·1	[1]
	1937	274	256	129	0·1	0·1	0·1
	1938	231	213	98	0·1	0·1	[1]
Origin not specified	1926	6,635	1,038	321	2·9	0·4	0·1
	1937	9,007	1,434	280	4·1	0·7	0·1
	1938	9,730	1,260	292	4·2	0·5	0·1
Totals	**1926**	**232,750**	**232,750**	**174,065**[3]	**100·0**	**100·0**	**74·8**[4]
	1937	**220,235**	**220,235**	**151,419**[3]	**100·0**	**100·0**	**68·8**[4]
	1938	**229,446**	**229,446**	**155,846**[3]	**100·0**	**100·0**	**67·9**[4]

[1] Less than one-tenth of one per cent. [2] Including Galician and Bukovinian. [3] This figure gives the number of children whose fathers and mothers have the same origin. The difference between this figure and the total number of births represents the number of children whose fathers and mothers are of different origins. [4] This excludes the percentage of mixed parentage, i.e., parents not of the same origin.

Illegitimacy.—The ratio of illegitimate to total births is, generally speaking, low in Canada as compared with other countries. The steady increase which is noticeable in recent years is probably due, in some measure, to more complete data.

Out of 220,235 live births in the nine provinces of Canada in 1937, 8,574, or 3·89 p.c., were returned as the issue of unmarried mothers. Figures for 1938 show a total of 229,446 live births, of which 9,228, or 4·02 p.c., were returned as the issue of unmarried mothers. Out of this number, 4,799 were males and 4,429 females—a ratio of 1,084 males to every 1,000 females, as compared with 1,053 males per 1,000 females in 1937, and a general 1938 rate for all live births of 1,056 males to 1,000 females. (See Table 8.)

8.—Illegitimate Live Births, Classified by Age of Mother, by Provinces, 1938, Percentages to Total Live Births, and Totals of Illegitimate Births, by Sex, 1936, 1937, and 1938, with Averages or Totals, 1926-38.

Age Group of Mother and Item.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada.[1]
1938.										
Under 15 years	Nil	4	2	12	22	1	5	8	2	56
15-19 years	30	310	134	483	971	152	185	199	143	2,607
20-24 years	40	305	179	619	1,172	206	242	292	178	3,233
25-29 years	9	89	67	248	483	87	117	100	94	1,294
30-34 years	4	52	33	61	213	32	49	39	50	533
35-39 years	4	15	16	25	131	14	29	36	27	297
40-44 years	1	7	3	9	45	6	10	8	12	101
45 years or over	Nil	Nil	1	2	3	5	Nil	Nil	1	12
Not given	"	"	Nil	1,066	21	Nil	4	1	3	1,095
Averages 1926-30	**42**	**558**	**299**	**2,334**	**2,196**	**501**	**489**	**479**	**240**	**7,138**
Averages 1931-35	**74**	**652**	**373**	**2,431**	**2,707**	**501**	**651**	**613**	**330**	**8,332**
Totals—										
1936	**68**	**723**	**405**	**2,469**	**2,788**	**493**	**703**	**607**	**377**	**8,633**
1937	**63**	**693**	**381**	**2,451**	**2,796**	**478**	**651**	**626**	**435**	**8,574**
1938	**88**	**782**	**435**	**2,525**	**3,061**	**503**	**641**	**683**	**510**	**9,228**
Percentages of Illegitimate to All Live Births—	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1936	3·4	6·1	3·9	3·3	4·5	3·8	3·7	3·8	3·6	3·92
1937	3·0	6·0	3·6	3·2	4·5	3·7	3·5	3·9	3·9	3·89
1938	4·5	6·4	3·8	3·2	4·7	3·7	3·5	4·3	4·1	4·02
Male Illegitimate Births—	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1936	36	394	198	1,302	1,446	248	375	304	189	4,492
1937	27	372	218	1,259	1,424	242	320	311	225	4,398
1938	37	402	230	1,330	1,583	270	334	366	247	4,799
Female Illegitimate Births—										
1936	32	329	207	1,167	1,342	245	328	303	188	4,141
1937	36	321	163	1,192	1,372	236	331	315	210	4,176
1938	51	380	205	1,195	1,478	233	307	317	263	4,429

[1] Exclusive of the Territories.

Stillbirths.—Statistics of the number of children born dead in 1938 are shown below for Canada, according to the status and age of the mother. Stillbirths to unmarried mothers were 3·7 p.c. of total illegitimate births in 1938, whereas total stillbirths were only 2·7 p.c. of total births in the same year.

9.—Stillbirths, Classified by Age of Mother, by Provinces and Legitimacy of Child, 1938, with Averages or Totals, 1926-38, and Ratios to Totals, 1936-38.

Age Group of Mother and Item.	Born to All Mothers.										Born to Unmarried Mothers.
	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada.[1]	
1938.											
Under 15 years	Nil	Nil	1	Nil	2	Nil	Nil	Nil	Nil	3	3
15-19 years	3	31	27	85	147	18	19	15	17	362	94
20-24 years	16	83	62	424	433	81	71	81	55	1,306	106
25-29 years	18	88	72	616	481	90	84	87	70	1,606	39
30-34 years	10	63	65	479	424	68	83	65	65	1,322	27
35-39 years	7	60	57	433	333	56	64	73	34	1,117	20
40-44 years	4	27	28	237	154	25	43	24	13	555	11
45 years or over	3	2	2	35	25	8	5	4	1	85	2
Not given	Nil	2	Nil	47	16	1	1	2	1	70	48
Averages 1926-30	**43**	**365**	**283**	**2,212**	**2,761**	**479**	**551**	**467**	**297**	**7,458**	**356**
Averages 1931-35	**67**	**401**	**302**	**2,337**	**2,284**	**383**	**488**	**421**	**247**	**6,931**	**381**
Totals—											
1936	**70**	**292**	**237**	**2,365**	**2,034**	**323**	**431**	**376**	**222**	**6,350**	**333**
1937	**63**	**294**	**273**	**2,312**	**1,988**	**345**	**398**	**355**	**247**	**6,275**	**331**
1938	**61**	**356**	**314**	**2,356**	**2,015**	**347**	**370**	**351**	**256**	**6,426**	**350**
Ratios to Total Births—											
1936	3·4	2·4	2·2	3·0	3·2	2·5	2·2	2·3	2·1	2·8	3·7
1937	2·9	2·5	2·5	3·0	3·1	2·6	2·1	2·2	2·1	2·8	3·7
1938	3·0	2·8	2·7	2·9	3·0	2·5	2·0	2·2	2·0	2·7	3·7

[1] Exclusive of the Territories.

Birth Rates in Various Countries.—The relative positions occupied by Canada and its individual provinces among various countries of the world with

respect to crude birth rate (the annual number of births per 1,000 of population) are shown in Table **10.**

10.—Crude Birth Rates of Various Countries of the World and of Provinces of Canada in Recent Years.

Country or Province.	Year.	Crude Birth Rate.	Country or Province.	Year.	Crude Birth Rate.
Egypt	1937	43·5	**Canada**—concluded.		
Costa Rica	1937	42·2	Ontario	1938	17·6
Straits Settlements	1937	42·1	British Columbia	1938	16·4
Salvador	1936	41·2	Iceland	1937	20·4
Palestine	1938	39·9	Hungary	1937	20·2
Panama	1937	36·0	Uruguay	1937	19·9
Ceylon	1938	35·9	Netherlands	1937	19·8
British India	1937	34·5	Northern Ireland	1937	19·8
Chile	1937	33·5	Irish Free State	1937	19·2
Jamaica	1937	32·1	Finland	1937	18·9
Roumania	1937	30·8	Germany	1937	18·8
Japan	1937	30·6	Denmark	1938	18·1
Greece	1937	26·4	Latvia	1937	17·7
Spain	1935	25·2	Scotland	1937	17·6
Newfoundland and Labrador	1937	25·0	United States (reg. area)	1938	17·6
Poland	1937	24·9	Australia	1938	17·5
Union of South Africa (whites)	1937	24·9	New Zealand	1937	17·3
Bulgaria	1937	24·0	Czechoslovakia	1937	17·2
Italy	1937	22·9	Estonia	1937	16·1
Lithuania	1937	22·3	Norway	1938	15·8
Canada	1938	20·5	British Isles	1937	15·5
New Brunswick	1938	25·7	Belgium	1936	15·3
Quebec	1938	24·6	Switzerland	1937	15·0
Nova Scotia	1938	22·3	England and Wales	1937	14·9
Prince Edward Island	1938	21·0	Sweden	1938	14·9
Alberta	1938	20·3	France	1937	14·7
Saskatchewan	1938	19·4	Austria	1937	12·8
Manitoba	1938	18·7			

Section 2.—Marriages and Divorces.

Subsection 1.—Marriages.

The marriage rate in modern countries of the western world is appreciably influenced by the general level of prosperity prevailing. Marriages in such English-speaking countries, for instance, as the United Kingdom, the United States, Canada, and Australia tend to increase in 'good times' and to diminish in 'hard times', when great numbers of those who are contemplating marriage are led to postpone the event. Thus an examination of the figures for individual years over the past decade clearly shows that marriages reached a peak in 1929 after which the recession was steady and marked until 1932; for 1933 there was an improvement, though of little more than 2 p.c. over 1932, for 1934 a further improvement of over 14 p.c. was recorded and the improvement continued from 1935 to 1938. This general trend for Canada as a whole was followed in the figures for most provinces. For 1938 as compared with 1937 there were decreases shown in Nova Scotia, New Brunswick, and British Columbia, but there were slight increases for Manitoba, Saskatchewan, and Alberta.

Summary statistics of marriages and marriage rates, 1936-38, with averages for 1921-25, 1926-30, and 1931-35, are given in Table **13**, p. 119 and in Table **32**, p. 141.

Age at Marriage.—The average age of all bridegrooms in the Dominion in 1937 was 29·3 years and that of all brides 25·2 years. The average excess of the bridegroom's age was thus 4·1 years. It may be noted in Table **11** that when the contracting parties are grouped by age of bridegroom, the average difference in age is less for the younger groups, grooms under 20 being 0·4 years younger than the brides, while the excess of the average bridegroom's age was 1·5 years in the group

20-24, and steadily increased for each quinquennial age group until it was 11·3 years for the bridegrooms 50 years or over in 1937. On the other hand, when the parties are grouped by the age of the bride, the same regularity is not shown. In the case of brides in the age groups 25-29 years and 30-34 years, the bridegrooms approximate most closely in age to their brides. Since these tables are based upon all marriages contracted during the year, the figures given should not be understood to signify the average ages at *first* marriage. Out of each 1,000 bridegrooms in 1938, 942 were bachelors, 48 widowers, 10 divorced men; out of each 1,000 brides, 960 were spinsters, 31 widows, 9 divorced women. The first year in which as many as 1 p.c. of those marrying had previously been divorced was 1928. The comparison between the figures of divorces granted, as shown in Table **15** of this chapter, and the number of divorced persons re-married is of some interest. Thus 1,870 divorces were granted in 1938, while 887 divorced males and 789 divorced females married again. This, of course, does not mean that these were the same persons. Table **12** gives the average ages of brides and grooms by provinces.

11.—Differences in Ages of Bridegrooms and Brides, 1937.

Age Group of Bridegrooms.	Average Age of Bridegrooms.	Average Age of Brides.	Excess of Average Age of Bridegrooms.	Age Group of Brides.	Average Age of Brides.	Average Age of Bridegrooms.	Excess of Average Age of Bridegrooms.
All bridegrooms...	29·3	25·2	4·1	All brides	25·2	29·3	4·1
Under 20 years.....	19·1	19·5	— 0·4	Under 20 years....	18·5	24·8	6·3
20-24 years.....	23·0	21·5	1·5	20-24 years.....	22·4	26·6	4·2
25-29 years.....	27·3	23·8	3·5	25-29 years.....	27·1	29·9	2·8
30-34 years.....	32·1	26·3	5·8	30-34 years.....	32·0	34·7	2·7
35-39 years.....	37·1	28·9	8·2	35-39 years.....	37·2	40·2	3·0
40-44 years.....	42·2	32·8	9·4	40-44 years.....	42·3	46·2	3·9
45-49 years.....	47·3	36·8	10·5	45-49 years.....	47·4	51·5	4·1
50 years or over....	60·1	48·8	11·3	50 years or over...	59·2	61·9	2·7

12.—Average Ages of Parties Contracting Marriage, by Provinces, 1936 and 1937.

Province.	1936.			1937.		
	Average Age of Bridegrooms.	Average Age of Brides.	Excess of Average Age of Bridegrooms.	Average Age of Bridegrooms.	Average Age of Brides.	Excess of Average Age of Bridegrooms.
Prince Edward Island.....	29·9	25·3	4·6	28·9	24·6	4·3
Nova Scotia.....	28·7	24·3	4·4	28·9	24·5	4·4
New Brunswick.....	28·4	24·2	4·2	28·3	24·1	4·2
Quebec.....	29·2	25·6	3·6	29·5	25·9	3·6
Ontario.....	28·8	25·1	3·7	29·0	25·3	3·7
Manitoba.....	29·7	25·0	4·7	29·9	25·2	4·7
Saskatchewan.....	29·0	23·8	5·2	29·1	23·8	5·3
Alberta.....	29·3	24·2	5·1	29·5	24·2	5·3
British Columbia.....	30·3	25·8	4·5	30·4	25·9	4·5
Canada (exclusive of the Territories).....	**29·1**	**25·0**	**4·1**	**29·3**	**25·2**	**4·1**

Nativity of Brides and Bridegrooms.—The majority of marriages contracted in the western provinces in past years were between persons born outside Canada. This condition, however, is being quickly changed and such percentages in all the western provinces show a general reduction over the past few years. (See Table **13.**) Both Canadian-born brides and bridegrooms are now in the majority in each province and in the Maritime Provinces and Quebec they show a marked predominance. Taking Canada as a whole, over 83 p.c. of all grooms and over 89 p.c. of all brides in 1938 were born in Canada; these are the highest percentages shown for the period covered by the statistics

13.—Percentage Distribution by Nativity of Persons Married in Canada, by Provinces, 1936, 1937, and 1938, with Averages for 1921-25, 1926-30, and 1931-35.

NOTE.—For figures for single years 1921-25, see the 1929 Year Book, p. 166; for 1926-30, the 1933 Year Book, pp. 163-164; for 1931-33, the 1936 Year Book, p. 164; and for 1934-35, the 1938 Year Book, p. 170.

Province.	Year.	Marriages.		Percentage Distribution of Grooms and Brides, by Nativity.					
		Total.	Per 1,000 Population.	Born in Province of Residence.		Born in Other Provinces.		Born Outside Canada.	
				Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.
		No.	No.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Prince Edward Island.	Av. 1921-25	473	5·4	90·8	93·8	5·1	2·6	4·1	3·7
	Av. 1926-30	473	5·4	90·8	93·5	4·1	2·9	5·1	3·6
	Av. 1931-35	496	5·6	89·7	92·6	4·7	3·6	5·6	3·8
	1936	595	6·5	87·1	90·9	5·7	5·2	7·2	3·9
	1937	584	6·3	87·8	91·6	5·5	4·8	6·7	3·6
	1938	591	6·3	87·1	94·1	7·6	4·1	5·2	1·9
Nova Scotia.....	Av. 1921-25	3,186	6·1	78·2	83·2	5·6	3·4	16·3	13·4
	Av. 1926-30	3,224	6·3	78·7	84·0	5·0	3·6	16·3	12·4
	Av. 1931-35	3,522	6·8	81·8	87·1	5·4	4·1	12·8	8·8
	1936	4,129	7·7	84·5	88·5	5·5	4·0	9·9	7·5
	1937	4,337	8·0	84·4	88·9	5·3	4·3	10·3	6·8
	1938	4,089	7·5	82·9	88·7	6·6	4·7	10·5	6·6
New Brunswick.....	Av. 1921-25	2,953	7·6	72·4	77·0	10·5	8·0	17·2	14·9
	Av. 1926-30	2,970	7·4	72·7	76·8	9·2	8·1	18·2	15·0
	Av. 1931-35	2,737	6·5	78·7	83·2	9·9	8·3	11·4	8·5
	1936	3,397	7·8	81·6	86·3	8·0	6·8	10·4	7·0
	1937	3,671	8·3	82·0	86·9	9·2	7·4	8·8	5·7
	1938	3,371	7·6	81·6	86·4	9·5	7·3	8·9	6·3
Quebec[1].....	Av. 1926-30	18,731	6·9	80·6	83·5	4·0	3·5	15·4	13·0
	Av. 1931-35	17,089	5·8	81·3	84·7	4·2	4·0	14·5	11·3
	1936	21,654	7·0	85·8	89·1	4·3	4·0	9·9	6·8
	1937	24,876	7·9	86·5	90·0	4·5	4·1	8·9	5·9
	1938	25,044	7·9	86·7	90·0	4·9	4·6	8·4	5·5
Ontario.....	Av. 1921-25	24,037	8·0	61·0	64·5	6·7	5·8	32·4	29·6
	Av. 1926-30	25,449	7·8	57·2	61·9	7·3	6·8	35·5	31·3
	Av. 1931-35	24,260	6·8	62·9	69·5	7·0	7·4	30·1	23·1
	1936	27,734	7·5	74·0	79·6	5·3	5·9	20·7	14·5
	1937	29,893	8·1	80·1	82·6	4·7	5·5	15·3	11·9
	1938	30.080	8·1	81·1	83·8	5·1	5·6	13·9	10·6
Manitoba.....	Av. 1921-25	4,634	7·5	28·4	40·8	16·9	13·1	54·7	46·1
	Av. 1926-30	4,951	7·5	35·9	49·4	13·2	10·9	50·9	39·7
	Av. 1931-35	5,015	7·1	48·4	62·7	11·5	10·8	40·1	26·5
	1936	5,756	8·1	57·6	70·7	12·2	11·4	30·2	17·9
	1937	6,113	8·5	58·1	71·6	13·2	11·3	28·7	17·1
	1938	6,262	8·7	60·7	73·1	13·2	11·8	26·1	15·0
Saskatchewan.....	Av. 1921-25	4,982	6·4	9·7	21·0	30·5	26·7	59·8	52·3
	Av. 1926-30	6,036	7·0	18·6	35·9	26·5	21·2	54·9	42·9
	Av. 1931-35	5,680	6·1	36·7	59·5	20·4	15·0	42·9	25·5
	1936	6,168	6·6	48·3	71·0	18·8	12·7	32·9	16·2
	1937	5,790	6·2	51·5	73·9	17·4	11·8	31·1	14·3
	1938	5,893	6·3	56·6	76·0	16·3	10·8	27·0	13·2
Alberta.....	Av. 1921-25	4,313	7·3	9·8	19·2	25·1	22·9	65·1	57·9
	Av. 1926-30	5,265	8·0	16·3	28·6	22·3	19·4	61·3	52·0
	Av. 1931-35	5,530	7·4	28·5	47·3	20·6	18·6	50·9	34·0
	1936	6,020	7·8	37·2	57·4	21·0	18·7	41·8	23·9
	1937	6,345	8·2	40·3	59·4	21·2	18·4	38·6	22·2
	1938	6,973	8·9	43·6	61·4	21·6	19·0	34·7	19·6
British Columbia.....	Av. 1921-25	3,971	7·1	16·2	21·4	22·0	20·6	61·8	58·0
	Av. 1926-30	4,786	7·5	18·1	24·9	20·9	21·7	61·0	53·4
	Av. 1931-35	4,267	6·0	26·5	37·5	23·4	26·6	50·2	35·9
	1936	5,451	7·3	32·5	43·1	27·7	31·6	39·8	25·3
	1937	6,191	8·2	33·0	43·3	29·9	33·1	37·2	23·7
	1938	6,135	8·1	33·6	43·0	31·7	34·1	34·7	22·9
Canada[1] (exclusive of the Territories)....	**Av. 1926-30**	**71,885**	**7·3**	**54·9**	**61·4**	**10·4**	**9·2**	**34·8**	**29·4**
	Av. 1931-35	**68,596**	**6·4**	**60·9**	**69·8**	**9·9**	**9·4**	**29·1**	**20·8**
	1936	**80,904**	**7·3**	**69·5**	**77·6**	**9·3**	**8·9**	**21·2**	**13·5**
	1937	**87,800**	**7·9**	**72·6**	**79·4**	**9·3**	**8·8**	**18·1**	**11·8**
	1938	**88,438**	**7·9**	**73·5**	**80·1**	**9·7**	**9·1**	**16·7**	**10·8**

[1] Quebec was not included in the registration area prior to 1926.

Marriage Rates in Various Countries.—For comparative purposes, the crude marriage rates per 1,000 of population in various countries of the world and in the provinces of Canada are shown for the indicated years in Table **14.**

14.—Crude Marriage Rates of Various Countries of the World and of Provinces of Canada in Recent Years.

Country or Province.	Year.	Crude Marriage Rate per 1,000 Population.	Country or Province.	Year.	Crude Marriage Rate per 1,000 Population.
Union of South Africa (whites)	1937	11·3	Canada—(concluded).		
Japan	1937	9·5	Quebec	1938	7·9
New Zealand	1937	9·5	New Brunswick	1938	7·6
Roumania	1937	9·5	Nova Scotia	1938	7·5
Australia	1938	9·1	Prince Edward Island	1938	6·3
Germany	1937	9·1	Saskatchewan	1938	6·3
Sweden	1938	9·0	United States	1932[1]	7·9
Denmark	1938	8·9	Scotland	1937	7·7
Hungary	1937	8·9	Belgium	1937	7·6
England and Wales	1937	8·8	Netherlands	1937	7·6
Italy	1937	8·7	Lithuania	1937	7·4
Estonia	1937	8·5	Switzerland	1937	7·3
Finland	1937	8·5	Newfoundland and Labrador	1937	7·1
British Isles	1937	8·4	Austria	1937	6·9
Chile	1937	8·3	Northern Ireland	1937	6·7
Czechoslovakia	1937	8·3	Uruguay	1937	6·7
Norway	1938	8·3	Greece	1937	6·6
Bulgaria	1937	8·1	France	1937	6·5
Latvia	1937	8·1	Ceylon	1938	6·1
Poland	1937	8·0	Spain	1935	6·1
Canada	**1938**	**7·9**	Iceland	1937	5·5
Alberta	1938	8·9	Irish Free State	1937	5·0
Manitoba	1938	8·7	Panama	1937	4·8
British Columbia	1938	8·1	Jamaica	1937	4·6
Ontario	1938	8·1	Salvador	1936	3·5

[1] In the United States 1932 was the latest year for which the rate has been computed.

Subsection 2.—Divorces.*

For many years subsequent to Confederation the number of divorces granted in Canada was very small, 1883, with 13 divorces, being the first year in which the number attained two figures, while 1903, with 21 divorces, was the record year up to that time. Thereafter the numbers grew more rapidly, 1909 showing 51 divorces and 1913, the last pre-war year, 60 divorces. This number was, however, less than one per 1,000 of the marriages contracted in Canada in these years.

One effect of the War of 1914-18 was to increase divorce. The causes were the generally unsettling psychological influences of the war period, and the long separations between men on active service and their wives. The provision of new facilities for divorce is also to be considered; owing to a decision of the British Privy Council, divorces in the Prairie Provinces, have, subsequently to 1918, been granted by the courts of these provinces, so that Ontario and Quebec have since then been the only provinces in which the applicant for divorce must secure a special private Act of Parliament. In 1930, however, an Act of the Dominion Parliament (20-21 Geo. V, c. 14) gave jurisdiction in divorce cases to the Supreme Court of Ontario.

The above-mentioned causes tended to increase the number of divorces granted in Canada, which grew steadily from 114 in 1918 to 873 in 1930. The numbers

* The Dominion Bureau of Statistics publishes a bulletin on Divorce showing the sex of applicants and the number of persons re-married, together with comparisons with certain other countries.

are those of final decrees, which alone really constitute divorces. In 1931 the number decreased to 692, this being due largely to the transfer of jurisdiction in Ontario divorces from the Parliament of Canada to the Supreme Court of the Province, with the consequent delay between the granting of the decree *nisi* and the decree absolute. Since 1931 there has been an increase of 193 p.c. in the total number of divorces granted. In 1939 the number passed the two-thousand mark for the first time, owing largely to the increase in British Columbia, where divorces granted almost reached the record established in 1937.

15.—Divorces Granted in Canada, by Provinces, 1918-39.

NOTE.—In consequence of a decision of the British Privy Council, divorces in Manitoba, Saskatchewan, and Alberta have, subsequently to 1918, been granted by the courts of these provinces. For divorces in each year prior to 1918, see the 1921 Year Book, p. 825.

Year.	Granted by the Dominion Parliament.			Granted by the Courts.						Total for Canada.
	P.E. Island.	Quebec.	Ontario.	Nova Scotia.	New Brunswick.	Manitoba.	Saskatchewan.	Alberta.	British Columbia	
1918.....	Nil	2	10	24	10	Nil	1[1]	2[1]	65	114
1919.....	"	4	46	36	13	88[2]	3	36[2]	147	373
1920.....	"	9	89	45	15	42	26	65	136	427
1921.....	"	10	96	41	13	122	50	84	128	544
1922.....	"	6	91	35	12	97	37	129	138	545
1923.....	"	10	102	22	19	81	41	87	139[2]	501
1924.....	"	13	113	42	15	77[2]	28	118	136[2]	542
1925.....	"	13	119	30	15	79	42	101	150	549
1926.....	"	10	111	19	12	85	48[2]	154	167	606
1927.....	"	13	181	29	17	101	60	148	197	746
1928.....	"	24	213	28	13	79	55	168	203	783
1929.....	"	30	207	30	21	89	69	147	222	815
1930.....	"	41	204	19	27	114	62	151	255	873
1931.....	1	38	90[4]	36	20	94	51	154	208	692
1932.....	Nil	27	338[4]	35	26	114	61	149	245	995
1933.....	"	24	303[4]	27	12	116	48	135	258	923
1934.....	"	38	356[4]	33	17	126	62	168	306	1,106
1935.....	2	28	460[4]	52	36	145	60	209	384	1,376
1936.....	Nil	40	507[4]	41	38	179	79	209	433	1,526
1937.....	2	43	596[4]	36	54	200	109	241	589	1,870
1938.....	2	83	813[4]	51	39	205	122[5]	261	309	1,885[5]
1939.....	Nil	50	743[4]	64	40	181	124	266	554	2,022

[1] Granted by Parliament. [2] One granted by Parliament. [3] Two granted by Parliament.
[4] Granted by the courts. [5] Revised since the publication of the 1939 Year Book.

Section 3.—Deaths.

Within the past century, and more especially within the past generation, there has occurred throughout the countries of the white world a notable decline in the death rate, except where man has brought death upon himself through wars and the aftermath of wars. How far this decline has been due to advances in medical science, how far to better sanitation, and how far to the improvement in the general conditions of living, as a result of the increase in the productive power of humanity, is in dispute, but concerning the facts there is no doubt.

Perhaps the most impressive testimony regarding this decline in the death rate is furnished by the mortality statistics of Sweden, where vital statistics have been kept with great accuracy for the whole nation ever since 1750. There, the crude death rate declined from an average of 27·4 per 1,000 in the decade 1751-60 to 14·3 in the decade 1911-20 and to 11·8 in 1938.

Similarly, in England and Wales, the crude death rate, which was 22·5 per 1,000 in the 60's, 21·4 in the 70's and 18·2 in the 90's of the past century, declined to 15·4 in the first decade of the present century and 12·1 in the third; it was 12·4 in 1937. In Scotland, again, the average rate was 22·1 in the '60's, 21·8 in the '70's, 18·6 in the '90's, 13·9 in 1921-25, 13·6 in 1926-30, and 13·9 in 1937.

There will always be years of specially high mortality, for instance 1918, when the death rate in Ontario, the most populous of the provinces of Canada, was 15·3 per 1,000, owing to the influenza-pneumonia epidemic, as against 12·0 in 1917 and 11·9 in 1919. Over a period, however, these abnormalities are reduced to negligibility, and it remains generally true that from decade to decade there is a decline in the crude death rates of the countries of the white man's world.

As for Canada, while the period elapsed since the introduction of complete and comprehensive vital statistics in 1920 has been too short to establish a definite downward trend, the rate of 12·4 per 1,000 for that year, in the eight provinces then included in the registration area, was substantially higher than in any subsequent year. A decided improvement is shown in the deaths and death rate of Quebec for the years 1933-36, although for 1937 the rate increased to 11·3; for 1938 it has dropped to 10·3. On the whole, however, improvement has been in evidence since 1926, and latterly Quebec has shown a lower rate than any of the provinces farther east.

Subsection 1.—General Mortality.

As shown in Table **32**, p. 141, the absolute number of deaths and the death rates for Canada were lower for 1938 than for either of the two previous years. The death rate was 9·5 for 1938 which was a very definite improvement over the 10·2 of the previous year. Decreased rates for 1938 were common to all provinces, Prince Edward Island and New Brunswick showing the greatest improvement.

Age Distribution of Decedents.—The numbers and percentages of males and females dying in the nine provinces in 1937 and 1938 are given by single years of age up to 5 and by quinquennial age groups thereafter in Table **16.**

The quartile and decile ages of decedents for the years 1926, 1936, and 1937 are given for the two sexes combined and for each sex in Table **17.** The fifth decile and second quartile (or the median) both mark the middle points of the arrays, and the deciles, dividing each half into five groups, give a more detailed picture of the age distribution in each half than do the quartiles. It is shown very definitely that the average ages of decedents have been increasing steadily. The method of construction and interpretation of this table is given on p. 111 in connection with a similar one showing quartile and decile ages of married fathers and mothers.

Standardized Death Rates.—While the crude death rate gives the actual mortality per 1,000 of population, the differing age constitution of the population in different communities and the high mortality among infants and elderly people make the crude death rate no true test of the relative expectation of life in such

communities. Where the age constitution of a particular group is especially favourable to low mortality, for example among the selected lives of soldiers in peace time, the crude rate will naturally be lower than elsewhere.

16.—Numerical and Percentage Distribution of Deaths in Canada, by Sex and Age Groups, 1937-38.

Age Group.	Numbers.				Percentages.			
	Males.		Females.		Males.		Females.	
	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.
Under 1 year	9,508	8,311	7,185	6,206	15·3	14·1	13·9	12·9
1 year	1,479	903	1,185	791	2·4	1·5	2·3	1·6
2 years	645	506	540	407	1·0	0·9	1·0	0·8
3 years	462	338	375	265	0·7	0·6	0·7	0·6
4 years	334	282	292	244	0·5	0·5	0·6	0·5
Totals, Under 5 years	12,428	10,340	9,577	7,913	20·0	17·6	18·5	16·5
5- 9 years	1,194	985	968	836	1·9	1·7	1·9	1·7
10-14 years	874	831	751	657	1·4	1·4	1·5	1·4
15-19 years	1,173	1,127	1,030	912	1·9	1·9	2·0	1·9
20-24 years	1,371	1,285	1,364	1,186	2·2	2·2	2·6	2·5
25-29 years	1,289	1,261	1,366	1,215	2·1	2·1	2·6	2·5
30-34 years	1,361	1,230	1,359	1,199	2·2	2·1	2·6	2·5
35-39 years	1,546	1,380	1,446	1,317	2·5	2·3	2·8	2·7
40-44 years	1,817	1,736	1,641	1,492	2·9	3·0	3·2	3·1
45-49 years	2,513	2,383	1,880	1,694	4·0	4·1	3·6	3·5
50-54 years	3,229	3,241	2,351	2,155	5·2	5·5	4·5	4·5
55-59 years	3,971	3,912	2,674	2,674	6·4	6·7	5·2	5·6
60-64 years	4,760	4,589	3,203	3,140	7·7	7·8	6·2	6·5
65-69 years	5,270	5,236	3,835	3,868	8·5	8·9	7·4	8·1
70-74 years	5,733	5,925	4,918	4,761	9·2	10·1	9·5	9·9
75-79 years	5,892	5,766	5,139	5,056	9·5	9·8	9·9	10·5
80-89 years	6,747	6,595	6,844	6,628	10·9	11·2	13·2	13·8
90 years or over	904	951	1,361	1,289	1·5	1·6	2·6	2·7
Totals, Stated Ages	**62,072**	**58,773**	**51,707**	**47,992**	**100·0**	**100·0**	**100·0**	**100·0**
Ages not stated	37	44	8	8	-	-	-	-
Totals, All Ages	**62,109**	**58,817**	**51,715**	**48,000**				

17.—Quartile and Decile Ages of Decedents, by Sex, 1926, 1936, and 1937.

Position in Array, by Age.		Both Sexes.			Males.			Females.		
		1926.	1936.	1937.	1926.	1936.	1937.	1926.	1936.	1937.
First quartiles	years of age	1·83	24·54	20·89	1·34	23·75	19·36	2·85	25·32	22·27
Second quartiles	"	45·50	59·28	58·37	45·16	58·94	57·91	45·89	59·78	59·00
Third quartiles	"	70·70	74·50	74·29	70·05	73·72	73·31	71·51	75·39	75·40
First deciles	months of age	0·88	3·80	3·75	0·60	3·05	3·21	1·43	4·87	4·59
Second deciles	years of age	0·71	12·77	6·44	0·55	10·18	4·96	0·98	15·42	8·63
Third deciles	"	6·95	34·64	31·40	4·30	34·93	31·08	12·15	34·37	31·72
Fourth deciles	"	28·77	50·11	48·49	26·47	50·40	48·71	30·61	49·72	48·24
Fifth deciles	"	45·50	59·28	58·37	45·16	58·94	57·91	45·89	59·78	59·00
Sixth deciles	"	58·40	66·27	65·65	57·73	65·54	64·72	59·13	67·18	67·01
Seventh deciles	"	67·15	72·03	71·66	66·44	71·10	70·54	68·00	72·95	72·90
Eighth deciles	"	74·05	76·86	76·77	73·28	76·08	75·92	74·00	77·83	77·82
Ninth deciles	"	80·82	82·48	82·41	79·89	81·64	81·41	81·85	83·39	83·49

When comparisons of the rates of mortality in several communities are made by age groups the effects of differences in age constitution between these communities are eliminated, but by a process that does not bring together and express completely as a single figure the facts of the situation. It has therefore been considered desirable to adopt a particular community as a standard, and to find what the death

rates of other communities would have been if the age and sex constitution of their population had corresponded to those of the community taken as a standard. The 'standard' population chosen for this purpose in England and Wales and the United States is the "standard million", based on the age and sex distribution per million of the population of England and Wales at the Census of 1901. That age and sex distribution was as follows:—

Age Group.	Both Sexes.	Males.	Females.
All ages	1,000,000	483,543	516,457
Under 5 years	114,262	57,039	57,223
5- 9 years	107,209	53,462	53,747
10-14 years	102,735	51,370	51,365
15-19 years	99,796	49,420	50,376
20-24 years	95,946	45,273	50,673
25-34 years	161,579	76,425	85,154
35-44 years	122,849	59,394	63,455
45-54 years	89,222	42,924	46,298
55-64 years	59,741	27,913	31,828
65-74 years	33,080	14,691	18,389
75 years or over	13,581	5,632	7,949

Regarding the standard million of England and Wales the Registrar General says: "As the population of this country in 1901 included relatively few infants and old people it forms a standard exceptionally favourable to low mortality"

The process above described has been applied to the population of the eight provinces, the former registration area of Canada, for the years 1921-38 and to the population of Quebec for the years 1926-38 in Table **18.** Of the rates there given, those for 1921 and 1922 have been calculated directly, the proportion of the population in each sex and age group according to the Census of 1921 being assumed to hold true for 1922 also; similarly the rates for 1930, 1931, 1932, etc., have been calculated directly from the proportions shown in each sex and age group at the Census of 1931. For the intervening years, 1923-29, for which estimates of total population but not of population by age groups were available, the following method was adopted. The proportions which the standardized rates of 1921 and 1922 (correct to three decimal places) bore to the crude were averaged, similarly those of 1930 and 1931, and the change was assumed to have taken place in an arithmetical progression during the intervening seven years. Quebec not having been in the registration area in the year 1921, a standardized rate was not available for that year or for 1922, but as the proportion of the standardized rate to the crude depends primarily on the sex and age distribution of the population, and as this distribution was known for 1921 and 1931, and the actual proportion of standardized rate to crude rate for 1931, it was possible to compute a theoretical proportion for 1921. The same method was followed for the total of the nine provinces. The rates for 1933-38 have been computed on the assumption that the arithmetical progression, to which reference has been made, continued over those years in all provinces with the exception of the Prairie Provinces, for which the data of the 1936 Census were used.

In all of the eight provinces for which 1921 figures are given the proportion of the standardized rate to the crude was higher in 1921 than in 1931; in other words, the age distribution had become more unfavourable in the later year. In the Maritime Provinces, Quebec, Ontario, Manitoba, and British Columbia the process of 'standardizing' the death rate results in a reduced rate. This is particularly true of Prince Edward Island and Nova Scotia. In Saskatchewan and Alberta, on the other hand, the standardized rates are generally higher than the crude.

The crude and standardized rates given for recent years, especially 1936, 1937, and 1938, in Table **18,** should be accepted with some qualification as will be seen from the method used in their calculation explained above.

18.—Crude and Standardized Death Rates in Canada, by Provinces, 1931-38, with Averages, 1921-25, 1926-30, and 1931-35.

Province.	Averages.			1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
	1921-25.	1926-30.	1931-35.								
P. E. Island—											
Crude	12·5	11·0	11·3	10·4	11·8	11·6	11·6	11·0	11·1	12·3	11·0
Standardized	9·3	8·1	7·9	7·4	8·2	8·1	8·1	7·6	7·6	8·4	7·4
Nova Scotia—											
Crude	12·6	12·4	11·7	11·6	11·9	11·6	11·5	11·7	11·0	11·2	11·1
Standardized	10·4	10·0	9·1	9·3	9·2	9·0	8·9	9·0	8·4	8·5	8·4
New Brunswick—											
Crude	13·1	12·5	11·2	11·4	11·0	11·7	11·0	11·1	11·0	12·3	11·0
Standardized	11·5	10·9	9·6	9·8	9·4	9·9	9·3	9·4	9·3	10·4	9·2
Quebec—											
Crude	[1]	13·5	11·1	12·0	11·4	10·7	10·6	10·7	10·3	11·3	10·3
Standardized	[1]	13·1	10·8	11·7	11·1	10·4	10·3	10·4	10·1	11·1	10·1
Ontario—											
Crude	11·3	11·2	10·1	10·4	10·5	9·9	9·7	9·9	10·2	10·4	9·9
Standardized	10·3	9·8	8·5	8·9	8·8	8·5	8·3	8·1	8·3	8·4	7·9
Manitoba—											
Crude	8·6	8·3	7·6	7·6	7·5	7·7	7·3	8·1	8·7	8·5	8·2
Standardized	9·4	8·8	7·6	7·9	7·8	7·6	7·0	7·8	8·4	8·1	7·6
Saskatchewan—											
Crude	7·5	7·3	6·5	6·6	6·5	6·5	6·4	6·6	6·8	7·4	6·5
Standardized	8·5	8·2	7·1	7·5	7·4	7·0	6·7	6·9	7·1	7·7	6·6
Alberta—											
Crude	8·3	8·4	7·3	7·2	7·5	7·1	7·1	7·5	8·0	8·0	7·5
Standardized	9·5	9·4	7·8	8·0	8·4	7·6	7·3	7·7	8·2	8·3	7·5
British Columbia—											
Crude	8·7	9·3	8·9	8·8	8·7	8·7	8·8	9·3	9·6	10·6	9·8
Standardized	9·0	8·9	8·0	8·1	8·0	7·8	7·8	8·1	8·2	8·9	8·1
Canada (exclusive of the Territories)—											
Crude	[1]	**11·1**	**9·7**	**10·1**	**9·9**	**9·6**	**9·4**	**9·7**	**9·7**	**10·2**	**9·5**
Standardized	[1]	**10·5**	**9·1**	**9·5**	**9·3**	**8·9**	**8·7**	**9·0**	**9·0**	**9·5**	**8·8**

[1] Quebec was not included in the registration area prior to 1926.

Causes of Death.—Nearly 87 p.c. of deaths recorded in Canada in the years 1934 to 1938 were due to the 32 specific causes named in Tables **19** and **20.** In these tables and in the chart on p. 127 the groupings are in accordance with the revision of the International List in 1929. This revision was applied to Canadian vital statistics commencing with the year 1931. Special difficulties in preserving continuity are introduced with each revision of the International List. In the chart on p. 127, for instance, it would be necessary to construct the graphs for diseases of the heart, arteries, and early infancy according to the revisions of 1920 if comparisons were to be made for the years 1926 onwards. On the other hand, this would not give a true picture according to the most recent revision, and therefore the graphs have been constructed for the years 1931 to 1937 on the basis of the revision of 1929.

The changes made according to this revision are: (1) diseases of the coronary arteries, which were included with diseases of the arteries in the 1920 revision, are now included with diseases of the heart; (2) embolism and thrombosis of the coronary arteries, not included with either heart or arteries in 1920, are now included with diseases of the heart; (3) athrepsia was included with "diarrhœa and nethrepsia" in the 1920 revision, but these causes of death are now included with diseases of early infancy.

In any analysis of the relative importance of the causes of death it must be remembered that the Canadian population is an ageing one—that is, the average age is being advanced year by year due to the long-term influences of a falling birth rate, falling specific death rates, and very limited immigration. Since 1913 immigration has been very much curtailed and its effect on age distribution of population is illustrated by the movement of what may be termed the "immigration hump" (that increment of population due to extensive immigration before 1913). This is

gradually passing up the age scale. Further, due to the improvements in sanitation and health conditions generally, the average age at which death takes place has been pushed gradually higher. All these factors tend to thrust those causes that are commonly associated with advancing years to the fore.

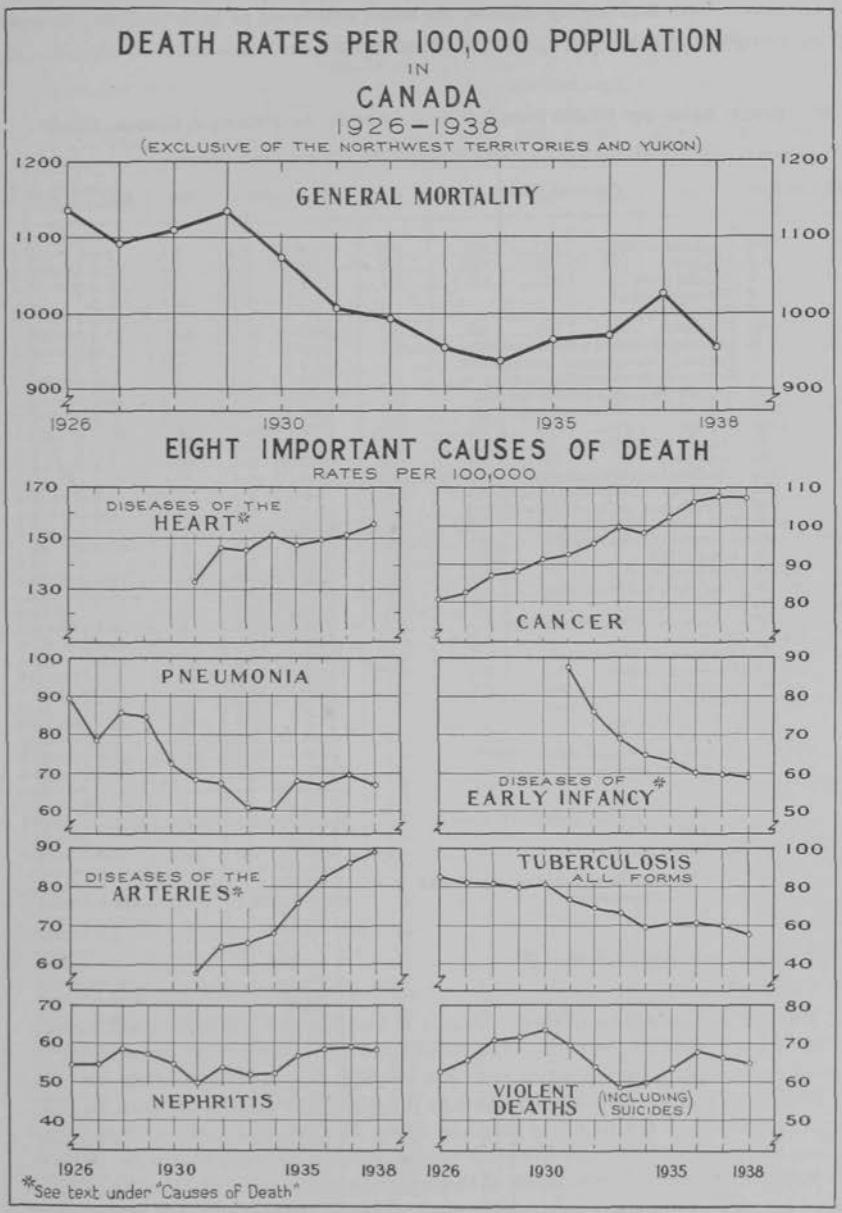
Some of the effects of the ageing of the population can be observed by the comparison of crude and standardized mortality rates for individual causes of death in 1921 and 1931, since standardized rates are calculated in order to eliminate the effects of changes in sex and age composition of the population. Cancer provides a pronounced example of the ageing effect. The crude rate for cancer was 75·3 in 1921 and in 1931 it was 95·8. The increase was thus 27 p.c. The standardized rate, however, was 72·7 in 1921 and 81·4 in 1931, an increase of only 12 p.c.* It may be stated, therefore, that roughly more than half of the increase in the crude cancer death rate between 1921 and 1931 was accounted for by the ageing of the population. Nevertheless, cancer shows a persistent increase over the years in spite of all efforts to control its spread. Diseases of the heart and arteries are two other important causes that affect people of advancing years and that have shown substantial increases. In the case of diseases of the heart, the crude rate showed an increase of 25·5 p.c. between 1921 and 1931, but, again, the standardized rate increased by only 9 p.c.* The crude rate for diseases of the arteries advanced by no less than 71 p.c. and the standardized by 50 p.c.* over the decade. For nephritis, a disease that falls in the same general class, the increase in the crude rate was 28·5

* More accurate diagnosis should not be overlooked as a factor in changing death rates from these diseases.

19.—Deaths in Canada, by Principal Causes, 1934-38.

Int. List No.[1]	Cause of Death.	1934.	1935.	1936.	1937.	1938.
1, 2	Typhoid fever	293	273	256	330	207
7	Measles	188	490	376	837	250
8	Scarlet fever	226	242	244	269	202
9	Whooping-cough	875	892	594	763	496
10	Diphtheria	232	264	258	369	434
11	Influenza	2,004	3,392	3,113	5,260	2,362
16	Poliomyelitis and polioencephalitis (acute)	84	64	97	200	83
17	Lethargic or epidemic encephalitis	47	54	52	50	45
18	Epidemic cerebrospinal meningitis	84	112	103	93	86
23	Tuberculosis, respiratory system	5,290	5,466	5,528	5,497	5,057
24-32	Tuberculosis, other organs	1,141	1,131	1,235	1,172	1,069
45-53	Cancer	10,581	11,156	11,694	11,963	12,038
59	Diabetes mellitus	1,321	1,459	1,442	1,555	1,545
71	Anæmia	612	650	646	623	650
82 a, b, c	Cerebral hæmorrhage, embolism, or thrombosis	2,577	2,105	1,890	1,683	1,693
82d	Paralysis without specified cause	547	415	358	322	323
86	Convulsions (under 5 years of age)	261	234	200	195	161
90-95	Diseases of the heart	16,352	16,069	16,424	16,840	17,372
96, 97, 99, 102	Diseases of the arteries	7,379	8,302	9,112	9,609	9,970
106	Bronchitis	380	363	342	328	325
107-109	Pneumonia	6,530	7,411	7,313	7,731	7,432
119, 120	Diarrhœa and enteritis	3,730	2,767	2,378	4,216	2,590
121	Appendicitis	1,578	1,491	1,428	1,410	1,297
122	*Hernia, intestinal obstruction*	1,074	1,121	1,050	1,074	1,065
130-132	Nephritis	5,643	6,176	6,402	6,530	6,492
137	Diseases of the prostate	944	1,089	1,157	1,255	1,297
140-150	Puerperal causes	1,167	1,093	1,233	1,071	968
157	Congenital malformations	1,361	1,423	1,439	1,474	1,445
158-161	Diseases of early infancy	6,936	6,880	6,605	6,644	6,598
162	Senility (old age)	1,882	1,932	1,691	1,741	1,764
163-171	Suicides	927	905	928	978	948
173-198	Violent deaths (suicides excepted)	5,542	5,993	6,535	6,380	6,258
	Other specified causes	12,857	13,391	14,216	14,589	13,683
	Totals, Specified Causes	100,645	104,805	106,339	113,051	106,205
199, 200	Ill-defined diseases	937	762	711	773	612
	Totals	**101,582**	**105,567**	**107,050**	**113,824**	**106,817**

[1] The numbers given in this column refer to the International List of Causes of Death, as revised in 1929 by the International Commission on the Classification of Diseases and Causes of Death. This classification, in its detailed, intermediate, or abridged form, is accepted in almost all civilized countries.


DEATH RATES PER 100,000 POPULATION
IN
CANADA
1926–1938
(EXCLUSIVE OF THE NORTHWEST TERRITORIES AND YUKON)
GENERAL MORTALITY
1200
1100
1000
900
1926
1930
1935
1938
EIGHT IMPORTANT CAUSES OF DEATH
RATES PER 100,000
DISEASES OF THE HEART*
CANCER
PNEUMONIA
DISEASES OF EARLY INFANCY*
DISEASES OF THE ARTERIES*
TUBERCULOSIS ALL FORMS
NEPHRITIS
VIOLENT DEATHS (INCLUDING SUICIDES)
*See text under "Causes of Death"

p.c. and in the standardized, 12·5 p.c.* Pneumonia is particularly fatal among those of advanced years and among infants; the same influences as have been mentioned have, no doubt, affected the figures for this disease.

20.—Death Rates per 100,000 Population in Canada, by Principal Causes, 1934-38.

Int. List No.[1]	Cause of Death.	1934.	1935.	1936.	1937.	1938.
1, 2	Typhoid fever	2·7	2·5	2·3	3·0	1·8
7	Measles	1·7	4·5	3·4	7·5	2·2
8	Scarlet fever	2·1	2·2	2·2	2·4	1·8
9	Whooping-cough	8·1	8·2	5·4	6·9	4·4
10	Diphtheria	2·1	2·4	2·3	3·3	3·9
11	Influenza	18·5	31·1	28·3	47·4	21·1
16	Poliomyelitis and polioencephalitis (acute)	0·8	0·6	0·9	1·8	0·7
17	Lethargic or epidemic encephalitis	0·4	0·5	0·5	0·5	0·4
18	Epidemic cerebrospinal meningitis	0·8	1·0	0·9	0·8	0·8
23	Tuberculosis, respiratory system	48·9	50·1	50·2	49·5	45·2
24-32	Tuberculosis, other organs	10·6	10·4	11·2	10·6	9·5
45-53	Cancer	97·9	102·2	106·2	107·7	107·5
59	Diabetes mellitus	12·2	13·4	13·1	14·0	13·8
71	Anæmia	5·7	6·0	5·9	5·6	5·8
82 a, b, c	Cerebral hæmorrhage, embolism, or thrombosis	23·8	19·3	17·2	15·2	15·1
82d	Paralysis without specified cause	5·1	3·8	3·3	2·9	2·9
86	Convulsions (under 5 years of age)	2·4	2·1	1·8	1·8	1·4
90-95	Diseases of the heart	151·3	147·1	149·1	151·6	155·2
96, 97, 99, 102	Diseases of the arteries	68·3	76·0	82·7	86·5	89·1
106	Bronchitis	3·5	3·3	3·1	3·0	2·9
107-109	Pneumonia	60·4	67·9	66·4	69·6	66·4
119, 120	Diarrhœa and enteritis	34·5	25·3	21·6	38·0	23·1
121	Appendicitis	14·6	13·7	13·0	12·7	11·6
122	Hernia, intestinal obstruction	9·9	10·3	9·5	9·7	9·5
130-132	Nephritis	52·2	56·6	58·1	58·8	58·0
137	Diseases of the prostate	8·7	10·0	10·5	11·3	11·6
140-150	Puerperal causes	10·8	10·0	11·2	9·6	8·6
157	Congenital malformations	12·6	13·0	13·1	13·3	12·9
158-161	Diseases of early infancy	64·2	63·0	60·0	59·8	58·9
162	Senility (old age)	17·4	17·7	15·4	15·7	15·8
163-171	Suicides	8·6	8·3	8·4	8·8	8·5
173-198	Violent deaths (suicides excepted)	51·3	54·9	59·3	57·4	55·9
	Other specified causes	118·9	122·6	129·1	131·4	122·2
	Totals, Specified Causes	931·0	959·7	965·5	1,017·9	948·7
199, 200	Ill-defined diseases	8·7	7·0	6·5	7·0	5·5
	Totals, Death Rates per 100,000 Population	**939·7**	**966·6**	**971·9**	**1,024·9**	**954·1**

[1]For footnote, see end of Table 19, p. 126.

Deaths in Canadian Cities.—Deaths in Canada as a whole declined steadily for the period 1931-34, but for 1935, 1936, and 1937 there were substantial increases. The figure for the latter year was 113,824, over 9,000 more than for 1931. For 1938 there was a noticeable reduction to 106,817—only 2,300 more than for 1931. The total deaths of the 67 cities listed in Table 21 show a slightly increased proportion to population for the five-year period 1931-35 as compared with 1926-30. For 1932, which marked the depth of the economic depression, the deaths in these cities increased, thus going against the general trend for Canada; for other years, however, the general trend was followed.

* More accurate diagnosis should not be overlooked as a factor in changing death rates from these diseases.

Deaths by Place of Residence.—The Vital Statistics Branch of the Dominion Bureau of Statistics, has published a report showing deaths by places of residence, (see p. 106).

21.—Deaths in Cities and Towns of 10,000 Population or Over, 1934-38, with Averages, 1926-30 and 1931-35.

Province and City or Town.	Census Population, 1931.	Averages.		1934.	1935.	1936.	1937.	1938.
		1926-30.	1931-35.					
P.E. Island—								
Charlottetown	12,361	264	262	268	248	277	315	291
Nova Scotia—								
Glace Bay	20,706	294	258	256	269	273	245	237
Halifax	59,275	884	898	927	874	871	858	877
Sydney	23,089	241	213	228	233	177	183	142
New Brunswick—								
Moncton	20,689	252	245	240	247	227	284	280
Saint John	47,514	712	667	626	586	648	674	636
Quebec—								
Chicoutimi	11,877	228	224	248	240	261	261	264
Granby	10,587	115	115	110	121	131	99	112
Hull	29,433	354	360	335	363	305	354	336
Joliette	10,765	173	172	170	166	163	181	178
Lachine	18,630	214	186	182	193	182	205	209
Lévis	11,724	223	219	201	209	187	228	219
Montreal	818,577	11,260	9,808	9,261	9,577	9,389	10,111	9,496
Outremont	28,641	105	161	179	178	167	191	174
Quebec	130,594	2,269	1,991	1,874	1,862	1,907	2,283	2,052
St. Hyacinthe	13,448	288	293	255	292	308	348	342
St. Jean	11,256	120	125	112	139	161	179	165
Shawinigan Falls	15,345	199	157	141	158	156	172	149
Sherbrooke	28,933	450	443	429	483	445	477	459
Sorel	10,320	167	141	127	161	129	119	116
Thetford Mines	10,701	157	139	132	157	149	209	169
Three Rivers	35,450	556	610	676	616	655	710	583
Valleyfield	11,411	180	154	152	145	173	171	169
Verdun	60,745	398	460	468	518	453	555	512
Westmount	24,235	143	249	279	243	268	264	290
Ontario—								
Belleville	13,790	230	227	209	245	259	235	248
Brantford	30,107	382	362	350	354	403	393	416
Chatham	14,569	300	303	265	336	325	318	333
Cornwall	11,126	238	234	240	239	260	269	205
Fort William	26,277	215	203	186	216	219	225	213
Galt	14,006	172	187	196	197	169	169	189
Guelph	21,075	235	234	242	226	204	236	220
Hamilton	155,547	1,473	1,491	1,462	1,547	1,639	1,641	1,538
Kingston	23,439	476	476	452	532	488	473	522
Kitchener	30,793	303	347	310	366	384	391	379
London	71,148	1,089	1,020	1,005	1,049	1,104	1,081	1,106
Niagara Falls	19,046	215	200	202	187	202	209	233
North Bay	15,528	149	155	176	172	171	188	170
Oshawa	23,439	216	186	195	176	222	236	199
Ottawa	126,872	1,664	1,715	1,618	1,822	1,787	1,870	1,727
Owen Sound	12,839	163	181	164	187	183	206	202
Peterborough	22,327	308	324	353	323	374	361	365
Port Arthur	19,818	224	197	189	189	218	221	253
St. Catharines	24,753	317	283	271	301	311	322	344
St. Thomas	15,430	226	227	224	251	266	268	221
Sarnia	18,191	222	224	220	201	261	236	240
Sault Ste. Marie	23,082	218	214	214	229	238	262	237
Stratford	17,742	200	199	191	221	200	222	228
Sudbury	18,518	215	235	229	241	327	313	274
Timmins	14,200	146	171	170	182	190	219	178
Toronto	631,207	6,735	6,546	6,266	6,605	7,044	7,049	6,947
Welland	10,709	162	138	152	135	146	172	154
Windsor[1]	98,179	965	838	862	853	882	979	878
Woodstock	11,395	173	177	195	178	193	191	213
Manitoba—								
Brandon	16,461[2]	244	225	209	234	239	233	247
St. Boniface	16,275[2]	482	417	368	473	499	486	538
Winnipeg	215,814[2]	1,757	1,712	1,663	1,832	2,018	1,891	1,874

[1] Includes East Windsor, Sandwich, and Walkerville.

[2] Census of 1936.

21.—Deaths in Cities and Towns of 10,000 Population or Over, 1934-38, with Averages, 1926-30 and 1931-35—concluded.

Province and City or Town.	Census Population, 1931.	Averages.		1934.	1935.	1936.	1937.	1938.
		1926-30.	1931-35.					
Saskatchewan—								
Moose Jaw	19,805[1]	226	196	186	173	212	273	224
Prince Albert	11,049[1]	153	175	171	187	207	205	190
Regina	53,354[1]	481	468	448	511	535	592	555
Saskatoon	41,734[1]	485	450	453	467	484	551	483
Alberta—								
Calgary	83,407[1]	756	730	723	774	887	828	801
Edmonton	85,774[1]	862	884	883	948	1,100	1,083	1,115
Lethbridge	13,523[1]	185	193	212	192	189	187	220
British Columbia—								
New Westminster	17,524	273	287	277	304	355	378	327
Vancouver	246,593	2,175	2,303	2,211	2,466	2,707	2,782	2,795
Victoria	39,082	552	561	589	608	678	708	723

[1] Census of 1936.

Crude Death Rates of Different Countries.—Table 22 shows the crude death rates of various countries for the latest available years. Those of the provinces of Canada are also given for comparison. The Netherlands, New Zealand, Australia, and the Union of South Africa (Whites), are the only countries with death rates under 10·0 per 1,000 of population. The low death rates in the Prairie Provinces are, in all three cases, due in part to a favourable age distribution of population.

22.—Crude Death Rates of Various Countries and of the Provinces of Canada in Recent Years.

Country or Province.	Year.	Crude Death Rate.	Country.	Year.	Crude Death Rate.
Netherlands	1937	8·8	Lithuania	1937	13·2
New Zealand	1937	9·1	Czechoslovakia	1937	13·3
Canada	**1938**	**9·5**	Austria	1937	13·4
Saskatchewan	1938	6·5	Bulgaria	1937	13·5
Alberta	1938	7·5	Newfoundland and Labrador	1937	13·5
Manitoba	1938	8·2	Scotland	1937	13·9
British Columbia	1938	9·8	Poland	1937	14·0
Ontario	1938	9·9	Italy	1937	14·2
Quebec	1938	10·3	Hungary	1937	14·2
Prince Edward Island	1938	11·0	Latvia	1937	14·3
New Brunswick	1938	11·0	Estonia	1937	14·7
Nova Scotia	1938	11·1	France	1937	15·0
Australia	1938	9·6	Palestine	1938	15·0
Norway	1938	10·0	Northern Ireland	1937	15·1
Union of South Africa (Whites)	1937	10·1	Greece	1937	15·2
Denmark	1938	10·3	Ireland (Eire)	1937	15·3
Uruguay	1937	10·4	Jamaica	1937	15·3
United States (reg. area)	1938	10·6	Spain	1935	15·3
Iceland	1937	11·2	Japan	1937	17·0
Switzerland	1937	11·3	Costa Rica	1937	18·2
Sweden	1938	11·5	Roumania	1937	19·3
Germany	1937	11·7	Salvador	1936	20·1
Finland	1937	12·3	Ceylon	1938	21·0
England and Wales	1937	12·4	British India	1937	22·4
Panama	1937	12·4	Straits Settlements	1937	22·5
British Isles	1937	12·8	Chile	1937	24·0
Belgium	1936	12·9	Egypt	1937	27·2

Subsection 2.—Infantile Mortality.

In recent years a great part of the energy devoted by the medical profession and sanitarians to effect a decline in the death rate has gone to reduce infantile mortality, and in this field a large measure of success has been attained. In Canada, the Dominion, Provincial, and municipal health authorities have all taken part in the struggle to reduce infantile mortality, and usually, in the absence of epidemics, statistics show an improvement each year. In the eighteen years for which figures are available there is evident a very considerable decline in infantile mortality. Figures for 1938 show the lowest rate since the system was established, viz., 63 per thousand live births. In 1921 the infant death rate for Canada (using figures from provincial sources for Quebec) was 102 per 1,000 live births. Table 23 gives figures for the whole of Canada for the years 1931 to 1938 and averages for the five-year periods 1921-25, 1926-30, and 1931-35. Quebec with a rate of 83 has the highest rate of all provinces for 1938. But a study of the Quebec rates shows that steady improvement has been made in the twelve-year period during which the Province has been included in the registration area and 1938 figures show a decrease of over 1,000 as compared with 1937. In Canada as a whole almost 9,000 infant lives were preserved in 1938 which, under conditions prevailing in 1926, would probably have been lost.

23.—Infantile Mortality and Rates per 1,000 Live Births, by Provinces, 1931-38, with Averages, 1921-25, 1926-30, and 1931-35.

Year.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada.[1]
	INFANT DEATHS.									
Averages, 1921-25	151	1,139	1,165	[2]	5,916	1,394	1,789	1,327	621	[2]
Averages, 1926-30	122	934	1,039	10,518	5,091	1,031	1,559	1,195	571	22,060
Averages, 1931-35	131	840	857	7,756	3,962	835	1,261	998	464	17,104
1931	128	914	944	9,443	4,833	924	1,463	1,197	514	20,360
1932	132	849	774	7,744	4,133	836	1,321	997	477	17,263
1933	118	791	821	7,270	3,804	844	1,231	966	439	16,284
1934	130	807	878	7,388	3,523	734	1,093	891	426	15,870
1935	145	838	866	6,939	3,515	837	1,194	936	460	15,730
1936	137	781	806	6,220	3,416	779	1,030	940	465	14,574
1937	152	812	1,072	7,580	3,382	826	1,245	994	630	16,693
1938	114	754	859	6,486	3,245	750	941	812	556	14,517
	INFANT DEATH RATES PER 1,000 LIVE BIRTHS.									
Averages, 1921-25	77	94	105	[2]	83	84	83	86	61	[2]
Averages, 1926-30	71	85	101	127	74	72	73	75	55	93
Averages, 1931-35	67	73	82	98	61	61	62	60	46	75
1931	68	79	87	113	70	64	69	69	49	85
1932	65	73	72	94	62	59	63	59	47	73
1933	61	71	82	95	60	63	61	60	46	73
1934	67	71	86	97	57	55	55	55	43	72
1935	72	72	83	92	56	63	61	58	46	71
1936	69	66	77	83	55	61	54	60	44	66
1937	73	70	101	100	55	64	67	63	56	76
1938	58	62	75	83	49	56	52	51	45	63

[1] Exclusive of the Territories. [2] Quebec was not included in the registration area prior to 1926.

Infantile Mortality by Causes of Death.—Twenty-one principal causes of death accounted in the years 1926 to 1938 for between 90 and 92 p.c. of the infantile mortality experienced in the Dominion, as is shown in Table 24. It is noteworthy

that four causes present at birth, viz., premature birth, injury at birth, congenital debility, and congenital malformations, accounted for over 46 p.c. of the infant deaths of 1938. In 1926 the percentage was 41·4 and in 1930, 42·3, and, since the decline in rate of infant deaths has decreased by 38 p.c. in the interval between 1926 and 1938, great improvement in the post-natal care of infants is indicated. In the years 1937 and 1938, 45·1 p.c. and 50·1 p.c., respectively, of all infants who died were less than one month old, and 32·5 p.c., and 37·4 p.c., respectively, were less than one week old, as is shown in Table **25.**

24.—Infantile Mortality in Canada by Principal Causes of Death, 1926, 1937-38.

NOTE.—Figures for the former registration area for the years 1921-25 will be found at pp. 182-183 of the 1927-28 Year Book and figures for the whole of Canada for years from 1926 in the corresponding tables of previous Year Books commencing with the 1932 edition.

International List No.	Cause of Death.	Year.	Numbers.			Rates per 100,000 Live Births.			Percentage Distribution by Cause of Death.
			Males.	Females.	Both.	Males.	Females.	Both.	
7	Measles	1926	141	122	263	118	108	113	1·1
		1937	158	110	268	140	103	122	1·6
		1938	53	38	91	45	34	40	0·6
8	Scarlet fever	1926	13	12	25	11	11	11	0·1
		1937	6	5	11	5	5	5	0·1
		1938	8	5	13	7	4	6	0·1
9	Whooping-cough	1926	358	415	773	299	368	332	3·3
		1937	216	269	485	191	251	220	2·9
		1938	154	180	334	131	161	146	2·3
10	Diphtheria	1926	24	23	47	20	20	20	0·2
		1937	10	14	24	9	13	11	0·1
		1938	15	5	20	13	4	9	0·1
11	Influenza[1]	1926	576	374	950	481	331	408	4·0
		1937	545	394	939	482	368	426	5·6
		1938	298	221	519	253	198	226	3·6
15	Erysipelas	1926	51	50	101	43	44	43	0·4
		1937	13	9	22	11	8	10	0·1
		1938	8	9	17	7	8	7	0·1
16	Poliomyelitis and polio encephalitis (acute)	1926	6	3	9	5	3	4	0·3
		1937	7	2	9	6	2	4	0·1
		1938	2	2	4	2	2	2	1[2]
18	Epidemic cerebro-spinal meningitis	1926	33	24	57	28	21	24	0·2
		1937	12	12	24	11	11	11	0·1
		1938	12	9	21	10	8	9	0·1
23-32	Tuberculosis[1]	1926	131	102	233	109	90	100	1·0
		1937	85	64	149	75	60	68	0·9
		1938	85	59	144	72	53	63	1·0
34	Syphilis	1926	68	60	128	57	53	55	0·5
		1937	121	81	202	107	76	92	1·2
		1938	54	49	103	46	44	45	0·7
86	Convulsions	1926	263	177	440	219	157	189	1·9
		1937	83	56	139	73	52	63	0·8
		1938	82	58	140	70	52	61	1·0
106	Bronchitis	1926	90	60	150	75	53	64	0·6
		1937	34	32	66	30	30	30	0·4
		1938	40	27	67	34	24	29	0·5
107-109	Pneumonia	1926	1,410	1,077	2,487	1,176	954	1,069	10·5
		1937	1,105	809	1,914	977	755	869	11·5
		1938	1,078	765	1,843	915	686	803	12·7
116-118	Diseases of the stomach	1926	156	126	282	130	112	121	1·2
		1937	52	43	95	46	40	43	0·6
		1938	37	41	78	31	37	34	0·5

[1] For this cause the comparability between the figure for the year 1926 and the figures for 1937 and 1938 is not exact, owing to changes in classification. [2] Less than one-tenth of one per cent.

24.—Infantile Mortality in Canada, by Principal Causes of Death, 1926, 1937-38 —concluded.

International List No.	Cause of Death.	Year.	Numbers.			Rates per 100,000 Live Births.			Percentage Distribution by Cause of Death.
			Males.	Females.	Both.	Males.	Females.	Both.	
119	Diarrhœa and enteritis[1]	1926	2,451	1,867	4,318	2,045	1,654	1,855	18·2
		1937	1,627	1,238	2,865	1,438	1,156	1,301	17·2
		1938	1,009	742	1,751	856	665	763	12·1
122	Hernia, intestinal obstruction	1926	68	39	107	57	35	46	0·5
		1937	41	18	59	36	17	27	0·4
		1938	44	21	65	37	19	28	0·4
157	Congenital malformations	1926	777	635	1,412	648	563	607	6·0
		1937	723	583	1,306	639	544	593	7·8
		1938	679	619	1,298	576	555	566	8·9
158	Congenital debility	1926	1,353	1,000	2,353	1,129	886	1,011	9·9
		1937	641	475	1,116	567	444	507	6·7
		1938	659	484	1,143	559	434	498	7·9
159	Premature birth	1926	2,936	2,147	5,083	2,449	1,902	2,184	21·5
		1937	1,984	1,474	3,458	1,754	1,376	1,570	20·7
		1938	1,895	1,405	3,300	1,608	1,259	1,438	22·7
160	Injury at birth	1926	563	386	949	470	342	408	4·0
		1937	525	336	861	464	314	391	5·2
		1938	626	373	999	531	334	435	6·9
161	Other diseases peculiar to early infancy[1]	1926	885	622	1,507	738	551	647	6·4
		1937	707	502	1,209	625	469	549	7·2
		1938	675	481	1,156	573	431	504	8·0
	Other specified causes[1]	1926	1,081	779	1,860	902	690	799	7·9
		1937	683	552	1,235	604	515	561	7·4
		1938	714	546	1,260	606	489	549	8·7
199,200	Ill-defined causes	1926	103	55	158	86	49	68	0·7
		1937	130	107	237	115	100	108	1·4
		1938	84	67	151	71	60	66	1·0
	All Causes	**1926**	**13,537**	**10,155**	**23,692**	**11,294**	**8,996**	**10,179**	**100·0**
		1937	**9,508**	**7,185**	**16,693**	**8,404**	**6,709**	**7,580**	**100·0**
		1938	**7 8,311**	**6,206**	**14,517**	**7,051**	**5,562**	**6,327**	**100·0**

[1] For this cause the comparability between the figure for the year 1926 and the figures for 1937 and 1938 is not exact, owing to changes in classification.

25.—Proportion per 1,000 Deaths of Infants Under One Year of Age Occurring at Each Age Period, 1937-38.

Age at Death.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada.[1]
1937.										
Under 1 month	474	440	438	391	571	449	475	495	441	451
Under 1 day	*118*	*123*	*125*	*121*	*242*	*136*	*160*	*177*	*176*	*157*
1 day and under 1 week	*217*	*179*	*174*	*144*	*216*	*160*	*165*	*169*	*171*	*168*
1 week and under 2 weeks	*72*	*62*	*53*	*54*	*53*	*45*	*60*	*56*	*58*	*54*
2 weeks and under 3 weeks	*20*	*37*	*46*	*39*	*31*	*36*	*43*	*43*	*30*	*37*
3 weeks and under 1 month	*46*	*39*	*40*	*33*	*30*	*23*	*47*	*49*	*25*	*35*
1 month and under 2 months	99	112	98	99	67	109	106	102	94	94
2 months and under 3 months	92	96	77	92	67	81	80	85	62	83
3 months and under 4 months	92	81	81	77	62	61	48	67	60	71
4 months and under 5 months	46	48	63	57	46	54	60	49	49	54
5 months and under 6 months	59	38	48	56	40	46	44	44	46	49
6 months and under 7 months	26	30	37	44	36	41	43	21	49	40
7 months and under 8 months	33	38	44	43	30	39	35	28	56	39
8 months and under 9 months	13	38	35	40	22	24	35	34	48	34
9 months and under 10 months	7	26	30	39	19	34	22	24	27	30
10 months and under 11 months	13	32	27	32	20	35	30	26	35	29
11 months and under 1 year	46	21	21	29	21	27	22	24	33	26
Totals, 1937	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**

[1] Exclusive of the Territories.

25.—Proportion of 1,000 Deaths of Infants Under One Year of Age Occurring at Each Age Period, 1937-38—concluded.

Age at Death.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada.[1]
1938.										
Under 1 month	421	481	501	458	582	492	514	523	525	501
Under 1 day	*96*	*160*	*143*	*154*	*266*	*187*	*171*	*197*	*218*	*183*
1 day and under 1 week	*219*	*208*	*206*	*170*	*216*	*179*	*210*	*195*	*210*	*191*
1 week and under 2 weeks	*44*	*44*	*72*	*57*	*45*	*55*	*74*	*50*	*50*	*55*
2 weeks and under 3 weeks	*18*	*41*	*30*	*39*	*39*	*43*	*30*	*43*	*16*	*37*
3 weeks and under 1 month	*44*	*38*	*49*	*38*	*25*	*29*	*29*	*38*	*31*	*34*
1 month and under 2 months	132	107	102	99	74	108	85	91	77	93
2 months and under 3 months	114	95	81	95	68	85	85	59	74	84
3 months and under 4 months	79	76	72	59	56	63	57	68	59	61
4 months and under 5 months	44	61	51	53	38	64	54	58	38	50
5 months and under 6 months	61	38	34	42	38	51	60	22	32	41
6 months and under 7 months	44	33	37	42	31	35	36	36	41	38
7 months and under 8 months	53	23	31	38	22	29	34	38	41	33
8 months and under 9 months	9	23	20	34	29	24	23	32	27	30
9 months and under 10 months	26	27	17	30	24	17	21	31	32	27
10 months and under 11 months	9	17	28	26	18	17	16	23	25	23
11 months and under 1 year	9	19	24	24	20	15	14	18	27	21
Totals, 1938	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**

[1] Exclusive of the Territories.

Infantile Mortality in Canadian Cities and Towns.—In interpreting the statistics of Table 26, it should be observed that a very low rate for any particular year means little, since wide fluctuations from year to year are the rule. Moreover, since maternity hospitals in many urban centres draw patients from surrounding districts, the rates based on place of occurrence are often quite different from rates based on place of residence. This is illustrated particularly in the case of Westmount, where the number of infant deaths under one year by place of occurrence in 1938 was 31, compared with 7 by place of residence. Vancouver has a splendid record among the large cities over the three years. Three Rivers, Sorel, Westmount, Quebec City, and Lévis have all rates of over 100 for 1938, and most of them have high rates over the three-year period. Apart from Vancouver, already mentioned, among the large cities Montreal has recorded steady improvement over the period and Winnipeg and Toronto have very low rates and good records.

The infantile mortality in the cities of Canada has been greatly reduced in the years since the inauguration of Dominion vital statistics. Thus the rate for Toronto has fallen from 90 in 1921 to 48 in 1938, that for Winnipeg from 78 to 37, for Vancouver from 56 to 33, for Hamilton from 88 to 37, for Ottawa from 130 to 61, for London from 92 to 45, for Edmonton from 89 to 40, for Halifax from 135 to 63, for Saint John from 147 to 62. Altogether, in the 13 cities of 40,000 population or over in the former registration area of Canada, there were 41,923 live births in 1921 and 3,833 infant deaths, being a rate of 91 per 1,000 live births. In 1938 in these same cities there were 37,984 live births but only 1,666 infant deaths, or a rate of 44 per 1,000 live births.

26.—Deaths and Death Rates of Children Under One Year of Age (Exclusive of Still-births) in Cities and Towns of 10,000 or Over, 1936-38, with Averages, 1926-30 and 1931-35.

City or Town.	Infant Deaths.					Rates per 1,000 Live Births.				
	Average 1926-30.	Average 1931-35.	1936.	1937.	1938.	Average 1926-30.	Average 1931-35.	1936.	1937.	1938.
Belleville, Ont.	27	20	31	18	24	72	53	72	47	49
Brandon, Man.	26	18	20	8	24	67	59	80	30	95
Brantford, Ont.	52	34	31	31	33	76	54	47	51	57
Calgary, Alta.	113	74	86	67	49	62	44	53	41	30
Charlottetown, P.E.I.	30	26	30	38	18	105	72	74	95	45
Chatham, Ont.	38	33	28	29	59	78	68	48	43	77
Chicoutimi, Que.	72	57	43	54	53	129	112	85	105	94
Cornwall, Ont.	48	38	50	52	29	102	79	89	90	47
Edmonton, Alta.	140	109	94	121	113	66	49	41	46	40
Fort William, Ont.	46	32	27	14	21	73	57	56	28	39
Galt, Ont.	16	15	10	7	14	57	51	37	24	44
Glace Bay, N.S.	85	69	89	93	68	127	98	111	113	72
Granby, Que.	29	28	30	17	20	96	79	100	54	63
Guelph, Ont.	23	20	11	13	12	59	57	37	44	36
Halifax, N.S.	127	119	104	110	109	87	73	59	67	63
Hamilton, Ont.	200	167	115	106	112	66	56	42	38	37
Hull, Que.	132	102	76	102	80	132	117	92	125	98
Joliette, Que.	52	35	30	29	24	149	106	104	104	83
Kingston, Ont.	59	38	46	34	50	99	58	68	47	66
Kitchener, Ont.	43	35	34	34	46	58	47	46	46	58
Lachine, Que.	49	29	22	29	20	111	73	62	75	46
Lethbridge, Alta.	33	34	25	27	41	76	64	43	46	66
Lévis, Que.	37	25	18	23	23	120	96	85	95	102
London, Ont.	91	77	77	54	72	66	56	55	37	45
Moncton, N.B.	40	24	23	40	30	76	49	47	81	59
Montreal, Que.	2,735	1,862	1,410	1,535	1,290	135	98	81	87	73
Moose Jaw, Sask.	39	24	23	27	16	62	52	51	57	32
New Westminster, B.C.	27	24	30	27	29	51	43	47	36	36
Niagara Falls, Ont.	31	21	9	14	17	66	50	23	34	40
North Bay, Ont.	35	23	28	27	28	85	59	71	70	67
Oshawa, Ont.	53	29	31	31	29	83	55	59	58	50
Ottawa, Ont.	327	257	267	255	191	110	87	88	85	61
Outremont, Que.	8	5	3	2	1	65	53	44	40	18
Owen Sound, Ont.	15	16	12	17	17	46	50	37	52	47
Peterborough, Ont.	39	35	45	27	31	67	61	72	43	44
Port Arthur, Ont.	45	24	21	20	40	83	47	39	35	62
Prince Albert, Sask.	34	27	22	30	29	102	68	51	61	57
Quebec, Que.	727	538	389	557	474	166	130	101	142	122
Regina, Sask.	92	61	61	71	55	67	48	53	52	41
St. Boniface, Man.	59	46	36	39	49	70	43	32	35	37
St. Catharines, Ont.	40	27	34	19	33	67	46	59	33	51
St. Hyacinthe, Que.	55	42	29	38	31	166	119	77	93	76
St. Jean, Que.	26	19	23	15	19	79	64	75	51	64
St. Thomas, Ont.	20	16	17	10	18	60	54	58	34	44
Saint John, N.B.	113	91	84	75	80	99	76	69	62	62
Sarnia, Ont.	32	22	22	22	21	74	53	51	53	43
Saskatoon, Sask.	86	48	34	52	33	81	50	38	60	37
Sault Ste. Marie, Ont.	42	25	40	40	37	69	44	72	77	59
Shawinigan Falls, Que.	103	53	45	46	37	157	93	85	95	73
Sherbrooke, Que.	77	61	45	58	57	97	81	57	73	68
Sorel, Que.	56	36	30	29	32	187	136	125	128	136
Stratford, Ont.	21	19	9	18	14	55	56	26	49	33
Sudbury, Ont.	54	66	73	80	74	108	83	75	69	56
Sydney, N.S.	40	26	18	18	17	77	44	30	31	29
Thetford Mines, Que.	52	32	24	38	26	113	91	82	113	73
Three Rivers, Que.	228	237	272	320	205	171	200	243	297	177
Timmins, Ont.	60	57	55	74	57	123	101	80	91	65
Toronto, Ont.	914	673	527	472	500	75	59	51	47	48
Valleyfield, Que.	40	31	20	17	27	126	87	58	50	83
Vancouver, B.C.	173	117	113	123	134	46	35	33	33	33
Verdun, Que.	91	68	48	50	58	86	67	54	60	69
Victoria, B.C.	33	23	19	27	24	46	33	27	36	29
Welland, Ont.	20	19	18	15	18	69	66	58	48	49
Westmount, Que.	11	33	29	25	31	102	105	139	102	125
Windsor, Ont.[1]	203	106	93	103	79	73	52	44	51	36
Winnipeg, Man.	277	170	140	153	139	61	43	39	42	37
Woodstock, Ont.	14	12	8	14	14	58	51	34	51	49

[1] Includes East Windsor, Sandwich, and Walkerville.

Infantile Mortality in Various Countries.—The rate of infantile mortality to live births has been greatly reduced in civilized countries by the recent advances in medical science and in sanitation. The low record is held at the present time by New Zealand, where in 1937 the rate of infantile mortality was only 31 per 1,000 live births as compared with 68 in 1905. The Netherlands, Australia, Norway, and Sweden, with rates of 38, 38, 42, and 46 in their latest available year (1937) were next in respect of low infantile mortality (with the exception of Iceland).

As showing the improvement in recent years, it may be stated that the rate of infantile mortality in England and Wales has been reduced from 128 per 1,000 live births in 1905 to 58 in 1937, while the rate in Germany has declined from 196 in 1904 to 64 in 1937. In the Netherlands, again, the rate has declined from 131 per 1,000 live births in 1905 to 38 in 1937.

27.—Infantile Mortality per 1,000 Live Births in Various Countries of the World and of the Provinces of Canada in Recent Years.

Country or Province.	Year.	Rate of Infantile Mortality.	Country.	Year.	Rate of Infantile Mortality.
New Zealand	1937	31	Scotland	1937	80
Iceland	1937	32	Latvia	1937	85
Australia	1938	38	Belgium	1936	86
Netherlands	1937	38	Austria	1937	90
Sweden	1938	41	Estonia	1937	91
Norway	1937	42	Uruguay	1936	92
Switzerland	1937	47	Panama	1934	95
United States (reg. area)	1938	51	Japan	1937	106
Union of South Africa (whites)	1937	57	Italy	1937	109
England and Wales	1937	58	Spain	1935	109
Denmark	1938	59	Palestine	1938	112
British Isles	1937	62	Jamaica	1937	119
Canada	**1938**	**63**	Lithuania	1937	120
British Columbia	1938	45	Salvador	1936	120
Ontario	1938	49	Czechoslovakia	1937	122
Alberta	1938	51	Greece	1937	122
Saskatchewan	1938	52	Newfoundland and Labrador	1937	123
Manitoba	1938	56	Hungary	1937	134
Prince Edward Island	1938	58	Poland	1937	136
Nova Scotia	1938	62	Costa Rica	1937	142
New Brunswick	1938	75	Bulgaria	1937	150
Quebec	1938	83	Straits Settlements	1937	156
Germany	1937	64	Ceylon	1938	161
France	1937	65	British India	1937	162
Finland	1937	69	Egypt	1937	165
Ireland (Eire)	1937	73	Roumania	1937	178
Northern Ireland	1937	77	Chile	1937	241

Infantile Mortality in Certain Cities of the World.—It is one of the greatest triumphs of our time that city life is in our day, if not as healthy, yet not necessarily more dangerous to human, especially to infant, life than the average living conditions in the country as a whole.

To give particular examples, the rate of infantile mortality in New York was 38 per 1,000 live births in 1938, as against a rate of 51 per 1,000 for the birth registration area of the United States. In 1936, Berlin had an infantile mortality rate of 61 per 1,000 live births, as compared with 66 for Germany; Paris had a rate of 68 in 1936, compared with a rate of 67 for France. On the other hand, in 1937, London had a rate of 54 compared with 58 for England and Wales.

In Canada, Montreal had, in 1938, an infantile mortality of 73 per 1,000 live births as compared with 83 for the Province of Quebec. Toronto had, in 1936, an infantile mortality rate of 48 per 1,000 live births as against 49 for the Province of Ontario, while Winnipeg and Vancouver had much lower infantile mortality rates than their respective provinces. Over a number of years both Vancouver and Victoria have shown two of the lowest infantile mortality rates in the world.

28.—Infantile Mortality per 1,000 Live Births in Certain Cities of the World in 1937.

City.	Country.	Rate of Infantile Mortality.	City.	Country.	Rate of Infantile Mortality.
Oslo	Norway	27	Sheffield	England	55
Stockholm	Sweden	28[1]	Hamburg	Germany	56[1]
Adelaide	Australia	29[1]	Leipzig	Germany	56[1]
Wellington	New Zealand	29	Birmingham	England	60
Brandon	Canada	30	Breslau	Germany	60[1]
Amsterdam	Netherlands	31[1]	Saskatoon	Canada	60
Vancouver	Canada	33	Verdun	Canada	60
Victoria	Canada	36	Berlin	Germany	61[1]
Auckland	New Zealand	37	Washington	United States	61
London	Canada	37	Johannesburg	Union of South Africa	62
Sydney	Australia	39[2]	Saint John	Canada	62
Chicago	United States	38	Cologne	Germany	66[1]
Hamilton	Canada	38	Munich	Germany	66[1]
Calgary	Canada	41	Halifax	Canada	67
Melbourne	Australia	41[2]	Paris	France	68[1]
Copenhagen	Denmark	42[1]	Antwerp	Belgium	69[1]
Winnipeg	Canada	42	Brisbane	Australia	70[2]
New York	United States	44	Edinburgh	Scotland	70
Perth	Australia	44[1]	Manchester	England	76
Capetown	Union of South Africa	45	Moncton	Canada	81
Edmonton	Canada	46	Liverpool	England	82
Toronto	Canada	47	Ottawa	Canada	85
Dresden	Germany	48[1]	Montreal	Canada	87
Hobart	Tasmania	50[1]	Cork	Ireland (Eire)	103
Frankfort-on-Main	Germany	51[1]	Glasgow	Scotland	104
Windsor	Canada	51	Quebec	Canada	142
Regina	Canada	52	Bombay	India	161
London	England	54	Madras	British India	170

[1] 1936 rate. [2] Average annual rate, 1935-37.

Subsection 3.—Maternal Mortality.

Of cognate interest with infantile mortality is the important subject of maternal mortality arising out of pregnancy and child-birth. This maternal mortality is shown by Tables 29 and 30 to be at its lowest among mothers under twenty-five years of age.

29.—Maternal Deaths in Canada and Rates per 1,000 Live Births, by Age Groups, 1935-38, with Averages, 1926-30 and 1931-35.

NOTE.—Comparable figures for 1926-32 will be found at p. 208 of the 1934-35 Year Book, and for 1933-34 at p. 186 of the 1937 Year Book.

Age Group.	Year.	Living Births.	Maternal Deaths		Age Group.	Year.	Living Births.	Maternal Deaths.	
			No.	Rate per 1,000 Living Births.				No.	Rate per 1,000 Living Births.
Under 20 years..	1935	13,671	47	3·4	30-39 years.....	1935	76,022	467	6·1
	1936	13,576	59	4·3		1936	75,311	515	6·8
	1937	13,795	56	4·1		1937	73,896	454	6·1
	1938	14,837	45	3·0		1938	75,720	440	5·8
					40 years or over.	1935	13,217	116	8·7
20-24 years.....	1935	56,245	202	3·6		1936	12,888	157	12·2
	1936	56,627	230	4·1		1937	12,391	140	11·3
	1937	57,818	177	3·1		1938	12,207	134	11·0
	1938	60,995	133	2·2					
					Averages.....	**1926-30**	**236,520**	**1,339**	**5·7**
25-29 years.....	1935	62,296	261	4·2	**Averages**.....	**1931-35**	**228,352**	**1,154**	**5·1**
	1936	61,969	272	4·4	**Totals**.....	**1935**	**221,451**	**1,093**	**4·9**
	1937	62,335	244	3·9	**Totals**.....	**1936**	**220,371**	**1,233**	**5·6**
	1938	65,687	216	3·3	**Totals**.....	**1937**	**220,235**	**1,071**	**4·9**
					Totals.....	**1938**	**229,446**	**968**	**4·2**

30.—Maternal Deaths in each Province by Age Groups, 1938, with Totals and Rates per 1,000 Live Births, 1935-38, and Averages, 1926-30 and 1931-35.

NOTE.—For totals 1926-30, see p. 183 of the Canada Year Book, 1933, and for totals 1931-34, p. 182 of the 1936 edition.

Year and Age Group.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada.[1]
Maternal Deaths—										
Averages, 1926-30.....	**8**	**61**	**64**	**433**	**398**	**81**	**126**	**105**	**63**	**1,339**
Averages, 1931-35.....	**10**	**59**	**57**	**405**	**344**	**60**	**91**	**75**	**53**	**1,154**
Totals, 1935.....	**8**	**62**	**48**	**405**	**313**	**56**	**80**	**69**	**52**	**1,093**
Totals, 1936.....	**11**	**51**	**69**	**450**	**355**	**70**	**86**	**91**	**50**	**1,233**
Totals, 1937.....	**12**	**35**	**39**	**397**	**319**	**55**	**86**	**77**	**51**	**1,071**
Totals, 1938.....	**5**	**51**	**52**	**408**	**251**	**39**	**46**	**68**	**48**	**968**
Age Group, 1938.										
Under 20 years.....	Nil	5	3	10	18	1	2	4	2	45
20–24 years.....	"	7	8	52	42	8	4	7	5	133
25–29 years.....	1	15	9	83	66	12	8	15	7	216
30–39 years.....	2	20	25	191	100	12	25	35	30	440
40 years or over.....	2	4	7	72	25	6	7	7	4	134
Age not stated.....	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Rates per 1,000 Live Births—										
Averages, 1926-30.....	**4·6**	**5·5**	**6·2**	**5·2**	**5·8**	**5·6**	**5·9**	**6·6**	**6·1**	**5·7**
Averages, 1931-35.....	**5·1**	**5·1**	**5·5**	**5·1**	**5·3**	**4·4**	**4·5**	**4·5**	**5·3**	**5·1**
Totals, 1935.....	**4·0**	**5·3**	**4·6**	**5·4**	**5·0**	**4·2**	**4·1**	**4·3**	**5·2**	**4·9**
Totals, 1936.....	**5·6**	**4·3**	**6·6**	**6·0**	**5·7**	**5·4**	**4·5**	**5·8**	**4·7**	**5·6**
Totals, 1937.....	**5·7**	**3·0**	**3·7**	**5·2**	**5·2**	**4·3**	**4·6**	**4·8**	**4·5**	**4·9**
Totals, 1938.....	**2·5**	**4·2**	**4·5**	**5·2**	**3·8**	**2·9**	**2·5**	**4·3**	**3·8**	**4·2**

[1] Exclusive of the Territories.

31.—Maternal Deaths in Each Province, by Causes of Death, 1938.

Int. List No.	Cause of Death.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada.[1]
140	Abortion with septic conditions	Nil	3	7	24	26	7	8	10	17	102
	(*a*) Abortion		*2*	*6*	*21*	*12*	*6*	*8*	*7*	*10*	*72*
	(*b*) Self-induced abortion		*1*	*1*	*3*	*14*	*1*	*Nil*	*3*	*7*	*30*
141	Abortion without mention of septic conditions (hæmorrhage included)	1	2	3	10	9	4	3	9	2	43
	(*a*) Abortion	*1*	*2*	*2*	*10*	*8*	*3*	*3*	*7*	*1*	*37*
	(*b*) Self-induced abortion	*Nil*	*Nil*	*1*	*Nil*	*1*	*1*	*Nil*	*2*	*1*	*6*
142	Ectopic gestation	Nil	1	3	15	11	3	1	5	1	40
	(*a*) With septic conditions	–	*Nil*	*1*	*5*	*3*	*1*	*Nil*	*Nil*	*Nil*	*10*
	(*b*) Without mention of septic conditions		*1*	*2*	*10*	*8*	*2*	*1*	*5*	*1*	*30*
143	Other accidents of pregnancy (hæmorrhage excluded)	Nil	2	Nil	6	3	Nil	Nil	2	1	14
144	Puerperal hæmorrhage	Nil	8	10	66	22	9	8	10	1	134
	(*a*) Placenta prævia	-	*3*	*2*	*30*	*10*	*2*	*1*	*3*	*Nil*	*51*
	(*b*) Other hæmorrhages		*5*	*8*	*36*	*12*	*7*	*7*	*7*	1	*83*
145	Puerperal septicæmia (not specified as due to abortion)	1	6	4	107	50	4	9	7	7	195
	(*a*) Puerperal septicæmia and pyæmia	*1*	*6*	*4*	*107*	*50*	*4*	*9*	*7*	*7*	*195*
	(*b*) Puerperal tetanus	*Nil*	*Nil*	*Nil*	*Nil*	*Nil*	*Nil*	*Nil*	*Nil*	*Nil*	*Nil*
146	Puerperal albuminuria and eclampsia	2	14	13	82	45	4	6	7	13	186
147	Other toxæmias of pregnancy	1	5	2	24	9	2	Nil	3	1	47
148	Puerperal phlegmasia alba dolens, embolism, or sudden death (not specified as septic)	Nil	7	7	30	41	2	9	9	2	107
	(*a*) Phlegmasia alba dolens and thrombosis		*3*	*1*	*10*	*13*	*1*	*1*	*1*	*1*	*31*
	(*b*) Embolism	–	*3*	*2*	*7*	*18*	*1*	*7*	*6*	*Nil*	*44*
	(*c*) Sudden death		*1*	*4*	*13*	*10*	*Nil*	*1*	*2*	*1*	*32*
149	Other accidents of childbirth	Nil	3	3	43	35	4	2	5	1	96
	(*a*) Cæsarean operation	–	*Nil*	*Nil*	*2*	*6*	*Nil*	*1*	*Nil*	*Nil*	*9*
	(*b*) Other surgical operations and instrumental delivery		*1*	"	*2*	*6*	*1*	*Nil*	"	"	*10*
	(*c*) Dystocia	–	*1*	*1*	*19*	*14*	*1*	"	*3*	"	*39*
	(*d*) Rupture of uterus in parturition	–	*Nil*	*Nil*	*5*	*Nil*	*Nil*	*1*	*1*	*1*	8
	(*e*) Others under this title		*1*	*2*	*15*	*9*	*2*	*Nil*	*1*	*Nil*	30
150	Other or unspecified conditions of the puerperal state	Nil	Nil	Nil	1	Nil	Nil	Nil	1	2	4
	(*a*) Puerperal diseases of the breast				*Nil*				*Nil*	*Nil*	*Nil*
	(*b*) Others under this title				*1*				*1*	*2*	*4*
	Totals	5	51	52	408	251	39	46	68	48	968

[1] Exclusive of the Territories.

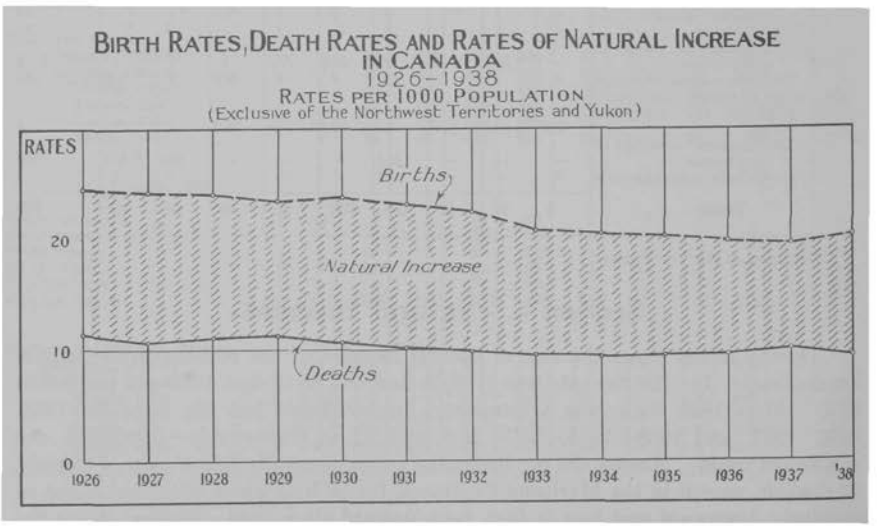
Section 4.—Natural Increase.

During recent years the rate of natural increase of the population of Canada has declined. In 1921 the rate was 17·8; it declined to 13·3 in 1926 and to 12·2 in 1929. After 1929 there was a temporary improvement but the rates for 1935, 1936, 1937, and 1938—10·6, 10·3, 9·6, and 11·0, respectively—continued the downward trend. Among the provinces the trends generally follow that of Canada as a whole, except in the Maritime Provinces, for each of which the trend is not so regularly downward and has, in fact, been upward since 1934. Quebec shows the

greatest improvement in death rate for the period since 1926. The birth rate is declining here as elsewhere and the rate of natural increase has shown a definitely downward trend, although not so markedly as that of Saskatchewan.

Summary statistics of the births, deaths, and natural increase (births minus deaths) per 1,000 of population are given for the years 1921 to 1938, by provinces, in Table 32. Statistics of marriages are also included in this table for convenience. The Province of Quebec is regarded as having one of the highest rates of natural increase per 1,000 population of any civilized area, although for 1938 New Brunswick had a higher rate. The rate for Quebec was 17·1 in 1931 and, while it has been appreciably reduced in line with common experience, it stood at 14·3 in 1938. Saskatchewan has usually approached Quebec in the matter of natural increase and for the years 1934 and 1935 the rates for this prairie province actually exceeded those for Quebec, although for 1936, 1937, and 1938 they were lower. Alberta followed Saskatchewan in order. In the case of the two western provinces the high rates of natural increase are due to their relatively younger populations and lower crude death rates. The high rates for these provinces brought the averages for Canada up to 10·6 in 1935, 10·3 in 1936, 9·6 in 1937 and 11·0 in 1938, in spite of the fact that the rate for British Columbia, which has always been low, was only 4·4 in 1937 and 6·6 in 1938. The rate of natural increase in 1937 was 14·8 per 1,000 in the Union of South Africa (Whites), 8·2 in New Zealand, 8·2 in Australia, 3·9 in Ireland (Eire), 4·7 in Northern Ireland, 3·7 in Scotland, and 2·5 in England and Wales, so that Canada compares quite favourably with most other British countries.

The rates of natural increase per 1,000 of the mean population for other countries in the latest uniform year are as follows, the figures being for 1937: Netherlands, 11·0; Japan, 13·6; Italy, 8·7; Denmark, 7·2; Germany, 7·1; United States, 5·8; Finland, 6·6; Switzerland, 3·7; Norway, 4·7; Belgium, 2·2; Sweden, 2·3; France, – 0·3.



32.—Births, Marriages, Deaths, and Natural Increase, by Provinces, 1936-38, with Averages 1921-25, 1926-30, and 1931-35.

NOTE.—For other than census years, birth, marriage, and death rates are calculated on estimated population (see p. 103). Figures for individual years 1921-25 will be found at p. 160 of the 1927-28 Year Book; for 1926-30 at p. 150 of the 1933 Year Book; for 1931-33 at p. 147 of the 1936 edition; and for 1934-35 at p. 191 of the 1938 Year Book.

Province.	Births.	Birth Rate per 1,000 Population.	Marriages.	Marriage Rate per 1,000 Population.	Deaths.	Death Rate per 1,000 Population.	Excess of Births over Deaths.	Rate of Natural Increase per 1,000 Population.
Prince Edward Island..Av. 1921-25	1,966	22·6	473	5·4	1,085	12·5	881	10·1
Av. 1926-30	1,734	19·7	473	5·4	969	11·0	765	8·7
Av. 1931-35	1,961	22·1	496	5·6	1,001	11·3	961	10·8
1936	1,977	21·5	595	6·5	1,024	11·1	953	10·4
1937	2,093	22·5	584	6·3	1,146	12·3	947	10·2
1938	1,974	21·0	591	6·3	1,030	11·0	944	10·0
Nova Scotia.....Av. 1921-25	12,119	23·4	3,186	6·1	6,519	12·6	5,600	10·8
Av. 1926-30	11,016	21·4	3,224	6·3	6,362	12·4	4,654	9·0
Av. 1931-35	11,486	22·0	3,522	6·8	6,073	11·7	5,413	10·3
1936	11,808	22·0	4,129	7·7	5,897	11·0	5,911	11·0
1937	11,572	21·4	4,337	8·0	6,083	11·2	5,489	10·1
1938	12,241	22·3	4,089	7·5	6,087	11·1	6,154	11·2
New Brunswick.....Av. 1921-25	11,080	28·4	2,953	7·6	5,093	13·1	5,987	15·3
Av. 1926-30	10,327	25·8	2,970	7·4	5,019	12·5	5,308	13·3
Av. 1931-35	10,440	24·9	2,737	6·5	4,710	11·2	5,730	13·7
1936	10,513	24·2	3,397	7·8	4,803	11·0	5,710	13·2
1937	10,580	24·0	3,671	8·3	5,433	12·3	5,147	11·7
1938	11,447	25·7	3,371	7·6	4,898	11·0	6,549	14·7
Quebec[1].....Av. 1926-30	82,771	30·5	18,731	6·9	36,645	13·5	46,126	17·0
Av. 1931-35	78,889	26·6	17,089	5·8	32,796	11·1	46,093	15·5
1936	75,285	24·3	21,654	7·0	31,853	10·3	43,432	14·0
1937	75,635	24·1	24,876	7·9	35,456	11·3	40,179	12·8
1938	78,145	24·6	25,044	7·9	32,609	10·3	45,536	14·3
Ontario.....Av. 1921-25	71,454	23·7	24,037	8·0	34,252	11·3	37,202	12·4
Av. 1926-30	68,703	21·0	25,449	7·8	36,650	11·2	32,053	9·8
Av. 1931-35	65,000	18·3	24,260	6·8	35,782	10·1	29,218	8·2
1936	62,451	16·9	27,734	7·5	37,571	10·2	24,880	6·7
1937	61,645	16·6	29,893	8·1	38,475	10·4	23,170	6·2
1938	65,564	17·6	30,080	8·1	36,890	9·9	28,674	7·7
Manitoba.....Av. 1921-25	16,590	26·8	4,634	7·5	5,348	8·6	11,242	18·2
Av. 1926-30	14,391	21·7	4,951	7·5	5,507	8·3	8,884	13·4
Av. 1931-35	13,690	19·3	5,015	7·1	5,413	7·6	8,277	11·7
1936	12,855	18·1	5,756	8·1	6,219	8·7	6,636	9·4
1937	12,888	18·0	6,113	8·5	6,070	8·5	6,818	9·5
1938	13,478	18·7	6,262	8·7	5,893	8·2	7,585	10·5
Saskatchewan.....Av. 1921-25	21,580	27·7	4,982	6·4	5,859	7·5	15,721	20·2
Av. 1926-30	21,298	24·7	6,036	7·0	6,256	7·3	15,042	17·4
Av. 1931-35	20,325	21·9	5,680	6·1	6,037	6·5	14,288	15·4
1936	19,125	20·5	6,168	6·6	6,314	6·8	12,811	13·7
1937	18,640	19·9	5,790	6·2	6,927	7·4	11,713	12·5
1938	18,230	19·4	5,893	6·3	6,079	6·5	12,151	12·9
Alberta.....Av. 1921-25	15,461	26·0	4,313	7·3	4,953	8·3	10,508	17·7
Av. 1926-30	15,924	24·2	5,265	8·0	5,530	8·4	10,394	15·8
Av. 1931-35	16,556	22·1	5,530	7·4	5,447	7·3	11,109	14·8
1936	15,786	20·4	6,020	7·8	6,147	8·0	9,639	12·4
1937	15,903	20·4	6,345	8·2	6,261	8·0	9,642	12·4
1938	15,891	20·3	6,973	8·9	5,871	7·5	10,020	12·8
British Columbia.....Av. 1921-25	10,256	18·4	3,971	7·1	4,812	8·7	5,444	9·7
Av. 1926-30	10,356	16·2	4,786	7·5	5,986	9·3	4,370	6·9
Av. 1931-35	10,005	14·0	4,267	6·0	6,344	8·9	3,661	5·1
1936	10,571	14·1	5,451	7·3	7,222	9·6	3,349	4·5
1937	11,279	15·0	6,191	8·2	7,973	10·6	3,306	4·4
1938	12,476	16·4	6,135	8·1	7,460	9·8	5,016	6·6
Canada[1] (exclusive of the Territories).....Av. 1926-30	**236,520**	**24·1**	**71,885**	**7·3**	**108,924**	**11·1**	**127,596**	**13·0**
Av. 1931-35	**228,352**	**21·4**	**68,596**	**6·4**	**103,603**	**9·7**	**124,750**	**11·7**
1936	**220,371**	**20·0**	**80,904**	**7·3**	**107,050**	**9·7**	**113,321**	**10·3**
1937	**220,235**	**19·8**	**87,800**	**7·9**	**113,824**	**10·2**	**106,411**	**9·6**
1938	**229,446**	**20·5**	**88,438**	**7·9**	**106,817**	**9·5**	**122,629**	**11·0**

[1] Quebec was not included in the registration area prior to 1926.

Natural Increase in Cities and Towns.—Statistics of natural increase in cities and towns of 10,000 population or over are given for the period 1926-38 in Table 33, but these are not worked out as rates per thousand of population, though the census populations in 1931, which are also given, furnish some guide to such rates.

33.—Natural Increase in Cities and Towns of 10,000 Population or Over, 1934-38, with Averages, 1926-30, and 1931-35.

Province and City or Town.	Census Population, 1931	Averages.		1934.	1935.	1936.	1937.	1938.
		1926-30.	1931-35.					
Prince Edward Island—								
Charlottetown	12,361	23	99	90	102	128	83	112
Nova Scotia—								
Glace Bay	20,706	378	445	459	510	530	578	707
Halifax	59,275	573	732	680	805	884	773	856
Sydney	23,089	270	374	360	356	425	390	448
New Brunswick—								
Moncton	20,689	266	249	240	212	260	209	228
Saint John	47,514	432	536	585	578	575	542	648
Quebec—								
Chicoutimi	11,877	325	284	238	268	243	254	297
Granby	10,587	183	239	238	187	169	218	206
Hull	29,433	647	515	518	447	517	461	482
Joliette	10,765	174	157	115	166	126	99	110
Lachine	18,630	228	212	186	155	173	182	222
Lévis	11,724	84	42	41	23	25	14	6
Montreal	818,577	8,945	9,194	9,202	8,209	7,980	7,621	8,258
Outremont	28,641	19	−66	−97	−94	−99	−141	−117
Quebec	130,594	2,110	2,146	2,143	2,009	1,927	1,634	1,821
St. Hyacinthe	13,448	45	59	76	64	71	62	64
St. Jean	11,256	204	170	184	136	146	114	130
Shawinigan Falls	15,345	459	413	389	353	373	313	361
Sherbrooke	28,933	336	310	299	257	338	315	382
Sorel	10,320	130	124	121	75	111	108	119
Thetford Mines	10,701	308	212	232	136	145	128	189
Three Rivers	35,450	773	577	520	513	466	368	573
Valleyfield	11,411	137	204	215	212	171	166	155
Verdun	60,745	659	561	462	333	438	273	332
Westmount	24,235	−33	64	33	24	−60	−19	−42
Ontario—								
Belleville	13,790	140	149	158	132	171	146	245
Brantford	30,107	300	265	225	247	263	213	168
Chatham	14,569	185	181	241	192	253	355	431
Cornwall	11,126	230	248	194	361	303	312	407
Fort William	26,277	420	355	288	314	266	278	320
Galt	14,006	105	109	93	81	98	126	132
Guelph	21,075	160	117	85	115	95	60	111
Hamilton	155,547	1,568	1,467	1,268	1,216	1,119	1,127	1,451
Kingston	23,439	119	181	157	155	186	251	233
Kitchener	30,793	451	405	417	393	359	342	417
London	71,148	292	359	332	377	306	391	481
Niagara Falls	19,046	251	221	203	250	182	197	188
North Bay	15,528	268	235	192	218	222	197	246
Oshawa	23,439	429	339	315	347	302	298	383
Ottawa	126,872	1,301	1,247	1,206	1,218	1,241	1,113	1,413
Owen Sound	12,839	171	138	159	133	144	120	162
Peterborough	22,327	271	253	192	248	247	267	335
Port Arthur	19,818	318	314	288	335	323	345	396
St. Catharines	24,753	279	306	334	247	266	249	297
St. Thomas	15,430	100	69	99	46	25	28	189
Sarnia	18,191	209	189	180	223	172	182	249
Sault Ste. Marie	23,082	395	360	279	303	316	260	388
Stratford	17,742	184	141	129	129	148	148	197
Sudbury	18,518	283	562	538	635	652	852	1,051
Timmins	14,200	345	392	420	449	497	593	695
Toronto	631,207	5,475	4,890	4,349	3,869	3,347	2,893	3,567
Welland	10,709	126	148	102	173	167	138	210
Windsor[1]	98,179	1,826	1,200	1,039	1,179	1,229	1,033	1,342
Woodstock	11,395	73	60	19	46	43	82	70
Manitoba—								
Brandon	16,461[2]	146	78	61	30	11	35	5
St. Boniface	16,275[2]	361	647	656	631	630	636	783
Winnipeg	215,814[2]	2,770	2,232	2,065	1,836	1,541	1,782	1,843

[1] Includes East Windsor, Sandwich, and Walkerville. [2] Census of 1936.

33.—Natural Increase in Cities and Towns of 10,000 Population or Over, 1934-38, with Averages, 1926-30, and 1931-35—concluded.

Province and City or Town.	Census Population, 1931.	Averages.		1934.	1935.	1936.	1937.	1938.
		1926-30.	1931-35.					
Saskatchewan—								
Moose Jaw	19,805[1]	397	268	240	254	238	204	274
Prince Albert	11,049[1]	181	223	267	282	228	288	323
Regina	53,354[1]	887	802	783	661	610	761	788
Saskatoon	41,734[1]	573	505	404	405	402	315	420
Alberta—								
Calgary	83,407[1]	1,050	965	878	866	736	810	854
Edmonton	85,774[1]	1,260	1,362	1,265	1,330	1,217	1,523	1,689
Lethbridge	13,523[1]	251	338	246	390	391	403	402
British Columbia—								
New Westminster	17,524	252	271	267	254	284	380	477
Vancouver	246,593	1,601	1,056	968	782	703	998	1,300
Victoria	39,082	165	136	125	101	32	50	101

[1] Census of 1936.

Natural Increase, by Sex.—In Table **34** the relationship of births to deaths is shown by sex from 1926 to 1938 for Canada and for 1938 by provinces. In spite of higher male births, the natural increase is shown to be lower for males than females due to the higher mortality among the former.

34.—Births, Deaths, and Natural Increase in Canada,[1] by Provinces and Sex, 1938, with Totals, 1932-38, and Averages, 1926-30, and 1931-35.

Year and Province.	Males.			Females.			Both Sexes.
	Births.	Deaths.	Excess of Births over Deaths.	Births.	Deaths.	Excess of Births over Deaths.	Excess of Births over Deaths.
Canada[1] Av. 1926-30	**121,552**	**58,351**	**63,201**	**114,968**	**50,573**	**64,395**	**127,596**
Av. 1931-35	**117,142**	**55,967**	**61,175**	**111,210**	**47,635**	**63,575**	**124,750**
Totals, 1932	**121,082**	**56,153**	**64,929**	**114,584**	**48,224**	**66,360**	**131,289**
Totals, 1933	**114,388**	**54,725**	**59,663**	**108,480**	**47,243**	**61,237**	**120,900**
Totals, 1934	**113,323**	**55,224**	**58,099**	**107,980**	**46,358**	**61,622**	**119,721**
Totals, 1935	**113,293**	**57,206**	**56,087**	**108,158**	**48,361**	**59,797**	**115,884**
Totals, 1936	**113,289**	**57,728**	**55,561**	**107,082**	**49,322**	**57,760**	**113,321**
Totals, 1937	**113,143**	**62,109**	**51,034**	**107,092**	**51,715**	**55,377**	**106,411**
Totals, 1938	**117,862**	**58,817**	**59,045**	**111,584**	**48,000**	**63,584**	**122,629**
Provinces, 1938.							
Prince Edward Island	1,032	551	481	942	479	463	944
Nova Scotia	6,278	3,264	3,014	5,963	2,823	3,140	6,154
New Brunswick	5,810	2,628	3,182	5,637	2,270	3,367	6,549
Quebec	40,336	17,376	22,960	37,809	15,233	22,576	45,536
Ontario	33,605	19,814	13,791	31,959	17,076	14,883	28,674
Manitoba	6,910	3,327	3,583	6,568	2,566	4,002	7,585
Saskatchewan	9,381	3,673	5,708	8,849	2,406	6,443	12,151
Alberta	8,125	3,481	4,644	7,766	2,390	5,376	10,020
British Columbia	6,385	4,703	1,682	6,091	2,757	3,334	5,016

[1] Exclusive of the Territories.

CHAPTER VI.—IMMIGRATION AND COLONIZATION.*

CONSPECTUS.

	Page.
Section 1. General Information	144
Section 2. Statistics of Immigration	146
Subsection 1. Growth of Immigration since Confederation	147
Subsection 2. Sex and Conjugal Condition of Immigrants	148
Subsection 3. Languages and Racial Origins of Immigrants	150
Subsection 4. Countries of Birth and Nationalities of Immigrants	153
Subsection 5. Ports of Arrival, Destinations, and Occupations of Immigrants	155
Subsection 6. Rejections of Immigrants	158
Subsection 7. Juvenile Immigration	160
Subsection 8. Oriental Immigration	161
Section 3. Emigration and Returning Canadians	163
Section 4. Colonization Activities	166

Section 1.—General Information.

While the great majority of French Canadians can trace their descent to ancestors who left the Old World 250 years ago or even longer, most English-speaking Canadians are comparative newcomers both to Canada and to this continent, though a considerable number of the United Empire Loyalist families had been resident in the old colonies for generations before they moved north to establish English-speaking settlements in what is now the Dominion of Canada. During the middle third of the nineteenth century, a great English-speaking migration entered the Province of Ontario and made it, for the first time, more populous than the sister Province of Quebec, thus bringing about the agitation for representation by population. Thereafter, immigration slackened until the dawn of the twentieth century brought another flood of settlers to the newly-opened territories of the great Northwest, resulting in an increase of population between the censuses of 1901 and 1911 greater than the combined increase of the three decades from 1871 to 1901.

Immigration during the second decade of the twentieth century promised, at its commencement, to be even greater than during the first. In its first three years no fewer than 1,107,914 persons entered Canada for purposes of settlement, but the War of 1914-18 dried up the sources of immigration in the United Kingdom and Continental Europe, where every able-bodied man was needed for the defence of his country. Immigrant arrivals from the United Kingdom in 1917 numbered only about 3,000, as compared with 157,000 in 1913; immigrant arrivals from other countries, except the United States, numbered less than 3,000 in 1915, as compared with approximately 146,000 in 1913. Since the War of 1914-18, immigration to the Dominion has never approached that of the pre-war period.

Assimilation of Immigrants.†—A side-light on the question of the assimilation of immigrants is shown by Table 1, the statistics of which are taken from Volume I of the Census of 1931. These figures show the racial origins of the population, by country of birth, and the leading races with which males intermarry. The upper

* Revised under the direction of F. C. Blair, Director of Immigration, Department of Mines and Resources, Ottawa.

† For further information on this subject, the reader is referred to Census Monograph No. 4, "Racial Origins and Nativity of the Canadian People", which may be obtained from the King's Printer, Ottawa, price 35 cents.

part of the table is interesting inasmuch as it shows the degree to which non-British stocks are becoming basic parts of the population, almost 80 p.c. of the persons of Dutch racial origin, for instance, being now Canadian born.

The lower part indicates the varying tendencies towards intermarriage of persons of different racial origins. By 1931, 37·8 p.c. of the married men and 37·6 p.c. of the married women of Northwestern European origins had married outside their respective stocks, as against 18·4 p.c. of the men and 18·0 p.c. of the women of Southern, Eastern, and Central European stocks. Thus the Northwestern Europeans as a group had intermarried with others to twice the extent of Eastern and Central Europeans. Of the linguistic groups, the Scandinavians had married out to the greatest extent—approximately 54 p.c. for the men and 52 p.c. for the women; the Germanic peoples ranked second with 32 and 33 p.c. Only 25·9 p.c. of the men of Latin and Greek origin had crossed the racial line in marriage and 11·8 p.c. of the women; for the Slavs the figures are 17·6 and 19·4 p.c., respectively. The progress of intermarriage has thus proceeded much further with the Scandinavian and Germanic origins than with the Slavic and Latin and Greek. Many stocks have scarcely intermarried at all.

1.—The Cumulative Effects of Immigration on the Racial Composition of the Population: Percentages of Each Origin Born in Leading Countries and Leading Races with which the Males have Intermarried, 1931.

Racial Origin.	Population.	Order of Importance by Country of Birth.							
		Principal.		Second.		Third.		Fourth.	
		Country of Birth.	P.C.	Country of Birth.	P.C.	Country of Birth.	P.C.	Country of Birth.	P.C.
English	2,741,419	Canada	70·0	England	24·9	United States	3·1	Newfoundland	0·7
Irish	1,230,808	Canada	85·6	Ireland	8·2	United States	3·8	England	1·1
Scottish	1,346,350	Canada	76·0	Scotland	19·4	United States	2·8	England	1·2
Welsh, etc	62,494	Canada	58·2	Wales	26·8	England	6·1	United States	5·9
Belgian	27,585	Belgium	54·9	Canada	40·6	United States	2·5	France	1·0
Dutch	148,962	Canada	79·9	Holland	6·9	United States	6·5	Russia	5·8
French	2,927,990	Canada	97·4	United States	1·9	France	0·5	England	0·1
Italian	98,173	Canada	53·1	Italy	43·1	United States	2·1	Other Br. Poss.	0·5
Danish	34,118	Denmark	49·1	Canada	37·4	United States	11·4	England	0·6
Icelandic	19,382	Canada	65·4	Iceland	29·0	United States	5·2	Ireland	0·1
Norwegian	93,243	Canada	42·1	Norway	34·2	United States	23·0	Sweden	0·3
Swedish	81,306	Canada	42·6	Sweden	41·5	United States	13·2	Finland	1·1
Austrian, *n.o.s.*	48,639	Canada	53·7	Austria	33·0	Poland	4·2	Roumania	2·5
Bulgarian	3,160	Bulgaria	42·5	Canada	33·5	Greece	20·0	Yugoslavia	2·1
German	473,544	Canada	69·5	United States	9·5	Germany	7·9	Russia	6·0
Hungarian	40,582	Hungary	61·9	Canada	27·8	Czechoslovakia	3·3	Roumania	3·0
Roumanian	29,056	Canada	50·7	Roumania	44·7	Austria	1·3	United States	1·0
Yugoslavic	16,174	Yugoslavia	74·3	Canada	20·0	United States	1·5	Czechoslovakia	1·0
Czech and Slovak	30,401	Czechoslovakia	62·0	Canada	27·8	United States	4·0	Poland	1·7
Finnish	43,885	Finland	66·7	Canada	28·2	United States	3·4	Other Europe	1·1
Lithuanian	5,876	Lithuania	63·0	Canada	28·4	England	2·1	United States	1·5
Polish	145,503	Poland	48·6	Canada	47·0	United States	1·3	Austria	1·2
Russian	88,148	Canada	54·0	Russia	36·8	United States	3·5	Poland	3·1
Ukrainian	225,113	Canada	57·0	Poland	26·5	Ukraine	5·4	Roumania	4·7
Greek	9,444	Greece	51·4	Canada	43·0	United States	1·9	Turkey	1·8
Hebrew	156,726	Canada	43·8	Russia	25·8	Poland	15·9	Roumania	4·9
Chinese	46,519	China	88·3	Canada	11·6	United States	0·1	—	-
Japanese	23,342	Japan	51·3	Canada	48·5	United States	0·1	—	-
Hindu	1,400	India	80·0	Canada	16·4	Other Br. Poss.	1·1	Hungary	0·8
Syrian	10,753	Canada	59·4	Syria	35·7	United States	2·0	Other Asia	1·3
Indian	122,911	Canada	99·3	United States	0·7	—	-	—	-
Negro	19,456	Canada	79·6	United States	11·4	West Indies	7·5	Other Br. Poss.	0·6

1.—The Cumulative Effects of Immigration on the Racial Composition of the Population: Percentages of Each Origin Born in Leading Countries and Leading Races with which the Males have Intermarried, 1931—concluded.

Racial Origin of Male.	Order of Importance by Race of Wife.[1]							
	Principal.		Second.		Third.		Fourth.	
	Race of Wife.	p.c.	Race of Wife.	p.c.	Race of Wife.	p.c.	Race of Wife.	p.c.
English	English	69·9	Scottish	11·8	Irish	8·7	French	3·8
Irish	Irish	43·3	English	23·8	Scottish	16·7	French	8·4
Scottish	Scottish	45·0	English	28·5	Irish	14·9	French	4·1
Welsh, etc	English	39·6	Welsh	18·6	Scottish	16·7	Irish	12·4
Belgian	Belgian	56·8	French	19·3	English	7·4	Scottish	3·6
Dutch	Dutch	53·3	English	17·4	Scottish	9·6	Irish	8·3
French	French	95·0	English	1·7	Irish	1·5	Scottish	0·8
Italian	Italian	78·0	French	8·2	English	5·0	Irish	2·6
Danish	Danish	43·7	English	19·3	Scottish	9·3	Irish	6·5
Icelandic	Icelandic	61·8	English	11·5	Scottish	8·0	Irish	5·3
Norwegian	Norwegian	50·1	English	14·6	Scottish	8·4	Swedish	6·7
Swedish	Swedish	40·7	English	17·2	Norwegian	10·0	Scottish	8·2
Austrian, *n.o.s.*	Austrian	77·6	German	4·3	Ukrainian	3·9	English	3·0
Bulgarian	Bulgarian	39·3	English	20·8	French	10·7	Ukrainian	7·3
German	German	72·5	English	9·2	Irish	5·0	Scottish	4·6
Hungarian	Hungarian	90·7	German	2·8	English	0·9	French	0·7
Roumanian	Roumanian	68·7	Ukrainian	6·4	Polish	4·6	English	3·5
Yugoslavic	Yugoslavic	84·4	English	2·7	Ukrainian	2·1	Polish	1·7
Czech and Slovak	Czech and Slovak	78·8	Polish	3·8	English	2·8	German	2·8
Finnish	Finnish	88·9	English	3·5	Scottish	1·6	Irish	1·2
Lithuanian	[2]	–	[2]	–	[2]	–	[2]	–
Polish	Polish	78·6	Ukrainian	10·7	German	1·9	French	1·8
Russian	Russian	72·5	German	5·1	Ukrainian	4·5	Polish	4·0
Ukrainian	Ukrainian	90·6	Polish	5·5	Roumanian	0·6	Austrian	0·5
Greek	Greek	58·5	English	12·3	French	8·7	Irish	5·0
Hebrew	Hebrew	96·8	English	0·9	Irish	0·4	French	0·4
Chinese	Chinese	85·6	English	4·0	French	2·7	Polish	1·4
Japanese	Japanese	99·3	English	0·3	Irish	0·1	Scottish	0·1
Hindu	Hindu	90·2	English	2·3	Scottish	2·3	Ukrainian	2·3
Syrian	Syrian	73·4	French	9·8	English	6·3	Scottish	3·3
Indian	Indian	94·8	French	2·1	English	1·5	Scottish	0·5
Negro	Negro	90·4	English	3·2	French	1·6	Irish	1·2

[1] From racial origins of parents of 1929-31 average of live births. [2] Not given.

Expenditures on Immigration.—From Confederation to Mar. 31, 1939, Canada has spent $64,922,523 on the encouragement and control of immigration, over 69 p.c. of which was spent in the three decades 1891-1930. Expenditures for the five latest years will be found in the Public Finance chapter of this volume, while yearly details may be obtained from the "Public Accounts", published annually by the Department of Finance.

Section 2.—Statistics of Immigration.

Immigration to Canada, as to other new countries, is generally greatest in 'boom' periods, when capital as well as labour is leaving the older countries for the newer in order to secure the more remunerative investments generally to be found in virgin territories where the natural resources are still unexploited. In periods of depression, however, the sending abroad of both capital and labour is diminished, both preferring at such times to endure the ills they know at home rather than take the risks of a new adventure at a distance. Indeed, the depression that began about the close of 1929, with its accompanying unemployment and unsold surplus of farm products, raised the question whether it was desirable that Canada should accept immigrants in any considerable number. Therefore, the Government, on Aug. 14, 1930, passed an Order in Council whereby immigrants, except Britishers coming from the Mother Country or self-governing Dominions, and United States citizens coming from the United States, were allowed

to come in only if they belonged to one of two classes—*(a)* wives and unmarried children under eighteen years of age, joining family heads established in Canada and in a position to look after their dependants; *(b)* agriculturists with sufficient money to begin farming in Canada. This limitation applies to the whole continent of Europe as well as to many other countries. Regulations affecting immigration from the British Isles, the British Dominions, or the United States have not been changed but a policy of no solicitation has been rigidly adopted. In harmony with this policy the Department of Immigration and Colonization, during 1931, closed all its Canadian Government Information Bureaus in the United States and reduced its representation in the British Isles.

For many years the Immigration Regulations have contained a general provision that immigrants coming to Canada must have sufficient funds to look after themselves until employment is secured. Naturally, when employment is readily available a sum would be considered sufficient that would be insufficient in periods of unemployment, and the enforcement of this regulation is an important factor in reducing immigration at the present time. An Order in Council (Aug. 7, 1929), prohibiting the landing in Canada of any immigrant coming under contract or agreement, expressed or implied, to perform labour or service of any kind in Canada, is also in effect but this prohibition does not apply to farmers, farm labourers, or houseworkers. Under the Order, the Minister of Immigration and Colonization may admit any contract labourer if satisfied that his labour or service is required in Canada.

Subsection 1.—Growth of Immigration Since Confederation.

The wide fluctuations in the immigration movement since the middle of the nineteenth century are shown in Table **2.** The period of heavy movement between 1902 and 1914 was cut down severely between 1915 and 1918. Since 1929 the figures have been the lowest on record for any decade.

2.—Immigrant Arrivals in Canada, Calendar Years 1852-1939.

Year.	Number.	Year.	Number.	Year.	Number.	Year.	Number.
1852	29,307	1874	39,373	1896	16,835	1918	41,845
1853	29,464	1875	27,382	1897	21,716	1919	107,698
1854	37,263	1876	25,633	1898	31,900	1920	138,824
1855	25,296	1877	27,082	1899	44,543	1921	91,728
1856	22,544	1878	29,807	1900	41,681	1922	64,224
1857	33,854	1879	40,492	1901	55,747	1923	133,729
1858	12,339	1880	38,505	1902	89,102	1924	124,164
1859	6,300	1881	47,991	1903	138,660	1925	84,907
1860	6,276	1882	112,458	1904	131,252	1926	135,982
1861	13,589	1883	133,624	1905	141,465	1927	158,886
1862	18,294	1884	103,824	1906	211,653	1928	166,783
1863	21,000	1885	79,169	1907	272,409	1929	164,993
1864	24,779	1886	69,152	1908	143,326	1930	104,806
1865	18,958	1887	84,526	1909	173,694	1931	27,530
1866	11,427	1888	88,766	1910	286,839	1932	20,591
1867	14,666	1889	91,600	1911	331,288	1933	14,382
1868	12,765	1890	75,067	1912	375,756	1934	12,476
1869	18,630	1891	82,165	1913	400,870	1935	11,277
1870	24,706	1892	30,996	1914	150,484	1936	11,643
1871	27,773	1893	29,633	1915	36,665	1937	15,101
1872	36,578	1894	20,829	1916	55,914	1938	17,244
1873	50,050	1895	18,790	1917	72,910	1939	16,994

3.—Immigrant Arrivals in Canada from the United Kingdom, the United States, and Other Countries, Calendar Years 1908-39.

NOTE.—The 1936 edition of the Year Book shows at p. 186, statistics of immigration on this basis, by calendar years from 1881 to 1900 and by fiscal years from 1901 to 1935.

Year.	Immigrant Arrivals from—			Total.	Year.	Immigrant Arrivals from—			Total.
	United Kingdom.	United States.	Other Countries.			United Kingdom.	United States.	Other Countries.	
1908	55,727	51,750	35,849	143,326	1924	57,612	16,042	50,510	124,164
1909	52,344	80,409	40,941	173,694	1925	35,362	17,717	31,828	84,907
1910	112,638	108,350	65,851	286,839	1926	48,819	20,944	66,219	135,982
1911	144,076	112,028	75,184	331,288	1927	52,940	23,818	82,128	158,886
1912	145,859	120,095	109,802	375,756	1928	55,848	29,933	81,002	166,783
1913	156,984	97,783	146,103	400,870	1929	66,801	31,852	66,340	164,993
1914	49,879	50,213	50,392	150,484	1930	31,709	25,632	47,465	104,806
1915	9,606	24,297	2,762	36,665	1931	7,678	15,195	4,657	27,530
1916	8,596	41,779	5,539	55,914	1932	3,327	13,709	3,555	20,591
1917	2,632	65,737	4,541	72,910	1933	2,304	8,500	3,578	14,382
1918	4,484	31,769	5,592	41,845	1934	2,166	6,071	4,239	12,476
1919	57,251	42,129	8,318	107,698	1935	2,103	5,291	3,883	11,277
1920	75,804	40,188	22,832	138,824	1936	2,197	4,876	4,570	11,643
1921	43,772	23,888	24,068	91,728	1937	2,859	5,555	6,687	15,101
1922	31,005	17,534	15,685	64,224	1938	3,389	5,833	8,022	17,244
1923	70,110	16,716	46,903	133,729	1939	3,544	5,649	7,801	16,994

Subsection 2.—Sex and Conjugal Condition of Immigrants.

Sex and Conjugal Condition of Immigrants.—As shown by Table 4, the 17,244 immigrants who came to Canada in the calendar year 1938 included 7,416 males and 9,828 females, males constituting only 43·0 p.c. of the total, as compared with 41·7 p.c. in 1937. Prior to 1932 males normally exceeded females, as shown on p. 213 of the 1934-35 edition of the Year Book, where figures for the fiscal years 1911-34 will be found. Similar information for the calendar years 1929-38 is given in Table 5.

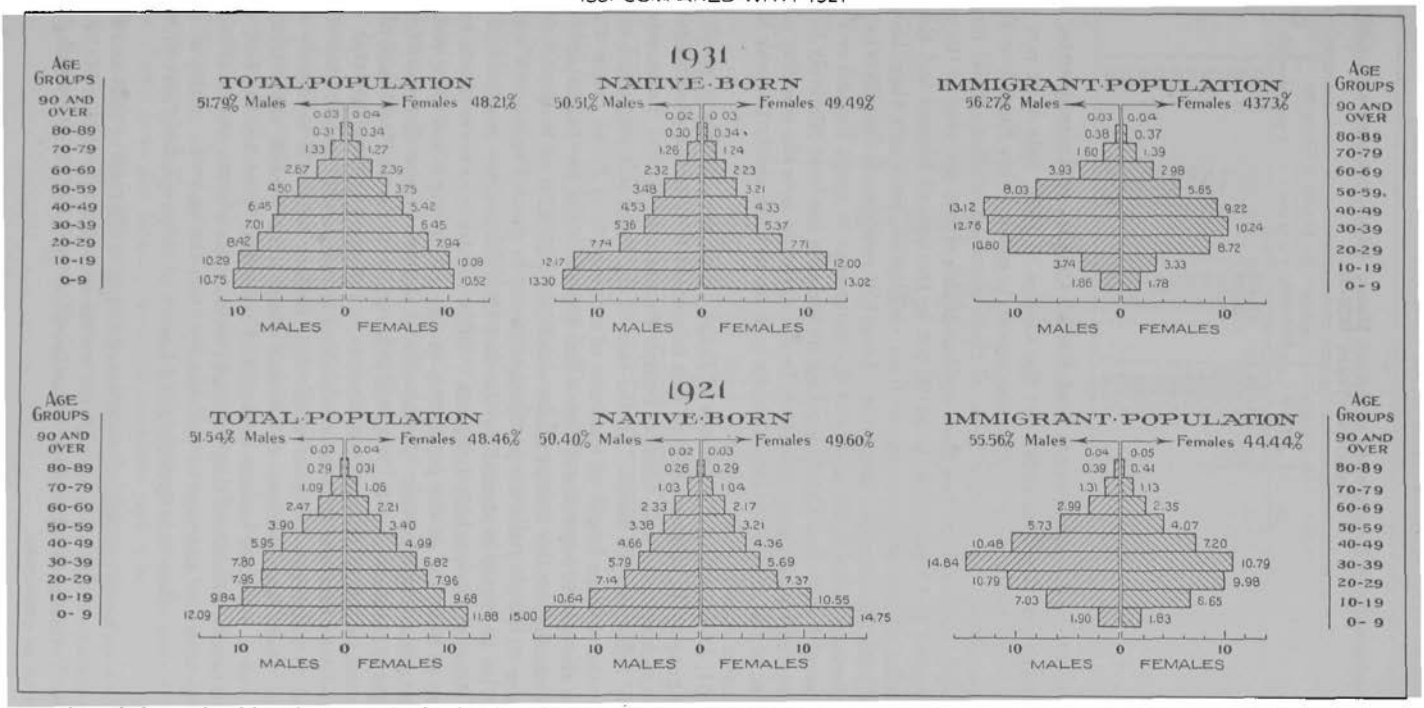
4.—Sex and Conjugal Condition of Immigrant Arrivals, by Age Groups, Calendar Years 1937 and 1938.

Year and Age Group.	Males.					Females.				
	Single.	Married.	Widowed.	Divorced.	Total.	Single.	Married.	Widowed.	Divorced.	Total.
1937.										
0-14	2,255	Nil	Nil	Nil	2,255	2,248	Nil	Nil	Nil	2,248
15-19	602	3	"	"	605	632	106	"	"	738
20-24	393	54	1	"	448	417	454	2	1	874
25-29	332	290	1	3	626	313	749	12	12	1,086
30-39	242	782	11	12	1,047	259	1,646	44	25	1,974
40-49	91	539	11	8	649	128	666	83	19	896
50 or over	69	473	113	15	670	122	410	439	14	985
Totals, 1937	**3,984**	**2,141**	**137**	**38**	**6,300**	**4,119**	**4,031**	**580**	**71**	**8,801**
1938.										
0-14	2,682	Nil	Nil	Nil	2,682	2,457	Nil	Nil	Nil	2,457
15-19	807	3	"	"	810	828	133	"	1	962
20-24	414	77	"	"	491	482	458	"	2	942
25-29	373	328	1	2	704	348	775	10	10	1,143
30-39	242	970	16	15	1,243	324	1,810	49	33	2,216
40-49	91	598	13	10	712	156	756	101	22	1,035
50 or over	76	562	125	11	774	118	483	458	14	1,073
Totals, 1938	**4,685**	**2,538**	**155**	**38**	**7,416**	**4,713**	**4,415**	**618**	**82**	**9,828**

AGE PYRAMIDS FOR ALL OF STATED AGES SHOWING

THE PERCENTAGE DISTRIBUTION OF THE SEXES IN EACH DECENNIAL AGE GROUP FOR THE TOTAL THE NATIVE BORN AND THE IMMIGRANT POPULATIONS IN CANADA

1931 COMPARED WITH 1921



A population produced from its own stock, that is, where there is no immigrant element, and affected by births and deaths alone would, if classified by age groups show regularly decreasing numbers from the lower age group to the higher. Any lowering of the birth rate, however, would lessen the difference between the lower and higher groups. Canada's total population is, however, a composite of immigrant and native; consequently it shows abnormally large proportions in the middle group owing to the age of arrival of most immigrants. In the above chart this middle 'bulge' occurs at later middle age groups in 1931 than in 1921 owing to the ageing of those immigrants already in the country, and the curtailment of immigration during more recent years. The pyramids of the native born are also more or less composite inasmuch as they include the children born in Canada from immigrant parents, but the influence is the exact opposite in this case to that mentioned above, for the numbers in the lower age group are the larger. This effect is naturally less pronounced in 1931 than in 1921 for exactly the same reasons that are given for the immigrant population.

5.—Sex Distribution of Immigrants as Adult Males, Adult Females, and Children, Calendar Years 1929-38.

Year.	Adult Males.	Adult Females.	Children Under 18.		Total.
			Males.	Females.	
1929	75,814	47,425	23,213	18,541	164,993
1930	44,078	32,882	15,521	12,325	104,806
1931	7,280	9,728	5,645	4,877	27,530
1932	5,429	7,259	4,238	3,665	20,591
1933	3,691	5,749	2,500	2,442	14,382
1934	2,998	5,107	2,161	2,210	12,476
1935	2,550	4,593	2,106	2,028	11,277
1936	2,691	4,830	2,127	1,995	11,643
1937	3,573	6,126	2,727	2,675	15,101
1938	4,142	6,800	3,274	3,028	17,244

Subsection 3.—Languages and Racial Origins of Immigrants.

Languages of Immigrants.—At the Census of 1931, only 1·82 p.c. of the population of ten years of age or over was unable to speak either English or French, but the percentages, by racial origins, of those speaking neither official language varied greatly, ranging from less than one-hundredth of one per cent in the case of those of English and Irish origin to 33·96 p.c. in the case of Indians and Eskimos, whose manner of life and remoteness from civilization precludes their becoming conversant with the European languages. Length of residence in Canada is naturally a very important factor in the ability of the immigrant to speak English or French. Immigration of Polish- and Czech-speaking immigrants has been relatively heavy in the past few years and it may, therefore, be of interest to note the standing of these two peoples, at the date of the latest census in so far as their ability to speak English or French was concerned.

In 1931, 13·80 p.c. of the persons of Polish origin were unable to speak either official language. In this connection, it is important to note the percentage of the population of specified origin born on British soil or in the United States, since this profoundly influences the result. In the case of the Poles this amounted to 48·44 p.c., while the average length of residence of immigrants of Polish origin was 12·0 years. In the case of residents of Czech and Slovak origin, the percentage born in British possessions or the United States was lower than that of residents of Polish origin, being 31·90 p.c., and the percentage unable to speak English or French was 14·08. This is largely explained by the fact that the average residence of immigrants of these origins was only 7·9 years. Other factors to be borne in mind are the percentage of illiteracy in the population of any given origin and their residences in rural or urban communities. In the case of the two origins discussed here, the percentages of illiteracy were 11·75 for the Poles and 8·49 for the Czechs and Slovaks. The question of urban or rural residence is complicated by the fact that newly-immigrated persons whose friends and relations are engaged in certain lines of urban work tend to congregate in areas where their mother tongue is commonly spoken and where their opportunities of learning English or French are consequently curtailed, as is found in certain mining and industrial communities, but, on the whole, it is usually considered that the urban resident has a better chance of becoming acquainted with the language of the country than the one who settles in a rural community even where it is not composed largely of those speaking his own mother tongue

English-speaking immigrants constituted 51 p.c. of the total in 1938 and French-speaking immigrants nearly 4 p.c. Of the immigrants speaking neither of the official languages, Polish-speaking persons constituted 10 p.c. and those speaking Czech were almost as numerous.

6.—Languages of Immigrants, Ten Years of Age or Over, Calendar Years 1931-38.

NOTE.—Dashes in this table indicate that no immigrants were reported for the corresponding stub item.

Language.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
English	15,869	11,037	7,524	6,059	5,367	5,397	6,643	7,142
French	1,028	992	562	467	507	485	478	623
German	624	506	378	370	274	282	511	571
Norwegian	68	74	34	33	29	36	25	20
Swedish	72	65	21	23	18	15	41	28
Danish	56	45	44	19	21	19	38	36
Icelandic	–	6	5	4	2	–	–	1
Flemish	36	36	23	45	53	43	62	131
Dutch	39	33	21	36	26	53	58	95
Finnish	71	34	36	44	37	36	65	56
Estonian	5	3	1	1	3	3	·	8
Lettish	3	2	4	–	–	3	7	4
Lithuanian	36	30	29	24	22	38	43	40
Russian	51	36	50	54	32	36	42	29
Hebrew[1]	266	215	223	137	158	197	110	93
Ruthenian, Russniak, Ukrainian	211	164	149	205	184	266	401	728
Polish	421	390	505	688	707	793	1,215	1,440
Roumanian	39	32	29	45	64	65	103	142
Slovenian	10	–	3	–	–	3	2	1
Czech (Bohemian)	224	192	269	433	356	490	989	1,389
Croatian (Serbian)	111	120	114	189	214	305	438	460
Hungarian (Magyar)	300	211	314	290	234	265	436	507
Italian	420	273	227	261	265	245	367	337
Spanish	14	24	19	6	7	9	11	7
Portuguese	–	1	1	–	–	–	–	–
Greek	52	49	42	42	44	56	76	106
Albanian	4	–	–	1	1	3	7	5
Turkish	1	–	–		–	4	1	1
Bulgarian	17	11	10	6	10	13	27	20
Chinese	–	1	1	1	–	–	1	–
Japanese	161	112	104	117	66	96	130	52
East Indian	48	48	30	29	21	10	8	8
Armenian (Aramaic)	4	10	3	1	1	5	3	1
Syrian (Arabic)	15	20	16	10	13	15	16	18
Totals	**20,276**	**14,772**	**10,791**	**9,640**	**8,738**	**9,286**	**12,354**	**14,099**

[1] Includes those speaking Yiddish.

Racial Origins of Immigrants.—Where there is any considerable immigration into a democratic country, the racial and linguistic composition of the immigrants is of great importance. Canadians prefer that settlers should be of a readily assimilable type, already identified by race or language with one or other of the two great races now inhabiting this country and prepared for the duties of Canadian citizenship. Since the French are not, to any great extent, an emigrating people, this means in practice that the great bulk of the preferable settlers are those who speak the English language—those coming from the United Kingdom or the United States. Next in order of readiness of assimilation are the Scandinavians, Dutch, and Germans, who learn English readily and have some acquaintance with the working of democratic institutions. Settlers from Southern and Eastern Europe, however desirable from a purely economic point of view, are less readily assimilated, and the Canadianizing of the people who have come to Canada from these regions in the present century is a problem both in the agricultural Prairie Provinces and in the cities of the east. Less assimilable still, are those who come to Canada from the Orient. On the whole, the great bulk of Canadian immigration of the past generation has been drawn from the English-speaking countries and from those Continental European countries where the population is ethnically closely related to the British, though for some years there was an increasing immigration of Slavs. In the latest year the British races contributed 39·4 p.c. of the immigrants and the French 6·1 p.c.

7.—Racial Origins of Immigrants into Canada, Calendar Years 1927-38.

NOTE.—Dashes in this table indicate that no immigrants were reported for the corresponding stub items. Statistics for 1926 will be found at pp. 158-159 of the 1939 Year Book.

Racial Origin.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
British—												
English	34,056	37,662	43,287	24,789	9,417	6,461	4,301	3,491	3,089	3,049	3,736	4,163
Irish	11,857	12,523	14,478	7,876	2,748	1,886	1,316	1,021	895	854	1,017	1,130
Scottish	17,569	18,532	23,207	11,996	3,825	2,612	1,700	1,198	1,204	1,133	1,314	1,365
Welsh	2,204	3,316	3,586	1,116	371	184	126	115	88	105	102	130
Totals, British	65,686	72,033	84,558	45,777	16,361	11,143	7,443	5,825	5,276	5,141	6,169	6,788
Continental European—												
Albanian	38	38	22	33	5	–	–	4	1	4	9	10
Belgian	2,448	1,341	952	427	97	81	50	78	100	94	111	199
Bohemian	80	90	104	76	22	24	12	10	7	13	12	10
Bulgarian	243	267	311	353	17	16	15	5	13	23	32	26
Croatian	963	1,108	751	604	118	95	107	152	158	232	262	287
Czech	726	987	440	261	78	77	54	76	113	124	182	172
Dalmatian	–	1	7	–	–	–	–	–	–	1	–	1
Dutch	2,631	2,255	1,980	1,605	308	247	190	150	172	211	221	336
Estonian	111	108	98	87	9	1	3	2	3	5	3	9
Finnish	5,167	3,758	4,712	2,811	136	62	67	79	64	61	94	81
French	3,834	4,605	5,187	5,084	2,938	2,832	1,337	903	840	833	871	1,049
German	15,845	17,964	17,919	13,544	2,389	1,842	1,213	945	725	792	1,137	1,102
Greek	610	770	741	575	66	71	53	58	67	92	110	130
Herzegovinian	4	–	–	–	–	–	–	–	–	–	–	–
Italian	4,617	1,114	1,514	1,327	633	435	365	375	392	349	481	428
Jewish	5,184	4,059	4,001	4,220	670	747	781	869	803	659	559	748
Lettish	81	78	83	36	2	8	3	1	2	5	10	6
Lithuanian	893	1,799	959	624	65	49	44	45	25	51	44	47
Magyar	5,875	6,366	5,484	3,360	530	333	506	442	344	334	573	617
Maltese	38	26	41	22	5	6	–	–	–	4	3	6
Mexican	1	–	–	–	1	–	–	–	1	6	1	2
Montenegrin	4	–	2	3	–	–	–	–	–	–	2	8
Moravian	50	7	21	5	1	3	–	–	–	–	3	9
Polish	8,481	8,583	6,424	5,207	680	474	410	436	447	414	675	633
Portuguese	7	22	28	11	5	9	5	5	5	4	5	3
Roumanian	248	336	400	300	48	38	38	44	43	61	91	113
Russian	1,280	1,245	858	1,123	111	104	82	70	99	94	144	165
Ruthenian	10,899	16,080	11,009	8,133	541	482	390	578	483	815	1,215	1,905
Scandinavian—												
Danish	4,032	4,092	3,140	1,421	175	116	82	63	54	63	81	80
Icelandic	50	49	35	40	10	12	10	12	11	4	6	10
Norwegian	6,415	3,707	3,750	1,808	262	275	144	132	122	101	113	119
Swedish	3,866	4,284	3,895	1,440	276	225	126	100	113	81	138	116
Serbian	586	416	387	208	50	51	35	38	28	40	80	71
Slovak	4,256	4,466	2,617	2,645	344	262	408	594	415	571	1,173	1,523
Spanish	45	62	62	36	26	23	12	15	12	22	16	9
Spanish American	2	6	5	2	1	2	4	–	–	–	4	–
Swiss	818	621	652	340	72	57	46	43	55	60	110	58
Turkish	9	7	7	8	2	–	2	1	–	1	1	–
Yugoslavic	1,640	2,915	973	521	78	59	68	104	119	109	130	225
Totals, Continental European	92,077	93,632	79,571	58,300	10,771	9,118	6,662	6,429	5,836	6,333	8,702	10,313
Non-European—												
American Indian	26	21	25	8	29	24	10	6	2	2	11	9
Arabian	8	1	4	7	1	2	–	1	2	–	3	5
Armenian	66	20	33	28	6	5	10	3	5	6	6	6
Chinese	2	1	1	–	–	1	1	1	–	–	1	–
East Indian	56	56	49	80	52	61	36	33	26	13	11	9
Japanese	511	535	180	218	174	119	106	126	70	103	146	57
Korean	–	–	–	–	–	–	–	–	–	–	–	–
Negro	313	359	464	294	104	71	80	25	28	18	27	27
Persian	6	1	1	1	1	1	–	–	–	1	3	–
Syrian	135	124	107	93	31	46	34	27	32	26	22	30
Totals, Non-European	1,123	1,118	864	729	398	330	277	222	165	169	230	143
Grand Totals	**158,886**	**166,783**	**164,993**	**104,806**	**27,530**	**20,591**	**14,382**	**12,476**	**11,277**	**11,643**	**15,101**	**17,244**

Subsection 4.—Countries of Birth and Nationalities of Immigrants.

Countries of Birth of Immigrants.—The figures of Table 8 show that the United States (with 4,474) was the birthplace of more of the 1938 immigrants than any other single country. This has been the case since 1930. In 1938 Poland came second with 2,635, Czechoslovakia third with 2,040, and England fourth with 1,951.

8.—Countries of Birth of Immigrants into Canada, Calendar Years 1931-38.

NOTE.—Dashes in this table indicate that no immigrants were reported for the corresponding stub item.

Country of Birth.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
Africa (British)	54	37	30	19	21	23	30	21
Africa (not British)	9	5	3	5	14	1	3	2
Albania	5	-	1	2	1	4	9	7
Argentina	10	3	11	3	4	2	3	4
Armenia	1	1	-	-	-	-	1	1
Asia	10	3	6	6	21	9	13	20
Australia	93	56	36	40	27	24	35	30
Austria	99	75	53	54	47	47	50	78
Belgium	82	67	45	71	97	101	122	215
Brazil	16	6	6	3	14	3	4	11
Bulgaria	11	9	14	5	12	18	27	18
Canada	1,105	1,139	779	580	543	553	546	657
Central America	9	3	2	-	2	4	8	7
Chile	4	2	1	3	-	1	2	1
China	30	29	23	26	29	29	37	36
Czechoslovakia	539	448	591	855	646	760	1,456	2,040
Danzig	1	2	-	7	-	-	1	-
Denmark	84	60	58	30	33	27	41	44
Egypt	-	-	-	-	-	-	4	4
England	4,938	2,802	1,720	1,405	1,320	1,289	1,603	1,951
Estonia	10	4	1	2	5	3	2	6
Finland	118	50	56	68	49	52	104	73
France	101	102	69	64	78	100	102	118
Germany	447	348	213	147	122	114	214	211
Greece	58	60	40	47	59	83	106	126
Guiana (British)	10	6	5	6	6	7	2	3
Holland	41	41	32	36	32	73	66	129
Hungary	456	282	429	387	260	262	412	426
Iceland	2	8	6	5	7	1	4	3
India (British)	134	107	81	63	61	42	40	55
Ireland (Eire)	363	193	144	135	120	127	135	145
Ireland (Northern)	647	269	181	203	147	130	184	208
Italy	516	331	290	338	346	314	433	387
Japan	183	125	113	129	75	104	163	71
Korea	-	2	2	6	4	2	-	2
Latvia	9	17	12	6	10	6	13	15
Lesser British Isles	37	18	17	5	4	8	8	16
Lithuania	89	88	50	54	29	72	56	60
Malta	6	3	-	-	3	-	2	6
Mexico	7	14	11	7	53	76	66	125
Newfoundland	416	310	287	308	325	393	566	553
New Zealand	36	20	20	13	17	12	11	19
Norway	101	94	47	39	44	46	42	35
Persia	2	-	-	-	1	1	2	-
Poland	1,307	1,134	1,075	1,369	1,351	1,599	2,095	2,635
Portugal	2	1	1	4	-	-	-	3
Roumania	246	162	184	186	211	171	307	362
Russia	191	153	166	119	78	78	91	104
St. Pierre and Miquelon	4	1	1	9	6	12	7	4
Scotland	2,391	1,182	778	538	547	569	642	680
South America	10	20	8	6	12	5	17	17
Spain	8	2	2	5	1	8	7	3
Sweden	97	63	37	28	42	22	35	25
Switzerland	55	32	41	28	48	67	200	106
Syria	23	26	21	20	18	23	16	24
Turkey	12	8	13	5	7	16	9	7
Ukraine	3	4	3	-	-	3	2	1
United States	11,582	10,140	6,180	4,519	3,859	3,591	4,180	4,474
Wales	294	106	80	78	46	64	71	81
West Indies (British)	63	51	37	48	31	27	36	28
West Indies (not British)	16	4	7	2	8	6	6	11
Yugoslavia	306	244	251	299	313	446	627	717
Other European countries	2	-	-	2	2	-	-	3
Other countries (British)	16	9	5	15	3	6	11	12
Other countries (not British)	11	9	6	13	6	3	11	7
Born at sea	2	1	1	1	-	4	3	1
Totals	**27,530**	**20,591**	**14,382**	**12,476**	**11,277**	**11,643**	**15,101**	**17,244**

Nationalities of Immigrants.—In the calendar year 1938 the percentage of British subjects immigrating to Canada was 27·7, while that of United States citizens was 28·3. In 1930, when total immigration was over eight times that of the latest year, the proportions were 34 p.c. and 21 p.c., respectively. The third largest group, comprising immigrants of Polish nationality, dropped from 16 p.c. in 1930 to 14·9 p.c. in 1938.

9.—Nationalities of Immigrants into Canada, Calendar Years 1931-38.

NOTE.—Dashes in this table indicate that no immigrants were reported for the corresponding stub item.

Nationality.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
African (not British)	.	.	.	.	.	.	1	.
Albanian	4	.	1	1	1	4	8	6
Arabian	1	.	1	.	8	.	.	.
Argentinian	3	1	5	1	.	.	1	.
Armenian	–	1	1	–	1	–	–	–
Austrian	67	45	46	30	29	40	40	37
Belgian	56	46	34	62	79	93	108	193
Brazilian	2	1	2	1	5	–	2	–
British	9,794	15,163	3,630	3,151	3,052	3,171	4,020	4,775
Bulgarian	11	9	9	6	13	15	30	20
Chilean	.	1	.	1	–	–	.	.
Chinese	.	1	1	1	.	.	1	.
Colombian	.	6	.	.	.	.	.	.
Costa Rican	.	1	1	.	–	.	.	.
Cuban	2	1	5	1	–	7	1	2
Czechoslovakian	544	450	581	857	647	771	1,469	2,026
Danish	78	52	50	24	24	18	37	35
Danziger	2	–	–	1	–	–	1	–
Dominican	–	–	1	–	–	–	–	–
Dutch	36	32	29	42	31	60	63	125
Ecuadorian	–	2	–	–	–	1	–	–
Egyptian	–	.	.	.	.	.	1	.
Estonian	10	3	–	1	3	5	2	7
Finnish	111	42	45	62	39	49	96	66
French	77	75	55	58	69	96	88	99
German	408	312	185	119	98	72	155	192
Greek	29	36	26	39	42	77	91	114
Guatemalan	1	–	.	.	.	.	–	–
Haitian	.	1	.	.	.	.	.	.
Honduran	–	–	–	–	1	–	2	–
Hungarian	436	274	418	378	250	247	391	405
Icelandic	2	5	5	3	6	37	–	–
Italian	466	269	241	295	277	281	348	305
Japanese	112	98	98	110	56	78	111	39
Korean	–	–	1	–	–	–	–	–
Latvian	6	7	10	1	10	2	10	11
Lithuanian	90	79	51	50	25	73	44	52
Luxemburger	.	.	–	–	2	–	–	2
Mexican	3	–	4	4	42	49	25	41
Norwegian	67	65	35	30	25	–	22	12
Panamanian	2	1	3	1	–	1	–	
Paraguayan	.	.	1	.	.	.		
Persian	.	1	5				.	
Peruvian	3	2	–	–	–	–	2	–
Polish	1,244	1,070	1,042	1,337	1,336	1,552	2,070	2,574
Roumanian	230	153	173	183	215	168	295	355
Russian	52	50	78	48	23	30	17	19
South American	–	–	1	.	–	–	–	–
Spanish	5	1	–	3	5	10	7	2
Swedish	55	40	22	15	27	11	18	11
Swiss	50	30	31	29	40	65	202	116
Syrian	12	21	12	14	14	12	10	22
Turkish	3	1	4	–	1	3	3	1
Ukrainian	3	5	3	–	–	–	–	–
United States	13,154	1,901	7,194	5,225	4,474	4,122	4,699	4,877
Uruguayan	.	1	1	–	–	–	–	–
Venezuelan	.	2	.	–	1			
West Indian (not British)	1	–	–	–	1	–	–	–
Yugoslavic	298	234	241	292	305	423	610	703
Totals	**27,530**	**20,591**	**14,382**	**12,476**	**11,277**	**11,643**	**15,101**	**17,244**

Subsection 5.—Ports of Arrival, Destinations, and Occupations of Immigrants.

Ports of Arrival of Immigrants.—Throughout the greater part of Canada's history, Quebec has been the port at which the greatest number of immigrants have landed. Of recent years there has been a tendency for a larger percentage of immigrants to arrive at the Port of Halifax. This would appear to have been due to increasing immigration in the early spring months before the St. Lawrence is open for traffic. Figures for the calendar years 1931-37 are given at p. 164 of the 1939 Year Book. Statistics on a fiscal year basis will be found in the Report of the Department of Mines and Resources.

Destinations of Immigrants.—Table **10** shows that in each of the calendar years shown the Province of Ontario continued to receive the largest number of immigrants, as has been the case since 1905. In 1929 and 1930 Manitoba was in second place, while in the nine latest years Quebec stood second as the immediate destination of new arrivals.

10.—Destinations of Immigrants into Canada, by Provinces, Calendar Years 1929-39.

NOTE.—The 1934-35 edition of the Year Book gives similar information, by fiscal years, from 1901 to 1934.

Year.	Maritime Provinces.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia and Yukon.	N.W.T.	Not Shown.	Total.
1929....	4,961	23,952	61,684	38,340	11,336	15,300	9,417	2	1	164,99
1930....	4,060	18,405	37,851	23,837	6,435	7,812	6,395	9	2	104,806
1931....	2,547	5,452	12,316	1,056	1,352	2,213	2,583	11	Nil	27,530
1932....	1,762	4,134	9,312	757	971	1,692	1,960	3	"	20,591
1933....	1,281	2,755	6,210	558	727	1,296	1,552	2	1	14,382
1934....	1,027	2,456	5,582	390	519	1,098	1,402	2	Nil	12,476
1935....	1,060	2,258	4,786	708	408	735	1,315	7	"	11,277
1936....	981	1,995	4,913	938	528	917	1,366	5	"	11,643
1937....	1,136	2,611	6,463	1,430	616	1,175	1,667	3	"	15,101
1938....	1,270	3,301	7,107	1,673	684	1,648	1,557	4	"	17,244
1939....	1,167	3,433	5,957	1,316	1,227	1,695	2,190	9	"	16,994

Occupations of Immigrant Arrivals.—The specific classes of immigrants most universally acceptable to Canada are those who settle on the land or those females who enter domestic service.

11.—Immigrants Arriving in Canada, Classified by Occupation and Sex, According to Destination, Calendar Year 1938.

NOTE.—Dashes in this table indicate that no immigrants were reported for the corresponding stub item. For earlier figures for calendar years see previous editions of the Year Book, commencing with the 1936 edition.

Destination.	Total.	Farming Class.				Labouring Class.				Mechanics.			
		18 Yrs. or Over.		Under 18 Yrs.		18 Yrs. or Over.		Under 18 Yrs.		18 Yrs. or Over.		Under 18 Yrs.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Prince Edward Island	62	7	4	5	1	-	-	-	-	-	-	-	-
Via ocean ports	6	1	1	2	-	-	-	-	-	-	-	-	-
From the United States	56	6	3	3	1	-	-	-	-	-	-	-	-
Nova Scotia	850	51	23	12	6	88	4	4	4	29	11	3	7
Via ocean ports	505	20	10	4	3	83	3	2	1	23	7	3	6
From the United States	345	31	13	8	3	5	1	2	3	6	4	-	1
New Brunswick	358	35	17	12	14	10	1	3	1	4	3	2	2
Via ocean ports	53	3	3	4	1	2	-	-	-	1	-	1	-
From the United States	305	32	14	8	13	8	1	3	1	3	3	1	2
Quebec	3,301	248	173	198	117	72	12	11	14	123	48	22	17
Via ocean ports	2,066	205	148	172	102	33	4	6	1	70	25	9	10
From the United States	1,235	43	25	26	15	39	8	5	13	53	23	13	7
Ontario	7,107	557	274	331	194	82	27	34	21	281	126	25	27
Via ocean ports	4,461	442	227	306	168	46	15	32	15	121	58	7	12
From the United States	2,646	115	47	25	26	36	12	2	6	160	68	18	15
Manitoba	1,673	334	232	302	247	4	3	3	6	15	12	7	4
Via ocean ports	1,463	308	223	290	232	2	1	1	4	11	7	3	2
From the United States	210	26	9	12	15	2	2	2	2	4	5	4	2
Saskatchewan	684	129	90	74	77	4	-	-	-	3	1	1	-
Via ocean ports	539	94	75	69	72	3	-	-	-	2	1	1	-
From the United States	145	35	15	5	5	1	-	-	-	1	-	-	-
Alberta	1,648	276	183	177	149	2	1	6	2	7	6	-	2
Via ocean ports	1,333	211	160	164	139	-	1	5	2	3	4	-	-
From the United States	315	65	23	13	10	2	-	1	-	4	2	-	2
British Columbia	1,549	93	56	40	23	32	19	8	4	45	25	6	11
Via ocean ports	977	58	35	27	11	21	12	5	-	21	12	3	7
From the United States	572	35	21	13	12	11	7	3	4	24	13	3	4
Yukon	8	-	-	-	-	2	-	-	-	-	-	-	-
Via ocean ports	5	-	-	-	-	2	-	-	-	-	-	-	-
From the United States	3	-	-	-	-	-	-	-	-	-	-	-	-
Northwest Territories	4	-	-	-	-	-	-	-	-	-	-	-	-
Via ocean ports	3	-	-	-	-	-	-	-	-	-	-	-	-
From the United States	1	-	-	-	-	-	-	-	-	-	-	-	-
Totals	**17,244**	**1,730**	**1,052**	**1,151**	**828**	**296**	**67**	**69**	**52**	**507**	**232**	**66**	**70**
Via Ocean Ports	**11,411**	**1,342**	**882**	**1,038**	**728**	**192**	**36**	**51**	**23**	**252**	**114**	**27**	**37**
From the United States	**5,833**	**388**	**170**	**113**	**100**	**104**	**31**	**18**	**29**	**255**	**118**	**39**	**33**

11.—Immigrants Arriving in Canada, Classified by Occupation and Sex, According to Destination, Calendar Year 1938—concluded.

Destination.	Trading and Clerical Classes.				Mining Class.				Female Domestics.		Other Classes.			
	18 Yrs. or Over.		Under 18 Yrs.		18 Yrs. or Over.		Under 18 Yrs.		18 Years or Over.	Under 18 Years.	18 Yrs. or Over.		Under 18 Yrs.	
	M.	F.	M.	F.	M.	F.	M.	F.	F.	F.	M.	F.	M.	F.
Prince Edward Island	–	1	1	1	–	–	–	–	1	–	8	16	12	5
Via ocean ports	–	–	–	–	–	–	–	–	–	–	1	1	–	–
From the United States	–	1	1	1	–	–	–	–	1	–	7	15	12	5
Nova Scotia	21	11	2	6	1	–	–	–	167	28	54	146	90	82
Via ocean ports	8	4	–	4	1	–	–	–	160	28	21	65	23	26
From the United States	13	7	2	2	–	–	–	–	7	–	33	81	67	56
New Brunswick	12	6	–	1	1	–	–	–	10	–	21	92	60	51
Via ocean ports	3	–	–	–	1	–	–	–	6	–	5	13	5	5
From the United States	9	6	–	1	–	–	–	–	4	–	16	79	55	46
Quebec	193	106	49	25	4	1	1	–	153	32	211	841	301	329
Via ocean ports	99	55	32	19	3	1	1	–	126	32	103	446	182	182
From the United States	94	51	17	6	1	–	–	–	27	–	108	395	119	147
Ontario	388	182	50	60	14	2	–	1	318	62	316	1,973	909	853
Via ocean ports	108	66	16	28	10	–	–	1	275	62	129	1,169	599	549
From the United States	280	116	34	32	4	2	–	–	43	–	187	804	310	304
Manitoba	18	12	2	4	1	1	–	–	39	23	44	180	86	94
Via ocean ports	9	7	–	4	–	–	–	–	37	23	27	131	68	73
From the United States	9	5	2	–	1	1	–	–	2	–	17	49	18	21
Saskatchewan	7	6	1	1	–	–	–	–	13	8	33	139	47	50
Via ocean ports	–	1	–	–	–	–	–	–	11	8	16	112	36	38
From the United States	7	5	1	1	–	–	–	–	2	–	17	27	11	12
Alberta	14	9	3	1	1	–	–	–	44	20	52	353	174	166
Via ocean ports	4	4	1	1	–	–	–	–	34	20	21	275	144	140
From the United States	10	5	2	–	1	–	–	–	10	–	31	78	30	26
British Columbia	63	50	13	10	14	7	2	2	49	9	115	516	184	153
Via ocean ports	25	28	8	6	3	4	2	2	42	9	64	334	128	110
From the United States	38	22	5	4	11	3	–	–	7	–	51	182	56	43
Yukon	–	–	–	–	–	–	–	–	1	–	–	3	1	1
Via ocean ports	–	–	–	–	–	–	–	–	–	–	–	2	1	–
From the United States	–	–	–	–	–	–	–	–	1	–	–	1	–	1
Northwest Territories	–	–	–	–	1	–	–	–	–	–	2	1	–	–
Via ocean ports	–	–	–	–	–	–	–	–	–	–	2	1	–	–
From the United States	–	–	–	–	1	–	–	–	–	–	–	–	–	–
Totals	**716**	**383**	**121**	**109**	**37**	**11**	**3**	**3**	**795**	**182**	**856**	**4,260**	**1,864**	**1,784**
Via Ocean Ports	**256**	**165**	**57**	**62**	**18**	**5**	**3**	**3**	**691**	**182**	**389**	**2,549**	**1,186**	**1,123**
From the United States	**460**	**218**	**64**	**47**	**19**	**6**	–	–	**104**	–	**467**	**1,711**	**678**	**661**

It will be noted that the "Other Classes" group is now much the largest of the seven divisions, this being accounted for by the fact that women and minor children now comprise over half of the immigrants coming into Canada. This has been the case since 1930, the women and children now entering the Dominion being chiefly the wives and children of former immigrants, who, if they had entered at the same time as the family head, would have been classified under one of the other divisions of Table **11.**

The percentage division of immigrants entering Canada in 1938 was: farming class, 27·6; labouring class, 2·8; mechanics, 5·1; trading and clerical class, 7·7; mining class, 0·3; female domestics, 5·7; and other classes, 50·8. The farming class accounted for over half of the total immigration from 1925 to 1928, reaching 56·9 p.c. in the fiscal year 1927; in the fiscal year 1935 it accounted for only 11·9 p.c. of the total. In the fiscal year 1920, the percentage was 26·7 and in the calendar year 1938 it was 27·6.

Persons classified as belonging to the labouring class have not accounted for more than about 7 p.c. in the past 20 years, the 1920 fiscal year figure being 5·3 p.c. as compared with 2·8 p.c. in the calendar year 1938. The mechanics (skilled tradesman) class has fluctuated between 16·1 p.c. and 5·1 p.c. in the past 20 years, but the percentage has dwindled steadily since 1929. The trading and clerical class reached its highest percentage for the past 20 years in the fiscal year 1934, when the figure stood at 9·7 p.c. In the fiscal year 1920 it was only 3·2 p.c. The mining class has never amounted to more than 2·3 p.c. in the period under discussion.

The female domestic servant class, which now accounts for between 5 and 6 p.c. of the total immigration, showed a percentage of 12·3 in the fiscal year 1931.

Statistics of immigration are now compiled on a calendar year basis, but the series does not extend far enough back to ascertain trends, and the above comparisons are made on the basis of the fiscal years 1920-38.

Subsection 6.—Rejections of Immigrants.

Prohibited Immigrants.—The following is quoted from Section 3 of the Immigration Act.

PROHIBITED CLASSES.

"No immigrant, passenger, or other person, unless he is a Canadian citizen, or has Canadian domicile, shall be permitted to enter or land in Canada, or in case of having landed in or entered Canada shall be permitted to remain therein, who belongs to any of the following classes, hereinafter called 'prohibited classes':—

(a) Idiots, imbeciles, feeble-minded persons, epileptics, insane persons, and persons who have been insane at any time previously;

(b) Persons afflicted with tuberculosis in any form, or with any loathsome disease, or with a disease which is contagious or infectious, or which may become dangerous to the public health, whether such persons intend to settle in Canada or only to pass through Canada in transit to some other country: Provided that if such disease is one which is curable within a reasonably short time, such persons may, subject to the regulations in that behalf, if any, be permitted to remain on board ship if hospital facilities do not exist on shore, or to leave ship for medical treatment;

(c) Immigrants who are dumb, blind, or otherwise physically defective, unless, in the opinion of a Board of Inquiry or officer acting as such, they have sufficient money, or have such profession, occupation, trade, employment or other legitimate mode of earning a living that they are not liable to become a public charge or unless they belong to a family accompanying them or already in Canada and which gives security satisfactory to the Minister against such immigrants becoming a public charge;

(d) Persons who have been convicted of, or admit having committed, any crime involving moral turpitude;

(e) Prostitutes and women and girls coming to Canada for any immoral purpose and pimps or persons living on the avails of prostitution;

(f) Persons who procure or attempt to bring into Canada prostitutes or women or girls for the purpose of prostitution or other immoral purpose;

(g) Professional beggars or vagrants;

(h) Immigrants to whom money has been given or loaned by any charitable organization for the purpose of enabling them to qualify for landing in Canada under this Act, or whose passage to Canada has been paid wholly or in part by any charitable organization, or out of public moneys, unless it is shown that the authority in writing of the Deputy Minister, or in case of persons coming from Europe, the authority in writing of the Assistant Superintendent of Immigration for Canada, in London, has been obtained for the landing in Canada of such persons, and that such authority has been acted upon within a period of sixty days thereafter;
(i) Persons who do not fulfil, meet, or comply with the conditions and requirements of any regulations which for the time being are in force and applicable to such persons under this Act;
(j) Persons who, in the opinion of the Board of Inquiry or the officer in charge at any port of entry, are likely to become a public charge;
(k) Persons of constitutional psychopathic inferiority;
(l) Persons with chronic alcoholism;
(m) Persons not included within any of the foregoing prohibited classes, who upon examination by a medical officer are certified as being mentally or physically defective to such a degree as to affect their ability to earn a living;
(n) Persons who believe in or advocate the overthrow by force or violence of the Government of Canada or of constituted law and authority, or who disbelieve in or are opposed to organized government, or who advocate the assassination of public officials, or who advocate or teach the unlawful destruction of property;
(o) Persons who are members of or affiliated with any organization entertaining or teaching disbelief in or opposition to organized government, or advocating or teaching the duty, necessity, or propriety of the unlawful assaulting or killing of any officer or officers, either of specific individuals or of officers generally of the Government of Canada or of any other organized government, because of his or their official character, or advocating or teaching the unlawful destruction of property;
(q) Persons guilty of espionage with respect to His Majesty or any of His Majesty's allies;
(r) Persons who have been found guilty of high treason or treason or of conspiring against His Majesty, or of assisting His Majesty's enemies in time of war, or of any similar offence against any of His Majesty's allies;
(s) Persons who at any time within a period of ten years from the first day of August, one thousand nine hundred and fourteen, were deported from any part of His Majesty's dominions or from any allied country on account of treason or of conspiring against His Majesty, or of any similar offence in connection with the war against any of the allies of His Majesty;
(t) On and after the first day of July, one thousand nine hundred and nineteen, in addition to the foregoing 'prohibited classes', the following persons shall also be prohibited from entering or landing in Canada: Persons over fifteen years of age, physically capable of reading, who cannot read the English or French language or some other language or dialect: Provided that any admissible person or any person heretofore or hereafter legally admitted, or any citizen of Canada, may bring in or send for his father or grandfather, over fifty-five years of age, his wife, his mother, his grandmother or his unmarried or widowed daughter, if otherwise admissible, whether such relative can read or not, and such relative shall be permitted to enter; for the purpose of ascertaining whether aliens can read, the immigration officer shall use slips of uniform size prepared by direction of the Minister, each containing not less than thirty and not more than forty words in ordinary use printed in plainly legible type in the language or dialect the person may designate as the one in which he desires the examination to be made, and he shall be required to read the words printed on the slip in such language or dialect; but the provisions of this subsection shall not apply to Canadian citizens and persons who have Canadian domicile, to persons in transit through Canada, or to such persons or classes of persons as may from time to time be approved by the Minister;
(u) Members of a family (including children over as well as under 18 years of age) accompanying a person who has been rejected, unless in the opinion of the Board of Inquiry no hardship would be involved by separation of the family."

The Immigration Act provides for the rejection and deportation of immigrants belonging to the prohibited classes, and also for the deportation of those who become undesirables within five years after legal entry.

12.—Rejections of Prospective Immigrants upon Arrival at Ocean Ports, by Principal Causes and by Nationalities, Calendar Years 1931-38.

NOTE.—Comparable figures covering the period 1903-34 on a fiscal year basis will be found at p. 222 of the 1934-35 Year Book.

Item.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	Total, 1931-38.
Causes—									
Medical	23	17	14	13	13	10	9	9	108
Civil	286	244	160	224	192	213	217	166	1,702
Totals	**309**	**261**	**174**	**237**	**205**	**223**	**226**	**175**	**1,810**
Nationalties—									
British	171	144	101	167	133	128	94	90	1,028
United States	5	13	9	14	6	9	4	7	67
Other	133	104	64	56	66	86	128	78	715

13.—Deportations of Immigrants, Including Accompanying Persons, After Admission, by Principal Causes and by Nationalities, Fiscal Years 1928-39, with Totals 1903-27 and 1903-39.

NOTE.—The Immigration Branch of the Department of Mines and Resources does not compile these figures on a calendar year basis.

Item.	Total, 1903-27.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.	Total, 1903-39.
Causes—														
Medical	6,458	519	650	600	789	697	476	301	144	81	47	42	36	10,840
Public charges	9,548	430	444	2,106	2,245	4,507	4,916	2,991	464	125	110	46	45	27,977
Criminality	7,003	426	441	591	868	1,006	836	493	267	207	117	101	114	12,470
Other civil	1,812	257	194	107	200	270	277	250	172	163	240	203	229	4,374
Accompanying deported persons	953	254	235	559	274	545	626	439	81	34	57	21	10	4,088
Totals	**25,774**	**1,886**	**1,964**	**3,963**	**4,376**	**7,025**	**7,131**	**4,474**	**1,128**	**610**	**571**	**413**	**434**	**59,749**
Nationalities—														
British	13,653	1,047	1,083	2,983	3,099	4,248	4,251	2,718	385	157	202	134	135	34,095
United States	7,051	297	294	228	279	260	331	319	199	146	167	138	145	9,854
Polish	[1]	50	74	120	160	500	544	247	91	46	41	19	10	1,902
Finnish	[1]	47	54	72	95	256	334	210	39	13	10	4	8	1,142
Other	5,070	445	459	560	743	1,761	1,671	980	414	248	151	118	136	12,756

[1] Included with "Other".

Subsection 7.—Juvenile Immigration.

Juvenile Immigrants.—Among the most generally acceptable immigrants of recent years were the juveniles of both sexes, many of whom had been trained by highly accredited British organizations for Canadian life before coming to Canada, the boys being taught the lighter branches of farm work, and the girls instructed in domestic occupations. On arrival in Canada the boys were placed on farms, while the girls were placed either in town or country, but the organizations remained the guardians of the children until they had reached maturity, and, in addition, the children were subject to efficient and recurrent government inspection until each reached the age of nineteen. This inspection was under the control of the Supervisor of Juvenile Immigration.

Under the British Empire Settlement Agreement the term "children" was applied to boys from 14 to 19 years of age and girls from 14 to 17 migrating to Canada under provincial or approved-society auspices. These organizations were assisted by the Oversea Settlement Agreement, which provided free transportation for the boys and girls from the British Isles migrating to Canada under their auspices. On Sept. 23, 1931, the societies concerned were notified that the Dominion Government had decided to discontinue any further assistance of that nature.

14.—British Juvenile Immigrants, Fiscal Years 1901-39.

NOTE.—Juvenile immigrants are, of course, included in the total number of immigrants recorded elsewhere.

Year.	Juvenile Immigrants.	Year.	Juvenile Immigrants.	Year.	Juvenile Immigrants.
1901	977	1914	2,318	1927	1,741
1902	1,540	1915	1,899	1928	2,070
1903	1,979	1916	821	1929	3,036
1904	2,212	1917	251	1930	4,281
1905	2,814	1918	Nil	1931	2,190
1906	3,258	1919	"	1932	478
1907 (9 months)	1,455	1920	155	1933	172
1908	2,375	1921	1,426	1934	6
1909	2,424	1922	1,211	1935	6
1910	2,422	1923	1,184	1936	4
1911	2,524	1924	2,080	1937	10
1912	2,689	1925	2,000	1938	44
1913	2,642	1926	1,862	1939	120

Subsection 8.—Oriental Immigration.

Oriental Immigration.—The immigration to Canada of Orientals is fundamentally an economic rather than a racial problem, affecting most of all those parts of the country that are nearest to the Orient and the classes that feel their economic position threatened. A record of Oriental immigration since the commencement of the century is given in Table **15,** while Table **15A** gives the same information for the calendar years for which it has been possible to compile the figures, viz., 1929 to 1938.

15.—Record of Oriental Immigrants by Decades, 1901-30, and for Fiscal Years 1931-39.

NOTE.—Statistics for individual fiscal years 1901-30 will be found at p. 206 of the 1938 Year Book.

Year.	Chinese.	Japanese.	East Indians.	Total.	Year.	Chinese.	Japanese.	East Indians.	Total.
1901-10	23,485	12,691	5,195	41,371	1935	Nil	93	33	126
1911-20	32,244	7,195	102	39,541	1936	"	83	21	104
1921-30	5,570	4,334	418	10,322	1937	1	103	13	117
1931	Nil	205	80	285	1938	Nil	139	14	153
1932	"	195	47	242	1939	"	46	14	60
1933	1	115	63	179					
1934	2	105	33	140	**Totals**	**61,303**	**25,304**	**6,033**	**92,640**

15A.—Record of Oriental Immigrants, Calendar Years, 1929-38.

Year.	Chinese.	Japanese.	East Indians.	Total.
1929	1	180	49	230
1930	Nil	218	80	298
1931	"	174	52	226
1932	1	119	61	181
1933	1	106	36	143
1934	1	126	33	160
1935	Nil	70	26	96
1936	"	103	13	116
1937	1	146	11	158
1938	Nil	57	9	66

Chinese Immigrants.—Oriental immigration to the Pacific Coast of North America appears to have commenced with the coming of Chinese immigrants about the time of the discovery of gold in California in 1849, and British Columbia is thought to have received its first Chinese immigrants some time before 1870. The original occupations of these immigrants were laundry workers and domestic servants. As early as 1872 Chinese were employed in the coal mines of the Province and the Legislature was already considering the imposition of a poll tax on Chinese, the same proposition coming up later in the Dominion Parliament with the design of preventing the employment of Chinese labour in railway construction. A Royal Commission was appointed by the Dominion Government in 1884 to investigate Chinese immigration and this Commission recommended the imposition of a head tax of $10 upon Chinese entering Canada, together with registration and special legislation regulating the entry of Chinese domestic servants. This led to the passage of legislation in 1885 (48-49 Vict., c. 71) providing that thereafter Chinese of the labouring class should be required, as a condition of entering Canada, to pay a head tax of $50 each. On Jan. 1, 1901 (63-64 Vict., c. 32), this tax was increased to $100, and on Jan. 1, 1904 (3 Edw. VII, c. 8), after another Royal Commission had reported on this matter, the head tax was further increased to $500. This tax was paid by all Chinese immigrants except consular officers, merchants, clergymen and their families, tourists, men of science, students, and teachers. In spite of this restrictive legislation, the number of Chinese enumerated at the decennial censuses rose from 4,383 in 1881 to 17,312 in 1901, to 27,774 in 1911, to 39,587 in 1921, and 46,519 in 1931. Of this last number, 43,051 were males and only 3,468 females. Over 58 p.c. of all the Chinese in Canada, viz., 27,139, were residents of British Columbia.

16.—Totals of Revenue Receipts and Registrations for Leave of Chinese Immigrants, 1886-1900, by Decades 1901-30, and Fiscal Years, 1931-39.

Year.	Paying Tax.	Exempt from Tax.	Percentage of Total Arrivals Admitted, Exempt from Tax.	Registrations for Leave.	Total Revenue.
	No.	No.	p.c.	No.	$
Totals (1886 to 1900, inclusive)	**28,637**	**394**	**1·36**	**15,853**	**1,454,239**
Totals (1901 to 1910, inclusive)	**20,645**	**2,850**	**12·13**	**25,453**	**3,885,204**
Totals (1911 to 1920, inclusive)	**29,476**	**2,768**	**8·58**	**38,899**	**15,198,518**
Totals (1921 to 1930, inclusive)	**3,623**	**1,949**	**33·00**	**58,857**	**2,422,705**
1931	Nil	Nil	–	5,783	28,846
1932	"	"	–	4,387	11,584
1933	"	1	100·00	3,626	9,152
1934	"	2	100·00	2,156	7,237
1935	"	Nil	–	2,103	6,506
1936	"	"	–	2,138	6,501
1937	"	1	100·00	2,059	9,893
1938	"	Nil	–	792	2,359
1939	"	"		817	2,959

The Chinese Immigration Act of 1923 (13-14 Geo. V, c. 38)* limited the entry to or landing in Canada of persons of Chinese origin or descent, irrespective of allegiance or citizenship, to the following classes:—

* R.S.C. 1927, c. 95.

(a) Members of the diplomatic corps or other government representatives, their suites and their servants, and consuls and consular agents.
(b) Children born in Canada of parents of Chinese origin or descent, who have left Canada for educational or other purposes, on substantiating their identity to the satisfaction of the controller at the port or place where they seek to enter on their return.
(c) Merchants as defined by such regulations as the Minister may prescribe; students coming to Canada for the purpose of attending, and while in actual attendance at, any Canadian university or college authorized by statute or charter to confer degrees.
(d) Persons in transit through Canada.

Classes (c) and (d) are to possess passports issued by the Government of China and endorsed by a Canadian immigration officer.

Japanese Immigrants.—Japanese immigration to Canada commenced about 1896, and a total of some 12,000 came in between then and 1900, but at the Census of 1901 the total number enumerated as domiciled in the Dominion was only 4,738; in 1911, 9,021; in 1921, 15,868; in 1931, 23,342—22,205 of these latter being domiciled in British Columbia. The immigration of Japanese was especially active in the fiscal years 1906 to 1908, in which three years a total of 11,565 entered the country. In 1908 an agreement was made with the Japanese Government, under which the latter undertook to limit the number of passports issued to Japanese immigrants to Canada. Japanese immigration has been very restricted since 1929, only 46 Japanese immigrants having entered Canada in the fiscal year 1939.

East Indian Immigrants.—The immigration of East Indians, like Japanese, did not become active until the fiscal years 1906-08, when 5,134 arrived (see Table **15**, p. 206 of the 1938 Year Book). However, as a consequence of the operation of the Immigration Regulations, East Indian immigration has for years been comparatively small. A resolution of the Imperial War Conference of 1918 declared that "it is the inherent function of the Governments of the several communities of the British Commonwealth that each should enjoy complete control of the composition of its own population by means of restriction on immigration from any of the other communities". However, it was recommended that East Indians, already permanently domiciled in other British countries, should be allowed to bring in their wives and minor children. In the ten fiscal years 1930-39 only 376 East Indians, many of them women and children, were admitted to Canada.

Section 3.—Emigration and Returning Canadians.

Emigration from Canada is an important factor tending to offset the immigration activities of the past and the movement from Canada to the United States has attained considerable proportions at certain periods. The quota system of immigration regulation, applied by the United States Government against immigrants generally, but not against the Canadian born, had the effect of limiting immigration to the United States and thereby encouraging Canadians to enter that country. No record of this movement had ever been kept by the Canadian Government, and, while its seriousness was recognized, its magnitude, as indicated by the United States returns, was questioned on the ground that these returns did not make allowance for Canadians returning to Canada after a more or less extended period of residence in the United States. The Canadian Department of Immigration and Colonization was convinced that a very considerable return movement was taking place, but, until 1924, no attempt was made to ascertain the exact magnitude

of that movement. In that year immigration officers were instructed to take note of Canadians returning to Canada from the United States after having left Canada to reside in that country. The results are tabulated in Table **17.**

Another circumstance that has, in the past, occasioned a considerable movement from Canada to the United States has been the practice of Europeans to enter Canada and declare themselves bona fide immigrants, with the real intention of entering the United States as soon as the quota restrictions would permit them to do so. The tightening-up of the United States regulations *re* persons entering the United States from Canada, and the active co-operation of the Canadian Department of Immigration and Colonization in discouraging this traffic, seem to have effectually met this situation.

Table **17** shows the number of Canadians who had gone to the United States for purposes of permanent residence and who returned to Canada during the period from Apr. 1, 1924, to Dec. 31, 1939.

17.—Canadians Returned from the United States, Calendar Years 1924-39.

Year.	Canadian-Born Citizens.	British Born Who Had Acquired Canadian Domicile.	Naturalized Canadian Citizens.	Total.	Year.	Canadian-Born Citizens.	British Born Who Had Acquired Canadian Domicile.	Naturalized Canadian Citizens.	Total.
1924[1]....	31,217	3,736	2,364	37,317	1932....	16,801	809	610	18,220
1925.....	33,774	3,658	2,555	39,987	1933....	9,330	457	422	10,209
1926.....	53,736	5,792	2,765	62,293	1934....	5,926	739	607	7,272
1927.....	36,838	3,560	1,680	42,078	1935....	4,961	632	785	6,378
1928.....	30,436	2,674	1,010	34,120	1936....	4,649	297	222	5,168
1929.....	27,328	2,265	886	30,479	1937....	4,443	377	347	5,167
1930.....	28,230	2,176	1,202	31,608	1938....	4,016	333	310	4,659
1931.....	18,503	1,135	714	20,352	1939....	3,572	565	473	4,610

[1] Nine months.

The movement of population between the two countries now appears to be slightly towards the United States. In the U.S. fiscal year ended June 30, 1939, the total movement from Canada to that country was 14,887, made up as follows: immigrants, 10,501; U.S. citizens returning after residence in Canada, 4,233; and persons deported from Canada, 153. The movement towards Canada totalled 9,417, made up as follows: immigrants, 3,898 (of whom 2,933 were U.S. citizens); persons deported to Canada, 1,915; and persons permitted to depart voluntarily to Canada in lieu of deportation proceedings, 3,604. Canadian immigration figures for the same period show 5,463 immigrants admitted to Canada and 4,252 returning Canadians, a total of 9,715. The discrepancy between the two series is probably due to incomplete emigration statistics.

In the past eight years there has also been considerable emigration from Canada to the British Isles. Table **18**, taken from the *Statistical Abstract of the United Kingdom*, shows the movement of population between the United Kingdom and British North America from 1924 to 1939. Inasmuch as the movement between the British Isles and Newfoundland is negligible, the table may be taken as presenting a fair picture of immigrant and emigrant movement between Canada and the United Kingdom.

18.—Passengers of British Nationality Changing Their Permanent Residence between the United Kingdom and British North America, Calendar Years 1924-38.

(From the *Statistical Abstract of the United Kingdom.*)

Year.	Leaving U.K. for B.N.A.	Leaving B.N.A. for U.K.	Net Gain (+) or Loss (−) of Population to Canada.	Year.	Leaving U.K. for B.N.A.	Leaving B.N.A. for U.K.	Net Gain (+) or Loss (−) of Population to Canada.
1924	63,016	15,822	+47,194	1932	3,104	21,187	−18,083
1925	38,662	13,939	+24,723	1933	2,243	16,371	−14,128
1926	49,632	10,481	+39,151	1934	2,167	12,128	− 9,961
1927	52,916	12,570	+40,346	1935	2,175	9,712	− 7,537
1928	54,709	15,804	+38,905	1936	2,281	10,107	− 7,826
1929	65,558	12,294	+53,264	1937	2,850	8,970	− 6,120
1930	31,074	15,820	+15,254	1938	3,367	7,341	− 3,974
1931	7,620	17,864	−10,244				

In connection with the annual estimates of population, a study of the movement of population has been made from available data. The results of this study are summarized at pp. 80-81 of this volume.

The classification of returning Canadians shown at p. 174 of the 1939 Year Book was replaced by the one shown below on Apr. 1, 1938, with the result that comparable figures on the old basis are not available for the calendar year 1938. Statistics, by class of travel for the total number of passengers, other than immigrants, are, however, available for that year, and totals have been included in Table 19.

19.—Returning Canadians and Other Non-Immigrants Entering Canada via Ocean Ports, by Class of Travel, Calendar Year 1939, with Totals 1930-38.

NOTE.—Figures in this table cover transoceanic passengers only. Totals for 1926 to 1934, on a fiscal year basis, will be found at p. 228 of the 1934-35 Year Book.

Year and Item.	Transoceanic Passengers.			
	Saloon.	Cabin.	Third.	Total.
Totals, 1930	**6,064**	**14,458**	**30,479**	**51,001**
Totals, 1931	**5,170**	**10,281**	**26,741**	**42,192**
Totals, 1932	**5,333**	**9,314**	**27,285**	**41,932**
Totals, 1933	**4,965**	**8,447**	**23,644**	**37,056**
Totals, 1934	**6,103**	**9,119**	**23,928**	**39,150**
Totals, 1935	**5,780**	**9,981**	**24,618**	**40,379**
Totals, 1936	**4,391**	**12,356**	**30,076**	**46,823**
Totals, 1937	**4,489**	**13,810**	**29,375**	**47,674**
	Cabin.	Tourist.	Third.	Total.
Totals, 1938	**14,459**	**11,899**	**16,858**	**43,216**
Totals, 1939	**11,687**	**8,877**	**13,590**	**34,154**
1939.				
Returned Canadians (after an absence of more than 1 year)	959	748	2,248	3,955
Canadian born	*732*	*510*	*1,122*	*2,364*
British born outside Canada	*181*	*198*	*675*	*1,054*
Naturalized Canadians with domicile	*42*	*34*	*158*	*234*
Aliens with domicile	*4*	*6*	*293*	*303*
Tourists, etc.	6,747	5,673	3,756	16,176
Persons returning (less than 1 year)	3,981	2,456	7,586	14,023
Totals, 1939	**11,687**	**8,877**	**13,590**	**34,154**

Commencing on Apr. 1, 1938, an enumeration was made of returning Canadians and other non-immigrants entering the Dominion from Newfoundland. Such persons are not included in the figures of Table **19** nor have they been included in similar previously published tables. In the calendar year 1939 Canadians returning after an absence of more than one year numbered 62, of whom 46 were Canadian born, 11 were born in other British countries, and 5 were naturalized with Canadian domicile. Tourists, etc., numbered 7,192 and Canadians returning after an absence of less than one year numbered 2,689, the total of all classes amounting to 9,943 persons.

Section 4.—Colonization Activities.

Information on this subject is given at pp. 201-202 of the 1936 edition of the Year Book.

CHAPTER VII.—SURVEY OF PRODUCTION.*

CONSPECTUS.

	Page.		Page.
Section 1. Leading Branches of Production in 1937	167	Section 3. Leading Branches of Production in each Province, 1937 compared with 1936	174
Section 2. Provincial Distribution of Production	172		

Despite the fact that adverse weather conditions affected a considerable part of the Canadian economy during 1937, a gain of 13 p.c. occurred in the net value of production compared with that of the preceding year. The net value of commodities produced reached $2,970,600,000, the highest since 1930, compared with a revised estimate of $2,628,400,000 for 1936. This showing is a striking demonstration of the progress that has been made in the seven years towards diversification and self-sufficiency. Drought, which in past decades would have had even more serious consequences, is entered as a debit item against the increased wealth and purchasing power derived from mines, forests, and manufacturing plants. A factor that augurs well for the future is the backlog of construction that has accumulated over the past nine years; sooner or later this must be released to take care of the normal expansion of population and industry.

The index of wholesale commodity prices advanced from 74·6 in 1936 to 84·6 in 1937, the rise having been dominated by pronounced increases in raw material prices, thereby contributing to a more favourable parity between primary and secondary industries.

While changes in general method prevent precise comparability over an extended period, it is evident that an intermediate peak was reached in 1937. Subsequent price decline implies recession for the year 1938, the drop in the general price index being 7 p.c. Industrial production, as measured by a comprehensive index, declined over 9 p.c. but employment was relatively well maintained, the index receding only 2 p.c. from the level of 1937. The gain in the volume of field crops during 1938, however, was about 37 p.c. and preliminary estimates place the net value of agricultural production at nearly $50,000,000 above the level of 1937 and with more normal provincial distribution.

The Definition of 'Production'.—The term 'production' is used here in its popular acceptation, i.e., as including such processes as the growing of crops, extraction of minerals, capture of fish, conversion of water power into electric current, manufacturing, etc.—in economic phrase, the creation of 'form utilities'. It does not include various activities that are no less productive in a broad and strictly economic sense, such as *(a)* transportation, refrigeration, merchandising, etc., which add the further utilities of 'place', 'time', and 'possession' to commodities already worked up into form, and *(b)* personal and professional services, such as those of the teacher and the doctor, which are not concerned with commodities at all, but are nevertheless essential to any civilized society—representing, in economic language, the creation of 'service utilities'.

As showing the importance of these latter activities, it may be pointed out, for comparison with the figures in the accompanying tables, that steam railway

* Revised by Sydney B. Smith, M.A., Dominion Bureau of Statistics.

gross earnings in 1937, the latest year for which complete statistics of production are available, amounted to $355,103,271, street railway gross earnings to $42,991,444, and telephone and telegraph earnings to $74,699,188, all of which, from a broad point of view, may be considered as production. Further, it may be noted that, according to the industrial classification of the 1931 Census, out of 3,927,230 persons of ten years of age or over who were recorded as gainfully occupied, 306,267 were engaged in transportation activities, 387,434 in trade, 92,340 in finance, and 767,562 in service occupations. While 81,700 of the latter were engaged in custom and repair work, the value of which is included in the survey of production, the value of the production of the remaining 1,471,903 gainfully occupied persons in the four occupational groups just mentioned would not appear to be included to any extent in the survey of production.

'Gross' and 'Net' Production.—The values of products are shown under two headings, namely, 'gross' and 'net'. Gross production represents the total value of all the individual commodities produced under a particular heading. Net production represents an attempt to eliminate the value of materials, fuel, purchased electricity, and process supplies consumed in the production process. The net figures, it will be seen, appear chiefly in the case of secondary production or manufactures, though eliminations are also made in certain cases in the primary or extractive industries, as, for example, seed in the case of field crops, and feed in the case of farm animals. On the other hand, such items as fertilizers in the case of field crops, and reforestation in the case of forestry, are disregarded as partaking of the nature of replacement. The cost of fuel and electricity is deducted in accordance with Resolution 23 of the Conference of British Commonwealth Statisticans, 1935, which states: "The term *net output* or *net value of production* should be used to denote the value added in each industry to the cost of the objects used in production, including all materials, whether transformed or not in the industrial processes, and fuel and purchased power consumed, whether used for heating, lighting, or other purposes, but excluding any amount paid to other firms for work given out to be done by them"

Difficulties in Differentiating between the Branches of Production.—A survey of production must differentiate between the more important branches and at the same time give a purview of the whole that will be free from overlapping. This is somewhat difficult in view of the varying definitions that attach to industrial groups. For example, brick, tile, and cement are frequently included under "mineral production" as being the first finished products of commercial value resulting from the productive process; they may, however, be classified under "manufactures" in view of the nature of the productive process—either allocation being quite correct according to the point of view. In the summing up, production in such industries is regarded both as primary production and as secondary production, but the duplication is eliminated in the grand totals.

Basis of Computation for Each Branch of Production.— The primary industries of agriculture, fishing, forestry, mining, etc., are separated in this statement from the secondary or manufacturing processes. The close association between the two and the overlappings that are apt to occur have already been pointed out. As further explaining the procedure that has been followed in drawing up the tables, the following notes are appended:—

Agriculture.—The annual estimates prepared by the Agricultural Branch of the Bureau of Statistics have been accepted as a basis of gross and net. Provincial

distribution of the net has been arranged on the experience of decennial and quinquennial returns. Figures for 1936 were revised in the light of the findings of the Census of the Prairie Provinces of that year.

Fisheries.—Gross value is the sum of fish caught and landed, factory output, and value added domestically. Net is the value of fish marketed less fuel, electricity, supplies, salt, containers, etc.

Forestry.—An attempt is made to show the extent of operations in the woods, or the products of round or unmanufactured timber as distinguished from the products of milling operations, the latter being limited to the making of first products such as pulp and paper, lumber, lath, shingles, and cooperage stock.

Fur Production.—This item is limited to wild-life production. Production of pelts on fur farms is included in the total for agriculture.

Mineral Production.—Considerable overlapping exists as between mineral production on the one hand and manufactures on the other. The Bureau presents the detailed statistics of these groups (the chief of which are smelters, brick, cement, lime, etc.) in its reports on mineral production, since their product is the first to which a commercial value is ordinarily assigned. The figure for net production is the industrial total, i.e., the net value of sales. The value of ores used by smelters, cost of fuel, purchased electricity, and process supplies, etc., are added to make up the gross value.

Electric Power.—Total revenue, interprovincial sales excluded, is regarded as the gross, and the cost of fuel is deducted to give the net value.

Construction.—The total value of work performed is regarded as the gross, and the cost of materials is deducted to obtain the net value.

Custom and Repair.—A special tabulation is made, based upon the Census of Merchandising and Service Establishments, 1930. The net value is obtained by deducting the cost of materials and supplies from gross receipts.

Total Manufactures.—The figure given for this heading is a comprehensive one including the several items listed with the extractive industries above, though also frequently regarded as manufactures, viz., dairy factories, fish canning and curing, sawmills, pulp and paper mills, and certain mineral industries. This duplication is eliminated from the grand totals shown in the tables, as pointed out in the general note on p. 172.

Section 1.—Leading Branches of Production in 1937.

Net production signifies the value left in the producers' hands after the elimination of the value of commodities consumed in production, including all materials, process supplies, fuel, and purchased electricity. Confining subsequent analysis to the net value of commodities produced, it is observed that eight of the nine main divisions of industry showed appreciable advances in 1937 over the preceding year. The only exception to the general expansion in net value was in agriculture, which was maintained at $679,000,000, a decline of less than 0·1 p.c. from the level of 1936. This was due to the rise in prices of farm products during the year, which advance was greater than in any other important commodity group. As a result, farm product prices compared favourably with those of other groups for the first time in eight

years. However, the loss occasioned by the Saskatchewan drought was more than sufficient to counterbalance gains in value made in the production of other provinces, notably Manitoba, Alberta, and British Columbia.

Mining again gave evidence of its dynamic leadership by establishing a new record for the third consecutive year in the net value of its output. It should be noted that since the War of 1914-18 the mining industry has nearly tripled its annual contribution to the net value of Canada's production. In 1937 there was added a net value, after all deductions, of $373,000,000, a gain of nearly 28 p.c. over the preceding year. The development of base-metal mining deserves special mention. Each of the metals was produced in much greater volume while the volume of gold production was more than double that of eight years earlier.

Operations in the forestry group were greatly expanded in the year under review, with record production in newsprint at higher price levels and increased export trade in lumber. A gain of more than $52,000,000 or 22·7 p.c. over 1936 was indicated. Substantial advances in forestry employment indexes confirmed the gain in value.

The net value of fisheries showed a minor rise over 1936, when a record salmon catch had been taken. The increase was limited to less than 1 p.c. or $205,000. The trapping season was much more profitable with a net value of $10,500,000, or a gain of nearly 14 p.c. over the preceding year.

The electric power industry continued to establish new records in 1937, the net value being over $140,000,000, an advance of nearly 6 p.c. over 1936. During the past decade the capacity of hydro-electric installations has more than doubled, and mining and other industries are using more and more electricity in their processing work.

The net value of construction completed in 1937 was $176,000,000, a gain of $40,000,000 or about 30 p.c. over the preceding year. This was the largest percentage increase registered in any main industrial group. Building material prices also showed an advance of over 11 p.c.

Manufacturing operations gathered momentum during the year, the volume output having been equal to that of 1929. The net value of manufacturing on the revised basis was over $1,500,000,000 in 1937, a gain of nearly 17 p.c. or $217,000,000 from the preceding year. A considerable part of the expansion occurred in the production of durable goods and industrial equipment, particularly in the iron and steel and automobile industries.

A revision of the groups under the heading of custom and repair established this industry on a somewhat lower basis than shown for 1936 in the 1939 Canada Year Book, the "custom clothing" group having been considered more germane to a retail trade classification. Accordingly, the net value of custom and repair work in 1937 was placed at $79,100,000, a gain of 11·5 p.c. over the revised estimate of $70,900,000 in 1936.

Comparing the growth of primary and secondary industries, it is observed that the primary group registered a net advance of 10·3 p.c. in 1937 over 1936, compared with a net increase of 17·7 p.c. for secondary production. The official price index of producers goods reached 75·8 in 1937 compared with 72·4 in 1936, whereas the index of consumers goods moved forward to 77·2 from 74·7, indicating a closer approach to a price parity between the two great branches of the national economy.

1.—Gross and Net Values of Production in Canada, by Industries, 1936 and 1937.

Division of Industry.	1936.[1]		1937.		Percentage Change in Net Value, 1937 from 1936.	Percentage of Net Value by Industry to Total Net Production 1937.
	Gross.	Net.	Gross.	Net.		
	$	$	$	$	p.c.	p.c.
Agriculture	1,065,966,000	679,341,000	1,039,492,000	678,953,000	− 0·1	22·86
Forestry	400,292,122	231,937,561	494,355,587	284,504,031	+22·7	9·58
Fisheries	51,081,135	34,234,063	51,155,513	34,439,481	+ 0·6	1·16
Trapping	9,214,325	9,214,325	10,477,096	10,477,096	+13·7	0·35
Mining	497,332,721[2]	291,972,359	662,630,976[2]	372,796,027	+27·7	12·55
Electric power	135,865,173	133,561,387	143,546,643	140,963,914	+ 5·6	4·75
Totals, Primary Production	2,159,751,476	1,380,260,695	2,401,657,815	1,522,133,549	+10·3	51·25
Construction	258,040,400	135,851,162	351,874,114	176,029,679	+29·6	5·92
Custom and repair	100,549,000	70,930,000	113,067,000	79,055,000	+11·5	2·66
Manufactures[3]	3,002,403,814	1,289,592,672	3,623,159,500	1,506,624,867	+16·8	50·72[4]
Totals, Secondary Production[4]	3,360,993,214	1,496,373,834	4,088,100,614	1,761,709,546	+17·7	59·30[4]
Grand Totals	**4,862,126,049**	**2,628,419,977**	**5,658,877,071**	**2,970,617,510**	**+13·0**	**100·00**

[1] Revised since the publication of the 1939 Year Book. In conformance with Resolution 23 adopted by the Conference of British Commonwealth Statisticians of 1935, the cost of fuel and purchased electricity was deducted from the gross value of all industries for 1936 and 1937. This is in addition to the deduction for cost of materials and process supplies. [2] Comprises mineral production, as shown in Chapter XII, Table 1, plus the value of ores and other raw materials of the smelting industry. [3] Includes dairy factories, sawmills, pulp and paper mills, fishcanning and curing, and certain mineral industries, which are also included in other headings above. This duplication, amounting in 1936 to a gross of $658,618,641 and a net of $248,214,552 and in 1937 to a gross of $830,881,358 and a net of $313,225,585, is eliminated from the grand total. [4] Includes duplication mentioned in footnote [3]. The percentage of the net manufactures *n.e.s.*, to the total net production in 1937 was 40·17.

2.—Detailed Statement of the Net Value of Production in Canada, 1936 and 1937 (Duplications Eliminated).

Classification.	1936.	1937.
	$	$
PRIMARY PRODUCTION.		
Agricultural Production	679,341,000	678,953,000
Forestry—		
Logs and bolts	44,827,957	58,004,070
Pulpwood	48,680,200	63,057,205
Hewn railway ties	3,190,052	3,129,207
Firewood	32,167,410	32,457,629
All other forest products	5,938,609	6,601,776
Less supplies	−26,000,000	−31,486,379
Totals, Woods Operations	108,804,228	131,763,508
Sawmill products	35,982,667	46,727,302
Pulp and paper mill products	87,150,666	106,013,221
Totals, Milling Operations	123,133,333	152,740,523
Totals, Forestry Production	231,937,561	284,504,031
Fisheries—		
Fish prepared domestically or sold fresh by fishermen	10,167,470	11,013,868
Sales to canning and curing establishments	11,916,080	12,179,219
Values added domestically	2,312,784	1,873,801
Fish-canning and-curing establishments (values added)	14,768,721	13,909,406
Less fuel, electricity, and supplies	−4,930,992	−4,536,813
Totals, Fisheries Production	34,234,063	34,439,481

2.—Detailed Statement of the Net Value of Production in Canada, 1936 and 1937 (Duplications Eliminated)—concluded.

Classification.	1936.	1937.
	$	$
Trapping—		
Fur production (wild life)	9,214,325	10,477,096
Mineral Production	291,972,359	372,796,027
Electric Light and Power	133,561,387	140,963,914
TOTALS, PRIMARY PRODUCTION	1,380,260,695	1,522,133,549
SECONDARY PRODUCTION.		
Construction	135,851,162	176,029,679
Custom and Repair	70,930,000	79,055,000
Manufactures—		
Vegetable products	254,135,013	266,869,693
Animal products	109,823,848	118,117,971
Textiles	162,677,272	174,076,945
Wood and paper	261,020,034	306,961,553
Iron and steel	211,572,641	277,865,582
Non-ferrous metals	132,423,707	182,968,223
Non-metallic minerals	68,707,776	77,667,225
Chemicals	69,854,217	79,290,240
Miscellaneous	19,378,164	22,807,435
Totals, Manufactures[1]	1,289,592,672	1,506,624,867
TOTALS, SECONDARY PRODUCTION	1,496,373,834	1,761,709,546
Grand Totals[1]	**2,628,419,977**	**2,970,617,510**

[1] The item "Totals, Manufactures" includes the following industries that are also shown elsewhere, the amount of the duplication being deducted from the grand total.

	1936.	1937.
	$	$
Dairy factories	32,466,613	34,958,378
Sawmills and pulp and paper mills	123,133,333	152,729,319
Fish-canning and -curing establishments	9,837,729	9,372,593
Mineral industries	82,776,877	116,165,295
Totals	248,214,552	313,225,585
Manufactures, *n.e.s*	1,041,378,120	1,193,399,282

Relative Importance of the Several Branches of Production.—Due partly to adverse weather conditions and a succession of subnormal crops in recent years, the relative importance of manufacturing has been accentuated. Agricultural production in 1937 represented only about 23 p.c. of the net output of all industries, while the manufacturing group accounted for over half of the total net production. Eliminating the duplicated items, which are also included in the several extractive industries with which they are associated, we find that the output of manufacturing industries, not elsewhere stated, was 40·2 p.c. of the net total. Mining held third place in 1937, contributing nearly 12·6 p.c. of the Dominion total. Forestry was responsible for 9·6 p.c. of the net, while construction and electric power contributed 5·9 and 4·8 p.c., respectively. Custom and repair, fisheries, and trapping followed in the order given.

Section 2.—Provincial Distribution of Production.

Seven of the nine provinces registered gains in net production in 1937 over the preceding year. Despite a decline in Prince Edward Island, the total for the Maritimes was up nearly 11 p.c. Extending the gain of the preceding three years, the net production of Quebec showed an increase of 17 p.c. and the advance of 14 p.c. in Ontario was substantial. The trend in the Prairie Provinces was uneven: Manitoba registered a big advance of about 42 p.c., but the net value of Saskatchewan's output was over 50 p.c. lower in 1937; Alberta increased the net value of its production by 27 p.c. The net result for the Prairie Provinces during 1937 was an increase of 3·7 p.c. Featured by substantial net gains in forestry, mining, and manufacturing, the recovery movement was extended in the British Columbia-Yukon region, the net value of the output rising by nearly 17 p.c.

Relative Production by Provinces, 1937.—In the following table the net commodity production is appraised on a per capita basis by provinces. This represents the net value of new wealth produced by capital and labour, and, as such, measures the annual dollar return on the natural resources and on the plant and equipment of the nation. It is distinct from, and must not be confused with, the national income, which includes, in addition to the net commodity production, the value of services, and the utilities of time, place, and possession that have a distinct though somewhat intangible value in the economic sense in the same manner as commodities produced.

Seven of the nine provinces recorded appreciable per capita betterment in 1937 over 1936. The lower agricultural production in Saskatchewan accounted for all the decrease in that province.

3.—Gross and Net Values of Production in Canada, by Provinces, 1936 and 1937.

Province.	1936.[1]				1937.			
	Gross Value.	Net Value.			Gross Value.	Net Value.		
		Amount.	Per-centage.	Per Capita.[2]		Amount.	Per-centage.	Per Capita.[2]
	$	$		$	$	$		$
P.E.I.	21,166,389	12,372,654	0·47	134·50	18,366,455	9,361,792	0·32	100·67
N.S.	154,815,695	89,318,776	3·40	166·33	181,261,518	102,321,783	3·44	188·79
N.B.	116,170,230	62,758,002	2·39	144·27	135,930,088	70,738,543	2·38	160·77
Que.	1,247,023,268	648,790,860	24·68	209·56	1,498,939,161	759,264,651	25·56	242·19
Ont.	2,191,559,179	1,158,885,508	44·09	314·15	2,580,553,917	1,319,991,840	44·44	355·70
Man.	232,926,071	123,128,621	4·68	173·18	301,631,357	175,355,562	5·90	244·57
Sask.	255,200,863	154,936,876	5·90	166·42	176,834,009	74,894,069	2·52	79·76
Alta.	260,635,137	161,864,956	6·16	209·40	309,276,957	205,891,931	6·93	264·64
B.C. and Yukon[3]	382,629,217	216,363,724	8·23	283·20	456,083,609	252,797,339	8·51	330·46
Totals	**4,862,126,049**	**2,628,419,977**	**100·00**	**238·34**	**5,658,877,071**	**2,970,617,510**	**100·00**	**267·14**

[1] Revised since the publication of the 1939 Year Book. [2] Based on estimates of population given on page 103. [3] The value of production in Yukon, mainly in mining and trapping (including similar industries of the N.W.T.) was $5,444,626 gross and $4,147,174 net in 1937 and $4,024,720 gross and $3,387,894 net in 1936.

Section 3.—Leading Branches of Production in Each Province, 1937 Compared with 1936.

Maritime Provinces.—Measured by an increase of nearly 11 p.c. in the net value of production, the Maritimes had a more prosperous year in 1937 than in 1936. While the return from agriculture was considerably reduced, the decline was more than counterbalanced by advances in forestry, mining, construction, and manufactures. The net receipts from the fisheries showed little change in 1937 compared with the preceding year.

Quebec.—Manufacturing was again the principal industry in Quebec, contributing, without duplication, over 47 p.c. of the net value of provincial production. In comparison, agriculture was only 14·5 p.c. and forestry 13·7 p.c. of the total net. Mining registered an encouraging gain, increasing from 6·9 to 8·0 p.c., while construction advanced from 5·4 to 6·8 p.c. of the provincial total.

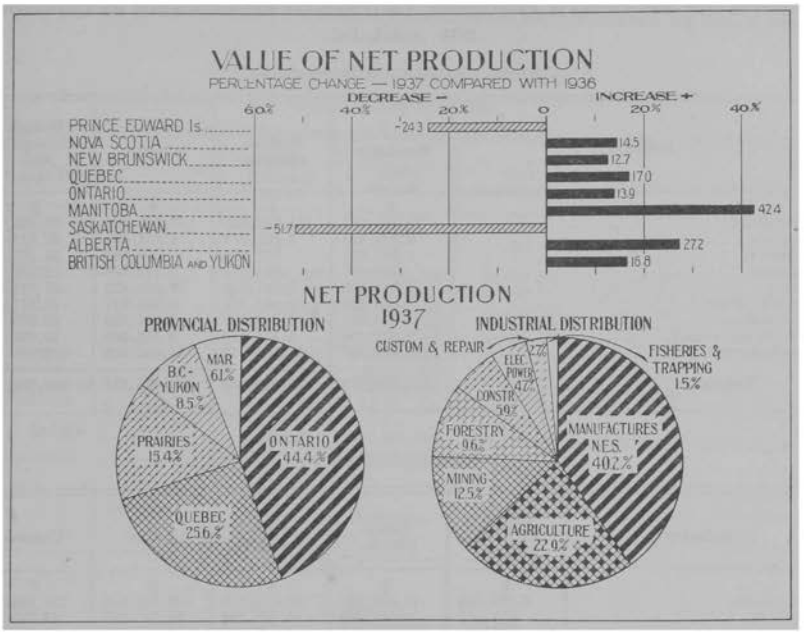
Ontario.—The net value of manufacturing held the leading position in this Province in 1937, constituting more than half of the provincial total. Agriculture accounted for only 17·5 p.c., while mining advanced from 13·1 in 1936 to 14·4 p.c., visualizing the day when the mines of the Province may produce more new net wealth than the farms.

Prairie Provinces.—Agriculture naturally predominated in the Prairie Provinces, contributing about 60 p.c. of the net production in 1937. Despite serious drought in Saskatchewan, the agricultural total for the area declined only 1 p.c. from 1936, owing to gains in Manitoba and Alberta. Manufacturing accounted for over one-fifth of the regional output—a remarkable development of the last quarter century in a region that is considered predominantly agricultural. Mining continued to advance, supplying over 9 p.c. of the net total.

British Columbia and Yukon.—The net output from forestry in British Columbia during 1937 was $64,488,000 or over one-quarter of the provincial production. Mining contributed the second highest proportion, viz., 21 p.c., while manufactures, eliminating duplication, comprised about 20 p.c. of the net. Agriculture was responsible for nearly 13 p.c. and fisheries accouned for only 5 p.c.

Tables 4 and 4A give the details of gross and net production by industries for each province in the years 1936 and 1937. In Manitoba, Saskatchewan, Alberta, and Prince Edward Island agriculture ranks in first place in net production, manufactures surpassing this primary industry in the other five provinces. Tables 5 and 5A present some very interesting comparisons. In Nova Scotia, indeed, during 1937 mining was more productive in net value than agriculture, while in New Brunswick forestry ranked above agriculture in the addition of new wealth. In British Columbia-Yukon, the products of forestry, of mining, and of manufacturing, ranked above agriculture.

On a provincial percentage basis, mining is very much more important in Nova Scotia than it is in the premier mining province of Ontario. Likewise, the generation of electric power is relatively a more important industry in Nova Scotia, New Brunswick, Quebec, Manitoba, Saskatchewan, and in British Columbia than it is in Ontario. Manufacturing is of first importance in Ontario and Quebec, and also in Nova Scotia.



4.—Gross and Net Values of Production, Classified for Each Province, by Industries, 1936.

NOTE.—Gross and net figures for 1936 have been revised since the publication of the 1939 Year Book. For Dominion totals, see Tables 1 and 2.

GROSS PRODUCTION.

Industry.	Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.
	$	$	$	$	$
Agriculture	15,728,000	29,362,000	30,394,000	187,234,000	349,751,000
Forestry	638,621	13,087,653	28,699,912	148,143,119	103,806,452
Fisheries	1,412,791	12,192,912	5,294,485	2,557,194	3,209,422
Trapping	4,056	348,971	68,509	1,449,285	1,796,079
Mining	27,663	24,754,077	2,566,861	93,260,522	260,228,171
Electric power	299,229	5,216,692	3,307,106	45,937,802	52,012,533
Construction	816,141	15,434,295	11,982,253	67,902,087	108,260,433
Custom and repair	351,920	2,946,090	2,061,250	27,198,500	39,646,480
Manufactures[1]	3,311,223	67,784,970	56,225,201	863,687,389	1,547,551,931
Totals[1]	**21,166,389**	**154,815,695**	**116,170,230**	**1,247,023,268**	**2,191,559,179**

For footnote, see end of table, p. 176.

4.—Gross and Net Values of Production, Classified for Each Province, by Industries, 1936—concluded.

GROSS PRODUCTION—concluded.

Industry.	Manitoba.	Saskatchewan.	Alberta.	British Columbia and Yukon.[2]
	$	$	$	$
Agriculture	78,384,000	184,782,000	147,628,000	42,703,000
Forestry	5,231,995	2,553,871	4,452,459	93,678,040
Fisheries	1,667,371	367,025	309,882	24,070,053
Trapping	936,097	931,175	1,142,906	2,537,247
Mining	16,674,438	9,547,510	22,461,422	67,812,057
Electric power	7,246,220	4,651,782	4,945,917	12,247,892
Construction	12,929,022	8,314,668	9,611,860	22,789,641
Custom and repair	6,857,440	4,876,630	5,670,960	10,939,730
Manufactures[1]	122,050,502	51,604,510	74,052,010	216,136,078
Totals[1]	**232,926,071**	**255,200,863**	**260,635,137**	**382,629,217**

NET PRODUCTION.

Industry.	Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.
	$	$	$	$	$
Agriculture	9,256,320	16,675,987	15,775,815	109,714,980	225,368,910
Forestry	472,513	8,537,693	16,266,798	84,786,485	58,390,676
Fisheries	877,466	8,202,308	3,542,465	2,030,640	3,209,422
Trapping	4,056	348,971	68,509	1,449,285	1,796,079
Mining	27,663	19,108,641	2,324,747	44,823,567	151,874,462
Electric power	252,213	4,318,327	3,143,900	45,912,902	51,984,246
Construction	490,457	9,290,891	7,232,337	34,834,536	55,388,095
Custom and repair	248,260	2,078,250	1,454,070	19,186,070	27,967,700
Manufactures[1]	1,055,201	27,788,510	23,781,487	377,514,998	686,470,917
Totals[1]	**12,372,654**	**89,318,776**	**62,758,002**	**648,790,860**	**1,158,885,508**

Industry.	Manitoba.	Saskatchewan.	Alberta.	British Columbia and Yukon.[2]
	$	$	$	$
Agriculture	50,257,163	122,369,850	101,271,260	28,650,715
Forestry	3,303,840	1,937,413	3,303,180	54,938,963
Fisheries	1,667,371	367,025	309,882	14,027,484
Trapping	936,097	931,175	1,142,906	2,537,247
Mining	9,366,496	5,720,747	20,104,417	38,621,619
Electric power	7,171,331	3,903,212	4,683,604	12,191,652
Construction	6,784,027	5,093,281	5,414,177	11,323,361
Custom and repair	4,837,430	3,440,100	4,000,450	7,717,170
Manufactures[1]	45,015,577	15,185,500	25,000,136	87,780,346
Totals[1]	**123,128,621**	**154,936,876**	**161,864,956**	**216,363,724**

[1] The totals for manufactures involve duplicated amounts that were deducted in computing the total production for each province. The duplication arises from including in two places a number of industries that may be regarded as extractive or as manufacturing processes. The following are the amounts of the duplication by provinces: Prince Edward Island, gross $1,423,255, net $311,495; Nova Scotia, gross $16,311,965, net $7,030,802; New Brunswick, gross $24,429,347, net $10,832,126; Quebec, gross $190,346,630, net $71,463,103; Ontario, gross $274,703,322, net $103,564,999; Manitoba, gross $19,051,014, net $6,210,711; Saskatchewan, gross $12,428,308, net $4,011,427; Alberta, gross $9,640,279, net $3,365,056; British Columbia and Yukon, gross $110,284,521, net $41,424,833. [2] The value of production in Yukon, mainly in the mining and trapping industries (including similar industries of the N.W.T.), was $4,042,720 gross and $3,387,894 net in 1936.

4A.—Gross and Net Values of Production, Classified for Each Province, by Industries, 1937.

NOTE.—For Dominion totals, see Tables 1 and 2.

GROSS PRODUCTION.

Industry.	Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.
	$	$	$	$	$
Agriculture	12,867,000	28,561,000	26,632,000	188,844,000	343,137,000
Forestry	700,892	15,581,950	40,937,863	184,577,381	128,261,976
Fisheries	1,284,907	12,623,335	5,493,413	2,281,651	3,615,666
Trapping	7,620	504,530	86,862	1,428,020	2,022,835
Mining	–	28,673,800	2,735,968	128,596,331	336,278,376
Electric power	301,841	5,690,004	3,633,004	50,535,737	52,752,388
Construction	754,448	20,180,404	17,557,146	101,460,731	148,352,327
Custom and repair	395,740	3,312,860	2,317,870	30,584,620	44,582,320
Manufactures[1]	3,566,991	84,393,656	69,479,207	1,046,470,796	1,878,088,188
Totals[1]	**[r]8,366,455**	**181,261,518**	**135,930,088**	**1,498,939,161**	**2,580,553,917**

Industry.	Manitoba.	Saskatchewan.	Alberta.	British Columbia and Yukon.[2]
	$	$	$	$
Agriculture	121,029,000	92,309,000	181,274,000	44,839,000
Forestry	7,018,321	2,880,892	4,911,455	109,484,857
Fisheries	1,796,012	527,199	433,354	23,099,976
Trapping	1,161,247	1,031,252	1,482,708	2,752,022
Mining	27,708,927	15,602,580	23,808,597	99,226,397
Electric power	7,679,888	4,665,244	5,147,308	13,141,229
Construction	12,475,326	8,436,495	11,198,894	31,458,343
Custom and repair	7,711,170	5,483,750	6,376,980	12,301,690
Manufactures[1]	140,805,451	62,205,884	86,225,069	251,924,258
Totals[1]	**301,631,357**	**176,834,099**	**309,276,957**	**456,083,609**

NET PRODUCTION.

Industry.	Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.
	$	$	$	$	$
Agriculture	6,367,450	16,380,450	12,508,480	110,218,770	230,788,370
Forestry	507,861	10,010,920	23,041,300	103,861,092	72,380,504
Fisheries	798,425	8,494,245	3,555,251	1,818,548	3,615,666
Trapping	7,620	504,530	86,862	1,428,020	2,022,835
Mining	–	22,597,547	2,442,101	60,872,828	190,447,576
Electric power	250,174	4,622,539	3,425,423	50,511,494	52,701,707
Construction	376,055	11,995,103	9,610,497	51,464,002	71,502,421
Custom and repair	276,690	2,316,310	1,620,630	21,384,380	31,171,390
Manufactures[1]	1,117,298	33,146,796	28,770,727	445,885,666	802,403,114
Totals[1]	**9,361,792**	**102,321,783**	**70,738,543**	**759,264,651**	**1,319,991,840**

For footnotes, see end of table, p. 178.

4A.—Gross and Net Values of Production, Classified for Each Province, by Industries, 1937—concluded.

NET PRODUCTION—concluded.

Industry.	Manitoba.	Saskatchewan.	Alberta.	British Columbia and Yukon.[2]
	$	$	$	$
Agriculture	93,241,760	38,282,070	139,195,510	31,970,140
Forestry	4,402,136	2,199,340	3,612,734	64,488,144
Fisheries	1,796,012	527,199	433,354	13,400,781
Trapping	1,161,247	1,031,252	1,482,708	2,752,022
Mining	13,415,841	8,226,326	20,988,638	53,805,170
Electric power	7,607,513	3,903,680	4,860,043	13,081,341
Construction	5,755,079	4,973,840	6,045,285	14,307,397
Custom and repair	5,391,550	3,834,170	4,458,700	8,601,180
Manufactures[1]	49,950,465	17,068,655	28,923,095	99,359,051
Totals[1]	**175,355,562**	**74,894,069**	**205,891,931**	**252,797,339**

[1] The totals for manufactures involve duplicated amounts that were deducted in computing the total production for each province. The duplication arises from including in two places a number of industries that may be regarded as extractive or as manufacturing processes. The following statement gives the amounts of the duplication by provinces: Prince Edward Island, gross $1,512,984, net $339,781; Nova Scotia, gross $18,260,021, net $7,746,657; New Brunswick, gross $32,943,245, net $14,322,728; Quebec, gross $235,840,106, net $88,180,149; Ontario, gross $356,537,159, net $137,041,743; Manitoba, gross $25,753,985, net $7,366,041; Saskatchewan, gross $16,308,287, net $5,152,463; Alberta, gross $11,581,408, net $4,108,136; British Columbia and Yukon, gross $132,144,163, net $48,967,887. [2]Value of production in Yukon, mainly in the mining and trapping industries (including similar industries of the N.W.T.), was $5,444,626 gross and $4,147.174 net in 1937.

5.—Percentage of the Value of the Net Production in Each Industry to the Total Net Production for Each of the Provinces, 1936.

Industry.	Prince Edward Island.	Nova Scotia.	New Bunswick.	Quebec	Ontario.
	p.c.	p.c.	p.c.	p.c.	p.c.
Agriculture	74·81	18·67	25·14	16·91	19·44
Forestry	3·82	9·56	25·92	13·07	5·04
Fisheries	7·09	9·18	5·64	0·31	0·28
Trapping	0·03	0·39	0·11	0·22	0·16
Mining	0·22	21·39	3·71	6·91	13·10
Electric power	2·04	4·83	5·01	7·08	4·49
Construction	3·96	10·40	11·52	5·37	4·78
Custom and repair	2·01	2·33	2·32	2·96	2·41
Manufactures, *n.e.s.*	6·02	23·25	20·63	47·17	50·30
Totals	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**
Totals, Manufactures (Percentages to Grand Totals of Net Production)	8·53	31·11	37·89	58·19	59·24

5.—Percentage of the Value of the Net Production in Each Industry to the Total Net Production for Each of the Provinces, 1936—concluded.

Industry.	Manitoba.	Saskatchewan.	Alberta.	British Columbia and Yukon.	Canada.
	p.c.	p.c.	p.c.	p.c.	p.c.
Agriculture	40·82	78·98	62·57	13·24	25·84
Forestry	2·68	1·25	2·04	25·39	8·83
Fisheries	1·35	0·24	0·19	6·48	1·30
Trapping	0·76	0·60	0·71	1·17[1]	0·35
Mining	7·61	3·69	12·42	17·85[1]	11·11
Electric power	5·82	2·52	2·89	5·64	5·08
Construction	5·51	3·29	3·34	5·23	5·17
Custom and repair	3·93	2·22	2·47	3·57	2·70
Manufactures, *n.e.s.*	31·52	7·21	13·37	21·43	39·62
Totals	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**
Totals, Manufactures (Percentages to Grand Totals of Net Production)	36·56	9·80	15·45	40·57	49·06

[1] Includes the trapping and mining industries of the Northwest Territories.

5A.—Percentage of the Value of the Net Production in Each Industry to the Total Net Production for Each of the Provinces, 1937.

Industry.	Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.
	p.c.	p.c.	p.c.	p.c.	p.c.
Agriculture	68·01	16·01	17·68	14·52	17·48
Forestry	5·42	9·78	32·58	13·68	5·48
Fisheries	8·53	8·30	5·03	0·24	0·27
Trapping	0·08	0·49	0·12	0·19	0·15
Mining	–	22·08	3·45	8·02	14·43
Electric Power	2·67	4·52	4·84	6·65	3·99
Construction	4·02	11·72	13·59	6·78	5·42
Custom and repair	2·96	2·26	2·29	2·82	2·36
Manufactures, *n.e.s.*	8·31	24·84	20·42	47·10	50·42
Totals	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**
Totals, Manufactures (Percentages to Grand Totals of Net Production)	11·93	32·39	40·67	58·73	60·79

Industry.	Manitoba.	Saskatchewan.	Alberta.	British Columbia and Yukon.	Canada.
	p.c.	p.c.	p.c.	p.c.	p.c.
Agriculture	53·19	51·12	67·61	12·65	22·86
Forestry	2·51	2·94	1·75	25·52	9·58
Fisheries	1·02	0·70	0·21	5·30	1·16
Trapping	0·66	1·38	0·72	1·09[1]	0·35
Mining	7·65	10·98	10·19	21·28[1]	12·55
Electric power	4·34	5·21	2·36	5·17	4·75
Construction	3·28	6·64	2·94	5·66	5·93
Custom and repair	3·07	5·12	2·17	3·40	2·66
Manufactures, *n.e.s.*	24·28	15·91	12·05	19·93	40·16
Totals	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**
Totals, Manufactures (Percentages to Grand Totals of Net Production)	28·49	22·79	14·05	39·30	50·72

[1] Includes the trapping and mining industries of the Northwest Territories.

CHAPTER VIII.—AGRICULTURE.

CONSPECTUS.

	Page.
Section 1. Government in Relation to Agriculture	180
Subsection 1. The Dominion Government	181
Agricultural Marketing Legislation, 1939	181
The Canadian Farm Loan Board	185
The Dominion Marketing Board	186
Subsection 2. Provincial Departments of Agriculture	187
Subsection 3. Provincial Agricultural Colleges and Schools	190
Section 2. Statistics of Agriculture	197
Subsection 1. Value of Agricultural Production and of Farm Capital	200
Subsection 2. Acreages, Yields, and Values of Field Crops	203
Subsection 3. Farm Live Stock and Poultry	211
Subsection 4. Dairying Statistics	216
Subsection 5. Horticulture	220
Subsection 6. Special Agricultural Crops	224
Subsection 7. Farm Labour and Wages	228
Subsection 8. Prices of Agricultural Produce	228
Subsection 9. Agricultural Statistics of the Census	230
Types of Farming in the Prairie Provinces, 1935	230
Subsection 10. Miscellaneous Agricultural Statistics	233
Subsection 11. International Agricultural Statistics	237

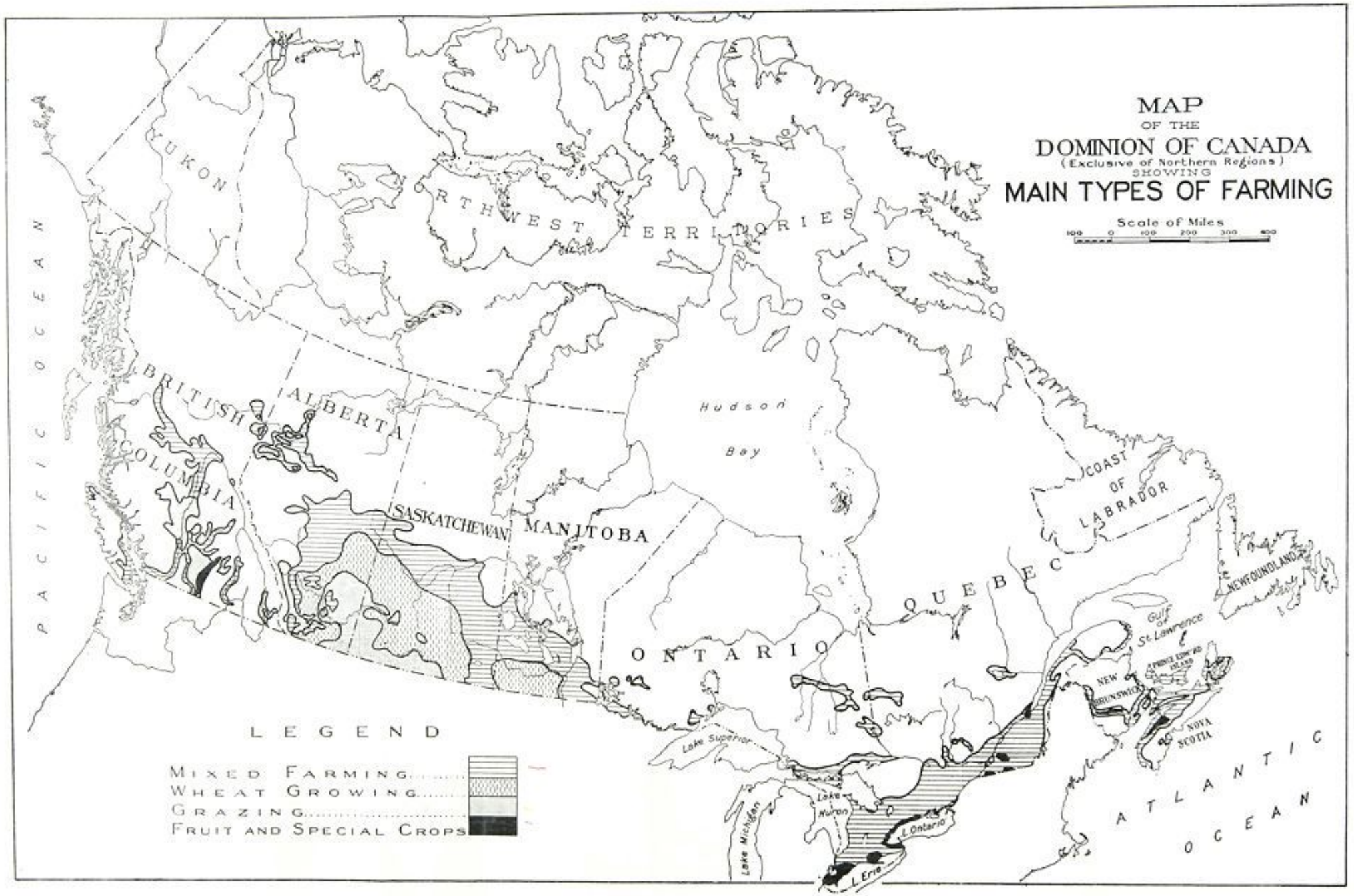
Agriculture, including stock raising and horticulture, is the most important single industry of the Canadian people, employing, in 1931, 28·7 p.c. of the total gainfully occupied population and 33·9 p.c. or over one-third of the gainfully occupied males. In addition, it provides the raw material for many Canadian manufactures, and its products in raw or manufactured form constitute a very large percentage of Canadian exports. For a statement of the occupied and the available agricultural lands in Canada, see p. 18 of this volume.

An introductory outline of the historical background of Canadian agriculture is given at pp. 187-190 of the 1939 Year Book. As now presented this chapter treats of current governmental activities—Dominion, in as much detail as space will permit (to utilize such space to the best advantage, the system of special articles not repeated from year to year has been adopted) and Provincial, by outlines and references to provincial sources of information. Comprehensive statistics of agriculture, collected and compiled by the Agricultural Branch of the Dominion Bureau of Statistics and covering Canada as a whole, close the chapter. These include data on values of agricultural production and farm capital, field crops, farm live stock and poultry, dairying, fruit, special crops, prices, miscellaneous, and, since Canadian exports of agricultural commodities are sold in the world market, a review of world statistics of agriculture, compiled from the publications of the International Institute of Agriculture.

Section 1.—Government in Relation to Agriculture.

It is provided in Sect. 95 of the British North America Act that "in each province the Legislature may make laws in relation to agriculture in the province"; it is also "declared that the Parliament of Canada may from time to time make laws in relation to agriculture in all or any of the provinces; and any law of the Legislature of a province relative to agriculture . . . shall have effect in and for the province as long and as far only as it is not repugnant to any Act of the Parliament of Canada".

As a result of this provision, there exist at the present time Departments of Agriculture, with Ministers of Agriculture at their heads, both in the Dominion and in each of the nine provinces, though in two provinces the portfolio of agriculture is combined with one or more other portfolios in the hands of a single Minister.


MAP
OF THE
DOMINION OF CANADA
(Exclusive of Northern Regions)
SHOWING
MAIN TYPES OF FARMING
Scale of Miles
100 0 100 200 300 400
PACIFIC OCEAN
YUKON
NORTHWEST TERRITORIES
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
Hudson Bay
ONTARIO
QUEBEC
COAST OF LABRADOR
NEWFOUNDLAND
Gulf of St Lawrence
PRINCE EDWARD ISLAND
NEW BRUNSWICK
NOVA SCOTIA
ATLANTIC OCEAN
Lake Superior
Lake Michigan
Lake Huron
L. Ontario
L. Erie
LEGEND
MIXED FARMING
WHEAT GROWING
GRAZING
FRUIT AND SPECIAL CROPS

Subsection 1.—The Dominion Government.

A short sketch of the functions of the Dominion Department of Agriculture is published at pp. 212-223 of the 1936 Year Book, and an outline of agricultural progress in Canada and the Dominion Experimental Farms System appears at pp. 221-228 of the 1937 Year Book. In the 1938 Year Book a special article on the Prairie Farm Rehabilitation Program of the Dominion Government appears at pp. 223-230 and in the 1939 Year Book an article on the historical background of Canadian agriculture appears at pp. 187-190. The problems of the Entomological Branch of the Dominion Department of Agriculture, in controlling noxious forest insects are reviewed in a special article that appears in the chapter on Forestry at pp. 254–263 of the 1939 Year Book, since it is closely related to the subject of forest resources.

AGRICULTURAL MARKETING LEGISLATION, 1939.

The Dominion Government enacted special legislation in the 1939 session of Parliament to deal with the marketing of agricultural products. The keynote of the new legislation is co-operative endeavour as exemplified in the Agricultural Products Co-operative Marketing Act and the Wheat Co-operative Marketing Act. In addition to these two Acts, Parliament passed the Prairie Farm Assistance Act, the Cheese Factory Improvement Act, and the Live Stock and Live Stock Products Act.

With the exception of the Live Stock Act, which deals mainly with the inspection and operation of stockyards and the transportation and inspection of live stock, live-stock products, and poultry (see under Dominion Legislation, 1939, in Index), the above legislation is discussed in detail below.

The Agricultural Products Co-operative Marketing Act, 1939

The main purpose of the Agricultural Products Co-operative Marketing Act is to make it possible for an organization of producers or processors to finance its producers through the marketing period. To this end a co-operative association may enter into an agreement with the Dominion Government to make an initial payment, through a selling agency set up under the Act, to primary producers; the Government guarantees that, if the average sale price of the agricultural product marketed falls below the initial payment, the Government assumes responsibility for such loss. The Act covers all farm products except wheat, which is dealt with under the Wheat Co-operative Marketing Act.

Co-operative associations already in operation and newly organized co-operatives may come under the provisions of the Act, if they make an agreement with the Minister of Agriculture to pursue the "co-operative plan" as outlined in the Act.

The co-operative plan is defined in the Act as an agreement or arrangement for the marketing of agricultural products that provides for three things: (1) Equal returns to primary producers for agricultural products of like grade and quality; (2) the return to primary producers of the proceeds of the sale of all agricultural products, delivered thereunder, produced during the period agreed upon, after deducting processing, carrying, and selling charges; (3) an initial payment to primary producers of a percentage not exceeding 80 p.c. of the average wholesale price of an agricultural product over the period of three years immediately preceding the year of production.

The various factors with respect to initial payment, allowance for costs of processing and selling, and differentials in price for the various grades for the particular agricultural product, are set out in the agreements with the various organizations that operate under the Act.

Agreements under this Act have been concluded with co-operative associations and processors marketing honey, alfalfa seed, onions, timothy seed, silver fox and mink pelts, and registered seed.

The Wheat Co-operative Marketing Act, 1939

The Wheat Co-operative Marketing Act, which is applicable only to spring wheat grown in the Prairie Provinces and British Columbia, is similar in principle to the Agricultural Products Marketing Act. A co-operative association that wishes to avail itself of the provisions of the Act must enter into an agreement with the Dominion Government to make an initial payment to primary producers of an amount to be fixed by agreement for each grade of wheat but not exceeding 60 cents per bushel for No. 1 Northern, basis Fort William. If the price received for such wheat falls below the initial payment, the Government will pay the selling agency of the co-operative association or the elevator company the difference between the average selling price and the initial payment plus transport, operating, and carrying costs. A number of agreements have been made under the Wheat Co-operative Act, 1939.

Associated with the Wheat Co-operative Marketing Act is the Canadian Wheat Board Act, 1935, and Amendment Act, 1939, which are under the jurisdiction of the Minister of Trade and Commerce. Under these Acts the producer of wheat is guaranteed an advance of a fixed price per bushel, according to grade or place of delivery—70 cents per bushel in the case of No. 1 Northern, basis in store Fort William. This guarantee is applicable to 5,000 bushels only from any one producer in any one year. Quantities over 5,000 bushels must be marketed either through the open market or through a co-operative.

The wheat farmer, therefore, has three methods at his disposal to market his crop, viz., the Wheat Board, the open market, or co-operatively through pooling organizations.

The Prairie Farm Assistance Act, 1939

The Prairie Farm Assistance Act is intended to aid farmers in years of distress by providing a measure of insurance to those who suffer low yields. There are two provisions in the Act, one dealing with a crop failure and one dealing with "emergency conditions" An emergency year is any crop year in which low prices (less than 80 cents per bushel for No. 1 Northern), low yields, and general conditions over which the individual has no control combine to make the position of the prairie farmer difficult beyond the financial care of the individual municipality or province. The Act declares the crop year 1939-40 an emergency year.

A crop failure may be declared in any one of the Prairie Provinces in any year when the Minister of Agriculture is assured that the average yield of wheat, from any cause other than hail damage, is 5 bushels or less per acre in each of 135 townships or more in Saskatchewan and in each of 100 townships or more in either Alberta or Manitoba.

Awards paid to farmers under this Act will be exempt from the operation of any law relating to bankruptcy or insolvency, or to garnishment or attachment, and

shall not be assignable either at law or in equity. This means that the farmer operating the farm will receive the payment in cash, and that he will have it for his own use to purchase the necessities of life for himself and his family.

Certain types of farm are exempt from the operations of the Act, namely: experimental farms, market gardens, ranches, Indian reservation farms, farm lands operated by a farmer who also operates more than 300 acres of cultivated land in townships not eligible for awards under the Act, farm lands declared submarginal and ordered evacuated under the provisions of a provincial statute, and irrigated lands on which the yield per acre is more than 12 bushels of wheat or the equivalent, in value, of other crops.

Basis of Payments.—*Emergency Year Assistance.*—In any crop year that has been declared an emergency year, there will be paid to each farmer living in a township where the average yield is 4 bushels or less per acre the sum of $2 per acre on half his cultivated acreage. The maximum number of acres on which a farmer can receive payment is 200, so that the total payment to a farmer cannot exceed $400. The 1939-40 payment will be made regardless of the price of wheat.

If the average yield is over 4 bushels and not more than 8 bushels an acre in a township, each farmer residing therein will receive $1·50 per acre on half his cultivated acreage up to 200 acres, with a maximum payment of $300. The farmer with 100 acres cultivated would receive $75. The 1939-40 payment will be made regardless of the price of wheat.

If the average yield is over 8 bushels and not more than 12 bushels an acre in a township, each eligible farmer residing in such township shall receive one dollar per acre on half his cultivated acreage, but he cannot be paid on more than 200 acres so that the maximum amount a farmer may receive who lives in a township with a 9- to 12-bushel yield is $200. A farmer will receive this amount in this class of township only if the average price is 70 cents or less per bushel for No. 1 Northern cash wheat. For each cent the average price is above 70 cents, 10 cents per acre will be deducted from the acreage payment so that at 80 cents the award will disappear. For instance, if the average price is 75 cents a farmer with 400 acres cultivated would receive 50 cents per acre on half of 400, which is 200 acres, a total of $100.

Crop Failure Assistance.—When a crop failure area in any province has been declared by the Governor in Council, each farmer residing in such area shall receive a payment of $2·50 per acre on one-half of his cultivated acreage. The maximum number of acres on which he can receive payment, however, is 200 acres so that the maximum amount of crop failure assistance a farmer may receive is $500; the minimum a farmer may receive is $200 regardless of the size of his farm. Payments will be made under the crop failure assistance section of the Act regardless of the price of wheat.

The Prairie Farm Emergency Fund.—Most of the money to cover crop failure assistance and emergency assistance for the first few years will necessarily come from the Dominion Treasury, although a levy of 1 p.c. on all grain marketed from farms in Western Canada is provided for in the Act. The levy will be turned over to the Board of Grain Commissioners and deposited by them in a fund known as the Prairie Farm Emergency Fund. When this fund is insufficient to pay awards under the Act, the deficiency will be paid out of the Consolidated Revenue Fund. Such an advance will be repayable without interest to the amount that the levy

provides. The 1 p.c. levy over the past few years would have yielded only about $1,500,000 a year, which amount would have been quite insufficient to meet crop failure assistance in the past few years had this Act been in effect. It is hoped, however, that in years to come yields and prices will be better and a fund can be gradually built up so that a considerable amount will be available for agricultural assistance before recourse to public funds is necessary.

Regulations Under the Act.—The first step in obtaining awards under the emergency provision or the crop failure section of the Act or both, is the requirement that a province within the spring-wheat area make application to the Minister of Agriculture before August 15 in any year. Such application shall be supported by a list of townships considered to be eligible under the Act, with all available information pertinent to such application. The officer in charge of the administration of the Act, the superintendent, will then verify by inspection the eligibility for awards of townships included in such list. Each year, when the information on township yields and other information is complete, a Committee of Review shall be established, whose duties shall be to examine all the assembled data and determine the yield category into which townships shall be placed. It also shall rule upon the application of the Act and the regulations with respect to any classes of farmers whose eligibility for award may be open to question. The Committee shall report its findings to the Minister of Agriculture.

Before a farmer can benefit under the Act, he must fill out a prescribed form indicating the total number of acres of cultivated land in his farm. In the year 1939 such forms were required to be returned to the superintendent before August 1, but for subsequent years July 1 is the closing date.

Operations Under the Act.—The Committee of Review composed of three members was appointed by the Dominion Government on Nov. 25, 1939. The Governor in Council on the recommendation of this Committee declared, on Nov. 28, 1939, a crop failure area to exist in the Province of Saskatchewan. At the time of writing, the deliberations of this Committee are not completed but it is expected that a substantial number of townships in the three Prairie Provinces will benefit under the "emergency year" provisions of the Act. A farmer eligible for acreage payments receives 60 p.c. of the amount in the month of December and the remainder in the following March.

The Cheese and Cheese Factory Improvement Act, 1939

The Cheese and Cheese Factory Improvement Act is intended to promote the production of high-quality cheese so that Canada may hold her preferred place for this product on the British market. The Act provides for the payment of a premium on high-quality cheese and also provides for assistance up to 50 p.c. of the amount expended towards the following: improvement of refrigerating and insulating cheese-ripening rooms in factories, standardizing of cheese-pressing equipment, and amalgamation of two or more factories into one factory.

The premiums paid by the Government amount to two cents per pound for cheese grading 94 score, and one cent per pound for cheese grading 93 score. The Government also pays one-half the cost of new material, new equipment, and labour utilized in reconstructing an existing factory or in building and equipping a new factory. The money will be paid provided that such newly constructed factory

replaces two or more existing factories. One-half the cost is being paid by the Government in the construction of up-to-date cheese-ripening rooms and also cheese-pressing equipment of a standardized size.

THE CANADIAN FARM LOAN BOARD.*

This Board was appointed by the Governor in Council under the provisions of the Canadian Farm Loan Act (c. 66, R.S.C. 1927, as amended by c. 46, Statutes of 1934 and c. 16, Statutes of 1935) and, as an agency of the Crown in the right of the Dominion, administers a system of long-term mortgage credit for farmers throughout Canada.

The Board is empowered to loan money to farmers for the payment of debts, for the purchase of farm equipment and live stock, to assist in the purchase of farm lands, for farm improvements or for any other purpose considered as improving the value of the land for agricultural purposes.

Loans may be granted on the security of first mortgages on farm lands actually operated by the borrower up to an amount not exceeding 50 p.c. of the appraised value of such farm lands, but, in any event, not in excess of $5,000 and such loans are repayable on an amortized plan of repayment over a period not exceeding 25 years.

In virtue of amendments to the Act, enacted in 1935, the Board is also empowered to make additional advances to farmers, who, having obtained a first-mortgage loan from the Board, require additional funds, the amount of such additional advance not to exceed 50 p.c. of the amount of the first-mortgage loan, nor the aggregate of first- and second-mortgage loans to exceed two-thirds of the appraised value of the farm lands mortgaged as security for the loan, nor in any event an aggregate amount of $6,000.

The capital requirements of the Board are provided as follows:—

(1) Initial capital advance from the Government in the amount of $5,050,000.
(2) Sale to the Government of the capital stock of the Board equal to 5 p.c. of the loans made by the Board.
(3) Sale of bonds secured by farm mortgages. At the present time these bonds are being sold to the Government on a 3½ p.c. interest basis with a term of 25 years. Provision is made for the guarantee by the Government of the principal of and the interest on the bonds of the Board.

The rate of interest charged by the Board on its loans is determined by the rate of interest yielded by the latest series of such bonds increased by an allowance sufficient, in the judgment of the Board, to provide for expenses of operation and reserves for losses. The current rate of interest on loans made by the Board is 5 p.c. on first-mortgage loans and 6 p.c. on second-mortgage loans.

The first appointments to the Board were made in 1929 and loaning operations were then initiated in the Provinces of British Columbia, Alberta, Manitoba, Quebec, New Brunswick, and Nova Scotia. Following the amendments passed in 1935, loaning operations were initiated in that year in the Provinces of Saskatchewan, Ontario, and Prince Edward Island. Loaning operations are now being carried on by the Board in all provinces of Canada. The head office of the Board is at Ottawa and a branch office has been established in each province.

* Revised by A. H. Brown, Secretary, Canadian Farm Loan Board, Ottawa.

1.—Applications for Farm Loans Received, Loans Approved, and Loans Disbursed, Fiscal Years 1930-39.

Year.	Applications Received.		Loans Approved.					Loans Paid Out.		
	No.	Amount.	First Mortgage.		Second Mortgage.		Total Amount.	First Mortgage	Second Mortgage.	Total.
			No.	Amount.	No.	Amount.				
		$		$		$	$	$	$	$
1930.....	6,827	18,016,083	1,787	3,981,050	Nil	–	3,981,050	2,630,377	Nil	2,630,377
1931.....	3,372	8,650,182	1,458	3,212,400	"	–	3,212,400	3,517,489	"	3,517,489
1932.....	4,803	12,370,399	1,049	2,025,400	"	–	2,025,400	1,996,344	"	1,996,344
1933.....	1,776	3,939,393	536	982,600	"	–	982,600	1,276,114	"	1,276,114
1934.....	1,207	2,306,934	287	490,800	"	–	490,800	558,630	"	558,630
1935.....	2,456	5,496,817	532	880,900	72	44,600	925,500	537,974	9,233	547,207
1936.....	21,698	50,152,821	5,109	8,906,680	3,236	2,051,725	10,958,405	6,191,609	1,232,170	7,423,779
1937.....	9,821	21,872,723	5,099	9,004,850	2,835	1,504,150	10,509,000	9,269,188	1,804,968	11,074,156
1938.....	3,924	8,254,401	1,913	3,473,000	776	368,575	3,841,575	4,652,397	611,910	5,264,307
1939.....	4,723	9,688,427	2,267	4,076,800	560	269,250	4,346,050	4,041,395	297,448	4,338,843

2.—Farm Loans Approved, with Details of Appraised Values of Security at Time of Loan, by Provinces, Fiscal Years 1938 and 1939.

Year and Province.	Loans Approved.					Appraised Value of Security at Time of Loan.		
	First Mortgage.		Second Mortgage.		Total Amount.	Land.	Buildings.	Total.
	No.	Amount.	No.	Amount.				
1938.		$		$	$	$	$	$
Prince Edward Island	99	152,050	34	14,500	166,550	253,726	114,261	367,987
Nova Scotia	126	200,950	23	12,600	213,550	359,370	196,261	555,631
New Brunswick	33	37,400	18	5,800	43,200	56,608	40,046	96,654
Quebec	202	440,700	97	47,300	488,000	758,232	419,189	1,177,421
Ontario	418	831,000	107	54,800	885,800	1,346,610	707,750	2,054,360
Manitoba	210	395,900	108	56,400	452,300	875,718	286,015	1,161,733
Saskatchewan	448	742,650	303	132,175	874,825	1,986,881	621,161	2,608,042
Alberta	312	538,100	76	37,600	575,700	1,232,858	310,224	1,543,082
British Columbia	65	134,250	10	7,400	141,650	282,081	130,345	412,426
Totals, 1938	**1,913**	**3,473,000**	**776**	**368,575**	**3,841,575**	**7,152,084**	**2,825,252**	**9,977,336**
1939.								
Prince Edward Island	128	181,950	15	7,400	189,350	315,455	142,656	458,111
Nova Scotia	150	217,600	7	3,600	221,200	398,222	202,964	601,186
New Brunswick	33	38,400	12	4,150	42,550	59,501	38,285	97,786
Quebec	398	840,350	61	26,300	866,650	1,286,533	755,684	2,042,217
Ontario	413	806,100	97	46,500	852,600	1,261,886	665,233	1,927,119
Manitoba	276	504,450	117	64,950	569,400	1,110,513	348,785	1,459,298
Saskatchewan	381	626,500	146	64,050	690,550	1,583,766	468,021	2,051,787
Alberta	363	615,800	89	41,200	657,000	1,423,681	323,835	1,747,516
British Columbia	125	245,650	16	11,100	256,750	495,658	238,975	734,633
Totals, 1939	**2,267**	**4,076,800**	**560**	**269,250**	**4,346,050**	**7,935,215**	**3,184,438**	**11,119,653**

THE DOMINION MARKETING BOARD.

The Dominion Marketing Board was established under authority of c. 57 of the Statutes of 1934—The Natural Products Marketing Act, 1934. The chief powers of the Board, as stated in Sect. 4 of the Act, were: to regulate marketing and distribution of natural products of agriculture, the forests, sea, lake, or river, as may be designated

by the Governor in Council; to conduct pools for the equalization of returns received from their sale and compensate any person for loss sustained in withholding such products from the market or for shipment to any country whose currency is depreciated in relation to Canadian currency; to assist the construction of marketing facilities by grant or loan. Following the change in Government after the elections of 1935, the Administration filed a general reference of the social legislation passed by the former Administration to the Supreme Court and to the Privy Council. The Privy Council decision was made on Jan. 28, 1937. In both cases the legislation was declared *ultra vires* of the Dominion Government. All Orders in Council relating to the Marketing Board were subsequently revoked and the Dominion Marketing Board itself has not functioned since 1936. Prior to the reference being made, 22 cases were acted on by the Board.

Subsection 2.—Provincial Departments of Agriculture.*

Prince Edward Island.—The Department of Agriculture is presided over by a Minister, and the staff consists of a Deputy Minister and live-stock superintendent, a superintendent of women's institutes, a dairy superintendent, three field promoters and a field man for the fox industry. Assistance is given in co-operative marketing, promotion of the live-stock industry, encouragement exhibitions, the formation of boys' and girls' clubs, and the welfare of agriculture generally.

Nova Scotia.—Agricultural policies in the Province of Nova Scotia are administered by the Department of Agriculture and Marketing, with the Minister's Office and those of the Director of Marketing, the Land Settlement Board, Statistician and Superintendent of Immigration, Publicity Representative, Forest Products Representative, and Provincial Exhibition Commission, situated in Halifax. Many of the technical officials are located at the Agricultural College and Farm, Truro, Divisions of the Department include: extension service, agricultural societies, associations, and exhibitions; dairying; poultry; live stock; entomology and botany; apiculture; animal pathology; agricultural engineering; and women's institutes.

New Brunswick.—The branches of the Department of Agriculture of New Brunswick are as follows: live-stock and agricultural societies; dairying; herd improvement; soils and crops; poultry; horticulture; women's institutes; extension; industry, immigration, and farm settlement; field husbandry; beekeeping; fur; credit unions and co-operatives.

Quebec.—The administration of agricultural policies is entrusted to services and sections as follows: extension work, dealing with all problems faced by the agricultural county agents (ninety-eight in number); rural economy; animal husbandry; health of animals; plant protection; agricultural education; domestic science; field husbandry; publicity; and administration. The Chief Technical Adviser is directly responsible to the Deputy Minister, who remains the main technical authority of the Department. Each service is divided into divisions dealing with minor problems. There are also many other activities such as the Quebec Farm Credit Bureau, agricultural merit competition, provincial dairy school, provincial handicraft school,

* For publications of provincial Departments of Agriculture, see in the index the entry "Publications of Provincial Governments"

etc. There is, therefore, for any kind of agricultural activity, a corresponding administrative service, which is in a position to furnish accurate information to interested persons.

Ontario.—The Ontario Department of Agriculture includes the following branches: statistics and publications; agricultural and horticultural societies; live stock; women's institutes; dairy; fruit; agricultural representatives; crops, seeds, and weeds; co-operation and markets, including administration of the Act *re* credit unions; and the Milk Control Board. The Department is responsible for the administration of the Ontario Agricultural College, the Ontario Veterinary College, the Kemptville Agricultural School, the experimental farms at Guelph, Ridgetown, and Vineland, and demonstration farms at New Liskeard and Hearst.

Manitoba.—The Manitoba Department of Agriculture serves through the following branches: agricultural extension, dairy, publications, live stock, the Debt Adjustment Board, the Registrar of Co-operative Associations, and the Office for Animal Pathology.

The Agricultural Extension Branch aids field-crop production, horticulture, beekeeping, poultry raising, suppression of insect outbreaks, boys' and girls' club work, and various home-making projects. It also directs the activities of rural agricultural representatives and supervises the work of agricultural societies, horticultural societies, and women's organizations. The Dairy Branch grades all cream supplied to creameries, supervises the activities of creameries and cheese factories, and gives general support to the dairy industry. The Live Stock Branch licenses stallions and conducts projects and administers policies through which encouragement is given to the production of better types of animals. The Publications Branch publishes and distributes agricultural literature and also is in charge of agricultural statistics. The Debt Adjustment Board, operating by authority of provincial legislation, seeks to avoid needless insolvency among farmers. The functions of the other offices are indicated by their titles.

Saskatchewan.—The Department of Agriculture includes branches with duties as follows: The Live Stock Branch examines and licenses stallions, safeguards the health of live stock, facilitates purchase and sale of cattle, sheep, and hogs to farmers in the purebred sire areas, arranges for exhibits of live stock, and registers brands; maintains flock-culling and turkey-grading services and administers an approved hatchery policy. The Field Crops Branch promotes good cropping and tillage practices, encourages the use of good quality seed and distributes such under a seed exchange policy, and provides measures for suppressing insect and weed pests. The Dairy Branch licenses creamery operators, cream graders and testers, bonds creameries, and promotes herd improvement through cow testing. The Statistics Branch, in co-operation with the Dominion Bureau of Statistics, maintains a crop-reporting service and gathers data respecting crops and live stock. The Co-operation and Markets Branch administers legislation governing co-operative organizations including credit unions, promotes co-operative activities, provides an economic research and inspection service, and publishes bulletins, reports, and a news letter. Under the Agricultural Representative Service the Province is divided into districts where qualified men carry on promotional and educational work. The Apiary Division registers beekeepers and promotes better management practices. Grants to agricultural societies are paid through the Department but activities are directed

by the College of Agriculture. The Land Utilization Board, composed of representatives of several interested departments of government, endeavours to bring about the withdrawal from arable farming of lands unsuitable for such use.

Alberta.—The Alberta Department of Agriculture serves the agricultural industry through its many branches, each of which is concerned with the problems specifically related to the various types of farming and agriculture conducted within the Province. Through the Extension Branch and eighteen District Agriculturists a comprehensive educational program is carried on, the aim of which is the improvement of agriculture and the enrichment of rural life through meetings, field days, short courses, fairs, and personal contacts. The Department endeavours to improve all phases of the industry. A special section of the extension program is devoted to women's work, through demonstrations, lectures, and correspondence courses. The young people of rural communities receive attention through school fairs, boys' and girls' camps, junior clubs, and two schools of agriculture, while during the past two years, the Department has co-operated with the Dominion Government in the Dominion-Provincial Youth Training program. The Provincial Horticultural Station at Brooks is serving a very useful purpose through its program of testing and propagating hardy varieties of fruit and ornamental trees.

The live-stock improvement program represented by the Bull Exchange Policy, the Boar Exchange Policy, the Sow Distribution Policy, the Stallion Club Policy, and the Feeder Associations Act, is of special importance. These policies have been supplemented through the establishment of new and larger herds of live stock at the provincial demonstration farms at Olds, Vermilion, and Brooks.

The production of high-quality field crops is encouraged and all branches are striving for improvement in the quality of agricultural products.

Agricultural information is distributed by the Extension Branch through bulletins and other means, and crop reports and statistical data are prepared and released from time to time. Encouragement is given for the formation of local groups or organizations of farmers, which have as their objective the improvement of agriculture in the community.

British Columbia.—The Department of Agriculture consists of three main divisions:—

1. The Administration Division is responsible for the general direction of agricultural policies; administration of legislative measures affecting agriculture; supervision of agricultural extension programs; collection of agricultural statistics; preparation of displays for provincial, national, and international exhibitions and assistance to fall fairs. It distributes departmental publications; supervises junior club projects; farmers' and women's institutes, and the Markets Branch.

2. The Animal Industry Division has supervision over live-stock work including promotion and improvement; brand inspection; and control of contagious diseases of animals. This Division consists of live-stock, veterinary, dairy, and poultry branches.

3. The Plant Industry Division includes horticulture, plant pathology, entomology, and field-crop branches; the general direction of fruit and vegetable production and surveys dealing with orchards, small fruits and bulb acreages, as well as greenhouse areas; the suppression of insect pests and plant diseases; inspection

and control of noxious weeds. Extension officials promote either animal industry or plant industry, depending upon the predominating type of farming carried on in the several districts.

Subsection 3.—Provincial Agricultural Colleges and Schools.

AGRICULTURAL COLLEGES.

Nova Scotia

College of Agriculture, Truro.—The Nova Scotia Agricultural College is equipped to give instruction in all branches of agricultural education. Three types of course are given:—

1. The "general course" is a complete two-year course designed for young men who intend to make practical farming their life work. The associate diploma is awarded to successful candidates.

2. The "degree course" (the first and second years of the four-year degree course) qualifies students for the associate diploma and for admission to the third year at either the Ontario Agricultural College, Guelph, Ont., or Macdonald College, Ste. Anne de Bellevue, Que.

3. Vocational short courses for both men and women are conducted under the Youth Training Program, with twelve to fifteen courses—in as many subjects or projects—each college year, ranging from one week to one month in length.

A live-stock farm of about 300 acres, carrying several popular breeds of cattle, horses, sheep, and swine for teaching and demonstration purposes, and growing several varieties of roots, corn, and cereal crops, for the same reason, is operated in connection with the College. The horticultural department operates a limited area devoted to vegetable and fruit crops, while the poultry department carries three breeds of poultry for educational purposes.

Various divisional officers of the Department of Agriculture, with offices at Truro, are professors heading the respective departments at the College, and also assist in lecture and demonstration work at rural short courses and farmers' meetings.

The Extension Division of the Department of Agriculture directs extension work through agricultural representatives in the respective counties throughout the Province. Boys' and girls' club work is a major activity. Many short courses are conducted throughout the year. A farm-planning project is expanding rapidly. The Director of this Division is Professor of Economics, while the Assistant Director is Instructor in Farm Management.

Promoting the use and encouraging the distribution of ground limestone is directed by the Provincial Chemist and Professor of Chemistry whose other field activities include soil surveys and soil-testing work in all sections of the Province.

The Provincial Entomologist and Professor of Entomology carries on spraying tests, and promotes better spraying through spray circles and orchard-management projects in the fruit-growing section during the summer, as well as promoting insect-control measures in other sections.

The Provincial Botanist and Professor of Botany co-operates in spraying and entomological activities, in addition to the botany and plant disease work.

The Provincial Agronomist and Professor of Agronomy promotes the use of better seed, assists with crop competitions, pasture improvement work, ploughing matches, etc.

Drainage surveys, ditching (with power ditching machines), laying tile drains, machinery demonstrations, use of explosives in ditching, clearing land, etc., are carried on by the Head of the Agricultural Engineering Division and Professor of Agricultural Engineering.

Orchard surveys, short courses in pruning and grafting, encouragment of cranberry growing and all fruit and vegetable work come under the direction of the Provincial Horticulturist and Professor of Horticulture.

Fur farming extension work, control of animal diseases, and operation of a blood-testing laboratory for poultry are projects carried on by the Provincial Animal Pathologist and Professor of Veterinary Science.

Beekeeping is promoted throughout the Province by the Provincial Apiarist and Instructor in Apiculture.

Agricultural Associations, general animal work, dairy herd improvement, and stallion inspection are supervised by the Provincial Animal Husbandman and Associate Professor of Animal Husbandry.

The office of Superintendent of Exhibitions for the Department is also located at the College.

The Provincial Dairy Superintendent and Professor of Dairy Industry supervises creameries, assists in butter marketing, and serves as secretary of the Dairymen's Association of Nova Scotia, the Ice Cream Manufacturers' Association, and of the Dairy Arbitration Commission.

The office of the Provincial Poultryman and Instructor in Poultry Husbandry serves the industry as required.

The Director of Women's Institutes and Instructor in Home Economics and her assistants carry on a great deal of field work, including numerous short courses in home crafts throughout the Province during the spring, summer, and fall, as well as two special courses at the College during the winter months.

Quebec

Macdonald College, St. Anne de Bellevue.—Macdonald College is an incorporated College of McGill University and is situated twenty miles west of Montreal. It comprises: the Faculty of Agriculture; the School of Household Science; and the School for Teachers. Courses in agriculture include a four-year course leading to the B.Sc. (Agr.) degree and a two-year practical course for farmers' sons leading to a diploma. Postgraduate work leading to the degrees of M.Sc. and Ph.D. is available under the Faculty of Graduate Studies and Research of McGill University. The School of Household Science offers a four-year course leading to the B.H.S. degree and a one-year "Homemaker" course. The School for Teachers trains teachers for the Protestant schools of the Province of Quebec and grants elementary, intermediate, and kindergarten director diplomas. The Institute of Parasitology, operated by McGill University and the National Research Council, is situated on the College campus. Glenaladale, the staff community house, serves as an auxiliary laboratory for the students in the Household Science classes.

The College carries on extensive research both alone and in co-operation with the Provincial and Dominion Governments. Particular attention is paid to the creation and propagation of new and improved varieties of farm crops; to problems of plant and animal nutrition; to improvement of the pasture lands of the Province; to fertilizer and tillage experiments; and to the study of animal and plant pests.

Information obtained as a result of the experimental work is available in the form of free publications to anyone interested. The laboratories of the various departments of the College examine and report on specimens sent in by growers, and the field plots, orchards, stables, and barns are open to visitors at all times. One department is a distribution centre for plans and blueprints for farm buildings and gives assistance with various farm construction and engineering problems, including the planning of drainage systems. Members of the staff assist with regional short courses throughout the Province and act as judges at agricultural and domestic science exhibits at fairs, etc.

The teaching and experimental staff number about 70 members, and the total enrolment for the session 1938-39 was 918.

Institut Agricole d'Oka.—The Institute, located at La Trappe, Que., was founded in 1893. In 1908 it was affiliated to Laval University and is now affiliated with the University of Montreal.

The farm covers 1,800 acres and the diversity of soils makes possible the carrying out of extended experiments. The orchards cover about 67 acres, with nearly 4,000 fruit trees, and particular attention is directed to fruit culture, apple growing being a specialty. Live stock raised includes Belgian horses, Ayrshire and Holstein cattle, sheep, and hogs. Some 2,000 hens are kept, the Chantecler breed having been originated at the Institute.

In addition to the regular four-year course in agronomics, a two-year course is provided for farmers' sons, and short winter courses are offered to farmers at the request of the Provincial Department of Agriculture. During the past ten years, special emphasis has been placed upon short courses designed for farmers' sons. In the winter of 1929-30, home courses were started at Oka; designed for 4,000 students, they were so popular that the total attendance reached 15,000. Annual summer courses for rural school inspectors are conducted, and about 100 inspectors attend. Similar short courses, open to farmers of particular districts, are also offered and have had great effect in focusing the attention of the rural population on the possibilities of life on the farm. Following one of these courses, no less than nine new societies of young farmers were established in the district of Shefford alone.

In addition to the province-wide activities of the Institute, special work has been done by the members of the staff in the Montreal district, such as research and farm contest work. Specialized work in the localities surrounding the Institute are the organization of a live-stock breeders' society in the County of Two Mountains, and an association of young breeders of baby chicks in the same county. The foundation of the Institut Rosell at Oka has done much to popularize 'yogurt' in Canada and has encouraged the making of pure starters for the production of this product at home.

For the past ten years the Institute has published literature on stock and poultry raising; botany; fruit, vegetable, and flower culture; and a four-volume course on general agriculture. The demand for these publications indicates that they are greatly appreciated by the farmers of the Province.

Ecole Supérieure d'Agriculture de Sainte-Anne-de-la-Pocatière.—This school, situated along the Lévis—Rivière-du-Loup line of the Canadian National Railway, has a student body of about 175 boarders. The school was established in 1859 by Abbé François Pilote. It now has a triple aim: agricultural research; agricultural instruction of all grades; and agricultural extension work by means of lectures, home courses, co-operation courses, exhibitions, etc.

Its regular curriculum includes a superior course in agriculture of four years duration, open to selected students in possession of the degree of Bachelor of Arts; an agronomic course of three years open to all Bachelors of Arts; two courses in practical agriculture for farmers' sons, one of which covers twelve months of study divided into two winter semesters and the other only one winter semester. The Ecole Supérieure is affiliated with Laval University of Quebec. The Faculty of Sciences confers on its graduates the degree of B.Ag.Sc. (Bachelor of Agricultural Sciences). The agronomic course is completed with the B.A. diploma (Bachelor in Agriculture). A certificate of agricultural ability is conferred on farmers' sons who complete the prescribed course.

The Ecole de Sainte-Anne operates a mixed culture farm covering 500 acres. Its herd of Ayrshire cows is of special value. The departments of poultry and fruit and garden horticulture are organized for the training of specialists in these lines.

Ontario.

Ontario Agricultural College and Experimental Farm, Guelph.—On May 1, 1874, the Ontario Agricultural College and Experimental Farm was established near Guelph with 500 acres of land, an ordinary set of farm buildings, and a large two-story house. The first class consisted of 28 students.

At the present time, the College farm consists of 1,050 acres, a splendid layout of barns, implement sheds, and work shops. There are 26 large buildings which provide for classrooms, laboratories, offices, dormitories, dining halls, and recreation facilities.

Macdonald Institute, which offers courses in Home Economics, was donated by Sir William Macdonald in 1902. Trent Institute, known as the Canadian School of Baking, was built with funds donated by the Bread and Cake Bakers' Association of Canada in 1927.

In addition to the regular courses, many short courses lasting from ten days to three months are offered to various farm groups including school teachers of the public schools. Instructors are also furnished for a large number of short courses conducted in the Province under the leadership of the Agricultural Representatives Department.

Research and demonstration work form an important part of the program of the College. O.A.C. 21 barley, which is grown on nearly 75 p.c. of the barley land in Canada; Erban oats, a rust proof variety—high yielding and of good quality; soy beans O.A.C. 211; and many other varieties of high-quality grains are the product of the experimental fields of the Guelph farm.

The Experimental Union, an organization of farmers working with the College, have tested these better facilities throughout the farming districts. With these tests has been combined the use of commercial fertilizers and, in this way, farmers have been enabled to secure larger yields of better-quality crops.

Soil surveys of sixteen counties have been completed. This work will be continued until all counties of the Province have been mapped and studied. More than five thousand soil samples, received from farmers, are analysed each year and recommendations given for soil treatment and crop management.

From the herds and flocks, which are maintained at a high standard and which carry some of the best producing blood lines, the surplus breeding stock is sold to the farmers. In this way, a very direct and material improvement has been made in live-stock production.

Through the Departments of Animal Husbandry, Field Crops, Poultry, Agricultural Engineering, Animal Nutrition, Extension, Horticulture, Dairying, Apiculture, Chemistry, Botany, Entomology, Bacteriology, and Economics, an active relationship is maintained with the farmers and a valuable, helpful service is rendered to them on the many problems confronting agriculture.

Manitoba.

Faculty of Agriculture and Home Economics, University of Manitoba, Winnipeg.—Members of the Faculty of Agriculture and Home Economics attempt to promote the interests of agriculture in Manitoba through correspondence with farmers, through demonstrations to visiting farmer groups, through press articles and bulletins, and through instruction to long-course students in the degree and University School of Agriculture classes as well as to students who attend the various short courses offered from time to time during the year.

During the year 1938-39 approximately 15,000 letters and telephone calls were answered by the agricultural members of the Faculty. These inquiries had to do with an extremely varied set of topics, relating to the selection and management of field crops, weed control, the selection and feeding of farm animals including poultry, insect control on field crops, garden crops, trees and farm animals, milk and its products, types of soils and their management, diseases of farm animals, farm buildings, fur farming, etc.

During the year many groups of farmers as well as individual farmers visited the University. Among the organized groups that visited the agricultural departments in 1938-39 were the Junior Seed Growers, Boys' and Girls' Clubs, Women's Institutes, Dairy Cattle Breeders, Poultry Breeders, Seed Growers, Farmers' Groups, Vegetable Growers, Youth Training Groups, Manitoba Agronomists, and Manitoba Loan Inspectors' Association and Appraisal Institute of Canada.

Agricultural members of the Faculty prepared or took a part in preparing twenty-two articles and reports during the year 1938-39. Thirty-one radio talks were delivered during that period. Faculty members attended many agricultural meetings at country points during the year.

Farmers and others interested in special phases of agriculture have an opportunity of attending numerous short courses offered throughout each winter. Ten of these were offered during the 1938-39 session on poultry, beekeeping, dairying, farm equipment repairs, field crops, fur farming, horticulture, etc.

Researches are being carried out in Animal Science, Bacteriology and Animal Pathology, Dairying, Entomology, Plant Science, and Soils. A detailed survey has been made of approximately ten and one-half million acres located largely in the southern part of the Province.

The Faculty of Agriculture and Home Economics enrolled 412 men and women in the degree courses in Agriculture and Home Economics and 89 students in the University School of Agriculture and Homemakers' Course in the session 1938-39.

Saskatchewan.

College of Agriculture, University of Saskatchewan, Saskatoon.—The College of Agriculture occupies a central place in the agricultural life of the Province. On the academic side it offers a four-year course leading to the degree of Bachelor of Science in Agriculture (B.S.A.) and a two-year course of five months each winter leading to a Diploma in the School of Agriculture. Through its investigations the

College aims to serve the farmers of the Province by studying their problems and by means of practical demonstrations to encourage the use of better farming methods. Much attention has been given in recent years to methods of controlling soil drifting, breeding of rust-resistant wheat, live-stock improvement and management, animal diseases, farm machinery, soil surveys, and farm management. Poultry, dairying, and horticulture also receive their due share of attention.

Contact with the farmers of the Province is maintained through various activities of the Extension Department in which all members of the College staff participate. Field demonstrations in the summer and short courses in the winter help to translate the results of investigations into farming practice. Organized activities of various kinds are arranged through officially constituted agricultural societies directed by the Head of the Extension Department. Homemakers' clubs, homecraft clubs, and boys' and girls' clubs provide valuable instruments for rural education. Finally the Dominion-Provincial Youth Training Program in rural areas may be mentioned; this is directed by the office of the Extension Department and consists of short courses of from two to four weeks duration held in community centres throughout the Province, and longer courses of six weeks to five months, held at the College.

The University is also the centre for many agricultural conventions and meetings throughout the year. Such occasions provide opportunities for lectures and demonstrations on matters of practical importance to farmers.

Alberta.

Faculty of Agriculture, University of Alberta, Edmonton.—In the Faculty of Agriculture a four-year course, leading to the degree of B.Sc. in Agriculture, is offered, with some variation in entrance requirement. Up to the present junior matriculation has been the requirement for entrance but a move is under way to raise this to senior matriculation, with no change in the length of the course. About one-quarter of the students come from the Provincial Schools of Agriculture. These Schools offer a course that is vocational in its intent but some of the students at the Schools desire to go further. Up to this time they have been allowed entrance to the Faculty of Agriculture in its second year, thus reducing the course to three years in such cases. It is expected that, beginning with 1940-41, the entrance requirements will be established as junior matriculation standing and a diploma from a School of Agriculture; the course will then be made a four-year course for all.

Three activities of the Faculty of Agriculture are teaching, research, and extension. In the Faculty a very earnest effort is made to retain a program of research, carried on under the direction of the teaching staff. The advantage of this is twofold: the results of research in itself, and the effect upon the instruction given to students. The extension work carried on by the members of the Faculty covers three fields: Radio service, over the Faculty's own station, hooked up with other stations to form a widespread network; bulletin service—the bulletins are reports of work done rather than mere expressions of opinion; work done for the Provincial Department of Agriculture at fairs, short courses and other public functions, the expense carried by the Department of Agriculture—this has been found a very satisfactory arrangement in every way.

The live-stock farm is situated two miles from the University and students attend classes held there in the pavilion. The highlights of the Animal Husbandry Department may be mentioned as follows:—

(1) Extensive feeding experiments with cattle, sheep, and swine;

(2) Preparation and exhibition of market classes of animals;

(3) Research work in co-operation with the Dominion Department of Agriculture and the National Research Council.

The activities of the Field Crops Department include plant breeding, biochemistry (milling and baking), and forage-crop work.

In addition to the University field experiments, substations are located in several parts of the Province.

The Soils Department is continuing the work of Soil Surveys in co-operation with the Dominion Department of Agriculture. Soil and fertilizer tests are carried out at the University and at several substations.

In dairying, agricultural engineering, entomology, horticulture, poultry, and veterinary science a certain amount of survey and experimental work is always considered advisable as a basis for teaching.

British Columbia.

Faculty of Agriculture, University of British Columbia, Vancouver.—The Faculty of Agriculture is an integral part of the University of British Columbia. There are six Departments in the Faculty: Agronomy, Animal Husbandry, Dairying, Horticulture, Poultry Husbandry, and Agricultural Economics. Students may specialize in these Departments and, in addition, because of the close association with the other Faculties of the University, may do special work in plant pathology, plant nutrition, entomology, soil chemistry, and bacteriology and allied science subjects in relation to agriculture.

The extension activities of the Faculty are under the direction of the Head of the Department of University Extension. The activities consist mainly of single individual lectures, lecture series, night classes in horticulture and poultry husbandry, and short courses under the Dominion-Provincial Youth Training Plan.

The services to farmers include only those activities for which laboratory facilities are required, such as chemical and bacteriological examination of soil samples, examinations for mineral deficiencies in plants, diagnoses of poultry diseases, examinations of milk, butter, and cheese samples, poultry blood-testing for pullorum disease, and other related activities.

At the present time an important project in the field laboratory is the production of Elite seed of varieties of field crops that are grown in the Province. This is in co-operation with the Provincial Department of Agriculture. The project that has to do with the breeding and selection of an underground spreading type of alfalfa is reaching an interesting stage. A quantity of seed was produced this year. The project is in co-operation with the Dominion Department of Agriculture.

Research activities, other than those being carried on by students under direction, include: causes of raspberry failure, paralysis and coccidiosis in poultry, surface taint in butter, and the value and uses of fish oils. An additional research in soils and dairying comes under the general head of activators for enzymes. Progress has been made in the improvement of the Cambar breed of poultry brought from Cambridge University, England.

The members of the Faculty are on call in their offices for special consultations on agricultural problems, and also answer about five thousand letters per year from correspondents seeking information in relation to their immediate difficulties.

AGRICULTURAL SCHOOLS.

In addition to agricultural colleges, three of the provinces conduct agricultural schools with two-year courses similar to the diploma courses in the colleges: Quebec at Rimouski and Ste. Martine; Ontario at Kemptville; Alberta at Olds and Vermilion. These are residential schools drawing their students from a wide area, and quite distinct from the locally supported agricultural high schools such as are operated at Woodstock, N.B., or Beamsville and Ridgetown in Ontario. In the ordinary high or post-elementary schools agriculture receives varying emphasis as between provinces but is taught to some extent in all.

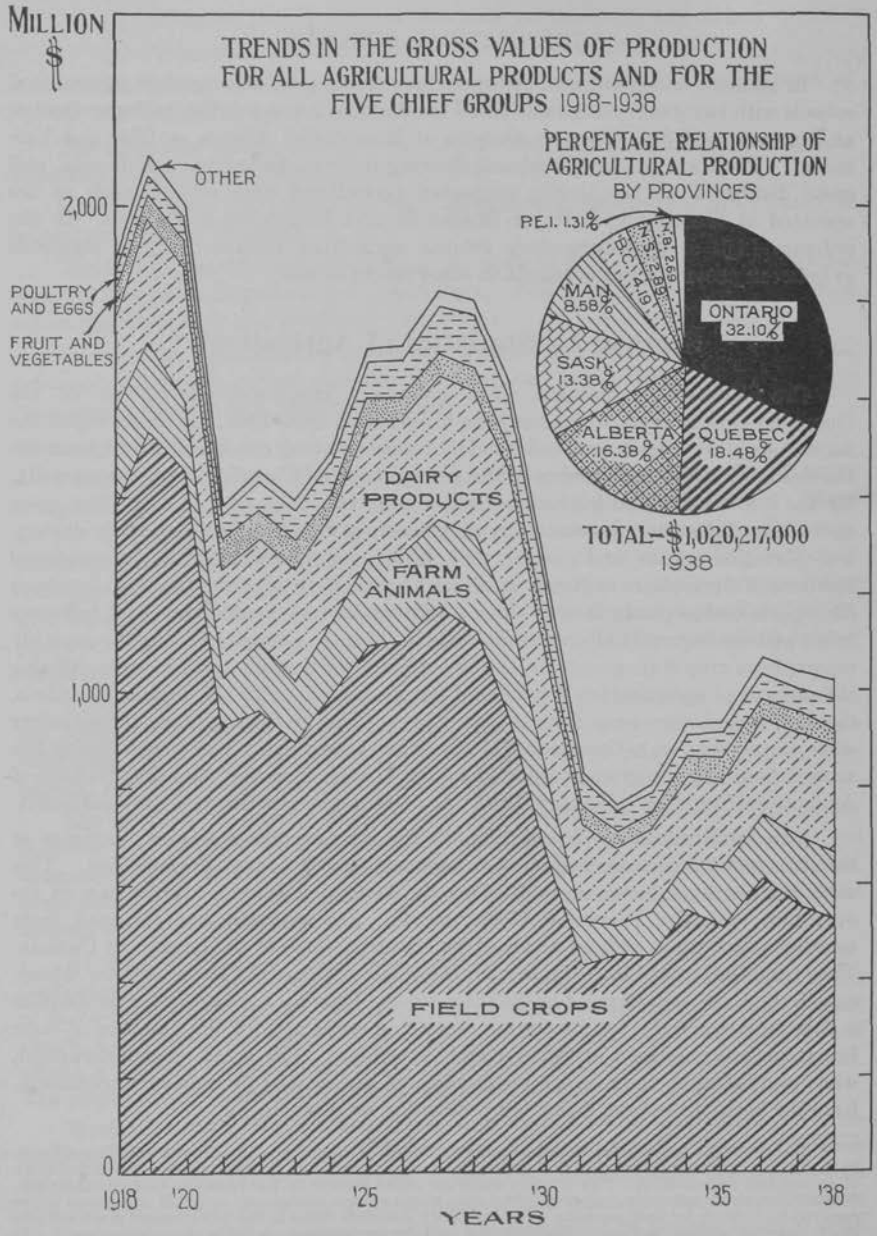
Section 2.—Statistics of Agriculture.*

Crop-Reporting Service.—The voluntary crop-reporting service of the Dominion Government, which has been in operation since 1908, has for its object the issue of accurate, timely, and independent reports on crop conditions throughout the Dominion: first, in the interests of the general body of Canadian farmers; secondly, for the information and guidance of other interests allied to and dependent upon agriculture (interests represented by statesmen, economists, bankers, grain dealers, transportation agents, and others); and thirdly, for reporting to the International Institute of Agriculture at Rome (to which Canada is an adhering country) in return for reports on the production of other countries and of world totals that influence prices and consequently affect the interests of Canada. Supplementing the monthly reports from crop correspondents, the Bureau issues telegraphic crop reports utilizing the services of agriculturists throughout the Dominion. For the Prairie Provinces, these are issued every week from the latter part of May to the beginning of September while the reports on a Dominion-wide basis are issued every two weeks during the same period. The program of reports for 1940-41 is given in the "Monthly Bulletin of Agricultural Statistics", January, 1940, pp. 58-60, and is also issued as a special leaflet.

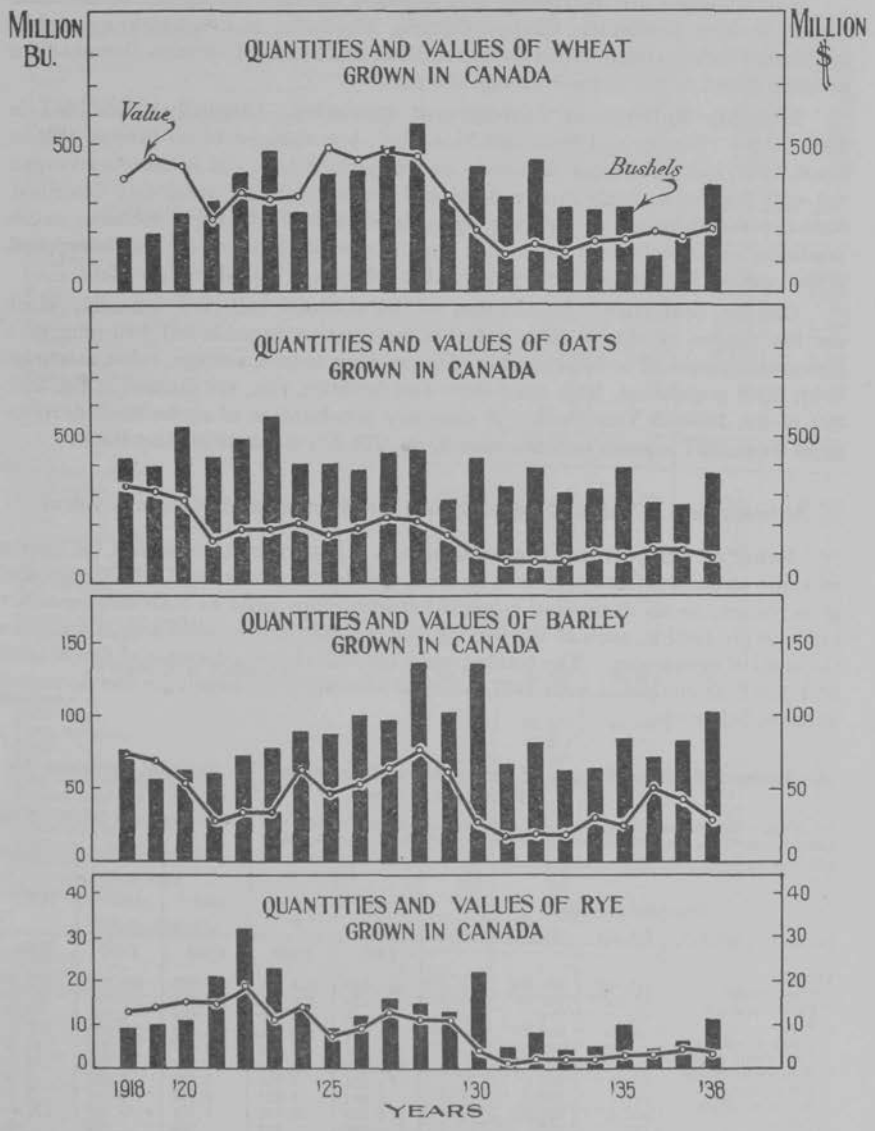
Annual Statistics.—In addition to the crop-reporting service, statistics of the areas under field crops and of the numbers of farm live stock are collected. This work has been conducted since 1918 by the Dominion Bureau of Statistics in co-operation with the Provincial Governments. The statistics are obtained from schedules that are at present returned by about one-fifth of the farmers of Canada. They form the basis of the estimates for the whole of Canada. The results for wheat, oats, barley, rye, and flaxseed in the three Prairie Provinces are ready for publication in late July, while the results for the remaining crops and for the numbers of farm live stock are published in October and November. The areas, thus determined, when multiplied by the average yields per acre as reported by crop correspondents, form the basis of the total estimated production for each crop.

* Revised in the Agricultural Branch, Dominion Bureau of Statistics. This Branch is concerned with both primary and secondary statistics of agriculture, including statistics of the production and distribution of agricultural commodities. The primary statistics relate mainly to the reporting of crop conditions, crop and live-stock estimates, values of farm lands, wages of farm labour, and monthly and annual prices received by farmers for their products. The secondary statistics relate to the marketing of grain and live stock, dairying, milling, and sugar industries, and cold-storage holdings. A list of the publications of this Branch is given in Chapter XXIX, Sect. I, under "Production"

AGRICULTURAL PRODUCTION
1918-1938



AGRICULTURAL PRODUCTION
1918–1938



The June schedule covers the areas sown to field crops, the numbers of live stock and poultry on hand, and breeding and marketing intentions with regard to live stock and poultry. The December schedule contains practically the same items with the exception of field-crop areas.

The schedules are distributed and collected through the agency of the rural schools in New Brunswick, Quebec, Ontario, Manitoba, and Saskatchewan, while in Prince Edward Island, Nova Scotia, Alberta, and British Columbia the schedules are sent direct to the farmer through the mail.

Monthly Bulletin of Agricultural Statistics.—Originally established in 1908 as the "Census and Statistics Monthly", but changed to its present title in April, 1917, this publication is now in its thirty-third year. It is the official organ not only for the monthly crop reports and annual statistics previously described, but also for statistics of dairying, eggs, fruit, apiculture, hops, tobacco, maple products, sugar beets, beet sugar, flax fibre, clover and grass seeds, visible supplies, prices, values, foreign agriculture, and other subjects in considerable variety.

Census Statistics.—In addition to the statistics collected annually, which are the subject of this section, valuable information is published following each decennial census. The total number of farms, their tenure, acreage, value, mortgage debt, farm population, farm machinery and facilities, etc., are treated at pp. 295-301 of the 1934-35 Year Book. A summary presentation of agricultural development since 1871 is given in Subsection 9, pp. 270-273 of the 1936 Year Book.

Subsection 1.—Value of Agricultural Production and of Farm Capital.

Value of Agricultural Production.—It is important to note that the figures of value of commodities produced on Canadian farms, shown in Table 3, represent gross values, as no distinction is made between crops used as materials for other kinds of production, such as the feeding of live stock, and no allowance is made for the costs of production. The total revenue for 1938 shows a decrease of $19,275,000 or 1·9 p.c. as compared with 1937, which is accounted for largely by the decreased value of field crops.

3.—Estimated Gross Values of Agricultural Production in Canada, Itemized by Provinces, 1934-38.

NOTE.—Figures subject to revision. Preliminary figures for 1939 and revised figures for 1935-38 will be found in the "Monthly Bulletin of Agricultural Statistics", March, 1940.

Province and Item.	1934.	1935.	1936.	1937.	1938.
	$'000	$'000	$'000	$'000	$'000
Canada—					
Field crops	549,080	511,873	612,300	556,222	528,860
Farm animals	99,438	120,078	130,979	140,989	136,846
Wool	1,255	1,493	1,861	2,049	1,498
Dairy products	172,864	180,756	198,672	215,623	220,164
Fruits and vegetables	43,424	49,964	44,015	41,816	42,952
Poultry products	45,515	50,434	53,244	51,766	53,748
Fur farming	4,534	5,516	6,532	6,802	6,200
Maple products	3,041	3,522	3,714	2,245	3,850
Tobacco	7,218	10,870	9,374	17,140	19,563
Flax fibre	250	321	298	332	519
Clover and grass seed	2,010	1,818	2,154	2,344	2,990
Honey and wax	2,575	2,338	2,823	2,164	3,027
Totals, Canada	**931,204**	**938,983**	**1,065,966**	**1,039,492**	**1,020,217**

3.—Estimated Gross Values of Agricultural Production in Canada, Itemized by Provinces, 1934-38—continued.

Province and Item.	1934.	1935.	1936.	1937.	1938.
	$'000	$'000	$'000	$'000	$'000
Prince Edward Island—					
Field crops	9,054	8,561	10,693	7,706	8,012
Farm animals	917	1,369	1,429	1,452	1,591
Wool	24	21	29	36	22
Dairy products	1,456	1,387	1,632	1,758	1,879
Fruits and vegetables	136	154	172	190	191
Poultry products	669	825	823	762	817
Fur farming	762	863	933	946	850
Clover and grass seed	15	8	15	15	7
Honey and wax	1	1	2	2	1
Totals, Prince Edward Island	**13,034**	**13,189**	**15,728**	**12,867**	**13,376**
Nova Scotia—					
Field crops	12,995	11,748	13,593	10,811	9,658
Farm animals	1,924	2,257	2,548	3,079	2,835
Wool	53	55	63	88	68
Dairy products	6,586	6,349	6,949	7,675	7,890
Fruits and vegetables	4,265	5,586	4,492	5,237	7,382
Poultry products	1,058	1,184	1,216	1,120	1,137
Fur farming	276	386	466	517	465
Maple products	64	46	25	26	24
Clover and grass seed	[1]	4	[1]	[1]	[1]
Honey and wax	7	8	10	8	8
Totals, Nova Scotia	**27,228**	**27,623**	**29,362**	**28,561**	**29,467**
New Brunswick—					
Field crops	14,961	14,542	18,396	14,149	14,912
Farm animals	2,478	2,931	3,421	3,688	3,385
Wool	46	56	73	81	69
Dairy products	4,609	4,675	5,093	5,387	5,800
Fruits and vegetables	908	1,044	1,164	1,317	1,282
Poultry products	1,139	1,291	1,323	1,247	1,297
Fur farming	764	753	856	707	650
Maple products	26	48	46	32	63
Clover and grass seed	14	11	15	12	8
Honey and wax	9	7	7	12	7
Totals, New Brunswick	**24,954**	**25,358**	**30,394**	**26,632**	**27,473**
Quebec—					
Field crops	98,309	83,616	91,276	81,629	81,023
Farm animals	17,989	21,812	23,626	29,673	27,894
Wool	308	347	390	394	368
Dairy products	43,957	45,800	50,438	55,711	55,702
Fruits and vegetables	7,078	7,380	7,933	8,724	8,414
Poultry products	7,221	7,664	8,215	8,428	8,829
Fur farming	975	1,165	1,258	1,249	1,200
Maple products	1,911	2,267	2,482	1,308	2,910
Tobacco	832	642	845	1,098	1,207
Flax fibre	100	160	143	199	399
Clover and grass seed	315	207	124	57	104
Honey and wax	369	397	504	374	530
Totals, Quebec	**179,364**	**171,457**	**187,234**	**188,844**	**188,580**
Ontario—					
Field crops	143,734	132,086	166,284	149,100	127,810
Farm animals	34,089	43,344	46,732	50,885	51,095
Wool	342	417	533	593	345
Dairy products	68,304	73,305	81,830	87,647	89,153
Fruits and vegetables	16,608	18,697	18,002	13,003	13,469
Poultry products	19,464	20,915	22,939	21,659	22,329
Fur farming	704	966	1,131	1,351	1,215
Maple products	1,040	1,161	1,161	880	853
Tobacco	6,337	10,226	8,505	15,965	18,293
Flax fibre	150	161	155	133	120
Clover and grass seed	857	1,006	1,417	1,168	1,690
Honey and wax	1,309	1,115	1,062	753	1,157
Totals, Ontario	**292,938**	**303,399**	**349,751**	**343,137**	**327,529**

[1] Less than $500.

3.—Estimated Gross Values of Agricultural Production in Canada, Itemized by Provinces, 1934-38—concluded.

Province and Item.	1934.	1935.	1936.	1937.	1938.
	$'000	$'000	$'000	$'000	$'000
Manitoba—					
Field crops	49,761	34,944	50,401	90,112	54,649
Farm animals	6,568	7,301	9,058	9,797	10,146
Wool	56	61	92	94	78
Dairy products	10,633	11,267	12,609	14,083	15,363
Fruits and vegetables	1,295	1,894	1,313	1,662	1,445
Poultry products	2,946	3,538	3,626	3,643	4,190
Fur farming	272	402	561	664	600
Clover and grass seed	70	131	108	457	365
Honey and wax	426	387	616	517	655
Totals, Manitoba	**72,027**	**59,925**	**78,384**	**121,029**	**87,491**
Saskatchewan—					
Field crops	96,473	119,644	141,793	51,850	100,759
Farm animals	13,777	16,303	18,290	15,691	12,662
Wool	108	138	172	181	134
Dairy products	14,743	14,832	15,819	17,132	15,669
Fruits and vegetables	2,362	3,301	1,318	322	275
Poultry products	5,879	7,178	6,552	6,319	5,872
Fur farming	207	255	344	378	340
Clover and grass seed	102	220	220	329	512
Honey and wax	74	120	274	107	248
Totals, Saskatchewan	**133,725**	**161,991**	**184,782**	**92,309**	**136,471**
Alberta—					
Field crops	111,044	93,687	103,603	134,429	118,303
Farm animals	18,645	21,382	22,067	22,585	23,257
Wool	257	317	414	478	345
Dairy products	13,894	14,015	15,098	17,211	18,792
Fruits and vegetables	1,996	2,942	1,202	1,207	958
Poultry products	3,893	4,459	4,138	4,229	4,295
Fur farming	453	588	770	784	700
Clover and grass seed	486	145	162	180	238
Honey and wax	155	104	174	171	178
Totals, Alberta	**150,823**	**137,639**	**147,628**	**181,274**	**167,066**
British Columbia—					
Field crops	12,749	13,045	16,261	16,436	13,728
Farm animals	3,051	3,379	3,808	4,139	3,981
Wool	61	81	95	103	69
Dairy products	8,682	9,126	9,204	9,019	9,916
Fruits and vegetables	8,776	8,966	8,419	10,154	9,536
Poultry products	3,246	3,380	4,412	4,359	4,982
Fur farming	121	138	213	206	180
Tobacco	49	2	24	77	63
Clover and grass seed	151	86	93	126	66
Honey and wax	225	199	174	220	243
Totals, British Columbia	**37,111**	**38,402**	**42,703**	**44,839**	**42,764**

Value of Farm Capital.—The items included in the term "farm capital" as used in Table 4 are: lands and buildings; implements and machinery, including motor trucks and automobiles; and live stock, including poultry and animals on fur farms. The 1931 values of lands, buildings, implements, and machinery were reported by decennial census taken at June 1, in that year. Changes in the total value of lands and buildings for the years 1932 to 1938 have been based on the value of occupied farm lands reported annually by crop correspondents, while those in the annual values of farm implements and machinery have been estimated on the basis of sales reported each year: in the case of the Prairie Provinces, data are based on the Quinquennial Census of 1936.

4.—Current Value of Farm Capital in Canada, by Provinces, 1937 and 1938.

Province.	1937.				1938.			
	Lands and Buildings.	Implements and Machinery.	Live Stock.[1]	Total.[1]	Lands and Buildings.	Implements and Machinery.	Live Stock.	Total.
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
P. E. Island	42,920	6,142	7,956	57,018	45,380	6,140	8,031	59,551
Nova Scotia	91,084	7,990	15,253	114,327	82,514	7,930	14,899	105,343
New Brunswick	77,061	10,030	16,034	103,125	80,025	9,830	15,971	105,826
Quebec	684,131	73,489	116,587	874,207	684,131	72,350	115,243	871,724
Ontario	1,072,847	118,501	200,371	1,391,719	1,049,526	119,000	198,714	1,367,240
Manitoba	238,901	39,967	52,450	331,318	224,848	43,600	51,568	320,016
Saskatchewan	797,795	125,382	91,533	1,014,710	797,795	119,800	80,408	998,003
Alberta	517,003	86,284	84,895	688,182	503,569	86,300	86,745	676,614
British Columbia	113,239	10,669	22,237	146,145	117,089	10,700	22,474	150,263
Canada	**3,634,981**	**478,454**	**607,316**	**4,720,751**	**3,584,877**	**475,650**	**594,053**	**4,654,580**

[1] Revised since the publication of the 1939 Year Book.

The preliminary estimate of the current value of farm capital in Canada for 1938 is $4,654,580,000 as compared with the revised estimates of $4,720,751,000 for 1937; $4,626,161,000 for 1936; $4,712,391,000 for 1935; $4,464,147,000 for 1934; and $4,443,159,000 for 1933.

Average Values of Farm Lands.—The average values per acre of farm lands are as estimated by crop correspondents and show the rise in land values between 1910 and 1920, the general decline with moderate fluctuations from 1920 to 1929, and the rapid fall since 1929 to a point below the 1910 level for the country as a whole.

5.—Average Values per Acre of Occupied Farm Lands[1] in Canada, 1910, 1920, and 1922-39.

Province.	1910	1920	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$
P.E.I.	31	49	45	51	40	45	46	41	44	43	42	34	31	32	34	31	31	34	36	35
N.S.	25	43	34	31	33	37	36	37	34	36	30	29	28	26	27	31	35	32	29	33
N.B.	19	28	32	32	27	34	31	30	31	35	28	26	24	24	24	25	28	26	27	29
Que.	43	70	58	56	53	54	53	57	54	55	48	40	37	36	34	41	38	40	40	44
Ont.	48	70	64	64	65	67	62	65	62	60	52	46	38	38	41	42	44	46	45	46
Man.	29	39	32	28	28	29	29	27	27	26	22	18	16	16	17	17	16	17	16	17
Sask.	22	32	28	24	24	24	25	26	27	25	22	19	16	16	16	17	15	15	15	15
Alta.	24	32	24	24	25	26	26	26	28	28	24	20	17	16	16	16	16	16	15	16
B.C.	74	175	120	100	96	88	80	89	90	90	76	74	65	63	60	58	60	58	60	60
Canada	**33**	**48**	**40**	**37**	**37**	**38**	**37**	**38**	**38**	**37**	**32**	**28**	**24**	**24**	**23**	**24**	**24**	**24**	**24**	**25**

[1] Orchards and fruit lands, 1939, with 1938 in parentheses: Nova Scotia $76 ($88); Ontario $99 ($87); British Columbia $263 ($265).

Subsection 2.—Acreages, Yields, and Values of Field Crops.

Chief Field Crops of the Latest Ten Years.—Rapid increases in the acreages of field crops was a characteristic of the period previous to and during the War of 1914-18, when settlement of the western plains occurred. During the latest ten years acreages have been relatively stable for wheat and oats. Fluctuations in the areas devoted to barley, rye, and flax have been quite marked as changes in the prices of these

crops encouraged or discouraged production. Hay and clover acreage has shown a tendency to decline, but an upward trend in alfalfa acreage has occurred, owing to the development of seed-producing areas in Western Canada. Successive droughts in the West considerably reduced production of the principal grain crops from 1933 to 1938, but in 1939 the average yield of wheat exceeded the long-time average. This average is designed to give the reader a better idea of the productivity of Canada's farms than would be obtained from an examination of the figures of the past few years, which naturally reflect the effect of drought conditions in Western Canada.

6.—Acreages, Production, and Values of Principal Crops Grown in Canada, 1930-39, with Long-Time Averages.

NOTE.—Comparative figures for the years 1908-28 are given in the Canada Year Book, 1929, pp. 230-232 and for 1929 in the Canada Year Book, 1939, pp. 203-204. The total value for wheat for 1912 should be $139,090,000 instead of $19,090,000. For certain figures for earlier years on acreage, production, and value see Statistical Summary of the Progress of Canada at the beginning of this volume.

Crop and Year.	Area.	Yield per Acre.	Production.	Average Price.	Total Value.	Crop and Year.	Area.	Yield per Acre.	Production.	Average Price.	Total Value.
	'000 acres.	bu.	'000 bu.	$ per bu.	$'000		'000 acres.	bu.	'000 bu.	$ per bu.	$'000
Wheat—						Rye—					
Long-time average..	17,244	17·1	295,929	1·02	302,751	Long-time average..	650	16·1	10,042	0·78	7,791
1930.....	24,898	16·9	420,672	0·49	204,693	1930.....	1,448	15·2	22,019	0·20	4,402
1931.....	26,355	12·2	321,325	0·38	123,550	1931.....	799	6·7	5,322	0·28	1,476
1932.....	27,182	16·3	443,061	0·35	154,760	1932.....	774	10·9	8,470	0·27	2,284
1933.....	25,991	10·8	281,892	0·49	136,958	1933.....	583	7·2	4,177	0·38	1,603
1934.....	23,985	11·5	275,849	0·61	169,631	1934.....	685	6·9	4,706	0·49	2,325
1935.....	24,116	11·7	281,935	0·61	173,065	1935.....	720	13·4	9,606	0·27	2,634
1936.....	25,605	8·6	219,218	0·94	205,327	1936.....	625	6·8	4,281	0·70	2,980
1937.....	25,570	7·0	180,210	1·02	184,651	1937.....	894	6·5	5,771	0·72	4,152
1938.....	25,931	13·9[1]	360,010[1]	0·59	211,265[1]	1938.....	741	14·8	10,988	0·29	3,147[1]
1939.....	26,757	18·3	489,623	0·52	252,779	1939.....	1,102	13·9	15,307	0·38	5,766
Oats—						Buckwheat—					
Long-time average..	12,401	32·3	401,083	0·46	183,042	Long-time average..	412	22·4	9,245	0·91	8,377
1930.....	13,259	31·9	423,148	0·24	102,919	1930.....	490	22·2	10,903	0·65	7,124
1931.....	12,838	25·6	328,278	0·24	77,970	1931.....	336	20·6	6,917	0·50	3,454
1932.....	13,148	29·8	391,561	0·19	75,988	1932.....	368	22·9	8,424	0·43	3,585
1933.....	13,529	22·7	307,478	0·26	79,818	1933.....	398	21·3	8,483	0·50	4,233
1934.....	13,731	23·4	321,120	0·32	103,124	1934.....	407	21·2	8,635	0·53	4,572
1935.....	14,096	28·0	394,348	0·24	93,409	1935.....	380	20·9	7,949	0·51	4,017
1936.....	13,288	20·5	271,778	0·43	116,267	1936.....	397	21·7	8,596	0·71	6,088
1937.....	13,049	20·6	268,442	0·43	114,093	1937.....	396	19·6	7,745	0·72	5,592
1938.....	13,010	28·5	371,382	0·24	89,335[1]	1938.....	376	18·8	7,079	0·58[1]	4,098[1]
1939.....	12,790	30·1	384,407	0·28	105,963	1939.....	335	20·4	6,848	0·60	4,083
Barley—						Flaxseed—					
Long-time average..	2,783	25·2	70,152	0·59	41,499	Long-time average..	822	8·8	7,300	1·63	11,891
1930.....	5,559	24·3	135,160	0·20	27,254	1930.....	582	8·7	5,069	0·94	4,741
1931.....	3,791	17·8	67,383	0·26	17,465	1931.....	648	3·8	2,465	0·79	1,944
1932.....	3,758	21·5	80,773	0·23	18,855	1932.....	462	5·9	2,719	0·62	1,682
1933.....	3,658	17·3	63,359	0·30	18,954	1933.....	244	2·6	632	1·20	756
1934.....	3,613	17·6	63,742	0·47	29,975	1934.....	227	4·0	910	1·15	1,049
1935.....	3,887	21·6	83,975	0·29	24,465	1935.....	307	5·4	1,667	1·19	1,991
1936.....	4,438	16·2	71,922	0·69	49,512	1936.....	477	3·8	1,795	1·44	2,588
1937.....	4,331	19·2	83,124	0·51	42,020	1937.....	241	3·2	775	1·48	1,148
1938.....	4,454	23·0	102,242	0·28	28,446[1]	1938.....	210[1]	6·0[1]	1,259[1]	1·13[1]	1,420[1]
1939.....	4,347	23·7	103,147	0·32	33,147	1939.....	307	7·1	2,169	1·40	3,030

[1] Revised since the publication of the 1939 Year Book.

6.—Acreages, Production, and Values of Principal Crops Grown in Canada, 1930-39, with Long-Time Averages—*concluded.*

Crop and Year.	Area.	Yield per Acre.	Production.	Average Price.	Total Value.	Crop and Year.	Area.	Yield per Acre.	Production.	Average Price.	Total Value.
	'000 acres.	cwt.	'000 cwt.	$ per cwt.	$ '000		'000 acres.	tons.	'000 tons.	$ per ton.	$ '000
Potatoes—						Hay and Clover—					
Long-time average..	574	89·0	51,042	1·16	59,347	Long-time average					
1930.....	571	84·4	48,241	0·83	39,858	1934.....	8,881	1·26	11,174	11·75	131,295
1931.....	592	88·0	52,305	0·43	22,359	1935.....	8,698	1·62	14,060	7·62	107,133
1932.....	522	76·0	39,416	0·63	24,920	1936.....	8,784	1·57	13,803	7·66	105,703
1933.....	528	81·0	42,745	0·77	33,092	1937.....	8,693	1·50	13,030	7·53	98,136
1934.....	569	84·0	48,095	0·50	23,822	1938.....	8,820	1·56	13,798	7·58[1]	104,529[1]
1935.....	507	76·0	38,670	0·80	30,854	1939.....	8,837	1·51	13,377	8·00	107,068
1936.....	502	79·0	39,614	1·14	45,125						
1937.....	531	80·0	42,547	0·63	26,650	Alfalfa—					
1938.....	522	69·0	35,938	0·92[1]	33,093[1]	Long-time average..	363	2·40	879	13·27	11,664
1939.....	518	70·0	36,390	1·07	39,040	1930.....	744	2·20	1,640	12·12	19,877
						1931.....	568	2·45	1,388	10·36	14,381
Hay and Clover—		tons.	'000 tons.	$ per ton.		1932.....	666	2·65	1,764	8·58	15,131
Long-time average..	9,313	1·50	13,703	13·07	179,150	1933.....	722	2·29	1,652	9·25	15,279
1930.....	10,618	1·54	16,397	9·83	161,122	1934.....	679	1·96	1,328	12·67	16,822
1931.....	9,114	1·60	14,540	7·57	110,110	1935.....	762	2·57	1,959	8·04	15,743
1932.....	8,812	1·54	13,559	7·13	96,654	1936.....	854	2·30	1,966	9·19	18,077
1933.....	8,876	1·29	11,443	8·77	100,306	1937.....	849	2·48	2,107	8·06	16,986
						1938.....	859	2·40	2,061	7·88[1]	16,249[1]
						1939.....	947	2·29	2,167	8·22	17,819

[1] Revised since the publication of the 1939 Year Book.

Acreages and Values, 1934-39.—In the latest year the acreages under field crops increased by slightly over 2 p.c. and the value of the crops increased by 16·9 p.c., as indicated by the figures of Table 7.

The statistics of the principal field crops, shown in Table 8, have been augmented in this edition of the Year Book by the addition of a five-year average covering the years 1933-37. For the Dominion as a whole, peas and grain hay are the only crops showing a production under the average.

7.—Acreages and Values of Field Crops in Canada, by Provinces, 1934-39.

NOTE.—For earlier figures, see Statistical Summary at the beginning of this volume.

Province.	1934.	1935.	1936.	1937.	1938.	1939.
Acreages—	acres.	acres.	acres.	acres.	acres.	acres.
Prince Edward Island....	473,000	472,900	483,200	490,300	484,400	479,300
Nova Scotia.....	554,800	558,700	551,400	548,100	549,200	551,900
New Brunswick.....	906,300	913,900	921,300	907,300	903,600	901,600
Quebec.....	5,950,300	5,912,800	6,018,400	6,042,300	6,103,300	6,142,100
Ontario.....	8,999,900	9,104,800	9,118,900	9,037,000	9,077,300	9,086,600
Manitoba.....	6,000,900	5,962,000	6,081,100	6,421,600	6,897,500	6,863,300
Saskatchewan.....	19,771,820	20,176,210	21,757,350	20,483,600	19,960,300	20,749,200
Alberta.....	12,878,900	13,451,450	12,743,150	13,409,000	13,582,500	13,951,400
British Columbia.....	454,400	463,700	472,050	487,700	501,400	510,100
Totals, Acreages.....	**55,990,320**	**57,016,460**	**58,146,850**	**57,826,900**	**58,059,500**	**59,235,500**
Values—	$	$	$	$	$	$
Prince Edward Island....	9,054,000	8,561,000	10,693,000	7,706,000	9,113,000[1]	10,634,000
Nova Scotia.....	12,995,000	11,748,000	13,593,000	10,811,000	11,129,000[1]	12,659,000
New Brunswick.....	14,961,000	14,562,000	18,396,000	14,149,000	17,064,000[1]	19,961,000
Quebec.....	98,309,000	83,616,000	91,276,000	81,629,000	86,477,000[1]	88,376,000
Ontario.....	143,734,000	132,086,000	166,284,000	149,100,000	131,569,000	149,672,000
Manitoba.....	49,761,000	34,944,000	50,401,000	90,112,000	54,208,000[1]	58,640,000
Saskatchewan.....	96,472,600	119,643,600	141,793,400	51,850,000	104,752,000[1]	166,633,000
Alberta.....	111,044,000	93,687,000	103,603,000	134,429,000	122,148,000[1]	113,190,000
British Columbia.....	12,749,000	13,045,300	16,261,000	16,436,000	13,609,000[1]	14,365,000
Totals, Values.....	**549,079,600**	**511,872,900**	**612,300,400**	**556,222,000**	**550,069,000[1]**	**634,130,000**

[1] Revised since the publication of the 1939 Year Book.

8.—Acreages, Production, and Values of Principal Field Crops of Canada by provinces, 1938 and 1939, with Five-Year Averages, 1933-37.

NOTE.—The figures for 1938 differ, in many cases, from those appearing in the 1939 Year Book owing to revisions in the estimates. Those for 1939 are subject to revision. Comparable figures for earlier years will be found in the corresponding table of earlier editions of the Year Book.

Province and Field Crop.	Year.	Area.	Total Production.	Gross Farm Value.
		'000 acres.	'000 bu.	$'000
Canada—				
Fall wheat.Av.	1933-37	554	12,905	11,551
	1938	742	19,814	11,690
	1939	735	22,271	14,253
Spring wheat Av.	1933-37	24,500	234,916	162,375
	1938	25,189	340,196	199,575
	1939	26,022	467,352	238,526
All wheat..Av.	1933-37	25,054	247,821	173,926
	1938	25,931	360,010	211,265
	1939	26,757	489,623	252,779
Oats.....Av.	1933-37	13,539	312,633	101,342
	1938	13,010	371,382	89,335
	1939	12,790	384,407	105,963
Barley.....Av.	1933-37	3,985	73,225	32,985
	1938	4,454	102,242	28,446
	1939	4,347	103,147	33,147
Fall rye....Av.	1933-37	541	4,467	2,120
	1938	553	8,363	2,403
	1939	891	12,178	4,595
Spring rye..Av.	1933-37	160	1,241	619
	1938	188	2,625	744
	1939	211	3,129	1,171
All rye.....Av.	1933-37	701	5,708	2,739
	1938	741	10,988	3,147
	1939	1,102	15,307	5,766
Peas.....Av.	1933-37	90	1,402	1,761
	1938	80	1,365	2,113
	1939	76	1,307	2,350
Beans.....Av.	1933-37	62	1,007	1,407
	1938	71	1,557	1,725
	1939	73	1,527	2,790
Buckwheat.Av.	1933-37	396	8,281	4,900
	1938	376	7,079	4,098
	1939	335	6,848	4,083
Mixed grains Av.	1933-37	1,156	36,047	16,056
	1938	1,160	39,161	15,126
	1939	1,218	44,072	18,902
Flaxseed...Av.	1933-37	299	1,155	1,506
	1938	210	1,259	1,420
	1939	307	2,169	3,030
Corn for husking..Av.	1933-37	159	6,223	3,724
	1938	180	7,690	3,614
	1939	183	8,097	4,453
			'000 cwt.	
Potatoes. .Av.	1933-37	527	42,333	31,907
	1938	522	35,938	33,093
	1939	518	36,390	39,040
Turnips, etc. Av.	1933-37	185	36,956	12,136
	1938	190	38,160	12,699
	1939	190	37,636	12,884
Canada—concl.				
Hay and clover....Av.	1933-37	8,786	12,701	108,515
	1938	8,820	13,798	104,529
	1939	8,837	13,377	107,068
Alfalfa.....Av.	1933-37	773	1,803	16,581
	1938	859	2,061	16,249
	1939	947	2,167	17,819
Fodder corn Av.	1933-37	441	3,615	12,434
	1938	460	4,413	12,422
	1939	495	4,514	13,666
Grain hay..Av.	1933-37	1,299	1,891	11,964
	1938	950	1,674	7,315
	1939	1,000	1,538	6,717
Sugar beets.Av.	1933-37	51	473	2,729
	1938	48	527	3,473
	1939	62	605	3,673
P. E. Island—				
Spring wheat Av.	1933-37	23	'000 bu. 388	375
	1938	19	180	173
	1939	10	165	165
Oats.....Av.	1933-37	153	4,962	2,076
	1938	147	4,844	1,792
	1939	146	4,868	2,191
Barley.....Av.	1933-37	5	119	76
	1938	8	195	123
	1939	9	252	189
Buckwheat Av.	1933-37	3	59	37
	1938	3	66	44
	1939	4	66	46
Mixed grains Av.	1933-37	25	860	438
	1938	33	1,079	486
	1939	37	1,270	635
			'000 cwt.	
Potatoes...Av.	1933-37	36	3,808	2,146
	1938	34	3,842	2,997
	1939	37	4,440	3,596
Turnips, etc. Av.	1933-37	11	3,009	898
	1938	11	2,850	713
	1939	11	2,430	851
			'000 tons.	
Hay and clover...Av	1933-37	224	305	2,915
	1938	229	297	2,762
	1939	226	294	2,940
Fodder corn Av.	1933-37	0·4	3	10
	1938	0·4	4	23
	1939	0·5	3	21

8.—Acreages, Production, and Values of Principal Field Crops of Canada, by Provinces, 1938 and 1939, with Five-Year Averages, 1933-37—continued.

Province and Field Crop.	Year.	Area.	Total Production.	Gross Farm Value.
		'000 acres.	'000 bu.	$'000
Nova Scotia—				
Spring wheat				
Av	1933-37	4	63	72
	1938	3	54	54
	1939	3	45	50
Oats.....Av.	1933-37	92	3,008	1,709
	1938	90	2,667	1,334
	1939	91	3,325	1,895
Barley.....Av.	1933-37	8	217	172
	1938	10	243	182
	1939	10	297	223
Buckwheat.Av.	1933-37	5	99	83
	1938	4	86	69
	1939	4	80	64
Mixed grains				
Av.	1933-37	6	179	120
	1938	6	189	117
	1939	6	214	150
			'000 cwt.	
Potatoes...Av.	1933-37	21	2,049	1,751
	1938	21	1,526	1,648
	1939	21	2,033	2,358
Turnips, etc.				
Av	1933-37	11	3,172	1,328
	1938	12	3,237	1,457
	1939	12	3,000	1,530
			'000 tons.	
Hay and clover...Av.	1933-37	403	649	7,002
	1938	401	694	6,246
	1939	404	605	6,353
Fodder corn				
Av.	1933-37	0·7	6	23
	1938	0·7	6	22
	1939	0·6	6	36
			'000 bu.	
New Brunswick				
Spring wheat				
Av.	1933-37	15	280	307
	1938	13	150	158
	1939	8	140	154
Oats.....Av.	1933-37	213	6,175	3,007
	1938	212	6,236	2,931
	1939	215	6,671	3,336
Barley ....Av.	1933-37	12	314	210
	1938	14	382	264
	1939	17	459	344
Beans.....Av.	1933-37	1	18	33
	1938	1	20	42
	1939	1	21	63
Buckwheat Av.	1933-37	35	716	460
	1938	32	595	464
	1939	30	548	449
Mixed grains				
Av.	1933-37	4	99	54
	1938	4	104	55
	1939	4	110	73

Province and Field Crop.	Year.	Area.	Total Production.	Gross Farm Value.
		'000 acres.	'000 cwt.	$'000
New Brunswick —concluded.				
Potatoes...Av.	1933-37	48	5,634	3,477
	1938	51	4,072	4,276
	1939	51	5,039	5,593
Turnips, etc.				
Av.	1933-37	12	2,591	853
	1938	12	2,562	1,153
	1939	13	2,772	1,469
			'000 tons.	
Hay and clover...Av.	1933-37	570	713	6,397
	1938	565	904	7,684
	1939	563	844	8,440
Fodder corn				
Av.	1933-37	0·6	5	20
	1938	0·9	8	37
	1939	0·9	9	40
			'000 bu.	
Quebec—				
Spring wheat				
Av.	1933-37	59	1,033	1,051
	1938	51	758	705
	1939	34	577	486
Oats.....Av.	1933-37	1,681	44,267	20,377
	1938	1,662	38,492	19,246
	1939	1,717	45,293	21,066
Barley.....Av.	1933-37	145	3,514	2,283
	1938	177	4,164	2,665
	1939	168	4,055	2,603
Spring rye.Av.	1933-37	5	96	77
	1938	7	111	89
	1939	7	111	95
Peas.....Av.	1933-37	19	288	508
	1938	20	296	566
	1939	18	290	612
Beans.....Av.	1933-37	5	83	161
	1938	8	134	251
	1939	8	126	260
Buckwheat Av.	1933-37	147	3,253	2,107
	1938	146	2,710	1,897
	1939	122	2,483	1,607
Mixed grains				
Av.	1933-37	123	3,264	1,941
	1938	143	3,472	2,293
	1939	168	4,763	2,861
Flaxseed...Av.	1933-37	2·5	23	43
	1938	3	27	41
	1939	3	32	66
			'000 cwt.	
Potatoes...Av.	1933-37	136	12,764	9,312
	1938	140	9,957	11,152
	1939	138	10,737	11,681
Turnips, etc.				
Av.	1933-37	38	7,891	3,178
	1938	38	6,582	3,291
	1939	38	6,197	2,705

8.—Acreages, Production, and Values of Principal Field Crops of Canada by Provinces, 1938 and 1939, with Five-Year Averages, 1933-37—continued.

Province and Field Crop.	Year.	Area.	Total Production.	Gross Farm Value.
		'000 acres	'000 tons.	$ '000
Quebec—concl.				
Hay and clover...Av.	1933-37	3,522	4,714	41,404
	1938	3,640	5,238	41,904
	1939	3,646	4,917	41,614
Alfalfa.....Av.	1933-37	10	26	252
	1938	16	43	383
	1939	18	43	431
Fodder corn Av.	1933-37	49	469	1,775
	1938	54	526	1,994
	1939	56	559	2,289
			'000 bu.	
Ontario—				
Fall wheat.Av.	1933-37	554	12,905	11,551
	1938	742	19,814	11,690
	1939	735	22,271	14,253
Spring wheat Av.	1933-37	97	1,733	1,531
	1938	88	1,610	950
	1939	82	1,550	1,023
All wheat..Av.	1933-37	651	14,638	13,082
	1938	830	21,424	12,640
	1939	817	23,821	15,276
Oats.....Av.	1933-37	2,339	74,658	27,840
	1938	2,263	82,147	24,644
	1939	2,274	86,639	29,457
Barley.... Av.	1933-37	509	14,728	7,988
	1938	544	16,646	6,991
	1939	522	16,600	7,636
Fall rye....Av.	1933-37	60	1,002	627
	1938	74	1,438	661
	1939	75	1,378	799
Peas.....Av.	1933-37	63	968	1,059
	1938	52	907	1,361
	1939	52	887	1,570
Beans.....Av.	1933-37	54	870	1,155
	1938	60	1,367	1,367
	1939	62	1,338	2,395
Buckwheat.Av.	1933-37	200	4,067	2,158
	1938	183	3,499	1,575
	1939	168	3,570	1,856
Mixed grains Av.	1933-37	931	30,423	13,089
	1938	888	32,601	11,736
	1939	914	35,662	14,621
Flaxseed...Av.	1933-37	6	54	71
	1938	5	44	59
	1939	6	58	92
Corn for husking..Av	1933-37	159	6,223	3,724
	1938	180	7,690	3,614
	1939	183	8,097	4,453

Province and Field Crop.	Year.	Area.	Total Production.	Gross Farm Value.
		'000 acres	'000 cwt.	$ '000
Ontario—concl.				
Potatoes...Av.	1933-37	153	9,838	8,744
	1938	146	7,456	6,710
	1939	142	7,247	8,189
Turnips, etc. Av.	1933-37	99	18,203	4,672
	1938	99	20,790	4,990
	1939	98	21,036	5,049
			'000 tons.	
Hay and clover....Av.	1933-37	2,927	4,569	38,288
	1938	2,769	4,796	33,572
	1939	2,722	4,682	34,319
Alfalfa.....Av.	1933-37	595	1,387	12,227
	1938	633	1,526	11,140
	1939	673	1,568	12,403
Fodder corn Av.	1933-37	311	2,803	9,028
	1938	322	3,472	8,715
	1939	336	3,545	9,430
Sugar beetsAv.	1933-37	35	295	1,650
	1938	28	276	1,794
	1939	40	343	2,127
			'000 bu.	
Manitoba—				
Spring wheat Av.	1933-37	2,617	32,823	24,989
	1938	3,184	50,000	30,500
	1939	3,201	63,000	32,760
Oats.....Av.	1933-37	1,452	30,035	8,741
	1938	1,462	41,000	7,790
	1939	1,377	34,500	7,935
Barley.....Av.	1933-37	1,247	22,218	9,506
	1938	1,355	31,000	7,750
	1939	1,344	28,000	8,120
Fall rye....Av.	1933-37	80	1,229	629
	1938	176	2,800	728
	1939	152	1,600	608
Spring rye..Av.	1933-37	13	158	80
	1938	29	440	114
	1939	26	400	152
All rye.....Av.	1933-37	93	1,387	709
	1938	205	3,240	842
	1939	178	2,000	760
Peas.....Av.	1933-37	2	28	36
	1938	3	50	48
	1939	2	29	38
Buckwheat Av.	1933-37	6	87	55
	1938	8	123	49
	1939	7	101	61
Mixed grains Av.	1933-37	22	428	148
	1938	30	625	156
	1939	27	619	180
Flaxseed...Av.	1933-37	38	247	332
	1938	42·7	300	336
	1939	70·5	525	735

8.—Acreages, Production, and Values of Principal Field Crops of Canada by Provinces, 1938 and 1939, with Five-Year Averages, 1933-37—continued.

Province and Field Crop.	Year.	Area.	Total Production.	Gross Farm Value.
		'000 acres.	'000 cwt.	$'000
Manitoba—concluded.				
Potatoes	Av. 1933-37	36	2,135	1,351
	1938	32	1,914	1,110
	1939	36	2,016	1,855
Turnips, etc.	Av. 1933-37	5	573	284
	1938	6	471	212
	1939	6	637	350
			'000 tons.	
Hay and clover	Av. 1933-37	484	821	4,591
	1938	465	767	3,720
	1939	471	706	3,707
Alfalfa	Av. 1933-37	29	57	424
	1938	45	101	687
	1939	72	132	924
Fodder corn	Av. 1933-37	55	218	1,008
	1938	60	280	1,008
	1939	73	270	1,215
Saskatchewan—				
Spring wheat	Av. 1933-37	13,970	106,080	70,829
	1938	13,793	137,800	79,924
	1939	14,233	250,000	127,500
Oats	Av. 1933-37	4,640	71,892	17,104
	1938	4,171	90,000	14,400
	1939	4,144	112,000	22,400
Barley	Av. 1933-37	1,188	15,051	5,855
	1938	1,207	20,000	4,400
	1939	1,149	26,000	6,760
Fall rye	Av. 1933-37	297	1,469	532
	1938	204	2,400	600
	1939	537	7,600	2,660
Spring rye	Av. 1933-37	79	568	229
	1938	88	1,000	250
	1939	110	1,700	595
All rye	Av. 1933-37	376	2,037	761
	1938	292	3,400	850
	1939	647	9,300	3,255
Peas	Av. 1933-37	1	4	4
	1938	1	4	6
	1939	[1]	[1]	[1]
Beans	Av. 1933-37	0·3	2	2
	1938	0·3	3	6
	1939	[1]	[1]	[1]
Mixed grains	Av. 1933-37	21	244	68
	1938	32	444	93
	1939	34	710	163
Flaxseed	Av. 1933-37	236	728	929
	1938	139	725	805
	1939	187	1,200	1,656
Saskatchewan—concluded.				
Potatoes	Av. 1933-37	48	2,038	1,434
	1938	51	3,289	1,973
	1939	48	1,721	1,807
Turnips, etc.	Av. 1933-37	2	102	62
	1938	3	203	91
	1939	3	174	96
			'000 tons.	
Hay and clover	Av. 1933-37	188	211	1,139
	1938	230	286	1,645
	1939	257	445	2,359
Alfalfa	Av. 1933-37	15	21	175
	1938	28	42	357
	1939	29	57	428
Fodder corn	Av. 1933-37	14	23	131
	1938	13	36	202
	1939	18	38	209
Alberta—				
Spring wheat	Av. 1933-37	7,654	91,036	61,882
	1938	7,969	148,200	85,956
	1939	8,379	150,000	75,000
Oats	Av. 1933-37	2,866	72,541	18,180
	1938	2,885	101,000	15,150
	1939	2,706	85,000	15,300
Barley	Av. 1933-37	859	15,660	6,654
	1938	1,125	29,200	5,840
	1939	1,114	27,000	7,020
Fall rye	Av. 1933-37	104	767	332
	1938	99	1,725	414
	1939	127	1,600	528
Spring rye	Av. 1933-37	59	334	176
	1938	59	975	234
	1939	62	800	256
All rye	Av. 1933-37	153	1,101	508
	1938	158	2,700	648
	1939	189	2,400	784
Peas	Av. 1933-37	1	12	16
	1938	1	22	29
	1939	1	19	27
Beans	Av. 1933-37	0·9	12	21
	1938	0·7	12	23
	1939	1	14	22
Mixed grains	Av. 1933-37	20	404	123
	1938	19	480	106
	1939	23	557	139
Flaxseed	Av. 1933-37	16	100	127
	1938	20	160	176
	1939	40	350	476

[1] Too small to be recorded.

8.—Acreages, Production, and Values of Principal Field Crops of Canada by Provinces, 1938 and 1939, with Five-Year Averages, 1933-37—concluded.

Province and Field Crop.	Year.	Area.	Total Production.	Gross Farm Value.
		'000 acres.	'000 cwt.	$'000
Alberta—concluded.				
Potatoes...Av.	1933-37	31	2,041	1,569
	1938	28	2,087	1,252
	1939	26	1,219	1,829
Turnips, etc. Av.	1933-37	2	189	120
	1938	3	289	145
	1939	3	270	162
			'000 tons.	
Hay and clover...Av.	1933-37	317	412	2,957
	1938	366	545	3,270
	1939	392	569	3,556
Alfalfa.....Av.	1933-37	76	161	1,542
	1938	86	197	1,478
	1939	103	207	1,553
Fodder corn Av.	1933-37	5	20	116
	1938	3	16	96
	1939	3	14	76
Grain hay Av.	1933-37	1,252	1,783	10,958
	1938	900	1,575	6,300
	1939	950	1,425	5,700
Sugar beets Av.	1933-37	16	178	1,079
	1938	20	251	1,679
	1939	22	262	1,546
British Columbia—			'000 bu.	
Spring wheat Av.	1933-37	61	1,480	1,339
	1938	69	1,444	1,155
	1939	72	1,875	1,388
Oats .....Av.	1933-37	103	5,045	2,308
	1938	118	4,996	2,048
	1939	120	6,111	2,383
Barley.....Av.	1933-37	12	404	241
	1938	14	412	231
	1939	14	484	252
British Columbia—concluded.				
Spring rye..Av.	1933-37	4	85	57
	1938	5	99	57
	1939	6	118	73
Peas.....Av.	1933-37	4	102	138
	1938	3	86	103
	1939	3	82	103
Beans.....Av.	1933-37	0·8	22	35
	1938	1	21	36
	1939	1	28	50
Mixed grains Av.	1933-37	4	146	75
	1938	5	167	84
	1939	5	167	80
Flaxseed...Av.	1933-37	0·5	3	4
	1938	0·3	3	3
	1939	0·5	4	5
			'000 cwt.	
Potatoes...Av.	1933-37	18	2,026	2,123
	1938	19	1,795	1,975
	1939	19	1,938	2,132
Turnips, etc. Av.	1933-37	5	1,226	741
	1938	6	1,176	647
	1939	6	1,120	672
			'000 tons.	
Hay and clover...Av.	1933-37	151	307	3,822
	1938	155	271	3,726
	1939	156	315	3,780
Alfalfa.....Av.	1933-37	48	151	1,961
	1938	51	152	2,204
	1939	52	160	2,080
Fodder corn Av.	1933-37	5·3	68	323
	1938	6	65	325
	1939	7	70	350
Grain hay.Av.	1933-37	47	108	1,006
	1938	50	99	1,015
	1939	50	113	1,017

Grain Production of the Prairie Provinces.—Estimates of the acreages and production of the grain crops of the Prairie Provinces (Manitoba, Saskatchewan, and Alberta), totalled from Table 5, are given for 1937-39 in Table 9.

9.—Acreages and Production of Grain in the Prairie Provinces, 1937-39.

Kind of Grain.	Areas.			Production.		
	1937.	1938.	1939.	1937.	1938.	1939.
	acres.	acres.	acres.	bu.	bu.	bu.
Wheat	24,599,000	24,946,000	25,813,000	156,800,000	336,000,000[1]	463,000,000
Oats	8,579,000	8,518,000	8,227,000	142,413,000	232,000,000	231,500,000
Barley	3,562,300	3,687,000	3,607,000	62,418,000	80,200,000	81,000,000
Rye	808,200	655,000	1,014,100	4,280,000	9,340,000	13,700,000
Flaxseed	233,300	201,700[1]	297,500	694,000	1,185,000[1]	2,075,000

[1] Revised since the publication of the 1939 Year Book.

Stocks of Grain in Canada.—Table **10** shows the quantities of grain on farms at July 31, 1939, as compared with July 31, 1938 and 1937. Table **11** shows the total quantities of grain on farms at the end of the crop years 1930-39. The distribution of these crops will be found in the section of the chapter on internal trade that deals with the grain trade of Canada.

10.—Stocks of Grain on Farms in Canada, as at July 31, 1937-39, with Totals of Production of the Previous Years' Crops.

Kind of Grain.	Total Production in 1936.	On Farms, July 31, 1937.		Total Production in 1937.	On Farms, July 31, 1938.		Total Production in 1938.	On Farms, July 31, 1939.	
	'000 bu.	p.c.	bu.	'000 bu.	p.c.	bu.	'000 bu.	p.c.	bu.
Wheat	219,218	1·82	3,999,300	180,210	2·81	5,061,000	350,010	1·3	4,682,000
Oats	271,778	5·60	15,231,000	268,442	6·01	16,120,000	371,382	10·7	39,654,000
Barley	71,922	2·05	1,476,400	83,124	3·82	3,177,500	102,242	7·2	7,346,700
Rye	4,281	1·83	78,400	5,771	1·35	78,000	10,988	3·5	380,000
Flaxseed	1,795	0·55	9,800	775	0·23	1,800	1,389	0·4	4,900

11.—Stocks of Grain on Farms in Canada, as at July 31, 1930-39.

Year.	Wheat.	Oats.	Barley.	Rye.	Flaxseed.
	bu.	bu.	bu.	bu.	bu.
1930	5,326,000	12,020,000	3,050,000	166,000	3,600
1931	19,459,400	52,603,500	17,618,400	1,403,600	35,800
1932	7,495,800	22,823,000	3,477,000	146,000	7,100
1933	12,340,000	27,701,000	3,102,000	156,600	17,700
1934	8,733,000	19,333,000	1,839,000	37,000	3,400
1935	7,861,200	20,071,000	2,022,000	77,900	4,200
1936	5,520,000	31,186,000	4,199,200	270,600	7,600
1937	3,999,300	15,231,000	1,476,400	78,400	9,800
1938	5,061,000	16,120,000	3,177,500	78,000	1,800
1939	4,682,000	39,654,000	7,346,700	380,000	4,900

Subsection 3.—Farm Live Stock and Poultry.

The growth of the live-stock and poultry industries in Canada from decade to decade is indicated in summary form in Table **12**.

12.—Live Stock and Poultry on Farms in Canada, Censuses of 1871-1931.

Item.	1871.	1881.	1891.	1901.	1911.	1921.[1]	1931.
	No.	No.	No.	No.	No.	No.	No.
Horses	836,743	1,059,358	1,470,572	1,577,493	2,598,958	3,610,494	3,113,909
Cattle	2,624,290	3,433,989	4,120,586	5,576,451	6,526,083	8,519,484	7,973,031
Milk cows[2]	1,251,209	1,595,800	1,857,112	2,408,677	2,595,255	3,324,653	3,371,923
Other cattle	1,373,081	1,838,189	2,263,474	3,167,774	3,930,828	5,194,831	4,601,108
Sheep	3,155,509	3,048,678	2,563,781	2,510,239	2,174,300	3,203,966	3,627,116
Swine	1,366,083	1,207,619	1,733,850	2,353,828	3,634,778	3,040,730	4,699,831
All poultry	[3]	[3]	14,105,102[4]	17,922,658	31,793,261	50,325,248	65,184,689[5]
Hens and chickens			*12,696,701*	*16,651,337*	*29,773,457*	*48,021,647*	*61,277,229*
Turkeys			*458,306*	*584,569*	*863,182*	*1,096,721*	*2,225,197*
Ducks			*320,169*	*290,755*	*527,098*	*603,152*	*749,930*
Geese	–		*537,932*	*395,997*	*629,524*	*603,728*	*902,251*
Hives of bees	144,791		199,288	189,986	180,372	185,530	215,349

[1] Includes live stock elsewhere than on farms as follows: horses, 158,742; cattle, 149,995; sheep, 3,499; swine, 80,439; poultry, 6,978,054; hives, 37,425. [2] From 1921, "Cows in milk or in calf". [3] Poultry not reported for this Census. [4] Includes 91,994 unspecified. [5] Includes 32,082 other poultry.

In Table **13** indexes are given showing the numbers of animals on farms for the years 1921 to 1939, expressed as percentages of the average numbers on farms during the period 1921 to 1925.

13.—Index Numbers of Animals on Farms in Canada, 1921-39.

(Average 1921-25=100.)

Year.	Horses.	Milk Cows.	Other Cattle.	Sheep.	Swine.
1921	105·1	99·9	110·6	121·4	88·9
1922	100·6	100·2	102·2	107·8	90·3
1923	97·3	97·8	95·5	91·0	101·6
1924	98·9	99·7	98·0	88·7	117·0
1925	98·0	102·5	93·7	91·0	102·1
1926	93·7	102·7	80·9	103·8	100·6
1927	94·3	103·8	90·1	107·8	108·3
1928	93·1	101·1	85·3	112·9	103·8
1929	93·1	98·5	87·9	120·1	101·1
1930	90·8	98·5	89·8	122·1	92·3
1931	85·8	90·2	78·7	119·8	108·4
1932	85·2	96·1	84·1	120·4	107·0
1933	82·3	98·8	88·6	111·9	87·7
1934	80·9	103·3	87·0	113·0	84·3
1935	80·8	102·9	85·0	112·3	81·9
1936	79·7	103·9	84·7	109·9	95·6
1937	79·5	105·4	83·8	110·3	91·4
1938	77·8	103·6	79·3	112·8	80·4
1939	77·9	103·6	78·7	111·2	99·1

The numbers of live stock and of poultry on farms, which were formerly shown in separate tables on a three- and two-year basis, respectively, are now shown on a ten-year basis in Table **14**, while average values per head are shown for the six latest years in Table **15**. Statistics for total cattle, geese, and ducks, together with total values for each kind of live stock, are given in the "Monthly Bulletin of Agricultural Statistics" for February, 1940.

14.—Farm Live Stock and Poultry in Canada, by Provinces, 1930-39.

Province and Item.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.
	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000
Canada—										
Horses	3,295	3,114	3,089	2,984	2,933	2,931	2,892	2,883	2,821	2,824
Milk cows	3,683	3,372	3,595	3,694	3,864	3,849	3,885	3,940	3,874	3,873
Other cattle	5,254	4,601	4,917	5,182	5,088	4,971	4,955	4,900	4,637	4,601
Sheep	3,696	3,627	3,645	3,386	3,421	3,399	3,327	3,340	3,415	3,366
Swine	4,000	4,700	4,639	3,801	3,654	3,549	4,145	3,963	3,487	4,294
Hens and chickens	56,247	61,572	59,843	54,943	55,430	53,063	55,769	53,983	53,775	58,510
Turkeys	2,399	2,232	2,478	2,580	2,644	2,066	2,045	1,998	2,040	2,476
All poultry[1]	60,795	65,468	64,080	59,324	59,799	56,769	59,339	57,510	57,237	62,405
Prince Edward Island—										
Horses	35	30	29	29	27	28	28	29	29	29
Milk cows	43	44	45	46	46	47	46	46	46	46
Other cattle	56	57	58	59	50	48	47	53	54	53
Sheep	87	78	68	64	54	50	49	50	49	46
Swine	54	41	42	34	32	38	42	44	44	48
Hens and chickens	917	827	834	814	753	779	852	826	830	829
Turkeys	13	10	11	9	11	10	12	12	11	12
All poultry[1]	980	878	885	872	808	831	907	878	873	871
Nova Scotia—										
Horses	51	43	43	41	42	41	40	42	43	44
Milk cows	140	108	113	120	124	116	114	115	116	118
Other cattle	145	113	126	127	120	107	100	113	121	122
Sheep	290	196	156	148	145	133	135	138	146	144
Swine	44	44	53	42	42	40	43	50	44	45
Hens and chickens	1,100	1,232	1,207	1,173	1,186	1,123	1,235	1,212	1,225	1,226
Turkeys	17	12	9	9	13	11	15	16	15	17
All poultry[1]	1,146	1,267	1,240	1,205	1,220	1,154	1,268	1,244	1,255	1,256

[1] Includes geese and ducks.

14.—Farm Live Stock and Poultry in Canada, by Provinces, 1930-39—concluded.

Province and Item.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.
	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000
New Brunswick—										
Horses	50	51	53	53	51	51	50	52	52	53
Milk cows	107	101	109	110	114	114	110	111	113	114
Other cattle	122	112	112	126	112	94	89	103	104	107
Sheep	153	144	131	120	114	111	109	107	110	108
Swine	67	85	96	73	71	79	82	95	82	87
Hens and chickens	1,018	1,264	1,415	1,293	1,235	1,240	1,315	1,290	1,261	1,285
Turkeys	43	35	27	24	24	26	29	27	25	36
All poultry[1]	1,087	1,324	1,470	1,341	1,285	1,289	1,367	1,339	1,306	1,340
Quebec—										
Horses	367	301	297	268	265	267	270	280	289	297
Milk cows	1,024	892	933	952	947	936	939	962	982	1,002
Other cattle	995	815	944	808	779	726	757	802	827	815
Sheep	871	734	751	667	612	667	654	658	670	647
Swine	703	728	667	482	551	611	704	774	645	744
Hens and chickens	8,209	7,624	8,114	6,750	6,751	6,690	7,460	7,362	7,234	7,871
Turkeys	194	150	163	133	126	129	128	111	112	133
All poultry[1]	8,580	7,932	8,445	7,050	7,029	6,965	7,740	7,603	7,485	8,128
Ontario—										
Horses	607	577	578	574	564	563	563	558	561	559
Milk cows	1,222	1,098	1,175	1,183	1,177	1,181	1,182	1,176	1,174	1,183
Other cattle	1,453	1,416	1,354	1,341	1,318	1,287	1,293	1,278	1,318	1,305
Sheep	1,134	1,045	1,040	1,001	963	946	886	875	858	847
Swine	1,661	1,359	1,375	1,258	1,178	1,225	1,408	1,488	1,430	1,546
Hens and chickens	20,901	22,380	21,683	21,729	21,567	21,731	21,724	21,314	21,189	21,618
Turkeys	522	399	414	416	419	421	428	425	446	453
All poultry[1]	22,560	23,588	22,929	22,991	22,802	22,962	22,958	22,536	22,420	22,841
Manitoba—										
Horses	360	325	342	307	296	297	305	325	325	315
Milk cows	252	237	257	305	339	330	328	390	384	366
Other cattle	484	432	477	501	456	430	419	457	458	421
Sheep	223	217	199	213	216	218	208	216	231	230
Swine	272	390	338	262	242	184	270	229	219	311
Hens and chickens	5,035	5,003	4,929	4,061	4,097	3,712	4,255	3,832	4,512	5,278
Turkeys	435	399	500	571	535	431	380	393	451	551
All poultry[1]	5,659	5,547	5,617	4,812	4,795	4,262	4,729	4,333	5,081	5,951
Saskatchewan—										
Horses	1,072	998	963	947	932	934	898	874	806	800
Milk cows	429	424	454	480	556	554	591	564	497	490
Other cattle	786	765	874	966	948	932	944	877	632	680
Sheep	210	281	314	360	448	460	342	345	337	341
Swine	498	949	898	649	596	514	667	454	268	470
Hens and chickens	8,721	10,651	10,644	9,305	9,313	8,685	8,862	8,116	7,283	8,651
Turkeys	513	623	729	791	869	567	587	524	485	724
All poultry[1]	9,507	11,507	11,603	10,348	10,434	9,501	9,635	8,825	7,890	9,512
Alberta—										
Horses	699	732	726	706	698	691	677	661	649	659
Milk cows	348	385	424	407	462	464	458	454	441	429
Other cattle	940	740	800	1,065	1,109	1,140	1,096	1,004	921	908
Sheep	530	786	834	664	696	639	766	769	834	834
Swine	636	1,052	1,118	954	896	809	878	774	707	993
Hens and chickens	6,784	8,269	7,676	6,816	6,992	5,783	6,307	6,161	6,325	7,068
Turkeys	614	565	583	586	610	434	430	444	445	495
All poultry[1]	7,626	9,016	8,454	7,609	7,804	6,404	6,899	6,794	6,921	7,723
British Columbia—										
Horses	54	57	58	59	58	59	61	62	67	68
Milk cows	118	83	85	91	99	106	118	121	122	125
Other cattle	273	151	172	189	196	207	210	213	202	190
Sheep	198	146	152	149	173	175	178	183	180	169
Swine	65	52	52	47	46	49	51	55	48	50
Hens and chickens	3,562	4,322	3,341	3,002	3,536	3,320	3,759	3,870	3,916	4,684
Turkeys	48	39	42	41	37	37	36	46	50	55
All poultry[1]	3,650	4,409	3,437	3,096	3,622	3,401	3,836	3,958	4,006	4,783

[1] Includes geese and ducks.

15.—Average Values per Head of Farm Live Stock and Poultry in Canada, by Provinces, 1935-39.

NOTE.—Figures for 1925-34 will be found at pp. 272-273 of the 1934-35 Year Book.

Province and Item.	1935.	1936.	1937.	1938.	1939.	Province and Item.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$		$	$	$	$	$
Canada—						**Ontario—**					
Horses	65	72	72	71	67	Horses	92	105	103	102	92
Milk cows	35	37	40	40	46	Milk cows	42	46	48	47	56
Other cattle	22	23	25	27	33	Other cattle	29	30	32	31	40
All cattle	27	29	32	33	39	All cattle	35	38	40	39	48
Sheep	5·02	5·42	5·61	5·79	6·69	Sheep	6·06	7·00	6·96	7·42	8·13
Swine	11·77	10·98	12·31	13·21	13·79	Swine	12·15	11·63	12·40	13·15	14·02
Hens and chickens	0·65	0·63	0·69	0·68	0·70	Hens and chickens	0·73	0·74	0·79	0·77	0·78
Turkeys	1·88	1·77	1·90	1·89	1·76	Turkeys	2·32	2·31	2·42	2·40	2·27
P. E. Island—						**Manitoba—**					
Horses	82	90	91	94	96	Horses	54	62	64	58	56
Milk cows	31	35	37	36	37	Milk cows	30	29	32	33	43
Other cattle	21	24	24	24	25	Other cattle	20	21	24	25	32
All cattle	26	29	30	30	31	All cattle	24	24	28	29	37
Sheep	5·41	5·08	5·55	5·53	6·47	Sheep	4·45	4·89	5·07	5·23	6·27
Swine	12·23	11·50	10·55	12·75	14·24	Swine	10·92	11·18	12·00	12·99	13·60
Hens and chickens	0·76	0·68	0·72	0·77	0·72	Hens and chickens	0·53	0·53	0·58	0·55	0·58
Turkeys	1·72	1·83	1·89	1·86	1·94	Turkeys	1·76	1·69	1·86	1·71	1·65
Nova Scotia—						**Saskatchewan—**					
Horses	88	94	102	100	102	Horses	49	56	53	50	50
Milk cows	33	38	42	41	41	Milk cows	28	27	28	31	41
Other cattle	21	24	28	26	27	Other cattle	19	18	20	24	31
All cattle	27	31	35	33	34	All cattle	22	21	23	27	35
Sheep	4·42	4·70	5·22	5·15	5·60	Sheep	4·14	4·38	4·72	4·90	6·50
Swine	13·12	14·10	14·30	13·97	14·60	Swine	10·65	10·29	11·09	12·60	13·00
Hens and chickens	0·64	0·75	0·73	0·73	0·77	Hens and chickens	0·48	0·45	0·44	0·41	0·50
Turkeys	2·06	2·38	2·23	2·32	2·25	Turkeys	1·62	1·51	1·56	1·63	1·52
New Brunswick—						**Alberta—**					
Horses	105	111	114	114	118	Horses	42	50	49	49	45
Milk cows	31	36	36	37	40	Milk cows	28	26	30	33	40
Other cattle	17	21	21	22	24	Other cattle	19	18	22	25	32
All cattle	25	29	29	30	32	All cattle	22	20	24	28	35
Sheep	4·51	4·98	5·23	5·11	6·06	Sheep	4·28	4·51	4·64	4·97	6·21
Swine	14·61	15·86	15·03	14·90	15·07	Swine	10·06	9·86	10·87	11·81	12·74
Hens and chickens	0·75	0·77	0·83	0·78	0·85	Hens and chickens	0·47	0·42	0·45	0·47	0·47
Turkeys	2·44	2·60	2·52	2·72	2·55	Turkeys	1·66	1·40	1·60	1·61	1·45
Quebec—						**British Columbia**					
Horses	120	112	117	114	109	Horses	58	65	70	73	75
Milk cows	34	38	43	41	43	Milk cows	50	51	51	50	51
Other cattle	16	22	24	24	27	Other cattle	26	28	30	31	32
All cattle	26	31	34	33	36	All cattle	34	36	38	38	40
Sheep	5·00	5·24	5·57	5·58	6·04	Sheep	5·82	5·90	6·25	5·92	6·64
Swine	14·00	10·70	14·00	15·00	15·00	Swine	11·66	12·73	12·84	13·12	14·73
Hens and chickens	0·80	0·66	0·88	0·91	0·92	Hens and chickens	0·68	0·70	0·75	0·75	0·76
Turkeys	2·40	2·20	2·46	2·35	2·30	Turkeys	2·56	2·50	2·60	2·51	2·56

Wool Production.—Of the total wool production in Canada for 1939, estimated at 17,888,000 lb., the Provinces of Alberta, Ontario, and Quebec accounted for the major part (nearly 70 p.c. of the 13,611,000 lb. of shorn wool). In Alberta, most of the wool comes from the sheep ranches, while in Ontario and Quebec it is produced by small farm flocks.

The outbreak of war in September caused an immediate change in the Canadian wool situation. Wool prices during the summer months had been at very low levels. However, the demand for wool increased enormously with the need for outfitting the

armed forces, and under the Wartime Prices and Trade Board prices were fixed at 45 cents a pound for domestic crossbred wool and tops. This order remained in effect until Jan. 27, 1940, when it was revoked and market prices were again established.

Although prices during the late fall months were much higher than in the previous year, the value of the 1940 clip was only $123,000 higher than in 1938. This was due in part to the fact that most of the clip had been disposed of by farmers prior to September. Some advantage of the higher prices was, of course, gained by those producers marketing through co-operatives.

16.—Estimated Production, Exports, Imports, and Apparent Consumption of Wool in Canada, 1930-39.

NOTE.—Comparable statistics for the years 1920-29 are given at p. 219 of the 1939 Year Book.

Year.	Shorn.				Pulled.	Total Production.	Exports.	Imports.	Apparent Consumption.
	Yield per Fleece.	Total Yield Shorn.	Price per lb.	Total Value Shorn.					
	lb.	'000 lb.	cts.	$	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
1930	7·0	12,800	11	1,392,400	3,852	16,652	4,382	9,459	21,729
1931	7·0	13,575	8	1,050,400	4,250	17,825	4,770	10,849	23,904
1932	7·1	14,027	5	721,900	4,087	18,114	3,712	8,717	23,119
1933	7·1	13,308	10	1,364,300	4,511	17,819	11,258	13,761	20,322
1934	6·9	13,135	10	1,254,600	4,443	17,578	4,260	14,932	28,250
1935	7·1	13,320	11	1,492,500	4,499	17,819	8,363	14,872	24,328
1936	7·2	13,057	14	1,861,200	4,374	17,431	9,103	22,782	31,110
1937	7·2	13,271	15	2,048,700	4,358	17,629	4,813	24,427	37,243
1938	7·3	13,386	11	1,565,000[1]	4,309	17,695	4,260	15,524	28,959
1939	7·5	13,611	12	1,688,000	4,277	17,888	4,664	19,077	32,301

[1] Revised since the publication of the 1939 Year Book.

Production of Farm Eggs.—The estimated production of farm eggs in 1938 was 6,044,000 doz. less than the production of 1937, a decrease of 2·8 p.c. The total value of the egg production of Canada registered a decrease of 5·6 p.c. as compared with the previous year. Complete data by provinces for 1937 and 1938 are given at p. 220 of the 1939 Year Book.

17.—Estimated Production and Value of Farm Eggs in Canada, 1930-38.

Year.	Laying Hens.	Average Production Per Hen.	Total Egg Production.	Price Per Dozen.	Total Value.
	No.	No.	doz.	cts.	$
1930	29,052,600	95	230,000,000	27	62,100,000
1931	25,407,000	112	237,131,000	17	40,312,000
1932	24,806,600	111	229,461,000	13	29,830,000
1933	24,922,000	107	222,254,000	12	27,577,000
1934	24,688,000	108	223,272,000	15	34,454,000
1935	24,594,000	109	223,540,000	17	37,763,000
1936	23,798,000	111	219,494,000	18·5	40,776,000
1937	23,861,000	110	219,443,000	17·5	38,480,000
1938	23,089,000	111	213,399,000	19	40,653,000

The export movement of eggs to British Empire markets has increased considerably in recent years. In 1938, 1,539,807 doz. eggs were shipped to the United Kingdom, representing 0·66 p.c. of the total production for that year; the total exports amounted to 1,842,538 doz. Imports have continued at a low level since 1930 when 2,908,340 doz. eggs were imported into the Dominion. In 1935 the imports amounted to only 26,842 doz. and in 1938 they increased to 33,534 doz.

Eggs have always been a relatively popular diet with the Canadian people. In 1938 the disappearance of eggs in the Dominion amounted to 233,471,546 doz. representing a per capita consumption of 20·83 doz. These calculations are made by adding the estimated production of farm eggs, eggs elsewhere produced, imports, and stocks at the first of January, and deducting therefrom the exports during the year, and stocks on hand at the end of the year.

Subsection 4.—Dairying Statistics.

In the present edition of the Year Book, revised statistics, based upon a more complete analysis of census figures, are presented for the years 1930-38, on a Dominion basis only. Figures for the provinces may be found in "Dairying Statistics for Canada, 1938", which carries the revision back to 1934, and in a special supplementary statement, issued in September, 1939, which covers the years 1930-33. Statistics for Canada and the provinces, covering the years 1936-38, appear at pp. 221-224 of the 1939 Year Book.

Milk Production.—The first milk production estimate was contained in the Census Report for 1911, showing a farm output of nearly 7,000,000,000 lb. in 1900 and slightly more than 9,750,000,000 lb. in 1910. The increase thus reported occurred during a ten-year period of extensive land settlement. During this period the number of farm holdings advanced approximately one-third, and breeding stock was shipped in large numbers to the western prairies to meet the needs of the new colonists.

In the course of the next decade (1910-20), a marked development took place in live-stock and dairying enterprises; since the quest for new lands had practically subsided, the number of farm occupants increased only 4 p.c. while the number of milk cows made a gain of 28 p.c. But the increase in milk cows was only partially reflected in the milk production estimate for 1920, which amounted to approximately 10,500,000,000 lb.

In the subsequent period (1920-30), the movement toward dairying was much more pronounced; the production of milk, as shown in the revised estimate for 1930, reached a total of over 13,000,000,000 lb., nearly double the amount produced at the beginning of the century. This increase was accompanied by a greater production per cow. In 1900, the average yield was 2,851 lb.; in 1920, it advanced to 3,189 lb.; and in 1930 to 3,578 lb. The production per farm also advanced; from an average of 13,436 lb. in 1900 it increased to 14,911 lb. in 1920, and to 17,605 lb. in 1930.

The increase in the total milk production in 1938 represented a gain of 2·9 p.c. over 1937. As compared with 1930, the increase was 20·6 p.c. This can be deduced from Table **18**.

Of the total quantity of milk manufactured, 59·4 p.c. was used in the production of creamery butter, 23·4 p.c. in dairy butter, 12·9 p.c. in cheese, and 4·3 p.c. in concentrated milk products, ice cream, and farm-made cheese.

18.—Total Milk Production of Canada, 1930-38.

Year.	Manufactured.		Milk Otherwise Used.			Total Milk Production.
	On Farms.	In Factories.	Fluid Sales.	Farm Consumed.	Fed on Farms.	
	lb.	lb.	lb.	lb.	lb.	lb.
1930	2,292,261,500	6,036,331,900	2,524,288,000	1,444,538,000	774,000,000	13,071,419,400
1931	2,362,898,400	6,853,235,600	2,759,321,000	1,593,545,000	816,000,000	14,385,000,000
1932	2,450,924,400	6,603,534,700	2,699,411,000	1,569,252,000	801,360,000	14,124,482,100
1933	2,482,127,400	6,619,776,700	2,688,035,000	1,594,318,000	849,840,000	14,234,097,100
1934	2,581,141,400	6,870,478,900	2,786,248,000	1,646,452,000	821,640,000	14,705,960,300
1935	2,569,285,400	7,054,892,900	2,773,175,000	1,655,861,000	794,600,000	14,847,814,300
1936	2,566,072,400	7,525,268,100	2,790,015,000	1,630,738,000	812,320,000	15,324,413,500
1937	2,544,045,400	7,650,571,200	2,727,861,000	1,602,770,000	801,480,000	15,326,727,600
1938	2,472,166,400	8,052,261,500	2,812,871,000	1,656,617,000	776,320,000	15,770,235,900

Farm Value of Milk Production.—Gross farm income from milk production in 1938, i.e., farm value less milk fed to live stock, amounted to $144,000,000 while sales income was $119,000,000, or 82·3 p.c. of the total farm value of milk production.

19.—Farm Value of Milk Production of Canada, 1930-38.

NOTE.—The data in this table are based on the values of whole milk on farms, the haulage costs for milk and cream being deducted from the plant values to obtain the figures shown.

Year.	Manufactured.		Milk Otherwise Used.			Total Value.
	On Farms.	In Factories.	Fluid Sales.	Farm Consumed.	Fed on Farms.	
	$	$	$	$	$	$
1930	20,469,000	60,261,000	40,480,000	12,954,000	6,934,000	141,098,000
1931	18,179,000	60,479,000	39,627,000	12,343,000	6,314,000	136,942,000
1932	15,457,000	49,118,000	34,409,000	10,008,000	5,042,000	114,034,000
1933	15,663,000	49,187,000	34,935,000	10,162,000	5,312,000	115,259,000
1934	16,814,000	52,209,000	37,797,000	10,785,000	5,293,000	122,898,000
1935	17,452,000	55,451,000	37,412,000	11,330,000	5,345,000	126,990,000
1936	18,310,000	61,249,000	39,794,000	11,745,000	5,716,000	136,814,000
1937	19,387,000	66,118,000	39,810,000	12,321,000	6,058,000	143,694,000
1938	19,088,000	70,366,000	41,855,000	12,912,000	5,980,000	150,201,000

Butter and Cheese.—In 1938 creamery butter recorded an increase in quantity of 8·0 p.c. as compared with 1937, dairy butter a decrease of 2·8 p.c., and all cheese a decrease of 7·1 p.c. The cheese output, however, was still greater by 21·8 p.c. than that of 1934. The quantity of dairy butter for 1938 decreased slightly from that of the preceding year, but the increase in the creamery product more than compensated for the decrease. Cheese, on the other hand, recorded a decline of 7·1 p.c. in quantity between 1937 and 1938.

20.—Production of Butter and Cheese in Canada, 1930-38.

Year.	Butter.			Cheese.		
	Dairy.	Creamery.	Total.	Farm-Made.	Factory.	Total.
	lb.	lb.	lb.	lb.	lb.	lb.
1930	97,529,095	185,751,061	283,280,156	812,998	119,105,203	119,918,201
1931	100,496,000	225,955,246	326,451,246	918,300	113,956,639	114,874,939
1932	104,208,000	214,002,127	318,210,127	1,019,300	120,524,243	121,543,543
1933	105,518,000	219,232,546	324,750,546	1,067,300	111,146,493	112,213,793
1934	109,716,000	234,852,961	344,568,961	1,128,300	99,346,617	100,474,917
1935	109,161,999	240,918,799	350,080,798	1,232,148	100,427,390	101,659,538
1936	109,026,000	250,931,777	359,957,777	1,229,300	119,123,483	120,352,783
1937	108,084,000	247,056,746	355,140,746	1,232,300	130,625,838	131,858,138
1938	105,076,000	266,886,900	371,962,900	1,101,300	121,314,600	122,415,900

Total Value of Dairy Production.—The increase in the 1938 value of dairy production amounted to $4,539,965, a gain of 2·1 p.c. as compared with 1937. Of the total value in 1938, creamery butter accounted for 30·0 p.c.; miscellaneous factory products, 11·4 p.c.; dairy butter, 9·5 p.c.; factory cheese, 7·5 p.c.; skim milk and buttermilk, 4·6 p.c.; and farm-made cheese, 0·1 p.c. Milk otherwise used, while the largest item, is made up of the milk sold as fluid, milk used on farms and milk fed to live stock. The percentages of the total were 28·3, 5·9, and 2·7, respectively.

Of the $25,025,000 shown in Table **21** as the value of miscellaneous factory products, ice cream accounts for 42·2 p.c. of the whole and concentrated whole milk products for another 36·1 p.c. Statistics of quantities and values for each of the products included under this head are given for the years 1934-38, at pp. 11 and 12 of "Dairying Statistics for Canada, 1938", which may be obtained from the Dominion Statistician.

21.—Total Value of the Dairy Production of Canada, 1930-38.

Year.	Butter.		Cheese.		Miscellaneous Factory Products.	Milk Otherwise Used.[1]	Total, All Products.[2]
	Dairy.	Creamery.	Farm-Made.	Factory.			
	$	$	$	$	$	$	$
1930	27,385,000	56,670,504	116,055	18,089,870	24,719,087	78,705,000	218,188,516
1931	20,532,000	50,198,878	110,050	12,824,695	19,398,441	78,380,000	192,825,064
1932	14,815,000	40,475,479	94,420	11,379,922	15,148,605	69,096,000	158,083,426
1933	16,373,000	43,546,109	108,021	11,127,984	13,739,466	69,965,000	162,476,580
1934	17,367,000	48,168,592	113,021	8,797,588	15,130,515	74,162,000	172,916,716
1935	18,392,000	52,228,133	133,023	10,570,309	16,705,958	74,265,000	180,756,423
1936	20,006,000	57,662,160	162,028	15,565,813	18,070,763	77,601,000	198,671,764
1937	22,622,000	64,217,332	174,027	17,965,123	22,743,780	78,087,000	215,623,262
1938	20,957,000	66,080,700	151,027	16,597,500	25,025,000	81,287,000	220,163,227

[1] Consists of milk sold for domestic use valued at plants, and milk consumed and milk fed valued at farms. [2] The data in this column include the total value of skim milk and buttermilk. For all Canada this amounted to $10,065,000 in 1938, $9,814,000 in 1937, $9,601,000 in 1936, $8,462,000 in 1935, $8,178,000 in 1934, $7,617,000 in 1933, $7,074,000 in 1932, $11,381,000 in 1931, and $12,503,000 in 1930.

Consumption of Dairy Products.—The consumption of butter in Canada in 1938 amounted to 356,797,062 lb., or 95·9 p.c. of the total production, and that of cheese was 40,555,515 lb., or 33·1 p.c. of the total production. The domestic consumption of all concentrated milk products was 71·0 p.c. of the total production.

The consumption of fresh milk, together with cream expressed as milk, reached a total of 4,300,000,000 lb., or 3,300,000,000 pints in 1938. This represented a daily consumption for the whole of Canada of 0·82 pint per person. It is important to observe that the milk producers supplying their own homes consumed 1·17 pints per day while those required to purchase their supply averaged only 0·70 pint per day.

On a per capita basis, the annual consumption of the various dairy products in 1938 was: milk and cream, 384·3 lb.; butter, 31·8 lb.; cheese, 3·6 lb.; evaporated milk, 6·7 lb.; condensed milk, 0·98 lb.; powdered milk, 2·0 lb.; and ice cream, 0·77 gal.

22.—Per Capita Daily Consumption of Milk in Canada, 1930-38.

Year.	Milk Consumed.			Population.			Daily Consumption Per Capita.		
	Farm.	Non-Farm.	Total.	Farm.[1]	Non-Farm.[2]	Total.	Farm.	Non-Farm.	Total.
	'000 pt.	'000 pt.	'000 pt.	'000	'000	'000	pt.	pt.	pt.
1930 ..	1,065,873	1,901,793	2,967,666	2,469	7,726	10,195	1·18	0·67	0·80
1931....	1,175,820	2,078,867	3,254,687	2,510	7,853	10,363	1·28	0·73	0·86
1932....	1,157,895	2,033,731	3,191,626	2,541	7,951	10,492	1·25	0·70	0·83
1933....	1,176,390	2,025,160	3,201,550	2,577	8,090	10,667	1·25	0·69	0·82
1934....	1,214,858	2,099,154	3,314,012	2,606	8,204	10,810	1·28	0·70	0·84
1935....	1,221,800	2,089,305	3,311,105	2,628	8,293	10,921	1·27	0·69	0·83
1936 ...	1,203,262	2,101,993	3,305,255	2,809	8,205	11,014	1·17	0·70	0·82
1937....	1,182,626	2,055,165	3,237,791	2,833	8,273	11,106	1·14	0·68	0·80
1938....	1,222,359	2,119,210	3,341,569	2,854	8,341	11,195	1·17	0·70	0·82

[1] "Farm" population refers to that part of the population located on farms where milk is produced.
[2] "Non-Farm" population includes the total urban population, plus that part of the rural population located on farms where there are no milk cows. In other words, the former group is composed of milk producers while the latter is composed of milk buyers.

Exports and Imports of Butter and Cheese.—*Butter.*—The export movement of Canadian butter has followed a more or less erratic course. The amounts exported from Canada were comparatively small until 1918 when shipments increased to nearly 11,000,000 lb. as compared with 4,250,000 lb. in the previous year. During the period 1915-18, exports averaged a little over 6,500,000 lb. per year, and the total for the four years represented 7·7 p.c. of the factory output. After the War of 1914-18 a more pronounced advance was recorded. In 1919 export shipments reached 16,500,000 lb.; while this declined substantially in the two subsequent years, a four-year period (1922-25) followed in which exports moved up to exceptionally high levels. The average was then approximately 21,000,000 lb. annually, and represented 12·6 p.c. of the creamery butter make. The all-time high was reached in 1925 when 26,500,000 lb. were shipped from Canadian ports. A sharp reduction followed. From 1927 to 1930 the yearly average was only about 1,750,000 lb.; in the period 1931-34 the average was 4,750,000 lb.; and from 1935 to 1938 the yearly average was nearly 5,250,000 lb. In 1935, the exports of 7,750,000 lb. were the highest since 1931 when nearly 11,000,000 lb. of butter were shipped out of Canada. In 1938 they fell to slightly below 4,000,000 lb.

The butter import movement has also revealed significant variations from year to year. From 1915 to 1918 the quantities of butter brought into Canada were exceedingly small, averaging 2,250,000 lb. per year, but in the next four-year period they had increased to an average of 3,250,000 lb. Commencing with the year 1926, imports moved to exceptionally high levels, and from 1927 to 1930 they averaged 25,750,000 lb., the highest figure being 38,500,000 lb. imported in 1930. Between 1931 and 1934, imports averaged only 1,750,000 lb. and from 1935 to 1938

tapered off to exceedingly small quantities. The only large movement in 1938 was the entry of nearly 5,250,000 lb., most of which came from New Zealand and Australia during the early spring when small stocks of Canadian butter resulted in seasonal price advances on the Canadian markets.

Cheese.—Exports of cheese have remained relatively constant. During the period 1915-18, they averaged 167,750,000 lb., and for the four years represented 89·9 p.c. of the cheddar cheese production. The high point in the export movement was reached in 1917 when over 176,250,000 lb. of cheese were shipped out of the Dominion. The decline in production, which developed more pronounced tendencies in the early 'twenties, was reflected in the movement of cheese to overseas markets. By 1929 less than 93,000,000 lb. were shipped out of Canada; in 1935 exports declined to less than 56,000,000 lb. During the period 1935-38, the yearly average was about 77,000,000 lb —only 65·2 p.c. of the total cheese-factory output of Canada. In the past 20 years annual imports of cheese have averaged only one to three million pounds.

Subsection 5.—Horticulture.

The statistical treatment of horticulture is confined to fruit growing, nursery stock production, vegetable growing, and floriculture, all on a commercial scale. Of the several branches of commercial horticulture, fruit and vegetable growing are the most important. In recent years the latter has made remarkable gains and now surpasses fruit growing in total value of production. Vegetables and flowers grown in home gardens for private use probably exceed the volume of commercial production. The processing of fruits and vegetables is an important development closely allied to the production industry. In 1938, the latest year for which complete figures are available, the total value of processed fruits and vegetables, including wine, was almost $52,000,000.

Fruit Production.—Apple growing is the mainstay of the fruit industry in Canada, the value of commercial production averaging about $10,000,000 annually. Other fruits cultivated include the pear, peach, plum, cherry, apricot, and grape, together with various berries of which the strawberry is most important. Substantial revenue is derived from the native blueberry and cranberry, the former being abundant over large areas of Eastern Canada, while the cranberry is found chiefly in the Maritime Provinces. Commercial fruit growing is centred mainly in the Provinces of Nova Scotia, Ontario, and British Columbia. For a fuller discussion of fruit growing in Canada, the reader is referred to pp. 242-247 of the 1931 edition of the Year Book.

Revised statistics of the estimated commercial production of fruits in the years 1926-39 are presented in Table 23. The revisions have been made necessary by the fact that in previous estimates the quantity and value of the apples used for home consumption in Nova Scotia were not deducted, thereby rendering the statistics not comparable with those for the other provinces; minor revisions have also been made in the figures for other fruits.

Statistics by provinces will be found in the "Monthly Bulletin of Agricultural Statistics" for January, 1940, and in the "Annual Statistics of Fruit, Nursery Stock and Floriculture, 1939" published by the Dominion Bureau of Statistics.

23.—Estimated Commercial Production and Shipping-Point Values of Fruits in Canada, 1926-39, with Five-Year Averages, 1932-36.

NOTE.—All figures for apples, and certain figures for other fruits, have been revised since the publication of those in the 1937 and 1939 Year Books.

Kind of Fruit and Year.	Quantity.	Average Value per Unit.	Total Value.	Kind of Fruit and Year.	Quantity.	Average Value per Unit.	Total Value.
	bbl.	$	$		bu.	$	$
Apples.....1926	2,968,900	3·24	9,626,500	Apricots.....1926	47,200	2·69	127,100
1927	2,879,500	3·64	10,488,700	1927	15,000	4·48	67,200
1928	3,320,200	3·42	11,353,500	1928	36,400	2·49	90,500
1929	4,178,900	2·60	10,863,600	1929	33,500	3·46	115,800
1930	3,567,900	3·18	11,330,300	1930	11,100	3·63	40,300
1931	3,909,400	2·25	8,814,800	1931	40,600	2·58	104,800
1932	4,164,400	1·83	7,617,100	1932	56,000	2·38	133,400
1933	5,797,900	1·90	11,016,800	1933	34,100	3·00	102,300
1934	4,696,100	2·13	10,022,400	1934	100,800	2·44	246,000
1935	4,505,900	2·57	11,595,200	1935	33,300	2·70	90,000
1936	4,020,900	2·40	9,639,500	1936	1,300	3·15	4,100
Av. 1932-36	4,637,000	2·15	9,978,000	Av. 1932-36	45,100	2·55	115,200
1937	5,057,300	2·17	10,957,300	1937	52,700	2·31	122,000
1938	5,222,400	2·41	12,569,100	1938	62,700	2·48	155,400
1939	5,468,400	1·74	9,511,800	1939	68,700	2·25	154,500
	bu.						
Pears.....1926	274,900	1·75	481,400	Cherries.....1926	186,400	3·11	579,000
1927	332,400	2·00	663,900	1927	209,600	3·74	784,500
1928	259,400	1·84	476,400	1928	261,900	3·19	835,400
1929	356,000	1·87	665,300	1929	230,500	3·71	854,200
1930	451,500	1·39	629,500	1930	248,900	3·19	793,200
1931	396,100	1·17	464,600	1931	212,700	2·70	573,300
1932	389,800	0·76	298,700	1932	275,900	1·81	500,200
1933	535,900	1·09	582,200	1933	236,800	2·18	515,700
1934	446,800	1·34	598,200	1934	194,700	2·87	557,900
1935	476,100	1·35	641,300	1935	213,300	2·61	556,500
1936	431,300	1·39	601,300	1936	186,800	2·57	480,400
Av. 1932-36	456,000	1·19	544,300	Av. 1932-36	221,500	2·36	522,100
1937	457,700	1·39	634,500	1937	153,000	3·36	513,600
1938	653,400	1·05	688,100	1938	210,000	3·11	653,600
1939	604,500	1·08	650,800	1939	209,700	2·58	541,900
Plums and					qt.		
Prunes.....1926	318,000	1·43	455,400	Strawberries...1926	9,541,900	0·15	1,403,600
1927	245,500	1·93	473,800	1927	10,638,600	0·14	1,516,200
1928	463,200	1·32	610,200	1928	11,112,300	0·13	1,459,900
1929	269,300	2·17	583,900	1929	14,130,200	0·13	1,790,800
1930	263,700	1·31	344,200	1930	11,288,900	0·14	1,595,900
1931	209,500	1·12	234,400	1931	16,886,100	0·10	1,754,200
1932	243,100	0·93	227,200	1932	20,920,200	0·07	1,441,300
1933	245,700	1·10	272,000	1933	21,943,200	0·09	1,916,600
1934	240,200	1·54	371,000	1934	20,240,400	0·10	1,968,600
1935	263,100	1·36	356,900	1935	27,505,800	0·09	2,352,000
1936	158,700	1·52	240,500	1936	20,578,600	0·09	1,930,700
Av. 1932-36	230,400	1·27	293,500	Av. 1932-36	22,237,500	0·09	1,921,800
1937	199,400	1·42	283,200	1937	23,424,100	0·09	2,170,500
1938	238,000	1·44	342,700	1938	24,145,600	0·08	1,996,300
1939	223,200	1·13	252,300	1939	26,254,200	0·07	1,891,300
Peaches.....1926	224,700	2·68	602,500	Raspberries....1926	4,658,500	0·15	699,800
1927	340,700	3·09	1,051,700	1927	5,132,800	0·15	783,900
1928	594,700	2·02	1,201,200	1928	4,412,200	0·17	749,900
1929	662,900	2·54	1,684,500	1929	4,944,600	0·18	884,500
1930	751,600	1·55	1,166,600	1930	4,594,900	0·20	910,100
1931	878,700	1·33	1,172,600	1931	5,347,100	0·16	840,700
1932	833,300	1·09	906,900	1932	7,494,500	0·10	780,800
1933	823,300	1·40	1,155,000	1933	6,119,800	0·12	756,500
1934	443,800	2·33	1,033,600	1934	5,835,200	0·14	824,400
1935	619,600	1·46	907,600	1935	8,140,200	0·13	1,041,200
1936	429,900	2·27	975,500	1936	5,651,600	0·12	704,100
Av. 1932-36	630,000	1·58	995,700	Av. 1932-36	6,648,300	0·12	821,400
1937	664,800	1·56	1,035,900	1937	8,589,800	0·11	957,200
1938	700,000	1·42	992,200	1938	11,059,300	0·09	996,600
1939	901,300	1·17	1,050,900	1939	10,861,200	0·10	1,042,400

23.—Estimated Commercial Production and Shipping-Point Values of Fruits in Canada, 1926-39, with Five-Year Averages, 1932-36—concluded.

Kind of Fruit and Year.	Quantity.	Average Value per Unit.	Total Value.	Kind of Fruit and Year.	Quantity.	Average Value per Unit.	Total Value.
	lb.	$	$		lb.	$	$
Grapes.....1926	24,000,000	0·03	720,000	Loganberries...1926	2,431,800	0·07	174,100
1927	34,560,000	0·04	1,382,400	1927	1,617,500	0·07	112,800
1928	69,120,000	0·04	2,764,800	1928	1,389,900	0·08	113,100
1929	50,426,000	0·04	2,017,000	1929	1,623,000	0·08	131,900
1930	43,103,800	0·03	1,400,900	1930	1,675,800	0·08	142,300
1931	51,363,200	0·02	835,800	1931	2,145,600	0·05	114,600
1932	49,694,000	0·01	695,300	1932	2,277,400	0·04	92,500
1933	42,486,200	0·02	653,400	1933	1,787,400	0·04	72,900
1934	48,565,200	0·02	987,100	1934	2,333,400	0·05	108,300
1935	42,945,500	0·02	668,600	1935	2,186,000	0·05	108,700
1936	22,915,000	0·02	491,300	1936	1,247,400	0·05	68,600
Av. 1932-36	41,321,200	0·02	699,100	Av. 1932-36	1,966,300	0·05	90,200
1937	54,384,800	0·02	1,120,400	1937	1,540,000	0·06	97,500
1938	35,973,600	0·02	782,600	1938	2,326,600	0·06	143,300
1939	56,347,500	0·02	925,100	1939	2,299,000	0·05	114,900

Revised statistics for the total value of commercial fruit production are given in Table **24.** The 1939 figures indicate a reduction of 16·5 p.c. in value as compared with 1938.

24.—Total Value of Commercial Fruit Production in Canada, by Provinces, 1926-39.

Year.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.	British Columbia.	Total.
	$	$	$	$	$	$
1926	2,388,100	194,300	754,300	4,253,900	7,278,800	14,869,400
1927	2,901,600	234,300	729,600	6,436,900	7,022,700	17,325,100
1928	3,234,400	167,900	848,400	7,519,500	7,884,700	19,654,900
1929	3,027,200	184,700	1,145,900	8,540,800	6,692,900	19,591,500
1930	3,133,700	175,200	1,001,200	6,493,300	7,549,900	18,353,300
1931	3,124,500	206,000	911,600	5,894,000	4,773,700	14,909,800
1932	2,297,800	165,400	1,198,000	3,957,500	5,074,700	12,693,400
1933	4,262,500	199,000	1,421,000	5,353,000	5,807,900	17,043,400
1934	3,810,000	159,500	1,257,000	4,967,100	6,523,900	16,717,500
1935	4,419,400	213,600	1,743,000	5,439,900	6,502,100	18,318,000
1936	2,953,100	196,500	1,352,700	4,721,000	5,912,700	15,136,000
1937	3,600,200	259,800	1,684,700	4,891,500	7,455,900	17,892,100
1938	5,399,400	275,700	1,357,900	4,933,400	7,353,500	19,319,900
1939	3,018,700	296,900	1,455,300	4,886,900	6,478,100	16,135,900

The Fruit Nursery Industry.—The first commercial nursery in Canada was established near Fonthill, Ont., and this district still continues to be one of the leading centres of the industry. While the Province of Ontario accounts for the major part of the fruit stock output, there are nurseries distributed through all the provinces. The wholesale value of the product sold during the year ended May 31, 1939, showed a decrease of 12·1 p.c. as compared with the previous year.

25.—Numbers and Wholesale Values of Fruit Trees, Bushes, and Plants Sold by Nurserymen in Canada, Years Ended May 31, 1936-39.

Kind of Tree, Bush, or Plant.	Sold by Nurserymen.				Values.			
	1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.
Apple—	No.	No.	No.	No.	$	$	$	$
Early	82,063	68,725	64,376	80,447	32,115	26,422	24,978	23,912
Fall	95,710	70,963	74,679	92,972	36,365	27,915	29,975	29,893
Winter	256,959	257,615	285,907	270,228	97,104	96,682	107,599	77,254
Crab	12,633	15,675	16,225	29,878	4,226	4,682	4,566	8,453
Totals, Apple	447,365	412,978	441,187	473,525	169,810	155,701	167,118	139,512
Crab seedlings	[1]	[1]	6,000	Nil	136		120	–
Root grafts	[1]	22,000	35,000	50,000	–	[1]	1,225	1,750
Pear	66,156	84,357	96,276	87,981	26,635	34,529	37,159	29,172
Pear grafts	[1]	3,500	2,500	2,000	–	[1]	100	80
Plum	62,893	76,974	97,369	78,833	24,870	28,984	34,088	27,429
Plum seedlings	[1]	[1]	16,000	–	–	–	515	–
Peach	204,099	201,271	159,295	187,929	45,884	48,220	35,414	36,785
Cherry	64,352	71,230	70,975	93,058	28,696	30,564	28,057	31,768
Cherry seedlings	[1]	[1]	2,000	1,760	–	–	120	138
Apricot	5,357	4,724	5,532	5,972	1,721	1,478	1,592	1,817
Nectarine	103	47	70	144	43	17	25	45
Quince	776	283	383	350	331	136	169	136
Blackberry	56,576	19,601	24,428	31,975	1,801	802	1,227	944
Currant	88,343	74,554	85,882	97,809	8,399	6,395	7,116	7,054
Grape	128,004	174,036	168,187	197,615	11,742	13,611	13,817	14,902
Gooseberry	35,408	39,467	40,562	41,455	5,116	4,996	4,894	4,792
Raspberry	1,145,221	826,189	765,741	693,404	30,880	26,115	21,890	15,823
Loganberry	2,506	805	1,637	5,695	85	48	128	392
Strawberry	1,971,282	3,315,142	2,381,494	1,990,167	13,678	21,406	14,684	12,226
Totals					**369,827**	**373,002**[2]	**369,458**	**324,765**

[1] Not available. [2] Does not include values of 22,000 root grafts and 3,500 pear grafts, which are not available.

Vegetable Production.—Satisfactory annual statistics of the commercial vegetable-growing industry are not at present available, but important information on the subject is obtained through the decennial census. This material will be found at pp. 254-255 of the 1936 Year Book.

Floriculture.—The total value of floricultural and ornamental nursery stock sold in Canada during the years ended May 31, 1938 and 1939, was $2,976,940 and $3,260,983, respectively, as shown by Table **26.**

26.—Quantities and Wholesale Values of Floricultural and Ornamental Nursery Stock Grown in Canada and Sold Years Ended May 31, 1938 and 1939.

Description.	1938.		1939.	
	Quantity Sold.	Total Wholesale Value.	Quantity Sold.	Total Wholesale Value.
	No.	$	No.	$
Rose bushes, outdoor	481,146	92,544	1,481,931	143,619
Ornamental shrubs, outdoor	876,260	117,314	1,064,566	107,058
Ornamental trees, deciduous	179,952	49,724	199,002	66,067
Ornamental trees, evergreen	104,863	116,689	107,683	101,567
Ornamental climbers, outdoor	37,759	9,029	36,571	8,601
Herbaceous perennials	533,554	56,756	588,115	60,228
Herbaceous biennials	96,459	3,393	36,999	2,947
Bedding plants	8,294,810	197,907	8,387,079	196,158
Flowering plants for indoor use	700,066	306,845	714,259	337,779
Foliage and decorative plants for indoor use	258,716	66,340	267,608	64,998
Flowering bulbs	2,005,311	56,522	2,427,183	53,265
Cut flowers, grown inside	48,405,432	1,849,702	49,637,569	2,042,765
Cut flowers, grown outdoors	3,588,213	54,175	4,538,081	75,931
Totals		**2,976,940**		**3,260,983**

Subsection 6.—Special Agricultural Crops.

Maple Syrup and Sugar.—The Canada Year Book, 1924, contains at pp. 247-248 a description of the process of making maple sugar.

Table 27 shows that in 1939 for the whole of Canada there were estimated decreases of 553,700 lb. of maple sugar and 653,100 gal. of maple syrup, while the combined value of the two products showed a decrease of $406,000 or 10·5 p.c. as compared with the previous year.

27.—Estimated Quantities and Values of Maple Sugar and Maple Syrup Produced in Canada, by Provinces, 1937-39.

Province and Year.	Maple Sugar.			Maple Syrup.			Total Value of Sugar and Syrup.
	Quantity.	Average Price per Pound.	Value.	Quantity.	Average Price per Gallon.	Value.	
	lb.	cts.	$	gal.	$	$	$
Nova Scotia.....1937	45,200	25	11,300	6,800	2·10	14,300	25,600
1938	44,600	23	10,300	7,400	1·81	13,400	23,700
1939	36,200	23	8,300	4,000	1·76	7,000	15,300
New Brunswick..1937	116,500	19	22,100	5,600	1·73	9,700	31,800
1938	118,200	21	24,800	23,300	1·63	37,900	62,700
1939	82,400	23	19,000	8,800	1·76	15,500	34,500
Quebec.....1937	4,020,000	11	442,200	780,000	1·11	865,800	1,308,000
1938	3,212,100	10	321,200	2,353,800	1·10	2,589,100	2,910,300
1939	2,715,400	14	380,200	1,810,400	1·25	2,263,000	2,643,200
Ontario.....1937	231,400	21	48,600	439,700	1·89	831,000	879,600
1938	79,000	18	14,200	570,800	1·47	839,000	853,200
1939	66,200	20	13,200	479,000	1·54	737,700	750,900
Canada.....1937	**4,413,100**	**12**	**524,200**	**1,232,100**	**1·40**	**1,720,800**	**2,245,000**
1938	**3,453,900**	**11**	**370,500**	**2,955,300**	**1·18**	**3,479,400**	**3,849,900**
1939	**2,900,200**	**14·5**	**420,700**	**2,302,200**	**1·31**	**3,023,200**	**3,443,900**

Sugar Beets and Beetroot Sugar.—A brief account of the development of the beetroot sugar industry in Canada will be found in the Canada Year Book, 1925, pp. 255-256. At the present time two companies are operating in Canada: the Canada and Dominion Sugar Co., Ltd., with factories at Chatham and Wallaceburg in Ontario, and the Canadian Sugar Factories, Ltd., with plants at Raymond, and Picture Butte, Alta.

28.—Acreages, Yields, and Values of Sugar Beets Grown in Canada and Quantities of Refined Beetroot Sugar Produced, 1929-38.

NOTE.—For the years 1911-20, see the 1932 Year Book, p. 1057; for 1921-28, see the 1933 Year Book, p. 257.

Year.	Sugar Beets.					Refined Beetroot Sugar Produced.		
	Area Grown.	Yield per Acre.	Total Yield.	Average Price per Ton.	Total Value.	Quantity.	Values.	Price per Pound.
	acres.	tons.	tons.	$	$	lb.	$	cts.
1929	32,556	7·23	235,465	8·84	2,080,996	69,399,213	3,335,344	4·8
1930	40,532	9·80	397,576	8·25	3,278,625	94,624,700	4,529,944	4·8
1931	43,337	10·06	435,992	7·32	3,190,198	107,139,129	4,794,551	4·5
1932	44,817	11·28	505,671	6·16	3,113,942	132,016,859	5,789,205	4·4
1933	43,807	10·10	442,391	6·31	2,790,929	131,392,501	5,713,181	4·4
1934	38,495	10·72	412,672	6·30	2,599,982	114,002,950	4,714,625	4·1
1935	51,985	8·83[1]	459,223	6·27	2,881,098	119,857,668	4,617,733	3·9
1936	52,748	10·54	555,969	6·31	3,510,922	156,066,242	6,103,264	3·9
1937	46,669	9·05	422,152	6·69	2,825,006	120,440,235	5,230,971	4·3
1938	45,322	11·00	498,102	6·83	3,403,635	143,013,847	6,001,380	4·2

The production in 1936-37 of raw beet sugar in the principal beet-growing countries, in thousands of short tons, was as follows: U.S.S.R., 2,203; Germany, 1,992; United States, 1,396; France, 960; Czechoslovakia, 801; United Kingdom, 650; Poland, 505; Italy, 380; Sweden, 330; Belgium, 266; Netherlands, 259; Denmark, 249; Spain, 249; Austria, 161; Hungary, 158; Yugoslavia, 110; Ireland (Eire), 107.

Tobacco.—The 1939 commercial crop of Canadian leaf tobacco, estimated at 108,770,100 lb., is the largest crop on record in the history of the industry and is more than double the average of the ten-year period 1928-37.

The rapid expansion in the industry has been due almost entirely to the phenomenal increase in the production of flue-cured tobacco, particularly in Ontario where production of this type increased from 6,229,800 lb. grown on 7,550 acres in 1927 to 76,000,000 lb. on 64,630 acres in 1939. On the other hand, burley tobacco has shown wide fluctuations during the same period, production in 1939 amounting to only 14,166,600 lb. as compared with the peak production of 22,385,000 lb. in 1927.

Estimates of gross farm values are based on average farm prices. As a result of unfavourable marketing conditions and a sharp break in prices in 1931, values reached very low levels in 1932. Prices rose steadily over the next five years, partly as the result of increased prices for all types of tobacco but particularly because of the rapid expansion in the production of flue-cured tobacco, which commands a higher price than other types. Owing to the very large crops in 1938 and 1939, large stocks on hand, a fall in the sterling rate of exchange, and heavy restrictions on buying for export markets, the price paid for the 1939 crop continued the downward trend established in 1938.

29.—Acreages, Production, and Values of the Commercial Crop of Leaf Tobacco in Canada, 1929-39.

NOTE.—Figures for representative years 1900-28 are given at p. 228 of the 1939 Year Book.

Year.	Planted Area.	Average Yield per Acre.	Total Production.	Average Farm Price per Pound.	Gross Farm Value.
	acres.	lb.	lb.	cts.	$
1929	37,696	790	29,782,100	20·5	6,103,600
1930	41,444	886	36,716,400	19·5	7,163,000
1931	54,936	933	51,248,400	13·9	7,105,200
1932	53,966	1,000	53,987,000	11·5	6,178,200
1933	46,898	957	44,904,200	14·5	6,524,600
1934	40,962	946	38,734,900	18·6	7,218,300
1935	47,117	1,177	55,470,400	19·6	10,870,100
1936	54,993	839	46,116,300	20·3	9,374,100
1937	69,028	1,044	72,093,400	23·8	17,140,200
1938	83,575	1,213	101,394,600	20·0	20,269,700
1939[1]	93,035	1,167	108,770,100	17·5	19,000,000

[1] Subject to revision.

30.—Acreages, Production, and Values of the Commercial Crop of Leaf Tobacco in Canada, by Provinces, 1935-39.

Year.	Quebec.			Ontario.			British Columbia.		
	Planted Area.	Production.	Value.	Planted Area.	Production.	Value.	Planted Area.	Production.	Value.
	acres.	'000 lb.	$	acres.	'000 lb.	$	acres.	'000 lb.	$
1935	5,425	5,965	641,400	41,675	49,490	10,226,300	17	16	2,400
1936	8,678	9,111	844,800	46,191	36,883	8,504,900	124	122	24,300
1937	7,734	8,678	1,098,500	60,819	63,026	15,964,700	475	389	77,000
1938	9,980[1]	10,900[1]	1,157,000[1]	73,215[1]	90,099[1]	19,057,400[1]	380	395	55,300[1]
1939[2]	14,325	15,386	1,983,000	78,400	93,074	16,993,000	310	310	60,450

[1] Revised since the publication of the 1939 Year Book. [2] Subject to revision.

31.—Acreages, Production, and Values of the Commercial Crop of Leaf Tobacco in Canada, By Main Types, 1938-39, With Five-Year Averages, 1933-37.

Description.	Year.	Planted Area.	Average Yield per Acre.	Total Production.	Average Farm Price per Pound.	Gross Farm Value.
		acres.	lb.	lb.	cts.	$
Flue-cured	Av.1933-37	35,084	938	32,897,100	24·1	7,933,700
	1938	63,530[1]	1,230[1]	78,174,100[1]	22·5[1]	17,620,700[1]
	1939	70,650	1,156	81,706,000	19·5	15,932,700
Burley	Av.1933-37	7,626	1,187	9,049,900	11·0	993,000
	1938	9,215	1,174[1]	10,820,500[1]	13·9[1]	1,507,000[1]
	1939	11,220	1,260	14,166,600	13·7	1,941,000
Cigar Leaf	Av.1933-37	3,856	1,061	4,091,600	10·2	419,100
	1938	5,065	1,225	6,200,000	9·3[1]	578,000[1]
	1939	4,595	1,236	5,680,200	9·3	528,000

[1] Revised since the publication of the 1939 Year Book.

Flax Fibre.—Table 32, compiled from information furnished by the Economic Fibre Production Division of the Dominion Experimental Farms, shows that the total value of flax grown for fibre increased by $730,349, or 140·8 p.c., in the latest year. The increase in the quantity of fibre produced is particularly noticeable and the certified seed sold on the Irish market realized more than $2 a bushel over the 1938 prices.

32.—Acreages, Yields, and Values of Flaxseed, Fibre, and Tow in Canada, 1930-39.

NOTE.—Figures for the years 1915-29 will be found at p. 284 of the 1934-35 Year Book.

Year.	Area.	Production.			Values.			
		Seed.	Fibre.	Tow.	Seed.	Fibre.	Tow.	Total.
	acres.	bu.	lb.	tons.	$	$	$	$
1930	6,143	62,232	Nil	6,086	96,684	[1]	273,870	370,554
1931	4,220	35,870	25,000	3,019	53,805	4,000	120,760	178,565
1932	5,135	35,945	200,000	3,552	56,156	18,000	95,964	170,120
1933	5,091	30,546	Nil	3,055	65,227	Nil	96,233	161,460
1934	5,965	41,755	45,000	4,361	128,268	7,200	114,450	249,918
1935	6,200	37,200	90,000	5,950	142,800	16,200	162,250	321,250
1936	6,242	31,210	635,100	3,094	106,185	114,318	77,350	297,853
1937	7,907	39,535	1,368,600	2,654	40,220	211,880	79,620	331,720
1938	10,225	77,992	2,662,000	2,246	189,752	241,850	87,000	518,602
1939	10,536	63,216	4,079,640	2,230	245,667	914,084	89,200	1,248,951

[1] No sales reported.

Apiculture.—Honey production is steadily increasing. The 1938 honey crop was of record proportions and of very good quality. The largest proportion of this production was in Ontario where a record crop estimated at 15,708,000 lb. of better-than-average quality honey was harvested. As evidence of the expansion that has taken place in this industry in the past fifteen years, the Ontario crop alone in 1938 was practically equal to the entire Canadian production in 1924. While production has increased in all provinces except Nova Scotia and New Brunswick, expansion since 1924 has been most marked in the Prairie Provinces. The combined production in these three provinces in 1924 amounted to 785,300 lb. and in 1938, it amounted to 14,752,100 lb. Honey produced in Western Canada is

of generally high quality due to the abundance of sweet clover in the Prairie Provinces. The almost phenomenal expansion in production in these provinces has been due largely to the introduction of sweet clover and the expansion in acreage of this crop.

Numbers of beekeepers and colonies have shown a gradual increase since 1924. This increase has been sharply marked in the Prairie Provinces, where there were over 8,000 beekeepers in 1938 reporting 97,000 colonies as compared with less than 2,000 beekeepers and 14,000 colonies in 1924.

The production of beeswax in 1938 was estimated at 446,850 lb. as compared with 286,650 lb. in 1937. The first estimate of the 1939 crop shows a total production of 27,911,500 lb. of honey and 334,900 lb. of wax.

While production of honey has more than doubled during the past fifteen years, prices have declined during the same period. The average price received by producers for the 1938 crop was estimated at 7·8 cents per lb. as compared with 9·0 cents per lb. in 1937 and 12·4 cents per lb. in 1924. Total value of production, including beeswax, was estimated at $3,027,400 for the 1938 crop as compared with $2,163,700 in 1937 and $2,183,100 in 1924.

33.—Numbers of Beekeepers and Colonies, Production of Honey, and Values of Honey and Beeswax in Canada, 1924-38.

NOTE.—Statistics by provinces are shown in the "Monthly Bulletin of Agricultural Statistics", March, 1939, pp. 123-125.

Year.	Beekeepers.	Colonies.	Honey.				Value of Honey and Wax.
			Average Production per Hive.	Total Production.	Average Price per Pound to Producers.	Total Value.	
	No.	No.	lb.	lb.	cts.	$	$
1924	22,200	282,000	60	16,839,800	12·4	2,084,900	2,183,100
1925	22,600	309,400	65	19,977,400	12·1	2,413,600	2,527,300
1926	22,300	307,500	63	19,525,600	12·3	2,406,900	2,520,300
1927	22,800	323,800	72	23,230,800	11·8	2,752,600	2,882,300
1928	22,700	335,700	66	22,224,600	11·0	2,440,600	2,555,600
1929	22,300	345,900	67	23,164,000	9·2	2,127,900	2,228,200
1930	24,200	362,100	68	24,486,500	8·3	2,037,600	2,133,600
1931	24,000	350,500	72	25,106,400	8·0	2,000,900	2,095,200
1932	24,600	349,300	61	21,169,300	7·5	1,588,400	1,663,200
1933	23,100	328,200	77	25,287,800	8·6	2,165,500	2,256,900
1934	24,300	328,400	82	27,062,800	9·2	2,479,700	2,574,700
1935	24,800	357,000	75	26,814,800	8·3	2,228,500	2,337,500
1936	26,300	370,800	86	31,938,100	8·5	2,701,200	2,822,900
1937	27,900	386,400	60	23,196,600	9·0	2,067,700	2,163,700
1938	27,400	393,900	95	37,268,700	7·8	2,891,000	3,027,400

34.—Revised Estimates of Canadian Honey Production, by Provinces, 1934-38.

Province.	1934.	1935.	1936.	1937.	1938.
	lb.	lb.	lb.	lb.	lb.
Prince Edward Island	5,500	9,500	14,000	16,200	11,300
Nova Scotia	51,000	47,100	60,000	46,100	55,000
New Brunswick	63,000	42,000	42,000	67,000	50,000
Quebec	3,654,800	4,013,600	5,395,600	3,588,700	5,108,200
Ontario	14,960,000	14,282,000	12,675,000	8,000,000	15,708,000
Manitoba	4,669,200	4,978,000	8,135,500	6,748,600	9,539,900
Saskatchewan	647,200	1,051,400	2,636,300	1,142,500	2,794,200
Alberta	1,500,000	1,100,000	1,850,000	2,160,000	2,418,000
British Columbia	1,512,100	1,291,200	1,129,700	1,427,500	1,584,100
Canada	**27,062,800**	**26,814,800**	**31,938,100**	**23,196,600**	**37,268,700**

Subsection 7.—Farm Labour and Wages.

The material that formerly appeared under this heading has been transferred to Part II of Chapter XIX, Labour and Wages.

Subsection 8.—Prices of Agricultural Produce.

The detailed monthly figures formerly given here have been omitted from the present edition of the Year Book. Weekly and monthly prices of grain and monthly prices of live stock are shown in the "Monthly Bulletin of Agricultural Statistics"

35.—Yearly Average Cash Prices per Bushel of Representative Grades of Canadian Cereals—Basis, in Store at Fort William and Port Arthur—Crop Years Ended July 31, 1926-39.

Year.	Wheat, No. 1 N.	Oats, No. 2 C.W.	Barley, No. 3 C.W.	Rye, No. 1 C.W.	Flaxseed, No. 2 C.W.
	cts.	cts.	cts.	cts.	cts.
1926	151·2	49·6	63·9	89·8	213·8
1927	146·2	58·8	72·7	99·7	195·0
1928	146·3	65·2	85·3	129·9	189·9
1929	124·0	58·8	71·4	100·7	202·2
1930	124·2	58·6	60·0	80·2	247·5
1931	64·2	29·9	28·4	34·7	114·1
1932	59·8	31·4	37·3	40·0	93·7
1933	54·3	26·4	32·3	37·8	90·6
1934	68·1	33·9	38·8	47·5	148·0
1935	81·9	42·8	48·2	52·9	138·6
1936	84·6	34·5	37·0	42·7	147·6
1937	122·7	53·0	70·9	98·8	171·2
1938	131·6	50·4	57·7	72·4	164·3
1939	62·0	29·0	36·1	40·7	143·6

36.—Yearly Average Prices per Cwt. of Canadian Live Stock at Principal Markets, 1935-39.

Item.	Toronto.					Montreal.				
	1935.	1936.	1937.	1938.	1939.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$	$	$	$	$	$
Steers, up to 1,050 lb., good	5·79	5·04	6·72	5·97	6·77	6·19	5·64	7·62	6·41	7·17
Steers, up to 1,050 lb., medium	5·15	4·59	6·17	5·46	6·38	4·93	4·80	6·16	5·54	6·37
Steers, up to 1,050 lb., common	4·14	3·75	4·91	4·72	5·71	3·93	3·85	4·52	4·51	5·26
Steers, over 1,050 lb., good	6·46	5·41	7·40	6·27	6·89	6·25	5·67	7·61	6·53	7·15
Steers, over 1,050 lb., medium	5·81	5·05	7·05	5·73	6·44	4·87	4·81	6·22	5·54	6·27
Steers, over 1,050 lb., common	4·97	4·53	6·33	5·12	5·97	4·07	3·89	4·78	4·55	5·25
Heifers, good	5·59	5·01	6·47	5·78	6·74	4·65	4·66	5·79	5·26	6·14
Heifers, medium	4·95	4·59	5·92	5·36	6·36	3·85	3·78	4·81	4·52	5·25
Calves, fed, good	7·30	6·26	7·63	7·09	7·82	6·38	6·23	7·87	7·57	8·00
Calves, fed, medium	6·11	5·63	6·73	6·34	7·22	4·98	5·12	6·39	5·90	6·51
Calves, veal, good and choice	7·54	8·30	9·07	9·08	9·26	6·83	7·38	8·55	8·10	8·55
Calves, veal, common and medium	5·89	6·53	6·99	6·98	7·42	4·85	5·78	6·09	6·21	6·18
Cows, good	3·80	3·54	4·64	4·33	4·86	3·79	3·61	4·67	4·59	5·26
Cows, medium	3·27	3·07	4·08	3·82	4·29	3·26	3·21	3·95	3·89	4·48
Bulls, good	3·50	3·52	4·33	4·22	5·11	3·95	3·87	4·56	4·54	5·11
Stocker and feeder steers, good	4·62	3·95	5·34	5·14	6·10	[1]	[1]	[1]	[1]	[1]
Stocker and feeder steers, common	3·89	3·38	4·35	4·57	5·62	[1]	[1]	[1]	[1]	[1]
Stock cows and heifers, good	[1]	3·00	3·80	[1]	[1]	[1]	[1]	[1]	[1]	[1]
Stock cows and heifers, common	3·44	1·68	3·06	[1]	[1]	[1]	[1]	[1]	[1]	[1]
Hogs, select bacon	9·46	8·94	9·45	9·99	9·43	9·41	9·30	9·71	10·17	9·67
Hogs, bacon	8·94	8·43	8·92	9·45	8·91	8·91	8·81	9·21	9·66	9·17
Hogs, butchers	[2]	[2]	[2]	[2]	[3]	8·45	8·36	8·76	9·24	[4]
Hogs, heavies	[2]	[2]	[5]	[6]	[7]	8·50	8·46	8·71	9·48	[8]
Hogs, lights and feeders	[2]	[2]	[9]	[3]	[6]	8·61	8·40	8·48	9·82	9·29
Lambs, good handy weights	7·58	8·77	9·32	8·77	9·47	6·92	7·80	8·42	8·36	9·37
Lambs, common, all weights	6·08	6·56	7·44	7·19	7·58	5·54	6·28	7·02	6·69	7·49
Sheep, good handy weights	3·27	3·98	4·22	4·16	4·49	3·13	4·02	3·95	4·07	4·48

[1] No sales reported. [2] Bacon price less $1 per head. [3] Bacon price less $2 per head. [4] Bacon price less $1·25 per head. [5] Bacon price less $1 per head January to November, and less $1·50 per head for December. [6] Bacon price less $1·50 per head. [7] Bacon price less $3 per head. [8] Bacon price less $2·50 per head. [9] Bacon price less $1 per head for January, $2 for February to May, $1 for June, and $2 for July to December.

36.—Yearly Average Prices per Cwt. of Canadian Live Stock at Principal Markets, 1935-39—concluded.

Item.	Winnipeg.					Edmonton.				
	1935.	1936.	1937.	1938.	1939.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$	$	$	$	$	$
Steers, up to 1,050 lb., good	5·45	4·49	6·12	5·25	6·18	5·12	4·10	6·50	5·37	5·72
Steers, up to 1,050 lb., medium	4·07	3·67	4·85	4·42	5·41	4·09	3·52	5·30	4·37	5·22
Steers, up to 1,050 lb., common	2·72	2·69	3·61	3·62	4·59	2·55	2·62	3·47	3·37	4·17
Steers, over 1,050 lb., good	5·20	4·54	6·25	5·29	6·19	5·24	4·14	6·41	5·28	5·60
Steers, over 1,050 lb., medium	3·86	3·71	4·92	4·48	5·39	3·79	3·63	5·16	4·39	5·16
Steers, over 1,050 lb., common	2·58	2·81	3·74	3·80	4·62	2·40	2·54	3·61	3·34	4·14
Heifers, good	4·43	3·77	4·73	4·61	5·58	4·14	3·39	4·77	4·53	5·43
Heifers, medium	3·06	2·98	3·69	3·86	4·80	2·87	2·81	3·73	3·75	4·78
Calves, fed, good	6·41	5·28	7·00	6·21	6·63	5·31	4·26	6·56	5·43	5·70
Calves, fed, medium	4·79	4·05	5·54	5·07	5·75	4·01	3·50	4·55	4·41	4·93
Calves, veal, good and choice	5·62	5·68	6·21	6·97	7·32	4·25	4·27	5·73	6·02	6·39
Calves, veal, common and medium	3·68	3·76	4·13	4·81	5·39	2·86	3·05	4·03	4·34	5·27
Cows, good	2·96	2·85	3·98	3·73	4·57	2·41	2·34	3·32	3·17	4·05
Cows, medium	2·30	2·27	3·08	3·06	3·84	1·81	1·78	2·62	2·71	3·52
Bulls, good	2·12	2·48	3·20	3·49	4·36	1·71	2·12	2·74	2·96	3·69
Stocker and feeder steers, good	3·56	3·27	4·33	4·31	5·45	3·17	2·89	3·68	3·58	4·90
Stocker and feeder steers, common	2·27	2·00	2·71	3·21	4·25	2·04	2·01	2·61	2·70	4·08
Stock cows and heifers, good	2·51	2·36	3·00	3·40	4·30	2·22	1·99	2·59	2·98	3·73
Stock cows and heifers, common	1·60	1·60	2·13	2·57	3·19	1·52	1·44	1·90	2·22	2·94
Hogs, select bacon	8·25	8·38	8·67	9·38	8·97	8·11	8·16	8·51	9·15	8·57
Hogs, bacon	7·72	7·87	8·15	8·88	8·45	7·60	7·65	8·02	8·60	8·05
Hogs, butchers	7·23	7·37	7·68	8·56	7·65	7·09	7·22	7·51	8·16	7·09
Hogs, heavies	7·41	7·65	7·78	8·59	7·20	6·66	6·77	7·02	7·63	6·21
Hogs, lights and feeders	7·64	7·34	7·03	9·00	8·65	6·82	6·93	6·11	6·98	6·06
Lambs, good handy weights	6·02	6·86	7·23	7·19	8·03	5·29	6·23	6·60	6·26	7·05
Lambs, common, all weights	4·35	4·86	5·27	5·65	6·31	3·26	4·26	4·53	4·37	5·51
Sheep good handy weights	2·31	2·42	2·87	3·54	3·85	3·07	3·35	3·30	3·32	4·14

Index Numbers of Agricultural Prices.—Records of the average prices received by farmers for their crops have been collected annually since 1909 through crop correspondents. From these records, annual index numbers of prices have been calculated for each crop and for the field crops as a whole. The results of these calculations using the crop year 1926-27 as the base period, are presented in Table 37. In addition to the price indexes shown here, index numbers have been calculated of the yields of the various crops from year to year, and, by a combination of the prices and yields, index numbers of the values of all field crops, weighted according to quantities, have been obtained. Indexes of yields and values are given at pp. 29-38 of the "Monthly Bulletin of Agricultural Statistics", January, 1940.

The general index number fell from 1924 to 1928, especially from 1926 to 1928, recovered strongly in 1929 but declined rapidly to reach the record low of 43·1 for the 1932 crops. All the crops contributed to this sharp decline, although the grain crops dependent upon overseas markets suffered the most. In 1939 crop prices in the central and Maritime Provinces were generally higher than in the previous year, but the lower prices for wheat in the Prairie Provinces almost offset these gains.

The outbreak of war in September, 1939, naturally created a demand for comparisons with the prices of the pre-war crop year ended in 1914. The last two columns of Table 37, therefore, show the index numbers for the crop years 1938-39 and 1939-40 on the 1913-14 base. Both series are regularly published in the January number of the "Monthly Bulletin of Agricultural Statistics".

37.—Index Numbers of Farm Prices of Field Crops, for Canada, Crop Years Ended July 31, 1931-32 to 1939-40.

NOTE.—For the formulæ used in the calculation, see "Monthly Bulletin of Agricultural Statistics", January, 1940, p. 30. Comparable indexes for the years 1916-17 to 1930-31 are given at p. 236 of the 1939 Year Book.

Field Crop.	Average Price 1926-27.[1]	Index Numbers (1926-27=100).									Average Price 1913-14.	Index Numbers (1913-14=100).	
		1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.[2]		1938-39.	1939-40.[2]
	$										$		
Wheat	1·09	34·9	32·1	44·9	56·0	56·0[3]	86·2[3]	93·6	54·1	47·7	0·67	88·1	77·6
Oats	0·48	50·0	39·6	54·2	66·7	50·0	89·6	89·6	50·0	58·3	0·32	75·0	87·5
Barley	0·52	50·0	44·2	57·7	90·4	55·8	132·7	98·1	53·8	61·5	0·42	66·7	76·2
Rye	0·77	36·4	35·1	49·3	63·6	35·1	90·9	93·5	37·7	49·4	0·66	43·9	57·6
Peas	1·75	48·0	48·6	57·1	60·0	62·3	92·6	96·0	88·6	102·9	1·11	139·6	162·2
Beans	2·64	26·1	20·8	37·5	50·4	55·3	77·3	46·6	42·0	69·3	1·88	59·0	97·3
Buckwheat	0·87	57·5	49·4	57·5	60·9	58·6	81·6	82·8	66·7	69·0	0·64	90·6	93·8
Mixed grains	0·66	56·1	50·0	60·6	62·1	54·5	84·8	77·3	59·1	65·2	0·55	70·9	78·2
Flaxseed	1·62	48·8	38·3	74·1	71·0	73·5	88·9	91·4	69·8	86·4	0·97	116·5	144·3
Corn for husking	1·00	42·0	45·0	59·0	65·0	45·0	70·0	64·0	47·0	55·0	0·64	73·4	85·9
Potatoes	1·47	29·2	42·9	52·4	34·0	54·4	77·6	42·9	62·6	72·8	0·82	112·2	130·5
Turnips, etc	0·60	46·7	45·0	56·7	51·7	53·3	58·3	53·3	55·0	56·7	0·56	58·9	60·7
Hay and clover	12·13	62·8	58·5	72·3	96·9	62·8	63·1	62·1	62·5	66·0	11·48	66·0	69·7
Grain hay	10·11	60·6	58·8	67·9	70·4	60·5	63·4	61·6	43·2	43·2	[4]	–	–
Alfalfa	13·30	78·0	64·5	69·5	95·3	51·8	69·1	60·6	59·2	61·8	11·85	66·5	69·4
Fodder corn	4·88	81·4	56·4	67·2	84·4	68·0	69·3	63·1	57·6	62·1	4·78	58·8	63·4
Sugar beets	6·45	94·9	96·6	93·6	87·4	84·3	80·0	92·9	102·2	94·1	6·12	107·7	99·2
All Field Crops	–	**46·8**[3]	**43·1**	**55·7**	**67·4**	**55·9**	**80·9**	**77·2**	**54·7**	**55·4**	–	**79·4**	**80·4**

[1] Prices quoted are per bushel, except for potatoes and turnips, etc., which are per cwt., and the last five items, which are per ton. [2] Subject to revision. [3] Revised since the publication of the 1939 Year Book. [4] Not available.

Subsection 9.—Agricultural Statistics of the Census.

A summary of the more important agricultural statistics compiled from the Census of 1931 is published at pp. 295-301 of the 1934-35 edition of the Year Book. The review includes statistics of: tenure of farms; farm values; mortgage indebtedness; farm expenditures; farm population; farm workers; and cost of labour, farm machinery, and facilities. In the 1937 edition of the Year Book, further statistics are presented at pp. 270-273 that show, for the Prairie Provinces, comparative figures of population, farm holdings, areas, and values, the condition of farm land, the numbers of live stock, and the acreages of the principal crops, for each of the census years 1911, 1921, 1926, 1931, and 1936. In the Year Book for 1938, a summary table is given showing, by provinces, the part-time farm operators classified by the other occupations that are followed by some or all of the members of families, especially on small farms of insufficient size to furnish a livelihood. This year a survey of types of farms in the Prairie Provinces is made from data collected at the Quinquennial Census of the Prairie Provinces for 1936.

Types of Farming in the Prairie Provinces, 1935.—For the first time in the history of the Canadian Census, the 1936 Quinquennial Census of the Prairie Provinces attempted to classify the farms of the Provinces of Manitoba, Saskatchewan, and Alberta into types. Before 1921, census statistics were published by municipalities and by Electoral Districts. The Electoral District, which may change after every Parliamentary Redistribution, did not constitute a satisfactory unit of publication, and in 1921, the three provinces, not having counties like the eastern

provinces, were divided into permanent areas called Census Divisions. (See Population Chapter, p. 79).

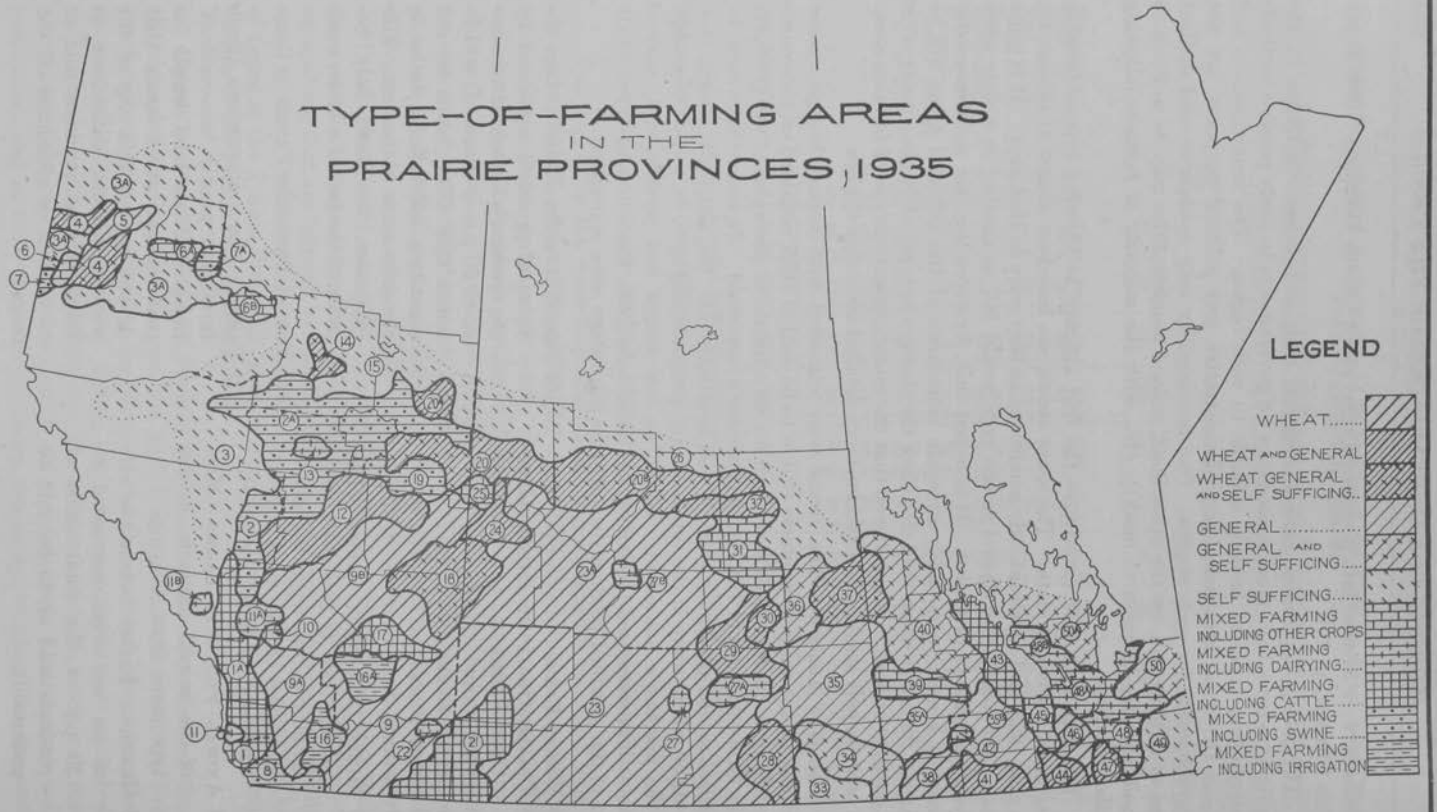
The recent depression, serious drought, rust, and insect conditions in the Prairie Provinces have made it necessary for governments to study possible methods of developing types of farming suitable to each region. The municipalities and Census Divisions, established for administrative and political purposes, are not always suitable for such studies. One municipality may contain several distinct types of farming and, on the other hand, several municipalities may be uniform as to soil, climate, nearness to market, etc., with the majority of farmers following similar practices.

The map at p. 232 constitutes the first attempt at showing type-of-farming areas based on census data. The areas shown are based on source of income for the year 1935, and represent only conditions as they were in that year. It is quite certain that some areas classed as one type would fall in another in a year when different conditions prevailed. It is hoped that, by repeating this work in several succeeding census years, fairly accurate boundaries of the different areas will be located. Such repetitions will also show the changes in types of farming going on in the different regions. It is believed that the establishment of type-of-farming areas will be extremely useful as a basis for more detailed economic studies.

Method of Analysis.—The farms were classified into types through specia questions on the value of products sold or to be sold in 1935, obtained on the census schedules. A questionnaire also asked for an estimate of the value of the products of the farm consumed in 1935 by the operator's household. In order that a farm be classified as one particular type, it was necessary that one particular source contribute 50 p.c. or more of the total value of products sold or to be sold or consumed by the operator's household. Where no one source was predominant, various combinations were used to classify the farms. In 1935, the following types where sales of the classified product reached this percentage were segregated:—

(1) Wheat Farms
(2) Coarse Grain or Other Cash-Crop Farms
(3) Horse Farms
(4) Cattle Farms
(5) Sheep Farms
(6) Swine Farms
(7) Mixed Live-stock Farms (where no one class of live stock made up 50 p.c. but where the sale of all classes of live stock together amounted to 50 p.c. or more).
(8) Animal Products Farms (Most of the animal products in this type came from dairying).
(9) General Farms (where the sale of no one item amounted to 50 p.c. of the total value of products sold or to be sold or consumed).
(10) Self-Sufficing Farms (where the value of products consumed by the operator's household amounted to 50 p.c. or more. It will be noted that these farms do not constitute self-sufficing farms in the strict sense of the term. This expression was used only because of the lack of a better one).
(11) Forest Products Farms
(12) Farms Not Reporting (Such farms are mostly 'non-resident' farms such as land leased for pasture, and other farms that do not come within any of the above-mentioned definitions as there were no products sold or to be sold or consumed off the farms).

TYPE-OF-FARMING AREAS IN THE PRAIRIE PROVINCES, 1935



The type-of-farming areas were built up from the individual farm types. A particular type was considered predominant where it represented 45 p.c. or more of all the farms in that area. A combination type was differentiated where two types made up 60 p.c. or more of the total number of farms and no other type was equal to half of the lower of these two.

In some of the areas, wheat, general, and self-sufficing farms were of about equal importance and, if no other type was equal to one-half of the lowest of these three, they were designated as mixed type-of-farming areas. These mixed type-of-farming areas were named as such along with some other type that was of significant evidence in that area. Similar type-of-farming areas found in different parts of the three provinces were grouped together in the tables and called a type-of-farming class.

Besides the classification by type, the value of products by source, the distribution of the acreage in farms and in crops, and the concentration of live stock per 100 acres of occupied land were obtained for each municipality and used as checks in the classification of a municipality into a particular type.

The salient points of this study, which may be found in Bulletin No. XXXV of the 1936 Census of the Prairie Provinces, are summarized as follows:—

1. Climatic and economic conditions in the Prairie Provinces are such that, generally, farmers can follow only a limited number of enterprises.

2. Wheat is by far the most important crop in the three provinces. Oats and barley follow, the three crops occupying 90·0 p.c. of the total area of improved land. Cattle are the most important kind of live stock, with swine and sheep following in the order named.

3. Wheat farms constitute the most important single type of farm and are quite universally distributed throughout the three provinces. General farms and self-sufficing farms are next in importance, the three types forming 79·6 p.c. of all the farms. While farms reporting live stock and live-stock products sold are quite universally distributed, the number of specialized live-stock farms is relatively small. Animal products farms, mostly dairy farms, are located mainly around urban centres. Coarse-grain and other crop farms containing many specialized crop farms, such as sugar-beet farms, barley farms, etc., are found in specialized areas.

4. In 1935 the rust damage in southeastern Saskatchewan and southwestern Manitoba upset the normal system of farming in those areas. Farms that normally would have been wheat farms fell into the self-sufficing class because of crop failure in those areas.

5. One of the striking facts brought out by the study is the relation between the soil type and the type of farming, as illustrated by the fact that the boundaries of the type-of-farming areas coincide closely with the boundaries of soil-types. Broadly speaking, diversification increases as one proceeds from the brown to the black soils. In the grey wooded soils of the north most of the farms are classed as self-sufficing as they are in the pioneer stage, and the major part of their production is consumed on the farm.

TYPE-OF-FARMING AREAS (AS NUMBERED ON THE MAP, p. 232).

NOTE.—In the areas where the types are mixed, each type is named in order of importance. Indian Reserves are not included.

Type of Farm.	Area Number.
Wheat	5, 9, 9A, 9B, 23, 23A, 38, 46.
Wheat and coarse grain	10.
Wheat and sugar-beet	16.
Wheat and general	24, 29, 32.
Wheat, general, and hay	16A.
Wheat, general, and self-sufficing	18, 20.
Wheat, self-sufficing, and general	20B.
Wheat, coarse grain, and general	25.
Wheat, general, and dairy	27.
Wheat, general, self-sufficing, and cattle	17.
Wheat, general, cattle, and self-sufficing	21.
Wheat, general, live-stock, and dairy	22.
Wheat, general, self-sufficing, and dairy	27A.
Wheat, general, self-sufficing, cattle, and swine	8.
Wheat, general, coarse grain, self-sufficing, and dairy	27B.
General	35, 35A, 35B.
General and self-sufficing	36, 40.
General and wheat	12, 41, 44, 47.
General, self-sufficing, and cattle	1A, 43.
General, self-sufficing, and coarse grain	6.
General, coarse grain, and self-sufficing	39.
General, coarse grain, and wheat	45.
General, self-sufficing, and wheat	30, 37.
General, self-sufficing, and dairy	48, 48B.
General, wheat, and self-sufficing	28.
General, wheat, self-sufficing, and swine	2.
General, wheat, self-sufficing, and coarse grain	31.
General, self-sufficing, swine, and wheat	2A.
General, self-sufficing, coarse grain, and dairy	48A.
General, dairy, wheat, and self-sufficing	11A.
General, dairy, self-sufficing, and coarse grain	13, 42.
General, wheat, self-sufficing, swine, and cattle	19.
Self-sufficing	3, 3A, 15, 26, 33, 49.
Self-sufficing and general	34, 50, 50A.
Self-sufficing, general, and wheat	14, 20A.
Self-sufficing, general, and swine	7A.
Self-sufficing, general, and dairy	11.
Self-sufficing, wheat, and general	4.
Self-sufficing, general, wheat, and cattle	1.
Self-sufficing, general, swine, and cattle	7.
Self-sufficing, general, coarse grain, and hay	6B.
Self-sufficing, coarse grain, wheat, and general	6A.
Coarse grain, dairy, and self-sufficing	11B.

Subsection 10.—Miscellaneous Agricultural Statistics.

Agricultural Irrigation.—*Alberta.**—The surface waters in Alberta are vested in the Crown and are administered by the Water Resources Office under the Water Resources Act. All matters affecting the control of water supply generally, as well as the inspection and authorization of works for the use of water for domestic, municipal, industrial, irrigation, and other purposes, and the granting of licences for such purposes, are dealt with by that Office. The Director of Water Resources at Edmonton is responsible for all field administration. The Irrigation Districts Act of Alberta (c. 114, R.S.A., 1922) and amending statutes provide for the formation of irrigation districts, and authorize the raising of loans under by-laws adopted by the voters of the district.

* Revised by L. C. Charlesworth, Director of Water Resources, Edmonton, Alta.

38.—Major Irrigation Projects in Southern Alberta, 1937 and 1938.

Project.	Source of Supply.	1937.			1938.		
		Irrigable Area.	Length of Canals.	Area Irrigated.	Irrigable Area.	Length of Canals.	Area Irrigated.
		acres.	miles.	acres.	acres.	miles.	acres.
C.P.R. Western	Bow River	218,980	990	50,866	218,980	964	35,775
C.P.R. Lethbridge	St. Mary River	100,000	219	75,250	100,000	219	75,749
Canada Land	Bow River	130,000	466	32,567	130,000	469	30,326
Taber	St. Mary River	21,499	102	21,296	21,499	102	20,880
Lethbridge Northern	Oldman River	96,220	600	70,020	95,664	600	73,297
United	Belly River	34,166	175	17,500	34,166	175	10,000
New West	Bow River	4,564	24	2,752	4,563	24	3,000
Magrath	St. Mary River	6,975	90	4,000	6,975	90	4,000
Raymond	St. Mary River	15,130	16	13,000	15,130	16	12,000
Mountain View	Belly River	3,500	15	3,500	3,500	25	3,500
Little Bow	Highwood River	3,093	2·5	20	3,093	2·5	20
Eastern	Bow River	279,000	1,916	124,645	281,500	992	133,928

The Canadian Pacific Railway has constructed three large projects known as the Eastern, Western, and Lethbridge sections, the last-named being the oldest irrigation project in Alberta. In 1935 the interests of the C.P.R. in the Eastern project were transferred to the water contract holders, who are now operating under the name of the Eastern Irrigation District. By agreement with the Canadian Pacific Railway, the Taber, Magrath, and Raymond irrigation districts procure their water supply from the main canal of the Lethbridge section, a further 43,604 acres being served by the canals of these districts.

The total irrigable area served by the Canada Land and Irrigation Company's project is 130,000 acres, while the New West Irrigation District, by agreement with the Canada Land and Irrigation Company, received a water supply for a further irrigable area of 4,564 acres.

In addition to the irrigated tracts enumerated in the foregoing table, there are approximately 391 privately owned projects in Alberta, with a possible irrigable area of 57,751 acres.

*British Columbia.**—The surface waters of British Columbia are vested in the Crown in the right of the Province and are administered by the Water Rights Branch of the Department of Lands under the Water Act, the Drainage Dyking and Development Act, and the Ditches and Watercourses Act.

The administration of the Acts is vested in the Comptroller of Water Rights. Under the provisions of the Water Act, 1909, the Board of Investigation or, as it was later known, the Water Board, was authorized to re-define the water records issued since 1858. Additional authority was given to the Board in administrative matters in later years, but owing to the enactment of the Provincial Public Utilities Act and to the fact that the re-definition of the more than 8,000 water records issued before the year 1909 had been completed, the Water Board ceased to exist with the enactment of the Water Act, 1939. It is interesting to note that of the orders of the Board re-defining the old records, only six were the subject of appeals to the Court of Appeal.

There are several forms of organization operating irrigation systems in British Columbia, and Table 39 gives statistics of the larger irrigation projects now in operation.

* Revised by E. Davis, Comptroller of Water Rights, Department of Lands, Victoria, B.C.

39.—Major Irrigation Projects in British Columbia, 1939.

Project.	Source of Supply.	Irrigable Area.	Irrigated Area.	Locality.
		acres.	acres.	
PROVINCIAL.				
South Okanagan	Okanagan River	6,000	3,857·0	Oliver, Okanagan Valley.
MUNICIPAL.				
Penticton municipality	Penticton and Ellis Creeks	2,576	2,464·0	Okanagan Valley.
Summerland municipality	Trout and Eneas Creeks	5,000	3,309·6	Okanagan Valley.
IRRIGATION DISTRICTS (CO-OPERATIVE).				
Black Mountain	Belgo Creek	4,607	3,760·8	Okanagan Valley.
Cawston	Similkameen River	900	215·0	Similkameen Valley.
East Creston	Arrow Creek	1,700	1,113·6	South end, Kootenay Lake.
Girouard	Swan Lake Creek	134	110·0	Okanagan Valley.
Glenmore	Kelowna Creek	2,524	1,919·0	Okanagan Valley.
Grand Forks	Kettle River	2,733	2,090·5	Kettle Valley.
Heffley Creek	Heffley Creek and N. Thompson River	2,700	1,390·0	N. Thompson Valley.
Kaleden	Marron Creek	543	386·6	Okanagan Valley.
Keremeos	Ashnola River and Keremeos Creek	1,000	789·0	Similkameen Valley.
Malcolm Horie	Joseph Creek	300	155·4	Near Cranbrook.
Marble Canyon	Pavilion Creek	1,350	929·2	Pavilion.
Merritt Central	Coldwater River	125	125·0	Nicola Valley.
Naramata	Lequime and Robinson Creeks	1,061	849·0	Okanagan Valley.
Okanagan Falls	Shuttleworth Creek	194	194·0	Okanagan Valley.
Oyama	Oyama Creek	391	348·2	Okanagan Valley.
Peachland	Peachland Creek	738	331·4	Okanagan Valley.
Robson	Pass Creek	261	250·0	Lower Arrow Lake.
Scotty Creek	Scotty Creek	879	845·2	Okanagan Valley.
S.E. Kelowna	Hydraulic Creek	4,626	2,119·0	Okanagan Valley.
Trout Creek	Trout Creek	354	278·2	Okanagan Valley.
Vernon	Jones and Coldstream Creeks	12,161	6,500·0	Okanagan Valley.
Vinsulla	N. Thompson River	558	460·0	N. Thompson Valley.
Westbank	Powers Creek	726	577·3	Okanagan Valley.
Winfield and Okanagan Centre	Vernon Creek	2,000	1,813·5	Okanagan Valley.
Wynndel	Duck Creek	525	245·0	South end, Kootenay Lake.
WATER-USERS' COMMUNITY (CO-OPERATIVE).				
Benvoulin	Mission Creek	476	476·0	Okanagan Valley.
Brent Davis	Mission Creek	415·7	415·7	Okanagan Valley.
Campbell Creek	Campbell Creek	914	914·0	S. Thompson Valley.
Canyon	Camp Run and Association Creeks	656	361·9	Near Creston.
Dog Creek	Dog Creek	319	288·9	Upper Fraser Valley.
Guisachan	Mission Creek	332·5	332·5	Okanagan Valley.
Kelowna	Mission Creek	60	60·0	Okanagan Valley.
Mission Creek	Mission Creek	594	486·0	Okanagan Valley.
Okanagan Mission (South)	Bellevue Creek	179	179·0	Okanagan Valley.
Powers Creek	Powers Creek	200	144·0	Okanagan Valley.
Sawmill Creek	Bellevue Creek	132·5	132·5	Okanagan Valley.
Smithson-Alphonse	Mission Creek	327	419·1	Okanagan Valley.
South Kelowna	Mission Creek	192	192·0	Okanagan Valley.
South Vernon	Long Lake Creek	207·6	207·6	Okanagan Valley.
Trepanier	Trepanier Creek	99·2	99·2	Okanagan Valley.
Tronson	Long Lake Creek	127·5	127·5	Okanagan Valley.
Upper Bankhead	Mission and Kelowna Creeks	108·8	108·8	Okanagan Valley.
IRRIGATION COMPANIES.				
B.C. Fruitland Co	Jamieson Creek and N. Thompson River	6,000	2,627·4	Near Kamloops.
Columbia V. Irrigated Fruitlands Co	Bruce Creek	3,780	[1]	Columbia Valley.
Edgewater Irrigated Farms, Ltd	Vermilion Creek	940	[1]	Columbia Valley.
Okanagan Development and Orchard Co	Kelowna Creek	907	651·2	Okanagan Valley.
Woods Lake Water Co	Oyama Creek	2,100	792·0	Okanagan Valley.

[1] Not reported.

Subsection 11.—International Agricultural Statistics.*

World Production of Cereals and Potatoes.—Table 40 shows the acreages and yields of wheat, oats, barley, rye, corn, and potatoes for the years 1938 and 1939 in countries of the Northern Hemisphere, and for the years 1938-39 and 1939-40 in countries of the Southern Hemisphere.

* Compiled from information published by the International Institute of Agriculture.

40.—Acreages and Yields of Cereals and Potatoes in Countries of the World, 1938 and 1939, with Five-Year Averages, 1933-37.

NOTE.—This table is compiled from information published by the International Institute of Agriculture.

Crop and Country.	Acreages.				Yields.			
	1938.[1]	1939.	Average 1933-37.	1939 in P.C. of Average.	1938.[1]	1939.	Average 1933-37.	1939 in P.C. of Average.
Wheat—	'000 acres.	'000 acres.	'000 acres.	p.c.	'000 bu.	'000 bu.	'000 bu.	p.c.
NORTHERN HEMISPHERE.								
Europe.								
Albania	95	[2]	98	–	1,650	[2]	1,663	–
Belgium	430	354	399	88·6	20,131	[2]	15,926	–
Bulgaria	3,448	3,037	3,026	100·4	78,950	71,155	53,646	132·6
Denmark	325	324	294	110·3	16,935	15,065	12,770	118·0
Estonia	172	186	160	116·4	3,139	2,965	2,609	113·7
Finland	323	334	175	190·3	9,403	8,341	4,579	182·1
France	12,479	11,683	13,118	89·1	372,864	[2]	299,648	–
Germany[3]	5,928	5,975	6,191	96·5	232,584	205,192	198,780	103·2
Great Britain and Northern Ireland	1,928	1,765	1,827	91·6	73,349	59,509	61,848	96·2
Greece	2,129	2,356	1,989	118·4	36,135	38,291	26,166	146·3
Hungary	4,000	4,669	3,910	119·4	98,777	112,765	81,070	139·1
Ireland (Eire)	230	[2]	157	–	7,398	[2]	5,460	–
Italy	12,426	12,841	12,541	102·4	297,317	293,945	267,043	110·1
Latvia	348	378	333	113·7	7,052	7,300	6,574	110·0
Lithuania	494	500	513	97·4	9,233	9,231	8,993	102·7
Luxemburg	57	42	41	101·6	1,830	990	1,093	90·6
Malta	10	10	9	100·1	296	279	271	102·9
Netherlands	311	306	355	86·2	15,938	13,301	15,613	85·2
Norway	86	[2]	57	–	2,637	2,551	1,684	151·5
Poland	4,335	[2]	4,279	–	79,802	83,407	75,867	109·9
Portugal	1,134	[2]	1,304	–	15,802	[2]	17,035	–
Roumania	9,435	9,960	8,213	121·3	177,154	164,925	111,787	147·5
Russia (U.S.S.R.)	102,550	[2]	91,846	–	1,494,000	[2]	1,205,982	..
Spain	[2]	8,795	11,145	78·9	70,694	111,773	151,136	74·0
Sweden	759	828	714	116·0	30,184	31,441	25,022	125·7
Switzerland	195	200	164	122·3	7,812	6,360	5,484	116·0
Yugoslavia	5,328	5,542	5,378	103·0	111,329	104,487	86,334	121·0
America.								
Canada	25,931	26,757	25,054	106·8	350,010	478,965	247,821	193·3
Mexico	1,224	1,240	1,201	103·2	11,845	11,939	11,590	103·0
United States	69,869	53,696	51,470	104·3	931,702	754,971	641,373	117·7
Asia.								
China	[2]	[2]	48,643	–	[2]	[2]	774,851	..
Chosen (Tyosen)	846	860	808	106·4	10,401	12,567	9,277	135·5
Cyprus	191	[2]	180	–	2,017	2,170	2,077	104·5
India	35,640	35,289	33,982	103·8	401,856	370,608	356,197	104·0
Iraq	1,800	[2]	3,855	–	22,046	[2]	15,634	–
Japan	1,777	1,823	1,637	111·4	45,244	61,086	46,471	131·4
Manchukuo	2,805	[2]	2,712	–	32,626	35,327	32,088	110·1
Palestine	441	500	515	97·0	1,633	5,000	3,215	155·5
Syria and Lebanon	1,404	1,429	1,313	108·8	23,674	22,303	16,241	137·3
Turkey	9,497	[2]	7,980	–	156,097	169,309	113,013	149·8
Africa.								
Algeria	4,101	4,084	4,151	98·4	34,941	42,622	34,408	123·9
Egypt	1,470	1,501	1,443	104·0	45,935	49,009	42,305	115·8
French Morocco	2,999	3,188	3,213	99·2	23,172	38,764	24,331	159·3
Kenya	63	[2]	51	–	916	[2]	591	–
Libya	156	[2]	69	–	1,293	919	398	231·0
Tunisia	1,667	2,104	1,876	112·2	13,962	18,555	13,117	141·5

[1] Most of the figures for 1938 have been revised since the publication of the 1939 Year Book. [2] Not available. [3] Including Austria and Sudetenland.

40.—Acreages and Yields of Cereals and Potatoes in Countries of the World, 1938 and 1939, with Five-Year Averages, 1933-37—continued.

Crop and Country.	Acreages.				Yields.			
	1938.[1]	1939.	Average 1933-37.	1939 in P.C. of Average.	1938.[1]	1939.	Average 1933-37.	1939 in P.C. of Average.
	'000 acres.	'000 acres.	'000 acres.	p.c.	'000 bu.	'000 bu.	'000 bu.	p.c.
SOUTHERN HEMISPHERE.[2]								
Argentina	20,868	17,833	17,881	99·7	336,199	146,972	220,448	66·7
Australia	14,224	13,500	13,091	103·1	154,543	182,568	158,719	115·0
Chile	2,044	2,055	1,990	103·3	35,536	[3]	31,229	..
New Zealand	193	259	239	108·4	5,564	[3]	7,408	..
Union of South Africa	2,081	2,131	1,848	115·3	17,093	16,047	15,420	104·1
Uruguay	1,256	1,208	1,183	102·1	15,461	11,038	13,252	83·3
Oats—								
NORTHERN HEMISPHERE.								
Europe.								
Albania	28	[3]	24	–	776	[3]	663	
Belgium	527	603	571	105·7	42,738	[3]	48,002	–
Bulgaria	355	274	316	86·8	6,137	8,810	7,984	110·3
Denmark	926	916	932	98·3	78,829	70,272	67,337	104·4
Estonia	368	357	345	103·6	12,160	10,403	9,139	113·8
Finland	1,143	1,206	1,141	105·7	57,572	54,978	47,409	116·0
France	8,019	8,010	8,160	98·2	375,986	[3]	317,942	–
Germany[4]	7,917	8,041	8,356	96·2	496,727	470,334	451,946	104·1
Great Britain and Northern Ireland	2,396	2,422	2,493	97·2	139,419	[3]	141,749	–
Greece	383	373	340	109·8	10,505	10,447	7,741	135·0
Hungary	554	636	545	116·7	21,382	24,575	19,225	127·8
Ireland (Eire)	570	[3]	593	–	39,133	[3]	40,474	–
Italy	1,093	1,044	1,073	97·3	43,342	40,430	36,938	109·5
Latvia	860	935	798	117·2	30,769	31,023	24,727	125·5
Lithuania	838	859	854	100·6	28,936	27,675	25,338	109·2
Luxemburg	61	62	66	93·9	2,864	3,100	3,011	103·0
Netherlands	369	403	334	120·5	30,765	31,002	21,580	143·7
Norway	211	[3]	221	–	13,554	12,620	12,375	102·0
Poland	5,627	5,734	5,535	103·6	183,015	198,415	176,570	112·4
Portugal	618	[3]	527	–	6,530	[3]	6,106	–
Roumania	1,609	1,452	1,998	72·7	31,904	32,787	45,792	71·6
Russia (U.S.S.R.)	41,196	[3]	43,544	–	1,091,128	[3]	1,207,488	–
Spain	[3]	1,391	1,758	79·1	21,977	32,511	42,508	76·5
Sweden	1,647	1,646	1,639	100·4	95,127	88,123	83,154	106·0
Switzerland	28	30	29	101·2	1,750	1,764	1,451	121·5
Yugoslavia	917	910	925	98·4	22,496	23,891	22,195	107·6
America.								
Canada	13,010	12,790	13,539	94·5	371,382	385,930	312,633	123·4
United States	35,661	33,070	34,889	94·8	1,068,431	937,215	883,498	106·1
Asia.								
China	[3]	[3]	2,522	–	[3]	[3]	59,712	
Cyprus	14	[3]	12	–	277	[3]	222	–
Syria and Lebanon	24	12	29	39·4	682	375	836	44·9
Turkey	596	[3]	531	–	17,748	20,351	14,294	142·4
Africa.								
Algeria	451	516	457	113·0	10,892	15,157	10,107	150·0
French Morocco	120	131	80	163·5	3,275	5,236	1,777	294·6
Tunisia	99	99	71	140·2	2,067	2,067	1,192	173·4
SOUTHERN HEMISPHERE.[4]								
Argentina	3,361	3,446	3,292	104·7	50,293	62,005	51,468	120·5
Chile	337	257	249	103·2	10,519	[3]	6,915	.
New Zealand	54	[3]	68	–	3,256	[3]	3,650	
Union of South Africa	[3]	[3]	521	–	[3]	[3]	6,774	–
Uruguay	246	222	202	109·8	3,589	3,810	2,917	130·6

[1] Most of the 1938 figures have been revised since the publication of the 1939 Year Book. [2] In the Southern Hemisphere the annual statistics are for the crop years 1938-39 and 1939-40, and the averages are for the period 1933-34 to 1937-38. [3] Not available. [4] Including Austria and Sudetenland.

40.—Acreages and Yields of Cereals and Potatoes in Countries of the World, 1938 and 1939, with Five-Year Averages, 1933-37—continued.

Crop and Country.	Acreages.				Yields.			
	1938.[1]	1939.	Average 1933-37.	1939 in P.C. of Average.	1938.[1]	1939.	Average 1933-37.	1939 in P.C. of Average.
Barley—	'000 acres.	'000 acres.	'000 acres.	p.c.	'000 bu.	'000 bu.	'000 bu.	p.c.
NORTHERN HEMISPHERE.								
Europe.								
Albania	13	[2]	13	–	192	[2]	274	–
Belgium	76	48	85	56·9	4,098	[2]	4,263	–
Bulgaria	555	563	549	102·6	16,294	15,332	13,532	113·3
Denmark	982	1,021	876	116·6	62,438	56,954	46,109	123·5
Estonia	217	208	248	83·6	4,443	3,821	4,186	91·3
Finland	298	306	316	96·8	9,524	8,819	8,399	105·0
France	1,876	1,975	1,806	109·4	59,286	[2]	47,979	–
Germany[3]	4,838	4,801	4,717	101·8	220,467	194,920	180,048	108·3
Great Britain and Northern Ireland	987	1,012	889	113·8	42,199	[2]	33,913	–
Greece	541	532	525	101·4	11,276	10,160	9,111	111·5
Hungary	1,121	1,344	1,150	116·9	33,253	35,849	29,002	123·6
Ireland (Eire)	118	[2]	132	–	5,142	[2]	6,168	–
Italy	492	497	492	101·1	11,386	11,270	9,726	115·9
Latvia	440	445	459	97·0	10,131	9,601	9,193	104·4
Lithuania	519	516	516	99·9	12,586	11,332	11,430	99·1
Luxemburg	5	5	6	84·9	140	156	162	96·1
Malta	5	5	5	97·8	213	205	207	99·0
Netherlands	107	102	90	112·6	6,452	6,430	4,781	134·5
Norway	148	[2]	148	–	5,711	5,819	5,355	108·7
Poland	2,910	[2]	2,963	–	62,986	67,977	65,420	103·9
Portugal	186	[2]	173	–	1,791	[2]	1,816	–
Roumania	3,158	2,701	4,123	65·5	38,223	46,187	57,032	81·0
Russia (U.S.S.R.)	20,599	[2]	20,714	–	340,769	[2]	349,797	–
Spain	[2]	3,321	4,615	72·0	33,897	64,298	101,266	63·5
Sweden	272	279	256	109·1	12,241	10,766	9,583	112·4
Switzerland	11	12	13	92·3	423	390	351	111·1
Yugoslavia	1,049	1,045	1,073	97·5	19,349	19,477	18,872	103·2
America.								
Canada	4,454	4,347	3,985	109·1	102,242	103,226	73,225	141·0
United States	10,513	12,600	9,390	134·2	253,005	276,298	184,805	149·5
Asia.								
China	[2]	[2]	15,881	–	[2]	[2]	346,212	–
Chosen (Tyosen)	2,738	2,762	2,571	107·4	51,100	61,072	52,128	117·2
Cyprus	115	[2]	113	–	1,902	2,156	1,954	110·4
Iraq	2,533	[2]	1,562	–	52,286	[2]	18,349	–
Japan	1,892	1,879	1,894	99·2	64,182	81,669	72,349	112·9
Palestine	502	509	568	89·7	3,065	[2]	2,790	–
Syria and Lebanon	838	888	746	119·1	17,611	16,994	13,761	123·5
Turkey	4,851	[2]	4,100	–	110,626	105,420	83,344	126·5
Africa.								
Algeria	2,909	3,063	3,180	96·3	26,967	50,524	34,143	148·0
Egypt	274	273	284	96·1	10,686	10,941	10,026	109·1
French Morocco	4,155	4,720	4,160	113·5	49,869	97,740	52,819	185·0
Libya	367	[2]	325	–	[2]	[2]	1,596	–
Tunisia	756	1,483	1,149	129·0	4,593	16,076	8,222	195·5
SOUTHERN HEMISPHERE.[4]								
Argentina	2,053	2,122	1,921	110·5	20,209	34,448	28,668	120·2
Chile	203	141	193	73·2	5,005	[2]	5,473	–
New Zealand	27	[2]	21	–	1,122	[2]	790	
Union of South Africa	[2]	[2]	73	–	[2]	[2]	1,317	–
Uruguay	52	61	26	234·6	638	772	394	195·9

[1] Most of the figures for 1938 have been revised since the publication of the 1939 Year Book. [2] Not available. [3] Including Austria and Sudetenland. [4] In the Southern Hemisphere the annual statistics are for the crop years 1938-39 and 1939-40, and the averages are for the period 1933-34 to 1937-38.

40.—Acreages and Yields of Cereals and Potatoes in Countries of the World, 1938 and 1939, with Five-Year Averages, 1933-37—continued.

Crop and Country.	Acreages.				Yields.			
	1938.[1]	1939.	Average 1933-37.	1939 in P.C. of Average.	1938.[1]	1939.	Average 1933-37.	1939 in P.C. of Average.
Rye—	'000 acres.	'000 acres.	'000 acres.	p.c.	'000 bu.	'000 bu.	'000 bu	p.c.
NORTHERN HEMISPHERE.								
Europe.								
Albania	8	[2]	7	–	129	[2]	141	
Belgium	381	364	409	88·9	15,158	[2]	15,643	–
Bulgaria	464	447	491	91·1	7,397	9,674	8,293	116·7
Czechoslovakia	[2]	[2]	[2]	–	[2]	7,907	[2]	–
Denmark	359	333	358	93·0	11,165	9,842	9,921	99·2
Estonia	365	373	360	103·6	7,403	8,042	7,795	103·2
Finland	583	568	591	96·2	14,507	13,031	14,619	89·1
France	1,559	1,601	1,668	95·9	31,933	[2]	30,993	–
Germany[3]	12,150	11,851	12,671	93·5	381,874	369,304	349,592	105·6
Greece	178	156	175	89·1	2,439	2,457	2,334	105·2
Hungary	1,562	1,728	1,581	109·3	31,677	35,310	28,625	123·4
Ireland (Eire)	2	[2]	2	–	53	[2]	69	–
Italy	257	260	270	96·3	5,428	5,962	5,895	101·1
Latvia	709	737	664	111·1	14,909	16,916	14,474	116·9
Lithuania	1,247	1,229	1,236	99·4	24,555	25,724	23,711	108·5
Luxemburg	18	19	19	103·1	507	490	483	101·3
Netherlands	601	557	501	111·1	21,694	23,621	18,319	128·9
Norway	13	[2]	15	–	433	408	437	93·3
Poland	14,567	[2]	14,227	–	285,556	300,382	253,187	118·6
Portugal	331	[2]	365	–	4,051	[2]	4,105	–
Roumania	1,190	1,104	991	111·5	20,362	18,682	14,840	125·9
Russia (U.S.S.R.)	50,904	[2]	59,051	–	787,000	[2]	186,930	–
Spain	[2]	1,290	1,443	89·4	13,661	17,212	19,882	86·6
Sweden	498	465	551	84·2	15,933	15,263	17,112	89·2
Switzerland	39	39	39	100·7	1,447	1,287	1,280	100·6
Yugoslavia	640	650	643	101·0	8,941	9,587	8,262	116·0
Americe.								
Canada	741	1,102	701	157·2	10,988	15,307	5,708	268·2
United States	4,021	3,811	3,043	125·2	55,564	39,249	34,447	113·9
Asia.								
Turkey	1,130	[2]	809	–	17,656	16,779	11,890	141·1
Africa.								
Algeria	5	5	3	172·7	44	44	31	140·2
SOUTHERN HEMISPHERE.[4]								
Argentina	2,254	2,296	2,008	114·3	10,826	14,173	7,984	177·5
Corn—								
NORTHERN HEMISPHERE.								
Europe.								
Albania	230	[2]	216	–	5,564	[2]	4,991	
Bulgaria	1,731	1,527	1,720	88·8	20,955	[2]	35,278	
France	841	814	844	96·4	22,779	[2]	20,181	
Germany[3]	347	255	202	126·2	14,944	[2]	8,290	–
Greece	671	682	625	109·2	7,853	10,170	10,112	100·6
Hungary	2,901	3,150	2,840	110·9	104,801	88,615	84,072	105·4
Italy	3,724	3,641	3,621	100·6	115,599	[2]	116,170	–
Poland	218	[2]	225	–	4,969	[2]	3,670	
Portugal	971	[2]	1,036	–	11,662	[2]	12,132	..
Roumania	12,349	12,182	12,563	97·0	201,462	245,636	197,973	124·1
Spain	[2]	1,058	1,075	98·4	[2]	[2]	28,656	–
Switzerland	2	[2]	2	–	96	[2]	92	–
Yugoslavia	7,022	6,575	6,708	98·0	187,232	145,434	175,403	82·9

[1] Most of the figures for 1938 have been revised since the publication of the 1939 Year Book. [2] Not available. [3] Including Austria and Sudetenland. [4] In the Southern Hemisphere the annual statistics are for the crop years 1938-39 and 1939-40, and the averages are for the period 1933-34 to 1937-38.

40.—Acreages and Yields of Cereals and Potatoes in Countries of the World, 1938 and 1939, with Five-Year Averages, 1933-37—concluded.

Crop and Country.	Acreages.				Yields.			
	1938.[1]	1939.	Average 1933-37.	1939 in P.C. of Average	1938.[1]	1939.	Average 1933-37.	1939 in P.C. of Average.
Corn—concluded.	'000 acres.	'000 acres.	'000 acres.	p.c.	'000 bu.	'000 bu.	'000 bu.	p.c.
America.								
Canada	180	183	159	115·1	7,690	8,097	6,223	130·1
United States	92,222	88,803	96,176	92·3	2,562,197	2,619,137	2,064,575	126·9
Asia.								
China	[2]	[2]	11,150	–	[2]	[2]	252,552	–
Manchukuo	4,351	[2]	2,978	–	98,814	97,634	73,645	132·6
Palestine	21	[2]	16	–	315	[2]	287	–
Syria and Lebanon	48	49	52	95·1	1,081	[2]	961	
Turkey	1,171	[2]	1,071	–	23,759	[2]	21,423	
Africa.								
Algeria	15	16	18	85·9	168	[2]	189	
Egypt	1,545	1,591	1,614	98·6	61,516	[2]	62,627	
French Morocco	1,141	[2]	1,015	–	8,558	[2]	7,785	
Kenya	112	[2]	112	–	3,244	[2]	3,257	
Tunisia	43	62	52	118·3	217	[2]	224	
SOUTHERN HEMISPHERE.[3]								
Argentina	8,654	[2]	11,228	–	191,488	[2]	327,671	
Chile	105	[2]	113	–	2,498	[2]	2,464	
Madagascar	247	[2]	224	–	3,937	[2]	3,684	
Union of South Africa	6,682	[2]	5,776	–	93,564	[2]	60,184	
Potatoes—								
NORTHERN HEMISPHERE.								
Europe.								
Belgium	364	363	398	91·4	119,725	[2]	119,596	
Bulgaria	49	49	40	122·4	2,334	[2]	3,974	–
Denmark	196	168	190	88·5	52,642	41,520	47,988	86·5
Estonia	193	221	180	123·2	36,656	31,768	34,906	91·0
Finland	211	219	208	105·6	44,014	57,172	47,844	119·5
France	3,521	3,415	3,496	97·7	636,189	[2]	565,281	–
Germany[4]	8,046	7,848	7,777	100·9	2,072,648	2,067,902	1,863,977	110·9
Great Britain and Northern Ireland	733	703	748	94·0	190,974	[2]	187,016	..
Greece	53	56	49	114·5	5,254	5,868	4,761	123·2
Hungary	720	778	720	108·1	78,653	86,883	76,261	113·9
Ireland (Eire)	327	[2]	336	–	91,872	[2]	95,172	–
Italy	1,040	1,042	1,044	99·8	108,356	[2]	100,127	–
Latvia	340	359	288	124·7	64,350	60,873	56,606	107·5
Lithuania	460	437	444	98·4	77,830	77,294	78,354	98·6
Luxemburg	43	43	41	103·5	10,492	9,626	6,636	145·0
Malta	9	9	8	102·8	1,049	1,156	933	123·9
Netherlands	300	308	348	88·5	103,632	110,229	101,485	108·6
Norway	132	[2]	124	–	34,452	34,571	33,070	104·5
Poland	7,487	7,562	7,039	107·4	1,269,777	[2]	1,240,480	–
Portugal	77	[2]	80	–	21,779	[2]	20,587	
Roumania	702	[2]	741	–	66,203	[2]	72,124	
Spain	[2]	1,006	1,127	89·3	[2]	[2]	184,534	–
Sweden	338	339	327	103·7	68,803	71,469	69,513	102·8
Switzerland	123	125	116	107·2	29,802	24,471	27,933	87·6
Yugoslavia	658	[2]	635	–	62,524	[2]	57,556	..
America.								
Canada	522	518	527	98·3	59,897	58,867	70,555	83·4
United States	3,023	3,032	3,357	90·3	374,163	360,992	372,170	97·0
Asia.								
Syria and Lebanon	19	[2]	18	–	1,530	[2]	1,475	
Turkey	134	[2]	127	–	6,194	[2]	5,857	
Africa.								
Algeria	43	48	40	120·0	5,340	[2]	3,973	–

[1] Most of the figures for 1938 have been revised since the publication of the 1939 Year Book. [2] Not available. [3] In the Southern Hemisphere the annual statistics are for the crop years 1938-39 and 1939-40, and the averages are for the period 1933-34 to 1937-38. [4] Including Austria and Sudetenland.

World Exports and Imports of Wheat and Flour.—During the crop year 1938-39, 678,582,000 bushels of wheat and wheat flour expressed in bushels of wheat were exported, as compared with 549,984,000 bushels in 1937-38.

In the latest year Canada was the leading country in the export of wheat, whereas in 1938 she occupied third place; Australia occupied first place in 1938 and United States second. In the export of flour Canada occupied third place in both years. Of the importing countries, the United Kingdom was the leader in imports of both wheat and flour in each year, while Belgium held second place in imports of wheat and the Netherlands in imports of flour.

41.—World Exports and Imports of Wheat and Wheat Flour, Crop Years Ended July 31, 1937 and 1938.

NOTE.—This table is compiled from information published by the International Institute of Agriculture

Item and Country.	Wheat.		Item and Country.	Flour.	
	1938.	1939.		1938.	1939.
	'000 bu.	'000 bu.		'000 bbl.	'000 bbl.
Exports—			**Exports—**		
Canada	76,714	146,240	Australia	6,620	7,534
Argentina	67,420	116,625	United States	5,174	7,193
United States	92,428	76,473	Canada	3,610	4,604
Australia	93,362	60,715	Argentina	902	1,041
Hungary	6,755	27,193	India	740	598
Yugoslavia	3,920	5,388	Hungary	489	524
Other countries	98,631	110,786	Other countries	7,077	8,542
Totals, Exports	**439,230**	**543,420**	**Totals, Exports**	**24,612**	**30,036**
Imports—			**Imports—**		
United Kingdom	180,550	217,070	United Kingdom	4,497	4,532
Belgium	41,575	41,485	Netherlands	751	933
Germany	35,610	35,003	Germany	645	568
Netherlands	21,112	26,038	Norway	348	418
Switzerland	14,953	17,100	Denmark	149	276
Ireland (Eire)	12,842	16,807	Finland	293	256
France	18,165	16,458	Austria	188	137
Sweden	1,660	1,948	Ireland (Eire)	60	62
Other countries	105,471	124,703	Other countries	6,550	9,764
Totals, Imports	**431,938**	**496,612**	**Totals, Imports**	**13,481**	**16,946**

World Live Stock.—The statistics of Table 42 show as nearly as possible the world situation with regard to live stock about 1937. For many countries, the figures are the result of careful enumeration, but for others they represent only approximate estimates.

42.—Live Stock in Principal Countries, *circa* 1937.

NOTE.—This table is compiled from information published by the International Institute of Agriculture.

Continent and Country.	Horses.	Cattle.	Sheep.	Swine.
	No.	No.	No.	No.
Europe—				
Austria	245,800	2,596,100	315,700	2,871,500
Belgium	264,500[1]	1,710,000	187,400[2]	871,600
Bulgaria	531,500	1,497,600	8,339,500	902,000
Czechoslovakia	703,800	4,938,100[3]	642,400	3,610,600
Denmark	552,200[4]	3,083,500[4]	187,000[4]	3,065,900[4]
Finland	380,000	1,925,100	1,072,300	504,200

For footnotes, see end of table, p. 243.

42.—Live Stock in Principal Countries, *circa* 1937—concluded.

Continent and Country.	Horses.	Cattle.	Sheep.	Swine.
	No.	No.	No.	No.
Europe—concluded.				
France	2,742,100[5]	15,805,300	9,994,100	7,117,300
Germany	3,433,800[5]	20,503,600	4,692,300	23,846,900
Great Britain and Northern Ireland	1,103,100	8,639,200	25,540,900	4,452,600
Greece	371,500	997,600	8,451,300	464,600
Hungary	798,100	1,749,600	1,483,900	2,623,500
Ireland (Eire)	429,300	3,955,200	2,999,600	934,500
Italy	795,800[5]	7,286,500[6]	9,094,900	2,814,100
Latvia	391,900	1,209,900	1,334,000	739,300
Lithuania	552,100	1,172,200	614,300	1,192,000
Netherlands	300,000	2,626,700	608,300	1,406,400
Norway	189,600[4]	1,343,200[4]	1,739,000[1]	445,000[4]
Poland	3,889,300[5]	10,572,500[5]	3,188,100	7,696,300
Portugal	90,300	905,200	3,274,000	1,206,000
Roumania	2,065,000[5]	4,184,400	12,372,400	3,170,000
Spain	568,100	3,569,800	19,093,300	5,411,500
Sweden	620,000	2,962,000	405,000	1,300,000
Switzerland	139,800	1,637,700	176,100	935,600
Russia (U.S.S.R.)[7]	16,700,000	57,000,000	81,300,000[8]	22,800,000
Yugoslavia	1,248,900[1]	4,169,200[4]	9,908,600[4]	3,179,700[1]
Northern and Central America—				
Canada	2,883,000[1]	8,840,500[1]	3,339,900[1]	3,963,300[1]
Cuba	568,700	4,651,000	163,900	951,800
Santo Domingo (Dominican Republic)	265,900	913,100	34,500	880,000
Mexico[9]	1,887,500	10,083,000	3,673,900	3,698,200
United States	11,128,000[1]	66,083,000[1]	52,682,000[1]	44,218,000[1]
South America—				
Argentina	8,527,200	33,100,500	43,790,200	3,975,700
Brazil	6,051,700	40,513,900	12,645,100	23,182,500
Chile	527,800	2,459,800	5,749,100	571,500
Colombia	972,000	8,337,100	872,400	1,621,900
Peru[2]	432,100	1,805,900	11,209,200	688,700
Uruguay	622,900[9]	8,296,900	17,931,300	346,300
Venezuela	167,700[10]	2,750,000[2]	125,000[2]	500,000[2]
Asia—				
Burma	51,800	5,162,500	77,100	519,800
China	4,080,000	22,647,000	20,957,000	62,639,000
Formosa	900	76,300	200	1,849,200
India	2,380,500	161,370,600	42,062,200	[11]
Indo-China	78,700	2,314,000	19,200	3,514,200
Iran	1,329,200	2,673,200	13,614,700	[11]
Iraq	150,000	250,000	4,976,400	[11]
Japan	1,431,900	1,770,900	61,000	1,109,700
Korea (Tyosen)	50,900	1,713,200	19,600	1,625,100
Manchukuo	1,840,000	1,683,300	1,966,000	5,335,700
Netherlands East Indies	671,300[12]	4,413,600[12]	1,337,100[12]	1,131,300[12]
Philippines	434,100[13]	1,549,000	151,800	3,183,000
Siam (Thailand)	374,200	5,618,000	[11]	864,200[10]
Syria and Lebanon	72,500	340,500	2,273,500	8,000
Turkey[7]	722,900	6,551,200	16,449,000	4,000
Africa—				
Algeria	180,900	789,300	5,965,100	60,300
Egypt	31,100[14]	983,200[14]	1,918,800[14]	36,500[14]
French Morocco	210,300[15]	2,025,800[15]	10,372,800[15]	56,700[15]
French West Africa	193,000	3,427,000	8,412,700	141,900[16]
Kenya	2,400[9]	5,192,900[9]	3,227,700[9]	13,200[17]
Madagascar	2,200	4,947,000[15]	190,700	550,000
Nigeria[18]	176,500	2,985,000	1,887,700	92,400
Southern Rhodesia	3,000	2,316,800	318,800	114,700
Territory of South West Africa	25,400	806,700	2,898,400	11,500
Tanganyika	100	5,035,100	1,645,700	9,500
Tunisia	109,800	507,300	3,382,900	29,200
Union of South Africa	777,600	11,394,800	41,150,000	1,036,700
Oceania—				
Australia	1,747,400	13,078,400	110,242,700	1,202,800
New Zealand	277,800	4,389,100	31,305,800	802,400

[1] On farms only. [2] 1929. [3] Cattle and buffalo. [4] In rural districts only. [5] Exclusive of animals belonging to the Army. [6] Not including animals belonging to the Army and travelling. [7] Includes territory in Europe and Asia. [8] Sheep and goats. [9] 1930. [10] 1921. [11] Not available. [12] Owned by natives only. [13] Horses and mules. [14] Exclusive of animals belonging to the British Army. [15] Number registered for fiscal purposes. [16] Exclusive of Niger and French Sudan. [17] Exclusive of a large number of pigs kept by natives. [18] Exclusive of Southern Cameroons.

CHAPTER IX.—FORESTRY.*

CONSPECTUS.

	Page.
Section 1. Forest Regions	244
Section 2. Important Tree Species	247
Section 3. Forest Resources	249
Section 4. Canadian Forest Resources: Their Relation to the War of 1914-18 and to the Present Effort	251
Section 5. Forest Administration	258
Subsection 1. Administration of Dominion and Provincial Timber Lands	258
Subsection 2. Forest Fire Protection	261
Subsection 3. Scientific Forestry	262
Section 6. Forest Utilization	263
Subsection 1. Woods Operations	263
Subsection 2. The Pulp and Paper Industry	265
Subsection 3. The Lumber Industry	273
Subsection 4. Manufactures of Wood and Paper	275
Subsection 5. Forest Depletion and Increment	276

Section 1.—Forest Regions.

The forests of Canada cover a vast region in the north temperate climatic zone, reaching from the Atlantic Ocean to the Pacific; they extend northward from the International Boundary to beyond the Arctic Circle. Wide variations in climatic, physiographic, and soil conditions cause marked differences in the character of the forests in different parts of the country, hence more or less well-defined forest regions may be recognized. The following principal regions are described separately: Acadian, Great Lakes-St. Lawrence, Deciduous, Boreal, Sub-Alpine, Columbia, Montane, and Coast. For descriptive purposes, it is convenient to consider two sections of the Boreal Region as separate entities, and they are described hereunder as the Northern Transition, and the Aspen Grove Sections.

The Acadian Forest Region.—This Region includes the Provinces of Nova Scotia and Prince Edward Island, and all but the northwest corner of New Brunswick. Its climate is characteristic of maritime regions, and is highly favourable to tree growth. Annual precipitation averages about 40 inches. Topography and geology are widely varied. In northern New Brunswick the maximum altitude is 2,700 feet above sea-level, and northern Cape Breton Island and parts of Nova Scotia are fairly rough. The surface of the remainder of the Region varies from level to gently rolling.

There is a general coniferous character to the Region, especially in the northern parts of New Brunswick and Cape Breton Island. Mixed forests, interspersed with so-called "hardwood ridges", are common, however, occurring more frequently in the southern parts of New Brunswick and Nova Scotia.

Among the coniferous species red spruce is the characteristic dominant, and is usually associated with balsam fir. White and black spruce, and white and red pine, are widely distributed. Jack pine occurs in pure stands on sandy plains. Hemlock, which is still to be found in most parts of the Region, is believed to have been much more important in former times. Other characteristic conifers are cedar and tamarack.

Yellow birch, maple, and beech occur in fairly large quantities and usually occupy well-drained ridges. White birch, wire birch, and poplar are found in association with the coniferous species. Among the other hardwoods are oak, butternut, basswood, ash, and elm.

*Material in this chapter, with the exception of Section 4 appearing at pp. 251-258, has been prepared by R. G. Lewis, B.Sc. F., Chief of the Forestry Branch of the Dominion Bureau of Statistics, in co-operation with Roland D. Craig, F.E., of the Dominion Forest Service of the Department of Mines and Resources. Section 1 is based on Dominion Forest Service Bulletin No. 89, "A Forest Classification for Canada", by W. E. D. Halliday. The Forestry Branch of the Bureau of Statistics collects and compiles statistics relating to forest production and publishes four printed reports covering the lumber industry, the pulp and paper industry, and the wood-using and paper-using industries of Canada. These printed reports are usually preceded by a number of preliminary mimeographed reports, one for each important industry or group of industries. For detailed list of publications, see Chapter XXIX.

The Great Lakes-St. Lawrence Forest Region.—This forest, centring on the Great Lakes system, and extending eastward down the St. Lawrence Valley, is of an irregular character. It occupies a middle position between predominantly coniferous forests to the north and deciduous forests to the south. Precipitation varies from an annual average of 25 inches in the west to 45 inches in the east, and the growing season is from 100 to 150 days. Good forest soils of sedimentary origin are common, but southward extensions of the granitic areas of the Canadian Shield are also included within the boundaries of the Region.

The characteristic species are white pine, red pine, and hemlock, associated with the maples, yellow birch, and, in some sections, beech and basswood. Aspen, cedar, and jack pine are widely distributed, and spruce and balsam fir are common in certain localities. Among the less widely distributed hardwood species are white birch, elm, hickories, white and black ash, bur, red and white oak, ironwood, and butternut.

The pine forests of the Ottawa Valley and Algonquin Park have been famous as one of the greatest of Canada's lumbering areas. Elsewhere in the Region forests of mixed type predominate, with a considerable proportion of pure hardwood stands in the more favoured locations towards the south.

The Deciduous Forest Region.—This Region in Canada consists of a small northerly intrusion from the great forest of the same type in the United States, and occupies the southwestern portion of what is commonly referred to as the Ontario Peninsula. It enjoys very favourable climatic and soil conditions that permit of the growth of a number of tree species not found elsewhere in Canada. Because of its fertile soil, the area is completely settled, and the forests are now represented only by woodlots, parks, and small wooded areas on the lighter soils.

Among the characteristic trees are beech and sugar maple, together with basswood, red maple, and several oaks. Coniferous species are largely represented by scattered specimens of white pine, hemlock, and red juniper.

Among the less common hardwoods, which occur singly or in small groups, are hickories, black walnut, chestnut, tulip tree, magnolia, mulberry, sycamore, sassafras, black gum, Kentucky coffee tree, and a number of other species that find their northern limit in this Region.

The Boreal Forest Region.—This Region covers the greater part of the land area of Canada. It stretches unbrokenly from the Atlantic coast of Quebec westward to Alaska. Along its southern side it follows the limits of the Great Lakes-St. Lawrence Region, then skirts the open grasslands of the Prairie Provinces, and is terminated in the west in the foothills of the Rocky Mountains. To the north it is bounded by the limits of tree growth.

The principal trees of the Region are white and black spruce, balsam fir, poplars, white birch, and jack pine. Near the foothills of the Rocky Mountains the latter species is replaced by lodgepole pine. In Quebec and Ontario, and as far west as a line running from Lake Winnipeg to Lake Athabaska in the Prairie Provinces, the Region is, for the most part, underlain by granitic rocks of the Precambrian formations, known as the Canadian Shield. Within the area described there are extensive tracts of good soil, formed from glacial or sedimentary deposits, but a larger portion of the Region is characterized by shallow soils. Very considerable areas of bare rock testify to the disastrous results of forest fires followed by erosion. The forests of this part of the Region are mainly coniferous, with black spruce and balsam fir as dominants, and are valuable chiefly for pulpwood.

West of Lake Winnipeg the same tree species are in evidence but in different proportions. Here the soil is deep and relatively fertile, and the characteristic forest is a mixture of poplar and white spruce.

The climate of the Region is severe, and precipitation ordinarily varies from 15 to 30 inches annually, although these amounts are exceeded in eastern Quebec.

The Northern Transition Section.—This area is a part of the Boreal Region, but is described separately because none of its forests is of commercial value although of considerable local economic value. It represents a transition from the merchantable forests of the south to the treeless wastes of the Far North. White and black spruce, larch, and birch are the principal tree species, and these are usually of stunted growth because of the severity of the climate. In river valleys and other protected sites occasional clumps of trees of fair size are to be found. The principal economic value of the forests probably consists in the habitat they provide for fur-bearing animals, and the wood they furnish for fuel and buildings for the scattered inhabitants of the Region.

The Aspen Grove Section.—This Section, which lies entirely within the Prairie Provinces, is also a part of the Boreal Region, but has very special characteristics. It is a zone of transition between the true forest region to the north and the open grasslands to the south. Aspen is the dominant tree, and is in sole possession of most of the area. In southern Manitoba stands of bur oak are found, and elm, basswood, and ash occur singly or in small groups in river bottoms. Most of the area is farmed and much of the forest is now in the form of woodlots.

The Sub-Alpine Forest Region.—This is essentially a coniferous forest extending from the grasslands of the prairies and the western border of the Boreal Region up the eastern slopes of the Rockies to timber-line. This same type of forest reappears in a narrow strip extending northwesterly from the International Boundary between the plateaux of the Montane Region and the non-forested tundra formation of the mountain tops of the Coast Ranges.

In general, this forest formation occupies areas from 3,500 to 6,000 feet above sea-level. Rainfall is moderate, temperatures are low, and the growing season is short. The topography is mountainous with steep-sided valleys, and the soils are mostly derived from glacial and other residual material. The dominant tree species are Englemann spruce, alpine fir, and lodgepole pine. Less widely distributed are mountain hemlock, alpine larch, and white-barked pine.

The Columbia Forest Region.—This Region, often referred to as the Interior Wet Belt of British Columbia, supports forests that are somewhat similar in composition to those of the Coast Region.

The forests properly attributable to the Columbia Region comprise stands in the valleys of the Columbia and other rivers that lie between elevations of 2,500 feet and 4,000 feet above sea-level. Below this range occurs the Montane Region, and above it the Sub-Alpine. The climate is intermediate between those of the Coast and Montane Regions. The precipitation varies from 30 to 60 inches. The Region actually should be mapped as a series of 'islands' and 'stringers' surrounded by patches of sub-alpine forest; but it is impracticable to do this on so small a scale as is used for the map facing p. 248.

Some authorities consider the Columbia Region to be merely an extension of the Coast Forest Region. Because of the complete physical separation of the two

regions in Canada, and also because of important differences in environmental conditions, the division made here has been adopted.

The principal species in this Region are Englemann spruce, western red cedar, western hemlock, and Douglas fir. Among other species of considerable importance are alpine and grand firs, western white pine, and western larch. Lodgepole pine commonly replaces stands destroyed by fire. Black cottonwood is found on rich alluvial soils.

The Montane Forest Region.—This Region forms part of what is often termed the Interior Dry Belt of British Columbia. It occupies an extensive series of plateaux, valleys, and ranges in the interior of the Province, which extends northward from the International Boundary to the valley of the Skeena River. The climate is relatively dry, with low summer rainfall, and moderate to high temperatures. The dryest conditions are found in the lower river valleys; here the forest gives way to open grassland.

The principal tree species are ponderosa pine, Douglas fir, lodgepole pine, and aspen. Towards the northern half of the Region ponderosa pine disappears and associations of Douglas fir and lodgepole pine become dominant. Towards the north and east, stands of Englemann spruce and alpine fir grade into the forests of the Sub-Alpine and Columbia Regions. Aspen is an important constituent of the northern parts of this forest.

The Coast Forest Region.—This Region includes the western slope of the Coast and Cascade Mountains and the insular system, the higher elevations of which form Vancouver Island, the Queen Charlotte group, and other islands along the coast.

The climate in this Region is mild and equable, with heavy precipitation varying from 40 to 200 inches per annum, about 70 p.c. of which falls during the autumn and winter months. These conditions are conducive to the luxurious growth of coniferous forests, and produce the largest trees and the heaviest stands in the Dominion.

The dominant trees are western hemlock and western red cedar. Associated with these are Douglas fir in the south and Sitka spruce in the north. All four of these species, of which the most important commercially is Douglas fir, grow to large sizes, and occasionally are found in stands running up to 100,000 ft. b.m. per acre. Other conifers that occur in the Region but are of much less importance include: yellow cedar; mountain hemlock; amabilis, grand, and alpine firs; and western white pine. Of the broad-leaved trees, several alders are widely distributed, and Garry oak and madrona are found in the vicinity of the Straits of Georgia. Broad-leaved maple and vine maple occur at low elevations in the southern sections, and black cottonwood, which is perhaps the most important hardwood from the commercial point of view, is found on alluvial soils in the valleys.

Section 2.—Important Tree Species.

In Canada there are over 130 distinct species of trees. Only 33 of these are conifers or softwoods, but they comprise over 80 p.c. of the standing timber and 70 p.c. of the wood utilized for all purposes. Of the deciduous-leaved or hardwood species, only about a dozen are of commercial importance as compared with twice that number of conifers.

Douglas Fir.—The Douglas fir is Canada's largest tree and most important source of lumber and square timber. It is noted for its strength and durability and is used mainly in structural work.

Spruce.—There are five native spruce species, all of commercial importance, furnishing over one-quarter of the total production of lumber, ranking second to Douglas fir. Pulpwood made from spruce is preferred to other kinds and comprises two-thirds of the total quantity of pulpwood produced. Spruce is also used extensively for building construction, boxes, cooperage, and mining timbers. White spruce is the most abundant and most important commercially, comprising 41 p.c. of the wood used in manufacturing. Black spruce is of less value for lumber, being generally much smaller and often confined to swampy situations, but is considered superior for pulpwood.

Pine.—There are nine distinct pine species native to Canada six of which are of great commercial importance. Eastern white pine is especially valued on account of its softness, easy-working qualities, and low shrinkage. It has a wide variety of uses. This species was, up to a few years ago, the most important wood in Canada in point of quantity of lumber sawn and square timber exported, but now ranks third after Douglas fir and spruce. Western white pine has similar qualities and uses, but is less abundant. Red or Norway pine is stronger than white and is used for structural timber as well as for sawn lumber. Ponderosa or western yellow pine is used as a substitute for white pine but is more variable in quality. Jack pine and its western counterpart, the lodgepole pine, are used mainly for railway ties, poles, and rough construction.

Hemlock.—There are three hemlock species in Canada, two of which are valuable timber trees. The wood is used chiefly for railway ties, pulp, and construction.

Balsam Fir.—Four species of balsam fir are found in Canada. The wood is used extensively in the manufacture of wood-pulp and also as lumber.

Cedar.—Two species of cedar are found in Canada: white cedar, which is confined to moist situations in the East, and western red cedar, which grows to a tremendous size and is abundant in British Columbia. The wood is noted for its durability and low shrinkage and is used for all structural work exposed to the weather, such as shingles, building construction, especially greenhouses, railway ties, poles, and fence-posts.

Tamarack or Larch.—The eastern tamarack is found chiefly in swampy situations. The western species, which grows on better sites and attains considerable size, is of more importance. The wood of these two species is cut into lumber and is used also for railway ties and in general construction.

Birch.—Birch is Canada's most important hardwood. While there are at least six native species, only two are worthy of note, viz., yellow and white birch. Yellow birch is in great demand for flooring, cabinet work, and interior finish. White birch is used for veneers.

Maple.—Maple is second in importance to birch as a hardwood. There are ten species scattered throughout Canada, of which the sugar maple, or hard maple, is the most important. The lumber of this species is used for flooring, interior finish, and cabinet work, while the tree itself is the source of the sap from which maple syrup and sugar are made.

Basswood.—Basswood, being soft and easily worked, is a valuable wood for certain kinds of cabinet making.

FOREST CLASSIFICATION OF CANADA AND COAST OF LABRADOR

SOUTH OF LATITUDE 75°

LEGEND

REGION	PRINCIPAL SPECIES
Acadian	Spruce, balsam, yellow birch, maple, pine
Great Lakes, St. Lawrence	Pine, spruce, yellow birch, maple
Deciduous	Tolerant hardwoods
Boreal	Spruce, balsam, white birch, poplar, jackpine
Subalpine	Engelmann spruce, lodgepole pine
Columbia	Eng. spruce, Douglas fir, cedar, hemlock, larch
Montane	Ponderosa and lodgepole pines, spruce, Douglas fir
Coast	Douglas fir, cedar, hemlock, Sitka spruce
Grassland	
Alpine and Arctic Tundra	

Forest information prepared by the Dominion Forest Service. Base map and lithographic plates from Surveyor General's Office, Ottawa. Printed by the Geographical Section, General Staff, Department of National Defence.

Minor Species.—Elm, represented by three species in Canada, is a valuable vehicle wood. Beech, ash, oak, butternut, chestnut, red alder, hickory, yellow cedar, cherry, and black walnut are all valuable woods used for lumber in Canada, but, owing to scarcity, are of minor commercial importance.

The poplar species, of which there are seven native to Canada, are capable of producing great quantities of material that will eventually become more valuable when better types of hardwood are not so plentiful. They are now used principally for fuel, pulp, and match stock.

For a more extended description of the individual tree species, the reader is referred to pp. 283-286 of the Canada Year Book, 1936, and to Dominion Forest Service Bulletin No. 61, "Native Trees of Canada", published by the Department of Mines and Resources, where the subject is treated in detail.

Section 3.—Forest Resources.

Areas.—The total land area of Canada, revised according to the latest surveys, is estimated at 3,466,556 square miles, of which 549,700 square miles is considered as being suitable for agricultural or pastoral purposes. About 254,873 square miles of this agricultural land is occupied and of this 213,236 square miles is classified as improved and under pasture and 41,637 square miles as forested.

As a result of the constant and inevitable improvement in conditions affecting profitable exploitation, such as the extension of settlement and transportation facilities, the increasing world scarcity of forest products, and the ever-increasing demand for these products, due to the development of industry, the discovery of new uses for wood, and the improvements in the methods, equipment, and machinery used in logging and manufacturing forest products, some of this inaccessible timber will eventually become commercially exploitable. It is estimated that of the accessible forest area 442,354 square miles is producing softwood or coniferous timber, 221,138 square miles mixed softwoods and hardwoods, and 105,971 square miles hardwood or broad-leaved species.

In Canada as a whole about 10·5 p.c. of the total forest area has been permanently dedicated to forest production. Of this total forest area, 8·5 p.c. has been permanently alienated, being owned in fee simple by private individuals or corporations. The Crown still holds title to 13·3 p.c. of the area, but has alienated the right to cut timber thereon under lease or licence. So far 78·2 p.c. has not been alienated in any way. It may be said that 91·5 p.c. of Canada's forest area is still owned by the Crown in the right either of the Dominion or the provinces and, subject only to certain temporary privileges granted to limit-holders, may at any time be placed under forest management and dedicated to forest production.

Volume of Standing Timber.—In 1938, the total stand of timber in Canada was estimated to be approximately 273,656 million cubic feet, of which 222,076 million cubic feet was of coniferous species and 51,580 million cubic feet of broad-leaved species. This estimate is the latest that has been made officially. It is difficult to divide the existing stand into merchantable timber and that which is inaccessible or unprofitable, since the merchantability depends not only on the location but on the density of the stand, the demands of the market for certain species or qualities of product, and the regulations as to cutting. Light stands covering large areas may in the aggregate carry very large amounts of timber

and still not be exploitable at a profit. For some species, such as aspen and white birch, which comprise three-quarters of the hardwoods, there is very little demand, and, therefore, these cannot properly be classed as merchantable, though accessible as far as location is concerned.

In June, 1929, a conference of the Dominion and provincial forest authorities was held in Ottawa, and it was decided to undertake a national inventory of the forest resources of Canada, each authority conducting the necessary stock-taking surveys on the land under its jurisdiction. In connection with the inventory, data are being secured regarding the depletion due to use, fire, insect damage, etc., and the increment accruing. The Forest Service of the Department of Mines and Resources acts as a clearing-house for the national inventory and, in addition to collecting and compiling the data furnished by the provincial authorities, has conducted the inventorial work in the Prairie Provinces and the Maritime Provinces. The inventories for Manitoba and New Brunswick have been completed and that of Nova Scotia is now in progress: aerial photography is used for forest mapping and volometric estimates of the timber. The Dominion Service is also carrying on surveys to determine the increment taking place in the forests and conducting more intensive silvicultural research at forest experiment stations located in New Brunswick, Quebec, Ontario, Manitoba, and Alberta.

1.—Estimate of Total Accessible Stand of Timber in Canada, Classified by Type and Merchantable Size, by Provinces and Regions, with Estimate of Grand Total Stand.

Province and Region.	Conifers.			Broad-Leaved.			Totals.		
	Saw Material.	Small Material.	Total Equivalent in Standing Timber.	Saw Material.	Small Material.	Total Equivalent in Standing Timber.	Saw Material.	Small Material.	Total Equivalent in Standing Timber.
Accessible.	M ft. b.m.	'000 cords.	M cu. ft.	M ft. b.m.	'000 cords.	M cu. ft.	M ft. b.m.	'000 cords.	M cu. ft.
Prince Edward Island	100	700	104	20	100	14	120	800	118
Nova Scotia	4,854	23,182	3,775	1,170	5,805	808	6,024	28,987	4,583
New Brunswick	5,657	48,070	6,863	3,944	15,737	2,359	9,601	63,807	9,222
Quebec	52,175	277,300	43,871	8,565	88,750	10,307	60,740	366,050	54,177
Ontario	23,620	251,175	34,560	9,640	105,820	12,163	33,260	356,995	46,724
Totals, Eastern Provinces	*86,406*	*600,427*	*89,173*	*23,339*	*216,212*	*25,651*	*109,745*	*816,639*	*114,824*
Manitoba	1,045	9,645	1,357	1,620	19,110	2,170	2,665	28,755	3,528
Saskatchewan	4,085	12,865	2,400	2,825	46,260	5,013	6,910	59,125	7,413
Alberta	7,000	74,400	10,238	2,080	36,000	3,876	9,080	110,400	14,113
Totals, Prairie Provinces	*12,130*	*96,910*	*13,995*	*6,525*	*101,370*	*11,059*	*18,655*	*198,280*	*25,054*
British Columbia	116,508	91,470	30,123	405	790	143	116,913	92,260	30,266
Totals, Accessible	**215,044**	**788,807**	**133,291**	**30,269**	**318,372**	**36,853**	**245,313**	**1,107,179**	**170,144**
Totals, Inaccessible	**171,673**	**503,268**	**88,785**	**8,264**	**136,192**	**14,727**	**179,937**	**639,460**	**103,512**
Grand Totals	**386,717**	**1,292,075**	**222,076**	**38,533**	**454,564**	**51,580**	**425,250**	**1,746,639**	**273,656**

Section 4.—Canadian Forest Resources: Their Relation to the War of 1914-18 and to the Present Effort.*

In few countries is there such a variety of useful woods as in Canada. Of over 130 distinct tree species there are at least 35 of commercial importance; this is more a matter of amounts available than of the physical properties of the woods. Such species include woods suitable for the manufacture of practically every important wood product. In fact, for the principal uses, such as construction, pulp and paper, and fuel, there are Canadian woods that meet all the requirements.

Fortunately, more than three-quarters of the accessible timber is of "softwood" or coniferous species which are in the greatest demand for industrial purposes in both the domestic and foreign markets. There are, however, considerable quantities of "hardwoods" or broad-leaved trees which are of high quality for flooring, furniture, and other products demanding strength, hardness, and attractive appearance. These hardwoods also make excellent fuel. The relative proportions of softwoods and hardwoods coincide very closely with the demands.

Canada's Resources in Timber—Depletion and Increment.

Timber Resources.—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, subalpine, 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 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 areas that have been either cut-over or burned-over or both.

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, fuel-wood, 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.

* Prepared under the direction of the Dominion Forester by R. D. Craig, Chief, Economics Division, Dominion Forest Service, Lands, Parks and Forests Branch, Department of Mines and Resources, Ottawa.

Depletion.—The forestry situation in Canada is now distinctly promising in spite of the profligate manner in which the timber resources have been, or for that matter are, in some cases, still being treated. Having fallen heir to an apparently inexhaustible supply of timber, it is but natural that Canadians should have exploited it with little thought of succeeding crops. The urge to clear the land for settlement engendered carelessness with fire, which, under control, is a useful agent but, as a rule, it was allowed to extend far beyond the areas to be cleared.

During the ten years 1928-37, the average annual cut of timber for domestic and industrial use was equivalent to about 2,580 million cu. ft. of standing timber. It is perhaps not generally recognized that the principal use is for fuel, about 33·5 p.c. of the annual cut being utilized for that purpose. This amounts to about eight-tenths of a cord per capita and is equivalent to approximately 6,500,000 tons of anthracite coal. About 30·6 p.c. is used for the manufacture of sawmill products, including lumber, lath, shingles, etc., and 30 p.c. goes into the manufacture of pulp and paper. The remaining 5·9 p.c. includes hewn ties, posts, rails, mining timber, poles, and numerous other products. Only about 9 p.c. of this timber is exported in raw or unmanufactured state and 91 p.c. is either used for domestic requirements or was further manufactured before export.

The average annual loss from fire during these ten years is placed at 325 million cu. ft. of merchantable timber and the equivalent of practically the same amount of young growth. The annual loss due to insects and disease is estimated roughly at 700 million cu. ft., making a total annual depletion of 3,930 million cu. ft. of standing timber.

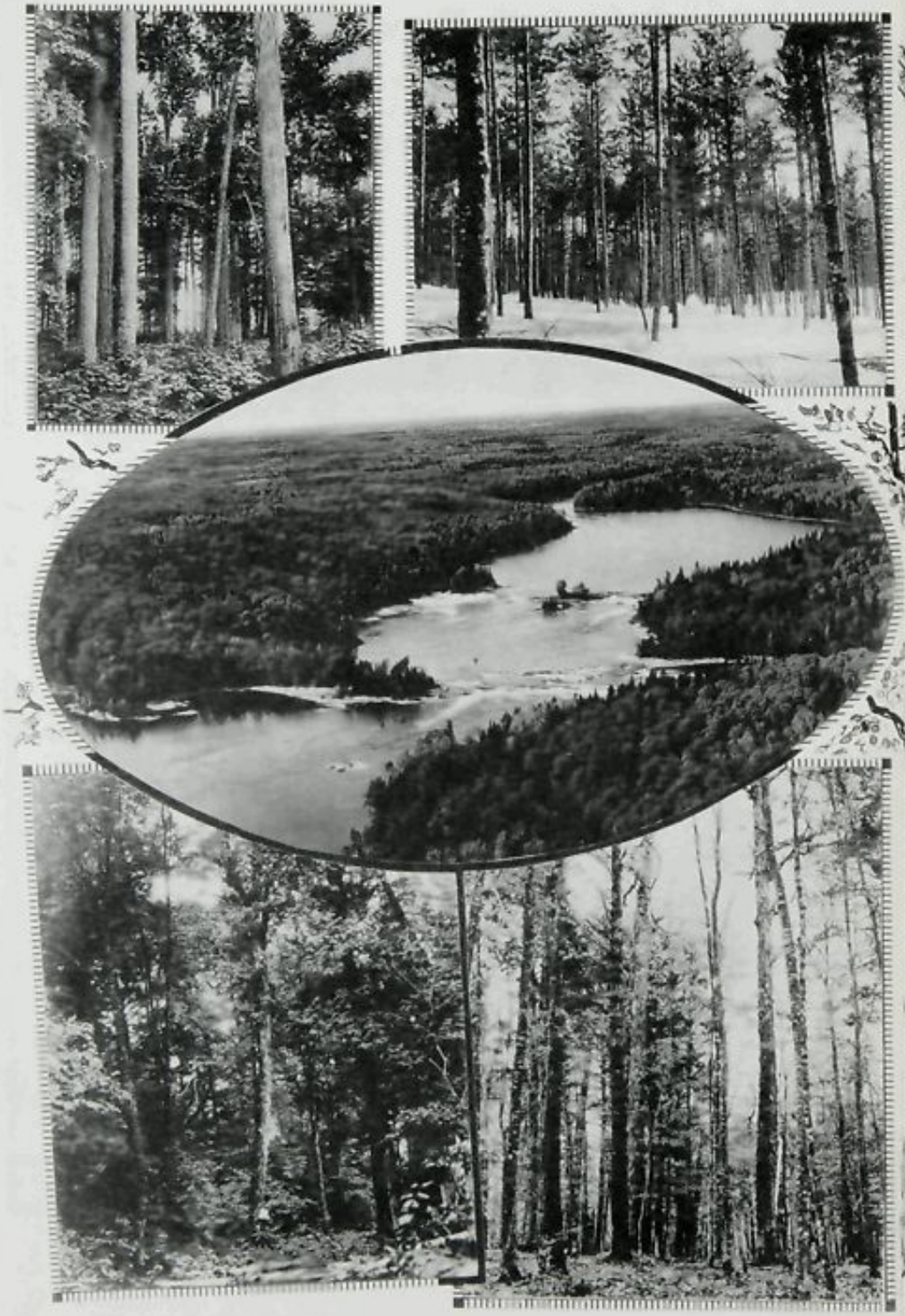
Increment.—The Dominion Forest Service and some of the provincial forest services and timber-owning companies have conducted investigations of increment and these indicate that, at least on the more favourable sites, the growth compares favourably with that secured in northern European countries, where an average of 25 cu. ft. or more per acre per annum is secured.

Investigations conducted in the various forest regions indicate that the natural reproduction of the principal species, both softwood and hardwood, is adequate to establish new stands, unless the forest has been subjected to very severe and repeated fires. Fire or the exclusive exploitation of one or more species may alter the composition of the stand temporarily and may cause local shortages of those species for a time, but natural reproduction can be depended on to replace them over a period provided seed trees are left. Artificial reforestation by seeding or planting has a definite, if limited, place in Canadian forestry in the rehabilitation of badly devastated areas, in the afforestation of lands mistakenly cleared for agriculture, and in the establishment and improvement of farmers' woodlots and shelterbelts.

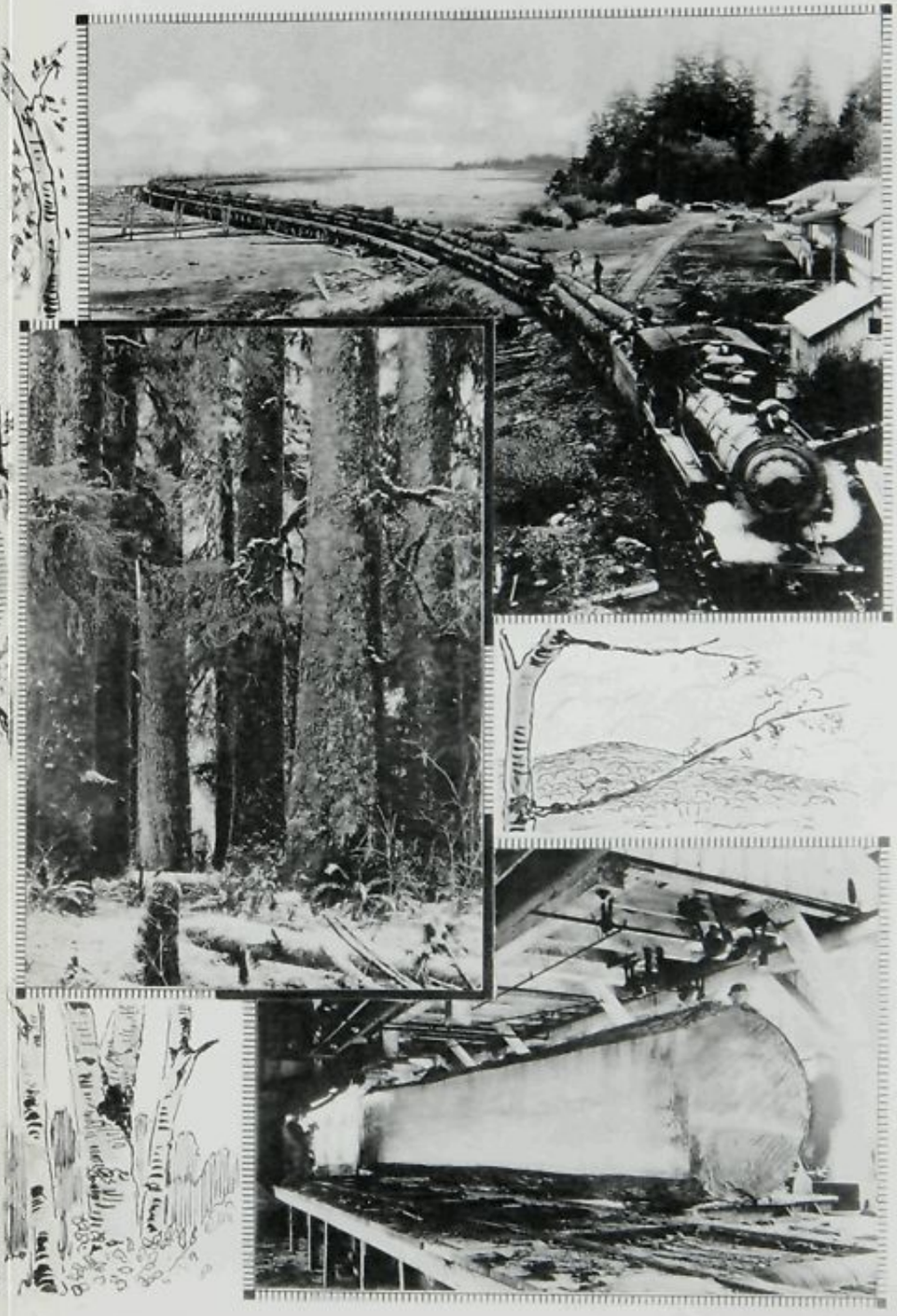
It would therefore appear that there is sufficient timber of merchantable size to maintain the present annual cut and a reasonable amount of depletion from other causes until sufficient young growth attains merchantable size to meet the requirements. However, it must be remembered that it is necessary to have supplies of the kind of timber that industries require, located where they can be cut and delivered to the manufacturing plants at a cost that will enable products to be sold at a profit in the markets of the world. Then, too, the timber should be distributed in succeeding age-classes so that there will be a continuous accretion of merchantable timber.

Canada's Forest Resources

Eastern Canada



British Columbia



CANADA'S FOREST RESOURCES

– Continued

Canada's Forest Resources

The layout on the opposite side of this insert, reading from left to right and downward for each section, shows:—

Eastern Canada.—(1) A Group of Sugar Maple in Ontario.—This species, also known as 'hard' or 'rock' maple, is abundant in Eastern Canada. It is used extensively for flooring, interior finish, veneer, plywood, and furniture and is also valued as the main source of maple syrup and sugar. (2) Young White Pine at the Petawawa Forest Experimental Station.—The original stand was logged about sixty-five years ago and was succeeded by dense reproduction. Thinning has stimulated the growth of the young trees. (3) Natural Reproduction of Spruce and Balsam Fir after Fire along the English River, Northern Ontario.—The conifers are now replacing the temporary poplar fire type. (4) Yellow Birch in the Ottawa Valley.—This is the most important hardwood in Canada from the standpoint of lumber production. It is used for flooring, interior finish, furniture, plywood, veneer, etc., and is abundant in the southern parts of Ontario and Quebec, and in the Maritime Provinces. (5) Hardwood Stand Typical of Eastern Canada Consisting of Maple, Birch, Beech, Basswood, and a few Pines and Hemlocks.

British Columbia.—(1) A Train-Load of Douglas Fir Logs at Courtenay, Vancouver Island, B.C.—From this point the logs are towed in rafts to the sawmills. (2) Sitka Spruce, Quatsino Sound, Vancouver Island, B.C.—This species produces the famous silver spruce, which is in such great demand for the construction of aircraft. (3) A Douglas Fir Log Being Sawn into Lumber for Export to the United Kingdom.—The high proportion of clear lumber secured from trees 300 to 400 years old will probably never be produced in succeeding stands.

The Layout to the left shows: (1) Logging Douglas Fir in British Columbia.—The size and weight of the logs requires heavy machinery for handling; they are being loaded on specially designed cars for transportation to the sea. (2) A Typical British Columbia Sawmill on the Fraser River near New Westminster. (3) Canadian Newsprint being Hauled Aboard a Freighter.—In 1939 Canada exported 2,658,689 tons of newsprint paper to forty-two principal countries. Canada supplies about two-thirds of the world exports of newsprint.

Courtesy: E. J. Zavitz, Provincial Forester, Ontario; Royal Canadian Air Force; Leonard Frank, Vancouver, B.C.; and Dominion Forest Service, Ottawa.

Influences Operating Toward a Sustained Yield Basis.—During the past two decades public education in fire prevention has made great progress and the efficiency of the fire control conducted by governmental and private protective organizations has increased to such an extent that annual losses from fire have been greatly reduced in spite of increasing hazards. That there is still room for great improvement in fire protection is evidenced by the fact that during the ten years, 1929-38, the records show that the average annual area of forest burned over amounted to 1,716,000 acres, including 551,000 acres of merchantable timber and 1,165,000 acres of young growth and cut-over land, involving the destruction of 833 million ft. b.m. of saw timber and over 2 million cords of other timber.

Another strong influence is the growing recognition of the importance of the young growth. Many stands of "second growth" which have come up after cutting or fire are now reaching merchantable size and are beginning to attract attention. Anticipating the need for practical guidance in the management of these accessible young forests, the Dominion Forest Service is devoting the major efforts of various forest experiment stations to the improvement of the quality and the acceleration of the growth of young stands that nature has established. Operators, too, are showing more interest in putting their operations on a self-sustaining basis and working plans are being developed with this in view.

Changes of great significance are taking place in the uses of wood which permit of the utilization of sizes and qualities that are unmerchantable for sawn lumber. The phenomenal development of the pulp and paper industry has provided a market for vast quantities of wood for which there was no demand twenty-five years ago and the development of the cellulose industry in the manufacture of rayon, cellophane, and numerous other products, is rapidly extending the use of wood. Plastic wood products, fibre board, and laminated wood will undoubtedly provide an increasing demand for these so-called "inferior" classes of wood so that more complete utilization of the forest resources and the elimination of much of the waste that now occurs can be expected. Though there may be a decrease in lumber production, owing partly to a decrease in high-grade timber and partly to the competition of other materials, there is every reason to expect that the demand for wood will be maintained if not increased.

Looking at the situation from a broad viewpoint, it may be said with confidence that with rational management there is no danger of an actual shortage of wood in Canada. There will undoubtedly be shortages in certain localities and of the higher grades of certain species such as will entail the readjustment of industry, but readjustments will come gradually and are, in fact, in progress.

Chief World Markets for Canadian Forest Products.

Though Canadian lumber, pulp, and paper are normally exported to a great many countries, the United States and the United Kingdom provide by far the most important markets for these products. On the basis of value, the United States has been taking 67 p.c. and the United Kingdom 18 p.c., but in recent years the exports to the United Kingdom have materially increased in both actual and relative value.

United Kingdom.

The United Kingdom is the greatest timber importing country in the world. Home-grown supplies are very limited and practically all the wood required for domestic use and for the great export trade must be imported.

The importance of wood in British economy, in war as in peace, is indicated by the promptness with which the Timber Control Board was established under the Ministry of Supply. This Board immediately took charge not only of the supplies in the British Isles but of the overseas purchases that had been made or were to be made.

The reasons for the establishment of the timber control are outlined by Mr. Russell Latham, Assistant Controller in Charge of Promotion of Economy in the Use of Timber, as follows:—

(1) The elimination of competition in those restricted markets that remain open as sources of supply.

(2) To enable any source of supply where timber operators show signs of exploiting the present emergency to be disregarded.

(3) The concentration upon imports of a type that are essential, as opposed to those that are not essential.

(4) To permit the regulation of expenditure of foreign exchange balances in accord with expediency.

The average annual imports of "Wood and Timber", classified under "Raw Materials and Articles mainly Unmanufactured" during 1934-38 amounted to the equivalent of 6,475 million ft. b.m. The imports of sawn wood, including box boards, averaged 4,964 million bd. ft.; and 151 million cu. ft. (which may be taken as equivalent to about 1,510 million bd. ft.) was imported in the form of hewn wood logs, pit-props, staves, poles, and veneers. Details are shown in the following statement:—

AVERAGE ANNUAL IMPORTS OF WOOD AND TIMBER, 1934-38.

	Equivalent in M ft. b.m.
SAWN—	
Softwood—	
Not further prepared	3,624,861
Planed	612,683
Box boards	164,201
Total Softwood	4,401,745
Hardwood—	
Not further prepared—	
Mahogany, walnut, oak and teak	183,744
All other sorts	258,900
Planed	119,292
Total Hardwood	561,936
TOTAL SAWN	4,963,681

	Equivalent in M cu. ft., Wood Content.
OTHER TIMBER—	
Hardwood, hewn	4,075
Softwood, round logs	12,735
Softwood, *n.e.s.*	3,373
Pit-props	106,872
Sleepers, including sleeper blocks	17,173
Staves	2,624
Telegraph poles	3,643
Veneers	575
TOTAL OTHER TIMBER	151,070

The value of this wood averaged £48,658,516, which, at the average prevailing rates of exchange, was equal to approximately $240,618,000.

Of the 4,402 million bd. ft. of softwood lumber and box boards, European countries supplied 76 p.c., Canada 18 p.c., United States 2 p.c., and other foreign countries, some of which may be European, 4 p.c. The United States supplied

46 p.c. of the 562 million bd. ft. of sawn hardwoods, Canada 15 p.c., India, Australia, and other British countries 10 p.c., Poland and Yugoslavia 13 p.c., Japan 4 p.c., and other foreign and unspecified countries 12 p.c.

In addition to the above, there were imports of large quantities of pulp and paper and of manufactured wood in the form of doors, plywood, furniture, etc., that cannot readily be expressed in wood volume.

In spite of the almost complete cessation of construction for civil purposes due to restrictions imposed by the War, war requirements for buildings, containers, aircraft, and other essential purposes will be greatly increased. The exporting industries, which the Government is making every effort to maintain as a means to establishing essential foreign credits, will require wood for containers.

Canada and the United States can with little difficulty, if required, supply all the lumber the United Kingdom needs. Canada's normal production is about 4,000 million bd. ft. During the past five years the exports varied from 1,430 million in 1935 to 2,212 million in 1939, averaging 1,844 million bd. ft., of which 992 million went to the United Kingdom. The sawmill capacity is adequate to provide the United Kingdom with at least double that amount if orders are secured sufficiently in advance to get the logs cut and delivered.

In 1929 the United States produced 35,800 million bd. ft. of lumber of which about 3,000 million was exported. During the depression production was reduced to 13,100 million in 1932 but it has increased steadily to 25,547 in 1939, but only 1,050 million was exported. It is, therefore, evident that the exports from that country can be materially increased.

Forest Products for which there will be a Substantial War Demand.—The situation in respect to three groups of forest products for which the normal channels of supply have been cut off, and which Canada is in a position to furnish, is reviewed below.

Pit-Props.—One of the most urgent demands of the United Kingdom at the present time is for pit-props. Normal imports amount to over 100 million cu. ft. About 70 p.c. has been coming from the Baltic countries, chiefly Finland, Russia, Latvia, and Sweden, and steps are now being taken to secure large quantities in Canada and Newfoundland.

Aircraft Wood.—The immense air programs of the British Empire and France call for large amounts of wood for aircraft construction, in spite of the increased use of metal for this purpose. The wood best suited for structural parts is Sitka spruce which grows on the Pacific Coast chiefly in Alaska, British Columbia, and Washington. Its light weight, strength, and resilience and the comparatively large proportion of clear straight-grained wood that can be secured from the large trees, usually 3 to 6 feet in diameter and 100 to 150 feet in height, make it of special value for this purpose. During the last year of the War of 1914-18, British Columbia supplied the Imperial Ministry of Munitions with 26,124 M ft. b.m., of Sitka spruce of aeroplane grade and 9,224 M ft. b.m., of high-grade Douglas fir for aeroplane construction. The high standard of quality required limits the selection to only a small proportion of the wood even in these large trees and, if the abnormal demands of war are to be met for a number of years, care must be taken to secure the maximum recovery of aircraft wood from the timber cut.

Yellow birch is being used extensively for aircraft largely in the form of plywood. The highest quality is required for this purpose also and though the supplies are large in the aggregate, they are scattered in mixed stands over considerable areas in Eastern Canada and a similar necessity for conservative utilization exists as in the case of Sitka spruce.

Pulp and Paper.—Practically all of the United Kingdom imports of wood-pulp, which, during 1934-38, averaged 2,298,000 short tons annually, came from European countries, mainly Finland, Sweden, Norway, Germany, Estonia, and Lithuania.

Imports of paper of all kinds averaged about 1,270,000 short tons of which 29 p.c. (mostly newsprint) came from British countries, and the remainder chiefly from European countries. Of the 462,700 short tons of newsprint in rolls, Newfoundland supplied 43 p.c. and Canada 29 p.c. The remaining 28 p.c. came mainly from Finland, Norway, and Sweden. Practically all of the 276,350 short tons of packing and wrapping paper originated in northern European countries. The Netherlands supplied over one-half of the paper and pulp boards of various kinds and Canada only 6 p.c.

As is indicated by the large amounts of wood-pulp imported, the United Kingdom manufactures a large proportion of the paper used. It is expected that, by curtailing consumption, the imports of paper can be considerably reduced, but with supplies from the principal sources cut off, it may be expected that more Canadian pulp and paper will be needed to meet requirements.

United States.

It is not expected that the War will affect materially Canada's exports of lumber to the United States since United States imports from Europe have been insignificant in recent years. During the five years 1935-39 total imports averaged 500 million ft. b.m. annually.

The situation is different, however, in regard to pulp and paper. During 1934-38 the United States imports of wood-pulp averaged 1,988,353 tons, of which only 29 p.c. came from Canada and 71 p.c. was supplied from Europe, mainly from Sweden, Finland, Norway, Germany, and Czechoslovakia. Canada provided 77 p.c. of the 195,636 tons of mechanical pulp and all of the 9,709 tons of soda pulp, but only 27 p.c. of the 1,167,741 tons of sulphite pulp and 15·5 p.c. of the 615,267 tons of sulphate pulp.

During 1934-38 United States imports of standard newsprint averaged 2,587,248 tons of which Canada supplied 87 p.c., Newfoundland 4 p.c., and European countries, chiefly Finland, Sweden, Norway, and Germany, 9 p.c. Sweden and Finland provided practically all of the 13,826 tons of wrapping paper imported.

Other Markets.

While the United Kingdom and the United States have, in the past, provided the principal markets for Canadian forest products, the trade with other British countries in which Canada enjoys preferential tariffs is of great, and in most cases, growing importance. Among these, Australia, New Zealand, South Africa, and the British West Indies may be mentioned particularly. Japan and China were both important buyers of Canadian lumber, pulp, and paper until war disrupted their trade. South America offers opportunities, especially for pulp and paper, that as yet have not been fully developed. In South Africa, South America, and

the Orient the northern European countries have been successful contenders in the trade in wood and wood products. Now that supplies from these sources are largely, if not wholly, cut off by the War, Canada may be in a position to extend her trade in these fields.

Effects of the War of 1914-18 on Prices of Forest Products.

The War of 1914-18 had little direct influence on the forest industries, though the pulp and paper industry at that time was experiencing rapid expansion. It did not cause any marked decrease in lumber production, though a minor depression occurred in 1916. The cut in British Columbia decreased during the years 1914 to 1916, but recovered in 1917. In the eastern provinces production was well maintained throughout the period of hostilities.

During the five years previous to 1914 the value of sawmill products exported to the United States was more than twice as much as that to the United Kingdom (60·4 p.c. and 28·3 p.c. of the total, respectively). In 1934-38, however, the positions were reversed: 43·9 p.c. went to the United Kingdom and 39·4 p.c. to the United States.

Though there was a distinct slump in the exports of sawmill products to the United Kingdom in 1918, the average annual value during the fiscal years 1915-19 was slightly greater than during the previous five-year period. The exports to the United States continued to increase during the War.

The average price of lumber, which had been between $15 and $20 per M ft. b.m. for the previous nine years, began to rise in 1917 and continued its upward trend until 1920, when it touched $39·10. After that a steady decline set in and the lowest point of $14·15 was reached in 1933. Since that time there has been a gradual increase in price to $20·67 in 1937.

The production of pulpwood, wood-pulp, and paper increased steadily from 1908 to 1920. Following a slump in 1921, it continued to increase up to 1929.

The average price of pulpwood increased steadily from $5·84 per cord in 1908 to a peak of $16·16 in 1921.

The price of chemical pulp remained fairly steady at from $38 to $39·50 per ton until 1916, when it jumped to $51 and in 1917 to $73. The peak of $114 was reached in 1920. In 1921 it fell to $68 and gradually decreased to less than $45 in 1933. Mechanical pulp followed a similar course.

The price of newsprint also rose sharply during the War culminating at $98·40 in 1921, followed by a consistent decline to $34·15 in 1935.

It is not evident that the War of 1914-18 had any direct effect on either the volume of production or the price of pulpwood, pulp, or paper, except that increased wages may have provided some excuse for raising prices. The demand for pulp and paper was increasing rapidly in the United States and a boom developed in Canada to meet, or anticipate, this demand. The consequences of this boom are still being felt by the industry and every precaution should be taken to avoid a recurrence of such a condition based on the temporary opportunities afforded by the present emergency.

Conclusion.

Since the outbreak of the present War in September, 1939, it has become increasingly evident that Canadian forests and forest industries will be depended upon to

supply not only the major part of the requirements of the United Kingdom for forest products, but also increasing amounts to other countries that have been securing supplies from the northern European countries. Exports from the countries on the Baltic Sea have been practically eliminated and the increased freight and insurance rates resulting from the indiscriminate submarine and mine warfare by Germany has seriously dislocated the trade even of those countries that have direct access to the Atlantic. Large quantities of lumber, pit-props, pulp, paper, and other wood products are normally exported from Finland, Sweden, Russia, Latvia, Estonia, and Lithuania not only to the United Kingdom and other European countries, but to the United States, South America, South Africa, Australia, and Asiatic countries.

It is evident that, in this War, material resources will play an even more vital part than in previous wars. It is fortunate, therefore, that Canada possesses such vast supplies of accessible timber and industries that are capable of expanding their production to meet a very considerable increase in the demand for forest products. It is fortunate too that Canadian seaports on both the Atlantic and the Pacific are open throughout the year and, with the convoy system in operation, overseas shipments can be made with comparative safety.

It is of vital importance to Canada that trade in forest products be maintained since it provides a greater favourable balance than the trade in any other class of products. In order that this may be accomplished, total depletion must be kept within the productive capacity of the forests. There is no reason why this cannot be done if the forests are managed on a rational basis.

The abnormal demands of the present conflict should not cause serious inroads on forest capital. The necessity for economy in use, the limitation of shipping space, and rigid control of prices should prevent anything in the nature of a boom developing.

Section 5.—Forest Administration.

Subsection 1.—Administration of Dominion and Provincial Timber-Lands.

In Canada the general policy of both the Dominion Government and the Provincial Governments has been to dispose of the timber by means of licences to cut, rather than to sell timber-land outright. Under this system the State retains ownership of the land and control of the cutting operations. Revenue is derived in the form of stumpage bonuses (either in lump sums or in payments made as the timber is cut), annual ground-rent, and royalty dues collected as and when the wood is removed. Both ground-rent and royalty dues may be adjusted at the discretion of the Governments so that the public may share in any increase in stumpage values, or reductions may be made in the rates if conditions demand them.

The Maritime Provinces did not adopt this policy to the same extent as did the rest of Canada. In Prince Edward Island practically all the forest land has been alienated and is in small holdings, chiefly farmers' woodlots. In Nova Scotia 87 p.c. of the forest land is privately owned; nearly half of this is in holdings exceeding 1,000 acres. In New Brunswick over 50 p.c. has been sold, and 20 p.c. is in holdings exceeding 1,000 acres. The percentage of privately owned forest land in the other provinces, exclusive of National Parks and Indian reserves, is as follows: Quebec, 8 p.c.; Ontario, 3·3 p.c.; Manitoba, 9·1 p.c.; Saskatchewan, 7·6 p.c.; Alberta, 7·7 p.c.; and British Columbia, 8·4 p.c. With the exception of relatively

small areas owned by the Dominion Government, the Crown lands and the timber on them are administered by the provinces in which they lie. As new regions are explored, their lands are examined and the agricultural land disposed of. Land suitable only for forest is set aside for timber production, and the policy of disposing of the title to lands fit only for the production of timber has been virtually abandoned in every province in Canada. The ownership of forests by towns and communities, so common in Europe, is now beginning in Canada. Efforts are being made, especially in Quebec and Ontario, to encourage the establishment and maintenance of forests on this basis.

FOREST RESERVES AND PARKS IN CANADA, 1940.

Province.	Under Dominion Administration.		Under Provincial Administration.	
	Dominion Forest Experiment Stations.	National Parks.	Provincial Forest Reserves.	Provincial Parks.
	sq. miles.	sq. miles.	sq. miles.	sq. miles.
Prince Edward Island	Nil	7·00	Nil	Nil
Nova Scotia	"	390·00	"	"
New Brunswick	35·00	0·10	92·18	"
Quebec	7·25	Nil	32,115·00	5,160·00
Ontario	97·10	11·69	19,606·00	4,248·00
Manitoba	35·95	1,148·04	3,775·14	Nil
Saskatchewan	Nil	1,869·00	10,222·70	1,146·38[1]
Alberta	62·60	7,262·20	14,315·76	2·27
British Columbia	Nil	1,715·00	28,400·00	8,133·93
Totals	237·90	12,403·03[2]	108,526·78	18,690·58[1]

[1] In addition, 532·82 sq. miles of Provincial Forest Reserves in Saskatchewan are administered under provincial park regulations. [2] Not including Wood Buffalo Park, comprising 17,300 sq. miles, which is partly in Alberta and partly in the Northwest Territories, and is administered by the Bureau of Northwest Territories and Yukon Affairs.

Forest Lands Under Dominion Control.—The forests under Dominion control are administered by the Department of Mines and Resources. The National Parks Bureau has charge of the National Parks, the Lands Registry Office administers the timber in Yukon and the Northwest Territories, and the Indian Affairs Branch administers, in trust for the Indians, the timber within their reservations. The Dominion Forest Service has charge of the Forest Experiment Stations.

Forest Lands Under Provincial Control.—*Nova Scotia.*—In this Province, 10,473 square miles, about 87 p.c. of the forest land, is privately owned. The Crown timber is administered by the Minister of Lands and Forests, with a Chief Forester in charge of protection, surveys, etc. Timber-cutting leases are granted by special agreements.

New Brunswick.—The Forest Service, under the Department of Lands and Mines, administers the forests in New Brunswick. At present timber-lands are disposed of as in the other provinces, but in the past several grants of forest land were made to railway companies, private concerns, and individuals, who now own in fee simple 11,159 square miles of forest land.

Quebec.—The Forest Service of the Department of Lands and Forests administers the timber-lands in Quebec. Its powers include classification of land, disposal of timber, and regulation of cutting operations. Since 1924 forest protection has been under a separate organization, the Forest Protective Service. Licences are granted after public competition and are renewable from year to year, subject to changes in royalty by the Government at any time. Grants of land in fee simple, made in some cases under the French *régime* in Quebec, are responsible for the private ownership of about 31,048 square miles of forest land. Forest reserves cover 32,115 square miles and provincial parks 5,160 square miles.

Ontario.—Forest administration is carried out in Ontario by the Department of Lands and Forests, under a Minister, Deputy Minister, and Provincial Forester. In recent years the sale of saw timber has been by tender after examination, with conditions covering the removal within a specified period, disposal of debris, etc. Much of the merchantable timber is at present held under licences granted in the past and renewable indefinitely. Pulpwood areas are usually disposed of by individual agreements for longer periods than in the case of saw timber. The licensees usually undertake to erect a pulp-mill or a paper-mill within the Province, the type and size of mill being stipulated in the agreement. In this Province about 7,972 square miles of forest land have been disposed of outright. Provincial forest reserves cover 19,606 square miles, and the provincial parks 4,248 square miles.

Manitoba.—The Forest Service of the Department of Mines and Natural Resources has administered the forests of Manitoba since 1930. A provincial air service is operated under the direction of the Provincial Forester, and is used mainly for purposes of forest fire protection. Six forest reserves, containing 3,775 square miles, are reserved permanently for the production of forest products. Timber is disposed of by licence or timber sale, and large numbers of timber-permits, covering small quantities of wood, are issued annually to settlers and others. One pulp and paper mill is in operation in the Province. The area of privately owned forest land is estimated to be 8,500 square miles.

Saskatchewan.—The forests of Saskatchewan are administered by the Department of Natural Resources. The organization is unique in Canada, because the different resources are not controlled by different branches of the Department. Instead, each field officer handles matters pertaining to all resources within his district. Forestry affairs of the Department are controlled by the Director of Forests. Timber disposal is carried out under licence, sale, and permit. An air service is maintained, mainly for forest protection purposes. Forest reserves occupy 10,223 square miles and provincial parks 1,146 square miles. Privately owned forest land is estimated to be 6,250 square miles.

Alberta.—The Forest Service of the Department of Lands and Mines administers and protects the provincial forests. Timber is disposed of through licences and permits except on forest reserves, where timber sales are disposed of but licensed berths are not. The area in forest reserves is 14,316 square miles, and 10,044 square miles of forest land are privately owned.

British Columbia.—In the Province of British Columbia, the Forest Branch of the Department of Lands has administered timber-lands since 1912. All unalienated lands in the Province that are found to be better suited to forest than to agricultural production are dedicated to the former purpose, and all timber-lands carrying over a specified quantity of timber are withdrawn from disposal until

examined by the Forest Branch. During the past few years 28,400 square miles have been set aside permanently for forest purposes. Provincial parks include 8,134 square miles. The present practice is to sell cutting rights for a stated period by public competition but licences to cut, which are renewable annually in perpetuity, have been granted for a large proportion of the accessible timber. The royalties are adjusted periodically on the basis of prevailing industrial conditions. About 15,000 square miles of timber-land are privately owned.

Subsection 2.—Forest Fire Protection.

The protection of forests from fire is undoubtedly the most urgent and most important part of the work of the different agencies administering forest lands in Canada. Except for the forests of the National Parks, the Forest Experiment Stations, and the Northwest Territories and Yukon, which remain under Dominion control, the administration of forest lands now rests with the provinces. Up to the end of the fire season of 1930, the Forest Service of the former Dominion Department of the Interior was responsible for fire protection in the prairie provinces of Manitoba, Saskatchewan, Alberta, and in the Railway Belt of British Columbia. However, by reason of the transfer of natural resources from Dominion to provincial control, their administration now rests with the provinces concerned.

Each of the Provincial Governments, except that of Prince Edward Island, maintains a fire protection organization co-operating with owners and licensees for the protection of all timbered areas, the cost being in part distributed or covered by special taxes on timber-lands. In each province, with the exception just mentioned, provincial legislation regulates the use of fire for clearing and other legitimate purposes, and provides for close seasons during dangerous periods. An interesting development in this connection in the Province of Quebec is the organization of a number of co-operative protective associations among lessees of timber-limits. These associations have their own staffs which co-operate with those of the Board of Railway Commissioners and the Provincial Government. The latter contributes money grants and also pays for the protection of vacant Crown lands lying within the area of the associations' activities.

In the matter of forest fire protection along railway lines, the provincial services are assisted by the Dominion Railway Act administered by the Board of Railway Commissioners. This Act gives to that body wide powers relating to fire protection along railway lines under its jurisdiction in Canada. Certain officers of the various forest authorities are appointed ex officio officers of the Board of Railway Commissioners. These officers co-operate with the railway fire-ranging staffs employed by the various railway companies, the compulsory control of all lines coming under the jurisdiction of the Board being one of the requirements of the Dominion Railway Act.

One of the most important single developments of recent years in forest fire protection has been the use of aircraft for the detection and suppression of incipient forest fires. Where lakes are numerous, flying boats can be used for detection and for the transportation of fire fighters and their equipment to fires in remote areas. Specially constructed aircraft equipped with wireless are employed on forest fire-protection operations; these enable the observer to report the location of a fire as soon as it has been detected. As a general rule, aircraft are used in the more remote districts, while lookout towers, connected by telephone lines or equipped with wireless, are established in the more settled and more travelled forest areas. While these agencies have to a large extent supplanted the old canoe, horseback, and foot

patrol for the detection of fires, a large ground staff with its equipment stored at strategic points will always be necessary for the fighting of larger fires. A ground staff is also necessary for the maintenance in the forest of fire lanes, fireguards, and systems of communication and transportation.

The most important improvement in forest fire-fighting equipment has been the portable gasoline pump. These pumps, each of which weighs from 45 to a little over 100 pounds, can be carried to a fire by canoe, motor-boat, automobile, aircraft, pack-saddle, or back-pack. They can deliver efficient water pressure as far as seven thousand feet from a water supply and, when used in relays, to a much greater distance. Small hand-pumps supplied by 5-gallon portable containers are also used effectively in many cases.

In addition to these improved measures, the enactment of legislation has tended to reduce the fire menace. The establishment of close seasons for brush-burning, and seasons during which permits are required for setting out fires and for travel in the forest during dangerous dry periods, have been of enormous value as preventive measures.

Since its beginning in 1900, the Canadian Forestry Association has played an important part in securing popular co-operation in reducing the fire hazard. By means of its magazine, which has a circulation of over 16,000, by railway lecture cars and motor trucks provided with motion-picture equipment, and by co-operation with radio broadcasting stations and the press, the Association reaches a large proportion of the population of the Dominion. Special efforts are made through the schools, by specially appointed junior forest wardens and other means, to educate the younger generation as to the value of the forests, the devastation caused by fire, and the means of preventing such destruction.

Prepared lectures illustrated by slides and films are distributed to volunteer lecturers and other educational work is carried on in schools and at public meetings. The various governmental forest authorities also carry on forest conservation publicity work independently and in co-operation with the Canadian Forestry Association.

Another important advance in forest protection is the development by the Dominion Forest Service of methods for the daily measurement of the actual degree of forest-fire hazard which is expressed in the form of an index computed from the weather factors. In the forest types and regions in which the necessary research has been completed the forest authorities are able, not only to gauge the trend of increasing hazard at any given time but, by the aid of weather forecasts, to anticipate the trend one or two days in advance and so regulate their activities to meet hazardous conditions as they develop.

Subsection 3.—Scientific Forestry.

Up to the present, the practice of forestry in Canada has consisted chiefly in the administration and protection of existing forest areas. About 35 square miles is now being planted out annually, largely in connection with farmers' woodlots, shelter-belts, and reclamation work, while several commercial reforestation projects have been carried on by paper companies and by Provincial Governments on denuded Crown lands. The great forestry problem, however, is the management of Crown forests, first under provisional and later under more intensive working plans, so as to ensure a sustained yield. To this end, forest research activities are now assuming great importance. A special article on scientific and industrial research including information on forestry research appears in Chapter XXV.

About 400 technically trained foresters are employed by the Dominion or provincial forest services or by paper and lumber companies. A considerable number of foresters are actively engaged in commercial logging operations. In addition to administrative work, these men carry on forest surveys either for the estimation of timber-stands and making of maps, or to determine natural growth and reproduction conditions and factors. An outstanding development of recent years has been the extensive use of aerial photography for forest surveys. With the co-operation of the Royal Canadian Air Force and the Topographical Survey, the Dominion Forest Service has taken a leading part in the development of means for the interpretation of the photographs for forestry purposes, but most of the provincial forest services and many of the timber-owning companies make extensive use of aerial photographs. It is now possible not only to map the areas covered by the various forest types but to estimate the volume of standing timber with an accuracy that compares favourably with ground surveys. Over 950,000 square miles have now been photographed in Canada and of this area forest maps have been prepared for 110,000 square miles.

Section 6.—Forest Utilization.

Certain aspects of forest utilization are dealt with in Section 4 appearing at pp. 251-258—"Canadian Forest Resources: Their Relation to the War of 1914-18 and to the Present Effort".

Subsection 1.—Woods Operations.

Differences in forest conditions throughout Canada give rise to differences in logging methods. Generally speaking, throughout Eastern Canada the climate is such that the cutting and hauling of logs can be carried on most economically during the fall and winter months. The trees are felled and the logs hauled to the nearest stream or lake, where they are piled on the ice or sloping banks. The presence of connected systems of lakes and streams makes it possible in most cases to float the logs from the forest to the mill at a minimum cost during the annual spring freshets. The logging industry east of the Rocky Mountains is, therefore, almost entirely seasonal. In many cases lumbermen co-operate in river-driving operations and improvement companies, financed by the logging operators, build river improvements to facilitate the passage of the floating logs, the logs being finally sorted and delivered to their respective owners. In British Columbia the scarcity of drivable streams and the greater average size of the logs give rise to entirely different logging methods. Logs are assembled by cable systems operated by donkey engines and are transported to the mills or to water chiefly by logging railways but in many cases by motor trucks. These operations are more or less independent of frost, snow, or freshet and are carried on in most cases 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. In the better-settled parts of the country a considerable quantity of lumber is sawn by custom sawmills or small mills purchasing logs from the farmers. Unmanufactured pulpwood, poles, ties, and other forest products have a market value but sawlogs, being as a rule the property of the mill owner, are not generally marketed as such in Eastern Canada. 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 entire supplies of raw material from logging concerns.

In connection with operations in the woods it should be borne in mind that the forests not only provide the raw material for the sawmills, pulp-mills, wood distillation, charcoal, excelsior, and other plants but that they also provide logs, pulpwood, and bolts for export in the unmanufactured state, and fuel, poles, railway ties, posts and fence-rails, mining timber, piling, and other primary products, which are finished in the woods ready for use or exportation. There are also a number of minor forest products, such as Christmas trees, maple sugar and syrup, balsam gum, resin, cascara, moss, and tanbark, which all go to swell the total.

The exports and imports of forest products in the fiscal years ended Mar. 31, 1936-39, are shown in Tables **12** and **13** of the chapter on External Trade.

2.—Values of Woods Operations, by Products, 1933-37.[1]

Product.	1933.	1934.	1935.	1936.	1937.
	$	$	$	$	$
Logs and bolts	23,158,381	29,115,515	34,077,938	44,827,957	58,004,070
Pulpwood	33,213,973	38,302,807	41,195,871	48,680,200	63,057,205
Firewood	31,141,104	31,489,524	31,864,500	32,167,410	32,457,629
Hewn railway ties	1,370,750	1,541,901	3,188,651	3,190,052	3,129,207
Poles	963,951	1,091,046	1,359,736	1,563,681	2,455,345
Round mining timber	841,982	954,059	997,357	1,102,255	1,262,658
Fence-posts	969,291	988,884	976,402	1,008,178	992,610
Wood for distillation	342,107	286,847	274,797	274,077	309,892
Fence-rails	215,521	262,519	266,253	273,282	262,160
Miscellaneous products	1,556,082	1,506,630	1,260,274	1,717,136	1,319,111
Totals	**93,773,142**	**105,539,732**	**115,461,779**	**134,804,228**	**163,249,887**

[1]The total value of woods operations in 1938 was $148,265,857.

It has been estimated that operations in the woods in Canada in 1937 involved the investment of over $200,000,000, gave employment for a part of the year equivalent to 100,000 man-years, and distributed over $60,000,000 in wages and salaries. In estimating the annual drain on our forest resources, certain converting factors have been used. Each of these factors represents in cubic feet the quantity of standing timber that must be cut in the forest to produce one unit of the material in question, based on the total cubic contents of the tree.

3.—Quantities of Wood Cut in Operations in the Woods in Canada, Equivalents in Standing Timber, and Total Values, by Chief Products, 1937, with Comparative Totals, 1927-36.[1]

Product.	Quantity Reported or Estimated.	Converting Factor.	Equivalent Volume in Standing Timber.	Total Value.
			'000 cu. ft.	$
Totals, 1927	-	-	**2,865,303**	**204,937,750**
Totals, 1928		-	**2,988,038**	**212,950,799**
Totals, 1929		-	**3,090,615**	**219,570,129**
Totals, 1930	-	-	**3,056,930**	**206,853,494**
Totals, 1931	-	-	**2,306,144**	**141,123,930**
Totals, 1932	-	-	**1,882,228**	**92,106,252**
Totals, 1933	-	-	**2,027,714**	**93,773,142**
Totals, 1934	-	-	**2,299,547**	**105,539,732**
Totals, 1935	-	-	**2,440,809**	**115,461,779**
Totals, 1936	-	-	**2,702,766**	**134,804,228**
1937.				
Logs and bolts	M ft. b.m.	219	1,005,955	58,004,070
Pulpwood	cord	117	970,885	63,057,205
Firewood	"	95	850,301	32,457,629
Hewn ties	No.	12	72,212	3,129,207
Poles	"	13	8,855	2,455,345
Round mining timber	cu. ft.	1·3	8,844	1,262,658
Posts	No.	2	28,646	992,610
Wood for distillation	cord	123	7,728	309,892
Fence-rails	No.	3	14,514	262,160
Miscellaneous products	cord	-	28,693	1,319,111
Totals, 1937	-	-	**2,996,633**	**163,249,887**

[1]See footnote to Table **2**.

4.—Equivalent Volumes of Standing Timber Cut in Canada and Values of Products of Woods Operations, by Provinces, 1936 and 1937.[1]

Province.	Equivalent Volumes in Standing Timber.		Values of Products.	
	1936.	1937.	1936.	1937.
	'000 cu. ft.	'000 cu. ft.	$	$
Prince Edward Island	12,550	12,882	520,483	548,074
Nova Scotia	121,446	137,823	6,199,647	7,399,065
New Brunswick	161,560	217,098	8,848,883	13,157,666
Quebec	931,505	1,050,087	47,417,044	58,577,529
Ontario	558,792	629,826	31,570,806	37,668,861
Manitoba	67,224	73,897	2,426,001	2,812,234
Saskatchewan	77,267	79,627	2,038,647	2,099,475
Alberta	101,474	105,646	3,048,013	3,196,988
British Columbia	670,948	689,747	32,734,704	37,789,995
Totals	**2,702,766**	**2,996,633**	**134,804,228**	**163,249,887**

[1]See footnote to Table 2.

Subsection 2.—The Pulp and Paper Industry.

The manufacture of pulp and paper is a comparatively recent development in Canadian industry. Paper was first manufactured in Canada about a hundred years ago but prior to 1860 no wood-pulp was used or produced. Rags, straw, esparto grass, cotton waste, and other substances were the raw materials used. The first paper-mill was established at St. Andrews in Quebec (then Lower Canada) in 1803 by United States citizens who obtained concessions from the seigneurs. Upper Canada's first mill, which is still in operation, was built in 1813 at Crook's Hollow (now Greensville) near Hamilton, and the Maritime Provinces entered the industry in 1819 with a mill at Bedford Basin near Halifax.

In 1866, Alexander Buntin installed at Valleyfield, Que., what is claimed to have been the first wood-grinder in America and began the manufacture of wood-pulp by the mechanical process. During the same year Angus Logan and Co. built the first chemical wood-pulp mill in Canada at Windsor Mills in Quebec. During the next decade the use of wood-pulp in paper-making was extensively developed and in 1887 Charles Riordon installed the first sulphite mill in Canada at Merritton in the Niagara Peninsula; by the beginning of the century the output of the industry had exceeded $8,000,000. In 1907 the Brompton Pulp and Paper Co. built, at East Angus in Quebec, the first mill in America to manufacture chemical pulp by the sulphate or kraft process.

The gross output of the industry increased rapidly and steadily until the boom years following the War of 1914-18, when it jumped to a peak of over $232,000,000 in 1920. This was followed by a drop in 1921, after which there was a steady recovery, resulting in a second peak in 1929 of $243,970,761. This was followed by annual decreases down to 1933 and annual increases up to 1937, with a decrease in 1938.

The rapid development of this industry up to 1929 was due chiefly to the existence in Canada of abundant water powers adjacent to extensive forest resources of pulpwood species and an increasing demand for newsprint paper in the United States. Summary statistics for the combined pulp and paper industry are given at pp. 272-281.

There are to-day three classes of mills in the industry. These, in 1938, numbered 27 mills making pulp only, 48 combined pulp and paper mills, and 24 mills making paper only.

The industry in Canada includes three forms of industrial activity, the operations in the woods with pulpwood as a product, the manufacture of pulp, and the manufacture of paper. These three stages cannot be treated as entirely distinct nor can they be separated from the different stages of the lumber industry. Some of the important pulp companies operate sawmills to utilize the larger timber on their limits to the best advantage, and many lumber manufacturers divert a proportion of their spruce and balsam logs to pulp-mills. So far as operations in the woods are concerned, it is often impossible to state whether the timber being cut will eventually be made into lumber or into pulpwood.

On account of legislation already referred to, pulpwood cut on Crown lands must, in every province, be manufactured into pulp in Canadian pulp-mills except under special permit. The pulpwood that is exported to the United States, therefore, is cut largely from private lands. Table 5 shows the annual production of this commodity from 1931 to 1938, together with the quantities used by Canadian pulp-mills and the quantities exported and imported.

In 1908 almost two-thirds of the pulpwood cut in Canada was exported in the raw or unmanufactured form, but by 1916 the proportion had declined to two-fifths, and is now even less.

5.—Production, Consumption, Exports, and Imports of Pulpwood, 1931-38.

NOTE.—Figures for earlier years will be found in the corresponding table of previous Year Books.

Year.	Apparent Total Production of Pulpwood in Canada.			Canadian Pulpwood Used in Canadian Pulp-Mills.		Canadian Pulpwood Exported Unmanufactured.[1]		Imported Pulpwood Used in Canada.	
	Quantity.	Total Value.	Average Value per Cord.	Quantity.	P.C. of Total Production.	Quantity.	P.C. of Total Production.	Quantity.	P.C. of Total Production.
	cords.	$	$	cords.		cords.		cords.	
1931....	5,046,291	51,973,243	10·30	4,088,988	81·0	957,303	19·0	59,291	1·4
1932....	4,222,224	36,750,910	8·70	3,602,100	85·3	620,124	14·7	45,654	1·1
1933....	4,746,383	33,213,973	7·00	4,027,827	84·9	718,556	15·1	17,049	0·4
1934....	5,773,970	38,302,807	6·63	4,752,685	82·3	1,021,285	17·7	13,919	0·2
1935....	6,095,016	41,195,871	6·76	4,985,143	81·8	1,109,873	18·2	19,940	0·3
1936....	7,002,057	48,680,200	6·95	5,766,303	82·3	1,235,754	17·6	9,591	0·1
1937....	8,298,165	63,057,205	7·60	6,593,134	79·5	1,705,031	20·5	20,505	0·2
1938....	6,306,747	53,761,999	8·52	4,554,488	72·2	1,752,259	27·8	33,668	0·5

[1]Exports of pulpwood in the calendar year 1939 were 1,539,441 cords.

The manufacture of pulp is the second stage in this industry. This is carried on by mills producing pulp alone and also by paper manufacturers operating pulp-mills in conjunction with paper-mills to provide their own raw material. Such mills usually manufacture a surplus of pulp for sale in Canada or for export.

The supply of rags for paper-making is distinctly limited and the material too expensive for the manufacture of cheap paper. Early paper-makers experimented with fibres from the stems, leaves, and other parts of numerous annual plants, but the small proportion of paper-making material recoverable from such sources led to

experiments in the use of wood. Different species were tried, and finally spruce and balsam fir were found to be the most suitable for the production of all but the best classes of paper.

The preliminary preparation of pulpwood is frequently carried on at the pulp-mill, but there are in Canada a number of 'cutting-up' and 'rossing' mills operating on an independent basis, chiefly for the purpose of saving freight on material cut at a distance from the mill or on material intended for exportation. Pulpwood is measured by the cord (4′ by 4′ by 8′ of piled material), which is approximately equivalent to 500 feet board measure or to 90 cubic feet of solid wood.

There are, in Canada, four methods of preparing wood-pulp, one of which is mechanical and three chemical. Detailed descriptions of these processes are given in the 1931 Year Book, pp. 290-291.

Pulp Production.—Growth was steady up to 1920, when 1,960,102 tons of pulp were produced. There was a drop in production in 1921, but production in 1922, at 2,150,251 tons, more than overtook the previous year's drop. Following this, with the exception of 1924, each year up to 1929 showed consistent growth in the annual production, 1929 creating a record for the industry with a production of 4,021,229 tons. This was followed by annual decreases down to 1932 since when steady increases were recorded, resulting, in 1937, in a new record of 5,141,504 tons, but production in 1938 fell off by almost 30 p.c.

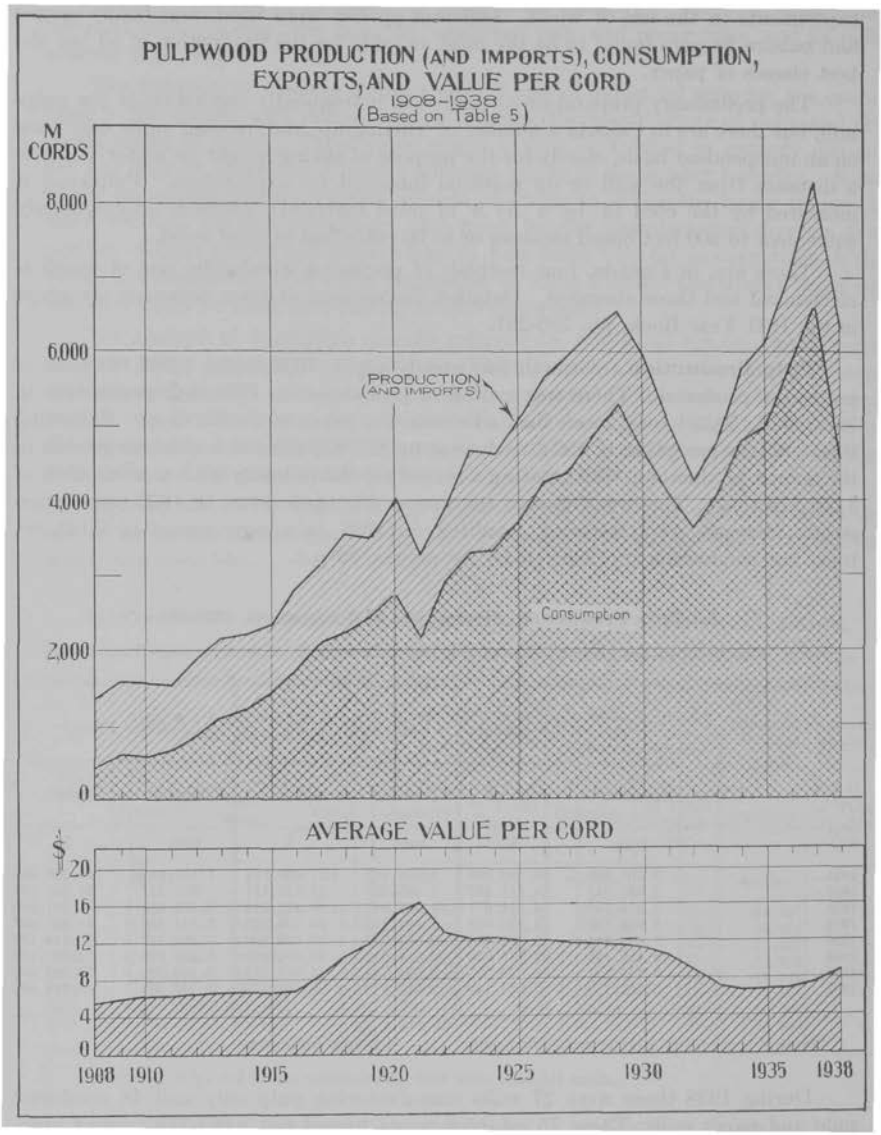
6.—Pulp Production, Mechanical and Chemical, 1931-38.

NOTE.—Figures for earlier years will be found in the corresponding table of previous Year Books.

Year.	Total Production.[1]		Mechanical Pulp.[2]		Chemical Fibre.[2]	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	tons.	$	tons.	$	tons.	$
1931	3,167,960	84,780,809	2,016,480	37,096,768	1,151,480	46,998,988
1932	2,663,248	64,412,453	1,696,021	28,018,451	967,227	35,987,294
1933	2,979,562	64,114,074	1,859,049	25,332,444	1,120,513	38,781,630
1934	3,636,335	75,726,958	2,394,765	30,875,323	1,241,570	44,851,635
1935	3,868,341	79,722,039	2,563,711	32,323,820	1,283,743	46,444,144
1936	4,485,445	92,336,953	2,984,282	38,674,492	1,480,925	52,701,156
1937	5,141,504	116,729,228	3,384,744	46,663,759	1,756,760	70,065,469
1938	3,667,789	87,897,148	2,520,738	39,707,479	1,147,051	48,189,669

[1]Some of these totals include unspecified pulp. [2]Includes screenings.

During 1938 there were 27 mills manufacturing pulp only and 48 combined pulp and paper mills. These 75 establishments turned out 3,667,789 tons of pulp, valued at $87,897,148, as compared with 5,141,504 tons of pulp, valued at $116,729,228 in 1937. Of the 1938 total for pulp, 2,956,028 tons, valued at $56,096,765, were made in the combined pulp and paper mills for their own use in manufacturing paper. Of the remainder, 142,696 tons, valued at $5,896,616, were made for sale in Canada, while 569,065 tons, valued at $25,903,767 were made for export. As in the case of pulpwood, a part of the product at this stage of the industry provides raw material for the later stages, while the remainder has a definite market value as pulp.



Over 67 p.c. of the production in 1938 was groundwood pulp and almost 16 p.c. unbleached sulphite fibre, these two being the principal components of newsprint paper. Bleached sulphite, bleached and unbleached sulphate, soda fibre and groundwood and chemical screenings made up the remainder. A considerable market has developed for the latter in recent years in connection with the manufacture of rigid insulating boards.

7.—Production of Wood-Pulp in Canada, by Chief Producing Provinces, 1933-38.

NOTE.—Figures for earlier years will be found in the corresponding table of previous Year Books.

Year.	Quebec.		Ontario.		Canada.[1]	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	tons.	$	tons.	$	tons.	$
1933	1,360,704	29,860,706	867,417	18,644,259	2,979,562	64,114,074
1934	1,813,096	36,837,402	999,935	21,000,769	3,636,335	75,726,958
1935	1,916,382	38,235,076	1,087,742	22,866,369	3,868,341	79,722,039
1936	2,236,376	44,071,292	1,257,060	27,005,484	4,485,445	92,336,953
1937	2,551,546	55,277,014	1,466,555	33,964,784	5,141,504	116,729,228
1938	1,858,971	44,220,224	1,057,984	25,821,023	3,667,789	87,897,148

[1]Includes production in British Columbia, Manitoba, New Brunswick, and Nova Scotia.

Pulp Exportation.—The following table gives the quantities of pulp exported by the principal pulp-producing countries of the world in 1938. Figures for 1913, the year immediately preceding the War of 1914-18, and for 1937 are shown for comparison. Figures of the exports of wood-pulp from Canada in the fiscal years ended Mar. 31, 1936-39, will be found in Table 12 of the chapter on External Trade. In the calendar year 1939 the exports of wood-pulp from Canada were 705,515 tons. The total exports of the ten principal pulp-exporting countries of the world in 1938 were 5,558,145 short tons, of which Canada contributed almost 10 p.c.

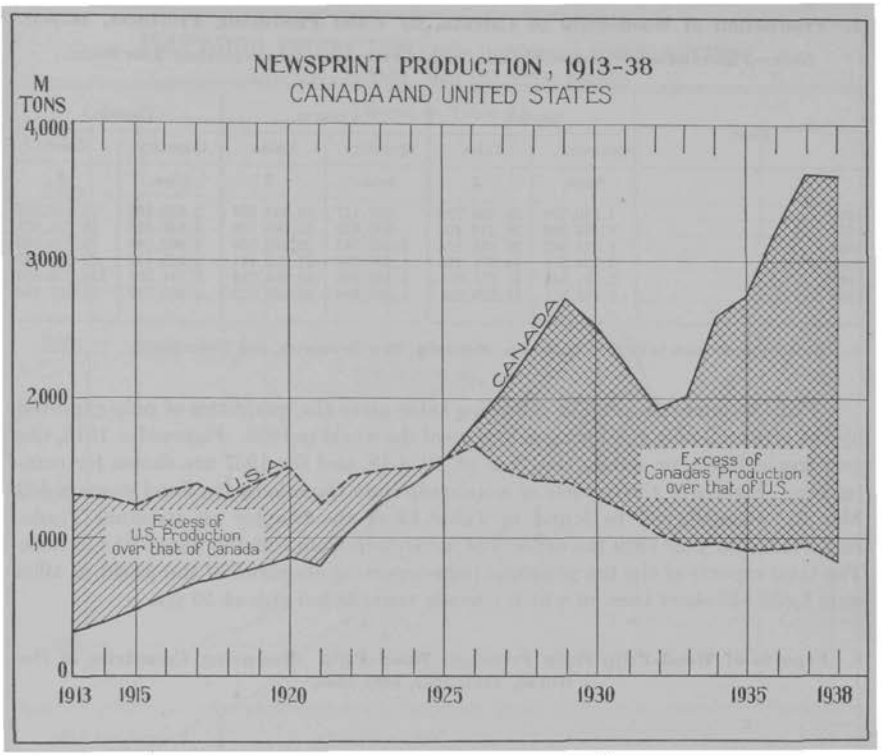
8.—Exports of Wood-Pulp from Principal Wood-Pulp Producing Countries of the World, 1913, 1937, and 1938.

Country.	Totals, Exports.			Proportions, 1938.	
	1913.	1937.	1938.	Chemical.	Mechanical.
	tons.	tons.	tons.	tons.	tons.
Norway	779,025	1,072,278	~~8,571,710~~	299,343	558,367
Sweden	1,112,313	3,232,161	2,528,489	1,905,678	622,811
Finland	132,674	1,620,295	1,373,448	1,125,917	247,531
Canada	**298,169**	**870,716**	**554,037**	**419,793**	**134,244**
United States	19,776	302,051	140,484	126,967	13,517
Germany	206,042	183,450	81,952	81,702	250
Austria	112,714	205,296	13,284	12,187	1,097
Switzerland	7,328	7,881	6,639	5,706	933
Poland	Nil	2,735	2,102	2,102	Nil
Czechoslovakia	23,935	149,787	[1]	–	

[1]Not available.

Paper Production.—The paper-making stage of the industry involves the consumption of wood-pulp and other paper stock in the manufacture of paper and other pulp products.

During 1938 there were 48 combined pulp and paper mills and 24 mills making paper only. These 72 establishments produced 3,249,358 tons of paper, with a total value of $151,650,065, as compared to 4,345,361 tons, valued at $175,885,423 in 1937. Newsprint paper now forms 82 p.c. of the annual paper production in Canada. In 1938, the production was 2,668,913 tons, valued at $107,051,202, a reduction of 27·4 p.c. in tonnage and 15·3 p.c. in value. The preliminary estimate for 1939 is 2,869,266 tons.



9.—Paper Production in Canada, 1931-38.

NOTE.—Figures for earlier years will be found in the corresponding table of previous Year Books.

Year.	Newsprint Paper.		Book and Writing Paper.		Wrapping Paper.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	tons.	$	tons.	$	tons.	$
1931	2,227,052	111,419,637	59,580	10,154,171	77,194	7,479,993
1932	1,919,205	85,539,852	56,781	8,687,895	69,018	6,289,293
1933	2,021,965	66,959,501	60,683	8,927,408	67,780	6,441,695
1934	2,604,973	86,811,460	64,991	9,681,536	79,779	7,740,823
1935	2,765,444	91,762,201	70,350	10,440,789	82,517	7,956,783
1936	3,225,386	105,214,533	74,940	10,866,346	95,916	8,761,356
1937	3,673,886	126,424,303	84,168	12,620,507	108,734	10,237,823
1938	2,668,913	107,051,202	73,975	11,112,042	90,879	9,069,298

Year.	Boards.		Tissue and Miscellaneous Paper.		Totals, Paper.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	tons.	$	tons.	$	tons.	$
1931	202,854	10,225,732	44,545	4,350,356	2,611,225	143,957,264[1]
1932	209,938	9,621,041	35,825	3,735,042	2,290,767	114,115,570[1]
1933	232,190	10,598,439	36,802	3,762,832	2,419,420	96,689,875
1934	280,724	13,351,475	39,049	3,306,931	3,069,516	120,892,225
1935	314,849	15,051,893	47,736	3,866,720	3,280,896	129,078,386
1936	363,778	17,531,451	47,309	4,058,248	3,807,329	147,854,652[1]
1937	422,710	21,719,730	55,863	4,883,060	4,345,361	175,885,423
1938	356,891	19,288,172	58,700	5,129,351	3,249,358	151,650,065

[1]Includes some unspecified paper products.

Newsprint made up about 82·1 p.c. of the total paper production in 1938, with about 11 p.c. of paper boards, 2·8 p.c. of wrapping paper, 2·3 p.c. of book and writing paper, and about 1·8 p.c. of tissue and miscellaneous papers.

10.—Production of Paper in Canada, by Provinces, 1938.

Province.	Quantity.	Value.
	tons.	$
Quebec	1,635,317	74,533,867
Ontario	1,051,113	52,282,508
British Columbia	222,305	10,105,788
Nova Scotia, New Brunswick, and Manitoba	340,623	14,727,902
Totals	**3,249,358**	**151,650,065**

Quebec produced 50·3 p.c. of the total quantity, Ontario 32·4 p.c., British Columbia 6·8 p.c., and Nova Scotia and New Brunswick the remaining 10·5 p.c.

World Production of Newsprint.—The world production of newsprint in 1938 has been estimated at 7,555,000 short tons, of which North America supplied 49 p.c. and Canada alone about 35 p.c.

11.—Estimated Quantities of Newsprint Produced in Leading Producing Countries, 1937 and 1938, and the Eleven-Year Averages, 1928-38.

NOTE.—Countries in order of importance according to the 1938 production.

Country.	Production.		Eleven-Year Average.	Country.	Production.		Eleven-Year Average.
	1937.	1938.			1937.	1938.	
	'000 short tons.	'000 short tons.	'000 short tons.		'000 short tons.	'000 short tons.	'000 short tons.
Canada	**3,645**[1]	**2,625**[1]	2,598	Russia	192	234	139
Great Britain	1,033	954	830	Norway	212	188	182
United States	946	820	1,069	Netherlands	97	105	90
Germany	521	512	513	Italy	66	77	67
Finland	459	457	309	Austria	62	55	57
Japan	413	429	328	Czechoslovakia	54	48	44
France	424	347	296	Switzerland	50	46	45
Sweden	303	278	270	Belgium	57	39	48
Newfoundland	353	268	292	Poland	44	37	29

[1]A slight difference in classification accounts for the difference between these figures and those shown in Table 9.

Exportation of Newsprint Paper.—In the fiscal year 1908, exports of printing paper were recorded separately for the first time, and valued at $2,833,535. In the fiscal year 1913, when quantities were first shown, Canada exported 146,792 short tons valued at $5,692,126. For the fiscal year ended Mar. 31, 1939, exports of newsprint amounted to 2,475,399 tons valued at $107,360,211 and ranked first among the exports of the Dominion. For exports of newsprint and other paper in the fiscal years ended Mar. 31, 1936-39, see Table 12 of the chapter on External Trade.

As early as 1913 Canada led the world with an exportation of 256,661 tons of newsprint. Her exports are now more than nine times that quantity. The following table shows the exportation of newsprint from the 12 principal exporting countries

in the calendar years 1913, 1936, 1937, and 1938. In 1938 Canada contributed to the total almost twice as much as the other 11 countries combined. Canada's exports of newsprint paper for the calendar year 1939 were 2,658,722 tons.

12.—Exports of Newsprint Paper from Principal Paper-Producing Countries of the World, 1913 and 1936-38.

NOTE.—Countries arranged in order of importance of exports, 1938.

Country.	1913.	1936.	1937.	1938.
	short tons.	short tons.	short tons.	short tons.
Canada	**256,661**	**2,993,089**	**3,455,210**	**2,424,655**
Finland	77,213	377,032	421,503	394,550
Newfoundland	49,755	312,879	298,406	323,724
Sweden	67,938	198,503	222,851	178,256
Norway	108,507	170,556	195,403	166,058
Germany	75,761	183,921	217,951	145,507
United Kingdom	105,153	86,182	63,472	63,025
Austria	14,855	41,769	61,991	52,664
Japan	3,270	40,203	40,811	44,961
Netherlands	–	10,093	11,928	7,692
United States	43,301	14,573	17,044	5,645
Czechoslovakia	–	8,663	10,597	[1]

[1] Not available.

Statistics of the Combined Pulp and Paper Industries.*—The manufacture of pulp, the manufacture of paper, and the manufacture of products made of paper may, under certain conditions, be treated as three industries for they are frequently carried on in separate plants by entirely independent companies. For some time, however, it has been the practice of many Canadian concerns to combine the manufacture of pulp and paper in one complete establishment. In more recent years there has been a further tendency to combine in one plant the manufacture of basic stock and the converting of this paper into towels, stationery, and other highly processed paper products. In some cases, what might otherwise be considered as three distinct industries are carried on in one plant as three steps in the production of the finished paper article. This further converting of paper within the pulp and paper industry itself represents only a small part of Canada's production of converted paper and boards, the bulk of which is still made in special converting mills classified in other industrial groups.

The presence of these different combinations in one mill makes it difficult to separate many of the statistics relating to the manufacture of pulp, basic paper, and converted paper products. All converting operations carried on in paper mills in this industry are now attributed to the particular industrial group of converting plants to which they properly belong. The 1937 and 1938 figures, therefore, exclude all information pertaining to paper converting, which tends to lower perceptibly all the principal statistics of the pulp and paper industry and to render these figures not strictly comparable with those of previous years. Including manufacturing operations as far as the basic paper-making stage, there were altogether 99 mills in operation in 1938. The capital invested amounted to $594,908,222, the employees numbered 30,943 and their salaries and wages amounted to $42,619,311. If the pulp made for their own use in combined pulp and paper mills is disregarded the total of materials and supplies used in the industry as a whole can be considered as

*See Chapter XIV—Manufactures—and Index for further particulars regarding the pulp and paper and paper-converting industry.

amounting to $71,062,580 in 1938,* $91,121,629 in 1937,* and $72,202,983 in 1936; the gross value of production as $183,897,503 in 1938,* $226,244,711 in 1937* and $185,144,603 in 1936; and net† value of production, $89,034,186 in 1938,* $106,013,221 in 1937,* and $87,150,666 in 1936.

The pulp and paper industry, one of the leading single manufacturing industries in Canada, has been first in wages and salaries paid since 1922, when it first exceeded the sawmills. It was the leading industry in gross value of production from 1925, when it replaced the flour-mills, until 1935 when it was overtaken by non-ferrous smelting and refining. It has been first in net value of production and capital for some years. Only the manufacturing stages of the industry are considered in these comparisons, no allowance being made for capital invested, men employed, wages paid, or primary products sold in connection with the woods operations. These form an important part of the industry as a whole but cannot be separated from woods operations carried on in connection with sawmills and other industries. If the $13,641,798 worth of exported pulpwood be taken into consideration, the gross total contribution of the pulp and paper industry toward Canada's excess of exports over imports in 1938 amounted to $145,957,022, representing the difference between exports and imports of pulpwood, pulp, paper, and paper products.

The United States market absorbs annually over 99 p.c. of Canada's pulpwood exports, about 82 p.c. of her pulp, and 77 p.c. of her paper shipments. About half of the paper consumed in the United States is either of Canadian manufacture or is made from wood or wood-pulp imported from Canada.

Subsection 3.—The Lumber Industry.

The manufacture of lumber, lath, shingles, and other products of the sawmill is the second most important industry in Canada depending on the forest for its raw materials. Annual statistics covering this and other forest industries were collected and published by the Forest Service of the former Department of the Interior from 1908 to 1916, since when the work has been carried on by the Dominion Bureau of Statistics, in co-operation with the Forest Service of the Department of Mines and Resources.

*Owing to the adjustment in connection with combined paper mills and paper-converting mills, the 1937 and 1938 figures are not exactly comparable with those of previous years.

†Gross value of production less cost of power, fuel, and consumable supplies, as well as cost of materials.

13.—Quantities and Values of Lumber, Shingles, and Lath Produced in Canada, 1928-38.

NOTE.—Figures for the years 1908-27, inclusive, will be found at p. 300 of the 1931 Year Book.

Year.	Lumber Cut.		Shingles Cut.		Lath Cut.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	M ft. b.m.	$	M	$	M	$
1928	4,337,253	103,590,035	2,865,994	10,321,341	1,138,417	4,802,616
1929	4,741,941	113,349,886	2,707,235	9,423,363	835,799	3,860,799
1930	3,989,421	87,710,957	1,914,836	5,388,837	398,254	1,154,593
1931	2,497,553	45,977,843	1,453,277	3,331,229	228,050	576,080
1932	1,809,884	26,881,924	1,802,008	3,556,823	208,321	474,889
1933	1,957,989	27,708,908	1,939,519	4,448,876	151,653	332,364
1934	2,578,411	40,509,600	2,408,616	4,422,578	177,988	412,844
1935	2,973,169	47,911,256	3,258,253	7,593,765	226,854	536,087
1936	3,412,151	61,965,540	3,019,030	6,754,788	286,323	874,231
1937	4,005,601	82,776,822	3,048,395	7,631,691	392,922	1,231,965
1938	3,768,551	72,633,418	2,761,978	6,894,654	229,467	656,230

The total number of sawmills, tie, shingle, lath, veneer, stave, heading and hoop mills, and mills for the cutting-up and barking or rossing of pulpwood reporting in 1938 was 3,873, as compared with 3,836 in 1937. The capital invested in these mills in 1938 was $88,812,313, employment amounted to 31,182 man-years and wages and salaries amounted to $25,345,064. The logs, bolts, and other materials and supplies of the industry were valued at $53,591,378 and the gross value of production was $92,855,906. The net production in 1938 was $39,264,528.

The production of sawn lumber in Canada in 1920 reached a total of over four billion feet board measure, the highest cut recorded since 1912. Production in 1921 decreased by over a third and the average value by over $10 a thousand feet. This was followed, with one exception, by annual increases up to 1929 and then by annual decreases down to 1932. There were increases in 1933, 1934, 1935, 1936, and 1937 and a decrease in 1938.

14.—Quantities and Values of Lumber and All Sawmill Products Made in Canada, by Provinces, 1937 and 1938.

Province.	Lumber Production.				Total Values.[1]	
	Quantities.		Values.			
	1937.	1938.	1937.	1938.	1937.	1938.
	M ft. b.m.	M ft. b.m.	$	$	$	$
Prince Edward Island	6,312	4,525	118,405	88,332	152,818	116,180
Nova Scotia	178,160	141,504	2,833,055	2,181,143	3,238,037	2,560,788
New Brunswick	306,823	223,384	6,331,308	4,619,708	7,585,133	5,414,051
Quebec	700,530	724,652	14,661,735	15,403,296	18,800,636	19,887,902
Ontario	539,828	439,397	14,353,214	11,081,402	17,644,737	14,432,476
Manitoba	58,114	52,190	1,124,589	975,979	1,284,939	1,086,538
Saskatchewan	41,739	35,753	747,735	632,820	781,417	651,288
Alberta	101,420	102,070	1,478,214	1,491,891	1,714,467	1,720,550
British Columbia	2,072,675	2,044,876	41,128,567	36,158,847	53,647,601	46,986,133
Totals	**4,005,601**	**3,768,351**	**82,776,822**	**72,633,418**	**104,849,785**	**92,855,906**

[1]Includes all other sawmill products.

British Columbia came first in total production, contributing 54·3 p.c. of the total cut in lumber and 82·2 p.c. of the shingles in 1938. Quebec followed in second place, Ontario was third, and New Brunswick fourth. 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 balsam fir next in order of importance. Cedar is the most important shingle-wood sawn. The conifers usually form about 95 p.c. of the total cut of all kinds of wood in this industry, only 5 p.c. being deciduous-leaved trees or hardwoods.

Lumber Exportation.—The square-timber trade reached its maximum development in the '60's; thereafter it declined gradually and has now almost entirely disappeared. Simultaneously with its decline came the increased exportation of deals and other sawn lumber, first to the United Kingdom and later to the United States. Trade with the latter country has been confined, from the first, largely to planks,

boards, and dimension stock. During the American Civil War exports of forest products of all kinds to the United States for the first time exceeded those to Great Britain, but in late years this has become the rule. The total quantity of sawn lumber and square timber exported from Canada changed little from 1900 to 1929, averaging about two billion ft. b.m. per annum, but decreased considerably in the next three years reaching its lowest level in 1932. Since that time lumber exports have recovered and in 1939 were 2,211,933 M ft. b.m. Of the 1939 exports, 53 p.c. went to the United Kingdom and 15 p.c. to other Empire countries, making 68 p.c. to the Empire as a whole. Twenty-eight per cent went to the United States and 4 p.c. to other foreign countries, making 32 p.c. to all foreign countries.

15.—Canadian Exports of Planks, Boards, and Square Timber, by Countries, 1936-39.

Country.	1936.		1937.		1938.		1939.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	M ft. b.m.	$	M ft. b.m.	$	M ft. b.m.	$	M ft. b.m.	$
British—								
United Kingdom	957,948	19,750,191	1,057,249	24,303,521	984,757	19,881,672	1,223,974	26,294,286
Ireland (Eire)...	4,139	79,625	8,844	189,818	7,052	144,877	36,915	874,445
New Zealand....	6,364	176,720	5,871	186,227	7,506	202,100	5,097	139,157
Australia.....	117,069	1,542,487	164,296	2,897,141	141,790	2,189,171	136,818	2,212,963
British South Africa.....	42,282	853,171	27,516	723,456	26,334	541,176	57,224	1,403,734
British West Indies.....	15,747	327,730	17,834	463,734	19,459	482,074	23,581	604,154
Other British countries.....	21,839	454,858	25,159	695,724	20,451	563,115	17,444	496,064
Totals, British...	**1,165,388**	**23,184,782**	**1,306,769**	**29,459,621**	**1,207,349**	**24,004,185**	**1,501,053**	**32,024,803**
Foreign—								
United States...	530,866	12,841,995	538,921	15,521,442	450,118	11,581,308	627,087	16,900,984
China.....	88,968	1,155,008	39,256	674,941	39,170	591,200	31,137	495,446
Japan.....	30,155	509,105	33,316	623,651	6,184	117,043	5,429	90,400
Other foreign countries.....	42,587	978,315	48,036	1,309,439	50,270	1,118,442	47,227	1,125,970
Totals, Foreign...	**692,576**	**15,484,423**	**659,529**	**18,129,473**	**545,742**	**13,407,993**	**710,880**	**18,522,800**
Grand Totals....	**1,857,964**	**38,669,205**	**1,966,298**	**47,589,094**	**1,753,091**	**37,412,178**	**2,211,933**	**50,547,603**

Subsection 4.—Manufactures of Wood and Paper.

Sawmills and pulp-mills draw their raw material directly from the forest in the form of logs and pulpwood, and produce sawn lumber, other sawmill products, and pulp and paper. There are also a number of important industries that use these products as raw material for further manufacture. Some of them produce commodities made almost entirely of wood, wood-pulp, or paper, others manufacture articles in which wood is the most important component, and others produce articles in which wood is necessary but forms only a small proportion of the value. There are, in addition, a number of industries that use wood indirectly in the manufacture of articles that do not contain wood as a component part. The first class includes the manufacture of paper, sash, doors, other millwork, and planing-mill products;

boxes, baskets, cooperage, and other containers; canoes, boats, and small vessels; kitchen, bakers' and dairy woodenware; wooden pumps, piping, tanks, and silos; spools, handles, dowels, and turnery. The second class includes the manufacture of furniture, vehicles and vehicle supplies, coffins and caskets, etc., and the use of paper in printing and the manufacture of paper boxes, bags, stationery, and paper goods. The third class, where wood has a secondary importance, includes the manufacture of agricultural implements, railway rolling-stock, musical instruments, brooms and brushes, etc. The fourth class can be said to include practically every form of industrial activity, as few, if any, of these are entirely independent of the use of wood, directly or indirectly.

A classification based on the chief component material in the products of each manufacturing establishment is now largely used in compiling manufacturing statistics and for external trade purposes. Under this system most of the forest industries fall in the wood and paper group. In 1938, this group, comprising 8,684 establishments gave 141,974 man-years of employment and paid out $158,873,650 in salaries and wages. Capital invested in the industries of the group amounted to $951,092,969, the gross value of its products was $533,210,257 and the net value, $277,002,267.

The forests of Canada contribute substantially to her export trade values. During the fiscal year ended Mar. 31, 1939, exports of wood and paper products amounted to $214,488,484 and made up 23·1 p.c. of the total value of exports for the period, amounting to $926,962,245. Domestic exports of wood and paper products were exceeded by those of agricultural (vegetable and animal) products, which made up 32·8 p.c. of the total, and by mineral products with 32·1 p.c. Wood and paper products are prominent among the individual items of export. Newsprint paper was first on the list in 1939, with planks and boards sixth and wood-pulp eighth. The gross contribution of wood and paper products toward a favourable trade balance for Canada amounted to $182,546,620 during the same period.

Subsection 5.—Forest Depletion and Increment.

A detailed survey of depletion and increment appears at pp. 284-286 of the 1939 edition of the Year Book. This has been summarized at pp. 251-253 of Section 4 dealing with "Canadian Forest Resources: Their Relation to the War of 1914-18 and to the Present Effort" in this chapter.

CHAPTER X.—FUR RESOURCES AND FUR PRODUCTION.

CONSPECTUS.

	Page.		Page.
Section 1. The Fur Trade	277	Section 3. Fur Production Statistics	281
Section 2. Fur Farming	278	Section 4. External Trade in Furs	283

Section 1.—The Fur Trade.

Historical Sketch.—The place held by the fur trade during the French *régime* in Canada, when for a century and a half it was at once the mainspring of discovery and development and the curse of settled industry, is familiar history. Later, the Hudson's Bay Company may be said with truth to have held the West until the Dominion had grown to absorb it, bequeathing, to the civilization that followed, a native race accustomed to the white man and an example of organization and discipline that was of lasting value. The salient facts in the story are given in the Canada Year Book, 1934-35, pp. 343-344.

Fur Resources.—In the early years of the 19th century, the exports of furs from Canada exceeded in value those of any other product. Conditions have greatly changed, but the total output has not seriously declined and Canada may still be regarded as possessing, in her northern regions, one of the great fur preserves of the world. The rapid development of the country and the opening up of the West during the later 19th and earlier 20th centuries, together with improvements in transportation and settlement, meant the exhaustion of the fur resources of the settled parts. The trade, therefore, gradually retreated to less accessible territory. More recently the development of mining on a large scale over the Precambrian Shield has forced the trapper still farther north. Decline in fur resources has, however, been accompanied by increase in demand and higher prices, the encouragement of fur farming, and the introduction of conservation measures. Nevertheless, 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 and into the Maritimes, remains one of the few natural reservoirs for fine furs and the fur resource of this vast area constitutes one of its major assets to-day; in fact, minerals and furs will probably remain the chief resources since much of the area is unsuited to settlement or forest growth.

The fur bearers of Canada are mostly carnivorous animals, but two very valuable rodents are included, viz., beaver and muskrat. The largest fur-bearing animal is the bear—polar, along the Arctic Coast and Hudson Bay; grizzly, in the Rocky Mountains; and black, common in wooded areas generally. Wolves are common and widespread—grey, black, and blue are colour varieties of the same species. Fox pelts account for more than half of the fur trade. Fur farms now supply nearly all of the silver fox pelts, while the Arctic regions provide a great number of white skins and a few blue ones. The ermine, or weasel, is fairly plentiful throughout the Dominion and is found as far north as trappers are operating. Otter, beaver, marten, fisher, and mink are furs of exceptional quality and beauty and are secured throughout the whole of the timbered parts of the northern belt. The mink is now being raised extensively on fur farms and the pelt of the ranch-bred mink is regarded as superior to that of the mink taken in the wilds.

Among the rodents, the beaver has the most valuable fur, but this animal has begun to show signs of decreasing and restrictions on the taking of beaver have been made more rigid in consequence. Muskrat is now quite highly prized and, so far as number of pelts taken is concerned, is far in advance of any other species; under the trade name of "Hudson seal" its pelt has become a favourite moderate-priced fur.

Conservation.—At pp. 288-289 of the 1939 Year Book a short section appears dealing with conservation measures undertaken in regard to fur bearers.

Section 2.—Fur Farming.*

The fur trade is becoming more and more dependent upon the fur farms for its supplies of raw furs. In 1921 the value of pelts of ranch-bred animals accounted for only 3 p.c. of the total value of raw fur production, while in 1937 it had risen to approximately 40 p.c.

Origin of the Fur-Farming Industry.—A short account of the origin of the fur-farming industry in Canada is given at p. 249 of the 1929 edition of the Year Book, while a more detailed account of the earlier history of the industry is given in a publication of the Commission of Conservation, Ottawa, entitled "Fur Farming in Canada", by J. Walter Jones, B.A., B.S.A., the second edition of which was published in 1914.

Fur Farms of Canada.—The term 'fur farm' applies both to farms devoted entirely to the raising of fur-bearing animals and to parts of farms where the raising of fur-bearing animals is carried on as a branch of the operations. In addition to such farms, where animals are raised in rather confined quarters, many areas of marsh, stream, or lake are being operated as muskrat and beaver farms. In the case of these semi-aquatic animals, however, although the animals are usually kept within a carefully fenced area where they are given supplementary food and are protected from predatory enemies, they nevertheless live and breed under natural conditions.

Silver fox was the first important commercial fur bearer successfully raised in captivity, and it remains of greatest importance. The fur-farming industry, however, now includes other kinds of fur bearers—mink, fisher, marten, raccoon, and nutria. Mink farming, in particular, is showing rapid advancement throughout the Dominion, and is now second only to silver-fox farming. Considerable interest has been aroused by the announcement that the valuable chinchilla, a native of the Andes in South America, has been introduced into Canada. The first record is for the year 1937, when a farm in Saskatchewan reported the purchase of a pair. In 1938 a farm in Alberta also reported chinchillas. In California success has attended experiments in raising this fur bearer, and it is from that State the Canadian purchases were made. It is hoped that the Canadian climate will prove equally suitable for the raising of the chinchilla.

For many years the fox-farming industry was expanding so rapidly, both in Canada and abroad, that the chief source of income of ranches was the sale of live animals for breeding purposes, while the production of pelts was a minor or incidental feature. Thus, in 1925, the value of live silver foxes sold was $2,755,000, while that of silver fox pelts was only $736,000. As the number of foxes on fur farms progressively increased, ranchers had to readjust their economy to declining

* Revised by Miss F. A. Brown, Chief of the Fisheries and Animal Products Branch, Dominion Bureau of Statistics. This Branch publishes detailed annual reports on fur farms and on the production of raw furs.

values for both live animals and pelts and the industry has gradually become stabilized on a pelt basis rather than on a live animal basis. In the latest year, 1937, the value of live silver foxes sold was only $517,782 while that of silver fox pelts sold was $5,019,487, and for all fur farms the sales of pelts represented 85 p.c. of the total revenue.

Statistics of Fur Farms.—The earliest Dominion-wide statistics of fur farms were collected for the year 1919. The statistics of 1919 recorded 429 fur farms with 8,326 fur-bearing animals.

1.—Numbers of Fur Farms, Values of Land and Buildings, and Values of Fur-Bearing Animals, by Provinces, 1935-37.

Province.	Fur Farms.			Values of Land and Buildings.			Values of Fur-Bearing Animals.		
	1935.	1936.	1937.	1935.	1936.	1937.	1935.	1936.	1937.
	No.	No.	No.	$	$	$	$	$	$
P.E. Island	771	730	1,216	884,895	876,446	878,934	1,192,410	1,088,647	945,542
Nova Scotia	853	958	1,002	314,687	337,422	319,305	557,447	608,202	510,769
New Brunswick	983	1,028	1,012	508,221	531,955	521,983	949,101	908,215	734,002
Quebec	2,408	2,570	2,541	1,173,107	1,226,657	1,348,655	1,910,659	1,910,811	1,797,806
Ontario	1,029	1,170	1,278	1,321,913	1,401,675	1,445,654	1,848,343	2,044,500	2,085,875
Manitoba	400	512	662	700,403	797,602	1,029,280	913,072	1,109,299	1,311,427
Saskatchewan	308	349	491	413,752	567,550	678,014	545,552	629,432	689,770
Alberta	463	514	587	905,913	972,632	1,047,408	1,085,050	1,164,714	1,186,450
British Columbia	272	304	380	356,184	367,747	400,788	373,916	362,635	402,646
Yukon	8	7	10	11,750	17,350	17,150	6,275	11,825	12,144
Totals	**7,495**	**8,142**	**9,179**	**6,590,825**	**7,097,036**	**7,687,171**	**9,381,825**	**9,838,280**	**9,676,431**

Table 2 indicates that the numbers of silver foxes and mink, the two fur-bearing animals that have proved most readily adaptable to domestication, were higher in 1937 than in any previous year. The values of animals on fur farms, on the other hand, have been greatly affected by the decline in prices since 1929.

2.—Numbers of Fur-Bearing Animals on Fur Farms in Canada as at Dec. 31, 1929-37.

Kind of Animal.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
Badger	726	559	307	119	63	45	22	27	20
Beaver[1]	698	1,112	806	1,118	1,029	1,010	1,180	888	787
Chinchilla	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	2
Coyote	73	135	72	44	34	22	18	27	47
Ferret	5	1	Nil	3	4	1	6	Nil	Nil
Fisher	184	195	244	200	183	164	163	126	120
Fitch	25	150	826	1,587	1,857	1,558	1,144	1,001	575
Fox, blue	1,576	1,755	1,219	858	689	691	669	649	723
Fox, cross	2,563	3,335	3,369	2,978	2,574	2,472	1,931	1,723	1,388
Fox, red	2,348	3,018	2,879	2,526	2,244	2,031	1,548	1,248	1,119
Fox, silver	97,190	105,894	95,734	92,703	103,842	125,577	141,509	151,696	153,822
Fox, silver-blue	Nil	Nil	12	5	2	Nil	Nil	Nil	Nil
Fox, white	4	64	65	39	11	5	"	4	1
Karakul sheep	96	193	140	108	107	111	102	102	180
Lynx	10	13	16	10	1	Nil	Nil	Nil	Nil
Marten	187	228	272	207	202	154	113	122	136
Mink	10,436	20,726	21,062	17,212	18,640	25,435	31,946	44,695	71,410
Muskrat[1]	711,111	425,525	119,285	132,973	65,324	35,556	20,539	17,769	10,00.
Nutria	Nil	10	27	56	64	46	72	62	15.
Opossum	"	3	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Otter	2	Nil	"	"	"	"	"	"	"
Rabbit, chinchilla	1,438	1,206	239	80	79	79	2	[2]	[2]
Rabbit, *n.e.s.*	428	475	207	285	291	118	57	[2]	[2]
Raccoon	2,870	3,395	3,600	3,057	2,522	1,867	1,334	930	865
Skunk	78	20	54	20	12	19	Nil	2	6
Weasel	11	6	11	17	8	9	8	8	3
Totals	**832,059**	**568,018**	**250,446**	**256,205**	**199,782**	**196,970**	**202,363**	**221,079**	**241,359**

[1] Based on estimates furnished by the operators of the farms. [2] The publication of information concerning rabbits on farms has been discontinued.

3.—Values of Fur-Bearing Animals on Fur Farms in Canada as at Dec. 31, 1929-37.

Kind of Animal.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
	$	$	$	$	$	$	$	$	$
Badger	23,350	18,812	7,125	2,601	1,357	1,040	434	810	525
Beaver[1]	75,070	84,667	48,042	38,818	32,659	24,955	26,587	23,428	19,330
Chinchilla	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	3,300
Coyote	850	1,592	836	302	356	138	132	280	550
Ferret	25	5	Nil	15	12	2	30	Nil	Nil
Fisher	28,585	29,810	29,170	16,995	17,190	14,745	16,425	13,885	12,790
Fitch	550	5,760	13,478	16,496	11,729	6,604	4,598	3,472	1,953
Fox, blue	196,750	174,193	73,237	34,375	25,243	22,865	20,750	21,043	32,884
Fox, cross	233,220	270,257	150,597	112,548	99,570	81,292	65,684	61,784	46,937
Fox, red	91,575	77,872	45,988	33,199	27,405	23,583	16,149	13,567	13,018
Fox, silver	18,047,124	13,386,171	7,259,148	6,027,501	6,849,725	7,742,294	8,495,851	8,345,552	7,474,741
Fox, silver-blue	Nil	Nil	650	200	100	Nil	Nil	Nil	Nil
Fox, white	400	1,700	2,410	1,310	920	800	"	120	40
Karakul sheep	4,300	5,334	1,650	1,255	1,060	917	540	560	3,330
Lynx	825	1,600	660	320	20	Nil	Nil	Nil	Nil
Marten	17,340	20,660	17,550	10,739	10,697	8,125	6,460	7,225	8,175
Mink	765,333	1,286,737	642,045	328,534	349,411	451,499	695,492	1,314,133	2,035,307
Muskrat[1]	1,725,391	755,800	152,889	93,473	56,088	31,625	20,852	23,194	12,335
Nutria	Nil	700	1,880	2,245	2,460	945	1,065	1,320	4,265
Opossum	"	25	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Otter	100	Nil	"	"	"	"	"	"	"
Rabbit, chinchilla	8,627	2,089	342	194	65	36	5	[2]	[2]
Rabbit, *n.e.s.*	2,428	1,623	685	1,454	484	234	109	[2]	[2]
Raccoon	80,801	72,242	48,640	32,033	22,996	15,844	10,658	7,889	6,932
Skunk	341	73	187	126	12	14	Nil	10	10
Weasel	50	25	28	29	8	10	4	8	9
Totals	**21,303,035**	**16,197,747**	**8,497,237**	**6,754,762**	**7,509,567**	**8,427,567**	**9,381,825**	**9,838,280**	**9,676,431**

[1] Based on estimates furnished by the operators of the farms. [2] The publication of information concerning rabbits on farms has been discontinued.

The annual revenue of the fur farmer arises from two sources, the sale of animals and the sale of pelts. Table 4 shows the sales of animals by kinds in the years 1929 to 1937 and Table 5 the sales of pelts. During late years the sales of pelts have exceeded the sales of live animals, while in former years the reverse was the case.

4.—Values of Fur-Bearing Animals Sold from Fur Farms in Canada, 1929-37.

Kind of Animal.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
	$	$	$	$	$	$	$	$	$
Badger	4,984	2,957	485	145	6	Nil	320	Nil	Nil
Beaver	60	625	380	Nil	460	1,325	Nil	"	92
Coyote	20	20	124	"	Nil	230	"	"	Nil
Ferret	75	Nil	Nil	"	"	6	"	"	"
Fisher	4,825	4,399	7,495	2,090	1,200	1,825	3,255	5,930	2,100
Fitch	100	1,720	6,724	5,565	4,025	2,436	2,377	1,160	590
Fox, blue	45,035	24,895	8,270	1,355	502	825	335	1,110	2,145
Fox, cross	66,554	29,296	8,526	4,467	5,313	3,291	3,280	3,321	3,437
Fox, red	22,178	10,900	5,788	2,657	2,744	2,729	2,110	1,293	1,449
Fox, silver	3,856,158	1,405,202	358,394	193,043	301,612	488,847	562,480	542,888	517,782
Fox, white	Nil	161	Nil	210	Nil	Nil	Nil	25	Nil
Karakul sheep	200	1,500	70	275	300	212	160	Nil	75
Lynx	Nil	Nil	Nil	20	Nil	Nil	Nil	"	Nil
Marten	1,270	2,075	905	570	100	155	800	292	2,337
Mink	407,570	301,754	85,728	28,581	34,802	68,708	73,402	272,560	497,965
Muskrat	44,308	28,394	3,881	457	83	8	15	446	222
Nutria	Nil	Nil	175	515	675	1,040	115	880	2,200
Rabbit, chinchilla	2,469	170	58	438	Nil	Nil	Nil	[1]	[1]
Rabbit, *n.e.s.*	1,071	677	172	642	439	120	4	[1]	[1]
Raccoon	17,996	13,800	4,825	2,163	2,201	1,294	779	867	494
Skunk	80	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Totals	**4,474,953**	**1,828,545**	**492,000**	**243,193**	**354,462**	**573,051**	**649,432**	**830,772**	**1,030,888**

[1] The publication of information concerning rabbits on farms has been discontinued.

5.—Values of Pelts Sold from Fur Farms in Canada, 1929-37.

Kind of Pelt.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
	$	$	$	$	$	$	$	$	$
Badger	1,646	3,925	3,101	1,398	629	408	296	108	75
Beaver	550	150	126	410	213	105	113	248	1,358
Coyote	340	691	718	395	610	530	322	1,187	752
Fisher	320	405	145	1,120	1,576	963	626	1,512	245
Fitch	Nil	Nil	341	568	2,616	3,184	2,010	1,738	1,470
Fox, blue	19,144	25,318	12,758	9,032	9,325	12,250	9,179	11,071	10,586
Fox, cross	43,122	75,676	84,993	93,018	95,522	84,503	75,273	65,182	48,899
Fox, red	18,585	21,549	20,445	21,924	23,652	17,788	14,301	12,734	8,382
Fox, silver	2,195,253	2,921,885	2,835,470	2,821,593	3,441,020	3,690,431	4,437,301	4,950,290	5,019,487
Fox, white	Nil	25	792	135	65	50	75	80	Nil
Karakul sheep	"	Nil	Nil	246	139	638	338	538	442
Lynx	"	100	"	Nil	66	Nil	Nil	Nil	Nil
Marten	"	100	79	313	262	175	194	830	398
Mink	12,471	34,538	99,033	87,604	127,241	145,680	323,263	652,940	681,475
Muskrat	9,335	9,205	8,945	3,723	4,710	4,034	3,213	6,438	3,739
Nutria	Nil	Nil	Nil	Nil	Nil	Nil	50	3	Nil
Rabbit, chinchilla	806	45	65	8	"	"	Nil	1	1
Rabbit, *n.e.s.*	263	22	Nil	Nil	29	"	"	1	1
Raccoon	3,027	2,618	4,445	5,096	4,738	5,248	4,410	3,519	2,175
Skunk	48	11	4	10	Nil	Nil	6	Nil	15
Weasel	Nil	7	Nil	34	30	23	25	20	Nil
Totals	**2,304,910**	**3,096,270**	**3,071,460**	**3,046,627**	**3,712,443**	**3,966,010**	**4,870,995**	**5,708,438**	**5,779,498**

[1] The publication of information concerning rabbits on farms has been discontinued.

Preliminary Statistics for 1938.—According to figures published at the time of going to press, fur farms numbered 10,455, lands and buildings were valued at $7,930,842, and fur-bearing animals at $8,929,754. Animals sold alive numbered 25,436, valued at $730,074, while the 346,189 pelts sold were valued at $5,752,742.

Section 3.—Fur Production Statistics.*

Early records of raw fur production were confined to the decennial censuses, when account was taken of the number and value of pelts obtained by trappers. In 1920 the Dominion Bureau of Statistics commenced an annual survey of raw fur production, basing its statistics on information supplied by the licensed fur traders. This survey was continued for some years. More recently, annual statements, based on royalties, export tax, etc., have been made available by the provincial game departments (except Prince Edward Island), and these statements are now used in the preparation of the statistics issued annually by the Bureau. In the case of Prince Edward Island, the statistics are based on returns supplied directly to the Bureau by the fur traders who deal in furs produced in the Province.

* Revised by Miss F. A. Brown, Chief of the Fisheries and Animal Products Branch, Dominion Bureau of Statistics.

6.—Numbers and Values of Pelts of Fur-Bearing Animals Produced in Canada with Percentages Sold from Fur Farms, Years Ended June 30, 1920-38.

Year.	Pelts.		P.C. of Value Sold from Fur Farms.	Year.	Pelts.		P.C. of Value Sold from Fur Farms.
	Number.	Value.			Number.	Value.	
		$				$	
1920	3,600,004	21,387,005[1]	1	1930	3,798,444	12,158,376	19
1921	2,936,407	10,151,594	3	1931	4,060,356	11,803,217	26
1922	4,366,790	17,438,867	4	1932	4,449,289	10,189,481	30
1923	4,963,996	16,761,567	4	1933	4,503,558	10,305,154	30
1924	4,207,593	15,643,817	6	1934	6,076,197	12,349,328	30
1925	3,820,326	15,441,564	4	1935	4,926,413	12,843,341	31
1926	3,686,148	15,072,244	5	1936	4,596,713	15,464,883	40
1927	4,289,233	18,864,126	6	1937	6,237,640	17,526,365	40
1928	3,601,153	18,758,177	11	1938	4,745,927	13,196,354	43
1929	5,150,328	18,745,473	13				

[1] Fur prices in this year were abnormally high. Any comparison of this figure with those of later years should take this into account.

The leading provinces with respect to value of raw fur production are Quebec, Ontario, and Prince Edward Island in the order named. The relation that the value for each province bore to the total for Canada in the year ended June 30, 1938, was: Quebec 16·0 p.c.; Ontario 15·0 p.c.; Prince Edward Island 12·9 p.c.; Northwest Territories 9·9 p.c.; New Brunswick 9·5 p.c.; Alberta 8·8 p.c.; Manitoba 7·5 p.c.; Saskatchewan 6·4 p.c.; British Columbia 6·2 p.c.; Nova Scotia 5·6 p.c.; and the Yukon Territory 2·2 p.c.

7.—Numbers and Values of Pelts of Fur-Bearing Animals Produced in Canada, by Provinces, Years Ended June 30, 1937 and 1938.

Province or Territory.	Numbers of Pelts.		Values of Pelts.	
	1936-37.	1937-38.	1936-37.	1937-38.
			$	$
Prince Edward Island	75,178	76,039	2,182,723	1,704,046
Nova Scotia	122,562	107,871	910,877	733,816
New Brunswick	63,694	87,312	870,402	1,252,465
Quebec	286,278	293,385	2,516,012	2,107,765
Ontario	683,941	737,379	2,987,713	1,978,113
Manitoba	546,430	470,450	1,632,660	989,975
Saskatchewan	1,839,203	738,230	1,327,116	852,147
Alberta	2,068,118	1,476,696	2,161,507	1,156,011
British Columbia	215,966	167,531	1,411,668	814,532
Northwest Territories	285,962	523,379	1,178,129	1,311,627
Yukon	50,308	67,655	347,558	295,857
Canada	**6,237,640**	**4,745,927**	**17,526,365**	**13,196,354**

Lower average prices of furs are responsible chiefly for the decrease in total value. As will be seen from Table 8, average prices for all kinds, with the exception of cross, blue, and "other" fox and wolverine showed decreases from the prices for the preceding season. Silver fox, practically the whole pelt production of which is credited to the fur-farming industry, showed an increase in number, compared with the preceding year, of 45,511, but a decrease in value of $594,122. The value of the silver fox pelts represented 47 p.c. of the total for all kinds of furs; second in importance was mink, with 11 p.c. Probably 40 p.c. of the number and 50 p.c. of the value of the total mink pelt production may be credited to the fur farms.

8.—Numbers, Total Values, and Average Values of Pelts of Fur-Bearing Animals Taken in Canada, Years Ended June 30, 1937 and 1938.

Kind of Pelt.	Numbers of Pelts.		Total Values of Pelts.		Average Values per Pelt.	
	1936-37.	1937-38.	1936-37.	1937-38.	1936-37.	1937-38.
			$	$	$	$
Badger	141	204	1,688	1,953	11·97	9·57
Bear, black and brown	1,885	1,589	3,820	3,061	2·03	1·93
Bear, grizzly	2	2	14	14	7·00	7·00
Bear, white	49	150	641	2,020	13·08	13·47
Bear, unspecified	Nil	53	–	159	–	3·00
Beaver	55,759	54,148	699,011	568,486	12·54	10·50
Cat, domestic	381	339	85	68	0·22	0·20
Coyote or prairie wolf[1]	48,704	40,811	458,489	285,360	9·41	6·99
Ermine (weasel)	926,611	680,752	818,290	348,213	0·88	0·51
Fisher	5,237	3,505	276,028	140,293	52·71	40·03
Fitch	1,437	976	2,331	1,642	1·62	1·68
Fox, blue	992	1,580	18,203	35,214	18·35	22·29
Fox, cross	20,934	15,281	518,066	319,151	24·75	20·89
Fox, red	87,846	64,076	716,747	449,985	8·16	7·02
Fox, silver	230,030	275,541	6,777,644	6,183,522	29·46	22·44
Fox, white	22,191	55,907	304,139	700,194	13·71	12·52
Fox, other	669	215	5,982	2,032	8·94	9·45
Lynx	17,539	10,538	605,526	315,192	34·52	29·91
Marten	24,433	23,851	642,204	555,002	26·28	23·27
Mink	139,673	139,740	2,267,835	1,400,587	16·24	10·02
Muskrat	1,607,897	1,748,239	2,250,971	1,320,509	1·40	0·76
Otter	11,136	10,262	227,792	176,533	20·46	17·20
Rabbit	649,107	213,005	95,254	22,121	0·15	0·10
Raccoon	23,932	20,366	119,540	72,892	4·99	3·58
Skunk	202,836	125,612	200,663	90,983	0·99	0·72
Squirrel	2,147,114	1,244,359	386,743	113,811	0·18	0·09
Wild cat	1,565	1,093	7,264	3,574	4·64	3·27
Wolf[1]	8,826	8,062	117,559	80,123	13·32	9·94
Wolverine	714	671	3,836	3,660	5·37	5·45
Totals	**6,237,640**	**4,745,927**	**17,526,365**	**13,196,354**		

[1] Coyote or prairie wolf pelts for Manitoba are included with wolf pelts.

At the close of the War of 1914-18, Montreal took a position as an international fur market, holding the first Canadian fur auction sale in 1920. Through the medium of the Canadian fur auctions, grading and marketing of furs has been placed on a scientific footing, resulting in more or less stabilized conditional prices to the benefit equally of trapper, breeder, manufacturer, distributor, and consumer. At the sales held in Montreal during the year 1938, the pelts sold numbered 1,438,101 while the value amounted to $4,992,956. Fur auction sales are held also at Winnipeg, Edmonton, and Vancouver.

During the past twenty years or so immense improvements have been made in the dressing, dyeing, and finishing of furs. In 1937, the 14 fur-dressing and -dyeing plants in Canada treated 4,004,620 fur skins, the chief kinds being rabbit (1,522,623) and muskrat (987,713). The number of plants engaged in the manufacture of coats, capes, scarves, muffs, etc., numbered 351 with a total output valued at $16,261,100.

Section 4.—External Trade in Furs.

The important external markets for Canadian furs are London and New York; the trade tables for the twelve months ended June 30, 1938, show that of the total of $12,653,355 worth of raw furs exported, the United Kingdom took $8,363,694 and the United States $3,610,520. In 1667 exports of furs to France and the West Indies were valued at 550,000 francs. In 1850, the first year for which tables of the Customs Department are available, the value of raw furs exported was £19,395. The following table shows that the exports for recent years are greatly in excess of the earlier values.

9.—Exports of Canadian Furs, by Kinds of Fur, and by Leading Countries, Years Ended June 30, 1934-38.

Kind and Country.	1934.	1935.	1936.	1937.	1938.
KIND OF FUR.	$	$	$	$	$
Raw Furs—					
Beaver	709,960	748,521	615,738	1,029,063	973,159
Fox, black and silver	5,264,026	5,708,024	6,260,371	7,439,955	5,571,647
Fox, other	2,076,921	2,818,386	2,522,428	1,670,475	1,198,856
Lynx	255,002	456,469	690,239	670,848	421,013
Marten	295,002	302,516	439,125	622,865	448,971
Mink	2,144,121	1,878,666	2,202,695	2,509,517	1,598,722
Muskrat	1,235,333	1,622,787	1,403,397	1,334,484	891,998
Other kinds	1,964,456	1,688,973	2,025,282	3,252,047	1,548,989
Totals, Raw Furs	13,944,821	15,224,342	16,159,275	18,529,254	12,653,355
Dressed furs	274,413	475,670	576,148	878,921	481,773
Manufactured furs	46,821	70,174	87,446	148,947	179,987
Grand Totals	**14,266,055**	**15,770,186**	**16,822,869**	**19,557,122**	**13,315,115**
COUNTRY.					
United Kingdom	8,951,929	10,175,912	9,830,429	11,081,561	8,690,365
United States	4,205,485	4,692,482	6,118,325	7,380,390	3,799,648
Other countries	1,108,641	901,792	874,115	1,095,171	825,102

10.—Imports of Furs, by Kinds of Fur and by Leading Countries Whence Imported, Years Ended June 30, 1934-38.

Kind and Country.	1934.	1935.	1936.	1937.	1938.
KIND OF FUR.	$	$	$	$	$
Raw Furs—					
Fox	275,823	176,474	350,216	410,933	230,340
Mink	238,798	106,723	194,671	335,237	139,549
Muskrat	1,012,650	316,231	622,850	741,179	618,343
Persian lamb	319,593	284,898	604,366	854,055	806,629
Rabbit	280,826	422,673	662,434	933,694	423,528
Squirrel	[1]	[1]	47,528	92,904	67,781
Other kinds	1,667,402	1,318,215	1,869,274	2,292,445	1,561,432
Totals, Raw Furs	3,795,092	2,625,214	4,351,339	5,660,447	3,847,602
Dressed furs	971,723	912,489	1,191,667	1,813,060	1,147,503
Manufactured furs	485,815	570,489	1,106,435	1,014,254	986,937
Grand Totals	**5,252,630**	**4,108,192**	**6,649,441**	**8,487,761**	**5,982,042**
COUNTRY.					
United Kingdom	673,106	597,881	831,456	1,889,447	1,097,005
United States	3,460,739	2,393,009	4,146,462	4,592,413	3,303,398
Other countries	1,118,785	1,117,302	1,671,523	2,005,901	1,581,639

[1] Not available.

Among living animals exported from Canada only two kinds of fur-bearing animals are separately classified by the Customs Department. These are foxes, separately recorded first in 1925, and mink, in 1931. Live foxes exported were valued at $1,388,459 in the fiscal year ended Mar. 31, 1925, $1,434,686 in 1926, when the highest value was recorded, and only $47,348 in 1938. Live mink exported were valued at $66,811 in 1931 and $42,004 in 1938. Foxes have been separately classified among imports of living animals since the fiscal year ended Mar. 31, 1928, when those imported were valued at $6,914 compared with $6,666 in 1938.

CHAPTER XI.—THE FISHERIES.

CONSPECTUS.

	Page.		Page.
Section 1. The Early Fisheries	285	Section 3. The Government and the Fisheries	285
Section 2. The Canadian Fishing Grounds	285	Section 4. The Modern Fishing Industry	288

Section 1.—The Early Fisheries.

Fishing is among the earliest and most historic industries of Canada. Leaving aside inconclusive evidence in favour of authentic record, one must ascribe to John Cabot the honour of having discovered, in 1497, the cod banks of Newfoundland, when he first sighted the mainland of North America. Fishing may well be regarded as the first industry to be systematically prosecuted by Europeans in what is to-day the Canadian domain. It has since yielded a perennial harvest to both Europe and America. According to the Census of 1931, of 3,927,230 persons in Canada gainfully occupied in that year, 33,756 reported fishing as their principal occupation.*

A more detailed account of the history of the Atlantic fisheries is given at p. 348 of the 1934-35 Year Book.

Section 2.—The Canadian Fishing Grounds.

The fishing grounds of the Dominion are of exceptional national value inasmuch as two of the four great sea-fishing areas of the world border on Canada. They fall naturally into three divisions: Atlantic, inland, and Pacific fishing grounds. A detailed description of each division, of the fish caught, and of the methods of fishing, will be found at pp. 222-225 of the 1932 Year Book.

Section 3.—The Government and the Fisheries.†

Upon the organization of the Dominion Government at Confederation, the administration of the Canadian fisheries was placed under the Department of Marine and Fisheries. Early in 1930 a Department of Fisheries, in charge of its own Minister, was organized. This Department now administers all the tidal fisheries (except those of the mainland portion of Quebec, which, by agreement, are under provincial administration), 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 fisheries of the Magdalen Islands) are administered by the respective provinces, although the Dominion Department does certain protective work in non-tidal waters of New Brunswick, Prince Edward Island, and British Columbia. The right of fisheries regulation for all the provinces, however, rests with the Dominion Government. (See the Fisheries Act, 22-23 Geo. V, c. 42). The expenditure of the Dominion on the fisheries in the fiscal year 1938-39, including civil government salaries, contingencies, etc., was $2,568,443 and the revenue $112,778.

* See footnote 2 to Table 9, p. 295.

† Revised under the direction of J. J. Cowie, Acting Deputy Minister, Department of Fisheries.

Conservation.—River and lake fisheries certainly, and sea fisheries probably, if left to themselves, conform to the economic law of diminishing returns. The Canadian Government, accordingly, has had for a main object the prevention of depletion by the enforcement of close seasons, the forbidding of obstructions and pollutions, and the regulation of nets, gear, and fishing operations generally. In addition, an extensive system of fish culture has been organized: the Dominion, in 1938, operated 13 main hatcheries, 1 subsidiary hatchery, 6 rearing stations, 8 salmon retaining ponds, and several egg-collecting stations at a cost of $233,408, and distributed 33,685,000 trout and salmon eggs, fry, and older fish. Distributions were made in suitable selected waters. Investigations and experiments directed toward the establishment of commercial oyster farming have been successfully carried on since 1929 in Prince Edward Island by the Dominion Department of Fisheries and have more recently been extended to Nova Scotia. In each of these provinces control of the oyster areas was transferred to Dominion authority by the Provincial Government. In the two other oyster-producing provinces, New Brunswick and British Columbia, control of the areas is in provincial hands, except on a small strip of the New Brunswick Coast where areas have been transferred by the Provincial Government to the control of the Dominion Department of Fisheries in order that certain investigations might be carried on.

Direct Assistance.—On the Atlantic Coast, where conditions attending fishing operations make such a service desirable, a system has been established of broadcasting radio reports as to weather probabilities, bait and ice supplies, and ice conditions. Systems of instruction in improved methods of fish handling, fish curing, etc., have been carried on for some years by the Department of Fisheries.

Continuing the plan that had been followed for several years in connection with direct aid to needy fishermen, the sum of $500,000 was made available in the appropriations of the Department of Fisheries for the fiscal year 1938-39. In co-operation with the Governments of Nova Scotia, New Brunswick, Prince Edward Island, and Quebec, loans and grants were made during the year to 14,308 fishermen and 36 associations of fishermen. Joint aid funds were set up in each province by contributions from the Department and the Provincial Government, and from these funds assistance was given to fishermen in re-establishing themselves; total spendings from the departmental appropriation amounted to $369,443.

Nation-wide advertising of fish foods was carried on by the Department of Fisheries during the year in order to assist the fishermen by expanding the demand for their product. Approximately $150,000 was spent for this purpose during 1937-38. All of this amount was expended within Canada except $15,000 which was transferred to the United Kingdom for use in supplementing the advertising of Canadian canned salmon and canned lobster in the "Canada Calling" campaign. In addition to the advertising in the Dominion, fish cookery lecturer-demonstrators were kept in the field by the Department as a further means of increasing the use of fish foods.

Scientific Research.—This subject is dealt with this year in the special article on Scientific and Industrial Research in Chapter XXV.

International Problems.—Fisheries problems of international importance have arisen from time to time on both coasts of the Dominion, as well as in the Great Lakes area where problems are complicated by the number of State governments concerned. A major international problem has been the question of United States

privileges in Atlantic fisheries of Canada. An outline of the history of this question may be found at pp. 351-352 of the 1934-35 Year Book. Since 1933, under the former *modus vivendi* plan, which grew out of the unratified treaty of 1888, United States fishing vessels have again been permitted to enter Canadian ports to buy bait and other fishing supplies.

Joint steps to deal with two important Pacific Coast fisheries problems have been taken in recent years by Canada and the United States: the preservation of the halibut fishery of the Northern Pacific Ocean and Bering Sea, and the protection, preservation, and extension of the sockeye salmon fisheries in the Fraser River system.

The first treaty relating to the halibut fishery was signed on Mar. 2, 1923. Under this treaty a close season for halibut fishing in each year was provided for and an international commission was set up to conduct an investigation into the fishery and the life history of the halibut. A further convention, signed at Ottawa on May 9, 1930, and ratified by the respective Governments on May 9, 1931, provided for the regulation of the fishery by the commission through the division of the convention waters into fishing areas, the changing of dates for close seasons, and so on. A new convention was signed at Ottawa on Jan. 29, 1937, extending the regulatory powers of the commission. Steps taken by the international commission under the several conventions have resulted in steady improvement in the state of the halibut fishery in the waters concerned.

The Sockeye Salmon Fisheries Convention was signed at Washington on May 26, 1930, but exchange of ratifications did not take place until July 28, 1937, although the Canadian Parliament had given approval to the treaty several years before that time. The convention waters include not only the Fraser River watershed in British Columbia but also certain Canadian, United States, and international waters making up the Fraser approach and through which the Fraser River sockeye pass.

Under the sockeye treaty the International Pacific Salmon Fisheries Commission was set up in 1937, consisting of three members appointed by Canada and a like number appointed by the United States. The Commission, which has established its headquarters at New Westminster, B.C., is empowered by the Convention to make "a thorough investigation into the natural history of the Fraser River sockeye salmon, into the hatchery methods, spawning ground conditions, and other related matters", to conduct the sockeye salmon fish cultural operations in treaty waters, and to make recommendations to the Governments on matters concerning "removing or overcoming obstructions to the ascent of sockeye salmon, that may now exist or may from time to time occur, in any of the waters covered by this convention . . ." Certain powers of regulation were also given the Commission by the Convention but one of the understandings on which the treaty was approved by the two countries was that "the commission shall not promulgate or enforce regulations until the scientific investigations provided for in the convention have been made covering two cycles of sockeye salmon runs, or eight years"

Fishing Bounties.—By an Act of 1882 (45 Vict., c. 18) for the development of the sea fisheries and the encouragement of boat-building, provision was made for the distribution, annually, among fishermen and the owners of fishing boats and vessels on the Atlantic waters, of $150,000 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, the details of the expenditure to be settled each year by Order

in Council. For the year 1938, payment was made under authority of the Deep Sea Fisheries Act (R.S.C. 1927, c. 74) on the following basis: to owners of vessels entitled to receive bounty, $1 per registered ton, payment to the owner of any one vessel not to exceed $80; to vessel fishermen entitled to receive bounty, $6 each; to owners of boats measuring not less than 12 feet keel, $1 per boat; and to boat fishermen entitled to receive bounty, $5·55 each.

1.—Government Bounties Paid to Fishermen, 1935-38.

Province.	Numbers of Men Who Received Bounties.				Amounts of Bounties Paid.[1]			
	1935.	1936.	1937.	1938.	1935.	1936.	1937.	1938.
					$	$	$	$
Prince Edward Island	2,129	2,129	2,062	2,392	12,815	13,495	15,748	14,991
Nova Scotia	11,093	11,022	10,437	11,540	74,843	77,349	86,409	81,863
New Brunswick	3,248	2,710	2,196	2,975	23,174	20,508	19,273	21,344
Quebec	8,135	7,714	5,120	6,733	49,133	48,625	38,427	41,784
Totals	**24,605**	**23,575**	**19,815**	**23,640**	**159,965**	**159,977**	**159,857**	**159,982**

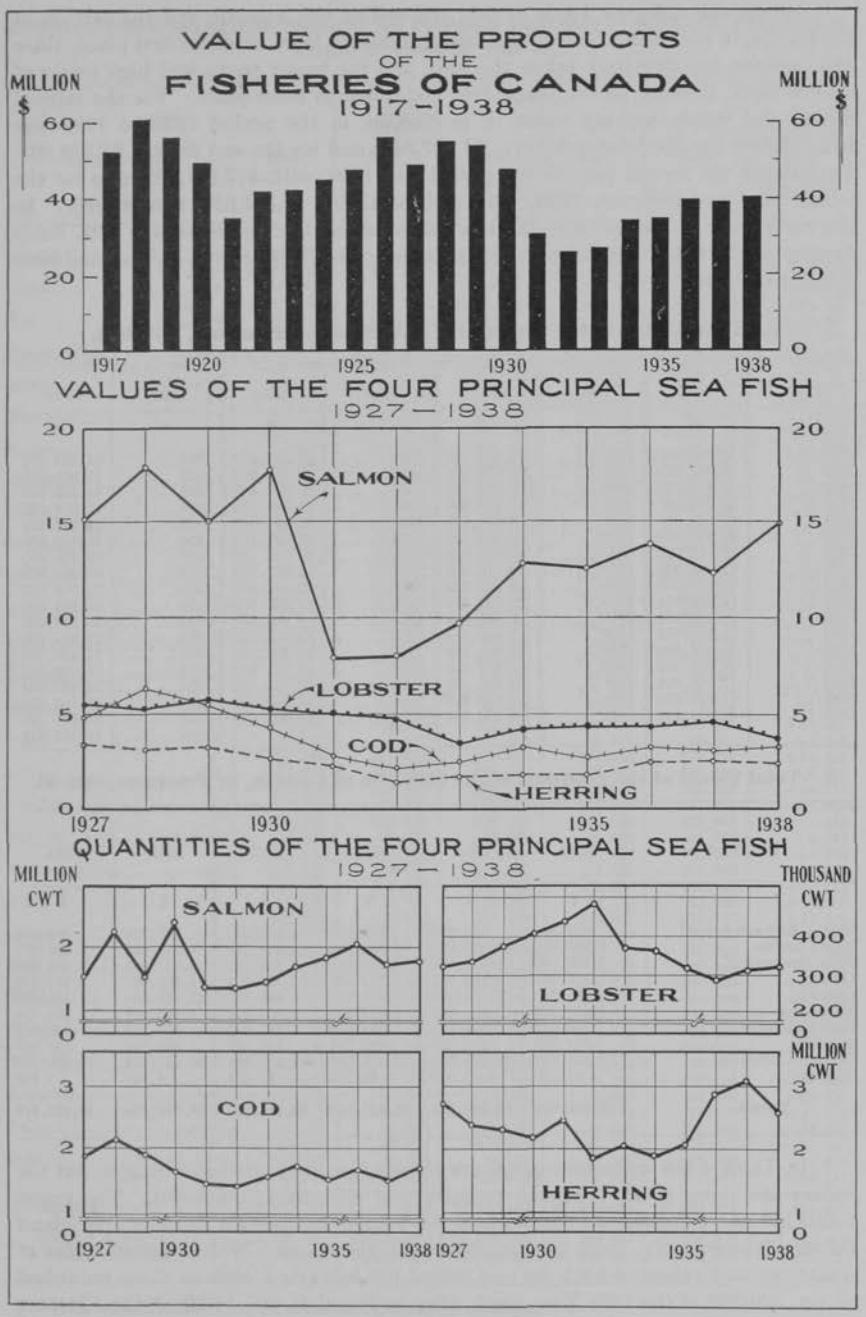
[1] Amounts include payments to vessel- and boat-owners.

Collection of Statistics.—The fisheries statistics of Canada are issued under an arrangement for statistical co-operation between the Dominion Bureau of Statistics, the Dominion Department of Fisheries, and those branches of the different Provincial Governments having jurisdiction with regard to fisheries. Under this arrangement, the statistics of the catch and of the products marketed in the fresh state or domestically prepared are collected by the local fishery officers, checked in the Department of Fisheries, so far as operations in areas where the fisheries are under Dominion administration are concerned, and compiled in the Dominion Bureau of Statistics. In the case of manufactured fish products, schedules similar to those of other sections of the Census of Industry are sent by the Bureau to the operators of canneries, fish-curing establishments, etc. The fisheries officers assist in securing expeditious and correct reports.

Section 4.—The Modern Fishing 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. It doubled in the following decade and by 1860 had passed the million mark. Ten years later it reached $6,000,000 and this was again more than doubled by 1878. 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. Since then there have been decreases in value, due to lower prices rather than to smaller catches. In 1938 the value was $40,492,976. It will be understood that the figures given represent the total value of fish as marketed, whether in a fresh, dried, canned, or otherwise prepared state.

* Revised by Miss F. A. Brown, Chief of the Fisheries and Animal Products Branch, Dominion Bureau of Statistics. This Branch publishes an Annual Report on the Fisheries Statistics of Canada, together with advance summaries on fish caught, marketed, and prepared, by provinces.


VALUE OF THE PRODUCTS
OF THE
FISHERIES OF CANADA
1917-1938
MILLION $
MILLION $
60
40
20
0
1917
1920
1925
1930
1935
1938
VALUES OF THE FOUR PRINCIPAL SEA FISH
1927 — 1938
SALMON
LOBSTER
COD
HERRING
20
15
10
5
0
1927
1930
1935
1938
QUANTITIES OF THE FOUR PRINCIPAL SEA FISH
1927 — 1938
MILLION CWT
THOUSAND CWT
SALMON
LOBSTER
COD
HERRING
MILLION CWT
400
300
200
3
2
1
0

Among the different kinds of fish, the cod of the Atlantic and the salmon of the Pacific, in the earlier years of the fishing industry, were rivals for first place; since 1895 salmon has definitely taken the lead, and the heavy packs and high prices of lobster have, in more recent years, sent cod down to third place. For the salmon fishery the yearly average value of production in the period 1929 to 1938 was $12,515,482; for the lobster fishery, $4,567,646; and for the cod fishery $3,319,603. For salmon the record year in the period was 1930, with $17,731,891; and for the lobster and cod fisheries, 1929, with $5,696,542 and $5,394,636, respectively. In the early days of the industry the leadership among the provinces was with Nova Scotia, but British Columbia now occupies first place, Nova Scotia second, and New Brunswick third.

2.—Total Values of the Products of the Fisheries of Canada, 1870-1938.

Year.	Value.	Year.	Value.	Year.	Value.	Year.	Value.
	$		$		$		$
1870	6,577,391	1887	18,386,103	1904	23,516,439	1921	34,931,935
1871	7,573,199	1888	17,418,508	1905	29,479,562	1922	41,800,210
1872	9,570,116	1889	17,655,254	1906	26,279,485	1923	42,565,545
1873	10,754,997	1890	17,714,900	1907	25,499,349	1924	44,534,235
1874	11,681,886	1891	18,977,874	1908	25,451,085	1925	47,942,131
1875	10,350,385	1892	18,941,169	1909	29,629,169	1926	56,360,633
1876	11,117,000	1893	20,686,659	1910	29,965,142	1927	49,123,609
1877	12,005,934	1894	20,719,570	1911	34,667,872	1928	55,050,973
1878	13,215,678	1895	20,199,338	1912	33,389,464	1929	53,518,521
1879	13,529,254	1896	20,407,424	1913	33,207,748	1930	47,804,216
1880	14,499,979	1897	22,783,544	1914	31,264,631	1931	30,517,306
1881	15,817,162	1898	19,667,121	1915	35,860,708	1932	25,957,109
1882	16,824,092	1899	21,891,706	1916	39,208,378	1933	27,496,946
1883	16,958,192	1900	21,557,639	1917	52,312,044	1934	34,022,323
1884	17,766,404	1901	25,737,153	1918	60,259,744	1935	34,427,854
1885	17,722,973	1902	21,959,433	1919	56,508,479	1936	39,165,055
1886	18,679,288	1903	23,100,878	1920	49,241,339	1937	38,976,294
						1938	40,492,976

3.—Total Values of the Products of the Fisheries of Canada, by Provinces, 1933-38.

Province.	1933.	1934.	1935.	1936.	1937.	1938.
	$	$	$	$	$	$
Prince Edward Island	842,345	963,926	899,685	953,029	870,299	930,874
Nova Scotia	6,010,601	7,673,865	7,852,899	8,905,268	9,229,834	8,804,231
New Brunswick	3,000,045	3,679,970	3,949,615	4,399,735	4,447,688	3,996,064
Quebec	2,128,471	2,306,517	1,947,259	2,108,404	1,892,036	1,957,279
Ontario	2,089,842	2,218,550	2,852,007	3,209,422	3,615,666	3,353,775
Manitoba	1,076,136	1,465,358	1,258,335	1,667,371	1,796,012	1,811,124
Saskatchewan	186,417	219,772	252,059	367,025	527,199	468,646
Alberta	144,518	245,405	225,741	309,882	433,354	492,943
British Columbia	12,001,471	15,234,335	15,169,529	17,231,534	16,155,439	18,672,750
Yukon	17,100	14,625	20,725	13,385	8,767	5,290
Totals	**27,496,946**	**34,022,323**	**34,427,854**	**39,165,055**	**38,976,294**	**40,492,976**

In Table 4 the quantities given are those of primary products caught, but the values are those of all products, primary and secondary, marketed. The grand totals are also subdivided so as to show the values that the sea fisheries and inland fisheries, respectively, yield, as compared with the whole. More detailed tables of quantities and values of both sea and inland fish marketed, such as those published at pp. 326-328 of the 1938 Year Book, may be found at pp. 14-20 of the "Report on Fisheries Statistics, 1938" published by the Dominion Bureau of Statistics.

4.—Quantities Caught and Values of All Products Marketed of the Chief Commercial Fishes of Canada, 1934-38.

Kind of Fish.	1934.	1935.	1936.	1937.	1938.	Increase or Decrease 1938 Compared with 1937.
Salmon.....cwt.	1,696,856	1,824,205	2,029,704	1,724,213	1,766,728	+42,515
$	12,875,257	12,540,307	13,867,513	12,370,219	14,992,544	+2,622,325
Lobster.....cwt.	361,992	319,969	283,273	309,950	314,385	+4,435
$	4,269,764	4,378,742	4,383,428	4,633,429	3,793,219	−840,210
Cod.....cwt.	1,714,059	1,539,150	1,699,974	1,523,626	1,702,023	+178,397
$	3,327,507	2,758,140	3,331,750	3,140,230	3,335,231	+195,001
Herring.....cwt.	1,901,874	2,060,320	2,852,381	3,057,503	2,533,677	−523,826
$	1,799,967	1,817,540	2,576,533	2,556,883	2,487,231	−69,652
Halibut.....cwt.	123,152	132,130	138,468	150,583	162,540	+11,957
$	1,134,307	1,285,587	1,441,310	1,598,190	1,789,444	+191,254
Whitefish.....cwt.	144,615	147,456	144,603	173,675	154,244	−19,431
$	1,358,692	1,432,072	1,525,700	1,887,889	1,650,347	−237,542
Sardines.....bbl.	191,549	187,666	247,238	159,481	184,450	+24,969
$	1,039,002	1,335,798	1,598,562	1,526,505	1,393,129	−133,376
Haddock.....cwt.	356,068	368,426	403,010	388,823	393,589	+4,766
$	1,075,529	1,129,695	1,291,905	1,296,313	1,361,992	+65,679
Trout.....cwt.	58,977	66,325	72,973	70,588	72,873	+2,285
$	594,354	768,568	842,738	1,031,740	1,036,292	+4,552
Pickerel.....cwt.	122,512	109,548	145,635	143,020	128,812	−14,208
$	844,848	801,822	1,109,397	1,043,532	1,031,868	−11,664
Pilchard.....cwt.	860,103	911,411	889,037	961,485	1,035,369	+73,884
$	549,910	670,328	667,313	902,619	867,007	−35,612
Mackerel.....cwt.	190,818	160,495	227,638	239,163	285,565	+46,402
$	421,013	308,721	461,866	635,740	560,716	−75,024
Blue pickerel.....cwt.	24,321	51,230	68,995	94,496	73,171	−21,325
$	116,741	302,259	614,055	812,665	497,564	−315,101
Saugers.....cwt.	48,695	35,044	47,711	82,676	95,007	+12,331
$	242,889	155,975	263,579	377,884	488,786	+110,902
Smelts.....cwt.	59,909	79,409	94,868	67,343	71,256	+3,913
$	557,538	588,333	655,656	444,473	486,485	+42,012
Perch.....cwt.	72,766	72,001	32,258	35,231	43,661	+8,430
$	384,889	401,034	268,653	277,220	335,563	+58,343
Clams.....cwt.	85,314[1]	137,944	143,274	142,472	150,528	+8,056
$	111,885[1]	173,626	192,910	240,184	285,561	+45,377
Tullibee.....cwt.	44,076	39,721	59,265	55,966	57,932	+1,966
$	204,984	225,808	276,464	284,288	283,836	−452
Ling cod.....cwt.	47,806	62,841	68,932	42,858	46,516	+3,658
$	281,644	326,029	392,147	275,817	283,511	+7,694
Hake and cusk.....cwt.	246,179	189,756	228,047	229,225	261,898	+32,673
$	257,340	221,341	316,200	299,004	280,161	−18,843
Pike.....cwt.	37,195	44,761	54,370	51,320	62,283	+10,963
$	149,821	181,263	225,589	215,306	233,182	+17,876
Oysters.....bbl.	24,964	27,113	26,965	24,687	24,476	−211
$	158,241	178,126	189,922	180,079	175,620	−4,459
Eels.....cwt.	25,238	25,091	23,440	20,980	22,064	+1,084
$	159,674	162,370	153,495	144,277	157,198	+12,921
Scallops.....gal.	89,890	133,225	170,762	183,755	95,686	−88,069
$	168,415	207,641	334,424	296,529	140,509	−156,020
Grayfish.....cwt.	117,020	107,400	145,701	148,913	197,110	+48,197
$	64,715	58,079	86,783	81,238	136,660	+55,422
Swordfish.....cwt.	14,091	22,339	17,853	15,020	10,929	−4,091
$	176,640	264,097	230,798	238,165	132,763	−105,402
Alewives.....cwt.	70,739	83,086	88,860	74,890	104,520	+29,630
$	72,479	98,244	93,628	76,698	116,414	+39,716
Pollock.....cwt.	85,037	82,048	126,345	239,845	101,334	−138,511
$	95,024	82,745	114,200	222,208	115,017	−107,191
Sole.....cwt.	14,469	16,578	24,301	27,456	23,602	−3,854
$	71,741	79,246	108,409	123,398	107,957	−15,441
Grand Totals[2]..... $	**34,022,323**	**34,427,854**	**39,165,055**	**38,976,294**	**40,492,976**	**+1,516,682**
Totals, Sea Fish ... $	29,241,738	29,175,400	32,951,504	31,984,047	33,774,148	+1,790,101
Totals, Inland Fish.. $	4,780,585	5,252,454	6,213,551	6,992,247	6,718,828	− 273,419

[1] Includes quahaugs.

[2] Includes other items not specified.

Quantities and Values in Recent Years.—The values upon which the figures of Table 5 are based are those of the fish products as marketed, i.e., they include values added by processing such as the canning, curing, etc., of fish products. The indexes of volume, on the other hand, are based upon the quantities of fish reported as caught and landed.

5.—Percentages of Total Value and Indexes of Volume of Fisheries Production, by Principal Kinds of Sea and Inland Fish, 1927-38.

NOTE.—Based on values as marketed and quantities caught.

Kind of Fish.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
Percentages of Total Value.												
Salmon	30·7	32·5	28·0	37·1	26·1	31·0	34·8	37·9	36·4	35·4	31·7	37·0
Lobster	11·0	9·4	10·7	10·9	16·5	18·3	12·8	12·6	12·7	11·2	11·9	9·4
Cod	9·9	11·4	10·1	9·0	9·3	8·5	9·5	9·8	8·0	8·5	8·1	8·2
Herring	6·8	5·6	6·0	5·5	7·6	5·7	6·4	5·3	5·3	6·6	6·6	6·1
Halibut[1]	8·0	6·9	9·0	6·0	5·8	4·7	6·2	3·3	3·7	3·7	4·1	4·4
Whitefish	4·5	4·0	4·6	3·8	4·7	4·6	4·1	4·0	4·2	3·9	4·8	4·1
Haddock	3·0	3·2	3·6	3·9	4·5	4·3	3·0	3·2	3·3	3·3	3·3	3·4
Sardines	2·1	2·3	3·0	2·2	2·7	1·6	2·3	3·1	3·9	4·1	3·9	3·4
Pickerel	2·7	2·9	2·7	2·0	2·5	2·7	2·3	2·5	2·3	2·8	2·7	2·6
Trout	2·8	2·4	2·5	2·2	2·3	2·2	1·9	1·7	2·2	2·2	2·6	2·6
Pilchards	3·7	4·7	4·1	3·3	2·6	1·5	0·3	1·6	1·9	1·7	2·3	2·1
Mackerel	1·2	1·0	1·0	1·3	1·6	1·1	1·4	1·2	0·9	1·2	1·6	1·4
Smelts	2·3	2·3	2·2	1·8	2·1	2·7	1·8	1·6	1·7	1·7	1·1	1·2
Perch	0·6	1·4	1·2	0·7	0·8	1·0	0·9	1·1	1·2	0·7	0·7	0·8
Clams and quahaugs[2]	0·6	0·6	0·6	0·7	0·7	0·6	0·4	0·3	0·5	0·5	0·6	0·7
Hake and cusk	0·5	0·7	1·0	0·9	0·6	0·5	0·5	0·8	0·6	0·8	0·8	0·7
Ling cod	0·8	0·7	0·8	0·7	0·8	0·6	0·7	0·8	0·9	1·0	0·7	0·7
Tullibee	1·3	1·1	1·3	1·0	0·6	0·9	1·0	0·6	0·7	0·7	0·7	0·7
Pike	0·7	0·7	0·8	0·5	0·5	0·5	0·4	0·4	0·5	0·6	0·6	0·6
Grand Totals[3]	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
Totals, Sea Fish[3]	84·6	84·8	83·9	86·7	84·5	83·8	85·2	85·9	84·7	84·1	82·1	83·4
Totals, Inland Fish[3]	15·4	15·2	16·1	13·3	15·5	16·2	14·8	14·1	15·3	15·9	17·9	16·6
Indexes of Volume (1926=100).												
Salmon	70·7	104·9	71·1	108·4	61·6	61·1	66·8	77·8	83·7	93·1	79·1	81·0
Lobster	93·3	98·0	109·8	120·0	128·4	142·4	110·5	106·7	94·2	83·4	91·3	92·6
Cod[4]	73·8	80·1	73·8	61·9	54·5	53·2	58·2	63·8	57·3	63·4	56·8	63·4
Herring	112·5	98·9	95·7	90·5	108·5	76·9	84·9	78·5	85·0	117·7	126·2	104·6
Halibut[1]	88·2	97·1	98·8	83·1	62·0	57·0	59·1	36·2	38·9	40·7	44·3	47·8
Whitefish	97·4	94·8	103·0	89·0	82·0	72·6	79·8	75·9	77·4	75·9	91·1	80·9
Haddock	84·8	97·0	109·8	97·9	73·2	72·5	54·2	71·6	74·2	81·1	78·3	79·2
Sardines	100·9	165·2	144·0	74·8	36·8	38·6	75·4	110·6	108·4	142·8	92·1	106·5
Pickerel	111·0	113·1	102·0	81·8	73·2	71·0	84·3	97·2	86·9	115·5	113·5	102·2
Trout	117·0	116·5	115·5	88·7	73·0	63·8	64·7	75·0	84·3	92·7	89·7	92·6
Pilchards	141·2	166·0	178·1	154·8	151·8	91·5	12·5	88·7	94·0	91·7	99·1	106·7
Mackerel	137·5	107·2	132·2	154·6	170·0	154·6	228·0	165·3	139·0	197·1	207·2	247·3
Smelts	89·7	99·6	91·0	71·6	80·7	104·2	84·2	64·9	86·1	102·8	73·0	77·2
Perch	113·4	174·3	219·8	143·5	168·6	200·0	134·4	238·5	236·0	105·7	115·5	143·2
Clams and quahaugs[2]	106·4	116·8	124·9	119·3	103·4	92·0	70·6	78·6	127·2	132·1	131·4	138·8
Hake and cusk	117·4	167·7	224·7	194·9	113·7	84·8	117·5	163·0	125·6	151·0	151·9	173·4
Ling cod[4]	100·5	102·1	97·6	99·8	102·6	80·4	81·1	96·2	126·5	138·7	86·2	93·6
Tullibee	120·0	102·6	96·2	61·1	42·2	46·9	41·7	43·4	39·1	58·4	55·1	57·1
Pike	97·3	86·5	113·9	77·9	62·7	57·1	56·7	51·3	61·7	75·0	70·8	85·9

[1] Landings at British Columbia ports by United States vessels excluded for 1934 and later years. [2] Clams only in 1935 and later years. [3] Totals include minor items not specified. [4] Since ling cod was included with cod for 1926, the average of the years 1927-30 was taken as the quantity of ling cod for 1926 and this was deducted from the quantity of cod reported for 1926, the resulting amount being used as the base for the volume index.

Establishments, Capital, and Employees.—As indicated in Table 6, each of the provinces reported a reduction in the number of establishments operating in 1938. With regard to capital the total invested reached an all-time record of $64,026,297 in 1930, declined successively for three years to $40,914,057 in 1933, rose again in 1935 and in 1936, in 1937 declined slightly to $44,926,764, and in 1938 advanced to $48,561,442. The number of persons employed in the primary and secondary operations connected with the fishing industry declined from 80,450 in 1929 to 74,882 in 1931, rose steadily since then to 83,436 in 1934, dropped in 1935, to 82,918, rose again to 86,973 in 1936, declined in 1937 to 84,025, and increased to 85,894 in 1938. The 1938 figure is the second highest in the period 1920 to 1938.

6.—Fish-Canning and -Curing Establishments, by Provinces, 1937 and 1938.

Year and Kind of Establishment.	P.E.I.	N.S.	N.B.	Que.	B.C.	Canada.
1937.	No.	No.	No.	No.	No.	No.
Lobster canneries	74	71	78	54	Nil	277
Salmon canneries	Nil	2	Nil	33	37	72
Clam canneries	3	5	11	Nil	2	21
Sardine and other fish canneries	1	6	3	"	2	12
Fish-curing establishments	8	69	26	44	31	178
Freezing plants	Nil	4	5	8	2	19
Reduction plants	"	4	2	1	11	18
Totals, 1937	**86**	**161**	**125**	**140**	**85**	**597**
1938.						
Lobster canneries	64	62	73	16	Nil	215
Salmon canneries	Nil	2	Nil	62	38	102
Clam canneries	4	5	12	Nil	4	25
Sardine and other fish canneries	Nil	5	3	1	2	11
Fish-curing establishments	10	75	22	46	19	172
Freezing plants	Nil	2	5	9	2	18
Reduction plants	"	4	3	1	10	18
Totals, 1938	**78**	**155**	**118**	**135**	**75**	**561**

7.—Values of Materials Used and of Products of Fish-Canning and -Curing Establishments, 1934-38.

Material and Product.	1934.	1935.	1936.	1937.	1938.
Materials Used—	$	$	$	$	$
Fish	11,638,820	10,958,895	11,916,080	12,179,219	12,589,724
Edible oils	[1]	[1]	137,144	134,426	104,605
Salt	236,185	212,554	256,651	208,510	206,797
Containers	3,345,792	3,152,924	3,672,437	3,353,174	3,728,603
Other	346,363	448,349	477,626	443,452	452,331
Totals, Materials Used	**15,567,160**	**14,772,722**	**16,459,938**	**16,318,781**	**17,082,060**
Products—					
Fish marketed for consumption, fresh	4,897,000	5,204,465	6,430,174	7,056,041	6,052,397
Fish canned, cured, or otherwise prepared	19,159,927	18,253,891	20,254,627	19,032,584	21,896,811
Totals, Products	**24,056,927**	**23,458,356**	**26,684,801**	**26,088,625**	**27,949,208**

[1] Included with "Other"

8.—Numbers and Capital Values of Fishing Vessels, Boats, Nets, Traps, etc., Used in the Fisheries of Canada, and of Establishments Processing the Products, 1937 and 1938.

Equipment or Kind of Establishment.	1937.		1938.	
	Number.	Value.	Number.	Value.
Sea Fisheries—		$		$
Steam trawlers	3	75,000	3	69,000
Steam fishing vessels	6	150,000	6	150,000
Sailing, gasoline and diesel vessels	999	4,337,314	1,133	3,960,120
Gasoline and diesel boats	19,880	7,610,194	19,875	7,486,346
Sail and rowboats	13,695	384,626	14,518	390,424
Packers, carrying boats, and scows	456	690,274	425	882,274
Gill nets	69,410	855,658	69,584	857,589
Salmon drift nets	12,543	1,043,442	13,511	1,323,470
Salmon trap nets	959	391,480	987	397,490
Trap nets, other	509	263,620	639	281,170
Smelt nets	15,725	357,650	15,974	366,638
Pound nets	51	7,650	49	7,350
Oulachon nets	27	810	28	840
Shrimp nets	28	2,350	23	1,975
Salmon purse seines	208	259,200	262	301,200
Salmon drag seines	21	10,750	9	5,350
Seines, other	882	257,675	888	241,425
Weirs	393	319,695	490	380,025
Skates of gear	3,654	66,044	3,034	58,475
Tubs of trawl	21,770	293,383	22,828	307,172
Other trawl	13	2,150	15	6,850
Hand lines	70,197	174,415	70,629	175,343
Crab traps	8,741	33,272	6,778	26,545
Eel traps	625	5,898	782	1,112
Lobster traps	2,210,517	2,580,096	2,094,070	2,315,970
Lobster pounds	52	67,280	33	65,275
Oyster rakes	1,873	5,803	1,879	5,852
Scallop drags	1,025	23,362	662	20,799
Quahaug rakes	170	583	277	896
Fishing piers and wharves	1,753	594,810	1,721	573,675
Freezers and ice-houses	715	256,880	727	251,945
Small fish- and smoke-houses	7,405	699,358	7,443	699,473
Other gear	–	62,215	–	67,737
Total Values, Sea Fisheries		**21,882,937**		**21,679,805**
Inland Fisheries—				
Fish carriers	27	126,700	27	124,850
Tugs	91	609,633	101	685,010
Gasoline boats	1,575	900,418	1,629	903,126
Skiffs and canoes	3,753	109,871	3,602	109,179
Gill nets	–	1,791,202	–	1,793,774
Seines	344	26,986	317	23,319
Trap nets	1	700	1	800
Pound nets	1,094	555,927	1,112	534,580
Hoop nets	1,136	27,283	1,462	30,969
Dip and roll nets	93	1,184	68	298
Nets, other	767	22,940	[1]	[1]
Lines	1,250	8,377	1,849	13,263
Weirs	60	700	342	67,500
Spears	86	603	325	1,396
Eel traps	639	89,590	260	1,100
Fish wheels	10	850	8	680
Fishing piers and wharves	500	152,373	578	155,252
Freezers and ice-houses	855	432,195	940	412,753
Small fish- and smoke-houses	157	55,910	195	61,290
Total Values, Inland Fisheries		**4,913,442**		**4,919,139**
Fish-Canning and -Curing Establishments—[1]				
Salmon canneries	72	8,399,825	102	11,615,322
Fish-curing establishments	178	4,500,166	172	5,333,983
Sardine and other fish canneries	12	1,837,321	11	2,181,350
Lobster canneries	277	1,660,901	215	1,220,121
Reduction plants	18	1,113,559	18	922,042
Freezing plants	19	412,557	18	404,971
Clam canneries	21	206,056	25	284,709
Totals for Fish-Canning and -Curing Establishments	**597**	**18,130,385**	**561**	**21,962,498**
Grand Totals, Capital Invested in Fisheries		**44,926,764**		**48,561,442**

[1] Included with specified classes of nets.

[2] Comprises values of land, buildings and machinery, products and supplies on hand, accounts and bills receivable, and cash.

9.—Persons Employed in the Fisheries of Canada and in Processing Establishments Connected Therewith, 1936-38.

Employed in—	Sea Fisheries.			Inland Fisheries.		
	1936.	1937.	1938.	1936.	1937.	1938.
	No.	No.	No.	No.	No.	No.
Steam trawlers	75	75	79	Nil	Nil	Nil
Vessels	5,083	5,201	5,843	[1]	[1]	[1]
Boats	48,948	46,788	47,161	8,994	8,689	8,384
Packers, carrying boats, and scows	965	594	649	132	128	102
Fishing not in boats	3,300	3,140	3,302	4,238	5,366	5,990
Totals, Fishermen[2]	**58,371**	**55,798**	**57,034**	**13,364**	**14,183**	**14,476**

[1] Included with "Boats". [2] These totals include all individuals employed in primary fishing operations irrespective of the period of employment. The census figure for 1931, given at p. 285, includes only those whose main occupation was fishing.

10.—Employees in Fish-Canning and -Curing Establishments, 1936-38.

Employed in—	1936.			1937.			1938.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Lobster canneries	2,278	3,256	5,534	2,077	3,099	5,176	1,789	2,949	4,738
Salmon canneries	2,960	2,553	5,513	2,305	2,174	4,479	2,714	2,439	5,153
Clam canneries	94	177	271	120	196	316	138	268	406
Sardine and other fish canneries	374	354	728	403	427	830	443	478	921
Fish-curing establishments	2,421	307	2,728	2,309	322	2,631	2,315	408	2,723
Freezing plants	138	10	148	214	43	257	178	34	212
Reduction plants	308	8	316	346	9	355	219	12	231
Totals	**8,573**	**6,665**	**15,238**	**7,774**	**6,270**	**14,044**	**7,796**	**6,588**	**14,384**

11.—Employees and Salaries and Wages in Fish-Canning and -Curing Establishments, 1920-38.

Year.	On Salaries.		On Wages.		Contract and Piece-Workers.		Totals.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		$		$		$		$
1920	651	759,176	13,137	3,180,701	4,711	916,413	18,499	4,856,290
1921	487	551,330	10,534	2,023,040	3,083	399,016	14,104	2,973,386
1922	614	682,535	11,848	2,358,780	4,115	600,415	16,577	3,641,730
1923	585	681,101	11,265	2,443,971	3,597	644,842	15,447	3,769,914
1924	574	755,631	10,583	2,588,717	4,379	890,413	15,536	4,234,761
1925	632	806,418	10,687	3,166,045	4,953	998,704	16,272	4,971,167
1926	546	733,760	11,579	3,807,533	5,283	1,081,544	17,408	5,622,837
1927	639	871,211	11,343	3,769,791	4,715	732,949	16,697	5,373,951
1928	630	853,800	10,579	3,539,070	4,225	868,226	15,434	5,261,096
1929	660	951,669	11,122	3,668,802	4,585	791,384	16,367	5,411,855
1930	591	918,952	9,967	3,383,902	5,164	1,023,609	15,722	5,326,463
1931	540	692,270	9,577	2,069,153	2,954	421,452	13,071	3,182,875
1932	486	602,760	9,799	1,741,404	3,439	477,714	13,724	2,821,878
1933	473	558,500	9,453	1,728,885	4,116	736,683	14,042	3,024,068
1934	548	676,124	9,642	2,193,995	4,612	684,956	14,802	3,555,075
1935	550	703,075	9,468	2,171,478	4,343	679,395	14,361	3,553,948
1936	558	734,678	10,073	2,544,903	4,607	724,269	15,238	4,003,850
1937	602	722,651	9,671	2,632,120	3,771	687,794	14,044	4,042,565
1938	642	772,493	9,092	2,775,425	4,750	680,037	14,484	4,227,955

Trade.—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 yearly capture is an average export, of which the United States takes approximately one-half and the United Kingdom one-fourth. The most important single export is canned salmon (to the United Kingdom and European markets), followed by fresh lobster, canned lobster, fresh salmon, fresh whitefish, and dried cod (to the West Indies, South America, etc.). For fresh fish the United States is the chief market. A complete analysis of imports and exports, as well as of production, is given in the "Report on Fisheries Statistics, 1938," issued by the Dominion Bureau of Statistics.

12.—Values of Exports and Imports of Fish and Fish Products, Fiscal Years 1902-39.

NOTE.—In this table "Exports" includes seal oil and skins, fish oils, and whale oil, and "Imports" includes turtles, whalebone, shells and their products, fur skins of marine animals, fish, seal, and whale oils, and ambergris, in addition to fishery products as shown in Tables 12 and 13 of Chapter XVI on External Trade in this volume.

Year.	Exports of Domestic Fish.	Imports of Fish, etc., for Home Consumption.		Year.	Exports of Domestic Fish.	Imports of Fish, etc., for Home Consumption.	
		Dutiable.	Free.			Dutiable.	Free.
	$	$	$		$	$	$
1902	14,143,294	620,706	525,459	1921	33,615,119	2,416,152	1,876,303
1903	11,800,184	659,717	743,703	1922	29,578,392	2,172,850	996,763
1904	10,759,029	734,800	850,945	1923	27,816,935	2,066,300	899,531
1905	11,114,318	752,558	751,402	1924	30,925,769	1,878,336	648,696
1906	16,025,840	814,540	1,234,563	1925	33,967,009	2,064,222	997,059
1907[1]	10,362,142	735,045	924,046	1926	37,487,517	1,949,269	641,240
1908	13,867,367	838,037	1,103,649	1927	36,365,454	2,347,890	909,188
1909	13,319,664	784,176	925,173	1928	35,660,287	2,595,591	1,181,067
1910	15,663,162	952,522	820,183	1929	37,962,929	2,956,182	1,218,386
1911	15,675,544	1,175,072	820,019	1930	37,185,185	3,078,385	1,100,335
1912	16,704,678	1,261,096	1,148,522	1931	29,693,978	2,393,870	988,689
1913	16,336,721	1,608,663	910,923	1932	24,854,088	1,726,622	701,632
1914	20,623,560	1,558,663	773,109	1933	17,425,228	1,281,466	425,138
1915	19,687,068	1,155,186	701,112	1934	20,972,444	1,278,497	539,456
1916	22,377,977	895,371	695,702	1935	23,294,508	1,799,936	726,168
1917	24,889,253	1,347,511	1,128,768	1936	25,572,665	1,877,831	798,380
1918	32,602,151	1,039,585	1,884,041	1937	26,702,831	1,942,849	1,101,926
1919	37,137,072	1,054,848	2,128,970	1938	28,516,040[2]	1,847,339	1,163,700
1920	42,227,996	2,605,379	1,446,493	1939	28,042,186	2,091,827	1,083,233

[1] Nine months. [2] Revised since the publication of the 1939 Year Book.

13.—Exports of the Fisheries, the Produce of Canada, by Principal Countries, Calendar Years 1937 and 1938.

Exports to—	1937.	1938.	Exports to—	1937.	1938.
	$	$		$	$
British Empire.			**Foreign Countries.**		
United Kingdom	6,721,764	6,880,661	Belgium	139,119	100,736
Africa, British East	10,033	13,095	Brazil	100,561	59,308
Africa, British South	602,936	621,345	China	99,912	42,687
Southern Rhodesia	16,428	12,970	Colombia	33,940	29,497
Bermuda	37,642	46,031	Cuba	239,980	212,739
British India	41,547	53,385	Denmark	8,135	24,903
Straits Settlements	38,496	39,503	France	784,746	691,833
British Guiana	160,597	216,816	Germany	556,422	687,844
Barbados	67,965	43,301	Haiti	104,630	92,835
Jamaica	422,991	421,158	Japan	585,193	459,783
Trinidad and Tobago	345,733	363,116	Netherlands	33,578	45,116
Other British West Indies	100,651	118,953	Netherlands Guiana	15,170	21,337
Hong Kong	84,403	22,469	Netherlands West Indies	13,816	22,193
Newfoundland	19,648	23,247	Norway	68,666	86,551
Australia	1,963,688	1,932,655	Panama	16,600	32,001
Fiji	55,536	78,912	Portuguese Africa	35,882	28,011
New Zealand	408,081	522,680	Santo Domingo	59,297	21,155
			Sweden	340,151	331,738
			United States	14,004,575	12,713,819
			Puerto Rico	215,709	182,945
Totals, British Empire[1]	**11,178,572**	**11,457,680**	**Totals, Foreign Countries**[1]	**17,723,580**	**16,086,000**
			Grand Totals	**28,902,152**	**27,543,680**

[1] Includes other countries not specified.

Fisheries Production, 1939.—Preliminary indications regarding the sea fisheries catch and landed value for 1939 would seem to show that there will be a slight drop in the catch of sea fish and shellfish and a slight falling off in the landed value. A small decrease in the marketed value is also indicated. On the Atlantic Coast there was a slight decrease in the quantity of lobsters taken and the dried fish production fell off considerably. On the Pacific Coast the catch of salmon was less and the pack of salmon showed a drop of almost 200,000 cases. The catch of halibut, however, was considerably greater. At the time of going to press (April, 1940) the statistics of the fisheries for inland Canada were not available.

CHAPTER XII.—MINES AND MINERALS.*

CONSPECTUS.

	Page.
The Development of Canada's Mineral Resources in Relation to the Present War Effort	298
Section 1. Mineral Lands Administration and Mining Laws	309
Subsection 1. Mining Laws and Regulations on Dominion Lands	309
Subsection 2. Provincial Mining Laws and Regulations	310
Section 2. Summary of General Production	314
Subsection 1. General Statistics of Mineral Production	314
Subsection 2. Provincial Distribution of Mineral Production	319
Section 3. Industrial Statistics of Mines and Minerals—Capital, Labour, Wages, etc., in the Mineral Industries	324
Subsection 1. Principal Factors in the Mineral Industries	324
Subsection 2. Growth of the Mining Industry in Recent Years	326
Subsection 3. Principal Mineral Industries	328
Section 4. Production of Metallic Minerals	330
Subsection 1. Cobalt	331
Subsection 2. Copper	331
Subsection 3. Gold	333
Subsection 4. Iron	337
Subsection 5. Lead	338
Subsection 6. Nickel	339
Subsection 7. Metals of the Platinum Group	339
Subsection 8. Radium and Uranium	340
Subsection 9. Silver	340
Subsection 10. Zinc	342
Section 5. Production of Non-Metallic Minerals	343
Subsection 1. Fuels	343
Subsection 2. Other Non-Metallic Minerals	349
Section 6. Production of Clay Products and Other Structural Materials	350

Historical Sketch.—A short historical outline of the development of the mineral industry in Canada is given at pp. 309-310 of the 1939 Year Book.

Statistics of Mines and Minerals.—The compilation and publication of statistics concerning mines and minerals in the Dominion is carried out by the Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics, which works in close co-operation with the Mines Departments of the various Provincial Governments, collecting the data in collaboration with these Departments. Questionnaires sent to those engaged in mineral industries are designed to meet the requirements of both the Dominion and the Provincial authorities, thus eliminating duplication of labour.

More detailed information on the mineral production of Canada is given in the various reports issued by the Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics.* The more important of these are: annual preliminary reports on the mineral production of Canada; a complete, detailed, annual report on the mineral industries; monthly bulletins on the production of the 16 leading minerals; and monthly, quarterly, and annual reports on coal statistics.

The Development of Canada's Mineral Resources in Relation to the Present War Effort.†

Introduction.

Stone, the single essential war mineral of the many millenniums of the Stone Age, was supplemented by copper and tin in the succeeding centuries of the Bronze Age. Wrought iron, laboriously worked from the small quantities of sponge iron produced from ore on the primitive hearth, probably became available for industrial and war use about 800 B.C. The introduction of gunpowder in the early fourteenth

*The sections of this chapter, with the exception of Section 1, have been revised, as regards production figures, by W. H. Losee, B.Sc., Chief of the Mining, Metallurgical and Chemical Branch, Dominion Bureau of Statistics. A complete list of the publications of this Branch appears in Chapter XXIX, Section 1. Subsection 1 of Section 1 has been compiled from material supplied by the Lands, Parks and Forests Branch of the Department of Mines and Resources, Ottawa, and Subsection 2 of Section 1 from material furnished by the Provincial Governments.

† Prepared under the direction of Charles Camsell, C.M.G., LL.D., F.R.S.C., Deputy Minister, by E. S. Martindale, B.A. Sc., Division of Economics, Bureau of Mines, Department of Mines and Resources, Ottawa.

century—beginning a new epoch in warfare—added sulphur, saltpetre, and lead to the short list of essential war minerals. A couple of centuries later the newly developed charcoal-burning blast-furnace for the production of cast-iron was pressed into service to satisfy the rapidly increasing demand for larger and cheaper supplies of gun-making metals. Another two centuries were to elapse before coke was successfully substituted for charcoal in such blast-furnaces, adding coal to the muster roll of war minerals and lifting the restrictions on quantity production of cast-iron imposed by depleted forests.

The influence upon war armaments of the new industrial era that followed the invention of the steam-engine was little apparent until the middle of the nineteenth century, except in facilitating the production of the still relatively small requirements. Then, beginning with the substitution of iron for wood and of steam power for sail in warships, with the introduction of longer ranged rifled guns, and with the discovery of large-scale processes of making steel, virtually all the numerous new developments in mineral employment have been applied to military needs.

Just as transportation, communications, manufacturing, and other phases of civilian life have been completely revolutionized by these new developments and by the recent rapid progress in invention and in methods of mass production, so has the character of warfare been completely changed. As contrasted with warfare up to the beginning of the present century, modern warfare—as illustrated by the War of 1914-18 and, to a still greater degree, by the present War—demands the mobilization of the entire resources—economic (including mineral and industrial) as well as military—of the nations engaged.

A Review of Present War Minerals.—The War of 1914-18 established a record up to that time for its diversity of munitions and supplies, and for the tremendous requirements of such materials.

From the close interrelation that now exists between a nation's war operations and its industrial development, it is evident that practically all the many minerals used in the industrial arts are of war importance, directly or indirectly, and that no definite line can be drawn between minerals that are essential for war and those that are not. There are, however, several minerals, without ample supplies of which a nation, even though strong in man-power, cannot hope to defend itself successfully. These minerals are usually classed as *essential* war minerals, although they are in reality *indispensable* war minerals; they are not, however, limited to those from which armaments and munitions are actually made. Tungsten, for example, is used only in relatively small quantities, chiefly in making the high-speed tool steels necessary for high efficiency mass-production machining operations in munition factories, and is therefore listed as an essential war metal.

Iron still holds its long established position as the chief war metal, but it is no more essential than the manganese required in steel, and the nickel, chromium, cobalt, and molybdenum that, used in small proportions, give strength, toughness, hardness, resistance to shock, endurance, or other properties to the many steels used in war machines. Copper and zinc are essential for the making of brass cartridge-cases and other munitions: large quantities of zinc are used in galvanizing and in paints, and copper is widely used for electrical and communication equipment as well as for shell-bands. Lead and antimony are essential for the making of bullets for small arms and shrapnel, and lead for the storage batteries so widely used in war as in peace. Aluminium has become an essential metal, particularly for the building of aircraft, and magnesium is attaining importance for the same purpose. Platinum is valuable for electrical contact points and as a catalyser in

the production of sulphuric acid for the manufacture of explosives. Tin and mercury, are also essential, the latter being of special importance for the making of detonators for explosives.

Coal, though superseded by oil as naval fuel, is considered as the most important non-metallic war mineral. Petroleum—one of the recent war recruits—is, however, no less essential as the source of the liquid fuels that are vital to the movement of the naval, air, and highly mechanized land forces. Were it not for the lubricants produced from crude petroleum, present mechanized operations on land and sea and in the air would cease at once, and the supporting industrial machine could not function. Other non-metallic minerals usually classed as essential for war are sulphur, mica, asbestos, fluorspar, graphite, potash, magnesite, pyrite, phosphate, and iodine. There are many other minerals that, while actually as essential, are not so classed, in some cases because of widespread and abundant occurrence; limestone, essential for the smelting of iron ore and for the production of other war minerals, is an example. Such seemingly unimportant war-purpose minerals as those used in glass-making are other examples, although, without glass lenses and prisms for range finders, anti-aircraft artillery and long-range naval guns would lose most of their effectiveness.

No nation is self-sufficient in the possession of natural resources from which to draw its full requirements of raw materials, even in peace-time, and all are less so in meeting the greatly expanded war-time demands for essential raw materials. This is particularly true of mineral resources. Deficiencies in native supplies must, therefore, be made good by purchases from other nations—and in war time from allied or neutral nations only. Large economic resources are, therefore, of vital importance in the waging of modern major wars in order to finance such purchases. The great war significance of economic reserves has been demonstrated by the fact that, immediately on the outbreak of the present war, all the Allied nations, including Canada, set up exchange control organizations with wide powers to conserve and build up the national foreign-credit position. This emphasizes the importance of gold, the universally accepted medium of exchange, as an essential war metal, though not usually classed as such.

The contributions that can be made by a nation's mining industry to its war effort are thus of two kinds:—

1. The production at reasonable cost of those minerals that are essential for the manufacture of armaments, munitions, and other war supplies, as well as for normal civil needs.

2. The creation of essential foreign credits by the production of gold and silver, and of other minerals, surplus to national needs, for export sale to neutral countries.

Canada's Mineral Resources Development.

The importance of mining in Canada's economy may be appreciated from the fact that it now ranks second among the great basic industries. The estimated output, valued at over $473,000,000 in 1939, was the highest on record, yielding first place only to agriculture. The Dominion now occupies a leading position among world mineral producers—in 1938, ranking first in nickel, asbestos, and platinum; second in radium; third in gold, silver, copper and zinc; and fourth in lead. These important minerals are produced mainly for export. In addition, Canada produces large quantities of coal, gypsum, petroleum, and many other minerals.

The attainment of such prominence in the mineral field, a development largely of the present century, is evidence of the wealth of the Dominion's mineral resources.

It also shows ability to exploit these resources at the low costs necessary to increase export sales, particularly in the highly competitive export markets that have characterized the past decade. Moreover, all but a small portion of its present very substantial production of metals comes from ore deposits that have so far been found in two of its main physiographic divisions, the Canadian Shield and the Canadian Cordillera. Together, these comprise about two-thirds of the Dominion, but only relatively small portions have as yet been intensively prospected, and much has still to be geologically mapped. The various formations scattered over the vast extent of the Canadian Shield are remarkable for the useful minerals contained—copper, gold, iron, nickel, silver, platinum, cobalt, zinc, radium, chromium, graphite, mica, corundum, talc, feldspar, nepheline-syenite, and most of the other minerals that are used in the arts—the ore deposits ranging in extent to such major bodies as those now being worked at Sudbury, Noranda, Porcupine, Kirkland Lake, and Flin Flon. The Cordillera in British Columbia and Yukon is rich in lodes of gold, silver, lead, zinc, and copper, and has extensive deposits of coal and other minerals, sustaining the reputation of its southern continuation in the western United States, Mexico, and South America as a source of mineral wealth. In addition, the other three major physiographic divisions of Canada are rich in minerals. The Appalachian Highland of the Maritime Provinces, besides containing large deposits of bituminous coal, has yielded gypsum, salt, iron, gold, manganese, antimony, petroleum, and natural gas; and of southeastern Quebec, in addition to containing the world's largest known asbestos deposits, has yielded pyrite, chromite, copper, lead, zinc, and gold. The Great Interior Plain of Western Canada contains Canada's greatest reserves of the mineral fuels, coal, petroleum, natural gas, and bituminous sands, in addition to deposits of such industrial minerals as salt, gypsum, sodium sulphate, and refractory clays. Even the St. Lawrence Lowland, essentially an agricultural and manufacturing area, yields non-metallic minerals of great industrial value, including salt, gypsum, petroleum, and natural gas.

The foregoing brief statement of the diversity of the minerals found in Canada, together with the record of continued growth in mineral production in the past decade, indicates the very substantial contribution the mineral industries are in a position to make to the present war effort.

Development of Canada's Mineral Resources for War Purposes.—During the fifty-four years that intervened between Confederation and the War of 1914-18, Canada's attention was devoted almost entirely to the solution of the numerous problems related to the political and economic development of the new Dominion. Its mineral resources were accordingly explored and developed primarily on the basis of furnishing the growing mineral demands of such a peace-time program, modified by the fact that necessary supplies were conveniently available from the United States. They were also developed for the production of such minerals as could be sold in export markets to provide credits to finance imports of essential manufactured goods and supplies not yet produced in Canada.

In 1913, marking the close of the era of rapid western settlement and its accompanying railway expansion, the Canadian mining industry recorded its peak pre-War annual output value of $145,635,000, of which metallic minerals represented 46 p.c., the mineral fuels 28 p.c., and the industrial minerals, including structural materials and clay products, 26 p.c. All but a relatively small portion of the metals were exported. Silver was the leading metallic mineral in output value, followed by gold, nickel, copper, lead, iron, cobalt, and zinc. Of the four non-ferrous base metals—copper, lead, zinc, and nickel—only lead was produced in refined form,

Canadian requirements of the others in refined form being imported. Of the non-metallic minerals then produced, coal, asbestos, and gypsum were the most important, the last two being very largely sold for export.

The development of Canada's mineral resources up to the commencement of the War of 1914-18, had, therefore, no relation to war requirements, except in the production of nickel matte for export, nickel then being considered largely as a war metal because of its important use in making armour plate. The significant development in the Dominion's mineral industry during the five years of the War was the establishment of domestic metal-refining facilities, the production of refined zinc and refined copper at Trail, B.C., commencing in 1916, and of refined nickel at Port Colborne, Ont., in 1918. Owing to the pressure of war demands at high prices, substantial increases in the production of nickel, copper, lead, zinc, pyrites, molybdenite, chromite, and asbestos were recorded in the war years. However, it was the large growth in mining operations of the period of prosperity ended in 1929, and, more particularly, in the six years of subnormal mineral prices (except for gold) that followed the low point of the depression in 1933, that has established the great strength of the Dominion's mineral position in support of the present war effort.

Not only is the Canadian mining industry able to produce very important essential war minerals in greater quantities than ever before, but it can do so profitably at prices very much lower than those that had to be paid during the War of 1914-18. Thus, a very valuable indirect contribution is being made to the conservation of the Allied economic reserves. In addition, by reason of the remarkable expansion in gold mining in recent years the industry is in an exceptionally strong position to add directly to those economic reserves.

CANADA'S MINERAL PRODUCTION IN 1918 UNDER THE MAXIMUM DEMAND OF THE GREAT WAR, AS COMPARED WITH PRODUCTION IN 1939, BY PRINCIPAL MINERALS.

Mineral.	Quantities.		Values.	
	1918.	1939.[1]	1918.	1939.[1]
METALLICS—			$'000	$'000
Gold ..... fine oz.	699,681	5,095,176	14,464	184,145
Silver ..... "	21,383,979	23,116,861	20,694	9,360
Copper ..... short ton	59,385	304,050	29,251	60,860
Nickel ..... "	46,254	113,053	37,003	50,920
Lead ..... "	25,699	194,189	4,754	12,308
Zinc ..... "	17,542	197,267	2,862	12,108
Platinum metals ..... fine oz.	1,949[2]	284,304	71[3]	9,422
Other	-	-	5,522	3,531
TOTALS, METALLICS	-	-	114,549[4]	342,654
NON-METALLICS—				
Fuels—				
Coal ..... short ton	14,977,926	15,519,464	55,193	48,258
Petroleum ..... bbl.	304,741	7,838,310	885	10,353
Natural gas ..... M cu. ft.	20,140,309	35,394,087	4,351	12,539
Totals, Fuels	-	-	60,429	71,154[5]
Industrial—				
Asbestos ..... short ton	158,259	364,472	8,971	15,859
Gypsum ..... "	152,287	1,408,188	823	1,923
Salt ..... "	131,727	424,500	1,285	2,487
Sulphur ..... "	154,269	210,704	1,705	1,668
Sodium sulphate ..... "	Nil	71,453	-	627
Other		-	4,409	2,461
Totals, Industrial			17,193	25,025
TOTALS, NON-METALLICS			77,622	96,179
CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS			19,131	34,274
GRAND TOTALS			211,302	473,107

[1] Subject to revision. [2] Largely recovered at International Nickel Company's New Jersey refinery. This figure does not include the recovery in Great Britain from the Mond Nickel Company's nickel matte. [3] Value of 689 fine oz. of platinum. [4] Includes the value of platinum from placer deposits, but not that of platinum from nickel matte. [5] Includes peat.

Canada's total annual mineral output value in 1939 (estimated at $473,107,021) was 7·1 p.c. higher than in 1938; almost 3¼ times that of 1913; and nearly 2¼ times that of 1918, under the maximum pressure of war demand. Annual output value does not, however, provide an accurate basis by which to measure progress in mining development, because of the wide fluctuations in the prices of the several minerals over the period. In order to appreciate the contribution that the Canadian mineral industry can make to the present war effort, it is necessary to review its position with respect to each important war mineral produced, including those of primary importance in the building up of financial resources.

Essential War Minerals Produced in Canada.

Metallic War Minerals—

In the first month of the present War, the large Canadian producers of copper, lead, and zinc entered into a one-year agreement (with the privilege of renewal) with the British Government to supply 210,000 short tons of refined copper, and the entire output of refined lead and zinc surplus to Canadian domestic requirements, at prices approximating the low prices then prevailing, with adjustments for shipping costs and for possible rises in production costs. A substantial portion of the British requirements was thereby assured at prices very much lower than were paid during the War of 1914-18. In any review of Canada's war effort this co-operation of the Canadian mining industry should receive due recognition.

Copper.—Copper is usually considered as the second most important of the war metals, more by reason of the large quantities required in application of the ordinary commercial uses to war needs than for its specific military uses. Canada has greatly strengthened its position as a copper producer since the close of the War of 1914-18. The annual production of 59,385 tons in 1918 under the pressure of war needs and high prices was more than doubled by 1929, and has shown an even greater increase in the period of depressed world prices that has since elapsed. The 1938 production of 285,625 tons represented 13·1 p.c. of world output, and ranked the Dominion as the third largest producer. Preliminary figures for 1939 show a further increase to 304,050 tons. Moreover, this large growth has been brought about chiefly by the discovery and development of new deposits across the Dominion. While the 1938 output from British Columbia, the largest source in 1918, was little reduced, the production from the deposits near Sudbury, Ont., the present largest source, was almost seven times that of 1918. Large quantities are obtained from new producers, including Noranda, Waite-Amulet, Normetal, and Aldermac, in Quebec; and Flin Flon and Sherritt Gordon in Saskatchewan and Manitoba. In addition to the strength derived from such broadening of sources of production, the Dominion is now equipped with two large copper refineries at Copper Cliff Ont., and at Montreal East, Que., with a combined rated annual capacity at present being increased to 245,000 tons of refined metal. While in 1918 the amount of copper refined in the original refinery at Trail (since closed) amounted to only 3,809 tons, or little more than 6 p.c. of the copper produced in that year, the production of refined metal in 1938 amounted to 227,240 tons, or to almost 80 p.c. of the year's total copper output.

The Canadian copper-mining industry is therefore in a position to make a major contribution to the copper needs of the overseas Allies in addition to taking care of domestic requirements. As already pointed out, shipments of the very substantial

quantity of 210,000 tons of refined metal—more than double the entire Canadian production in 1928—are to be made in the first year of its contract with the British Government. Furthermore, the industry, by its ability to sell this copper profitably at the pre-war price of slightly over 10 cents per pound, or nearly 16 cents less than the pegged price of 26 cents per pound paid by the Allies during the latter part of the War of 1914-18, is also making a very substantial contribution to the conservation of Allied financial resources.

Lead.—From its relatively unimportant position as a lead producer during 1914-18, Canada has advanced until it now ranks fourth among world sources of the metal. Its all-time peak production of 209,464 tons in 1938, almost ten times the average annual output of the four years of war demand from 1915 to 1918, comprised about one-ninth of the world production for the year. Moreover, there has been a substantial growth of 28 p.c. in the annual production in the period of low prices that has prevailed since 1929. This has come chiefly from the Sullivan mine in southern British Columbia. (The refinery at Trail has a rated annual capacity of 205,000 tons of refined lead.) In view of the fact that most of the output is sold in highly competitive export markets, largely in the United Kingdom, this record of increasing production for such sale indicates the relatively low producing costs in the Canadian lead industry.

Canada will therefore contribute large quantities of lead at low cost to the present war emergency. As in the case of copper, the economic benefits of this low-cost supply to the Allies may be appreciated by comparing the pre-war price of little more than 3 cents per pound* of refined metal with the average price of nearly 8½ cents per pound received by Canadian producers during the last four years of the War of 1914-18.

Zinc.—Contrasted with the insignificant position of zinc in 1914, when the entire output comprised an estimated 3,623 tons contained in concentrates exported as such, the 1938 production of 190,753 tons—90 p.c. in refined form—ranked Canada as the third largest world producer. The annual production has almost doubled in the period of depressed prices since 1929, that of 197,267 tons (preliminary figures) in 1939 being a new all-time peak. About 75 p.c. of Canada's zinc comes from the Sullivan mine in southern British Columbia, probably the world's greatest zinc mine, and 20 p.c. from Flin Flon in Manitoba and Saskatchewan. Each mine has its own associated refinery. The rated annual capacities are 145,000 and 40,000 tons respectively, or a total of 185,000 tons of refined zinc.

Domestic requirements normally absorb only a relatively small portion of the production. As the production can be substantially increased, the Canadian zinc-mining industry can furnish large supplies for war purposes. Moreover, it can do so profitably at the pre-war price of about 3½ cents per pound for premium zinc which approximates the price that the principal producers have agreed to accept from the British Government. The war position of the Canadian zinc industry may be determined by comparing its 1939 production of 197,267 tons averaging 3·1 cents per pound in value, with its production in 1918 of 17,542 tons, the average value of which was 8·1 cents per pound.

* This is reported to approximate the price that the chief producers have agreed to accept from the British Government in payment for their entire production surplus to domestic requirements.

Nickel.—Although used in much smaller quantities than copper, lead, and zinc, nickel is no less important as a war metal, both because of its strictly military uses such as in armour plate, gun forgings, gun recoil springs, and bullet jackets, and for its use in industrial nickel steels applied to military needs. Canada's extensive nickel-ore deposits near Sudbury are the present source of about 85 p.c. of the world's nickel, just as they were the principal source of nickel during the War of 1914-18. Production has, however, been greatly increased by reason of the increasing industrial uses of the metal, the peak peace-time production of 112,452 tons in 1937 being nearly 2½ times that of 1918 when Great War requirements were at their maximum. The outstanding development since 1918 has been the increased production of refined metal, the refinery at Port Colborne, Ont., which had an output of only 1,204 tons in 1918, now having an annual capacity of 75,000 tons of refined nickel. The output of refined metal in 1938 was 62,141 tons, or almost 60 p.c. of the year's total production of Canadian nickel.

The Canadian nickel producers are, therefore, in a position to provide ample supplies of nickel, both in refined and unrefined forms. Moreover, they can do so profitably at prices much below those that were paid during the War of 1914-18. This is indicated by the fact that the value of the 1939 production, estimated at 113,053 tons, largely refined metal, averaged 22½ cents per pound, compared with the corresponding average value of 36⅔ cents per pound for the entire output, almost wholly in unrefined form, for the four years from 1915 to 1918, inclusive.

Iron.—Iron-ore occurrences are numerous and widespread in the Dominion, and were the sources of the entire domestic consumption of pig-iron until 1895. However, with the availability to Ontario of the more cheaply produced and higher grade ores from the Minnesota iron ranges, and to Nova Scotia from the Wabana, Newfoundland, deposits, the production of Canadian iron ore declined until it ceased entirely in 1923.

The outstanding development in Canadian mining in 1939 was the resumption of production of iron ore in Ontario—at the New Helen mine in the Michipicoten district at the northeast corner of Lake Superior—under the encouragement of an Ontario Government iron bounty. The deposits contain an estimated 100,000,000 tons of siderite ore carrying about 36 p.c. iron. The ore is being beneficiated at the mine, the resulting sinter carrying about 53 p.c. iron. Shipments were commenced in the latter part of the year to the blast-furnace at Sault Ste. Marie, and are anticipated to be on the scale of about 300,000 tons annually.

Another significant development, in its bearing upon the reduction of the present Canadian dependence upon outside sources of iron ore, was the discovery in the winter of 1937-38 of large deposits of high-grade hematite ore, containing from 51 to 60 p.c. iron, at Steep Rock Lake, about 135 miles west of Port Arthur. Exploration and development have since been in progress. The present indications are that this is likely to prove one of Canada's most important mineral discoveries in recent years.

While of relatively small immediate importance in relation to the present war effort, these developments have a large potential significance in conserving Canada's exchange position by reducing foreign expenditures for the imported iron ores now used in Ontario's blast furnaces.

Platinum Group Metals.—The nickel-copper ores of Sudbury contain small quantities of the platinum group metals which collect in the sludge remaining from the

electrolytic refining of the nickel. Following the provision of facilities for the recovery and separation of these metals in England and later in Norway, Canada became the world's leading source of this group of metals.

Canada's production of platinum recorded an all-time high of 161,326 fine ounces in 1938. Refining is carried out for the most part in England, and the Allies are thus assured of a large part of the available world output. During the last four years of the War of 1914-18, the reported Canadian output averaged only 806 ounces* per year, and was almost entirely refined in the United States.

Cobalt.—While not usually listed as an essential war metal, cobalt has important war applications. It is used as an alloy in the making of high-speed cutting steels, and for making valves for aeroplane engines.

At one time the world's leading producer of cobalt, chiefly as a by-product of the production of silver in northern Ontario, Canada now ranks third, its production in 1938 amounting in terms of metal content to 229·5 tons. This production can be increased, and ample refining facilities are available for the final treatment of both domestic and imported ores.

Molybdenum.—Molybdenum is used for alloying with steel to give toughness, and is thus valuable for war purposes. There was a substantial production of molybdenite, the principal ore, in Quebec during the years 1914-18, chiefly from a deposit at Quyon on the Ottawa River, but this ceased entirely in 1929 after a period of small and intermittent operation. The Quyon deposit is now (1940) being reopened. Several other deposits have been found across the Dominion, and the more promising are under development.

Aluminium.—Canada has no known commercial deposits of bauxite, the most important ore of aluminium but, because of abundant water-power resources, has become one of the world's most important producers of that essential war metal, ranking third in 1938. Production figures are not available for publication, but the quantities exported, comprising the great bulk of the output, give a fair indication of Canada's increasing importance as a producer of aluminium. Thus the exports of 64,724 tons in 1938, were 70 p.c. higher than in 1929, and almost 500 p.c. higher than in 1918.

The productive capacity of the Canadian aluminium-producing plants is at present being substantially increased; it has been announced recently (February) that the entire output, surplus to domestic requirements, is now under contract to the British Government.

Non-Metallic War Minerals—

Coal.—Though possessing an abundance of coal reserves, Canada has always drawn a large part of its requirements from foreign sources, the highly industrialized sections of central Canada being much more convenient to the nearby deposits south of the Lower Lakes than to the domestic mines. This dependence upon foreign coal supplies has been materially lessened since the War of 1914-18, and particularly in the latest ten years, with the granting of Dominion Government assistance to enable Canadian coal to meet the competition of such foreign coals in central Canada. In addition, there has been a large diversion in foreign sources of anthracite requirements from the United States to the United Kingdom, which is of special economic significance in the present war emergency.

* See footnote 2 to the Statement on p. 302.

Petroleum.—The recent development of quantity production of crude petroleum in the Turner Valley field of Alberta has already materially reduced Canada's almost complete dependence upon foreign sources of supply of crudes. The Dominion's production, chiefly from Alberta, recorded an all-time peak of 7,838,310 barrels in 1939. Were it not for the restrictions on marketing of Turner Valley crude imposed by transportation costs and low prices of competing foreign crudes during the year the production would have been substantially greater. While this 1939 output was greater than the entire quantity of crude refined in Canada in 1918, it represented only 19 p.c. of the crudes so refined in 1938, and a smaller percentage of the total Canadian petroleum supply for the year, which included large quantities of imported refined products as well as crudes imported for refining.

Asbestos.—As the world's chief source of chrysotile asbestos, Canada can provide ample supplies from southeastern Quebec of this easily spun type of the mineral for essential war purposes, including brake-linings and high temperature insulation.

Magnesite.—Magnesite is important for use in refractory materials; and as a source of magnesium, now coming into use as a light-weight structural alloy. There is a large production of magnesitic-dolomite for refractories in Quebec; and deposits of limestone containing brucite, another magnesium ore, have recently been discovered in Ontario and Quebec. Large magnesite deposits in southern British Columbia are also being developed.

Mica.—The Dominion's mica position is indicated by the fact that it has been a continuous producer of mica, almost wholly of phlogopite or amber mica, for over half a century, chiefly for export.

Other Essential War Minerals—

While occurrences of ores of such important essential war metals as antimony, tungsten, chromium, and mercury, as well as of other essential non-metallic minerals have been found in Canada, and these have in some cases been worked, domestic requirements have been obtained almost entirely from foreign sources. From the number of these occurrences there is reason to anticipate that careful prospecting will disclose important commercial deposits of many of these minerals. The production of high-grade electrolytic antimony from lead-silver smelter residues has recently commenced in British Columbia.

Metals of Primary Significance in Strengthening the National Foreign-Credit Position.

Gold.—In recent years, mining attention in Canada has been very largely concentrated upon gold. Annual production, mostly of lode gold obtained in increasing quantities from deposits found in the Canadian Shield, has, with few exceptions, risen each year since the close of the War of 1914-18. The preliminary figure of 5,095,176 fine ounces in 1939, is 7·8 p.c. higher than the previous all-time peak of the preceding year. Valued at $184,144,756 in Canadian funds, the 1939 output represented immediately available foreign credits in the United States, at $35 per fine ounce, of $178,331,160. This is more than ten times the average annual foreign credits made available by Canadian gold mines for the four years from 1915 to 1918. Not only is the present gold contribution to the Dominion's economic strength so

much greater than during the War of 1914-18, but it is much more essential. For example, under the provisions of the present United States neutrality legislation, gold or its equivalent is indispensable in order that the fullest possible advantage can be taken of the huge industrial organization of the United States for the production of urgently needed war equipment.

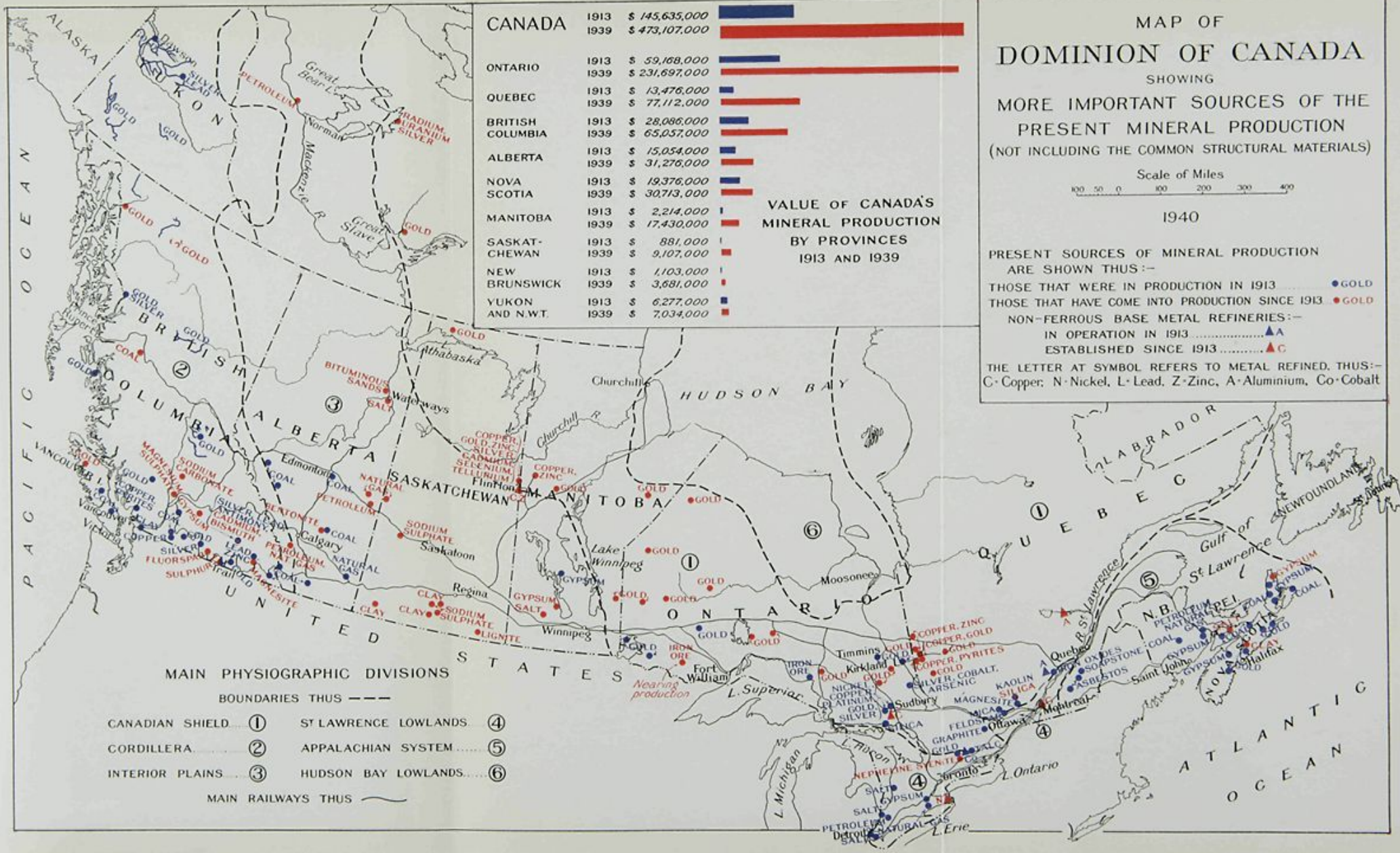
Silver.—Although silver is, because of its present low price, produced in Canada chiefly as a by-product of the treatment of ores mined primarily for the production of lead, nickel, copper, zinc, gold, and radium, the Dominion ranks as the third largest world producer. The annual production in 1939, estimated at 23,116,861 fine ounces, was 4 p.c. higher than in 1938, and about 6 p.c. greater than the average output for the last two years of the War of 1914-18, but its value was less than half. Nevertheless, an annual contribution of $9,359,553, as in 1939, is a substantial one towards the support of the national economic reserves.

The Great Strength of Canada's Mineral Industry in Support of the Present War Effort.

It is evident from the above survey that Canada's mining structure, built up on the basis of peace-time needs, is capable of giving strong support to the present war effort. Particularly is this the case with the non-ferrous base metals, because of their vital importance in the military operations of modern mechanized war. Gold, however, is no less essential on the equally important economic front. In 1914-18, Canada was an important producer of nickel, although in unrefined form, but produced comparatively little copper, lead, and zinc, and of these only lead was produced in refined form. Its role as a world gold producer was then a small one. Since that time, however, its annual production of nickel has more than quadrupled; and the Dominion now holds a leading position, both as a producer and exporter, of copper, lead, and zinc, also of gold and platinum. It is fully equipped with huge metallurgical refining plants, one each for lead and nickel, and two each for copper and zinc, and all can be increased in capacity, as required, at relatively small capital outlay.

During the War of 1914-18 the world shortage of producing capacities of the essential base metals, and the urgency for larger supplies, forced prices to abnormally high levels. The large expansion in Canadian output together with the impressive dividend records of the producers during the past ten years of low prices can be accepted as evidence of the favourable mine-operating conditions that exist to-day in Canada. The Dominion's large producers of copper, lead, and zinc are passing the advantages of their low costs of production on to the British Government for war purposes, by agreeing to furnish the larger part of their outputs at virtually the prices that prevailed just prior to the War. On their purchases of these three metals under these agreements, the British Government will pay possibly from $75,000,000 to $90,000,000 less per year than for similar purchases in 1918.

The two recent events in Canadian mining noted at pp. 305 and 307, give additional strength to the industry's war position. The first relates to the discovery of high-grade hematite iron ore in western Ontario and the resumption, after 16 years, of the production of iron ore in Ontario at the New Helen mine. The second is the development of the Turner Valley crude petroleum field of Alberta. While of no immediate strategic importance, because of the unrestricted availability of ample supplies from conveniently situated United States reserves, they will increasingly strengthen the Dominion's financial position.


MAP OF
DOMINION OF CANADA
SHOWING
MORE IMPORTANT SOURCES OF THE PRESENT MINERAL PRODUCTION
(NOT INCLUDING THE COMMON STRUCTURAL MATERIALS)
Scale of Miles
100 50 0 100 200 300 400
1940
PRESENT SOURCES OF MINERAL PRODUCTION ARE SHOWN THUS:-
THOSE THAT WERE IN PRODUCTION IN 1913 ●GOLD
THOSE THAT HAVE COME INTO PRODUCTION SINCE 1913 ●GOLD
NON-FERROUS BASE METAL REFINERIES:-
IN OPERATION IN 1913 ▲A
ESTABLISHED SINCE 1913 ▲C
THE LETTER AT SYMBOL REFERS TO METAL REFINED, THUS:-
C-Copper, N-Nickel, L-Lead, Z-Zinc, A-Aluminium, Co-Cobalt
VALUE OF CANADA'S MINERAL PRODUCTION BY PROVINCES 1913 AND 1939
CANADA 1913 $ 145,635,000 1939 $ 473,107,000
ONTARIO 1913 $ 59,168,000 1939 $ 231,697,000
QUEBEC 1913 $ 13,476,000 1939 $ 77,112,000
BRITISH COLUMBIA 1913 $ 28,086,000 1939 $ 65,057,000
ALBERTA 1913 $ 15,054,000 1939 $ 31,276,000
NOVA SCOTIA 1913 $ 19,376,000 1939 $ 30,713,000
MANITOBA 1913 $ 2,214,000 1939 $ 17,430,000
SASKATCHEWAN 1913 $ 881,000 1939 $ 9,107,000
NEW BRUNSWICK 1913 $ 1,103,000 1939 $ 3,681,000
YUKON AND N.W.T. 1913 $ 6,277,000 1939 $ 7,034,000
MAIN PHYSIOGRAPHIC DIVISIONS
BOUNDARIES THUS
CANADIAN SHIELD ①
CORDILLERA ②
INTERIOR PLAINS ③
ST LAWRENCE LOWLANDS ④
APPALACHIAN SYSTEM ⑤
HUDSON BAY LOWLANDS ⑥
MAIN RAILWAYS THUS
Nearing production
PACIFIC OCEAN
ATLANTIC OCEAN
HUDSON BAY
UNITED STATES
ALASKA
YUKON
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
ONTARIO
QUEBEC
LABRADOR
NEWFOUNDLAND
N.B.
P.E.I.
NOVA SCOTIA
Dawson
Great Bear L.
Great Slave
Mackenzie R.
Norman
Athabaska
Churchill
Churchill R.
Waterways
Edmonton
Calgary
Saskatoon
Regina
Winnipeg
Lake Winnipeg
Moosonee
Timmins
Kirkland L.
Fort William
L. Superior
Sudbury
Ottawa
Montreal
Quebec
Toronto
L. Ontario
L. Erie
L. Michigan
Detroit
Gulf of St Lawrence
St Lawrence R.
Saint John
Halifax
Vancouver
Victoria
Prince Rupert
Flin Flon
BITUMINOUS SANDS
SALT
COAL
GOLD
SILVER
COPPER
ZINC
LEAD
NATURAL GAS
PETROLEUM
GYPSUM
CLAY
SODIUM SULPHATE
SODIUM CARBONATE
LIGNITE
IRON ORE
NICKEL
PLATINUM
ARSENIC
KAOLIN
SILICA
MICA
ASBESTOS
SOAPSTONE
MAGNESITE
GRAPHITE
FELDSPAR
NEPHELINE SYENITE
TALC
OXIDES

At the outbreak of hostilities in September 1939, the Dominion already occupied a strategic position as a major producer of highly essential war minerals. With its capabilities for increasing expansion under the pressure of war demand, the Canadian mining industry can be expected to play its full part in the present war effort, both in providing minerals essential for military and civil needs and for the support of the economic front.

Section 1.—Mineral Lands Administration and Mining Laws.

The mineral lands of Canada, like other Crown lands, are administered by either the Dominion or the Provincial Governments. The Dominion Government administers the mineral lands of Yukon and the Northwest Territories as well as those in all Indian Reserves, and in National Parks; all other mineral lands lying within the boundaries of the several provinces are administered by the respective Provincial Governments.

Subsection 1.—Mining Laws and Regulations on Dominion Lands.

Dominion lands to which these regulations apply are those administered by the Department of Mines and Resources, and lie within Yukon and the Northwest Territories. Titles issued for Dominion lands, the property of the Dominion Government, in the Territories of Canada reserve to the Crown the mines and minerals that may be found on or under such lands, together with the right of operation.

Placer.—Claims 500 feet long and from 1,000 to 2,000 feet wide, according to location, may be staked out and acquired by any person 18 years of age or over; claims to be marked by two legal posts, one at each end, and the line joining them marked. Creek claims are staked along the base line of the creek, and extend 1,000 feet on each side. River claims are 500 feet on one side of the river and extend back 1,000 feet. Other claims are staked parallel to the creek or river on which they front, 500 feet long by 1,000 feet. Expenditure in development of each claim to be incurred and proved each year, $200 in Yukon and $100 elsewhere. Royalty 2½ p.c. under the Yukon Placer Mining Act.

Quartz.—"Mineral" under this heading means all deposits of metals and other useful minerals other than placer deposits, peat, coal, petroleum, natural gas, bitumen, and oil shales.

Under the present regulations, effective Apr. 2, 1932, applicable to the Northwest Territories, any prospector or locator of a mineral claim, whether an individual, mining partnership, or a company, must hold a miners licence, the fee being $5 for an individual, from $5 to $20 for mining partnerships, and larger amounts proportionate to their capitalization for mining companies. A licensee may stake out 6 claims on his own licence and 12 more for 2 other licensees, not exceeding 18 in all in any one licence year in any mining division. A mineral claim shall be rectangular and marked by a post at each corner—maximum area 51·65 acres, being 1,500 feet square. Entry is granted by a mining recorder, fee $5 for a claim located by a licensee on his own licence and $10 if located on behalf of another licensee. Grant is renewable from year to year, subject to representation work to the value of $100 being done on the location each year, and the renewal of the owner's miners licence. A maximum of 36 claims may be grouped for purposes of representation work.

When prescribed representation work to the value of $500 has been done and confirmed, discovery of mineral in place shown to have been made, a survey made by a Dominion land surveyor at grantee's expense, and certain other requirements met, a lease is issued for a term of 21 years, renewable, the rental for the full term of a claim not exceeding 51·65 acres being $50. The cost of the survey, reckoned at $100, may be counted as work done on the claim. When the profits of a mine exceed $10,000 in any calendar year, there is a royalty of from 3 to 6 p.c. or higher, proportionate to profits. Miners licences are not required in Yukon under the Yukon Quartz Mining Act, but the general provisions of the Act are similar to those of the Quartz Mining Regulations above, except that the fee for a grant is $10 and only 8 mineral claims may be grouped for operation.

In addition to these Quartz and Placer Mining Regulations, applicable to the Northwest Territories, and the Yukon Quartz and Placer Mining Acts, the following regulations regarding minerals are in force: *Yukon*—Dredging Regulations; Petroleum and Natural Gas Regulations. *Yukon and Northwest Territories*—Alkali Mining Regulations; Carbon-Black Regulations; Coal Mining Regulations; Potash Regulations and Domestic Coal Permits. *Northwest Territories*—Dredging Regulations; Oil and Gas Regulations; Quarrying Regulations and Permits to remove sand, stone, and gravel from beds of rivers.

Subsection 2.—Provincial Mining Laws and Regulations.

The granting of land in any province except Ontario no longer carries with it mining rights upon or under such land. In Ontario mineral rights are expressly reserved if they are not to be included. Some early grants in New Brunswick and Quebec also included certain mineral rights. Otherwise mining rights must be separately obtained by lease or grant from the provincial authority administering the mining laws and regulations. Mining activities may be classified as placer, general minerals (usually metallic ores), fuel (coal, petroleum, gas), and quarrying. Under these divisions of the provincial mining industry, regulations may be summarized as follows:—

Placer.—In those provinces in which placer deposits occur there are regulations defining the size of placer holdings, the terms under which they may be acquired and held, and the royalties to be paid.

General Minerals.—These are sometimes described as quartz, lode minerals, or minerals in place. The most elaborate regulations apply in this division. In all provinces except Alberta, a prospectors or miners licence to search for mineral deposits, valid for a year, must be obtained. A claim of promising-looking ground of a specified size may then be staked. This claim must be recorded within a time limit, with the payment of recording fees. Work to a specified value per annum must be performed upon the claim for a period up to five years, when a grant or lease of the mining rights may be obtained subject to fees or annual rental. The taxation most frequently applied is a percentage of net profits of producing mines.

Fuels.—In those provinces in which coal occurs, the size of holdings is laid down and the conditions regarding work and rental under which they may be held. In some cases royalties are provided for. In the cases of petroleum and natural gas, a boring permit on likely ground is usually first obtained. If oil or gas is discovered, the operator may obtain the lease or grant of a limited area subject to rental or fees. A royalty on production is sometimes payable.

Quarrying.—Regulations under this heading define the size of holding and the terms of lease or grant.

The more important features of the regulations dealing with these divisions of the mining industry are outlined for each of the provinces below.

Nova Scotia.—*Administration.*—Minister of Mines, Parliament Buildings, Halifax. *Legislation.*—Mines Act (c. 22, R.S.N.S. 1923) and amending Acts of 1927 (c. 17), 1929 (c. 22), 1933 (c. 12), 1935 (c. 23), 1936 (c. 46), 1937 (c. 19), 1938 (c. 18), and 1939 (c. 22); Coal Mines Regulations Act (c. 1, 1927) and amending Acts of 1934 (c. 44 and 45), 1935 (c. 39), and 1938 (c. 37); and Metalliferous Mines and Quarries Regulations Act 1937 (c. 3).

General Minerals:—Prospectors licence at nominal fee. Lease of mining rights—40 years for gold and silver; 20 years, three times renewable, for other minerals; both subject to annual rental and performance of work.

Coal.—Royalty—12½ cents per long ton, with exemption of coal used in mining operations and for domestic purposes by workmen employed about the mine.

Quarrying.—Rights to limestone, gypsum, and building materials are acquired with ordinary land title.

New Brunswick.—*Administration.*—Department of Lands and Mines, Fredericton. *Legislation.*—Mining Act (c. 35, R.S.N.B. 1927), as amended by c. 27, 1927, and c. 23, 1933. In most grants of Crown land since about 1805, all mines and minerals are reserved to the Crown. Prior to that time, most of the land grants reserved only gold, silver, copper, lead, and coal.

General Minerals.—Prospectors licence, terminating Dec. 31, costs $10. *Claims.*—A prospector may stake 10 claims of 40 acres each which must be registered within 30 days and 25 days' work done in each claim within the year. All this work may be concentrated on one of a group of claims. Mining rights are granted by mining licence, renewable annually, upon payment of $10 per claim. When the mine produces on a commercial basis, a 20-year lease under similar conditions may be issued.

Fuel.—Royalties are 10 cents per long ton on coal and 5 p.c. on the value at the well's mouth for petroleum and natural gas.

Quebec.—*Administration.*—Minister of Mines, Quebec. Information and statistics on mining operations and geological explorations are to be found in the Annual Report of the Quebec Bureau of Mines. *Legislation.*—Quebec Mining Act (c. 80, R.S.Q. 1925) and amendments. In townships the Crown retains full mining rights on lands patented subsequently to July 24, 1880, and gold and silver rights on lands patented previous to that date. All mining rights belong to the Crown in most of the seigneuries.

General Minerals.—Miners certificate good for calendar year; fee $10. *Claims.*—Five claims of 40 acres each must be recorded and 25 days' work per claim done within 12 months; a development licence renewable annually is granted upon payment of $10 recording fee and 50 cents per acre. Mining rights can be purchased as a mining concession for $5 per acre for superior minerals and $3 per acre for inferior minerals. Operators must make annual returns to the Minister. Taxes are payable on annual profits at rates graduated from 4 p.c. upward.

Ontario.—*Administration.*—Department of Mines, Parliament Buildings, Toronto. A resident mining recorder is appointed for each mining division. *Legislation.*—Mining Act (c. 47, R.S.O. 1937) with amendments; applies to all

Crown lands except Indian lands. Title is a grant in fee simple, except in provincial forests where mining lands are leased. There is no apex law, all claim boundaries extending vertically downwards. Disputes are settled by the recorder, or on appeal, by the Judge of the Mining Court of Ontario.

General Minerals.—Annual miners licence—fee $5 for an individual; $100 on each $1,000,000 capital for companies; holder permitted to stake 9 claims in any or every mining division for himself, but not more than 3 of such claims may be staked on behalf of any other licensee, nor may a total of more than 6 such claims be staked on behalf of other licensees. *Claims.*—In unsurveyed territory 20 chains square (40 acres) with lines N.-S. and E.-W. astronomically; in surveyed territory an eighth, a quarter, or a half lot, i.e., up to 50 acres. Representation work consists of the actual performance of at least 200 days' work within 5 years. *Taxation.*—Five cents per acre per annum on patented and leased mining lands with an area of 10 acres or over in unorganized territory; on net profits, with $10,000 exempt, 3 p.c. up to $1,000,000, 5 p.c. from $1,000,000 to $5,000,000, and 6 p.c. on the excess above $5,000,000.

Fuels.—Petroleum, natural gas, coal, and salt on the James Bay slope may be searched for under authority of a boring permit. A total of 1,920 acres may be taken up by an individual in blocks of 640 acres. Certain areas have been withdrawn from staking.

Manitoba.—*Administration.*—Director, Mines Branch, Department of Mines and Natural Resources, Winnipeg; mining recorders' offices at Winnipeg and The Pas. *Legislation.*—The Mines Act (c. 27, 1930; c. 28, 1932; c. 25, 1933; c. 27, 1934; c. 26, 1937-38) and regulations thereunder; the Mining Tax Act (c. 27, 1933; c. 44, 1937); the Well Drilling Act (c. 50, 1937); the Crown Lands Act (c. 7 and 8, 1934; c. 9, 1935; and c. 12, 1938); the Manitoba Natural Resources Act (c. 30, 1930); and the Surveys Act (c. 190, C.A. 1924) and regulations thereunder.

General Minerals.—The regulations follow closely those summarized for Dominion lands in Subsection 1, except that: not more than 3 claims may be staked for any one licensee, and not more than 9 altogether by one person in any year in any mining division; representation work required is 25 days' work per year for 5 years, for which purpose 9 claims may be grouped.

Fuels.—A prospecting permit, good for one year, is necessary to search for oil, coal, gas, or salt. If mineral is discovered a 21-year lease, subject to annual rental and certain work, is granted.

Quarrying.—Lands up to 40 acres containing building stone, clay, gravel, gypsum, or sand may be leased as a quarrying location at an annual rental.

Saskatchewan.—*Administration.*—Department of Natural Resources, Regina. *Legislation.*—Mineral Resources Act of 1931 and regulations thereunder; Saskatchewan Mines Act, providing for the competency of mine managers and pit bosses, for the reporting of accidents, and the welfare and safety of those employed in the production of minerals; Coal Mining Industry Act, 1935, providing for a Coal Administrator to administer all legislation pertaining to the coal industry.

General Minerals.—The regulations follow closely those outlined for Dominion lands in Subsection 1, except that the holder of a miners licence may stake not more than 3 claims for himself and 3 for each of 2 other licensees; not more than 9 claims may be grouped for representation work.

Coal.—Three locations may be applied for by mail or in person; the size of a location may be from 80 acres to 640 acres, but the length must not exceed three times the breadth. All operators must be licensed by the Coal Administrator, the licence being contingent upon payment of fair wages, workmen's compensation assessments, rentals and royalties to the Crown, and certain other conditions. Operators must mine annually 5 tons per acre on leases issued since Jan. 1, 1936.

Petroleum and Natural Gas.—Locations may be applied for by mail or in person. The area of a location may be from 40 acres to 19,200 acres, and one person may apply for 3 locations, but not over 19,200 acres in all, except in unsurveyed lands, in which the limit is 1,920 acres. An operator must obtain a permit and furnish a substantial bond. All drillers must secure licences of competency. The record of a driller may be obtained by payment of a fee.

Alberta.—*Administration.*—Department of Lands and Mines, Edmonton. There is a staff of inspectors of mines. *Legislation.*—The Provincial Lands Act, 1939; the Oil and Gas Wells Act, 1931; the Oil and Gas Resources Conservation Act; the Mines Act; the Coal Sales Act; and the Coal Miners Wage Security Act.

The fuels—coal, natural gas, and petroleum—constitute the most important mineral resources of Alberta.

Coal.—All coal rights are disposed of under terminable leases at an annual rental of $1 per acre and subject to a royalty of 5 cents per short ton on production. The minimum area is 40 acres and the maximum 2,560. New leases are granted only for the continuation of existing operations or in the few instances for purely local needs if the locality cannot be economically supplied by existing mines. The Chief Inspector of Mines with a staff of mine inspectors administers the regulations for the safe operation of all mines, sets examinations, approves and issues certificates of competency to operating officials, requires all companies to register their trade name and sell coal under their registered name, and also requires all coal operators to provide bond to insure payment of wages.

Petroleum and Natural Gas.—Areas of from 10,000 to 50,000 acres in a block may be placed under reservation for geological exploration for 45 days for a fee of 5 cents per acre. If monthly reports prove that the work is being diligently carried on, extensions up to a total of six months may be granted. Provided the work has been satisfactorily completed and all geological reports filed, leases may be applied for; a lease must first be obtained before a license to drill on Crown rights is granted. The applicant may be granted a credit to be applied on lease rentals of part of the approved expenditure in excess of 20 cents per acre.

Applications for leases must be made in person. The minimum area is 160 acres and the maximum 1,920. Leases are issued for a period of 21 years, renewable for a further 21 years, at a rental of $1 an acre per year, and a royalty of 10 p.c. on the product of the location.

The drilling and production operations, and the production from oil and gas wells is controlled by the Petroleum and Natural Gas Conservation Board under very complete regulations based on sound engineering practice and waste prevention. Drilling sites must be approved. In producing oil fields the Board issues monthly orders giving the production allowable for each well, based on bottom hole pressure, gas-oil ratio, acreage, and rate of flow. The Board may levy a tax on petroleum property to cover administration costs.

British Columbia.—*Administration.*—Department of Mines, Victoria. The Department includes all Government offices in connection with the mining industry. *Legislation.*—The Department of Mines Act and other Acts respecting mining and minerals, notably: the Mineral Act (c. 181, R.S.B.C. 1936); the Placer-Mining Act (c. 184, R.S.B.C. 1936); Metalliferous Mines Regulation Act (c. 189, R.S.B.C. 1936); the Coal-Mines Regulation Act (c. 188, R.S.B.C. 1936); and amendments to the above Acts.

Placer.—Claims are of three classes: (1) creek diggings—250 feet long and 1,000 feet wide, 500 feet on each side of the stream; (2) bar diggings—250 feet square on a bar covered at high water, or a strip 250 feet long at high water, extending between high-water mark and extreme low-water mark; (3) dry diggings over which water never extends—250 feet square. A placer claim must be worked by the owner, or someone on his behalf continuously during working hours. Discontinuance for 7 days, except in close season, lay-over, leave of absence, sickness or other reason satisfactory to the Gold Commissioner, is deemed abandonment. To hold a placer claim more than one year, it must be recorded again before the expiration of the year.

Placer leases of unoccupied Crown lands, approximately 80 acres in extent, may be granted by the Gold Commissioner of the district, the annual rental for such a lease being $30 and the annual expenditure required in development work $250. Provision is also made for the granting of special leases of areas in excess of that referred to above.

General Minerals.—The terms of the mining laws are favourable to the prospector and operator, fees and rentals being small. Prospectors licence or "free miners certificate"—applicant must be over the age of 18; fee for individual $5 per annum; for a joint-stock company $50 or $100 per annum depending on capitalization. Mineral claims must not exceed 1,500 feet square (51·65 acres); work, amounting to $500, which may be spread over 5 years, required to obtain a Crown grant, while surface rights are obtainable at a figure in no case exceeding $5 per acre.

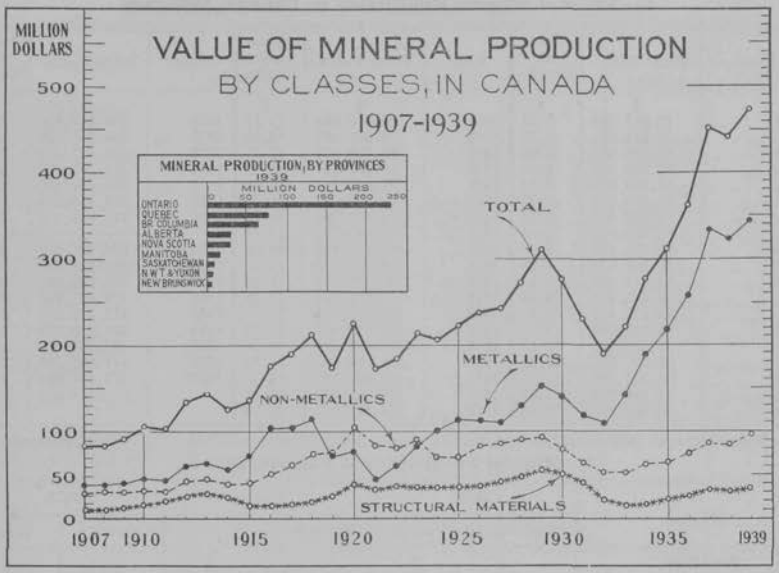
Section 2.—Summary of General Production.

The importance of mineral production as compared with other primary industries in Canada is indicated in Chapter VII, beginning at p. 167, while its part in the external trade of Canada is dealt with in Chapter XVI, especially Subsections 3 and 7.

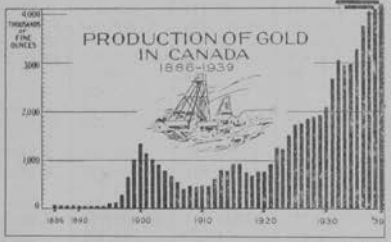
Subsection 1.—General Statistics of Mineral Production.

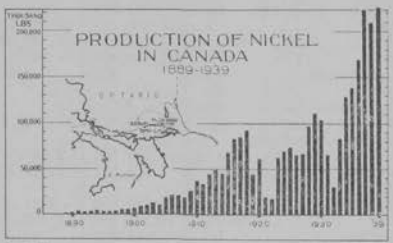
Historical Statistics.—Definite records of the annual value of mineral production go back only to 1886, as given in Table 1, although actual production began with the earliest settlements. The figures given are not strictly comparable throughout the whole period, minor changes having been adopted in methods of computing both the metallic content of ores sold and the valuations of the products. Earlier methods resulted in a somewhat higher value than those now in use would have shown. However, the changes do not interfere with the general usefulness of the figures in showing the broad trends of the mineral industry.

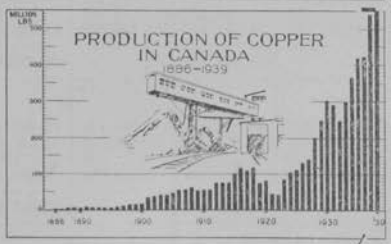
Current Production.—The trend in the development of the mineral resources of Canada is given at pp. 300-303 of the special article that appears at the beginning of this chapter.

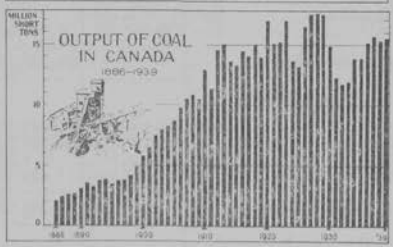


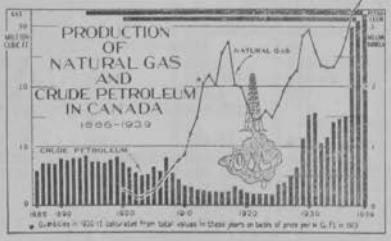
QUANTITY PRODUCTION OF THREE LEADING METALLIC AND THREE NON-METALLIC MINERALS

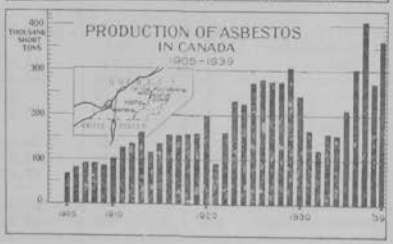












1.—Value of Mineral Production in Canada, 1886-1939.

Year.	Total Value.	Value per Capita.	Year.	Total Value.	Value per Capita.	Year.	Total Value.	Value per Capita.
	$	$		$	$		$	$
1886	10,221,255	2·23	1905	69,078,999	11·51	1924	209,583,406	22·92
1887	10,321,331	2·23	1906	79,286,697	12·86	1925	226,583,333	24·38
1888	12,518,894	2·67	1907	86,865,202	13·55	1926	240,437,123	25·44
1889	14,013,113	2·96	1908	85,557,101	12·92	1927	247,356,695	25·67
1890	16,763,353	3·51	1909	91,831,441	13·50	1928	274,989,487	27·96
1891	18,976,616	3·93	1910	106,823,623	15·29	1929	310,850,246	31·00
1892	16,623,415	3·40	1911	103,220,994	14·32	1930	279,873,578	27·42
1893	20,035,082	4·06	1912	135,048,296	18·28			
1894	19,931,158	4·00	1913	145,634,812	19·08	1931[1]	230,434,726	22·21
1895	20,505,917	4·08	1914	128,863,075	16·36	1932	191,228,225	18·20
1896	22,474,256	4·42	1915	137,109,171	17·18	1933	221,495,253	20·74
1897	28,485,023	5·56	1916	177,201,534	22·15	1934	278,161,590	25·67
1898	38,412,431	7·42	1917	189,646,821	23·53	1935	312,344,457	28·56
1899	49,234,005	9·41	1918	211,301,897	25·93	1936	361,919,372	32·82
1900	64,420,877	12·15	1919	176,686,390	21·26	1937	457,359,092	41·12
1901	65,797,911	12·25	1920	227,859,665	26·63	1938	441,823,237	39·42
1902	63,231,836	11·51	1921	171,923,342	19·56	1939[2]	473,107,021	41·81
1903	61,740,513	10·90	1922	184,297,242	20 66			
1904	60,082,771	10·31	1923	214,079,331	23·76			

[1]Beginning with 1931 exchange equalization of gold production is included. [2]Subject to revision.

2.—Mineral Production of Canada, 1936-38.

Mineral.	1936.		1937.		1938.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Metallics.		$		$		$
Antimony[1] lb.	Nil	–	48,163	7,394	24,560	2,200
Arsenic (As_2O_3) "	1,365,606	42,491	1,389,426	41,032	2,175,646	56,538
Bismuth "	364,165	360,523	5,711	5,654	9,516	9,754
Cadmium "	785,916	699,465	745,207	1,222,140	699,138	561,799
Chromite	[2]	13,578	[2]	43,250	Nil	–
Cobalt lb.	887,591	804,676	507,064	848,145	459,226	790,913
Copper "	421,027,732	39,514,101	530,028,615	68,917,219	571,249,664	56,554,034
Gold fine oz.	3,748,028	131,293,421[3]	4,096,213	143,326,493[3]	4,725,117	166,205,990[3]
Lead lb.	383,180,909	14,993,869	411,999,484	21,053,173	418,927,660	14,008,941
Maganese ore ton	221	1,596	85	817	Nil	–
Mercury lb.	[2]	[2]	[2]	[2]	760	760
Molybdenite[1] tcn	Nil	–	8	8,147	7	4,500
Nickel lb.	169,739,393	43,876,525	224,905,046	59,507,176	210,572,738	53,914,494
Palladium, rhodium, iridium, etc fine oz.	103,671	2,483,075	119,829	3,179,782	130,893	3,677,342
Platinum "	131,571	5,320,731	139,377	6,752,816	161,326	5,196,794
Radium	[4]	[4]	[4]	[4]	[4]	[4]
Selenium lb.	350,857	621,017	397,227	687,203	358,929	622,742
Silver fine oz.	18,334,487	8,273,804	22,977,751	10,312,644	22,219,195	9,660,239
Tellurium lb.	35,591	62,997	41,490	71,777	48,237	82,967
Titanium ore ton	2,566	18,318	4,229	26,432	207	1,449
Zinc lb.	333,182,736	11,045,007	370,337,589	18,153,949	381,506,588	11,723,698
Totals, Metallics		**259,425,194**		**334,165,243**	–	**323,075,154**
Non-Metallics.						
FUELS.						
Coal ton	15,229,182	45,791,934	15,835,954	48,752,048	14,294,718	43,982,171
Natural gas M cu. ft.	28,113,348	10,762,243	32,380,991	11,674,802	33,444,791	11,587,450
Peat ton	1,341	7,376	478	2,676	620	3,500
Petroleum, crude bbl.	1,500,374	3,421,767	2,943,750	5,399,353	6,966,084	9,230,173
TOTALS, FUELS		59,983,320		65,828,879		64,803,294
OTHER NON-METALLICS.						
Asbestos ton	301,287	9,958,183	410,026	14,505,791	289,793	12,890,195
Bituminous sands "	Nil	–	35	142	[5]	[5]
Diatomite "	615	13,650	643	18,606	398	13,842
Feldspar "	17,846	154,475	21,346	178,222	14,058	129,293
Fluorspar "	75	900	150	2,550	217	3,906
Graphite	[2]	88,812	[2]	125,343	[1]	41,590
Grindstones (incl. pulpstones) ton	569	24,724	412	21,429	306	16,198
Gypsum "	833,822	1,278,971	1,047,187	1,540,483	1,008,799	1,502,265
Iron oxides (ochre) "	5,854	69,630	6,197	83,640	5,821	71,769
Lithium minerals	Nil	–	[2]	1,694	Nil	–
Magnesitic dolomite	[2]	768,742	[2]	677,207	[2]	420,261
Magnesium sulphate ton	654	13,712	727	14,456	470	9,400

For footnotes, see end of table, p. 317.

2.—Mineral Production of Canada, 1936-38—concluded.

Mineral.	1936.		1937.		1938.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
OTHER NON-METALLICS—concluded.		$		$		$
Mica..... lb.	1,601,557	74,556	1,890,376	133,731	1,037,026	80,989
Mineral water.....imp. gal.	154,286	18,516	225,019	20,586	188,309	21,619
Nepheline-syenite.....	[2]	37,426	[2]	121,481	[2]	142,737
Phosphate..... ton	525	4,927	100	900	208	1,886
Quartz..... "	1,046,649	597,781	1,377,448	1,129,011	1,380,011	961,617
Salt..... "	391,316	1,773,144	458,957	1,799,465	440,045	1,912,913
Silica brick..... M	2,393	97,285	3,744	181,126	1,788	100,403
Soapstone.....	[2]	32,770	[2]	40,513	[2]	35,038
Sodium carbonate.... ton	192	1,677	286	2,574	252	2,268
Sodium sulphate..... "	75,598	552,681	79,884	618,028	63,009	553,307
Sulphur[5]..... "	122,132	1,033,055	130,913	1,154,992	112,395	1,044,817
Talc..... "	14,508	144,500	12,457	123,301	10,853	109,810
TOTALS, OTHER NON-METALLICS.....		16,740,117		22,495,271		20,066,123
Totals, Non-Metallics.....		**76,723,437**		**88,324,150**		**84,869,417**
Clay Products and Other Structural Materials.						
CLAY PRODUCTS.						
Brick—						
Soft Mud Process—						
Face..... M	6,097	111,378	9,904	175,544	10,838	208,610
Common..... M	24,180	302,690	23,636	316,534	24,104	313,082
Stiff Mud Process (wire cut)—						
Face..... M	30,218	575,765	37,610	735,615	34,179	671,471
Common..... M	35,592	484,078	55,689	755,630	50,734	681,744
Dry Press—						
Face..... M	8,961	165,924	12,565	233,542	13,125	266,039
Common..... M	10,241	100,785	14,136	152,662	15,536	192,741
Fancy or ornamental brick..... M	25	1,374	55	2,972	63	4,175
Sewer brick..... M	418	6,778	175	2,777	228	3,581
Paving brick..... M	116	3,149	3	131	1	34
Firebrick..... M	2,548	118,923	2,950	142,827	2,213	113,581
Fireclay and other clay ton	2,437	17,639	8,165	31,068	2,344	17,243
Bentonite..... "	120	180	163	1,971	1,179	3,659
Fireclay blocks and shapes..	[2]	65,171	[2]	75,431	[2]	73,512
Hollow blocks..... ton	58,501	467,860	64,526	533,843	70,648	591,416
Roofing tile..... No.	52,730	2,139	60,542	3,302	150,504	5,196
Floor tile (quarries) .sq.ft.	97,738	13,798	73,191	12,169	100,958	15,330
Drain tile..... M	8,148	214,590	11,391	298,970	12,862	322,774
Sewer pipe, copings, flue linings, etc.....	[2]	588,485	[2]	790,210	[2]	778,107
Pottery, glazed or unglazed..	[2]	218,402	[2]	232,209	[2]	235,890
Other clay products.....	[2]	11,919	[2]	19,452	[2]	37,899
TOTALS, CLAY PRODUCTS.	–	3,471,027	–	4,516,859	–	4,536,084
OTHER STRUCTURAL MATERIALS.						
Cement..... bbl.	4,508,718	6,908,192	6,168,971	9,095,867	5,519,102	8,241,350
Lime..... ton	468,401	3,335,970	549,353	3,824,917	486,922	3,542,652
Sand and gravel..... "	22,124,160	6,921,399	27,001,301	10,492,696	32,223,882	12,002,554
Slate..... "	1,247	5,414	900	5,519	979	6,311
Stone—						
Granite..... "	941,743	1,319,313	1,135,099	1,827,433	705,307	1,379,417
Limestone..... "	3,731,548	3,143,872	5,542,806	4,673,942	4,288,507	3,864,619
Marble..... "	22,866	169,698	21,642	88,595	19,375	87,274
Sandstone..... "	285,508	495,856	235,165	343,871	101,853	218,405
TOTALS, OTHER STRUCTURAL MATERIALS.....		22,299,714		30,352,840		29,342,582
Totals, Clay Products and Other Structural Materials.....		**25,770,741**		**34,869,699**		**33,878,666**
Grand Totals (Canadian Funds).....	–	**361,919,372**	–	**457,359,092**	–	**441,823,237**

[1]Contained in concentrates exported. [2]Not available. [3]Value in Canadian funds. [4]Not available for publication. [5]Included with petroleum refining. [6]Sulphur content of pyrites shipped and estimated sulphur contained in the sulphuric acid made from smelter gases.

Analysis of Current Value and Volume.—In order to interpret more clearly and simply the trends in mineral production in Canada over the period since 1929, Table 3 gives the percentage of the total value contributed by each principal mineral in each year. Values upon which percentages in this table are based are the annual values of mineral production expressed in Canadian currency as published.

3.—Percentages of the Total Value of Mineral Production, by Groups, and Principal Minerals, 1929-38.

Mineral.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
METALLICS.										
Cobalt	0·6	0·4	0·3	0·3	0·3	0·2	0·2	0·2	0·2	0·2
Copper	14·0	13·6	10·6	8·0	9·8	9·6	10·3	10·9	15·1	12·8
Gold	12·8	15·5	24·4	37·4	38·0	36·9	37·0	36·3	31·3	37·6
Lead	5·3	4·7	3·2	2·8	2·9	3·0	3·4	4·1	4·6	3·1
Nickel	8·7	8·7	6·7	3·8	9·1	11·6	11·3	12·1	13·0	12·2
Platinum metals	0·5	0·9	1·2	1·0	0·7	2·2	1·7	2·2	2·2	2·0
Silver	3·9	3·6	2·7	3·0	2·6	2·8	3·4	2·3	2·3	2·2
Zinc	3·4	3·4	2·7	2·2	2·9	3·3	3·2	3·1	4·0	2·7
TOTALS, METALLICS[1]	49·6	51·0	52·0	58·6	66·4	69·7	71·0	71·7	73·1	73·1
FUELS.										
Coal	20·3	18·9	18·1	19·4	16·3	15·1	13·4	12·7	10·7	10·0
Natural gas	3·2	3·7	4·0	4·7	3·9	3·2	3·0	3·0	2·5	2·6
Petroleum	1·2	1·8	1·8	1·6	1·4	1·2	1·1	0·9	1·2	2·1
TOTALS, FUELS[1]	24·7	24·4	23·9	25·7	21·6	19·5	17·5	16·6	14·4	14·7
NON-METALLICS.										
Asbestos	4·2	3·0	2·1	1·6	2·4	1·8	2·3	2·8	3·2	2·9
Gypsum	1·1	1·0	0·9	0·6	0·3	0·3	0·3	0·4	0·3	0·3
Salt	0·5	0·6	0·8	1·0	0·9	0·7	0·6	0·5	0·4	0·4
Sulphur	0·1	0·1	0·2	0·2	0·2	0·2	0·2	0·3	0·3	0·2
TOTALS, NON-METALLICS[1]	6·8	5·4	4·8	4·0	4·5	3·8	4·0	4·6	4·9	4·5
CLAY PRODUCTS.										
TOTALS, CLAY PRODUCTS	4·5	3·8	3·4	1·9	1·0	1·0	1·0	1·0	1·0	1·0
OTHER STRUCTURAL MATERIALS.										
Cement	6·2	6·3	6·9	3·6	2·0	2·0	1·8	1·9	2·0	1·9
Lime	1·9	1·4	1·2	1·3	1·1	1·0	0·9	0·9	0·8	0·8
Sand and gravel	2·4	3·0	2·9	2·3	2·0	1·5	2·1	1·9	2·3	2·7
Stone	3·9	4·7	4·9	2·6	1·4	1·5	1·7	1·4	1·5	1·3
TOTALS, OTHER STRUCTURAL MATERIALS	14·4	15·4	15·9	9·8	6·5	6·0	6·5	6·1	6·6	6·7
Grand Totals	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**

[1] Includes minor items not specified.

Although the year 1926 was not a normal year in mineral production to the same extent as in some other productive fields, by using it as a base year the rapid changes that have resulted from circumstances arising since 1926 can be seen more clearly. Table 4 shows the indexes of volume of mineral production, using 1926 as the base year, by principal minerals, for the period 1927-38.

4.—Indexes of Volume of Mineral Production, by Principal Minerals, 1927-38.
(1926=100.)

Mineral.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
METALLICS.												
Cobalt	132·5	143·9	139·8	104·4	78·4	73·8	70·2	89·5	102·5	133·5	76·3	69·1
Copper	105·3	152·3	186·4	228·0	219·6	186·1	225·4	274·1	314·8	316·3	398·2	429·2
Gold	105·6	107·8	109·9	119·8	153·6	173·5	168·1	169·4	187·3	213·7	233·5	269·4
Lead	109·7	119·1	115·1	117·3	94·2	90·2	93·9	122·0	119·5	135·0	145·2	147·6
Nickel	101·7	147·2	167·8	157·9	99·9	46·2	126·7	195·8	210·8	258·3	342·2	320·4
Platinum metals	117·9	110·8	131·5	357·4	470·3	287·2	260·3	1220·8	1106·8	1381·9	1463·9	1694·4
Silver	101·6	98·1	103·4	118·2	91·9	82·0	67·9	73·4	74·3	82·0	102·7	99·3
Zinc	110·4	123·1	131·6	178·5	158·2	114·9	132·8	199·1	213·9	222·2	247·0	254·4
NON-METALLICS.												
Asbestos	98·3	97·7	109·5	86·7	58·8	44·0	56·7	55·8	99·8	107·8	146·8	103·7
Gypsum	120·3	141·0	137·1	121·2	97·7	49·6	43·4	52·2	61·3	94·4	118·5	114·2
Salt	102·3	114·1	125·8	103·5	98·7	100·4	106·7	122·6	137·2	149·0	174·8	167·6
Sulphur		153·0	169·6	149·6	198·6	210·8	227·4	204·3	267·3	484·1	518·9	445·6
FUELS.												
Coal	105·8	106·6	106·2	90·3	74·3	71·2	72·2	83·8	84·3	92·4	96·1	86·7
Natural gas	111·3	117·6	147·8	152·9	134·7	121·9	120·5	120·6	129·7	146·4	168·6	174·1
Petroleum	130·8	171·3	306·6	417·7	423·3	286·6	314·3	387·1	396·9	411·7	807·7	1911·4
STRUCTURAL MATERIALS.[1]												
Cement	115·6	126·6	141·1	126·7	116·7	51·7	34·5	43·5	41·9	51·8	70·9	63·4
Lime	107·5	122·9	162·9	118·6	83·3	77·5	78·2	88·9	98·0	113·2	132·7	117·6
Sand and gravel	122·4	164·2	162·7	166·8	127·1	84·6	68·6	86·8	124·0	129·3	157·8	188·3
Stone	114·2	129·0	150·4	156·2	131·3	73·3	45·9	63·7	67·5	77·9	108·4	80·0

[1]Excluding clay products.

Subsection 2.—Provincial Distribution of Mineral Production.

Since 1907, Ontario has been the principal mineral-producing province of Canada, and, in recent years, has contributed about 50 p.c. of the total mineral production of the Dominion. The rise in the price of gold has been especially favourable to Ontario's mineral production, while the Sudbury nickel-copper deposits are another outstanding feature in the mineral resources of the Province. In 1938 Ontario's production was 49·7 p.c. of the total and in 1939, 49·0 p.c. For many years, British Columbia was firmly entrenched in second place in production, having most

of the important metals as well as substantial quantities of coal. However, since 1930, Quebec has been challenging British Columbia's position, having taken over second place on two occasions. Mineral production in Quebec has increased greatly since the opening up of the base and precious metal mines. Whereas formerly non-metallics (especially asbestos) and structural materials made up nearly all of its mineral production, more than half the value is now made up of metals, particularly gold and copper. Quebec's production in 1938 and 1939 was, respectively, 15·6 p.c. and 16·3 p.c. of the total, while British Columbia accounted for 14·6 p.c. in 1938 and 13·8 p.c. in 1939. Nova Scotia and Alberta are the most important coal-producing provinces. The discovery and development of the Flin Flon and Sherritt-Gordon orebodies resulted in the Provinces of Manitoba and Saskatchewan becoming important producers of base metals and gold and silver. Alberta, besides being a big producer of coal, produces considerable quantities of petroleum and natural gas, and, with the increased activity in this field, Alberta's share of total mineral production will probably increase.

5.—Mineral Production of Canada, by Provinces, 1920-39.

NOTE.—Figures for the years 1899-1910, inclusive, will be found at p. 345 of the 1933 Year Book, and for 1911-19, inclusive, at p. 323 of the 1939 edition.

Year.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia	Yukon.
	$	$	$	$	$	$	$	$	$
1920..	34,130,017	2,491,787	28,886,214	81,715,808	4,223,461	1,837,468	33,586,456	39,411,728	1,576,726
1921..	28,912,111	1,901,505	15,157,094	57,356,651	1,934,117	1,114,220	30,562,229	33,230,460	1,754,955
1922..	25,923,499	2,263,692	17,646,529	65,866,029	2,258,942	1,255,470	27,872,136	39,423,962	1,785,573
1923..	29,648,893	2,462,457	20,308,763	80,825,851	1,768,037	1,047,583	31,287,536	43,757,388	2,972,823
1924..	23,820,352	1,969,260	19,136,504	86,398,656	1,534,249	1,128,100	22,344,940	52,298,533	952,812
1925..	17,625,612	1,743,858	24,284,527	87,980,436	2,276,759	1,076,392	25,318,866	64,485,242	1,791,641
1926..	28,873,792	1,811,104	25,956,193	84,702,296	3,073,528	1,193,394	26,977,027	65,622,976	2,226,813
1927..	30,111,221	2,148,535	28,870,403	89,982,962	2,888,912	1,455,225	29,309,223	60,801,170	1,789,044
1928..	30,524,392	2,198,919	37,037,420	99,584,718	4,186,853	1,719,461	32,531,416	64,496,351	2,709,957
1929..	30,904,453	2,439,072	46,358,285	117,662,505	5,423,825	2,253,506	34,739,986	68,162,878	2,905,736
1930..	27,019,367	2,383,571	41,215,220	113,530,976	5,453,182	2,368,612	30,427,742	54,953,320	2,521,588
1931..	21,081,157	2,176,910	35,964,537	97,975,915	10,057,808	1,931,880	23,580,901	35,480,701	2,184,917
1932..	16,201,279	2,223,505	25,638,466	85,910,030	9,058,365	1,681,728	21,174,061	27,326,173	2,014,618[1]
1933..	16,966,183	2,107,682	28,141,482	110,205,021	9,026,951	2,477,425	19,702,953	30,794,504	2,073,052[1]
1934..	23,310,729	2,156,151	31,269,945	145,565,871	9,776,934	2,977,061	20,228,851	41,206,965	1,669,083[1]
1935..	23,183,128	2,821,027	39,124,696	158,934,269	12,052,417	3,816,943	22,289,681	48,692,050	1,430,246[1]
1936..	26,672,278	2,587,891	49,736,919	184,532,892	11,315,527	6,970,397	23,305,726	54,407,036	2,390,706[1]
1937..	30,314,188	2,763,643	65,160,215	230,042,517	15,751,645	10,271,463	25,597,117	73,555,798	3,902,506[1]
1938..	26,253,645	3,802,565	68,965,594	219,810,994	17,173,002	7,782,847	28,966,272	64,549,130	4,528,188[1]
1939[2]..	30,712,802	3,680,947	77,112,479	231,696,959	17,430,083	9,106,826	31,275,947	65,056,737	7,034,241[1]

[1]Includes production from the Northwest Territories. [2]Figures for 1939 are subject to revision.

Table 6 shows the different minerals that make up the mineral production of each province and also the particular province or provinces that contribute to the production of each mineral in Canada.

6.— Detailed Mineral Production of Canada, by Provinces, 1938.

NOTE.—The mineral production of Yukon and the Northwest Territories during the calendar year 1938 was as follows, in quantities and values: copper 75,567 lb., $7,535; gold 79,168 fine oz., $2,784,734 (current price); lead 5,198,990 lb., $173,854; silver 3,426,561 fine oz., $1,489,765; coal 361 tons, $3,400; petroleum 22,855 bbl., $68,565; natural gas 1,500 M cu.ft., $335; total, $4,528,188. Radium and uranium salts were produced in Canada in 1938 from ores mined in the N.W.T., but statistics pertaining to those minerals are not available for publication. For Dominion totals by individual minerals, see Table 2. Dashes in this table indicate that there was no production reported.

Mineral.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.
Metallics.								
Antimony[1].....lb.	24,560	–	–	–	–	–	–	–
$	2,200	–		–	–	–	–	
Arsenic (As_2O_3).lb.	–	–	–	2,175,646	–	–	–	
$	–	–	–	56,538	–	–	–	
Bismuth.....lb.	–	–	·	9,516	–	–	–	
$	–	–	–	9,754	–	–	–	–
Cadmium. ....lb.	–	–	–	–	115,166	73,630	–	510,342
$	–	–	–	–	92,543	59,166	–	410,090
Cobalt..... ....lb.	–	–	–	459,226	–	–	–	–
$	–	–	–	790,913	–	–	–	–
Copper .....lb.	–	–	112,645,797	309,030,106	65,582,772	18,156,157	–	65,759,265
$	–	–	11,233,039	30,405,500	6,539,914	1,810,532	–	6,557,514
Gold[2].....fine oz.	26,560	–	881,263	2,896,477	185,706	50,021	305	605 617
$	934,248	–	30,998,426	101,883,578	6,532,209	1,759,489	10,728	21,302,578
Lead.... ..... lb.	–	–	–	22,363	–	–	–	413,706,307
$		–	–	748	–	–	–	13,834,339
Mercury .....lb.	–	–	–	–	–	–	–	760
$	–	–	–	–	–	–	–	760
Molybdenite (concentrates). ton	–	–	–	7	–	–	–	
$	–	–	–	4,500	–	–	–	
Nickel.... ....lb	–	–	–	210,572,738	–	–	–	–
$	–	–	–	53,914,494	–	–	–	–
Palladium, rhodium, iridium, etc. fine oz.	–	–	–	130,893	–	–	–	–
$	–	–	–	3,677,342	–	–	–	–
Platinum.. fine oz.	–	–	–	161,310	–	–	–	16
$	–	–	–	5,196,279	–	–	–	515
Selenium.....lb.	–	–	217,952	54,577	57,788	28,612	–	–
$	–	–	378,147	94,691	100,262	49,642	–	–
Silver.....fine oz.	988	–	1,189,495	4,318,837	1,198,315	898,413	23	11,186,563
$	430	–	517,157	1,877,701	520,991	390,603	10	4,863,582
Tellurium.....lb.	–	–	41,577	–	4,454	2,206	–	–
$	–	–	71,512	–	7,661	3,794	–	
Titanium ore...ton	–	–	207	–	–	–	–	
$	–	–	1,449	–	–	–	–	
Zinc .....lb.	–	–	5,315,852	–	46,864,575	29,962,597	–	299,363,564
$	–		163,356	–	1,440,148	920,751	–	9,199,443
Totals, Metallics .....$	**936,878**		**43,363,086**	**197,912,038**	**15,233,728**	**4,993,977**	**10,738**	**56,168,821**
Non-Metallics.								
FUELS.								
Coal. ....ton	6,236,417	342,238	–	–	2,016	1,022,166	5,251,233	1,440,287
$	22,523,802	1,133,346	–	–	5,660	1,380,416	13,698,470	5,237,077
Natural gas Mcu.ft.	–	577,492	–	10,952,806	600	90,285	21,822,108	–
$	–	284,689	–	6,460,764	180	34,136	4,807,346	
Peat.....ton	–	–	–	620	–	–	–	
$	–	–		3,500	–	–		
Petroleum, crude. bbl	–	19,276	–	172,641	–	–	6,751,312	
$	–	27,246	–	359,268	–	–	8,775,094	
TOTALS, FUELS. $	22,523,802	1,445,281	–	6,823,532	5,840	1,414,552	27,280,910	5,237,077

[1]Contained in concentrates exported. [2]Current price in Canadian funds.

6.—Detailed Mineral Production of Canada, by Provinces, 1938—continued.

Mineral.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.
Non-Metallics—concluded.								
OTHER NON-METALLICS.								
Asbestos.....ton	–	–	289,793	–	–	–	–	
$	–	–	12,890,195	–	–	–	–	
Bituminous sands. ton	–	–	–	–	–	–	[1]	
$	–	–	–	–	–	–	[1]	–
Diatomite.....ton	384	–	–	–	–	–	–	14
$	13,480	–	–	–	–	–	–	362
Feldspar.....ton	–	–	5,874	8,106	78	–	–	–
$		–	62,878	65,964	451		–	
Fluorspar.....ton	–	–	–	217	–	–	–	
$		–	–	3,906	–	–	–	
Graphite.....$	–	–	–	41,590	–	–	–	
Grindstones (includes pulpstones, etc.). ton	131	175	–	–	–	–	–	
$	7,006	9,192	–	–	–	–	–	–
Gypsum.....ton	870,856	48,418	–	57,503	14,571	–	–	17,451
$	908,383	159,203	–	242,470	92,129	–	–	100,080
Iron oxides (ochre). ton	–	–	5,387	–	–	–	–	434
$	–	–	67,209	–	–	–	–	4,560
Magnesitic-dolomite.....$	–	–	420,261	–	–	–	–	–
Magnesium sulphate. ton	–	–	–	–	–	–	–	470
$	–	–	–	–	–	–	–	9,400
Mica.....lb.	–	–	436,037	504,739	–	–	–	96,250
$	–	–	72,982	6,445	–	–	–	1,562
Mineral imp. waters. gal.	–	–	159,893	28,416	–	–	–	–
$	–	–	19,033	2,586	–	–	–	
Nepheline-syenite.....$	–	–	–	142,737	–	–	–	
Phosphate.....ton	–	–	208	–	–	–	–	
$	–	–	1,886	–	–	–	–	
Quartz.....ton	4,701	–	85,153	1,173,259	–	116,898	–	
$	8,415	–	315,251	597,037	–	40,914	–	
Salt.....ton	44,950	–	–	388,130	2,920	–	4,045	
$	194,759	–	–	1,637,140	34,979	–	46,035	
Silica brick....M	1,193	–	–	595	–	–	–	
$	49,811	–	–	50,592	–	–	–	
Soapstone[2].....$	–	–	35,038		–	–	–	–
Sodium carbonate. ton	–	–	–		–	–	–	252
$	–	–	–	–	–	–	–	2,268
Sodium sulphate. ton	–	–	–	–	–	62,920	89	
$	–	–	–	–	–	552,180	1,127	–
Sulphur[3].....ton	–	–	16,580	16,897	–	–	–	78,918
$	–	–	98,261	168,970	–	–	–	777,586
Talc.....ton	–	–	–	10,853	–	–	–	–
$	–	–	–	109,810	–	–	–	
TOTALS, OTHER NON-METALLICS.$	1,181,854	168,395	13,982,994	3,069,247	127,559	593,094	47,162	895,818
Totals, Non-Metallics.....$	**23,705,656**	**1,613,676**	**13,982,994**	**9,892,779**	**133,399**	**2,007,646**	**27,328,072**	**6,132,895**
Clay Products and Other Structural Materials.								
CLAY PRODUCTS.								
Brick—								
Soft Mud Process—								
Face.....M		25	–	10,813	–	–	–	–
$	–	500	–	208,110	–	–	–	–
Common...M	342	1,415	2,486	9,096	4,395	50	1,058	5,262
$	3,500	20,701	23,363	114,401	64,514	600	13,692	72,311

[1]Included with petroleum refining. [2]Includes some talc. [3]Sulphur content of pyrites shipped and estimated sulphur contained in sulphuric acid and elemental sulphur made from waste smelter gases.

6.—Detailed Mineral Production of Canada, by Provinces, 1938—concluded.

Mineral.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.
CLAY PRODUCTS—concluded.								
Brick—concluded.								
Stiff Mud Process (wire cut)—								
Face.....M	477	1,157	14,440	16,215	784	153	202	751
$	10,767	27,780	286,323	302,241	18,117	3,814	3,225	19,204
Common...M	4,283	2,273	24,875	14,809	967	250	1,717	1,560
$	54,918	28,829	337,876	208,388	12,559	2,498	12,196	24,480
Dry Press—								
Face.....M	-	-	1,877	9,928	-	51	1,095	174
$	-	-	47,508	192,618	-	1,788	16,343	7,782
Common...M	-	-	4,571	3,886	-	-	7,079	-
$	-	-	71,309	58,558	-	-	62,874	
Fancy or ornamental M	-	-	-	63	-	-		
brick. $	-	-	-	4,175	-	-	-	
Sewer brick..M	-	-	-	228	-	-	-	
$	-	-	-	3,581	-	-	-	
Paving brick.M	-	-	-	-	-	-	-	1
$	-	-	-	-	-	-	-	34
Firebrick.....M	2	-	-	-	-	307	20	1,884
$	70	-	-	-	-	16,765	1,003	95,743
Fireclay.....ton	1,307	40	-	-	-	530	-	467
$	4,038	1,596	-	-	-	5,120	-	6,489
Fireclay blocks and shapes....$	727	-	-	-	-	62,595	-	10,190
Tile—								
Hollow ton	4,716	811	20,934	36,094	574	995	3,387	3,137
blocks. $	46,736	6,239	166,232	298,466	5,948	8,119	29,418	30,258
Roofing tile No.	-	-	-	150,204	-	-	-	300
$	-	-	-	5,183	-		-	13
Floor tile sq.ft.	-	-	-	100,000	-		-	958
(quarries). $	-	-	-	15,190	-	-	-	140
Drain tile....M	164	178	647	10,748	80	-	92	953
$	4,943	7,968	17,600	252,444	4,196	-	3,552	32,071
Sewer pipe, copings, flue linings, etc.....$	214,554	1,432	71,433	342,549	-	-	93,071	55,068
Pottery, glazed or unglazed... $	-	28,580	-	59,092	-	-	138,519	9,699
Bentonite.....ton	-	-	-	-	-	-	1,136	43
$	-	-	-	-	-	-	3,444	215
Other clay products.....$	-		550	18,500		17,414	-	1,435
TOTALS, CLAY PRODUCTS.....$	340,253	123,625	1,022,194	2,083,496	105,334	118,713	377,337	365,132
OTHER STRUCTURAL MATERIALS.								
Cement.....bbl.	-	-	2,730,320	1,818,032	330,889	-	304,373	335,488
$	-	-	3,693,188	2,555,214	754,427	-	611,790	626,731
Lime[1].....ton	12,351	15,247	137,314	270,478	19,824	-	12,053	19,655
$	110,648	119,556	843,331	1,989,259	198,685	-	107,012	174,161
Sand and ton	2,077,378	3,833,540	12,523,404	8,531,281	1,216,084	1,037,753	792,760	2,211,682
gravel. $	1,013,266	1,825,383	3,532,873	3,046,043	645,812	662,511	525,175	751,491
Stone.....ton	63,662	13,279	2,196,384	2,513,291	39,378	-	1,691	288,337
$	146,944	120,325	2,527,928	2,323,165	101,617	-	6,148	329,899
TOTALS, OTHER STRUCTURAL MATERIALS....$	1,270,858	2,065,264	10,597,320	9,913,681	1,700,541	662,511	1,250,125	1,882,282
Totals, Clay Products and Other Structural Materials.....$	**1,611,111**	**2,188,889**	**11,619,514**	**11,997,177**	**1,805,875**	**781,224**	**1,627,462**	**2,247,414**
Grand Totals (Canadian Funds).....$	**26,253,645**	**3,802,565**	**68,965,594**	**219,801,994**	**17,173,002**	**7,782,847**	**28,966,272**	**64,549,130**

[1]Includes relatively large quantities used as a chemical.

Section 3.—Industrial Statistics of Mines and Minerals—Capital, Labour, Wages, etc., in the Mineral Industries.

Annual statistical reports on the mineral production of Canada have been published for many years, first by the Geological Survey, later by the Mines Branch of the Department of Mines and, since 1921, by the Dominion Bureau of Statistics. Prior to that year the annual statistics of mines were confined chiefly to a presentation of the quantity production of each of the minerals and their value at average market prices for the year. The scope of the statistics now includes a general review of the principal mineral industries, such as the copper-gold, silver-lead-zinc, and nickel-copper industries, as well as a section on metallurgical works. The additional data include such features as capital employed, numbers of employees, wages and salaries paid, and net value of sales, while for 1934 and 1935 there was added a special survey of expenditures for equipment, supplies, freight, and insurance by the mining industry, and for 1937 a similar survey for the metal-mining and smelting industries only. The aim has been to extend the mining statistics beyond a summary of the production of individual minerals, by approaching the subject from the standpoint of industrial organization, definitely illustrating the place that mining holds in the scheme of Canadian productive enterprise.

A new figure "net income from sales" has been introduced since 1935 in accordance with a recommendation adopted by the Conference of Commonwealth Statisticians in Ottawa in 1935. The net income from sales is obtained by deducting the cost of fuel, electricity, and consumable supplies (explosives, lubricants, chemicals, etc.), consumed in the production process, from the net sales. In view of the fact that statistics of process supplies were not collected prior to 1935, it is impossible to present statistics of net income from sales for previous years comparable to this new figure.

The figures for net income from sales of industries given in Tables 7 and 8 are those reported by the operators, and are in each case the settlements received for shipments by producers and the additional values obtained when the smelting of ores is completed in Canada. The totals indicate more nearly the actual return to the different industries than do the values for the minerals in Table 2 of this chapter where, in the cases of copper, lead, zinc, and silver, the values are computed by applying the average prices for the year in the principal metal markets to the total production from mines and smelters with no reduction for fuel, electricity, and other supplies consumed in the production process. Some imported ores and concentrates are treated in Canadian non-ferrous smelting and refining works. The net sales of these plants include, therefore, the net value of the metals recovered from these imported ores and to this extent the net sales shown in Tables 7 and 8 include products not of Canadian origin.

Subsection 1.—Principal Factors in the Mineral Industries.

Capital.—In connection with the item of capital, operators are requested to report *only the capital actually invested in the enterprises*, including: (1) present value of lands, buildings, plant, machinery, and tools; (2) cost of materials on hand, supplies, finished products, and ore on dump; and (3) cash, trading and operating accounts, and bills receivable. It should be specially noted that no estimate of ore reserves is included in the capital. Capital expenditures in mining ventures are frequently very difficult to designate. For instance, purely exploratory work-

ings might properly be charged to current expenses, but if these exploratory workings open up new ore resources and become the channel by which such ore is utilized, such workings become part of the productive plant and as such their cost is an item of capital. On the other hand, after an orebody is exhausted, much of the mining plant has practically no resale value and, for this reason, many companies write off such capital value of their plant during profitable years of operation. In these circumstances, the actual amount of capital employed in mining enterprises is uncertain and the figures of capital given in Tables 7 and 8 should be used with such reservations in mind.

Employees.—Tables 7 and 8 also show the numbers of persons directly employed in the operating mineral industries. These figures, however, do not include those engaged in prospecting and exploration for individuals or small syndicates from whom no returns can be obtained, amounting probably in the aggregate to a considerable number. Neither do the figures include consulting geologists and mining engineers nor contract diamond drillers and their respective organizations.

Commodities and Services Purchased.—In addition to the expenditures for remuneration of those directly employed in the mineral industries, statistics are collected annually of expenditures for fuel and electricity, but the figures prior to 1935 given in Tables 7 and 8 are exclusive of the fuel and electricity used in metallurgical processes, such as reduction furnaces, electrolytic cells, etc. The mining industry expends annually large additional sums for the purchase of equipment, machinery, explosives, and a great variety of other supplies, and for freight and insurance. In special investigations made to obtain an estimate of these expenditures, firms engaged in all the mineral industries were circularized regarding such expenditures in 1934 and 1935 while, for 1937, a similar survey covered operators in the metal-mining and smelting industries only. For the earlier surveys returns received covered fairly completely the operating firms in the metal-mining and fuel industries, but in the other groups of mineral industries, where there are many small operators of gravel pits, small quarries, etc., the returns were much less complete. Furthermore, no attempt was made to reach prospectors and small development parties, though their aggregate expenditures, with the exploratory activity that exists at present, would amount to a large sum. The figures resulting from the surveys* of 1934 and 1935 must, therefore, be regarded as suggestive rather than by any means comprehensive and the investigation for 1937 was confined to that portion of the mineral industry which could be most readily and completely covered. In 1935, the reported expenditures amounted to almost $85,000,000. Of this, freight and express made up 14·7 p.c.; electric power, 12·6 p.c.; fuel and lubricants, 11·7 p.c.; timber and building materials, 7·8 p.c.; explosives, 6·5 p.c.; insurance, 6·0 p.c.; and the remaining 40 p.c. consisted of a great variety of purchases such as machinery and tools, railway equipment, electrical equipment, motor vehicles, rubber goods, chemicals, pipe, etc. The metal mines and smelters accounted for 77·7 p.c. of the expenditures and coal mines for 11·1 p.c. These expenditures for 1934 and 1935 are shown by commodity items, by industries, and by provinces at p. 356 of the 1937 Year Book. Expenditures during 1937 are shown by principal commodities in the statement at p. 329 of the 1939 Year Book. The comparable expenditures

*The results of these surveys are given in the special reports of the "Consumption of Supplies by the Canadian Mining Industry" for 1934 and 1935, and in special bulletins on the consumption of supplies by the gold-mining and the base-metal mining, smelting, and refining industries in 1937, published by the Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics, and obtainable from the Dominion Statistician.

by the gold-mining industry in 1935 amounted to $28,707,000 or 33·8 p.c. of the total, and by the base-metal mining and smelting industries to $37,182,000 or 43·9 p.c. of the total reported expenditures by all the mineral industries in 1935. Therefore such expenditures by the gold mines in 1937 increased 41·5 p.c. and by the base-metal mines and smelters 59·5 p.c. as compared with 1935.

Subsection 2.—Growth of the Mining Industry in Recent Years.

Growth, 1922-29.—From 1922 to 1929 the output of the mineral industries increased by 72 p.c., capital investment by 76 p.c., employment by 53 p.c., and salaries and wages by 65 p.c. Progress was most rapid in the metallic mineral industries, where the expansion in net production amounted to 170 p.c. with proportionate increases in capital and employment. The period from 1922 to 1929 was marked by a rising cycle of activity in construction. This was reflected in the expansion of industries engaged in the production of clay products and other structural materials. The output of this group of industries increased by 47 p.c. during the period, while, within the group, progress was much greater in industries producing cement, gravel, and stone than in the clay products industries. The group of non-metallic mineral industries remained relatively stationary in contrast to the other two main groups during this period of rapid expansion. This may be attributed to the fact that coal mining is the predominant industry in the non-metallic group and, under increasing competition from oil fuels and hydro-electric power, did not participate in the general industrial expansion of the period.

Developments Since 1929.—Following 1929 the mining industry was affected by the world-wide economic disturbances and by drastic declines in the prices of most of the principal metals, especially copper, lead, zinc, and silver. On the other hand, the price of gold has risen by about 69 p.c. since 1931. Under the influence of the early decline in base-metal prices, the value of the net production of the metallic mineral industries declined by 27 p.c. from 1929 to 1932, with a decline of 29 p.c. in employees and 30 p.c. in salaries and wages paid. But, since the higher price for gold stimulated its production and the readjustment of costs stabilized the base-metal industries, metal production has expanded again, and while the net sales in 1938 were not on a comparable basis with those of 1929, employees were 81·5 p.c. above, and salaries and wages 87·9 p.c. above 1929. While industrial statistics for 1939 are not yet available, the production figures for this latest year indicate that metal production was well maintained.

Among the non-metallic industries the demand for coal declined during the depression years owing to reduced requirements in industrial and transportation activities. Similarly, the demand for asbestos and gypsum was affected by the lower level of industrial and construction operations. Salt was an exception to the general rule, as its production was well maintained throughout, partly owing to its increased consumption in certain chemical industries. A large measure of recovery has taken place in this group of industries, especially in the production of non-metallic minerals other than fuels.

The production of clay products and other structural materials is directly dependent upon construction activities within Canada. During the early years of the depression these activities were partly maintained by governmental relief projects and by the carrying to completion of some large operations that had commenced before 1930. As a result construction reached its lowest level in Canada

during 1933, and the group of industries producing clay products and other structural materials was at a lower level of operation in that year than in any other year since 1921. From 1929 to 1933 there was a decline of 71 p.c. in net sales, 69 p.c. in employees, 74 p.c. in salaries and wages, and 76 p.c. in expenditures for fuel and electricity, a large item in the cost of production in these industries. However, construction has been more active in Canada since 1933 (see Chapter XV) and this increased activity has been accompanied by a welcome change to a rising trend in the production of clay products and other structural materials, although these industries are still at a low level compared with the period prior to 1929.

7.—Principal Statistics of the Mineral Industries in Canada, by Groups, 1929-38, and by Provinces, 1938.

NOTE.—For the years 1921-28, see the 1936 Year Book, pp. 355-356. In the past, the net value of production, called "net sales", in these industries has been gross sales less freight and treatment charges in the case of mines, and less the value of ores charged in the case of smelters. According to a recommendation adopted by the Conference of Commonwealth Statisticians in Ottawa, 1935, the net figure, called the "net income from sales", is now obtained from net sales as defined above by a further deduction of the costs of fuel, electricity, and consumable supplies used in the production process. In the table below, however, to facilitate comparison with previous years, figures for 1935 are given to show deductions and resultant net by both methods, and figures since then on the new basis only.

Group and Year.	Plants or Mines.	Capital Employed.	Employees.	Salaries and Wages.	Fuel and Electricity for Heat and Power.[1]	Net Sales.[2]
METALLICS.	No.	$	No.	$	$	$
1929	528	427,498,173	31,125	50,279,511	11,221,987	163,050,366
1930	352	427,439,265	30,623	48,851,303	11,323,313	137,015,892
1931	327	390,908,034	25,434	41,829,288	10,340,523	132,382,514
1932	330	269,180,464	21,931	34,983,704	8,551,463	119,790,072
1933	402	406,998,952	25,443	37,937,871	7,084,253	150,145,926
1934	636	465,583,818	34,143	50,818,448	9,144,600	186,785,532
1935	619	437,471,769	38,603	59,528,350	10,199,214	217,353,515
					151,846,099[1]	173,588,815[3]
1936	867	507,796,987	46,455	72,016,670	188,371,440[1]	211,444,303[3]
1937	1,000	584,692,790	55,046	90,798,501	268,514,346[1, 4]	276,885,288
1938	883	583,631,536	56,491	94,466,952	260,417,691[1, 4]	278,367,293[3]
NON-METALLICS.						
1929	5,494	317,302,496	40,080	55,602,313	6,033,773	93,596,188
1930	5,191	328,776,596	38,355	47,852,675	5,785,483	80,063,355
1931	5,374	325,168,359	34,075	36,031,233	4,870,674	61,629,210
1932	5,246	302,294,837	31,654	29,918,319	4,497,602	54,389,856
1933	5,327	283,796,783	30,532	27,309,607	4,695,254	54,912,205
1934	5,605	263,120,280	32,195	31,763,492	5,219,565	60,580,554
1935	6,181	244,237,709	32,755	33,150,704	5,152,971	62,407,314
					16,705,125[1]	45,739,144[3]
1936	6,224	257,057,806	34,768	37,280,814	12,270,765[1]	59,475,472[3]
1937	6,271	273,578,624	37,144	43,199,558	15,319,093[1]	67,042,550[3]
1938	6,390	280,894,100	36,867	40,184,346	13,516,104[1]	67,602,082[3]
CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS.						
1929	3,126	122,220,364	23,897	18,608,687	9,495,825	58,534,834
1930	3,562	131,204,998	20,222	17,271,354	7,957,397	53,727,465
1931	3,877	125,983,627	13,300	14,108,778	6,298,151	44,158,295
1932	4,804	113,736,272	7,885	6,870,026	3,427,419	22,398,288
1933	5,144	109,496,612	7,359	4,784,327	2,245,397	16,696,687

For footnotes, see end of table, p. 328.

7.—Principal Statistics of the Mineral Industries in Canada, by Groups, 1929-38' and by Provinces, 1938—concluded.

Group, Year, or Province.	Plants or Mines.	Capital Employed.	Employees.	Salaries and Wages	Fuel and Electricity for Heat and Power.[1]	Net Sales.[2]
	No.	$	No.	$	$	$
CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS—concluded.						
1934	5,411	102,319,089	7,167	5,544,246	2,838,327	19,286,761
1935	6,098	95,790,621	8,898	7,401,505	3,004,647	23,215,400
					3,962,091[1]	19,253,309[3]
1936	6,138	94,208,302	9,776	7,468,738	4,718,167[1]	21,052,574[3]
1937	8,137	99,073,560	13,224	10,294,325	6,001,510[1]	28,868,189[3]
1938	6,857	89,722,416	13,917	10,992,702	5,432,367[1]	28,446,299[3]
Grand Totals, Mineral Industries—						
1929	9,148	867,021,033	95,102	124,490,511	26,751,585	315,181,388
1930	9,105	887,420,859	89,200	113,975,332	25,066,193	270,806,712
1931	9,578	842,060,020	72,809	91,969,299	21,509,348	238,170,019
1932	10,380	685,211,573	61,470	71,772,049	16,476,484	196,578,211
1933	10,873	800,292,347	63,334	70,031,805	14,024,904	221,754,818
1934	11,652	831,023,187	73,505	88,126,186	17,202,492	266,652,847
					18,356,832	302,976,229
1935	12,898	777,500,099	80,256	100,080,559	172,513,315[1]	238,581,268[3]
1936	13,229	859,063,095	90,999	166,766,222	205,360,362[1]	291,972,359[3]
1937	15,408	957,344,974	105,414	144,292,384	289,834,949[1]	372,796,027[3]
1938	14,130	954,248,052	107,275	145,644,000	279,366,162[1]	374,415,674[3]
1938.						
Nova Scotia and P.E.I.	810	52,594,162	15,591	15,959,095	5,258,556	20,224,347
New Brunswick	409	4,310,273	3,042	2,074,273	273,978	3,506,250
Quebec	4,161	179,013,810	20,829	24,485,254	79,226,191	69,593,807
Ontario	6,342	389,031,046	35,791	58,926,900	136,143,954	181,897,886
Manitoba	276	44,564,907	2,840	4,393,270	14,478,826	15,144,672
Saskatchewan	268	18,695,606	2,287	2,470,530	5,345,294	7,029,842
Alberta	678	120,140,472	10,612	12,811,975	2,967,269	24,931,056
British Columbia	1,158	129,667,163	15,179	21,975,143	33,686,771	49,519,855
Yukon and N.W.T.	28	16,230,613	1,104	2,547,560	1,985,323	2,567,959

[1]Exclusive of fuel and electricity used in metallurgical processes, except for the footnoted figures for 1935, 1936, 1937, and 1938, which include all fuel and electricity (whether for metallurgical processes or not) and also the cost of consumable supplies. [2]See headnote. [3]This is "net income from sales"; see headnote. [4]Includes cost of freight and treatment charges reported for the first time in 1937. They were formerly deducted by the shipper of metal-bearing ores in reporting the value of such ores shipped.

Subsection 3.—Principal Mineral Industries.

A summary of the industrial statistics of the principal mineral industries operating in Canada in 1937 and 1938 is presented in Table 8. Gold mining had in 1938 the largest labour force, having exceeded coal mining for the second year in succession. Employment in the gold industry is much less subject to seasonal fluctuations and expenditures on salaries and wages are considerably greater than those of the coal-mining industry. The smelting and refining industry was third in the number of employees and in salaries and wages paid.

8.—Principal Statistics of the Mineral Industries of Canada, by Industries, 1937 and 1938.

NOTE.—See headnote to Table 7, p. 327.

Industry and Year.	Plants or Mines.	Capital Employed.	Employees.	Salaries and Wages.	Purchased Fuel, Electricity, and Consumable Supplies.	Net Income from Sales.[1]
Metallics.	No.	$	No.	$	$	$
Alluvial gold.....1937	109	11,919,937	1,069	1,689,911	176,560	3,066,636
1938	113	12,846,973	1,071	2,056,936	288,370	3,753,052
Auriferous quartz.....1937	659	269,145,649	29,140	48,219,318	24,714,827[2]	97,961,278
1938	550	251,203,802	29,647	50,462,092	28,674,805[2]	114,472,106
Copper-gold-silver....1937	38	73,338,258	5,164	8,240,614	15,832,950[2]	24,902,851
1938	39	65,416,729	5,577	8,921,465	20,544,691[2]	28,795,492
Silver-cobalt.....1937	25	2,655,060	300	394,386	312,624[2]	540,762
1938	30	2,696,217	297	386,851	446,070[2]	288,293
Silver-lead-zinc.....1937	130	29,637,739	2,220	3,914,643	5,788,385[2]	22,740,582
1938	108	30,386,714	1,640	3,027,915	5,068,253[2]	18,483,945
Nickel-copper.....1937	11	33,979,540	5,462	10,193,491	5,185,229[2]	25,812,659
1938	11	35,363,940	5,342	9,916,179	5,174,237[2]	25,491,028
Miscellaneous metals.1937	15	1,320,012	121	155,191	33 385	52,655
1938	19	1,380,035	129	145,551	16,906	−7,997
Smelting and refining.1937	13	162,696,595	11,570	17,990,947	216,470,386	101,807,865
1938	13	184,337,126	12,788	19,549,963	200,204,359	87,091,374
Totals, Metallics.....1937	**1,000**	**584,692,790**	**55,046**	**90,798,501**	**268,514,346[2]**	**276,885,288**
1938	**883**	**583,631,536**	**56,491**	**94,466,952**	**260,417,691[2]**	**278,367,293**
Non-Metallics.						
FUELS.						
Coal.....1937	503	118,273,848	27,202	31,641,679	8,717,711	37,261,013
1938	498	111,495,137	27,074	28,699,781	7,926,328	34,207,513
Natural gas.....1937	3,268	75,611,107	2,028	2,488,125	98,880	8,938,446
1938	3,325	79,143,830	1,966	2,506,121	82,887	9,748,677
Petroleum.....1937	2,328	42,147,521	1,620	2,340,359	1,109,966	4,892,672
1938	2,400	51,685,038	1,894	2,656,112	1,141,762	8,986,071
TOTALS, FUELS...1937	6,099	236,032,476	30,850	36,470,163	9,926,557	51,092,131
1938	6,223	242,324,005	30,934	33,862,014	9,150,977	52,942,261
OTHER NON-METALLICS.						
Asbestos.....1937	11	21,249,676	3,842	4,232,507	4,076,235	10,429,556
1938	9	22,008,771	3,711	4,024,363	3,187,725	9,702,470
Feldspar, quartz, and nepheline-syenite....1937	39	1,352,992	445	384,698	186,470	1,242,244
1938	32	1,605,136	375	342,248	168,509	1,065,138
Gypsum.....1937	13	6,902,222	602	595,396	263,077	1,277,406
1938	15	7,325,412	623	528,027	239,306	1,262,959
Iron oxides.....1937	6	213,248	50	35,368	13,878	69,762
1938	6	200,057	37	31,557	8,124	63,645
Mica.....1937	34	150,569	199	97,547	17,546	116,185
1938	40	159,758	156	74,424	19,247	61,742
Salt.....1937	9	4,001,568	543	653,136	259,064	1,540,401
1938	9	4,270,799	562	786,720	309,080	1,603,833
Talc and soapstone....1937	7	625,497	83	72,020	25,394	138,420
1938	6	212,491	75	59,426	23,907	120,941
Miscellaneous[3].....1937	53	3,050,376	530	658,723	550,872	1,136,445
1938	50	2,787,671	394	475,567	409,229	779,093
TOTALS, OTHER NON-METALLICS. 1937	172	37,546,148	6,294	6,729,395	5,392,536	15,950,419
1938	167	38,570,095	5,933	6,322,332	4,365,127	14,659,821
Totals, Non-Metallics.....1937	**6,271**	**273,578,624**	**37,144**	**43,199,558**	**15,319,093**	**67,042,550**
1938	**6,390**	**280,894,100**	**36,867**	**40,184,346**	**13,516,194**	**67,602,082**

For footnotes, see end of table, p. 330.

8.—Principal Statistics of the Mineral Industries of Canada, by Industries, 1937 and 1938—concluded.

Industry and Year.	Plants or Mines.	Capital Employed.	Employees.	Salaries and Wages.	Purchased Fuel, Electricity, and Consumable Supplies.	Net Income from Sales.[1]
	No.	$	No.	$	$	$
Clay Products and Other Structural Materials.						
CLAY PRODUCTS.						
Brick, tile, and sewer pipe.....1937	137	20,087,448	2,159	2,002,075	1,121,754	3,163,758
1938	147	17,756,732	2,125	2,009,836	1,039,148	3,284,486
Stoneware and pottery.....1937	6	339,784	128	92,717	14,569	216,778
1938	5	311,810	117	100,397	14,701	197,749
TOTALS, CLAY PRODUCTS.....1937	143	20,427,232	2,287	2,094,792	1,136,323	3,380,536
1938	152	18,068,542	2,242	2,110,233	1,053,849	3,482,235
OTHER STRUCTURAL MATERIALS.						
Cement.....1937	9	54,150,672	1,083	1,373,444	2,445,333	6,650,534
1938	8	52,299,046	1,034	1,306,331	2,293,584	5,947,766
Lime.....1937	57	4,931,831	872	781,274	1,038,958	2,785,959
1938	53	4,881,214	867	795,068	939,989	2,602,663
Sand and gravel.....1937	7,373	6,706,288	6,084	3,468,471	295,348	10,197,348
1938	6,094	3,286,340	6,959	4,482,916	254,595	11,747,959
Stone.....1937	555	12,857,537	2,898	2,576,344	1,085,548	5,853,812
1938	550	11,187,274	2,815	2,298,154	890,350	4,665,676
TOTALS, OTHER STRUCTURAL MATERIALS.....1937	7,994	78,646,328	10,937	8,199,533	4,865,187	25,487,653
1938	6,705	71,653,874	11,675	8,882,469	4,378,518	24,964,064
Totals, Clay Products and Other Structural Materials.....1937	**8,137**	**99,073,560**	**13,224**	**10,294,325**	**6,001,510**	**28,868,189**
1938	**6,857**	**89,722,416**	**13,917**	**10,992,702**	**5,432,367**	**28,446,299**
Grand Totals, Mineral Industries....1937	**15,408**	**957,344,974**	**105,414**	**144,292,384**	**289,834,949**	**372,796,027**
1938	**14,130**	**954,248,052**	**107,275**	**145,644,000**	**279,366,162**	**374,415,674**

[1]See headnote to Table 7, p. 327. [2]Includes freight and treatment charges. (See footnote 4, Table 7, p. 328.) [3]Includes natural abrasives; also a small production of peat, normally included in fuels.

Section 4.—Production of Metallic Minerals.

The metals of chief importance in Canada are cobalt, copper, gold, iron, lead, nickel, those of the platinum group, radium, silver, and zinc. These are dealt with in separate subsections in alphabetical order. In addition, there are a number of others produced in minor quantities, principally as by-products in the treatment of metalliferous ores, and their production during the three latest years is shown in Table 2, while their production by provinces in 1938 appears in Table 6.

Subsection 1.—Cobalt.

For almost two decades prior to 1925, the major portion of the world supply of cobalt was derived from the orebodies of the Cobalt district, which were discovered in 1903, and carry silver, cobalt, nickel, bismuth, and arsenic. Large deposits of cobalt-bearing ores occur in Africa in the Belgian Congo, Northern Rhodesia, and French Morocco, and the introduction into world markets of cobalt from these sources has increased world production while Canadian production has declined since 1925.

9.—Production of Cobalt in Canada, 1920-39.

NOTE.—Figures for the years 1904 to 1919, inclusive, will be found at p. 334 of the 1939 Year Book.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	lb.	$		lb.	$
1920	566,000	1,605,365	1930	694,163	1,144,007
1921	251,986	755,958	1931	521,051	651,179
1922	569,960	1,852,370	1932	490,631	587,957
1923	888,061	2,530,974	1933	466,702	597,752
1924	948,704	1,682,395	1934	594,671	592,497
1925	1,116,492	2,328,517	1935	681,419	512,705
1926	664,778	1,136,014	1936	887,591	804,676
1927	880,590	1,764,534	1937	507,064	848,145
1928	956,590	1,672,320	1938	459,226	790,913
1929	929,415	1,801,915	1939[1]	732,561	1,137,599

[1] Preliminary figures.

Subsection 2.—Copper.

The earliest important copper-mining district in Canada was in the Eastern Townships of Quebec. Operations ceased in this part of Canada during mid-summer 1939. Production from the Sudbury district became important about 1889, and from the mines of British Columbia about 1896. From 1898 to 1929 British Columbia was the leading copper-producing province. Production came from the Rossland and Boundary districts, the Copper Mountain mine, and the Britannia and Hidden Creek mines along the coast. Shortly after the War of 1914-18, large development programs were carried out in connection with the Noranda and other copper-producing properties of western Quebec, with the Flin Flon and Sherritt-Gordon properties in western Manitoba, and a very large expansion program at the nickel-copper properties of Sudbury. The effect of these developments has been the tremendous increase since 1927 in the production of copper and nickel as well as associated metals such as platinum, palladium, selenium, and tellurium. Modern and efficient mining methods and plants, and the presence in the ores of small but appreciable quantities of precious metals have made possible the profitable production of copper even under the relatively low prices prevailing since 1930.

10.—Quantities of Copper Produced in Canada, by Provinces, with Total Values, 1920-39.

NOTE.—Figures for the years 1886 to 1910, inclusive, will be found at p. 272 of the 1916-17 Year Book and for 1911 to 1919 at p. 335 of the 1939 edition.

Year.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	British Columbia.	Yukon.	Totals.	
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	$
1920	880,638	32,059,993	3,062,577	–	45,319,771	277,712	81,600,691	14,244,217
1921	352,308	12,821,385	Nil	–	34,447,127	Nil	47,620,820	5,953,555
1922	Nil	10,943,636	"	–	31,936,182	"	42,879,818	5,738,177
1923	"	31,656,800	"	–	55,224,737	"	86,881,537	12,529,186
1924	1,893,008	37,113,193	"	–	65,451,246	"	104,457,447	13,604,538
1925	2,510,141	39,718,777	"	–	69,221,600	"	111,450,518	15,649,882
1926	2,674,058	41,312,867	"	–	89,108,017	"	133,094,942	17,490,300
1927	3,119,848	45,341,295	"	–	91,686,297	"	140,147,440	17,195,487
1928	33,697,949	66,607,510	"	–	102,283,210	107,377	202,696,046	28,598,249
1929	55,337,169	88,879,853	"	–	103,903,738	Nil	248,120,760	43,415,251
1930	80,310,363	127,718,871	2,087,609	–	93,318,885	42,628	303,478,356	37,948,359
1931	68,376,985	112,882,625	45,821,432	–	65,223,348	Nil	292,304,390	24,114,065
1932	67,336,692	77,055,413	52,706,861	–	50,580,104	"	247,679,070	15,294,058
1933	69,943,882	145,504,720	38,163,181	3,223,941[1]	43,146,724	"	299,982,448	21,634,853
1934	73,968,545	205,059,539	30,867,141	6,618,913	48,246,924	"	364,761,062	26,671,438
1935	79,050,906	252,027,928	38,011,371	11,429,452	38,478,013	"	418,997,700	32,311,960
1936	66,340,175	287,914,078	29,853,220	14,971,609	21,169,343	"	421,027,732[2]	39,514,101[2]
1937	94,653,132	322,039,208	44,920,835	22,436,843	45,797,988	"	530,028,615[2]	68,917,219[2]
1938	112,645,797	309,030,106	65,582,772	18,156,157	65,759,265	"	571,249,664[2]	56,554,034[2]
1939[4]	117,238,897	328,428,665	70,458,890	18,133,149	72,530,552	"	608,101,714[2]	60,860,234[2]

[1] First reported production. [2] Includes 779,307 lb. valued at $73,855 produced in Nova Scotia in 1936; 180,609 lb. at $23,620 in 1937; 75,567 lb. valued at $7,535 produced in N.W.T. in 1938; 1,269,179 lb. valued at $128,086 produced in Nova Scotia and 42,382 lb. valued at $4,277 produced in N.W.T. in 1939. [4] Preliminary figures.

World Production.—World production of copper was estimated at 2,020,000 long tons in 1938, as compared with 1,920,000 long tons in 1929. Canada had an output of 255,022 tons in 1938, producing about 12·6 p.c. of the estimated world total and standing third among the nations.

11.—Copper Production of the Leading Countries and of the World, 1920-38.

(In long tons of 2,240 lb.)

NOTE.—Figures in this table, except as indicated, are from the Imperial Institute's Statistical Summary. Figures for the years 1913 to 1919, inclusive, will be found at p. 335 of the 1939 Year Book.

Year.	Canada.[1]	Northern Rhodesia.	Belgian Congo.	Chile.	Japan.	Mexico.	Peru.	Spain and Portugal.	United States.	World Production.[2]
1920	36,429			97,388	66,721	44,523	32,461	22,637	567,186	966,654
1921	21,259			58,303	53,238	12,121	32,758	32,675	203,946	536,571
1922	19,143			127,527	53,271	26,645	35,833	35,923	457,116	888,433
1923	38,786			179,502	62,781	54,052	43,468	50,996	673,214	1,260,696
1924	46,633	–	–	187,371	61,945	43,884	34,371	54,208	731,250	1,359,280
1925	49,755	74[3]	88,681[3]	187,191	64,654	52,788	36,768	57,083	762,500	1,419,390
1926	59,417	708	79,365	199,121	64,533	55,628	41,699	57,083	783,929	1,462,044
1927	62,566	3,290	87,748	235,930	65,519	56,929	46,820	53,885	756,624	1,502,108
1928	90,489	5,930	110,680	282,269	67,155	64,536	55,556	55,000	807,945	1,690,000
1929	110,768	5,466	134,828	315,566	74,277	85,187	55,228	67,000	890,674	1,920,000
1930	135,481	6,269	136,754	216,844	77,785	72,252	46,800	66,000	629,529	1,580,000
1931	130,493	22,800	118,000	221,000	74,650	53,354	43,600	56,000	472,210	1,360,000
1932	110,571	87,238	53,000	101,600	70,741	34,698	24,691	34,000	212,599	890,000
1933	133,921	129,423	65,544	160,814	67,942	39,196	30,773	31,000	211,969	1,260,000
1934	162,840	157,599	108,346	252,646	65,944	43,559	27,283	32,000	211,969	1,260,000
1935	187,053	168,659	105,981	262,864	68,215	38,751	30,237	32,000	339,724	1,470,000
1936	187,959	170,728	94,156	252,162	76,505	29,244	32,825	27,000	548,674	1,700,000
1937	236,620	245,888	148,210	410,000	86,215	45,350	36,000	32,518	748,009	2,300,000
1938[4]	255,022	250,877	121,985	345,821	80,000	41,190	37,154	34,807	498,003	2,020,000

[1] Dominion Bureau of Statistics figures. [2] Totals include productions of other countries not specified. [3] First reported production. [4] Preliminary figures except for Canada.

Subsection 3.—Gold.

Canada has been a gold-producing country for over 75 years. During the last half of the 19th century production was chiefly from placer operations in British Columbia and Yukon, while during the present century there has been a rapid growth of production from lode mining both of auriferous quartz and of gold in association with other metals. Gold production in Canada attained its earlier maximum at 1,350,057 fine oz., in 1900, when the Yukon production reached its highest point. The quantities and values of gold produced in Canada are given by provinces for 1920 and subsequent years in Tables **12** and **13**. The official estimate for 1939 is 5,095,176 fine oz.

Producers of gold have benefited in recent years not only from the general decline in the prices of other commodities, with a consequent reduction in their operating costs, but also from the rise in the world price of gold itself. Under the stimulus of higher prices, prospecting for gold has been more active during recent years than ever before.

Gold is produced in Nova Scotia, at points across the Canadian Shield from Quebec to the Northwest Territories, and in the Cordilleran Region of British Columbia and Yukon. Except for comparatively small amounts obtained from alluvial workings in Yukon, British Columbia, and Alberta, the production is derived from lode mining either of auriferous quartz or of other metallic ores such as copper, nickel, and zinc that carry varying amounts of gold. The principal producing districts are: western Quebec; the adjacent districts of Porcupine and Kirkland Lake in Ontario, with other smaller camps scattered across northern Ontario to the western boundary; the Rice Lake and Gods Lake areas in eastern Manitoba and the Flinflon district on the Manitoba-Saskatchewan boundary; the Bridge River district and the new camp at Zeballos on the west coast of Vancouver Island in British Columbia. Developments in the Yellowknife district in the Northwest Territories have resulted in three producing mines. A property near Lake Athabaska in Saskatchewan was brought into production in 1939 after a period of extensive development. With new areas of promise being discovered, and with the reserves in older camps being extended and operations expanded, there is every prospect for the continued increase of gold mining in Canada. At the present time the leading gold producer in Canada is the Hollinger mine in the Porcupine camp, the second is the Lake Shore mine in the Kirkland Lake camp, and the third is Noranda, a copper-gold mine in western Quebec. In 1939 about 83·3 p.c. of the total production came from auriferous quartz mines; about 14·2 p.c. from mines in which gold was associated with ores of copper, nickel, zinc, etc.; and about 2·5 p.c. from alluvial operations. The number of producing auriferous quartz mines increased from 37 in 1930 to 226 in 1938.

12.—Quantities of Gold Produced in Canada, by Provinces, 1920-39.

NOTE.—Figures for the years 1862 to 1910, inclusive, will be found at pp. 268-269 of the 1916-17 Year Book, and for the years 1911 to 1919 at p. 336 of the 1939 edition.

Year.	Nova Scotia.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Yukon.	Total.
	oz. fine.	oz. fine.	oz. fine.	oz. fine.	oz. fine.	oz. fine.	oz. fine.	oz. fine.	oz. fine.
1920....	690	955	564,995	781	–	Nil	124,808	72,778	765,007
1921....	439	635	708,213	207	–	49	150,792	65,994	926,329
1922....	1,042	Nil	1,000,340	156	–	Nil	207,370	54,456	1,263,364
1923....	655	667	971,704	31	–	"	200,140	60,144	1,233,341
1924....	1,047	883	1,241,728	1,180	–	"	245,719	34,825	1,525,382
1925....	1,626	1,602	1,461,039	4,424	–	"	219,227	47,817	1,735,735
1926....	1,678	3,680	1,497,215	188	–	"	225,866	25,601	1,754,228
1927....	3,151	8,331	1,627,050	182	–	42	183,094	30,935	1,852,785
1928....	1,290	60,006	1,578,434	19,813	–	68	196,617	34,364	1,890,592
1929....	2,687	90,798	1,622,267	22,455	–	5	154,204	35,892	1,928,308
1930....	1,272	141,747	1,736,012	23,189	–	Nil	164,331	35,517	2,102,068
1931....	460	300,075	2,085,814	102,969	–	195	160,069	44,310	2,693,892
1932....	964	401,105	2,280,105	122,507	11[1]	83	199,004	40,608	3,044,387
1933....	1,382	382,886	2,155,519	125,310	5,400	324	238,995	39,493	2,949,309
1934....	3,525	390,097	2,105,339	132,321	5,405	393	296,196	38,798	2,972,074
1935....	9,376	470,552	2,220,336	142,613	14,323	150	391,633	35,907[2]	3,284,890[2]
1936....	11,960	666,905	2,378,503	139,273	48,981	109	451,938	50,359[2]	3,748,028[2]
1937....	19,918	711,480	2,587,095	157,949	65,886	46	505,857	47,982	4,096,213
1938....	26,560	821,263	2,896,477	185,706	50,021	305	605,617	79,168[2]	4,725,117[2]
1939[3]...	29,943	953,478	3,086,224	180,867	77,120	359	629,037	138,148[2]	5,095,176[2]

[1] First reported production. [2] Includes production of the Northwest Territories amounting to 200 oz. fine in 1935; 1 oz. fine in 1936; 6,800 oz. fine in 1938; and 50,403 oz. fine in 1939. [3] Preliminary figures.

13.—Values of Gold Produced in Canada, by Provinces, 1920-39.

NOTE.—Figures for the years 1862 to 1910, inclusive, will be found at p. 270 of the 1916-17 Year Book and for the years 1911 to 1919 at p. 337 of the 1939 edition.

Year.	Nova Scotia.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Yukon.	Total.
	$	$	$	$	$	$	$	$	$
1920..	14,263	19,742	11,679,483	16,145	–	Nil	2,580,010	1,504,455	15,814,098
1921..	9,075	13,127	14,640,062	4,279		1,013	3,117,147	1,364,217	19,148,920
1922..	21,540	Nil	20,678,862	3,225		Nil	4,286,718	1,125,705	26,116,050
1923..	13,540	13,788	20,086,904	641		"	4,137,261	1,243,287	25,495,421
1924..	21,643	18,253	25,668,795	24,393	–	"	5,079,462	719,897	31,532,443
1925..	33,612	33,116	30,202,357	91,452	–	"	4,531,824	988,465	35,880,826
1926..	34,687	76,072	30,950,180	3,886	–	"	4,669,065	529,220	36,263,110
1927..	65,137	172,217	33,634,108	3,762	–	868	3,784,889	639,483	38,300,464
1928..	26,667	1,240,434	32,629,126	409,571	–	1,406	4,064,434	710,367	39,082,005
1929..	55,545	1,876,961	33,535,234	464,186	–	103	3,187,680	741,954	39,861,663
1930..	26,295	2,930,170	35,886,552	479,359	–	Nil	3,397,023	734,202	43,453,601
1931..	9,920	6,471,075	44,980,280	2,220,512	–	4,205	3,451,865	955,539	58,093,396
1932[1]..	22,634	9,417,572	53,534,743	2,876,350	258[2]	1,949	4,672,429	953,438	71,479,373
1933..	39,525	10,950,539	61,647,843	3,583,866	154,440	9,267	6,835,257	1,129,500	84,350,237
1934..	121,613	13,458,347	72,634,195	4,565,075	186,472	13,558	10,218,762	1,338,531	102,536,553
1935..	329,942	16,558,725	78,133,624	5,018,551	504,026	5,279	13,781,565	1,263,567[3]	115,595,279[3]
1936..	418,959	23,361,683	83,318,960	4,878,733	1,715,804	3,818	15,831,388	1,764,076[3]	131,293,421[3]
1937..	696,931	24,894,685	90,522,454	5,526,636	2,305,351	1,610	17,699,936	1,678,890	143,326,493
1938..	934,248	30,998,426	101,883,578	6,532,209	1,759,489	10,728	21,302,578	2,784,734[3]	166,205,990[3]
1939[4]..	1,082,170	34,459,648	111,539,222	6,536,714	2,787,194	12,975	22,734,026	4,992,807[3]	184,144,756[3]

[1] From 1920 to 1931, inclusive, values calculated on basis 1 fine oz.=$20·671834; since then, at world prices in Canadian funds. [2] First reported production in this province. [3] Includes value of production of the Northwest Territories amounting to $7,038 in 1935; $35 in 1936; $239,190 in 1938; and $1,821,615 in 1939. [4] Preliminary figures.

World Production.—The development of the gold-mining industry of the world since the discovery of America may be sketched in four successive periods. During the first period extending from 1493 to 1760, the annual production averaged

nearly 337,000 fine oz. The placer mining of Brazil and Colombia swelled the average output of the last 60 years of the period to about 606,000 fine oz. per year.

The production of Russia from placer mining was a considerable factor in the next period, extending from 1761 to 1840, that country retaining first rank among the world producers until 1837. The average annual production during the period was 565,500 fine oz.

The third period, extending from 1841 to 1890, was notable for the remarkable discoveries of gold in California and Australia in 1848 and 1851, respectively. The annual average during the 50 years was 4,937,000 fine oz. For the first decade the average was 1,761,000 fine oz. and for the second 6,448,000, while in the last decade it declined to 5,201,000. The production of the period was contributed chiefly by the United States, Australia, and Russia.

In the fourth period, extending from 1891 to the present time, covered by the figures of Table 14, the outstanding features were the entry of South Africa as an important and later as the leading producer, the increase in the output of most of the gold-producing countries through the introduction of the cyanide process and, more recently, the rapidly increasing world production as a result of the appreciation in the value of gold. The output was 6,320,000 fine oz. in 1891 and a steady increase was recorded until 1915, when 22,847,000 fine oz. were produced. Thereafter, the great increase in wages and in the other costs of production of an article of fixed value brought about a steady decline to a minimum production of 15,497,000 fine oz. in 1922. However, the notable decline in general commodity price levels that occurred in 1921 and 1922 again reduced the costs of gold production and the industry responded with a distinctly upward trend thereafter throughout the 1920's. The increased price of gold since 1930 has accelerated the expansion in world production during recent years and all previous records have been exceeded.

14.—Quantities and Values of World Production of Gold, 1891-1938.

(From the Annual Report of the Director of the United States Mint.)

Year.	Quantity.	Value.[1]	Year.	Quantity.	Value.[1]	Year.	Quantity.	Value.[1]
	oz. fine.	$		oz. fine.	$		oz. fine.	$
1891.....	6,320,194	130,650,000	1907....	19,977,260	412,966,600	1923....	17,845,349	368,896,948
1892.....	7,094,266	146,651,500	1908....	21,422,244	422,837,000	1924....	18,619,481	384,899,578
1893.....	7,618,811	157,494,800	1909....	21,965,111	454,059,100	1925....	18,673,178	384,009,921
1894.....	8,764,362	181,175,600	1910....	22,022,120	455,239,100	1926....	19,117,568	395,198,984
1895.....	9,615,190	198,763,600	1911....	22,397,136	462,989,761	1927....	19,058,736	393,979,954
1896.....	9,783,914	202,251,600	1912....	22,605,068	467,288,203	1928....	18,885,849	390,386,574
1897.....	11,420,068	236,073,700	1913....	22,556,347	466,284,303	1929....	19,207,452	397,153,303
1898.....	13,877,806	286,879,700	1914....	21,652,883	447,608,337	1930....	20,903,736	432,118,638
1899.....	14,837,775	306,724,100	1915....	22,846,608	472,283,884	1931....	22,284,290	460,650,527
1900.....	12,315,135	254,576,300	1916....	22,032,542	455,455,670	1932....	24,098,676	498,163,970
1901.....	12,625,527	260,992,900	1917....	20,346,043	420,592,147	1933....	25,400,295	525,070,547
1902.....	14,354,680	296,737,600	1918....	18,588,127	384,251,378			
						1934....	27,372,374	958,033,090
1903.....	15,852,620	327,702,700	1919....	17,339,679	358,443,791	1935....	29,999,245	1,049,973,580
1904.....	16,804,372	347,377,200	1920....	16,146,830	333,784,924	1936....	32,930,554	1,152,569,390
1905.....	18,396,451	380,288,300	1921....	15,997,692	330,702,190	1937....	35,118,298	1,229,140,430
1906.....	19,471,080	402,503,000	1922....	15,496,859	320,349,102	1938[2]...	37,603,213	1,316,112,455

[1] At $20·67+ per oz. fine prior to 1934; at $35 per oz. fine in 1934 and later years. [2] Preliminary figures.

In 1938 the world's chief producers were the Union of South Africa, with 32·3 p.c., U.S.S.R. (Russia), including Siberia, with 13·9 p.c., United States with 11·3 p.c. and Canada with 12·5 p.c. As Australia, Rhodesia, British West Africa, and British India were also important producers, over 55 p.c. of the world production of 1938 was produced in the British Empire.

15.—Quantities and Values of the World Production of Gold and Silver, by Principal Countries, 1937 and 1938.

(Abridged from the Annual Report of the Director of the United States Mint.)

Country.	1937.				1938.[1]			
	Gold.		Silver.		Gold.		Silver.	
	Quantity.	Value ($35·00 per oz.).	Quantity.	Value ($0·45195 per oz.).[2]	Quantity.	Value ($35·00 per oz.).	Quantity.	Value ($0·43537 per oz.).[2]
NORTH AMERICA—	oz. fine.	$	oz. fine.	$	oz. fine.	$	oz. fine.	$
U.S.A.	4,112,160	143,925,600	71,298,929	32,223,551	4,245,377	148,588,195	61,688,834	26,857,468
Canada	4,095,872	143,355,520	22,683,032	10,251,596	4,715,480	165,041,800	22,157,164	9,646,564
Mexico	846,400	29,624,000	84,680,875	38,271,522	923,819	32,333,665	81,018,809	35,273,159
Newfoundland	22,673	793,555	1,447,613	654,249	24,104	843,640	1,668,622	726,468
TOTALS	9,077,105	317,698,675	180,110,449	81,400,918	9,908,780	346,807,300	166,533,429	72,503,659
CENTRAL AMERICA AND WEST INDIES	140,000[3]	4,900,000	3,600,000[3]	1,627,020	164,000[3]	5,740,000	4,300,000[3]	1,872,091
SOUTH AMERICA—								
Bolivia	37,092[4]	1,298,220	9,454,022[4]	4,272,745	28,937	1,012,795	6,373,660	2,774,900
Brazil	145,771	5,101,985	44,239	19,994	192,166	6,725,810	28,516	12,415
Chile	272,670	9,543,450	1,786,263	807,302	294,002	10,290,070	1,414,086	615,651
Colombia	442,222	15,477,770	167,971	75,914	520,713	18,224,955	192,872	83,971
Peru	168,663	5,903,205	16,993,595	7,680,255	254,473[4]	8,906,555	20,424,466[4]	8,892,200
Venezuela	115,514	4,077,990	[5]	–	114,978	4,024,230	[5]	–
TOTALS[6]	1,339,442	46,880,470	29,101,569	13,152,454	1,585,248	55,483,680	32,277,711	14,052,747
EUROPE—								
Czechoslovakia	9,870	345,450	1,103,446	498,702	10,000[7]	350,000	1,190,326	518,232
France	72,757	2,546,495	400,000[8]	180,780	87,354	3,057,390	565,000	245,984
Germany[9]	8,038	281,330	6,774,161	3,061,582	8,650	302,750	7,010,000	3,051,944
Italy	17,232[10]	603,120	650,000[7]	293,768	5,016	175,560	812,481	353,730
Roumania	166,540	5,828,900	670,214	302,903	172,453	6,035,855	819,876	356,949
Sweden	161,493	5,652,255	550,774	248,922	197,994	6,929,790	643,418	280,124
U.S.S.R.	5,358,982	187,564,370	7,228,933	3,267,116	5,235,909	183,256,815	8,021,707	3,492,411
Yugoslavia	87,578	3,065,230	2,242,546	1,013,519	78,318	2,741,130	2,524,074	1,098,906
TOTALS[6]	5,894,127	206,294,445	21,053,237	9,515,010	5,809,135	203,319,725	22,630,381	9,852,589
ASIA—								
British India[11]	331,636[12]	11,607,260	6,204,642	2,804,188	322,397	11,283,895	5,946,794	2,589,056
China[13]	154,966[14]	5,423,810	146,607	66,259	188,000[7]	6,580,000	150,000[7]	65,305
Tyosen	734,580	25,710,300	2,672,978	1,208,052	948,447	33,195,645	3,000,000	1,306,110
Japan	713,685[14]	24,978,975	9,765,572[14]	4,413,550	760,000[7]	26,600,000	10,100,000	4,397,237
Philippine Is.	716,967	25,093,845	719,771	325,301	903,265	31,614,275	1,167,612	508,343
TOTALS[6]	2,846,407	99,624,245	20,569,327	9,296,308	3,372,031	118,021,085	21,467,626	9,346,360
OCEANIA—								
Australia[15]	1,634,869	57,220,415	14,455,776	6,533,288	1,882,547	65,889,145	14,672,547	6,387,987
New Zealand	168,487	5,897,045	443,981	200,657	152,050	5,321,750	357,709	155,736
TOTALS[6]	1,828,273	63,989,555	14,903,229	6,735,514	2,126,966	74,443,810	15,042,634	6,549,112
AFRICA—								
Belgian Congo	431,688	15,108,380	3,215,074	1,453,053	482,261	16,879,135	3,117,014	1,357,054
British W.A.	621,395	21,748,825	103,607	46,825	730,184	25,556,440	101,271	44,190
French W.A.	128,410	4,494,350	[5]	–	127,220	4,452,700	[5]	–
S. Rhodesia	804,220	28,147,700	152,038	68,714	814,078	28,492,730	166,417	72,453
Union S.A.	11,734,575	410,710,125	1,100,641	497,435	12,161,392	425,648,720	1,135,374	494,308
TOTALS[6]	13,992,944	489,753,040	5,200,062	2,350,168	14,637,053	512,296,855	5,661,250	2,464,738
Totals for World[6]	**35,118,298**	**1,229,140,430**	**274,537,873**	**124,077,392**	**37,603,213**	**1,316,112,455**	**267,913,031**	**116,461,296**

[1] Subject to revision. [2] Average price per fine oz. in New York. [3] Estimate based on imports of ore and bullion into United States and Great Britain, and interrogatory data. [4] Amount exported. [5] None reported. [6] Totals include other countries not specified. [7] Data from the 1938 Year Book of the American Bureau of Metal Statistics. [8] Estimate based on other years' production. [9] Including Austria. [10] Conjectural. [11] Including Burma. [12] Incomplete. [13] Including Manchuria. [14] Prior years' figures. [15] Including New Guinea and Papua.

Subsection 4.—Iron.*

Iron ore is widely distributed in Canada and extensive deposits have been discovered from time to time, but none at present available can compete in low cost with high-grade external sources of supply.

Bog iron ore was first mined and smelted in the Province of Quebec early in the eighteenth century, and from that time until 1883 the industry was carried on almost continuously at Three Rivers. Other furnaces using local ore were operated at Radnor Forges and Drummondville, the last to shut down being the Drummondville furnace in 1911.

The large iron and steel industry of Nova Scotia draws its requirements of iron ore from the easily accessible and abundant supplies of the high-grade Wabana deposit in Newfoundland. In Ontario, also, there has been a broad development of the primary iron and steel industry largely because cheap and high-grade supplies of iron ore are readily available from the Mesabi Range of Minnesota, while coal supplies are drawn from the nearby coalfields of Pennsylvania.

16.—Iron-Ore Shipments and Production of Pig-Iron, Ferro-Alloys, and Steel Ingots and Castings, 1920-39.

NOTE.—Figures for the years 1886 to 1910, inclusive, will be found at p. 373 of the 1936 Year Book and for the years 1911 to 1919 at p. 340 of the 1939 edition.

Year.	Iron-Ore Shipments from Canadian Mines.	Production of Pig-Iron.				Production of Ferro-Alloys.	Production of Steel Ingots and Castings.
		Nova Scotia.	Quebec.	Ontario.	Canada.		
	short tons.[1]	long tons.[1]	long tons.[1]	long tons.[1]	long tons.[1]	long tons.[1]	long tons.[1]
1920	129,072	296,869	7,887	668,812	973,568	27,781	1,100,622
1921	59,509	151,343	610	441,876	593,829	22,608	667,484
1922	17,971	120,769	Nil	262,198	382,967	21,602	480,127
1923	30,752	277,654	"	602,168	879,822	41,887	881,523
1924	Nil	177,078	"	415,971	593,049	35,034	659,767
1925	"	201,795	"	368,971	570,766	25,709	752,503
1926	"	250,238	"	507,079	757,317	57,050	776,262
1927	"	249,549	"	460,148	709,697	56,230	907,945
1928	"	302,756	"	734,971	1,037,727	44,482	1,234,719
1929	"	310,801	"	769,359	1,080,160	89,116	1,378,024
1930	"	212,636	"	534,542	747,178	65,223	1,009,578
1931	"	101,393	"	318,645	420,038	46,764	672,109
1932	"	30,697	"	113,433	144,130	16,161	339,346
1933	"	118,514	"	108,803	227,317	30,133	409,979
1934	"	133,360	"	271,635	404,995	31,921	757,782
1935	"	208,002	"	391,873	599,875	56,616	941,527
1936	"	257,148	"	421,083	678,231	76,284	1,115,779
1937	"	320,318	"	578,537	898,855	82,072	1,402,882
1938	"	241,856	"	463,571	705,427	55,926	1,155,190
1939[2]	123,598	259,136	"	496,595	755,731	75,234	1,383,262

[1] Although shipments of ore are expressed in short tons, the trade uses long tons as the quantity unit for pig-iron, etc. [2] Preliminary figures.

During the summer of 1937, the Algoma Properties, Ltd., commenced rebuilding the surface equipment at the new Helen mine in the Michipicoten district, where reserves are estimated at 60,000,000 tons of iron carbonate rather high in sulphur and therefore requiring roasting to fit it for use in the blast furnace. As a result of an Act passed by the Ontario Legislature, which provides for a bounty of two cents per unit of iron content for a period of 10 years commencing Jan. 1, 1939, Canada was able to report, for the first time since 1923, a production of iron ore in 1939. In addition, development work was carried on at Steep Rock Lake near Atikokan,

* The known resources of iron ore are described briefly at p. 411 of the 1934-35 Year Book, and a sketch of the iron and steel industry of Canada is given on pp. 452-456 of the 1922-23 Year Book.

135 miles west of Port Arthur, for the production of high-grade iron ore. Magnetic surveys and diamond drilling through the ice have proved the existence of a large body of high-grade ore. A shaft is now being sunk on the property and, if preliminary indications are a guide, this is one of the most important and far-reaching mineral discoveries in Canada for some time.

Subsection 5.—Lead.

Lead is obtained in Canada largely from the ores of British Columbia, where production began with 88,665 lb. in 1891. Bounties were paid on lead produced in Canada from 1899 to 1918 (see the 1920 Year Book, p. 454) but the highest production of this period was 56,900,000 lb. in 1905. However, as a result of developments in British Columbia mentioned below, production has increased greatly since the War of 1914-18. The data in Table **17** represent the quantities of lead produced in Canada from domestic ores, together with estimated recovery from lead ores and concentrates exported.

17.—Quantities and Values of Lead Produced from Canadian Ores, 1920-39.

NOTE.—Figures for the years 1887 to 1910, inclusive, will be found at p. 367 of the 1929 Year Book and for the years 1911 to 1919 at p. 341 of the 1939 edition.

Year.	Quantity.	Value.	Price per Pound.[1]	Year.	Quantity.	Value.	Price per Pound.[1]
	lb.	$	cts.		lb.	$	cts.
1920	35,953,717	3,214,262	8·940	1930	332,894,163	13,102,635	3·933
1921	66,679,592	3,828,742	5·742	1931	267,342,482	7,260,183	2·710
1922	93,307,171	5,817,702	6·219	1932	255,947,378	5,409,704	2·114
1923	111,234,466	7,985,522	7·179	1933	266,475,191	6,372,998	2·392
1924	175,485,499	14,221,345	8·104	1934	346,275,576	8,436,658	2·436
1925	253,590,578	23,127,460	9·120	1935	339,105,079	10,624,772	3·133
1926	283,801,265	19,240,661	6·751	1936	383,180,909	14,993,869	3·913
1927	311,423,161	16,477,139	5·256	1937	411,999,484	21,053,173	5·110
1928	337,946,688	15,553,231	4·576	1938	418,927,660	14,008,941	3·344
1929	326,522,566	16,544,248	5·063	1939[2]	388,378,914	12,307,727	3·169

[1] From 1920 to 1925, average prices at Montreal; from 1926 to 1939, average yearly prices at London, England. [2] Preliminary figures.

British Columbia.—In the East and West Kootenay districts there are many important mines, the principal of which is the Sullivan lead-zinc mine near Kimberley. The ore averages about 11 p.c. lead, 7 p.c. zinc, and 5 ounces of silver to the ton. The successful solving by the Consolidated Mining and Smelting Co. of the metallurgical problems connected with the separation and reduction of these lead-zinc ores accounts to a considerable extent for the rapid growth in lead production during recent years. As a result of the low prices prevailing from 1930 to 1935 for lead, zinc, and silver, many of the small silver-lead mines of the Slocan remained idle.

Other Provinces.—Occurrences of lead have been found in Gaspe Peninsula and in the Rouyn district of Quebec, but the only production of importance has come from the Notre-Dame-des-Anges district, Portneuf County, where the Tetreault mine produces lead and zinc concentrates. Lead production in Ontario has come chiefly from the Galetta mine and smelter, which closed down in the summer of 1931. An important source of lead in recent years is the silver-lead ores of the Mayo district of Yukon. In 1935 production of silver-lead-zinc concentrates was resumed at the Sterling mine, Richmond County, Nova Scotia, but operations ceased in 1939. Production by provinces in 1938 is shown in Table 6, p. 321.

World Production.*—The world production of lead in 1938 was about 1,780,000 long tons. The principal producers were the United States with 18·5 p.c., Australia 15·4 p.c., Mexico 15·6 p.c., and Canada 10·5 p.c.

Subsection 6.—Nickel.

The Canadian production of nickel has been derived almost entirely from the well-known nickel-copper deposits of the Sudbury district, Ontario. The ore is mined principally for its nickel and copper content but gold, silver, selenium, tellurium, and metals of the platinum group, though present in relatively small quantities, are profitably recovered in the metallurgical processes. The proved deposits of nickel ore in Canada are estimated to be sufficient to provide for world requirements for many years, while there are still large reserves undeveloped.

After the War of 1914-18, the producing companies instituted extensive researches to discover and encourage new peace-time uses for the metal. The success attending their efforts has accounted very largely for the marked increase in production. The automobile industry, electrical machinery, cooking utensils, new submarine cables, and various nickel alloys have all helped to absorb this increased production.

18.—Quantities and Values of Nickel Produced in Canada, 1920-39.

NOTE.—Figures for the years 1889 to 1910, inclusive, will be found at p. 368 of the 1929 Year Book and for the years 1911 to 1919 at p. 342 of the 1939 edition.

Year.	Quantity.	Value.	Year.	Quantity.	Value.	Year.	Quantity.	Value.
	lb.	$		lb.	$		lb.	$
1920....	61,335,706	24,534,282	1926....	65,714,294	14,374,163	1933....	83,264,658	20,130,480
1921....	19,293,060	6,752,571	1927....	66,798,717	15,262,171	1934....	128,687,340	32,139,425
1922....	17,597,123	6,158,993	1928....	96,755,578	22,318,907	1935....	138,516,240	35,345,103
1923....	62,453,843	18,332,077	1929....	110,275,912	27,115,461	1936....	169,739,393	43,876,525
			1930....	103,768,857	24,455,133	1937....	224,905,046	59,507,176
1924....	69,536,350	12,126,739[1]	1931....	65,666,320	15,267,453	1938....	210,572,738	53,914,494
1925....	73,857,114	15,946,672	1932....	30,327,968	7,179,862	1939[2]...	226,105,865	50,920,305

[1] A change in the method of computing the value of nickel production accounts for the drop in value after 1923. [2] Preliminary figures.

World Production.*—The world production of nickel was about 113,000 long tons in 1938, of which output about 83·0 p.c. was Canadian in origin, while the remainder was derived chiefly from New Caledonia.

Subsection 7.—Metals of the Platinum Group.

Metals of this group produced in Canada include platinum, palladium, rhodium, ruthenium, osmium, and iridium. Platinum and palladium are of chief importance. Since the early days there has been a small recovery of platinum associated with the gold of the alluvial deposits of British Columbia and other small amounts have been recovered in the refining of base metals at Trail. However, the chief source of the platinum group in Canada is the nickel-copper ore of Sudbury, and the great increase in the output of this ore in recent years has resulted in greater production of the platinum metals, making Canada the leading producing country of the world. The next most important countries are Russia and Colombia.

* From the Imperial Institute's Statistical Summary.

19.—Quantities and Values of Platinum and Palladium Produced in Canada, 1921-39.

NOTE.—Records of platinum production in Canada go back to 1887 but, prior to 1921, the amounts are comparatively small and the basis of calculation was not comparable with that now used.

Year.	Platinum.		Palladium.[1]		Year.	Platinum.		Palladium.[1]	
	oz. fine.	$	oz. fine.	$		oz. fine.	$	oz. fine.	$
1921.....	292	22,599	913	30,046	1931....	44,775	1,596,900	46,918	1,217,717
1922.....	470	45,863	1,219	78,340	1932....	27,343	1,099,393	37,613	901,890
1923.....	1,217	141,826	2,036	183,560	1933....	24,786	857,590	31,009	645,043
1924.....	9,186	1,091,427	9,516	863,113	1934....	116,230	4,490,763	83,932	1,699,228
1925.....	8,698	1,028,192	8,288	648,969	1935....	105,374	3,445,730	84,772	1,962,937
1926.....	9,521	923,607	10,024	640,178	1936 ...	131,571	5,320,731	103,671	2,483,075
1927.....	11,228	717,613	11,545	554,190	1937....	139,377	6,752,816	119,829	3,179,782
1928.....	10,532	708,909	13,707	627,833	1938....	161,326	5,196,794	130,893	3,677,342
1929.....	12,519	846,756	17,318	809,289	1939[2]...	148,902	5,222,589	135,402	4,199,622
1930.....	34,024	1,543,261	34,092	895,867					

[1] Includes also rhodium, ruthenium, osmium, and iridium. [2] Preliminary figures.

Subsection 8.—Radium and Uranium.

The silver-pitchblende deposits of the Eldorado Gold Mines, Ltd., at the east end of Great Bear Lake were discovered in 1930. Since that time a modern mining and milling plant has been established at the deposits; extensive improvements in transportation facilities have been introduced over the 1,500-mile route from the railway at Waterways in Alberta down the Mackenzie, up the Great Bear River, and across the lake to the mine; and a plant for the refining of radium and uranium products has been brought into operation at Port Hope, Ont. Silver, copper, cobalt, and lead, as well as radium and uranium, are recovered from the ores. Extensive ore reserves have been indicated at the mine and during 1937-38 the capacity of the refining plant at Port Hope was approximately trebled. Canadian production from this source has resulted in a reduction of the world price of radium by about 62 p.c. from 1933 to approximately $22 per milligram in 1937, and of about 37 p.c. in the price of uranium salts during the same period. Official production figures are not available for publication, since, because of the limited nature of operations, they would reflect the business of individual companies. At p. 344 of the 1939 Year Book a table that was compiled from various unofficial sources appears, giving the production of radium, and uranium salts for the years 1933 to 1937.

Subsection 9.—Silver.

Although no official statistics of the production of silver were published prior to 1887, the annual reports of the operating companies showed that from 1869 to 1885 about 4,000,000 oz. of silver, with a probable value of $4,800,000, were produced in the Port Arthur district in Ontario.

The current silver production of Canada is derived chiefly from the silver-lead-zinc ores of British Columbia, the silver-lead ores exported from Yukon, and the nickel-copper ores of Ontario. For many years the famous cobalt-silver camp of Ontario supplied the bulk of Canada's silver but this district has been gradually worked out and with the drop in price, which occurred about midsummer 1939, several properties in this once-famous camp were forced to cease operations. An appreciable amount of silver also occurs in the gold ores of northern Ontario; the copper-gold ores of Quebec, Manitoba, and British Columbia; and the pitchblende ores of the Great Bear Lake district in the Northwest Territories. Thus in Canada silver is produced chiefly in combination with other metals.

Silver production in Canada attained its maximum of 32,869,264 fine ounces in 1910 when the famous Cobalt silver camp was at its peak but production from that source has declined since then and now the Sullivan mine in British Columbia, primarily noted for its lead and zinc, is the largest producer of silver in Canada.

21.—Quantities and Values of Silver Produced in Canada, 1920-39.

NOTE.—Figures for the years 1887 to 1910, inclusive, will be found at p. 361 of the 1933 Year Book and for the years 1911 to 1919 at p. 344 of the 1939 edition.

Year.	Quantity.	Value.	Year.	Quantity.	Value.	Year.	Quantity.	Value.
	oz. fine.	$		oz. fine.	$		oz. fine.	$
1920....	13,330,357	13,450,330	1927....	22,736,698	12,816,677	1934....	16,415,282	7,790,840
1921....	13,543,198	8,485,355	1928....	21,936,407	12,761,725	1935....	16,618,558	10,767,148
1922....	18,626,439	12,576,758	1929....	23,143,261	12,264,308	1936....	18,334,487	8,273,804
1923....	18,601,744	12,067,509	1930....	26,443,823	10,089,376	1937....	22,977,751	10,312,644
1924....	19,736,323	13,180,113	1931....	20,562,247	6,141,943	1938....	22,219,195	9,660,239
1925....	20,228,988	13,971,150	1932....	18,347,907	5,811,081	1939[1]...	23,116,861	9,359,553
1926....	22,371 924	13,894,531	1933....	15,187,950	5,746,027			

[1] Preliminary figures.

22.—Quantities and Values of Silver Produced in Canada, by Provinces, 1920-39.

NOTE.—Figures for the years 1887 to 1910, inclusive, will be found at p. 271 of the 1916-17 Year Book and for the years 1911 to 1919 at p. 345 of the 1939 edition. Nova Scotia, Saskatchewan, and Alberta have also shown a small production in recent years, production during 1938 being shown in Table 6 of this chapter, p. 321.

Year.	Quebec.		Ontario.		Manitoba.		British Columbia.		Yukon and Northwest Territories.	
	oz. fine.	$	oz. fine.	$	oz. fine.	$	oz. fine.	$	oz. fine.	$
1920..	61,003	61,552	9,907,626	9,996,795	15,510	15,649	3,327,028	3,356,971	19,190	19,363
1921..	38,084	23,861	9,761,607	6,116,037	33	20	3,350,357	2,099,133	393,092	246,288
1922..	Nil	-	10,811,903	7,300,305	20	14	7,150,937	4,828,384	663,493	447,997
1923..	33,006	21,412	10,540,943	6,838,226	5	3	6,113,327	3,965,899	1,914,438	1,241,953
1924..	83,814	55,972	11,272,567	7,527,933	140	93	8,153,003	5,444,657	226,755	151,429
1925..	214,943	148,451	10,529,131	7,271,944	477	329	8,579,458	5,925,403	904,893	624,946
1926..	375,986	233,513	9,274,965	5,760,402	18	11	10,625,816	6,599,376	2,095,027	1,301,159
1927..	740,864	417,625	9,307,953	5,246,893	12	7	11,040,445	6,223,499	1,647,295	928,580
1928..	908,959	528,796	7,242,601	4,213,456	1,763	1,026	10,943,367	6,366,413	2,839,633	1,651,985
1929..	813,821	431,268	8,890,726	4,711,462	2,644	1,401	10,156,408	5,382,185	3,279,530	1,737,922
1930..	571,164	217,922	10,205,683	3,893,876	94,653	36,114	11,825,930	4,512,065	3,746,326	1,429,373
1931..	530,345	158,414	7,438,551	2,222,014	836,547	249,877	8,061,599	2,408,000	3,694,728	1,103,615
1932..	628,902	199,184	6,335,788	2,006,648	1,036,497	328,275	7,293,462	2,309,958	3,053,188	966,994
1933..	471,419	178,351	4,535,680	1,715,975	1,101,578	416,758	6,737,057	2,548,817	2,227,476	842,717
1934..	470,254	223,187	5,321,160	2,525,470	1,252,920	594,647	8,729,721	4,143,204	553,320	262,611
1935..	668,836	433,338	5,161,651	3,344,229	1,256,454	781,660	9,178,400	5,946,677	201,221	130,371
1936..	724,339	326,872	5,219,366	2,355,343	791,489	357,175	9,748,715	4,399,303	1,100,430	496,591
1937..	908,590	407,784	4,693,047	2,106,286	905,179	406,253	11,530,177	5,174,859	4,091,946	1,836,507
1938..	1,189,495	517,157	4,318,837	1,877,701	1,198,315	520,991	11,186,563	4,863,582	3,426,561	1,489,765
1939[1]..	1,167,522	472,706	4,668,099	1,890,020	1,028,485	416,413	10,622,867	4,300,986	4,314,379	1,746,805

[1] Preliminary figures.

World Production.—The world production of silver was estimated by the Director of the United States Mint, as shown in Table **15** of this chapter, p. 336, at 267,913,031 fine oz. for 1938. The silver production of Canada in 1938 was 22,219,195 fine oz., or about 8·3 p.c. of the estimated world total for that year. This placed Canada third, next to Mexico and the United States.

In Table **23** the world production, value, and average price of silver are given for each year from 1900 up to the present. In spite of the decreasing importance of silver, except in China and India, production has increased because of the fact that silver is a by-product in the mining of other metals.

23.—Quantities and Values of World Production of Silver, with Annual Average Prices, 1900-38.

(From the Annual Report of the Director of the United States Mint.)

NOTE.—Figures for the years 1860 to 1899, inclusive, will be found at p. 346 of the 1939 Year Book.

Year.	Quantity.	Value.	Average Price per Fine Oz.[1]	Year.	Quantity.	Value.	Average Price per Fine Oz.[1]	Year.	Quantity.	Value.	Average Price per Fine Oz.[1]
	'000 oz. fine.	$'000.	$		'000 oz. fine.	$'000	$		'000 oz. fine.	$'000	$
1900...	173,591	107,626	0·620	1914...	172,264	95,282	0·553	1926...	253,795	159,569	0·629
1901...	173,011	103,807	0·600	1915...	173,001	88,338	0·511	1927...	253,981	144,947	0·570
1902...	162,763	86,265	0·530	1916...	180,802	121,410	0·672	1928...	257,925	151,214	0·586
1903...	167,689	90,552	0·540	1917...	186,125	156,345	0·839	1929...	260,970	139,961	0·536
1904...	164,195	95,233	0·580					1930...	248,708	96,310	0·387
1905...	172,318	105,114	0·610	1918...	203,159	200,000	0·985				
1906...	165,054	111,724	0·677	1919...	179,850	201,588	1·121	1931...	195,920	56,842	0·290
1907...	184,207	121,857	0·661	1920...	173,296	176,658	1·019	1932...	164,893	46,506	0·282
1908...	203,131	108,655	0·535	1921...	171,286	108,074	0·631	1933...	169,159	59,201	0·350
1909...	212,149	110,351	0·520	1922...	209,815	158,207	0·754	1934...	190,398	91,930	0·483
1910...	221,716	119,897	0·541					1935...	220,704	142,535	0·646
1911...	226,193	121,981	0·539	1923...	246,010	172,276	0·700	1936...	253,696	115,175	0·454
1912...	230,904	141,937	0·615	1924...	239,485	178,311	0·744	1937...	274,538	124,077	0·452
1913...	210,013	126,970	0·604	1925...	245,214	172,498	0·703	1938[2]...	267,913	116,641	0·435

[1] At the average par price of a fine ounce of silver in London, excepting the years 1918-22, inclusive, and 1931-38, for which the means of the New York bid and asked prices were used. [2] Preliminary figures.

Subsection 10.—Zinc.

The zinc-mining industry of Canada has recently made rapid strides, largely on account of the application of improved metallurgical methods in the treatment of the lead-zinc ores of British Columbia and the production of electrolytic zinc from the Flin Flon copper-zinc ores of Manitoba.

The principal zinc-mining regions of British Columbia are situated in the Kootenay district, where there are large deposits of silver-lead-zinc ore. The chief producing mine is the Sullivan near Kimberley, while other mines are located in the Ainsworth and Slocan divisions of the West Kootenay district. The Britannia mine on Howe Sound, while primarily a copper-gold property, produces zinc concentrates when the market is favourable.

In northwestern Manitoba, the Flin Flon and Sherritt-Gordon mines have ores in which zinc is closely associated with copper and gold, and refined zinc has been made at the Hudson Bay Mining and Smelting Company's smelter from Flin Flon ores since the autumn of 1930. Zinc concentrates were shipped also during 1939 by the Waite-Amulet Mines and by the Normetal Mining Corporation in the Rouyn district. Production by provinces in 1938 is given in Table **6**, p. 321.

24.—Quantities and Values of Zinc Produced in Canada, 1920-39.

Year.	Quantity.[1]	Value.	Average Price per lb.	Year.	Quantity.[1]	Value.	Average Price per lb.
	lb.	$	cts.		lb.	$	cts.
1920	39,863,912	3,057,961	7·671	1930	267,643,505	9,635,166	3·600
1921	53,089,356	2,471,310	4·655	1931	237,245,451	6,059,249	2·554
1922	56,290,000	3,217,536	5·716	1932	172,283,558	4,144,454	2·406
1923	60,416,240	3,991,701	6·607	1933	199,131,984	6,393,132	3·211
1924	98,909,077	6,274,791	6·344	1934	298,579,683	9,087,571	3·044
1925	109,268,511	8,328,446	7·622	1935	320,649,859	9,936,908	3·099
1926	149,938,105	11,110,413	7·410	1936	333,182,736	11,045,007	3·315
1927	165,495,525	10,250,793	6·194	1937	370,337,589	18,153,949	4·902
1928	184,647,374	10,143,050	5·493	1938	381,506,588	11,723,698	3·073
1929	197,267,087	10,626,778	5·387	1939[2]	394,533,860	12,108,244	3,069

[1] Estimated foreign smelter recoveries and refined zinc made in Canada. [2] Preliminary figures.

Section 5.—Production of Non-Metallic Minerals.

Subsection 1.—Fuels.

COAL.

The fuel situation in Canada is somewhat anomalous, as, in spite of the enormous resources of coal in the country, about 50 p.c. of the consumption is imported. The Canadian coal areas are situated in the eastern and western provinces, while the areas of densest population and greatest industrial development in Ontario and Quebec are more easily and economically supplied with coal from the nearer coal-fields of Pennsylvania and Ohio.

Dominion Fuel Board.—The Board was created in 1922 to meet the need for a permanent organization responsible to the Government for a thorough and systematic study of the fuel situation and recurrent shortages experienced throughout Canada. It is composed of permanent members of the Dominion Civil Service and the staff of the Board constitutes a division in the Bureau of Mines and Geology, Department of Mines and Resources. In recent years the policy of the Government has been to extend the market for Canadian coal and to that end financial assistance in the form of subventions has been given to the coal industry since 1928, the Board being responsible for the administration of subvention payments. The amount of coal moved under these assisted rates has increased from 146,126 short tons in 1928 to 3,364,882 tons in 1939. Of the total moved under assisted rates in 1939, 2,381,995 tons were from Nova Scotia and 436,092 tons from Alberta and the Crows-nest district of British Columbia.

Coal Production.—Production in 1939 was 8·6 p.c. above that of 1938. The average price per ton, which had been $3·63 in 1928, had dropped to $3·02 in 1933, and was about $3·11 in 1939. Nova Scotia was again the leading producer. The coal produced in Nova Scotia, New Brunswick, British Columbia, and Yukon is all classed as bituminous, while Alberta produces bituminous, sub-bituminous, and lignite, and Saskatchewan and Manitoba lignite only.

25.—Production of Coal in Canada, by Provinces, 1920-39.

NOTE.—Figures for the years 1874 to 1910, inclusive, will be found at p. 419 of the 1911 Year Book, and for the years 1911 to 1919 at p. 348 of the 1939 edition.

Year.	Nova Scotia.	New Brunswick.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Yukon.	Totals.	
								Quantity.	Value.
	short tons.	short tons.	short tons.	short tons.	short tons.	short tons.	short tons.	short tons.	$
1920....	6,437,156	171,610	–	335,222	6,907,765	3,095,011	Nil	16,946,764	82,496,538
1921....	5,734,928	187,192	–	335,632	5,909,217	2,890,291	233	15,057,493	72,451,656
1922....	5,569,072	287,513	–	382,437	5,990,911	2,927,033	465	15,157,431	65,518,497
1923....	6,597,838	276,617	–	438,100	6,854,397	2,823,306	313	16,990,571	72,058,986
1924....	5,557,441	217,121	–	479,118	5,189,729	2,193,667	1,121	13,638,197	53,593,988
1925....	3,842,978	208,012	–	471,965	5,869,031	2,742,252	730	13,134,968	49,261,951
1926....	6,747,477	173,111	–	439,803	6,503,705	2,613,719	316	16,478,131	59,875,094
1927....	7,071,876	203,950	–	470,216	6,934,162	2,746,243	414	17,426,861	61,867,463
1928....	6,743,504	207,738	–	471,713	7,336,330	2,804,594	414	17,564,293	63,757,833
1929....	7,056,133	218,706	–	580,189	7,150,693	2,490,378	458	17,496,557	63,065,170
1930....	6,252,552	209,349	–	579,424	5,755,528	2,083,818	653	14,881,324	52,849,748
1931....	4,955,563	182,181	1,306[1]	662,836	4,564,015	1,876,406	904	12,243,211	41,207,682
1932....	4,084,581	212,695	1,552	887,139	4,870,648	1,681,490	808	11,738,913	37,117,695
1933....	4,557,590	312,303	3,880	927,649	4,718,788	1,382,272	862	11,903,344	35,923,962
1934....	6,341,625	314,750	4,113	909,288	4,753,810	1,485,969	638	13,810,193	42,045,942
1935....	5,822,075	346,024	3,106	921,785	5,462,894	1,331,287	835	13,888,006	41,963,110
1936....	6,649,102	368,618	4,029	1,020,792	5,696,960	1,489,171	510	15,229,182	45,791,934
1937....	7,256,954	364,714	3,172	1,049,348	5,562,839	1,598,843	84	15,835,954	48,752,048
1938....	6,236,417	342,238	2,016	1,022,166	5,251,233	1,440,287	361	14,294,718	43,982,171
1939[2]...	7,051,276	451,205	1,276	959,463	5,518,339	1,537,905	Nil	15,519,464	48,258,199

[1] First reported production. [2] Preliminary figures.

26.—Imports into Canada of Anthracite, Bituminous, and Lignite Coal for Home Consumption, 1920-39.

NOTE.—Anthracite dust is included under anthracite coal. Figures for the years 1868 to 1910, inclusive, will be found at p. 420 of the 1911 Year Book, and for 1911 to 1919 at p. 349 of the 1939 edition.

Year.	Anthracite.		Bituminous.		Lignite.		Totals.	
	short tons.	$	short tons.	$	short tons.	$	short tons.	$
1920.....	4,982,313	36,773,351	13,861,229	61,260,247		–	18,843,542	98,033,598
1921.....	4,553,820	40,293,639	13,748,242	48,631,095		–	18,302,062	88,924,734
1922.....	2,705,752	23,795,143	10,317,773	37,387,285	–	–	13,023,525	61,182,428
1923.....	5,165,382	46,457,962	15,822,240	49,899,099	2,331[1]	12,846	20,989,953	96,369,907
1924.....	4,152,558	37,280,910	12,546,214	29,628,643	26,007	117,955	16,724,779	67,027,508
1925.....	3,782,557	32,096,509	12,548,460	26,974,340	18,653	87,832	16,349,670	59,158,681
1926.....	4,192,419	34,202,166	12,376,606	25,511,932	10,423	45,567	16,579,448	59,759,665
1927.....	4,107,854	31,282,371	14,568,671	30,457,884	10,829	44,254	18,687,354	61,784,509
1928.....	3,748,816	27,680,018	13,445,945	26,608,427	10,780	44,247	17,205,541	54,332,692
1929.....	4,019,917	28,809,792	14,170,138	27,140,968	14,108	62,508	18,204,163	56,013,268
1930.....	4,256,090	30,098,910	14,497,955	26,522,765	18,676	72,691	18,772,721	56,694,366
1931.....	3,162,317	21,067,025	9,952,280	15,732,710	6,410	29,603	13,121,007	36,829,338
1932.....	3,148,902	19,312,710	8,807,131	12,011,398	3,004	13,701	11,959,037	31,337,809
1933.....	3,015,571	17,610,091	8,185,759	10,501,924	2,707	10,176	11,204,037	28,122,191
1934.....	3,500,563	18,414,060	9,471,605	16,641,659	2,791	9,661	12,974,959	35,065,380
1935.....	3,442,835	17,445,102	8,630,686	15,867,107	5,246	19,040	12,078,767	33,331,249
1936.....	3,418,556	17,897,635	9,700,002	17,039,408	4,873	18,347	13,123,431	34,955,390
1937.....	3,488,278	17,317,449	11,180,827	20,835,587	1,494	5,582	14,670,599	38,158,618
1938.....	3,475,801	18,079,657	9,533,729	17,734,567	2,961	11,690	13,012,491	35,825,914
1939.....	4,288,461	21,938,333	10,706,786	19,628,410	3,398	11,942	14,998,645	41,578,685

[1] First reported importation.

27.—Exports of Coal, the Produce of Canada, 1920-1939.

NOTE.—Figures for the years 1868 to 1910, inclusive, will be found at p. 421 of the 1911 Year Book and for the year 1911 to 1919 at p. 349 of the 1939 edition.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	short tons.	$		short tons.	$
1920	2,558,174	18,014,899	1930	624,512	3,345,998
1921	1,987,251	13,896,370	1931	359,853	1,909,922
1922	1,818,582	11,159,060	1932	285,487	1,433,036
1923	1,654,406	10,661,399	1933	259,233	1,188,225
1924	773,246	4,836,848	1934	306,335	1,400,978
1925	785,910	4,329,173	1935	418,391	1,906,647
1926	1,028,200	5,739,436	1936	411,574	1,792,584
1927	1,113,330	5,890,259	1937	355,268	1,441,879
1928	863,941	4,469,999	1938	353,181	1,540,990
1929	842,972	4,375,328	1939	376,203	1,666,934

Coal Consumption.—The sources of coal consumed in Canada in the calendar years 1920-38 are shown in Table **28**, detailed figures of coal *made available for consumption* during 1938 are given in Table **29**; the difference between the totals of the two tables in the same year is accounted for by the fact that coal received may be held in bond at Canadian ports and not "cleared for consumption" until required, while coal received in previous years may be taken out of bond (cleared for consumption) in a later year. Normally, the coal made available for consumption is greater than the apparent domestic consumption, since coal is landed at Canadian ports and re-exported or ex-warehoused for ships' stores without being taken out of bond, but while remaining in bond at the port it is available for domestic consumption if required.

28.—Consumption of Canadian and Imported Coal in Canada, by Quantities and Percentages, 1920-38.

NOTE.—Figures for the years 1886 to 1910, inclusive, will be found at p. 354 of the 1921 Year Book, and for the years 1911 to 1919 at p. 350 of the 1939 edition.

Year.	Canadian Coal.[1]		Imported Coal "Entered for Consumption".				Grand Total.	Per Capita.[3]
			From U.S.A.	From United Kingdom.	Total.[2]			
	short tons.	p.c.	short tons.	short tons.	short tons.	p.c.	short tons.	short tons.
1920	14,025,566	42·9	18,752,981	Nil	18,668,741	57·1	32,694,307	3·821
1921	12,715,734	41·1	18,300,081	1,591	18,258,387	58·9	30,974,121	3·525
1922	13,014,352	50·2	12,255,555	765,980	12,962,189	49·8	26,006,541	2·916
1923	15,070,962	41·8	20,417,239	572,570	20,967,971	58·2	36,038,933	4·000
1924	12,529,358	42·8	16,405,344	317,112	16,714,143	57·2	29,243,501	3·198
1925	12,125,290	42·6	15,744,957	604,117	16,331,971	57·4	28,457,261	3·062
1926	15,086,296	47·7	16,204,405	287,299	16,565,555	52·3	31,651,851	3·349
1927	15,944,983	46·7	17,266,434	907,220	18,177,303	53·3	34,122,286	3·541
1928	16,487,807	50·0	15,830,688	682,755	16,515,582	50·0	33,003,389	3·356
1929	16,387,461	48·0	16,780,452	843,502	17,724,132	52·0	34,111,593	3·401
1930	14,052,671	43·3	16,971,933	1,144,861	18,412,039	56·7	32,464,710	3·180
1931	11,682,779	47·7	11,793,798	987,442	12,828,327	52·3	24,511,106	2·362
1932	11,212,701	49·0	9,889,866	1,727,716	11,654,492	51·0	22,867,193	2·177
1933	11,456,273	51·5	8,865,935	1,942,875	10,808,962	48·5	22,265,235	2·085
1934	13,236,406	51·1	10,580,710	1,981,116	12,651,168	48·9	25,887,574	2·392
1935	13,306,303	53·1	9,618,518	1,822,500	11,735,835	46·9	25,042,138	2·290
1936	14,508,652[4]	53·3	10,801,643	1,498,656	12,719,515	46·7	27,228,167	2·469
1937	15,172,729	51·5	12,574,574	1,211,052	14,268,585	48·5	29,441,314	2·648
1938	13,800,094	53·5	16,754,747	1,257,887	12,012,634	46·5	25,812,728	2·281

[1] The sum of Canadian coal mines' sales, colliery consumption, coal supplied to employees, and coal used in making coke, etc., less the tonnage of coal exported. [2] Includes small tonnages from countries other than the United Kingdom and the United States. Deductions have been made from this column to take account of foreign coal re-exported from Canada and bituminous coal ex-warehoused for ships' stores. [3] Figures based on estimates of population given on p. 103. [4] Revised since the publication of the 1939 Year Book.

29.—Coal Output, Exports, Receipts from Other Countries, and Coal Made Available for Consumption in Canada, 1939.

NOTE.—For details by provinces, see the Bureau's annual report, "Coal Statistics for Canada".

Grade.	Canadian Coal.		Receipts from U.S.A.	Receipts from United Kingdom.	Receipts from Other Countries.	Coal Made Available for Consumption.
	Output.	Exported.				
	short tons.	short tons.	short tons.	short tons.	short tons.	short tons.
Anthracite	Nil	Nil	2,605,765	1,034,901	337,139	3,977,805
Bituminous	11,597,330	368,204	9,836,110	67,483	20	21,132,739
Sub-bituminous	512,101	Nil	Nil	Nil	Nil	512,101
Lignite	3,410,033	7,999	3,346	"	52	3,405,432
Totals	**15,519,464**	**376,203**	**12,445,221**	**1,102,384**	**337,211**	**29,028,077**

[1] Includes 293,602 tons from Germany, 43,537 tons from French Indo-China, 20 tons from Norway, and 52 tons from Alaska.

World Production.—The total estimated coal production of the world in 1938 amounted to about 1,420,000,000 long tons, a decrease of 6 p.c. from the estimate for the previous year. Germany, which has run second to the United States for each year since 1925, accounted for 26·4 p.c. of world production in 1938; the United States, 24·6 p.c.; and the United Kingdom, 16 p.c. Canada contributed 12,763,141 long tons or about 0·9 p.c.

30.—Coal Produced in the Principal Countries of the World, 1913, 1921-38.

NOTE.—For corresponding figures for 1914-20, see 1932 Year Book, p. 281. Figures in this table, except as indicated, are from the Imperial Institute's Statistical Summary.

BRITISH EMPIRE.

Year.	United Kingdom.	British India.	Canada.[1]	Australia.	New Zealand.	Union of South Africa.
	'000 long tons.	'000 long tons.	'000 long tons.	'000 long tons.	'000 long tons.	'000 long tons.
1913	287,431	16,208	13,404	12,418	1,888	9,583
1921	163,251	19,303	13,444	12,878	1,809	10,645
1922	249,607	19,011	13,533	12,299	1,585	9,126
1923	276,001	19,658	15,170	12,634	1,970	11,075
1924	267,118	21,174	12,180	13,885	2,083	11,633
1925	243,176	20,904	11,723	14,503	2,115	12,127
1926	126,279	20,093	14,694	14,208	2,240	12,745
1927	251,232	22,082	15,560	14,978	2,367	12,382
1928	237,763	22,543	15,683	13,432	2,437	12,408
1929	257,907	23,419	15,622	12,106	2,536	12,813
1930	243,882	23,803	13,287	11,363	2,542	12,030
1931	219,459	21,716	10,931	10,595	2,158	10,709
1932	208,733	20,153	10,481	11,157	1,842	9,764
1933	207,112	20,284	10,628	11,672	1,821	10,545
1934	220,728	22,608	12,331	12,418	2,060	12,002
1935	222,252	23,592	12,400	13,109	2,115	13,360
1936	228,454	23,176	13,597	14,415	2,140	14,607
1937	240,409	25,662	14,139	15,468	2,278	15,246
1938[2]	227,015	28,343	12,763	15,356	2,222	16,027

For footnotes, see end of table, p. 347.

30.—Coal Produced in the Principal Countries of the World, 1913, 1921-38—concluded.

FOREIGN COUNTRIES.

Year.	Saar.	Germany.	Belgium.	France.	Czecho-slovakia.	Poland.	Nether-lands.	Japan.	United States.
	'000 long tons.	'000 long tons.	'000 long tons.	'000 long tons.	'000 long tons.	'000 long tons.	'000 long tons.	'000 long tons.	'000 long tons.
1913....	[3]	274,264	22,474	40,188	[4]	[4]	1,843	20,973	508,893
1921....	[5]	255,148	21,401	37,916	32,174	7,717	3,978	25,944	452,139
1922....	[5]	262,878	20,868	43,118	28,385	24,300	4,525	27,420	425,849
1923....	[5]	178,191	22,554	46,981	27,380	35,686	5,249	28,633	587,407
1924....	[5]	239,494	22,986	58,065	35,066	31,793	5,975	29,801	510,369
1925....	12,785	267,970	22,726	47,249	30,663	28,677	6,943	31,121	519,527
1926....	13,465	280,656	24,913	51,607	32,491	35,139	8,677	31,089	591,720
1927....	13,381	299,511	27,130	52,021	33,106	37,560	9,374	33,177	535,625
1928....	12,900	312,092	27,108	51,601	34,459	40,047	10,941	33,445	514,369
1929....	13,365	332,560	26,514	54,109	38,465	45,686	11,552	34,479	541,232
1930....	13,027	284,148	26,982	54,163	33,098	36,968	12,160	31,007	479,385
1931....	11,187	247,971	26,615	51,280	30,544	37,699	12,818	27,661	394,406
1932....	10,273	223,796	21,075	46,511	26,394	28,412	12,677	27,717	321,040
1933....	10,394	232,752	24,900	47,223	25,191	26,957	12,471	32,999	342,118
1934....	11,139	257,990	25,972	47,889	25,451	28,797	12,237	36,658	371,907
1935....	[3]	287,445	26,087	46,375	25,769	28,110	11,775	34,354	379,046
1936....	[3]	314,631	27,427	45,418	27,737	29,291	12,688	37,466	440,774
1937....	[3]	363,390	29,388	44,618	34,125	35,665	14,236	[6]	444,096
1938[2]...	[3]	375,137	29,107	46,803	26,200	37,512	13,442	[6]	348,865

[1] Dominion Bureau of Statistics figures. [2] Preliminary figures. [3] Included with Germany.
[4] Not separately reported. [5] Included with France. [6] Data not available.

NATURAL GAS AND PETROLEUM.

Natural Gas.—The producing wells in Eastern Canada are in southwestern Ontario, and near Moncton, N.B. The principal producing fields in Alberta are the Turner Valley (about 35 miles southwest of Calgary), Medicine Hat, Viking (about 80 miles southeast of Edmonton), Redcliff, Foremost, Bow Island, and Wetaskiwin. Wainwright is supplied with gas from the Maple Leaf well in the Fabyan field. Near Lloydminster, in Saskatchewan, a well was brought into production during 1934 and is now supplying that town with gas. In 1939, Ontario was credited with over 57 p.c. of the total value but less than 34 p.c. of the total quantity, while Alberta produced 40 p.c. by value and over 63 p.c. of the total quantity.

31.—Quantities and Values of Natural Gas Produced in Canada, by Provinces, 1920-39.

NOTE.—For the years 1892 to 1919, see "Mineral Production of Canada", 1928, p. 188.

Year.	New Brunswick.		Ontario.		Alberta.		Canada.[1]	
	M cu. ft.	$	M cu. ft.	$	M cu. ft.	$	M cu. ft.	$
1920.....	682,502	130,506	10,529,374	2,920,731	5,633,442	1,181,345	16,845,518	4,232,642
1921.....	708,743	139,375	8,422,774	3,030,130	4,945,884	1,374,599	14,077,601	4,594,164
1922.....	753,898	148,040	8,060,114	4,076,296	5,868,439	1,622,105	14,682,651	5,846,501
1923.....	640,300	126,068	8,128,413	4,066,244	7,191,670	1,692,246	15,960,583	5,884,618
1924.....	599,972	113,577	7,150,078	3,798,381	7,131,080	1,796,618	14,881,336	5,708,636
1925.....	639,235	122,394	7,143,962	3,958,006	9,119,500	2,752,545	16,902,897	6,833,005
1926.....	648,316	128,300	7,764,996	4,409,593	10,794,697	3,019,221	19,208,209	7,557,174
1927.....	630,755	124,637	7,311,215	4,331,780	13,434,621	3,586,533	21,376,791	8,043,010
1928.....	660,981	324,344	7,632,800	4,535,312	14,288,605	3,754,466	22,582,586	8,614,182
1929.....	678,456	333,002	8,586,475	4,959,695	19,112,931	4,684,247	28,378,462	9,977,124
1930.....	661,975	325,751	7,965,761	5,034,828	20,748,583	4,929,226	29,376,919	10,289,985
1931.....	655,891	323,184	7,419,534	4,635,497	17,798,698	4,067,893	25,874,723	9,026,754
1932.....	662,452	326,191	7,386,154	4,719,297	15,370,968	3,853,794	23,420,174	8,899,462
1933.....	618,033	302,706	7,166,659	4,523,085	15,352,811	3,886,263	23,138,103	8,712,234
1934.....	623,601	306,005	7,682,851	4,741,368	14,841,491	3,707,276	23,162,324	8,759,652
1935.....	615,454	303,886	8,158,825	4,938,084	16,060,349	4,113,436	24,910,786	9,363,141
1936.....	606,246	298,819	10,006,743	6,052,294	17,407,820	4,376,720	28,113,348	10,762,243
1937.....	576,671	283,922	10,746,334	6,588,798	20,955,506	4,766,437	32,380,991	11,674,802
1938.....	577,492	284,689	10,952,806	6,460,764	21,822,108	4,807,346	33,444,791	11,587,450
1939[2].....	606,249	292,400	11,985,851	7,191,510	22,703,964	5,018,000	35,394,087	12,538,954

[1] Totals for Canada include small productions in Manitoba, Saskatchewan, and Northwest Territories.
[2] Preliminary figures.

Petroleum.—The Turner Valley field in Alberta is the principal source of production in Canada. After 1933 only the southern end of the field remained available for the acquisition of leases, and in this area a well, Century 1, completed in 1934, produced crude oil instead of naphtha-laden gas. In 1936, Turner Valley Royalties 1, about half a mile to the southwest of Century 1, was completed and brought in as the first big crude-oil producer of Turner Valley. The impetus thus given to the drilling of wells essentially for oil was remarkable. By the end of 1939 about 100 wells had been drilled and only about 3 p.c. failed to prove productive. Of the total over 90 are in the southern part of the field opened up by Turner Valley Royalties 1. Production in many of these wells has been greatly increased by acidization, the effect of which is to open up the pore structure and establish channels for oil to flow more readily to the well. Whether the ultimate production of a well is increased by this treatment has not yet been determined.

The oil from the limestone in the crude-oil area of Turner Valley ranges in gravity from 40° API to 46°, and yields 50 p.c. of straight-run gasoline, differing from most crudes, which yield 30 to 35 p.c. Wide variability in the yield of different wells has been found in the oil area. At the end of 1939 Alberta had produced 27,800,000 bbl.

The rapid growth of crude-oil production in Turner Valley brought with it the problems of transportation and marketing. Tank storage in the field and at Calgary has now been increased so that the pipe-line can handle the demands from the Prairie Provinces and eastern British Columbia. Some oil is also moved from the field by truck. Limited markets have necessitated the curtailment of production and a system of prorationing has been used in Alberta since September, 1937.

The acreage factor has been simplified by allowing only one well to 40 acres.

It is reasonable to expect that, once adequate markets are opened, Turner Valley will not be the only big producer of crude oil in Alberta for the foothills are known to contain numerous structures that offer attractive prospects for oil. Nowhere yet has sufficient development been done to define what may be expected, but wells on the Elbow River and the Clearwater, a right-bank tributary of the North Saskatchewan River, have proved oil to be there in quantity. The region open to prospecting is enormous, extending into British Columbia and the Northwest Territories.

The principal Ontario oil fields are situated in the southwestern peninsula between Lake Huron and Lake Erie. The maximum production of these fields was reached in the '90's and has since declined. In 1939 Ontario's output totalled 206,196 bbl. New Brunswick's small production comes from the Stony Creek field, near Moncton. For the production by provinces in 1938, see Table 6, p. 321.

32.—Quantities and Values of Crude Petroleum Produced in Canada, 1920-39.

NOTE.—Figures for the years 1886 to 1910, inclusive, will be found at p. 377 of the 1933 Year Book, and for 1911 to 1919 at p. 353 of the 1939 Year Book.

Year.	Quantity.	Value.	Year.	Quantity.	Value.	Year.	Quantity.	Value.
	bbl.[1]	$		bbl.[1]	$		bbl.[1]	$
1920.....	196,251	822,235	1927....	476,591	1,516,043	1934....	1,410,895	3,449,162
1921.....	187,541	641,533	1928....	624,184	2,035,300	1935....	1,446,620	3,492,188
1922.....	179,068	611,176	1929....	1,117,368	3,731,764	1936....	1,500,374	3,421,767
1923.....	170,169	522,018	1930....	1,522,220	5,033,820	1937....	2,943,750	5,399,353
1924.....	160,773	467,400	1931....	1,542,573	4,211,674	1938....	6,966,084	9,230,173
1925.....	332,001	1,250,705	1932....	1,044,412	3,022,592	1939[2]...	7,838,310	10,353,351
1926.....	364,444	1,311,665	1933....	1,145,333	3,138,791			

[1] The barrel=35 imperial gallons. [2] Preliminary figures.

Subsection 2.—Other Non-Metallic Minerals.

Asbestos.—Canada produces more asbestos than any other country. The value of the annual output of asbestos increased from less than $25,000 in 1880 to $14,792,201 in 1920 and $13,172,581 in 1929. Owing to trade depression, production was much curtailed from 1929 to 1932, as will be seen in Table 33. However, since 1932, production has shown a distinct improvement. In 1938 Canada produced 258,700 long tons, while other leading countries with their production in long tons were: Southern Rhodesia, 52,509; Union of South Africa, 20,668; United States, 11,519; and Cyprus, 9,032. Russian production in 1937 and 1938, as well as the production of several other countries, is not available.

The Eastern Townships of Quebec have for many years been the most productive asbestos-mining area in the world. The most important deposits are: at Black Lake, in Coleraine Township; at Thetford and Robertsonville, in Thetford Township; at East Broughton, in Broughton, Township; and at Danville, in Shipton Township. The veins of chrysotile asbestos vary in width from ¼ inch to ½ inch and occasionally fibre has been obtained several inches in length. The fibre is of good quality and well adapted for spinning. Both open-cut and underground methods of mining are employed throughout the Canadian asbestos fields. Nearly all the mining companies have installed machinery for the crushing, fibrizing, screening, and grading of the mine product. Some development work has been conducted on an asbestos property at Rahn Lake, Bannockburn Township, Ontario; the fibre in this deposit is reported as being of high quality.

There are 13 plants in Canada that manufacture asbestos products, including the following commodities: asbestos paper and mill board; asbestos roofing of all kinds; asbestos rigid shingles; asbestos building materials; asbestos cellular and sponge-felted pipe insulation; insulating sheets and blocks; asbestos yarn; asbestos dryer felts; asbestos brake linings and clutch facings (woven on special looms); and asbestos packings for steam, oil, and hydraulic operation.

33.—Quantities and Values of Asbestos Produced in Canada, 1920-39.

NOTE.—Figures for the years 1896 to 1910, inclusive, will be found at p. 424 of the 1911 Year Book, and for the years 1911 to 1919 at p. 354 of the 1939 edition.

Year.	Quantity.	Value.	Year.	Quantity.	Value.	Year.	Quantity.	Value.
	short tons.	$		short tons.	$		short tons.	$
1920....	199,573	14,792,201	1926....	279,403	10,099,423	1933....	158,367	5,211,177
1921....	92,761	4,906,230	1927....	274,778	10,621,013	1934....	155,980	4,936,326
1922....	163,706	5,552,723	1928....	273,033	11,238,360	1935....	210,467	7,054,614
1923....	231,482	7,522,506	1929....	306,055	13,172,581	1936....	301,287	9,958,183
1924[1]...	225,744	6,710,830	1930....	242,114	8,390,163	1937....	410,026	14,505,791
1925....	273,524	8,977,546	1931....	164,296	4,812,886	1938....	289,793	12,890,195
			1932....	122,977	3,039,721	1939[2]....	364,472	15,859,212

[1] The quantities and values of sand, gravel, and rock separated as a by-product in milling asbestos are included in the totals for 1924 and previous years, but are excluded in later years. [2] Preliminary figures.

Gypsum.—Many large deposits of gypsum occur throughout Canada, but the production is chiefly from Hants, Inverness, and Victoria Counties, Nova Scotia; Hillsborough, New Brunswick; Hagersville and Caledonia, Ontario; Gypsumville and Amaranth, Manitoba; and Falkland, British Columbia. The Hillsborough

deposit of gypsum in New Brunswick is of very high grade. The greater part of Canada's production is exported in crude form from the Nova Scotia deposits, which are conveniently situated for ocean shipping and during recent years account for about 80 p.c. of the total Canadian production. Production of gypsum in Canada reached its highest point in 1928 with 1,246,368 tons valued at $3,743,648. Production during 1938 was 1,008,799 tons valued at $1,502,265, and preliminary figures for 1939 are 1,408,188 tons valued at $1,922,957. The production by provinces during 1938 is shown in Table 6, p. 322.

Salt.—The greater part of the Canadian salt production comes from wells located in southwestern Ontario, but the Malagash deposits in Nova Scotia have shown an increasing production in recent years. The first production of commercial importance in Manitoba was recorded in 1932 and for Saskatchewan in 1933, while some commercial shipments have been made from deposits near McMurray in Alberta. An important part of Canadian salt production (38·6 p.c. in 1938) is used in the form of brine in chemical industries for the manufacture of caustic soda, liquid chlorine and other chemicals.

The Canadian production during the present century has shown fairly steady growth from 59,428 tons in 1901 to 91,582 in 1911, 164,658 in 1921, 262,547 in 1926 and 330,264 in 1929, a record at that time. Production declined to 259,047 tons in 1931 but has since recovered, and in 1938 440,045 tons, valued at $1,912,913, were produced. (See Tables 2 and 6, pp. 317 and 322.) The estimate for 1939 is 424,500 tons, valued at $2,486,632.

Section 6.—Production of Clay Products and Other Structural Materials.

Production of these materials is naturally dependent upon the activity of the construction industry in Canada. Building and construction work fluctuates widely with business cycles and during the recent depression dropped to a very low ebb. Under these circumstances, the production of clay products, cement, gravel, and stone was severely curtailed. Some uncompleted large engineering construction operations and governmental relief projects eased the decline in the early years of the depression but the downward trend was still evident in 1933. With a slight recovery of construction activities since then (see Chapter XV) there has been a moderate increase in the production of the chief structural materials, the total reported value of production being $34,274,543 in 1939 as compared with $16,696,687 in 1933.

Brick and Tile.—Although the brick and tile industry is established in every province of the Dominion, production is naturally greatest near the chief centres of population, that is, in Ontario and Quebec. Production fluctuates with building activity and reached its highest point in the year 1912. Since that time the gradual substitution of steel and reinforced concrete for brick has reduced the production of brick so that, while the value of construction undertaken in 1928 or 1929 is estimated to have exceeded that of 1912, the quantity of brick produced in the later years was only about half that of 1912. On the other hand, as will be seen from Table 34, the production and consumption of cement in 1929 greatly exceeded that of 1912 or 1913. The production of building brick of various types in 1936, 1937,

and 1938, is shown in Table 2 of this chapter, while the production by provinces in 1938 is given in Table 6. The estimated value of all clay products made in 1939 was $4,984,491.

Cement.—The cement industry in Canada began with the manufacture of hydraulic or natural rock cement. The first production was probably at Hull, Quebec, between 1830 and 1840. The manufacture of Portland cement began about 1889. Owing to its superiority in uniformity and strength, it soon superseded the older product. Portland cement consists of an accurately proportioned mixture of lime, silica, and alumina. The lime is usually furnished by limestone and the silica and alumina by clay or shale. The cement industry has naturally become established where these materials are situated and where fuel supplies and transportation are readily available. The largest production is in Quebec and Ontario, although there are also active plants in Manitoba, Alberta, and British Columbia. As may be seen from Table 34, production declined greatly from 1929 to 1933, but has recovered somewhat since then. Production by provinces in 1938 is given in Table 6, p. 323.

34.—Production, Imports, Exports, and Apparent Consumption of Portland Cement, by Quantities and Values, 1920-39.

NOTE.—Figures for the years 1910 to 1919, inclusive, will be found at p. 356 of the 1939 Year Book.

Year.	Production.[1]		Imports.		Exports.		Apparent Consumption.	
	bbl.[2]	$	bbl.[2]	$	bbl.[2]	$	bbl.[2]	$
1920.....	6,651,980	14,798,070	32,963	112,466	835,667	2,193,626	5,849,276	12,716,910
1921.....	5,752,885	14,195,143	12,057	75,670	242,345	650,658	5,522,597	13,620,155
1922.....	6,943,972	15,438,481	30,914	83,037	425,137	699,738	6,549,749	14,821,780
1923.....	7,543,589	15,064,661	17,697	75,294	493,751	824,811	7,067,535	14,315,144
1924.....	7,498,624	13,398,411	27,672	69,320	153,520	213,845	7,372,776	13,253,886
1925.....	8,116,597	14,046,704	21,849	63,067	997,915	1,498,495	7,140,531	12,611,276
1926.....	8,707,021	13,013,283	21,114	77,866	285,932	358,231	8,442,203	12,732,918
1927.....	10,065,865	14,391,937	19,354	87,541	249,694	308,144	9,835,525	14,171,334
1928.....	11,023,928	16,739,163	34,047	146,164	267,325	340,624	10,790,650	16,544,703
1929.....	12,284,081	19,337,235	55,980	189,169	234,111	252,955	12,105,950	19,273,449
1930.....	11,032,538	17,713,067	143,436	569,848	198,736	212,071	10,977,238	18,070,844
1931.....	10,161,658	15,826,243	38,392	143,491	114,064	124,267	10,085,986	15,845,467
1932.....	4,498,721	6,930,721	21,351	58,092	53,333	38,921	4,466,739	6,949,892
1933.....	3,007,432	4,536,935	19,119	37,768	52,531	47,369	2,974,020	4,527,334
1934.....	3,783,226	5,667,946	14,341	45,548	70,046	55,181	3,727,521	5,658,313
1935.....	3,648,086	5,580,043	17,738	60,079	55,607	44,365	3,610,217	5,595,757
1936.....	4,508,718	6,908,192	39,867	107,180	68,929	56,909	4,479,656	6,958,463
1937.....	6,168,971	9,095,867	61,082	134,113	72,568	82,978	6,157,485	9,147,002
1938.....	5,519,102	8,241,350	48,497	105,326	89,419	101,059	5,478,180	8,245,617
1939[3].....	5,731,264	8,511,211	16,622	58,316	156,556	159,579	5,591,330	8,409,948

[1] 'Production' as used here means quantity and value of sales. [2] The barrel of cement=350 lb. or 3½ cwt. [3] Preliminary figures.

Sand and Gravel, and Stone.—The Mining, Metallurgical and Chemical Branch of the Bureau of Statistics presents details of production and organization of the stone industry separately from that of sand and gravel, but for the sake of brevity they are here discussed together. However, the figures of stone production shown do not include the limestone used to produce lime and cement, nor the quartz and other rock minerals, which are shown separately in Table 2, p. 317. The production of these materials increased greatly up to the recent world depression. The expansion in the stone industry was chiefly in crushed stone. Thus a production of crushed stone in 1922 of 3,044,399 tons had increased by 1930 to 8,062,330 tons, while in the same period the production of sand and gravel increased from 11,666,374 tons to 28,547,511 tons. During the depression the output contracted sharply, but

since 1933 there has been some recovery. Among the developments in Canada that resulted in increased production of these materials prior to the depression may be mentioned: (1) the tendency for brick to be replaced by reinforced concrete, cement blocks, etc., as indicated at p. 350 by a decline in brick production and an increase in that of cement; (2) the extensive improvement during that period in the mileage and character of roads and highways in Canada; and (3) the improvement of railway roadbeds.

The provincial distribution of the 1938 production of sand and gravel, and stone, is shown in Table 6, p. 323, while the chief purposes for which these materials were produced are shown in Table 35. Sand and gravel production in 1939 totalled 28,172,384 tons valued at $10,820,631, and stone production amounted to 5,468,174 tons valued at $5,952,242.

35.—Production of Sand and Gravel, and Stone in Canada, by Principal Purposes, 1936-38.

Material and Purpose.	1936.		1937.		1938.	
	Quantity.	Gross Value.	Quantity.	Gross Value.	Quantity.	Gross Value.
	tons.	$	tons.	$	tons.	$
Sand—						
Moulding sand	16,725	16,951	100,668	44,551	18,845	19,698
For building, concrete, roads, etc.	956,502	362,542	1,356,269	476,824	1,750,187	685,976
Other	15,096	5,795	59,007	13,087	67,595	22,909
Sand and Gravel—						
For railway ballast	6,318,681	1,054,703	2,764,639	533,876	2,359,703	443,936
For concrete, roads, etc.	14,336,640	5,216,942	19,453,188	8,340,764	22,513,256	9,101,882
For mine filling	[1]	–	1,170,260	146,811	1,852,323	256,380
Crushed gravel	480,516	264,466	2,097,270	936,783	3,661,973	1,471,773
Totals, Sand and Gravel	**22,124,160**	**6,921,399**	**27,001,301**	**10,492,696**	**32,223,882**	**12,002,554**
Stone—						
Building	42,335	714,616	49,098	746,370	49,666	725,402
Monumental and ornamental	8,975	281,656	8,301	278,325	22,382	448,328
Limestone for agriculture	94,031	116,397	112,628	131,071	129,689	146,557
Chemical Uses—						
Flux	279,299	187,240	345,742	266,780	314,604	233,671
Pulp and paper	197,957	197,523	200,893	219,461	114,572	126,980
Other	137,951	168,834	147,312	140,056	122,561	107,349
Rubble and riprap	475,845	250,581	699,586	608,453	501,216	359,232
Crushed	3,702,153	3,043,407	5,309,039	4,306,867	3,789,680	3,197,797
Totals, Stone[2]	**4,981,665**	**5,128,739**	**6,935,612**	**6,939,360**	**5,116,022**	**5,556,026**

[1] Relatively small and included with "For concrete, roads, etc." [2] Totals include minor items not specified.

The quantities and values of stone produced, given in the table above, represent only the production of those establishments that actually quarry their own stone and are exclusive of the products of the stone-dressing industry comprising those establishments that buy rough stone and dress, polish, or finish it; although dressing operations are frequently carried on right at the quarry and to that extent cannot be separated from the primary production. Of the total quantity of stone produced in 1938 about 84 p.c. was limestone, 14 p.c. granite, 2·0 p.c. sandstone, and 0·4 p.c. marble. The average value per ton was $0·90 for limestone, $1·91 for granite, $2·14 for sandstone, and $4·50 for marble. The marble was used chiefly for stucco dash, in glass factories, pulp and paper mills, and other industrial processes, for poultry grit, and pulverized as whiting. Large quantities of limestone were used for fluxing and other chemical purposes, but by far the largest part of all stone except marble was used as crushed stone.

CHAPTER XIII.—POWER GENERATION AND UTILIZATION IN CANADA.*

CONSPECTUS.

	Page.
Section 1. Water Power	353
Subsection 1. The Water-Power Resources of Canada and Their Utilization.	353
Subsection 2. Historical Statistics of Water-Power Development and Analysis of Hydraulic Installations	364
Section 2. The Central Electric Station Industry in Canada	366
Subsection 1. Historical and General Statistics	367
Subsection 2. Public Ownership of Central Electric Stations	372
Subsection 3. Private Ownership of Central Electric Stations	383
Subsection 4. Export of Electric Power.	384
Section 3. Evolution of Power Equipment and Utilization of Power in Industry	385
Section 4. Power Generated from Fuel	390

This chapter of the Year Book has been broadened to cover all power, however generated, and its utilization. Certain sections, such as those dealing with power utilization in industry and power generated from fuel, are based on material formerly appearing in the Manufactures Chapter, combined with similar but new data covering the mining industry. Other sections are entirely new and cannot be regarded as complete owing to insufficiency of available data. The purpose has been to co-ordinate all information respecting power generation and utilization instead of limiting this chapter, as in the past, to water power as a natural resource and a review of central electric stations.

Section 1.—Water Power.

The fresh-water area of Canada is officially estimated at 228,307 square miles an area nearly twice as large as the whole land area of the British Isles, and certainly larger than the fresh-water area of any other country in the world. As many parts of this well-watered country are situated at considerable heights above sea-level, there are great sources of potential energy in the rapids and waterfalls of the rivers conveying the waters from these areas to the sea. Water power, therefore, is among the chief natural resources of Canada, and its development has in recent years contributed materially to swell the volume of Canadian production.

Subsection 1.—The Water-Power Resources of Canada and Their Utilization.

In considering the relative importance of different natural resources, the inherent quality of inexhaustibility by use that water power possesses places it in a unique position—its use by industry in no way limits the ever-recurring cycle of evaporation, condensation, precipitation, and run-off by which its supply is renewed.

Another significant feature, as affecting Canada, is the fortunate occurrence of large water-power resources in what has been termed "the acute fuel zone" where native coal is not conveniently or economically available. The Provinces of Ontario and Quebec, without native coal, include the principal centres of population and manufacturing, and abound in many raw materials of industry; they contain

* Section 1 of this chapter has been revised under the direction of J. T. Johnston, Controller, Dominion Water and Power Bureau, Surveys and Engineering Branch, Department of Mines and Resources, and Sections 2, 3 and 4 (except as otherwise stated) by G. S. Wrong, B.Sc., Chief, Transportation and Public Utilities Branch, Dominion Bureau of Statistics.

89187—23

within their borders more than half of the total available water-power resources and more than three-quarters of the developed water power of Canada. In the Maritime Provinces and in British Columbia the incidence of water power in proximity to large supplies of pulpwood has also been favourable.

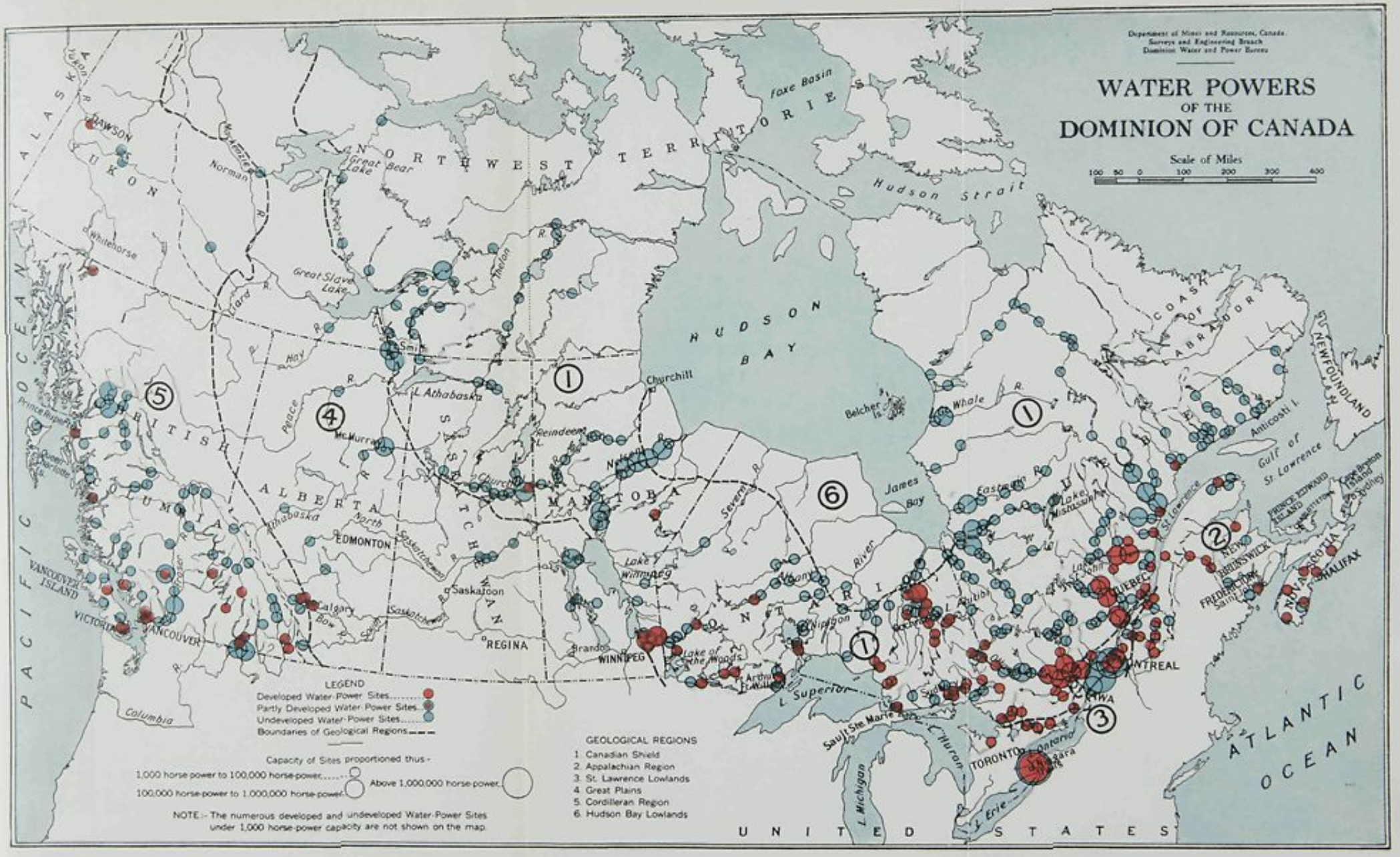
Canada's geological formations, climate, and topography have resulted in: the creation of great fresh-water areas; the gathering of the resultant run-off into river systems; and the concentration of river flow into natural reservoirs and power heads, or at least into areas where such can be economically created by artificial means.

Geologically, Canada is divided into six main regions: the Precambrian or Canadian Shield, the St. Lawrence Lowland, the Cordilleran, the Appalachian and Acadian, the Interior Plains, and the Hudson Bay Lowland. The boundaries of these regions are shown on the map of the Water Powers of Canada, facing p. 356, as well as on the geological charts on p. 15 and facing p. 24 of the 1939 Year Book. The Canadian Shield, St. Lawrence Lowland, and Cordilleran Regions include predominant proportions of both resources and present installation; the greatest power rivers have their sources either in the Precambrian Shield or in the Cordilleran Region.

The Precambrian Region.*—Slightly more than one-half Canada's area of 3,695,000 square miles lies in the geologically old and time-worn Precambrian Region or Canadian Shield. Large areas of it are rocky and have scant surface resources but are proving abundantly rich in mineral deposits. This Region comprises almost the entire continental portion of Canada lying north of a line starting on the eastern coast opposite Newfoundland and following the northern boundary of the depressed area occupied by the St. Lawrence River, westward to Lake Ontario. From this point the line runs westerly to Georgian Bay, then skirts the north shore of Lake Huron and, entering the United States, sweeps around the ancient depressed area occupied by Lake Superior to re-enter Canada at Lake of the Woods; from this point it runs northwesterly to skirt the eastern shore of Lake Winnipeg. From Lake Winnipeg the line bears northwest to the western end of Lake Athabaska and passes through the basins of the Great Slave and Great Bear Lakes, reaching the Arctic Ocean to the east of the Mackenzie River delta.

The Shield contains in the basins and waters of its main rivers, innumerable natural storage reservoirs and outstanding water-power sites. It is estimated that the water-power resources of the Shield aggregate almost 20,000,000 h.p., warranting a total turbine installation of probably 26,000,000 h.p. At the present time the installed capacity of water-power plants throughout the area totals 4,730,000 h.p., or about 18 p.c. of the available resources. In the westerly portion of the Shield the Churchill and Nelson Rivers, in addition to waters from the Shield itself, receive drainage from the Interior Plains and the Cordilleran slopes of British Columbia, and in northern Saskatchewan and Manitoba have a power capacity of between 3,000,000 and 4,000,000 h.p. The Winnipeg River has a potential capacity of more than 1,000,000 h.p. and a present installation of 450,000 h.p. Easterly, the Shield is the source of the basic hydro-power for the development of the great mineral and timber wealth of northern Ontario and Quebec, including the 3,400,000 h.p. of the Albany, Mattagami, Abitibi, Harricanaw, Nottaway and other rivers flowing into Hudson Bay and of the 210,000 h.p. of the Kaministikwia and Nipigon Rivers.

* The Hudson Bay Lowland skirting the south shore of Hudson Bay is, for the purposes of this article, included in this Region.


Department of Mines and Resources, Canada.
Surveys and Engineering Branch
Dominion Water and Power Bureau
WATER POWERS
OF THE
DOMINION OF CANADA
Scale of Miles
100 50 0 100 200 300 400
LEGEND
Developed Water-Power Sites
Partly Developed Water-Power Sites
Undeveloped Water-Power Sites
Boundaries of Geological Regions
Capacity of Sites proportioned thus -
1,000 horse-power to 100,000 horse-power.
100,000 horse-power to 1,000,000 horse-power.
Above 1,000,000 horse-power.
NOTE:- The numerous developed and undeveloped Water-Power Sites under 1,000 horse-power capacity are not shown on the map.
GEOLOGICAL REGIONS
1. Canadian Shield
2. Appalachian Region
3. St. Lawrence Lowlands
4. Great Plains
5. Cordilleran Region
6. Hudson Bay Lowlands
PACIFIC OCEAN
ATLANTIC OCEAN
UNITED STATES
ALASKA
YUKON
NORTHWEST TERRITORIES
HUDSON BAY
Foxe Basin
Hudson Strait
COAST OF LABRADOR
NEWFOUNDLAND
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
ONTARIO
QUEBEC
NEW BRUNSWICK
NOVA SCOTIA
PRINCE EDWARD ISLAND
Cape Breton Island
VANCOUVER ISLAND
Gulf of St. Lawrence
St. Lawrence R.
Mackenzie R.
Yukon R.
Peace R.
Athabaska R.
Saskatchewan R.
Churchill R.
Nelson R.
Severn R.
Albany River
Winnipeg R.
Ottawa R.
Whale R.
Eastmain R.
Great Bear Lake
Great Slave Lake
L. Athabaska
Reindeer L.
Lake Winnipeg
Lake of the Woods
L. Superior
L. Michigan
L. Huron
L. Erie
L. Ontario
Lake St. John
Lake Mistassini
Anticosti I.
Belcher Is.
James Bay
Hawson
Whitehorse
Norman
Fort Smith
Churchill
McMurray
Edmonton
Saskatoon
Regina
Calgary
Vancouver
Victoria
Prince Rupert
Brandon
Winnipeg
Arthur's Landing
Sault Ste Marie
Toronto
Niagara
Ottawa
Montreal
Quebec
Halifax
Fredericton
Saint John
Columbia
1
2
3
4
5
6

Farther east, the industries of eastern Ontario and the Ottawa and St. Lawrence Valleys draw their power from the 2,450,000 h.p. resources of the Gatineau, Lièvre, St. Maurice, and Saguenay Rivers flowing south from the Shield to the Ottawa and St. Lawrence Rivers; and from the 1,310,000 h.p. of the Ottawa, three-quarters of which lies within the Shield. The Bersimis, Outardes, Manikuagan, and other great rivers entering the St. Lawrence east of the Saguenay have resources totalling 2,400,000 h.p.

The St. Lawrence Lowland Region.—This Region ranks second in resources and installation and embraces an area of 35,000 square miles extending from a short distance east of Quebec City to Lake Huron, south of Georgian Bay.

The water-power resources of this lowlands region, estimated at more than 6,000,000 h.p., are principally in the Niagara, St. Lawrence, and lower Ottawa Rivers, with powers of lesser magnitude on the Trent, Richelieu, and other tributaries. The present total development is almost 2,000,000 h.p. and substantial quantities of power, developed from rivers in the adjacent Canadian Shield, and Appalachian areas are transmitted into the St. Lawrence Lowlands.

The Niagara, under present treaty limitations, already produces and makes available for distribution in Canada a total of 800,000 h.p. with complete protection of the great scenic value of Niagara Falls. The vast industrial structure of southern and western Ontario now rests largely upon this great development.

The St. Lawrence River, between Lake Ontario and Montreal, has potential power resources totalling 5,000,000 h.p., of which about 4,000,000 h.p. are wholly located in Canada. This great power, of which more than 750,000 h.p. is already developed, coupled with the low-cost water-borne traffic of the Great Lakes and St. Lawrence River, which renders accessible the raw materials of almost half the continent, is a potential asset of very great value to the Dominion.

The Cordilleran Region.—This division which forms the western portion of the Continent consists of three roughly parallel mountain belts, the eastern belt comprising the Rocky and Mackenzie Mountain Ranges, the central belt comprising a series of plateaux and mountains, and the western belt, lying west of the plateau country comprising the coastal and insular mountain ranges.

On the eastern slope of the Rocky Mountains low-head sites are found on the main rivers and high-head sites, combined with areas adaptable for storage, on their tributaries. On the western slope of the Rockies and the eastern slope of the central belt, the streams are short and swift with many high-head power sites although few of them are of large capacity, the chief power sites being on the Bull and Elk Rivers in the southern section. In the central belt of plateaux and mountains there are large power resources on the main rivers, which flow through wide valleys and collect the flow of numerous tributaries. The western belt of the Cordilleran Region has many high-head sites for some of which storage and concentration of flow by the diversion of smaller streams provide great power possibilities. In addition there are valuable resources in the lower-head sites of some of the larger rivers, notably the Fraser and Skeena.

The water-power resources of the Cordilleran Region have been estimated at 5,200,000 h.p., warranting a turbine installation of approximately 6,800,000 h.p. Detailed studies of the run-off characteristics, of the possibilities of storage, of diversions from one watershed to another, and of the development of high heads, will unquestionably greatly increase this figure.

Hydro-energy has had widespread application to the development of other rich resources of the district. Hydro-power from the Klondike River drives the great placer gold-mining dredges of the Yukon Territory. In the far south, approximately 250,000 h.p. from the Kootenay River, is the foundation of the immense mining, metallurgical, and electro-chemical operations at Trail, with their production of zinc, lead, and fertilizer for world markets. In Fernie district, in the southeast, and on Vancouver Island, hydro-power operates the coal mines, while along the coast great pulp, paper, and lumber mills at Powell River, Ocean Falls, and other points are based on hydro-power.

The development of water power in the Cordilleran Region has grown very rapidly, and there is now a total installed capacity of 737,000 h.p. An exceptionally wide urban and rural distribution exists carrying the comforts of electrical conveniences to a large percentage of the population. Vancouver Island is well served with hydro-power.

The Appalachian and Acadian Region.—This comprises the Maritime Provinces and that portion of eastern Quebec south of the St. Lawrence River and east of Quebec City south of the St. Lawrence Lowland. This area is drained by numerous rivers, many of them short and with relatively small drainage basins but with steep descents.

The Appalachian and Acadian Region includes hydro-power resources totalling 550,000 h.p., which would sustain a turbine installation of about 700,000 h.p. An extensive development aggregating more than 400,000 h.p. has already taken place. Of the power rivers worthy of special mention, the Mersey in Nova Scotia has an extensive present development; the Saint John in New Brunswick is a power river of considerable proportions; while the St. Francis River in Quebec, lying in the western fringe of the area, has outstanding power resources, a large part of which is now developed.

Industrial progress and domestic comfort, based upon low-priced hydro-power, have contributed greatly to the economic and social progress of the Region. Hydro plants serving the publicly and privately owned transmission and distribution systems of Nova Scotia, New Brunswick, and eastern Quebec, as well as privately controlled industrial enterprises, provide substantial supplies of power for industry and for domestic use. Most of the leading municipalities and industrial centres of the Maritimes and southeastern Quebec are served with hydro-power. Major pulp and paper enterprises are so supplied at Liverpool, Nova Scotia; Edmundston and Dalhousie, New Brunswick; and Windsor Mills, Bromptonville, and East Angus, Quebec; while the famous asbestos mines of the Eastern Townships of Quebec are also hydro-operated.

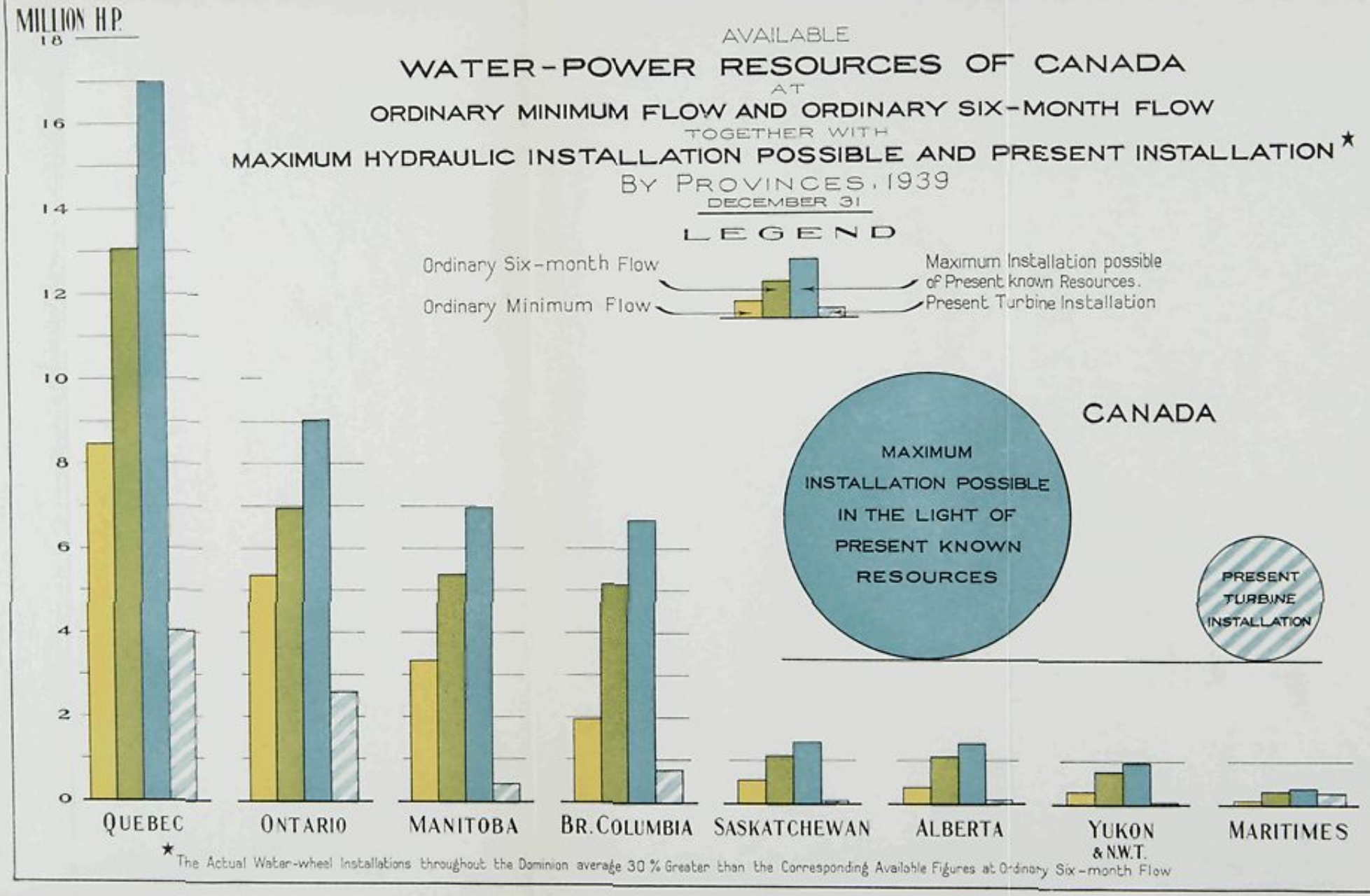
The Interior Plains Region.—This is roughly a triangular area with its base on the International Boundary and its apex on the Arctic Ocean at the mouth of the Mackenzie. It is bounded on the east and north by the Canadian Shield, and on the west by the easterly range of the Cordilleran Region. The Plains are covered with great depths of soil, through which the streams cut themselves down into deep coulées and the rivers into deep, wide valleys. The rivers and streams generally flow with gradual gradient and few rapids or falls occur, the main water-power resources available for the Plains area being those located near its border in either the Cordilleran or Precambrian Regions.

The geological structure of the southern plains is such that there is no concentration of river flow into natural heads suitable for the development of power. In the northern areas, however, on such rivers as the Saskatchewan, Athabaska,

AVAILABLE WATER-POWER RESOURCES OF CANADA AT ORDINARY MINIMUM FLOW AND ORDINARY SIX-MONTH FLOW TOGETHER WITH MAXIMUM HYDRAULIC INSTALLATION POSSIBLE AND PRESENT INSTALLATION ★

BY PROVINCES, 1939

DECEMBER 31



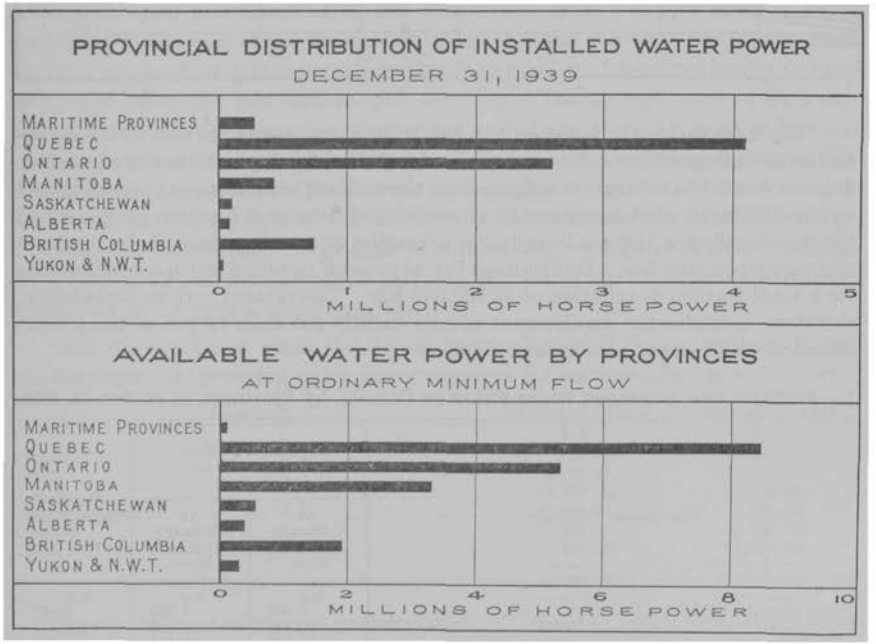
★ The Actual Water-wheel Installations throughout the Dominion average 30 % Greater than the Corresponding Available Figures at Ordinary Six-month Flow

Peace, and Slave, rapids which offer possibilities of substantial development occur. It is estimated that the water-power resources of the Interior Plains Region total 1,800,000 h.p.

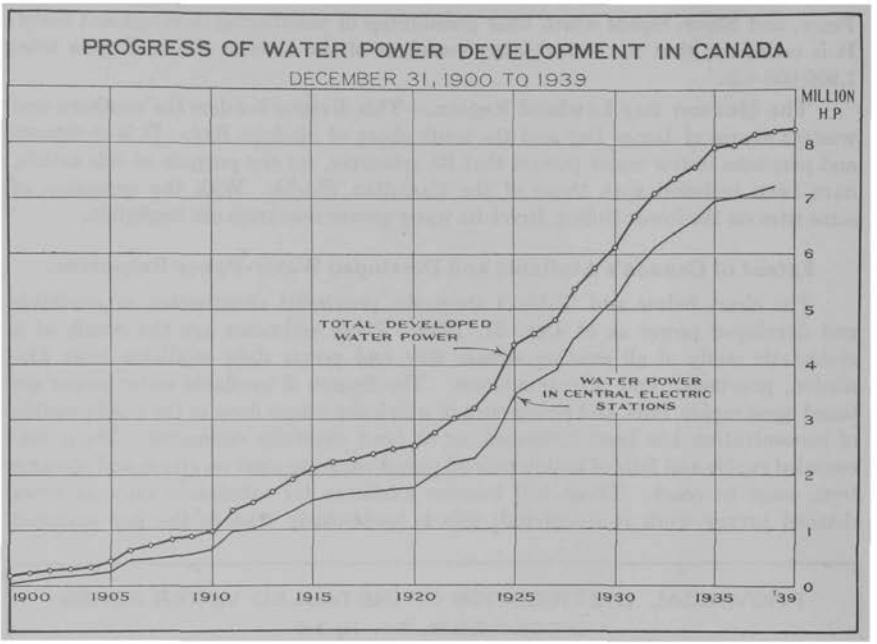
The Hudson Bay Lowland Region.—This division borders the southern and western shores of James Bay and the south shore of Hudson Bay. It is so remote and possesses so few water powers that its resources, for the purpose of this article, have been included with those of the Canadian Shield. With the exception of some sites on the lower Nelson River its water-power resources are negligible.

Extent of Canada's Available and Developed Water-Power Resources.

The chart below and Table 1 show the provincial distribution of available and developed power as at Dec. 31, 1939. These estimates are the result of a systematic study of all existing stream flow and power data available from Dominion, provincial, and private sources. The figures of available water power are based upon rapids, falls, and power sites of which the actual drop or the head possible of concentration has been measured, or at least carefully estimated. Many unrecorded rapids and falls of undetermined power capacity exist on rivers and streams from coast to coast. These will become available for tabulation only as more detailed survey work is completed; this is particularly true in the less explored



northern districts. Also, no consideration has been given to the power concentrations that are feasible on rivers and streams of gradual gradient, where economic heads may be created by the construction of power dams, unless definite studies have been carried out and the results made matters of record. In brief, figures of available power quoted represent only the *minimum* water-power possibilities of the Dominion.



The total turbine installation of 8,289,212 h.p. represents the sum of the manufacturers' ratings of the different units under the heads at which they are installed. It is not correct to subtract this figure from the totals of available power in columns 1 or 2 to determine what power remains undeveloped because it has been proven sound practice to allow a turbine installation averaging 30 p.c. in excess of the power at ordinary six-month flow. On this basis the 'at present' recorded resources will provide for a total turbine installation of 43,700,000 h.p. The present turbine installation, therefore, indicates the development of only slightly less than 19 p.c. of the present recorded water-power resources of Canada.

1.—Available and Developed Water Power in Canada, by Provinces, as at Dec. 31, 1939.

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	131,717
New Brunswick	68,600	169,100	133,347
Quebec	8,459,000	13,064,000	4,084,763
Ontario	5,330,000	6,940,000	2,596,799
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	738,013
Yukon and Northwest Territories	294,000	731,000	18,199
Canada	**20,347,400**	**33,617,200**	**8,289,212**

The favourable distribution of water-power resources and of developed power and especially the occurrence of power resources in the industrial provinces and in proximity to the largest known mineral deposits and pulpwood supplies are factors of great importance. About 60 p.c. of the available power and 81 p.c. of the developed power are found in the highly industrialized Provinces of Ontario and Quebec which contain 61·5 p.c. of Canada's population and which, because they do not possess coal mines, would otherwise be dependent to a far greater extent on imported coal for the production of power.

Comparison of the Water-Power Resources of Canada with Those of Other Countries.

Many difficulties are encountered when comparison of water-power resources between different countries is attempted. Incomparability and incompleteness of statistics are the chief drawbacks. This is more especially the case when undeveloped resources are considered, for only crude estimates are possible for many countries where resources are, in large measure, unexplored.

During recent years, in its Statistical Year-Book, the World Power Conference has attempted a statistical compilation of power resources, development, and utilization upon a comprehensive and comparable basis. In this effort a useful beginning has been made in the matter of water-power resources but, in the most recent Year-Book, statistics are still lacking for a number of countries known to have important developed and undeveloped resources. Taking cognizance of data collected by the World Power Conference and amplifying them by more or less approximate information available from other sources, the Geological Survey of the United States Department of the Interior has compiled an estimate of the developed and potential water power of the world.* In this estimate the figures for many countries are undoubtedly rough approximations only, owing to the lack of reliable data. Nevertheless, the estimate is probably as good as can be made under present conditions and serves a useful purpose.

For the world as a whole the United States Geological Survey estimate shows the developed and potential water-power resources for continental areas as follows:—

Continent.	Developed Power.[1] h.p.	Potential Power.[2] h.p.
Africa	183,000	274,000,000
Asia	6,100,000	151,000,000
Europe	28,000,000	74,000,000
North America	27,000,000	77,000,000
Oceania	800,000	21,000,000
South America	1,400,000	74,000,000
Approximate Totals	64,000,000	671,000,000

[1]Capacity of installed machinery at constructed plants. [2]Based on ordinary minimum flow at 100 p.c. efficiency.

These figures indicate that the potential resources of the Continents of Africa and Asia, combined, represent more than 63 p.c. of the world total, whereas the total development that has been made in these two continents is less than 10 p.c.

* See "Developed and Potential Water Power of the World", Bulletin 63107, published by the Geological Survey, Department of the Interior, Washington, D.C., U.S.A., June 23, 1939.

of the development in the world at large. Enormous potential resources exist on the great river systems of Africa and Asia but these resources are so remote from any present prospect of power markets that they are of little economic interest. The same may be said of substantial resources that exist in parts of South America and Oceania.

It is of greater interest, therefore, to compare the developed and potential resources of those countries in which the development and utilization of water power has progressed to a considerable extent. With this in view, countries listed by the United States Geological Survey as having developed water-power resources of 100,000 h.p. or more are arranged in the following table in order of magnitude. An additional column has been inserted indicating, as far as the latest population figures permit, the per capita water-power installation in each country.

2.—Developed and Potential Water-Power Resources of Countries Having Developed Resources of 100,000 or More Horse-Power.

Country.	1938 Developed Power.		Potential Power.
	Capacity of Installed Machinery at Constructed Plants.	Per Capita Installation.	Based on Ordinary Minimum Flow at 100 p.c. Efficiency.
	h.p.	h.p.	h.p.
United States	17,948,906	0·140	33,500,000
Canada	8,190,772	0·745	25,500,000
Italy	6,000,000	0·141	6,100,000
France	5,400,000	0·129	6,000,000
Japan	4,800,000	0·068	7,200,000
Germany	4,000,000	0·054	4,250,000
Norway	3,000,000	1·039	16,000,000
Switzerland	2,800,000	0·671	3,600,000
Sweden	2,200,000	0·351	4,000,000
U.S.S.R. (Russia)	1,707,000	0·010	78,000,000
Spain	1,400,000	0·056	5,700,000
Brazil	1,000,000	0·024	36,000,000
Great Britain and Northern Ireland	550,000	0·012	700,000
Finland	500,000	0·132	2,500,000
India and Ceylon	500,000	0·001	39,000,000
Mexico	450,000	0·023	8,500,000
Chösen (Tyosen)	430,000	0·019	3,000,000
New Zealand	400,000	0·250	2,000,000
Newfoundland	250,000	0·868	600,000
Yugoslavia	250,000	0·016	4,000,000
Taiwain (Formosa)	237,000	0·045	1,000,000
Australia and Tasmania	216,000	0·032	1,000,000
Chile	189,000	0·041	3,600,000
Ireland (Eire)	140,000	0·047	300,000
Roumania	127,000	0·006	3,000,000
Java	125,000	0·003	1,100,000
Peru	100,000	0·014	6,400,000
Totals	**62,910,678**		**302,550,000**

This table shows that, in developed power, Canada stood second in 1938 among the countries of the world, being exceeded only by the United States. In per capita installed power Norway took the lead, Newfoundland stood second, and Canada third. In potential water-power resources, Canada is shown as ranking fifth among the countries listed. Canada's position, however, is much more favourable if account is taken of the availability of power resources to prospective markets. Although many of Canada's large undeveloped water powers are situated in the more

remote and uninhabited parts of the country, there are, as well, great reserves of undeveloped power within ready transmission distance of existing centres of population and industry. It is not believed that this favourable condition exists to the same extent in countries such as Russia, India, and Brazil, and, excluding these countries, it is seen that, of the others listed, Canada is outranked only by the United States in potential resources.

In comparing the estimates of potential power with those of developed power and also in estimating the proportion of a nation's water-power resources already developed it should be kept in mind that the estimates of developed power are based on the installed capacity of hydraulic turbines and water wheels at constructed plants which average two or three times the potential power at low flow at the same sites. In Canada, for example, it is estimated that, under existing practices, the potential water-power resources of the country would support an installed turbine installation of probably 43,700,000 h.p. In other words, the present installation represents less than 19 p.c. of the country's total resources. The same holds true in regard to figures shown for other countries.

Problems in the Development of Hydraulic and of Hydro-Electric Power.

The national importance of water-power resources was immeasurably increased by the development of the electric generator. Later the application of the voltage transformer and high-tension transmission permitted the concentration and utilization of power at points remote from its origin where favourable conditions of labour, transportation, and raw materials existed or could be readily provided.

The earlier utilization of electricity was almost entirely for street, commercial, and household lighting. Its application to urban and interurban transportation quickly followed and with the perfecting of industrial machinery suitable for electric drive it soon became the leading motive force in industry. Next came its application to specialized industrial heating, and, more recently, its application to many electro-metallurgical and electro-chemical processes resulting in the large-scale production of electrolytic copper, aluminium, zinc, nickel, and other metals, calcium carbide, carborundum, inorganic fertilizers, weed killers, and elemental and other gases.

The abundant supply of low-cost hydro-electric power has been an important factor in the rapid growth of the manufacturing and mining industries in Canada. The accompanying demand for electric power, much of it necessarily transmitted over considerable distances, brought with it many problems of generation and transmission. These problems have been vigorously attacked and a high technique of successful year-round operation has been developed despite extreme variations of temperature experienced in many parts of the country.

The low temperatures experienced during the winter months necessitate the installation of heating apparatus, either steam or electric, for the maintenance of gate operation and to prevent the accumulation of ice on the trash racks. Special provision is also necessary in the design of waterway entrance structures to preclude the entry of floating ice and reduce the possibility of frazil- and anchor-ice formation. Also insulation or heating equipment has to be installed for the protection from freezing of the surge tanks built into the intake equipment to reduce the

momentum of the water against the turbine gates when the flow of water to them must be reduced or closed off suddenly. Ice cover on the water in the tank damages its interior supports in the event of rapid changes of level.

Fuel-operated auxiliary equipment is sometimes installed to supply power in the event of the hydro equipment becoming inoperative from any cause, but so dependable have Canadian hydro-electric installations proven that the central electric station industry, which operates 88 p.c. of Canada's developed water powers, maintains less than 200,000 h.p. of such auxiliary equipment for the more than 7,200,000 h.p. of hydraulic turbines, as shown in Table 3.

The Generation of Electric Energy.—Electric generators in use in Canada are almost exclusively for the production of alternating current, considerably less than 1 p.c. of the more than 6,000,000 kilowatts of generating capacity installed in central electric stations being direct current.

In the generation of alternating current in Canada two frequencies may be said to be standard, 25 and 60 cycles per second. The original developments at Niagara Falls were made with a frequency of 25 cycles and this frequency has been adhered to when additional power for that area has been provided. This frequency is also used in some of the plants supplying the mining areas of northern Ontario but elsewhere in Canada generation at a frequency of 60 cycles is general. Where interconnection is made between the two systems, frequency changers are installed.

Alternating current generators are in operation in Canada up to 55,000 kva., the largest direct current generator in central-station use being 750 kw., although some larger units are in use in electric railway and industrial plants.

Electricity is generated at voltages up to 14,000 and this voltage is raised as circumstances require to varying voltages up to 220,000 for transmission.

The Transmission of Electric Energy.—Until almost the beginning of the present century it was believed that any attempt at the long-distance transmission of electricity would prove uneconomic because of the amount of current absorbed or lost in transmission. The development of the high-tension transformer and of improved insulating materials resulted in the construction, in 1897, between St. Narcisse and Three Rivers, Quebec, of an 11,000-volt line, 18 miles in length, the first high-tension transmission line in the British Empire. Since that time continued technical advances have resulted in a steady growth in transmission distances and voltages in Canada, until at present power is being transmitted, for instance, from the Gatineau River in Quebec to Toronto, a distance of 225 miles, at 220,000 volts. Greatly improved technique has also been developed in switching control and protective equipment.

In general, electricity is generated at voltages between 6,000 and 14,000. The power is then passed through transformers which raise it to a voltage predetermined by considerations of distance, amount of power to be carried, and relation between the value of the power carried and the cost of the transmission line.

Conductors for Transmission Lines.—Copper and aluminium are the principal materials used for conductors for long-distance electric transmission although in some cases, where small amounts of power are to be transmitted, iron wire is used. Copper-clad steel wire is used to a considerable extent for special crossings where great strength is required. Steel-reinforced aluminium cable is in general use when large quantities of power are transmitted as it is much stronger than copper of the same conductivity and weight. The steel core provides the strength and the aluminium cable the conductance.

Transmission-Line Insulation.—Two widely different types of porcelain transmission-line insulators are in common use, viz., the pin type, generally used for voltages up to 66,000, and the suspension type for voltages from 66,000 to 220,000. Each suspension unit has a length of about five inches and, as ten or more units may be combined, the tendency of voltage to concentrate on the units nearest to the line is sometimes reduced by the use of grading shields. These shields, in addition to providing a comparatively uniform voltage distribution over the insulator, also tend to reduce damage from 'arcing' in the case of flashover across the insulators from lightning or other causes. Additional protection from lightning is sometimes provided by the use of overhead ground wires, i.e., by one or more wires placed above the current-carrying wires and connected to the ground at frequent intervals. Lightning arresters are also sometimes connected between the line and ground for the protection of the line and transformers.

The Merchandising of Power.

Three main types of service are provided by central electric stations, i.e., by organizations engaged in the sale of electricity. The first is the supplying of primary firm power, the highest type of service and commanding the highest price. This power is available to the consumer at uniform voltage, up to the amount of his contract, twenty-four hours per day. In general its cost varies from about $10 per horse-power year to large users under long-term contracts and close to the point of generation to say $50 per horse-power year to consumers of small blocks, on shorter contracts, and/or at greater transmission distances.

The second class of service is the supplying of primary interruptible power, i.e., power sold subject to certain limitations as to continuity of supply. Organizations selling electricity must install sufficient equipment to meet the maximum or peak demand of the firm-power customers. A market for power that can be produced in off-peak periods—times when the power customers are taking less than their maximum contract amounts—is found in the sale of primary interruptible power. Large industrial users, able to adjust their power requirements under special circumstances, purchase this power at considerable reductions from the cost of firm power.

The third class of service is the supplying of secondary or 'at will' power. The amount of such power that can be supplied at any time is indefinite and service is not guaranteed. Service can be discontinued at any time without notice to the customer. The price range for such service is quite wide, much of it being supplied at very low rates, in some cases as low as $2 per horse-power year. The power is used where conditions will not permit the use of high-cost power. Much of it is used by the pulp and paper industry for steam generation. Steam cannot be produced by electricity in direct competition with coal except where surplus or off-peak power can be purchased at low rates, but in times of industrial depression, when much central-station equipment would be operating below capacity, a market is found for its output by selling it for steam generation at low rates. During 1938, 32 p.c. of the total output of central stations was used by the pulp and paper industry, almost half of which was secondary power for boilers.

Much of the continued growth in the consumption of central electric station power is due to the merchandising and educational campaigns of the electrical utility organizations. This is particularly the case in regard to domestic consumption.

The direct advertising in this field, coupled with instalment financing, has resulted in substantial load increases in many cases. In the industrial and commercial field sales promotion has also been beneficial to the power-selling organizations.

Subsection 2.—Historical Statistics of Water-Power Development and Analysis of Hydraulic Installations.

Historical Statistics.—The commencement of the long-distance transmission of electricity at the beginning of the present century resulted in the extensive development of hydro-electricity for distribution over wide areas. The growth of installation during the period from 1920 to 1939 is shown, by provinces, in Table 3.

3.—Hydraulic Turbine Horse-Power Installed in Canada, by Provinces, as at Dec. 31, 1920-39.

NOTE.—Comparable statistics for the years 1900-19, inclusive, are given at p. 361 of the 1939 Year Book.

Year.	P.E.I.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Total.[1]
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
1920...	2,233	37,623	21,976	955,090	1,057,422	85,325	35	33,122	309,534	2,515,559
1921...	2,252	48,908	30,976	1,050,338	1,165,940	99,125	35	33,122	310,262	2,754,157
1922...	2,274	49,142	42,051	1,099,404	1,305,536	134,025	35	33,122	329,557	3,008,345
1923...	2,274	50,331	43,101	1,135,481	1,396,166	162,025	35	33,122	356,118	3,191,852
1924...	2,274	65,572	44,521	1,312,550	1,595,396	162,025	35	34,532	360,492	3,590,596
1925...	2,274	65,637	42,271	1,749,975	1,802,562	183,925	35	34,532	443,852	4,338,262
1926...	2,274	66,147	47,131	1,886,042	1,808,246	227,925	35	34,532	463,852	4,549,383
1927...	2,274	68,416	47,131	2,069,518	1,832,655	255,925	35	34,532	475,232	4,798,917
1928...	2,439	74,356	67,131	2,387,118	1,903,705	311,925	35	34,532	554,792	5,349,232
1929...	2,439	109,124	112,631	2,595,430	1,952,055	311,925	35	70,532	559,792	5,727,162
1930...	2,439	114,224	133,681	2,718,130	2,088,055	311,925	42,035	70,532	630,792	6,125,012
1931...	2,439	111,999	133,681	3,100,330	2,145,205	390,925	42,035	70,532	655,992	6,666,337
1932...	2,439	112,167	133,681	3,357,320	2,208,105	390,925	42,035	71,597	713,792	7,045,260
1933...	2,439	112,167	133,681	3,493,320	2,355,105	390,925	42,035	71,597	717,602	7,332,070
1934...	2,439	116,367	133,681	3,703,320	2,355,755	390,925	42,035	71,597	717,717	7,547,035
1935...	2,439	116,367	133,681	3,853,320	2,560,155	392,825	42,035	71,597	718,497	7,909,115
1936...	2,439	120,667	133,681	3,883,320	2,561,905	392,825	42,035	71,597	718,922	7,945,590
1937...	2,439	123,437	133,681	3,999,686	2,577,380	405,325	61,035	71,597	719,972	8,112,751
1938...	2,617	130,617	133,347	4,031,063	2,582,959	420,925	61,035	71,997	738,013	8,190,772
1939...	2,617	131,717	133,347	4,084,763	2,596,799	420,925	90,835	71,997	738,013	8,289,212

[1] Includes totals for Yukon. Turbine horse-power in Yukon was 13,199 from 1920 to 1934, and 18,199 from 1935 to 1939.

Analysis of Total Hydraulic Power Installations.—For the purpose of this review, the present total installation of 8,289,212 h.p. is divided in Table 4 under three main headings: central electric stations, pulp and paper mills, and installations for other purposes.

The largest and most rapidly growing of these three classes, viz., central electric stations (a complete survey of central electric stations is given in the subsections of Section 2), maintains 87·9 p.c. of Canada's present development, and produces 98 p.c. of all electricity sold in and exported from the country.

The pulp and paper industry accounts for a hydraulic installation of 649,801 h.p. or 7·9 p.c. of the total. It is not possible to state definitely what proportion of this is utilized in the generation of electricity for the operation of motor drive, but latest census figures indicate an approximate figure of 350,000 h.p. The industry, of course, uses a much larger percentage than this 649,801 h.p. because pulp and paper mills purchase about a third of the output of central electric stations and use more than 45 p.c. of such purchased power for motor drive. The latest census figures available indicate that Canada's pulp and paper mills maintain an electric-motor installation approximating 1,250,000 h.p. for operation by this power. The remaining 55 p.c. of the purchased power is utilized for steam-raising in electric boilers.

Column 3 of Table 4 lists the hydraulic installation of other than central electric stations and pulp and paper mills—a total of 346,912 h.p. The figures include all water-power installations supplying electric or hydraulic power to the mineral and electro-chemical industries, municipal pumping plants, electric railway plants, and the multitudinous saw, grist and grinding mills and other manufacturing industries throughout Canada. Here again no definite division between purely hydraulic and hydro-electric drive is possible.

4.—Developed Water Power in Canada: Distribution by Provinces and Industries, and per 1,000 Population, as at Dec. 31, 1939.

Province or Territory.	Turbine Installation in H.P.				Population, June 1, 1939.[4]	Total H.P. Installation per 1,000 Population.
	In Central Electric Stations.[1]	In Pulp and Paper Mills.[2]	In Other Industries.[3]	Total.		
	1	2	3	4	5	6
Prince Edward Island	579	Nil	2,038	2,617	95,000	28
Nova Scotia	97,368	18,858	15,491	131,717	554,000	238
New Brunswick	104,710	20,694	7,943	133,347	451,000	296
Quebec	3,673,138	273,022	138,603	4,084,763	3,210,000	1,273
Ontario	2,257,823	231,277	107,699	2,596,799	3,752,000	692
Manitoba	420,925	Nil	Nil	420,925	727,000	579
Saskatchewan	87,500	"	3,335	90,835	949,000	96
Alberta	69,920	"	2,077	71,997	789,000	91
British Columbia	578,536	105,950	53,527	738,013	774,000	954
Yukon and Northwest Territories	2,000	Nil	16,199	18,199	14,000	1,300
Canada	**7,292,499**	**649,801**	**346,912**	**8,289,212**	**11,315,000**	**733**
Percentages of total installation	87·9	7·9	4·2	100·0		

[1] Includes only hydro-electric stations that develop power for sale. [2] Includes only water power *actually developed* by pulp and paper companies. In addition to this turbine installation, pulp and paper companies have motor equipment for operation by hydro-electricity purchased from central electric stations aggregating more than 1,225,000 h.p., making a total of more than 1,875,000 h.p. actually developed for the manufacture of pulp and paper. Large amounts of electricity are also purchased for use in electric boilers rated at more than 1,750,000 h.p. [3] Includes only water power actually developed in connection with industries other than the central electric station and pulp and paper industries. These industries also purchase power from central electric stations. [4] Estimated by the Dominion Bureau of Statistics.

The figures of turbine installation given above must not be placed in direct comparison with those of the annual central electric station census nor those of the census of the pulp and paper industry because of the different bases of compilation. The figures of hydraulic installation represent the cumulative totals of

installation for the purposes named, adjusted by deducting the capacity of installations removed because of obsolescence or for other reasons. The Census of Industry data are computed on a different basis, representing only the sum of the installation in the plants actually in operation during the year dealt with in the Census and not total installation. Also, data on installations are available as soon as equipment is installed, whereas census data for any period are necessarily available some time after the end of the period.

Section 2.—The Central Electric Station Industry in Canada.

Central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. Actually, generating stations may also purchase some power to supplement their own output. Stations classed as non-generating ordinarily purchase all the power they use. However, some of the latter have generating plant in the form of auxiliary-plant equipment. This results in the anomaly that, although classed as non-generating, these stations actually did generate 537,473 kwh. in 1937.

The stations are divided into two classes according to ownership, viz., (1) commercial—those privately owned and operated by companies or individuals, and (2) municipal—those owned and operated by municipal or provincial governments. The winning and utilization of raw materials at their source, characteristic of the mining, and pulp and paper industries in the Precambrian and the Cordilleran Regions, is often in the hands of large corporations that either generate their own power or purchase it from municipal stations. The Nova Scotia Power Commission, for instance, supplies energy for pulp and paper manufacture, and the Hydro-Electric Power Commission of Ontario serves the pulp and paper district of Thunder Bay and has more recently entered the mining regions of the northern and northwestern sections of the Province with developments on the English River at Lower Ear Falls and the Albany River at Rat Rapids, and with the extension of transmission lines from Nipigon River to the Little Long Lac area. Pulp and paper and mining concerns purchase a very large proportion of the output of central electric stations. Indeed, about a score of large concerns producing hydro-electric energy for sale have been developed primarily to serve pulp and paper or mining and mineral reduction operations.

5.—Electric Energy Generated, by Class of Station and by Provinces, 1938.

Province.	Generated by—		Total Electricity Generated.
	Hydraulic Stations.	Fuel Stations.	
	'000 kwh.	'000 kwh.	'000 kwh.
Prince Edward Island	364	6,674	7,038
Nova Scotia	278,273	126,555	404,828
New Brunswick	405,055	60,303	465,358
Quebec	13,703,040	4,303	13,707,343
Ontario	7,536,558	1,513	7,538,071
Manitoba	1,682,392	4,484	1,686,876
Saskatchewan	Nil	153,500	153,500
Alberta	133,363	99,088	232,451
British Columbia	1,951,740	6,955	1,958,695
Totals	**25,690,785**	**463,375**	**26,154,160**

While commercial, street lighting, and household services play subordinate roles as far as the amount of power used is concerned, the low cost of these services has been important in the development of urban centres. Public authorities have found it desirable to encourage rural electrification by government aid, and this has been done in Ontario through the Hydro-Electric Power Commission, in Manitoba through the Manitoba Power Commission, and in Quebec under recent legislation passed on the recommendation of the Lapointe Commission.

In 1938 central electric stations engaged in the public sale of energy controlled 88 p.c. of all developed water powers, as compared with 70 p.c. in 1922. The energy they supply drives 84 p.c. of the electric motors and 66 p.c. of all the power equipment used in manufacturing industries. The total amount of capital invested in central electric stations was greater than that invested in any other manufacturing industry, while in wages and salaries paid they ranked second in total value. The net value of their output in 1938 was greater than that of any other industry and in gross value they ranked second only to the pulp and paper industry. Almost the whole, or 98 p.c., of the output was hydro-electric power while 95·7 p.c. of the primary power equipment of these stations was hydraulic.

Included in the statistics of central electric stations are those of a few stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants, the statistics pertaining to the central electric station phase of the industry only have been given as far as possible.

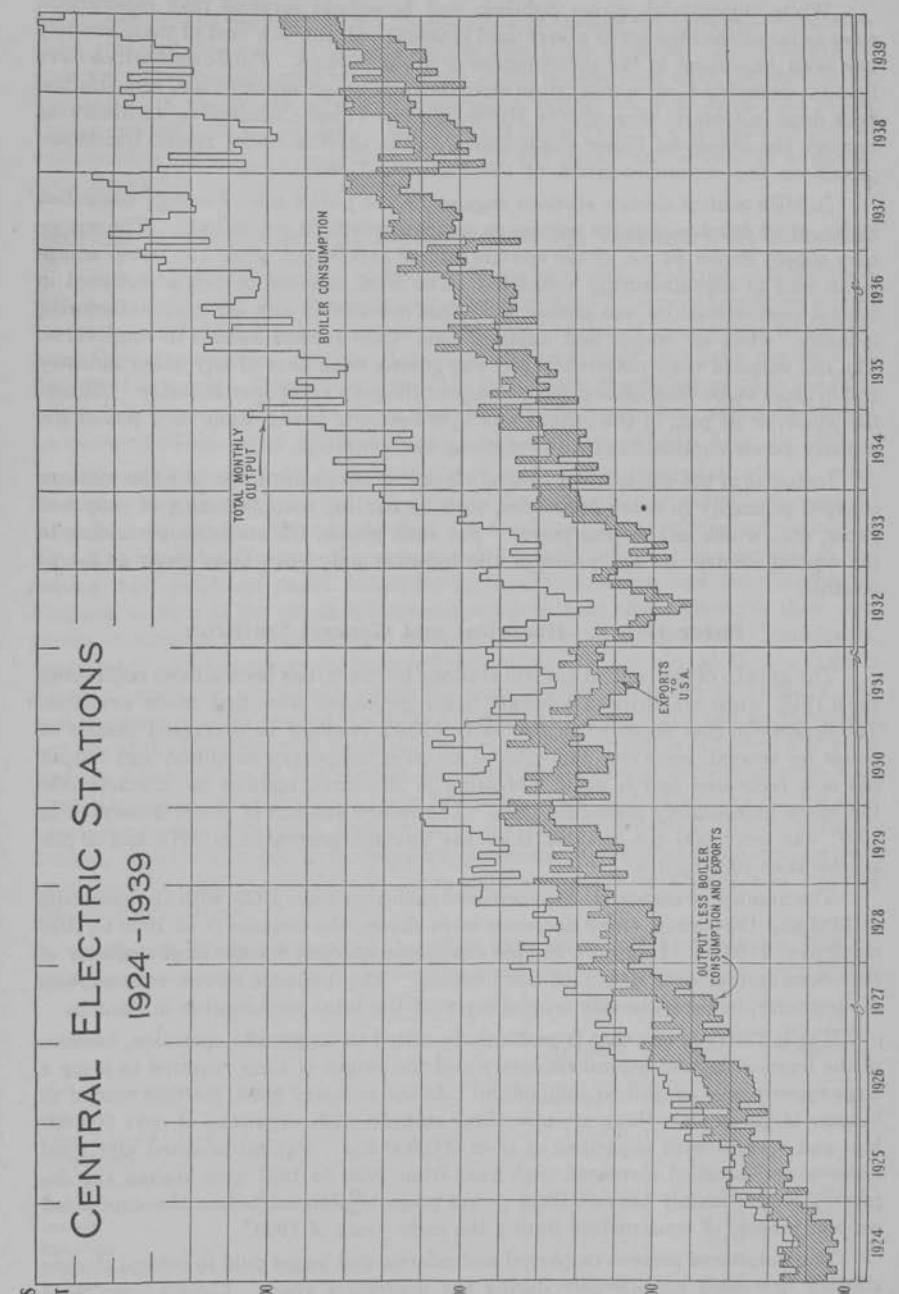
Subsection 1.—Historical and General Statistics.

The growth of the central electric stations industry, has been almost continuous since 1919, when statistics of kilowatt hours generated were first made available. The depression that occurred in the early 1930's resulted in decreased output of power for several years but this proved to be a temporary condition and output has now recovered and is again increasing in the same manner as characterized the years immediately preceding 1930. The record amount of power generated in 1937, was over 500 p.c. greater than the amount generated in 1919 and 53 p.c. greater than 1930 figures.

The number of customers has increased each year since 1920, with the exception of 1933 and 1934 when small decreases were shown, the increase from 1920 to 1938 being over 110 p.c. Domestic service customers account for the large majority of customers and for over 80 p.c. of this increase. The domestic service consumption of electricity, however, is only around 8 p.c. of the total consumption in Canada.

The industry is one that is particularly suited to large-scale operation, because of the huge outlays of capital necessary and the length of time required to bring a large water-power project to completion. As the industry grew, stations tended to become larger in size; there are now three stations with capacities of over 500,000 h.p. and several with capacities of over 200,000 h.p. Capital invested and total horse-power installed increased each year from 1920 to 1937 even during the depression years, mainly because large power projects planned before the depression were in process of construction during the early years of 1930.

The number of persons employed and salaries and wages paid in central electric stations decreased considerably during the depression years. Figures since 1934 show improvement in each year, however, even though at a slower rate than shown by other statistics.


CENTRAL ELECTRIC STATIONS
1924-1939
MILLIONS OF KILOWATT HOURS
2000
1500
1000
500
TOTAL MONTHLY OUTPUT
BOILER CONSUMPTION
EXPORTS TO U.S.A.
OUTPUT LESS BOILER CONSUMPTION AND EXPORTS
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935
1936
1937
1938
1939

6.—Summary Statistics of Central Electric Stations, 1917-38.

Year.	Stations.	Capital Invested.	Revenue from Sale of Power[1]	Total Horse-Power.[2]	Kilowatt Hours Generated.	Customers.	Persons Employed.	Salaries and Wages.
	No.	$	$	h.p.	'000	No.	No.	$
1917.....	470	356,004,168	[3]	1,844,571	[3]	[3]	8,847	7,777,715
1918.....	515	401,942,402	43,908,085	1,841,114	[3]	[3]	9,696	10,354,242
1919.....	493	416,512,010	47,933,490	1,907,135	5,497,204	[3]	9,656	11,487,132
1920.....	506	448,273,642	53,436,082	1,897,024	5,894,867	894,158	10,693	14,626,709
1921.....	510	484,669,451	58,271,622	1,977,857	5,614,132	973,212	10,714	15,234,678
1922.....	522	568,068,752	62,173,179	2,258,398	6,740,750	1,053,545	10,684	14,495,250
1923.....	532	581,780,611	67,496,893	2,423,845	8,099,192	1,112,547	11,094	14,784,038
1924.....	532	628,565,093	74,616,863	2,849,450	9,315,277	1,200,950	12,956	17,946,584
1925.....	563	726,721,087	79,341,584	3,569,527	10,110,459	1,279,731	13,263	18,755,907
1926.....	595	756,220,066	88,933,733	3,769,323	12,093,445	1,337,562	13,406	19,943,000
1927.....	629	866,825,285	104,033,297	4,173,349	14,549,099	1,381,966	14,708	22,946,315
1928.....	601	956,919,603	112,326,819	4,627,667	16,336,518	1,464,005	15,855	24,253,820
1929.....	587	1,055,731,532	122,833,446	4,925,555	17,962,515	1,555,883	16,164	24,831,821
1930.....	587	1,138,200,016	126,038,145	5,401,108	18,093,802	1,607,766	17,857	27,287,443
1931.....	559	1,129,988,951	122,310,730	5,706,757	16,330,867	1,632,792	17,014	26,306,956
1932.....	572	1,335,886,987	121,212,679	6,343,654	16,052,057	1,657,454	15,395	23,261,166
1933.....	575	1,386,532,055	117,532,081	6,616,006	17,338,990	1,666,882	14,717	21,431,877
1934.....	573	1,430,852,166	124,463,613	6,854,161	21,197,124	1,660,079	14,974	21,829,491
1935.....	566	1,459,841,168	127,177,954	7,104,142	23,283,033	1,694,703	15,342	22,519,993
1936.....	561	1,483,116,649	135,865,173	7,119,272	25,402,282	1,740,793	16,087	23,367,091
1937.....	568	1,497,330,231	143,546,643	7,342,085	27,687,646	1,805,995	17,018	25,623,767
1938.....	589	1,545,416,592	144,331,627	7,476,976	26,154,160	1,873,621	17,929	27,148,688

[1] Excluding duplications. [2] Not including auxiliary plant equipment. [3] Data not available.

The total output of electricity generated by central electric stations in 1938 was 26,154,160,000 kwh., a decrease of 5·5 p.c. from 1937. This output was, however, only 47·0 p.c. of the rated capacity of the equipment installed. Of course, a ratio of 100 p.c. is not possible with varying loads, but the 1938 ratio showed a drop of 3·3 points from that of 1937.

Off-peak or secondary power produced for consumption in electric boilers, which, in 1938, amounted to 5,751,350,000 kwh., or 22 p.c. of the total output of power, showed a decrease of 1,561,664,000 kwh. from the 1937 figure, but an increase of 1,632,409 kwh. was shown in the off-peak and surplus power exported to the United States. Firm power increased by 26,547,000 kwh. The pulp and paper industry took 8,382,806,000 kwh., or 32 p.c. of the total output. This consisted of 4,550,660,000 kwh. of secondary power for boilers, which was 79 p.c. of the total quantity so used by all industries, and 3,832,146,000 kwh. of firm power for power and light. This was 18·6 p.c. less than the 1937 consumption by these mills.

The domestic service consumption or the electricity used in residences has also increased steadily, even during the years 1930-33, and in 1938 amounted to 2,172,500,000 kwh., an increase of 46 p.c. over the 1930 consumption and 8·2 p.c. over the 1937 consumption. The average consumption for domestic use is 67 p.c. higher in Canada than in the United States, while the total consumption for domestic or residential use is about 8·3 p.c. of the total output of central electric stations for Canada and 19·7 p.c. for the United States. This, of course, is due to the fact that the industrial area of the United States has an abundant supply of

low-priced coal while in the central provinces of Canada, with no coal but with an excellent supply of water power, conditions favour the generation of power in central stations.

Equipment of Central Electric Stations.—The main-plant primary power equipment of all central electric stations aggregated 7,476,976 h.p. in 1938. This included water wheels and turbines, steam reciprocating engines and turbines, and internal combustion engines. The hydraulic power machines greatly predominated over the other prime movers, providing 95·7 p.c. of the total capacity, with steam turbines, steam reciprocating engines, and internal combustion engines making up the remaining 4·3 p.c. Not included in the above were steam engines and internal combustion engines with a capacity of 195,628 h.p., or 2·6 p.c. of the total power capacity, installed as auxiliary or standby equipment. Power equipment used in mining and manufacturing industries is dealt with at pp. 387-390.

Central electric stations that have no water power, but are operated by steam and internal combustion engines, are on the whole small stations. Of the 43 main-plant steam reciprocating engines in central electric stations in 1938, only 7 in number were over 500 h.p. The steam turbines averaged approximately 4,078 h.p. with 20 units averaging 9,236 h.p., but there were only 68 steam turbines in the industry and these were confined to 29 stations, whereas the 816 water wheels and turbines averaged 8,769 h.p., including 4 at 65,000 h.p. and 5 at 66,000 h.p. each.

The majority of the fuel-using stations are primarily for lighting purposes, using the cheapest fuel procurable, generally local coal. In the Prairie Provinces bituminous and lignite coals are used for the steam engines and gasoline, oil distillates, and producer gas for the internal combustion engines.

Of the 397 main-plant internal combustion engines in central electric stations in 1938, 203 or 51 p.c., were in Saskatchewan, 74 or 19 p.c. in Alberta, and 41 or 10 p.c. in Manitoba.

During 1938, the thermal engines produced 463,375,000 kwh. at a cost for fuel of $2,010,902, an average of 0·5 cents per kwh. This production was, however, less than 2 p.c. of the total output.

7.—Main-Plant Equipment of Central Electric Stations, by Provinces, and Total Auxiliary Equipment, 1938.

NOTE.—kva. means kilo-volt-amperes.

Type of Equipment and Province.	Power Plants.	Water Wheels and Turbines.			Steam Engines, Steam Turbines, and Internal Combustion Engines.			Dynamos.		
		No.	Capacity.	Average Capacity.	No.	Capacity.	Average Capacity.	No.	Capacity.	Average Capacity.
MAIN-PLANT EQUIPMENT.	No.		h.p.	h.p.		h.p.	h.p.		kva.	kva.
P.E. Island	9	7	392	56	13	7,972	613	18	6,256	348
Nova Scotia	48	54	94,389	1,748	34	64,736	1,904	88	135,122	1,535
New Brunswick	13	16	105,760	6,610	16	33,489	2,093	32	118,403	3,700
Quebec	97	264	3,568,110	13,516	8	2,750	344	271	3,157,985	11,653
Ontario	135	342	2,251,013	6,582	16	1,415	88	356	1,809,875	5,081
Manitoba	31	42	481,800	11,472	48	4,516	94	91	393,454	4,323
Saskatchewan	123	Nil	–	–	229	140,750	615	227	119,036	524
Alberta	62	11	69,140	6,286	105	60,615	577	111	104,393	940
British Columbia and Yukon	71	80	584,997	7,312	39	5,132	131	120	483,344	4,028
Totals	**589**	**816**	**7,155,601**	**8,769**	**508**	**321,375**	**633**	**1,314**	**6,327,868**	**4,816**
AUXILIARY-PLANT EQUIPMENT.	64	Nil	–	–	127	195,628	1,828	118	166,660	1,412
Grand Totals	**653**	**816**	**7,155,601**	**8,769**	**635**	**517,003**	**814**	**1,432**	**6,494,528**	**4,535**

Provincial Distribution of Electric Energy.—In the latest year over 81 p.c. of the total generated electric energy was produced in the leading industrial Provinces of Ontario and Quebec. From Table 18 at p. 385 it will be seen that the total electric energy exported in the calendar year 1939 was 1,912,626,000 kwh., or 6·7 p.c. of the estimated production by central electric stations in that year; in 1938 it had amounted to 1,826,515,000 kwh., or 7·0 p.c. of the total amount generated in central electric stations.

8.—Electric Energy Generated in Central Electric Stations, by Provinces, 1933-38.

Province.	1933.	1934.	1935.	1936.	1937.	1938.
	'000 kwh.	'000 kwh.	'000 kwh.	'000 kwh.	'000 kwh.	'000 kwh.
Prince Edward Island	4,765	4,902	5,127	5,769	6,524	7,038
Nova Scotia	330,436	389,049	389,144	412,294	446,976	404,828
New Brunswick	378,687	394,100	390,003	425,849	501,319	465,358
Quebec	9,611,084	11,335,987	12,628,662	13,019,908	14,341,400	13,707,343
Ontario	4,381,094	6,113,595	6,653,219	7,927,044	8,528,726	7,538,071
Manitoba	1,077,210	1,183,381	1,342,093	1,574,898	1,697,656	1,686,876
Saskatchewan	131,164	134,033	138,479	145,219	147,143	153,500
Alberta	182,963	193,002	208,054	216,770	222,755	232,451
British Columbia and Yukon	1,241,587	1,449,075	1,528,252	1,674,531	1,795,146	1,958,695
Totals	**17,338,990**	**21,197,124**	**23,283,033**	**25,402,282**	**27,687,645**	**26,154,160**

Farm Service Furnished by Central Electric Stations.—The number of farm customers reported by publicly owned and privately owned central electric stations for 1930 was 37,887 and the number of farms with electric service as recorded in the Decennial Census of 1931 was 58,741. The census defines as farms, plots of ground of one acre or over producing agricultural products valued at $50 or more. Many of the small farms of less than 5 acres, of which there were 19,713, were undoubtedly close to cities and towns and would not be counted as farm customers by the power companies. Also the data for individual provinces indicates that the power companies did not segregate all farm customers.

Annual data on farm service throughout Canada would provide very valuable information but, owing to the difficulties of securing comparability, reliable figures of farm service on a provincial basis for years from 1930 to 1938 are not available. The data is most reliable for Ontario and Quebec and, therefore, the statistics given in Table 9 have been limited to these two provinces. The only provinces in which the number of farm customers reported closely approached the number of farms with electric service were Ontario and Quebec for the year 1930. In Ontario in 1930 there were 24,367 farms with electric service and 19,644 farm customers reported. The Provincial Government subsidizes the construction costs of farm services of the provincial system. Consequently the record of farm customers is undoubtedly more nearly correct than in other provinces. In Quebec 17,907 farm customers were reported in 1930 compared with 14,541 farms with electric service.

When the number of farms with electric service is available from the Census of 1941, comparisons might reveal an improvement in the reporting of farm customers by the power companies, although 1938 data indicates that these customers are still classed as domestic service customers in most of the provinces.

9.—Farm Service Furnished by Central Electric Stations in Quebec and Ontario, 1930-38.

Year.	Quebec.			Ontario.		
	Customers.	Power Consumed.	Revenue.	Customers.	Power Consumed.	Revenue.
	No.	kwh.	$	No.	kwh.	$
1930	14,541	5,062,869	334,139	19,644	21,375,070	952,886
1931	15,142	5,406,741	292,574	24,172	27,093,114	1,215,142
1932	9,940	3,130,443	189,816	24,923	31,377,643	1,386,543
1933	10,747	3,572,085	203,258	25,552	32,336,080	1,386,688
1934	10,673	3,524,179	205,259	26,605	35,465,058	1,413,587
1935	13,108	4,268,290	261,274	27,883	39,844,300	1,434,169
1936	14,903	4,663,879	276,286	30,534	46,383,997	1,444,428
1937	19,505	5,858,850	361,411	39,281	56,729,752	1,432,883
1938	22,266	6,903,638	413,853	46,096	69,563,901	1,786,341

Subsection 2.—Public Ownership of Central Electric Stations.*

When, in the early years of the twentieth century, it became evident that the development of hydro-electric power would become a 'key industry' in Canada, more especially in the coal-less central provinces of Ontario and Quebec, a strong movement arose, particularly in Ontario, in favour of conserving the water powers of the country for the public benefit instead of allowing them to pass into the hands of private corporations.

10.—Publicly Owned Central Electric Stations in Canada, 1929-38.

Year.	Power Plants.	Customers.	Electric Energy Generated.	Power Equipment.	
				Water Wheels and Turbines.	Total.
	No.	No.	'000 kwh.	h.p.	h.p.
1929	165	822,185	5,188,408	1,274,394	1,426,488
1930	166	862,158	5,156,788	1,454,014	1,658,087
1931	163	874,507	4,139,707	1,505,599	1,719,495
1932	170	881,054	3,713,841	1,610,024	1,824,010
1933	172	890,301	3,673,016	1,742,024	1,966,889
1934	171	899,617	5,136,241	1,743,074	1,963,979
1935	169	915,303	5,515,084	1,815,164	2,036,799
1936	171	938,117	6,887,057	1,944,189	2,173,030
1937	179	972,284	7,372,018	1,975,989	2,202,624
1938	183	1,014,115	6,665,837	2,013,169	2,176,793

In Ontario the population had already been settled in relation to small water powers and steam engines before hydro-electricity became commercially important. Towns scattered in the area between Toronto and Windsor were supported by widespread agricultural and manufacturing activities. Out of their needs for power arose the agitation that led to the creation, in 1906, of the Hydro-Electric Power Commission of Ontario as an instrument to bring power to them from Niagara Falls and prevent the development of this great water-power site from building up rival industrial centres at their expense.

In Quebec public ownership has not made much headway. Perhaps one reason for this is that power development there has been closely associated with the pulp and paper industry, which, owing to its rapid development and huge demand

*The information included under the provincial headings of this subsection (pp. 373-383) has been revised by the various Provincial commissions or authorities concerned.

for power, favoured private enterprise. Another factor is Quebec's traditionally conservative attitude towards public ownership of utilities. Quebec is in fact the stronghold of private enterprise in this field, and large corporations, such as Beauharnois; Montreal Light, Heat, and Power; Shawinigan; and Southern Canada Power, carry on large-scale operations in the Province. The development of electric energy in New Brunswick also has been largely in relation to the production of pulp and paper, and commercial companies still control a great deal of the power, although the New Brunswick Power Commission established in 1920 has since organized public utility services on the same lines as those of Ontario, providing both hydro- and steam-generated power. In Saskatchewan, and also to a considerable extent in Nova Scotia, coal and gas are the basic sources of the energy used to generate electricity, as these are regions of scarce water power and plentiful fuel supply. Nova Scotia, Saskatchewan, and Manitoba have established Hydro-Electric Commissions on the model of the Ontario system.

In British Columbia the population is concentrated on the Fraser Delta and around Victoria. As these areas of settlement have grown up along with scattered mining, sawmilling, and pulp and paper towns, hydro-electric power to serve their needs has been developed by private corporations but also to some extent by smaller public utility corporations. (See pp. 383-384).

Table 11 shows statistics of municipally or publicly owned central electric stations, by provinces, for 1938. Table 17 at p. 384 shows comparable statistics for commercial stations.

11.—Statistics of Publicly Owned Central Electric Stations in Canada, by Provinces, 1938.

Province.	Power Plants.	Customers.	Electric Energy Generated.	Power Equipment.	
				Water Wheels and Turbines.	Total.
	No.	No.	'000 kwh.	h.p.	h.p.
Prince Edward Island	2	1,224	1,080	Nil	1,235
Nova Scotia	27	26,049	233,269	80,205	83,592
New Brunswick	4	27,226	59,508	12,860	29,240
Quebec	15	38,980	67,233	30,235	32,755
Ontario	74	731,409	5,511,196	1,724,139	1,725,339
Manitoba	13	69,542	583,827	155,000	158,314
Saskatchewan	31	41,149	106,410	Nil	84,503
Alberta	9	59,424	88,593	960	51,440
British Columbia and Yukon	8	19,112	14,710	9,770	10,375
Totals	**183**	**1,014,115**	**6,665,826**	**2,013,169**	**2,176,793**

Because of the absence of free market determination of prices and regulation of services in an industry that is semi-monopolistic, regulation of electrical utilities has been attempted in most provinces. The governing bodies, their general regulations, and their activities are discussed by provinces.

Nova Scotia.—In 1909 legislation was first enacted in Nova Scotia relating to the use of water power in "An Act for the Further Assisting of the Gold Mining Industry". This was the most advanced legislation until the development of water power within the Province of Nova Scotia was initiated under the Acts of 1914 and carried on in an investigatory manner in co-operation with the Dominion Government until 1919, when the Nova Scotia Power Commission was created by the Power Commission Act. Although the Commission has its own Department of

Investigation, certain investigatory work is still carried on in Nova Scotia by the Dominion Government represented by a branch of the Dominion Water and Power Bureau with which the Nova Scotia Power Commission is closely associated.

The function of the Commission is, primarily, generation of electric power and energy by the most economical means available that is practically suited to the case under consideration. Its operations are carried out on a cost basis and, while a considerable number of retail customers are served, it is not the policy to compete in the retail field, but rather to serve those districts where it is not practicable to receive service from other sources. The Rural Electrification Act of 1937 greatly increased the possibilities for retail service and full advantage is being taken of this legislation by residents in various parts of the Province.

The following statement shows developments with their initial capacities:—

Development.	Commencement of Operations.	Initial Capacity.	1938. Capacity.
		h.p.	h.p.
Mushamush System	1921	800	1,030
St. Margaret System	1922	10,700	15,820
Sheet Harbour System—			
Malay Falls	1924	5,550	5,550
Ruth Falls	1925	6,290	6,290
Musquodoboit Harbour District	1937	32	32
Mersey System—			
Original	1928	29,400	30,800
Cowie Falls	1938	10,200	10,200
Tusket System	1929	3,000	3,000
Roseway System	1930	560	585
Markland System	1931	1,400	*
Antigonish System	1931	†	–
Barrie Brook	1940	500	500
Canseau System	1937	72	342

The progressive trend portrayed above is more strikingly emphasized by the comparison of the total delivery for the year ended Nov. 30, 1939, of 234,288,000 kwh. with the delivery of 192,000 kwh. for the first year of operation.

The Commission's developments are now operated under nine systems comprising: 1,100 miles of transmission and distribution lines serving 22 wholesale and 3,300 retail customers; 16 generating stations and 34 generating units, with a total installed capacity of 76,200 h.p. The *Antigonish System* is non-generating and is supplied by the *Sheet Harbour System*, but will become a generating system when Barrie Brook Development goes into operation. It serves the town of Antigonish and other places in Antigonish and Guysborough Counties. The *Canseau System* is made up of a number of distribution districts throughout the Island of Cape Breton and is served by diesel-electric units except in Mabou District for which energy is purchased from the Inverness Collieries. The Districts in operation are St. Peter's, Cheticamp, Mabou, Port Hawkesbury, Isle Madame, Grand Anse, Whycocomagh, Judique, and Margaree. A submarine cable connects the Antigonish and Canseau Systems for interchange of energy. The *Markland System* is non-generating and is supplied by the *Mersey System* from its Cowie Falls Development. It serves the Town of Liverpool, the Caledonia Valley and places in vicinity, and supplies power for a woodworking factory. The *Mersey System* supplies the demands of a pulp and paper mill at Brooklyn, Queens County. The *Mushamush System* sells power wholesale and retail in Lunenburg County. The *Roseway*

* Discontinued, October, 1938. † Distribution system only.

System sells power wholesale to the Town of Shelburne and wholesale and retail to the Town of Lockeport and vicinity, and along the shore to Port Clyde and vicinity. The *Sheet Harbour System* supplies Antigonish System and the Town of Truro through the Pictou County Power Board, to which it sells power wholesale. It supplies the demands of a groundwood pulp mill at Sheet Harbour, and retails in Sheet Harbour and in Musquodoboit and Stewiacke Valleys. The *St. Margaret System* sells power wholesale and retail in Halifax and vicinity including the Districts of Hammond Plains, Prospect, Seabright, Beechville, Five Island Lake, Peggy's Cove, and Lewis Lake. The *Tusket System* sells wholesale in Yarmouth and supplies the demands of the Cosmos Imperial Mills, Limited, at Yarmouth.

The control of the water resources of the Province is vested in the Crown and administered by the Nova Scotia Water Act. The Commission pays the regular fees for water rights in the same proportion as do others who enjoy these privileges.

Financially the Commission is self-supporting, repaying its own borrowings, an item of cost, from revenue. The Commission in the past has borrowed from the Government for capital investment but is empowered to issue bonds and debentures guaranteed by Governor in Council and commenced that policy late in 1938 with an initial $1,000,000 issue of serial debentures.

The balance sheet at Nov. 30, 1939, showed: fixed assets of $16,087,305; work in progress, $263,375; current assets, $205,442; contingency and renewal reserves, $995,993; sinking fund reserves, $1,930,587. The total accumulated reserves amounted to $3,032,381.

New Brunswick.—The New Brunswick Electric Power Commission was incorporated under the Electric Power Act, 1920. The Commission owns and operates the following generating stations:—

Plant.	Type.	Capacity. h.p.
Musquash	Water power	11,000
Grand Lake	Steam	15,000
Kouchibouguac	Water power	200
Grand Manan	Diesel	200
St. Quentin	Diesel	65
Total		26,465

The Commission also purchases power to serve the Village of Port Elgin and the adjacent rural district. Power for the rural district east and west of Dalhousie is secured from the Gatineau Power Company at Dalhousie.

The Musquash, Grand Lake, and Kouchibouguac plants are interconnected and operate in parallel at all times.

Transmission Lines.—The transmission system consists of a 66,000-volt line from Musquash to Moncton; and four lines from Grand Lake, viz., two 33,000-volt lines to Fredericton, one 66,000-volt line to Newcastle, and one 66,000-volt line to Moncton. In addition to the above lines, the Commission has built 12 miles of 66,000-volt line from Grand Lake to Coles Island. It is planned to continue this line to Saint John to take care of the growing load in that district.

Power is sold *en bloc* to the Cities of Saint John, Moncton, Fredericton, and the Town of Sussex. Power is also distributed directly by the Commission in every county of the Province to various towns, villages, and rural communities.

The statistical information given below shows the growth of the Commission's undertaking since the beginning of operation.

12.—Growth of the New Brunswick Electric Power Commission, 1925, 1930, 1935, and 1939.

Item.		1925.	1930.	1935.	1939.
High-voltage transmission lines	miles	138	138	308	316
Distribution line	"	67	440	753	1,919
Indirect customers	No.	11,561	14,590	17,155	18,987
Direct customers	"	1,129	3,720	7,247	15,184
Plant capacities	h.p.	11,100	11,100	17,700	26,465
Power generated	kwh.	15,500,000	28,000,000	41,139,600	59,000,000
Capital invested	$	3,780,000	4,264,000	7,087,000	9,280,000
Annual revenues	$	310,000	512,000	829,000	1,086,000

Quebec.—*Quebec Streams Commission.*—Created in 1910 by 1 Geo. V, c. 5, and given additional powers by 3 Geo. V, c. 6 (see R.S.Q., 1925, c. 46), and by 20 Geo. V, c. 34, the Commission is authorized to ascertain the water resources of the Province, to make recommendations regarding their control, and to construct certain storage dams and operate them so as to regulate the flow of streams. The Commission has not undertaken the direct production of electric power, but has assisted companies engaged in such work by a systematic collection of data on the flow of the principal rivers and on the meteorological conditions, by investigation of numerous water-power sites and determination of the longitudinal profile of a large number of rivers, but mostly by the regulation of the flow of the principal power streams, thereby increasing very materially the amount of power available. This regulation is obtained by constructing storage dams that hold water in large reservoirs during flood periods and enable it to be used to increase the flow at low-water periods.

From 1912 to 1925, storage reservoirs were built or acquired and operated by the Commission, charges being made to benefiting companies covering interest and amortization on the capital invested as well as the cost of operation. Since 1925, companies or persons have availed themselves of the latitude given them by R.S.Q. 1925, s. 6, c. 46, to build the necessary dams for impounding water in reservoirs, subject, however, to rules and conditions laid down by the Lieutenant-Governor in Council. Such storages built since then have been transferred to and operated by the Commission, the cost of operation being charged annually to the interested companies or persons.

There were, in 1939, eighteen storage reservoirs in the Province of Quebec. The power development on the St. Maurice River amounted to 680,000 h.p., this total being made possible by its system of reservoirs. It is estimated that a further development of 350,000 h.p. is possible on this river. The flow of the St. Francis River is regulated by two storage reservoirs, one at Lake St. Francis and the other at Lake Aylmer. Water-power developments on this river amounted to 100,000 h.p., and further possible developments are 50,000 h.p. The Kenogami Reservoir is in the Lake St. John district and is drained into the Saguenay River through Au Sable and Chicoutimi Rivers. Water-power developments on the Chicoutimi River amounted to 41,400 h.p. and a further development of 14,300 h.p. is possible. On Au Sable River, 33,200 h.p. was installed with a further development of 2,000 h.p. in reserve.

Among storage reservoirs not controlled by the Commission are the Lake St. John Reservoir, with a huge drainage area of 30,000 square miles, and the Onatchiway Reservoir on the Shipshaw River. Power developments on the Saguenay River,

which benefit from the Lake St. John storage, amounted in 1939 to 710,000 h.p. and the development at Chute-à-Caron is capable of a further development of 540,000 h.p.

The Gatineau River flow is regulated by two reservoirs. Installed water power on this river amounted in 1939 to 470,000 h.p. and it is estimated that an additional 160,000 h.p. could be developed. On the Lièvre River water power installed amounted to 274,000 h.p. With more storage reservoirs to supplement the one now in operation, a much greater installation would be warranted.

Other storage reservoirs operated by the Commission are the Lake Mitis Reservoir, the Savane River Reservoir, and three small reservoirs on North River.

Provincial Electricity Board.—Created by an Act passed at the 1937 session of the Legislature (1 Geo. VI, c. 25), the Provincial Electricity Board superseded the former Quebec Electricity Commission, which operated from Dec. 2, 1935, to Aug. 31, 1937. The new Board is given power to control undertakings for the production, sale, and distribution of electricity in the Province, to fully investigate the property and accounts of such undertakings, to alter and cancel abusive contracts, and to fix rates for the sale of electricity based upon the value of physical assets and reasonable expenses of an undertaking. All electrical undertakings in the Province are to operate under licence from the Board. The duration of all contracts for the distribution of electricity is limited to five years. The Act does not apply to municipal corporations that have established an electricity service, except that such corporations may benefit by the provisions for obtaining revision of an abusive contract.

National Electricity Syndicate.—Created by an Act of the 1937 Legislature (1 Geo. VI, c. 24), the Syndicate is intended to develop electricity-generating plants and distributing systems in the Province. The Syndicate may establish its undertakings by one or both of two methods: first, by funds advanced by the Provincial Government; secondly, by the issue of stock or debentures of which the Provincial Government is to purchase at least 60 p.c. to give it a controlling interest. The Act authorizes the Syndicate to use the first method to develop generating plants and distributing systems in the electoral districts of Abitibi, Timiskaming, Lake St. John, and Roberval, and for this purpose authorizes an advance to the Syndicate of $10,000,000, which may be subsequently increased by the Legislature. No further alienation or extension of leases previously granted on water-power sites of over 300 h.p., capacity may be granted without consent of the Legislature. The Act also permits the Government to contribute up to 55 p.c. of the cost of an electricity distributing system established by any rural municipality.

Ontario. — *The Hydro-Electric Power Commission.*—The publicly owned hydro-electrical undertaking of Ontario—known in the Province as the "Hydro"—is an organization of a large number of partner-municipalities, co-ordinated into groups or systems for securing common action with respect to power supplies. It had its beginning in 1903, when, as a result of public agitation to ensure the provision of adequate supplies of electric power for distribution throughout the Province at low cost, seven municipalities united under statutory authority in appointing an investigating commission to deal with power problems. This commission, known as the Ontario Power Commission, completed its work in 1906, and in the same year the Ontario Government, by special Act, created the present Hydro-Electric Power Commission of Ontario. The operations of the undertaking have grown rapidly and in 1938 electrical service was supplied by

the Commission to about 821 municipalities, comprising nearly all of the cities and towns of the Province, as well as many small communities and rural areas.

The providing of the power, either by generation or purchase, its transformation, transmission, and delivery to the individual municipalities and to large industrial consumers, and the operation of rural power districts are carried on by the municipalities acting *collectively* through their agent and trustee, the Hydro-Electric Power Commission of Ontario. The local operations involved in the retail distribution of the electric energy to the consumers within the limits of the various urban municipalities are performed by the municipalities *individually* through municipal utility commissions acting under the general supervision of the Hydro-Electric Power Commission.

Capital required for plant to generate and transmit power is lent by the Province, and the muncipalities are under contract to repay, over a period of 40 years, the moneys thus lent, with interest in full. The local distribution systems are financed individually by the issue of municipal debentures. Provision is made, in the rates charged to the ultimate consumers, for revenue with which to retire these bonds in from 20 to 30 years. The rates at which power is supplied by the Commission to the various municipalities vary with the amounts of power used, the distances from the sources of supply, and other factors. The basic principle underlying the operations of the undertaking is the provision of service 'at cost'. The rates charged by the municipal utilities for retail service are under the control of the Commission and are designed to ensure that each class of consumer bears its appropriate share of the expenses of the undertaking. Each type of consumer is charged with the cost of the service received as far as is practicable.

Power Supplies.—To meet the constantly expanding power demands of the undertaking, the Commission has constructed its own generating plants, and has acquired several privately owned generating plants. Of the 45 hydro-electric power plants operated by the Commission in 1938, the largest is the Queenston-Chippawa development on the Niagara River, which was constructed by the Commission and has a normal operating capacity of 500,000 h.p. Provision for the needs of the near future has been made—including existing plants, plants under construction, and power under contract for present and future delivery—up to an aggregate of about 2,350,000 h.p.

Hydro-Electric Power Commission Statistics.—The Canada Year Book of 1910 (p. xliii) described the turning on, at Berlin (now Kitchener), Ontario, on Oct. 11, 1910, of electric energy generated by Niagara Falls. The small initial load of less than 1,000 h.p. increased rapidly and by 1915 had reached 100,000 h.p. In 1920 the total power distributed exceeded 350,000 h.p., and in 1930 it was over 1,260,000 h.p.

The Annual Reports of the Commission present in great detail descriptions and statistics of operation, construction, municipal work, and transmission and distribution. The Commission exercises supervisory functions over the electrical utilities owned and operated by the partner-municipalities and has introduced a uniform accounting system that enables the Commission to present consolidated balance sheets and operation reports. These statistics relate to about 90 p.c. of the retail customers supplied by the undertaking.

The initial capital expenditure required to serve about twelve municipalities amounted to approximately $3,600,000. At Oct. 31, 1938, the total capital investment amounted to $436,821,576, of which $314,768,081 were investments by the Commission in generation plants, transmission systems, etc., including electric railway and other properties operated by the Commission for the major systems

under their control and $122,053,495 were investments by municipalities in local distributing systems of their own, including other assets. Similarly, total reserves of the Commission and of the municipal electrical utilities for sinking fund, renewals, contingencies, and insurance purposes amounted to $200,103,382 of which $114,601,575 represented reserves of the Commission and $85,501,807 of the municipalities.

13.—Growth of the Ontario Hydro-Electric Power Commission, Years Ended Oct. 31, 1910-38.

Year.	Municipalities Served.	Customers Served.	Total Power Distributed by Commission.	Capital of Commission and Assets of Municipal Utilities.
	No.	No.	h.p.	$
1910	10	[1]	2,500	2,521,000
1911	26	[1]	15,200	4,020,000
1912	36	[1]	31,000	4,576,000
1913	58	58,961	45,000	17,698,000
1914	95	96,744	77,000	25,023,000
1915	131	116,892	104,000	29,791,000
1916	191	155,052	167,000	34,917,000
1917	215	181,711	333,000	74,701,000
1918	236	194,382	316,000	87,812,000
1919	252	230,472	328,000	103,591,000
1920	266	261,582	355,000	128,334,000
1921	301	285,923	529,000	193,918,000
1922	348	364,988	605,000	220,594,000
1923	393	387,983	685,486	236,023,000
1924	418	415,922	691,198	254,189,000
1925	444	439,702	816,295	265,998,000
1926	501	448,241	928,032	274,972,000
1927	530	469,572	949,700	286,165,000
1928	560	522,770	1,032,500	297,204,000
1929	607	552,321	1,136,689	314,237,000
1930	668	586,267	1,263,512	359,648,000
1931	721	600,297	1,107,227	373,010,000
1932	747	611,955	1,108,037	382,558,000
1933	757	621,418	1,366,735	394,661,000
1934	760	624,801	1,451,699	398,225,000
1935	766	636,134	1,625,733	408,001,000
1936	782	649,517	1,509,667	413,710,000
1937	795	667,863	1,648,467	424,422,000
1938	821	694,400	1,831,216	436,822,000

[1] Information not available.

14.—Distribution of Power to Systems of the Ontario Hydro-Electric Power Commission, Years Ended Oct. 31, 1934-38.

(20-minute peak horse-power—system, coincident peaks.)

System and District.	1934.	1935.	1936.	1937.	1938.
	h.p.	h.p.	h.p.	h.p.	h.p.
Niagara System	1,071,046	1,177,346	1,006,166	1,126,675	1,259,115
Dominion Power and Transmission	50,670	54,155	54,021	57,507	46,515
Georgian Bay System	24,488	27,534	26,555	29,310	30,891
Eastern Ontario System	121,823	133,733	117,969	129,584	159,249
Thunder Bay System	99,866	113,673	133,914	134,678	131,394
Manitoulin District	88	114	138	137	205
Northern Ontario Properties—					
Nipissing District	3,840	3,921	4,115	4,812	4,857
Sudbury District	12,466	13,070	14,021	14,611	17,895
Abitibi District	64,075	96,814	146,783	143,432	172,409
Patricia District	2,828	3,512	4,182	5,013	5,697
Espanola District	509	547	101	Nil	Nil
St. Joseph District	[1]	1,314	1,702	2,708	2,989
Totals	**1,451,699**	**1,625,733**	**1,509,667**	**1,648,467**	**1,831,216**

[1] Not in operation.

Statistics of Urban Municipal Electrical Utilities of Ontario Supplied by the Commission.—Statistics of the assets and liabilities of the electrical departments of urban municipalities served by the Hydro-Electric Power Commission show, for 1938, total assets of $166,327,665, as compared with liabilities of $36,551,689. Of the difference, $69,652,380 was allotted as reserves, leaving a surplus of $60,123,596. In computing the percentage of net debt to total assets, the equity in Hydro systems is not taken into account. Between 1933 and 1938 total assets increased by $30,548,995, while total liabilities decreased by $13,369,065.

*Rural Electrical Service in Ontario.**—During the past few years substantial progress has been made in Ontario in the field of rural electrification, and the Commission's rural operations are now an important feature of its work. Towards this rural work the Ontario Government, pursuant to its policy of promoting the basic industry of agriculture, contributes, in the form of 'grants-in-aid', 50 p.c. of the initial capital cost of distribution lines and equipment. In 1930 the Ontario Government passed legislation providing for advances up to $1,000 to actual farm owners of lands and premises in rural power districts for the installation of electrical wiring and the purchase of equipment and providing for the fixing of low maximum service charges for all classes of rural service.

15.—Statistics Relating to Electrical Service to Rural Power Districts Operated by the Ontario Hydro-Electric Power Commission, Years Ended Oct. 31, 1934-38.

Item.		1934.	1935.	1936.	1937.	1938.
Rural power districts	No.	171	171	174	177	178
Townships served	"	367	368	380	388	398
Consumers	"	63,840	67,802	73,614	86,194	99,921
Primary distribution lines	miles	9,461	9,976	10,808	13,117	15,784
Power supplied	h.p.	33,949	37,190	42,897	50,758	59,153
Revenues from customers	$	2,832,672	2,902,809	3,000,750	3,087,001	3,547,899
Total expenses	$	2,908,967	2,875,498	2,891,007	2,989,637	3,484,698
Net surpluses	$	−76,295	27,311	109,743	97,364	63,201
Capital invested, totals	$	18,307,511	19,182,265	20,674,674	24,138,729	28,561,214
Provincial grants-in-aid, totals[1]	$	*9,054,080*	*9,489,671*	*10,252,099*	*11,951,892*	*14,149,667*

[1] Included in "Capital invested".

Manitoba.—The Manitoba Power Commission commenced its operations in 1919 under the authority of the Electrical Power Transmission Act. This Act empowered the Commission to make provision for generating electric energy, to enter into contracts for the purchase of power in bulk from generating agencies, and for its transmission and sale to municipalities, corporations, and individuals. Legislation was passed in 1929 by which the Government undertook to pay interest charges and sinking fund charges on an amount not exceeding 50 p.c. of the capital cost of the construction and erection of equipment required for the generation and transmission of electric energy. In 1931 passage of the Electrical Power Transmission Act reorganized the administration of the Commission by establishing a Board vested with additional authority.

The first transmission line was completed in 1920 to serve the City of Portage la Prairie. With this City as a nucleus, the lines were rapidly extended over the more densely populated areas of the Province. The Commission now serves 141

* Legislation passed concerning rural power is as follows: *The Power Commission Act* (R.S.O., 1927, c. 57); *The Rural Hydro-Electric Distribution Act* (R.S.O., 1927, c. 59); *The Rural Power District Loans Act, 1930* (20 Geo. V, c. 14); and *The Rural District Service Charge Act, 1930* (20 Geo. V, c. 15).

cities, towns, and villages. Power has also been brought to about 500 farm homes. The Commission operates 1,768 circuit miles of transmission line, serving close to 17,000 customers. As the system expands, the demand for hydro-service becomes more insistent. In 1939, the Commission spent $557,000 on new construction, adding 212 miles of transmission line and 23 towns to the network.

Power is at present purchased from the Winnipeg Electric Company at a substation in Fort Garry, a suburb of Winnipeg. This is the source of power for the towns on the main network. Energy is also purchased from the municipally owned plant at Dauphin and distributed to Grandview and Gilbert Plains. The summer-resort area along Lake Winnipeg is served by the Commission with power purchased from the Winnipeg Electric Company at Selkirk, and the same company furnishes the source of power for East Selkirk, Seven Sisters Falls, and St. Boniface, from which points it is distributed by the Commission to outlying districts. In 1936, arrangements were completed for the export of a block of power to the Interstate Power Company at Neche, North Dakota.

The capital invested in the Province by the Commission is approximately $6,000,000. At the close of the fiscal year 1938 the reserves, as represented by first-class securities, amounted to $1,808,500. The Commission is in an excellent financial position.

The system is supervised and maintained by 35 District Supervisors, located throughout the territory served. Appliance showrooms are established at Brandon and Portage La Prairie, and the Commission enters actively into the appliance merchandising field. It also operates a central steam-heating system in Brandon, and a gas plant in the same city.

The results of sales and educational policies, together with the economies enforced, are demonstrated by the fact that, while consumption in the towns receiving service in 1933 has increased by 107 p.c., the cost to the consumer of this additional service has increased by only 52 p.c. The trend of the Commission's rates has been steadily downward.

Saskatchewan.—The Saskatchewan Power Commission was established in 1929 under the Power Commission Act (R.S.S., 1930, c. 30), authorizing the Commission to manufacture, sell, and supply electric energy, to acquire and develop water-power sites, to acquire or construct steam and oil plants, to construct transmission lines, to purchase power, and to enter into contracts with municipalities for the supply of energy. The Commission is also given certain control and regulatory powers *re* the operation of electrical public utilities, and is charged with the responsibility for the administration of the Electrical Inspection and Licensing Act, 1935 (1934-35, c. 64).

The initial operations of the Commission were concerned with acquiring, by purchase, municipally owned plants which were improved, enlarged, or supplemented by installations made by the Commission and were operated as individual systems of supply. Examples of such acquisitions made in 1929 were the Saskatoon, Humboldt, and Rosthern plants, while the plant at Shellbrook, the Wynyard-Elfros-Wadena and the Leader-Prelate-Sceptre systems, served from plants at Wynyard and Leader, were established by the Commission in the same year. In 1930 the municipal plants at North Battleford, Swift Current, Unity, and Lanigan, and the privately owned plant of the Maple Creek Light, Power and Milling Co. at Maple Creek were acquired, and in 1931 the generating plant at Willow Bunch was

added. The Watrous-Nokomis system, including two generating plants, a transmission line, and local distribution systems in ten towns and villages, was also purchased from Canadian Utilities, Limited, and has been connected with the Bulyea System of the Montreal Engineering Co., Limited.

Transmission lines run from Saskatoon, as the centre of the Commission's main system, easterly to Humboldt, northerly to Shellbrook and Duck Lake, westerly to Radisson, and southwesterly to Rosetown. Additional lines link Rosetown with Moose Jaw, and Tisdale (where the Commission has a generating plant) with Nipawin. The systems built in 1929 have been extended. All transmission lines supply towns and villages along their courses. By a line built in 1935, service is given to the Town of Battleford from the North Battleford plant. At the beginning of 1937 the Commission acquired, by purchase, the municipal plant and distribution system formerly owned by the Town of Canora, and installed a new generating unit. Towards the end of the same year 25 miles of transmission line were added to the Tisdale system to serve Arborfield, Aylsham, and Zenon Park, and this system has since been extended to serve White Fox. The Watrous-Nokomis system was, in the year 1938, extended to Lockwood and Drake, and to Lanigan, where the Commission had previously operated a local plant. In 1938, also, an extension was made to the Commission's Saskatoon-Moose Jaw system by the construction of 12 miles of line from the neighbourhood of Riverhurst to a pumping station established by the City of Moose Jaw on the Saskatchewan River. There were, in 1939, 1,430 miles of transmission lines owned and operated.

Of the 15 generating plants owned and operated by the Commission in 1939, those in the Cities of Saskatoon and North Battleford were steam plants and the remainder were equipped with compression ignition engines. The total installed capacity of the generating plants was 29,400 kw. There were no hydro-electric plants in the Commission's system the primary power being: steam reciprocating engines 750 h.p.; steam turbines, 30,800 h.p.; and internal combustion engines, 6,750 h.p.

The Commission purchases several blocks of power or contracts for the interchange of power from private interests in addition to supplying energy generated at its own plants. In the year 1938 the total quantity of power purchased from private interests was 1,955,000 kwh. while in the same year the total quantity of power generated at Commission plants was 49,435,000 kwh. The number of consumers served directly in 129 towns and villages was approximately 9,467 and those indirectly served (in the Cities of Saskatoon, North Battleford, and Swift Current, and the Town of Battleford, where the municipal corporations themselves own and operate the distribution systems) numbered 13,606. The total revenue for the calendar year 1938 was $1,173,620. Provision has been made for depreciation and replacement reserve (including certain municipal debentures assumed and since redeemed) to the amount of $2,127,370. The total plant investment as at Dec. 31, 1938, was approximately $7,765,571.

During 1939, the considerable improvement in general economic conditions was reflected in the business of the Commission.

Alberta.—In this Province the Board of Public Utility Commissioners regulates both hydro-electric and steam-plant companies. The Board has general jurisdiction over rates charged by any public utility, i.e., any system of works, plant, or equip-

ment for the production, transmission, delivery, or furnishing of heat, light, or power. It has no control over any municipal corporation that owns its own power plant, unless the municipality passes a by-law bringing it under the Act.

The Board has power to hold investigations upon complaint that rates are unfair made either by a municipality or a public utility, and may fix just and reasonable rates according to the evidence disclosed. There are only two major companies operating in this Province: the Calgary Power Company Limited and Canadian Utilities Limited. There are a large number of smaller companies serving various towns and villages and a number of municipalities operating their own plants.

British Columbia.—Public ownership of hydro-electric power in the Province of British Columbia is confined to municipal organizations and commercial enterprise, no power commission similar to those in operation in other provinces having been established.

The Public Utility Commission, created under the provisions of an Act of the Legislature in 1938, regulates the rates that are charged by the privately owned utilities but not those owned by municipal incorporations.

Subsection 3.—Private Ownership of Central Electric Stations.

Of the total amount of electricity generated in Canada by central electric stations, privately owned or commercial stations generated 19,488,323,000 kwh. or 74·5 p.c. in 1938. In 1929 the amount generated by these stations was 71·0 p.c. of the total. In the same period, horse-power installation increased by 44·4 p.c. and output of electric energy by 52·6 p.c.

16.—Privately Owned Central Electric Stations in Canada, 1929-38.

Year.	Power Plants.	Customers.	Electric Energy Generated.	Power Equipment.	
				Water Wheels and Turbines.	Total.
	No.	No.	'000 kwh.	h.p.	h.p.
1929	420	733,698	12,774,107	3,444,533	3,671,255
1930	421	745,608	12,937,014	3,690,095	3,914,474
1931	396	756,285	12,191,139	3,916,720	4,171,305
1932	402	776,400	12,338,216	4,426,235	4,704,523
1933	403	776,581	13,665,974	4,563,973	4,842,686
1934	402	760,462	16,060,883	4,817,600	5,097,613
1935	397	779,400	17,767,949	4,992,805	5,274,174
1936	390	802,676	18,515,225	4,866,471	5,146,863
1937	389	833,711	20,315,627	5,047,253	5,336,811
1938	406	859,506	19,488,323	5,142,432	5,300,183

The predominant position of Quebec in the electric-power field can be seen from the column in Table 17 showing electric energy generated. Of the total power generated in Canada by central electric stations 52·2 p.c. was generated by privately owned or commercial stations in the Province of Quebec. Practically all of this amount was hydro-power and Quebec generated 70 p.c. of the total hydro-power generated by central electric stations, demonstrating the tremendous influence that the water-power resources of this Province exert on the industry in Canada. In

comparison, total power generated in Ontario by both privately owned and municipally owned stations was only about 28·8 p.c. of the total power generated by central electric stations in Canada.

There are two important factors in this large production of hydro-electric power in Quebec: (1) the pulp and paper mills located close to both the water power and the supply of pulpwood, which take around 40 p.c. of the Quebec hydro-electric power; and (2) the industries in eastern Ontario that import around 18 p.c. of the Quebec output of power.

Of the total power generated by central electric stations in each province, privately owned or commercial stations generated the following percentages in 1938: P.E.I., 85; N.S., 42; N.B., 87; Que., 99; Ont., 27; Man., 65; Sask., 31; Alta., 62; and B.C., 99.

17.—Privately Owned Central Electric Stations in Canada, by Provinces, 1938.

Province.	Power Plants.	Customers.	Electric Energy Generated.	Power Equipment.	
				Water Wheels and Turbines.	Total.
	No.	No.	'000 kwh.	h.p.	h.p.
Prince Edward Island	7	4,892	5,958	392	7,129
Nova Scotia	21	45,050	171,559	14,184	75,533
New Brunswick	9	24,013	405,850	92,900	110,009
Quebec	82	468,604	13,640,110	3,537,875	3,538,105
Ontario	61	69,459	2,026,875	526,874	527,089
Manitoba	18	31,063	1,103,038	326,800	328,002
Saskatchewan	92	24,817	47,090	Nil	56,247
Alberta	53	27,199	143,858	68,180	78,315
British Columbia	63	164,409	1,943,985	575,227	579,754
Totals	**406**	**859,506**	**19,488,323**	**5,142,432**	**5,300,183**

In Quebec, Ontario, Manitoba, and British Columbia power produced by these companies was almost entirely hydro-electric. Power generation in Saskatchewan was entirely by fuel plants, and in Nova Scotia about 31 p.c. was generated by fuel.

Subsection 4.—Export of Electric Power.

The export of electric energy is regulated by the Electricity and Fluid Exportation Act, 1907 (6-7 Edw. VII, c. 16). This Act was administered by the Department of Inland Revenue until Sept. 1, 1918, when, by Order in Council of June 3, 1918, its administration was transferred to the Department of Trade and Commerce. (See cc. 54 and 55, R.S.C., 1927.)

A licence to export power must be secured from the Electricity and Gas Inspection Services of the Department of Trade and Commerce. This branch of the Department also has jurisdiction over the export duty which has been imposed since Apr. 1, 1925. During the fiscal year ended Mar. 31, 1939, the export duty amounted to $449,987 as against $430,544 for the previous year. The rate is 0·03 cents per kwh. on electric energy exported with certain exports excepted. Table 18 shows the quantities of energy actually exported during the calendar years 1936 to 1939. The data for this table were compiled from the reports of the Director of the Electricity and Gas Inspection Services.

18.—Electric Energy Exported from Canada, 1936-39.

Company.	1936.	1937.	1938.	1939.
	kwh.	kwh.	kwh.	kwh.
Hydro-Electric Power Commission of Ontario	372,415,114	386,310,900	387,249,300	389,926,100
Hydro-Electric Power Commission of Ontario (surplus)	299,406,823	439,491,214	417,251,923	445,107,609
Canadian Niagara Power Company	350,025,172	379,904,201	371,864,078	383,205,902
Canadian Niagara Power Company (surplus)	34,706,000	12,109,200	35,980,900	42,827,700
Ontario and Minnesota Power Co.	23,535,200	35,215,850	18,908,900	28,774,200
Maine and New Brunswick Electric Power Co.	14,072,901	16,700,587	17,515,863	19,516,633
British Columbia Electric Railway Co.	183,727	188,113	194,005	198,936
Western Power Company of Canada	Nil	Nil	Nil	Nil
Southern Canada Power Co.	390,286	444,398	454,216	451,190
Cedars Rapids Manufacturing and Power Co.	476,789,253	570,733,439	570,817,684	596,526,022
Canadian Cottons, Ltd., Milltown, N.B.	1,708,860	894,963[1]	431,140	760,369
Fraser Companies, Ltd.	4,129,000	3,873,000	4,412,000	3,866,000
Northport Power and Light Co.	289,246	305,958	288,300	284,398
Northern B.C. Power Co.	53,660	39,270	29,850	28,750
Detroit and Windsor Subway Co.	257,300	277,800	279,600	284,900
Manitoba Power Commission	146,700	610,894	837,600	874,284
Totals	**1,578,109,242**	**1,847,099,787**	**1,826,515,359**	**1,912,632,993**

[1] Exported by Canadian Cottons, Ltd., from April, 1937.

Export trade figures by fiscal years show that export of power to the United States reached a low point in 1933, with 647,742,000 kwh. but about the middle of that year exports increased and have continued to increase each year with the exception of 1938, being 1,912,626,000 kwh. for 1939. Of this amount, Ontario supplied 67·5 p.c., Quebec 31·2 p.c., and New Brunswick 1·3 p.c. Manitoba and British Columbia also exported small amounts, some of the latter going to Alaska.

A small amount of power, 3,655,793 kwh. valued at $61,442, was imported from the United States in the fiscal year 1939. Ontario took over 63·0 p.c. of this power and the remainder was divided among the Provinces of New Brunswick, Quebec, Manitoba, Saskatchewan, and Alberta.

In the calendar year 1938, central electric stations in Quebec exported 2,815,051,659 kwh. to other provinces; an important feature was the production of power by commercial stations in Quebec for public stations in Ontario. Of the total, Ontario took 2,809,117,059 kwh., 596,526,022 of which was for re-export to United States, and New Brunswick took the remainder. British Columbia also exported a small quantity, 2,395,382 kwh., to Alberta.

Section 3.—Evolution of Power Equipment and Utilization of Power in Industry.

Power equipment installed in industrial establishments is a very good barometer of the industrial development of Canada, inasmuch as production is increasingly dependent on power equipment. Increases and decreases in productive capacity, measured in horse-power, are not the result of temporary fluctuations in costs and values in the same manner as capital investments, values of products, etc. Of course, power equipment installed is not a measure of the actual utilization of power for there is generally an excess over actual requirements, i.e., over power equipment in operation. Producers must have a working operating margin in excess of normal requirements to provide for booming business conditions or breakdown of part of the plant; in times of depression this margin increases. Then, too, the practice in factories, etc., of installing individual motors to each machine in place of large central motors increases total installed capacity. If spare or idle machinery could be deducted from total installation over a long period of time, the resultant data would be more informative. Reports of such spare or idle equipment are available, however, only since 1934, and for the three years 1935, 1936, and 1937 the percentage

of equipment not in regular use has been approximately the same each year, viz., slightly under 6 p.c. Power equipment figures, unless such deductions can be made over a long term, will not reflect temporary depressions.

Complete data for a survey of the actual consumption of power in industry, therefore, are not available at present. Also it is not possible to give figures of power equipment installed in agriculture, forest operations, fisheries, etc., in so far as these refer to primary operations, although data are available for mining, where power is used in substantial amount—especially electric power (for mining industries are even more highly electrified than manufacturing industries). However, since secondary products made from the raw materials of agricultural, forest, and fisheries production are covered in secondary stages of processing as "manufactures", and because in the primary operations of agriculture, fishing, and the forests power equipment is not employed on a very extensive scale, the growth in aggregate power equipment of the manufacturing and mining industries may be accepted as fairly representative of the entire industrial field.

Electric motors in the manufacturing and mining industries operated by purchased power are included with primary power equipment and consequently the central electric stations producing the power are not included as manufacturing industries. Electric motors operated by power generated within these industries are not included in Table 20 with the primary power equipment that produces the power to operate them but they are shown separately, together with the total of all electric motors for each year. These totals indicate the rate of growth of electric drive in these industries in Canada, which has increased from 60·8 p.c. of the total power equipment in 1923 to 79·3 p.c. in 1937.

Analysis of all the data shows that there has been a general and decided evolution of power machinery towards electric drive, especially by electricity purchased from central electric stations, even discounting exaggeration of the movement owing to the practice referred to at p. 385 in certain establishments of installing motors at each machine or group of machines, which requires a total horse-power installation greater than would be necessary if only one large unit were used.

The ratio of electric rating of motors, operated by power generated in the industry and purchased power, to total power equipment shows the evolution of power equipment towards electric drive in general and particularly towards electric motors driven by power generated in central stations.

19.—Percentages of Electric Rating to Total Power Equipment in the Manufacturing and Mining Industries, 1923-37.[1]

NOTE.—Figures exclude central electric stations and include idle and reserve equipment.

Year.	Total Power Equipment Installed.	Electric Power.	
		Total Motor Capacity.	Per cent of Total.
	h.p.	h.p.	p.c.
1923	2,448,219	1,488,523	60·8
1924	2,833,240	1,844,781	65·1
1925	3,201,250	2,187,827	68·3
1926	3,459,257	2,387,574	69·0
1927	3,657,815	2,571,070	70·3
1928	3,999,864	2,882,048	72·1
1929	4,305,909	3,196,804	74·2
1930	4,548,014	3,376,103	74·2
1931	4,620,570	3,510,779	76·0
1932	4,625,002	3,559,516	77·0
1933	4,722,942	3,576,793	75·7
1934	4,850,743	3,781,779	78·0
1935	5,019,958	3,889,366	77·5
1936	5,186,506	4,059,355	78·3
1937	5,562,772	4,411,974	79·3

Of the total increase in power equipment employed in all manufacturing and mining industries since 1923, amounting to 3,114,553 h.p., or 127 p.c., approximately 85 p.c. was in electric motors operated on power purchased from central electric stations. Hydraulic turbines and water wheels accounted for about 2 p.c. of the increase but because central electric power is 98 p.c. hydro-electric, it is fair to state that about 85 p.c. of the increase was direct hydraulic or hydro-electric drive. However, some sections of Canada are not so well provided with water power and in such sections primary power derived from steam engines or turbines, and internal combustion engines—which include all gasoline engines, gas engines (natural, coal, and producer gas), and compression-ignition engines—has also increased rapidly during the period covered. In 1937, as will be seen from the table on p. 390, the percentage of all power equipment installed under these headings was 20·9, most of which was steam engines and turbines. Hydraulic turbines and water wheels reached 12·6 p.c., and electric motors operated by purchased power 66·6 p.c. During the period 1923-37 there has been very little net increase in the use of water wheels; steam engines increased in capacity in the same period by about 39 p.c.; internal combustion engines more than doubled; but the capacity of electric motors has about trebled.

In the Provinces of Prince Edward Island, Nova Scotia, New Brunswick, Saskatchewan, and Alberta, primary power produced from fuels is an important factor.

Of the total power equipment installed in the manufacturing industries in 1937 (first part of Table 20), it will be seen that approximately 51 p.c. is used in the manufacture of wood and paper products; the next group in importance is iron and its products, which accounts for a little over 15 p.c.; non-ferrous metal products is third with 10 p.c. Together, these three groups account for 76·6 p.c. of such installation.

The electric power employed in the pulp and paper industry is far greater than that consumed in any other individual industry, constituting 35 p.c. of the total for all manufacturing industries in 1933 and 38 p.c. in 1937, and the growth in electric drive for this industry—from 447,847 h.p. to 1,520,534 h.p.—over the same period has been an important factor in the increase as a whole.

Of the equipment installed in mining industries, nearly 62 p.c. is used in metal mining and almost 33 p.c. in non-metal mining.

Power Used in Industries.—Central electric stations, with 7,539,435 h.p. of primary equipment and 6,374,304 kva. of dynamo capacity, produced 27,687,645,000 kwh. in 1937. This was about 50 p.c. of the industry's capacity working 24 hours per day for 365 days. Very few industries work on a 24-hour, 7-day week basis; also few industries can utilize their power equipment as efficiently as central electric stations. Further, power used in any form except as electricity is not measured and consequently a measure of the mechanical power used in industries is not possible other than the capacity of the equipment. If other forms of mechanical power used in industries were measured in the same manner as electric power, the total quantity could be computed. It is not feasible from data available to convert the kilowatt hours and fuel consumed because large quantities of electric power are used to heat water, smelt metals, decompose water, and for other electric chemical purposes; also the thermal values of fuels and efficiencies of boilers and engines differ widely.

89187—25½

20.—Power Equipment Installed in the Manufacturing and Mining Industries of Canada, 1923-35, with Details by Provinces and Industrial Groups, 1936 and 1937.

Year and Province or Group.	Steam Engines and Turbines.	Internal Combustion Engines.	Hydraulic Turbines and Water Wheels.	Total.	Electric Motors Operated by Purchased Power.	Total Power Equipment.	Electric Motors Operated by Power Generated by Establishments Reporting.	Total Electric Motors.
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
	MANUFACTURING INDUSTRIES.							
Totals, 1923	**554,191**	**46,829**	**587,191**	**1,188,211**	**958,692**	**2,146,903**	**357,136**	**1,315,828**
Totals, 1924	**647,501**	**54,214**	**575,169**	**1,276,884**	**1,250,418**	**2,527,302**	**397,262**	**1,647,680**
Totals, 1925	**680,824**	**57,232**	**596,728**	**1,334,784**	**1,542,584**	**2,877,368**	**433,926**	**1,976,510**
Totals, 1926	**698,343**	**56,068**	**603,618**	**1,358,029**	**1,764,348**	**3,122,377**	**391,708**	**2,156,056**
Totals, 1927	**712,611**	**57,133**	**587,493**	**1,357,237**	**1,920,118**	**3,277,355**	**386,183**	**2,306,301**
Totals, 1928	**731,422**	**58,765**	**657,243**	**1,447,430**	**2,132,970**	**3,580,400**	**457,291**	**2,590,261**
Totals, 1929	**762,697**	**60,841**	**645,270**	**1,468,808**	**2,386,840**	**3,855,648**	**495,921**	**2,882,761**
Totals, 1930	**793,949**	**65,586**	**668,208**	**1,527,743**	**2,511,264**	**4,039,007**	**478,428**	**2,989,692**
Totals, 1931	**780,487**	**73,376**	**667,546**	**1,521,409**	**2,578,523**	**4,099,932**	**539,430**	**3,117,953**
Totals, 1932	**735,980**	**68,551**	**653,204**	**1,457,735**	**2,684,923**	**4,142,658**	**510,837**	**3,195,760**
Totals, 1933	**738,297**	**76,583**	**657,683**	**1,472,563**	**2,662,445**	**4,135,008**	**497,392**	**3,159,837**
Totals, 1934	**774,494**	**87,120**	**597,675**	**1,459,289**	**2,770,383**	**4,229,672**	**544,714**	**3,315,097**
Totals, 1935	**774,166**	**88,265**	**603,717**	**1,466,148**	**2,865,340**	**4,331,488**	**512,177**	**3,377,517**
1936.								
PROVINCE.								
Prince Edward Island	1,168	630	1,077	2,875	703	3,578	[1]	703
Nova Scotia	62,670	4,627	13,696	80,993	94,462	175,455	12,468	106,930
New Brunswick	65,001	4,089	28,511	97,601	105,461	203,062	48,273	153,734
Quebec	174,189	17,385	243,195	434,769	1,178,828	1,613,597	103,355	1,282,183
Ontario	265,418	45,480	249,088	559,986	1,174,325	1,734,311	241,184	1,415,509
Manitoba	14,501	3,432	25	17,958	112,153	130,111	1,359	113,512
Saskatchewan	11,765	2,725	60	14,550	21,566	36,116	61	21,627
Alberta	25,626	4,441	12	30,079	41,179	71,258	4,864	46,043
British Columbia	122,832	9,671	112,825	245,328	249,027	494,355	116,937	365,964
Yukon	14	Nil	Nil	14	10	24	Nil	10
Totals, 1936	**743,184**	**92,480**	**648,489**	**1,484,153**	**2,977,714**	**4,461,867**	**528,501**	**3,506,215**
INDUSTRIAL GROUP.								
Vegetable products	58,184	21,784	30,954	110,922	231,201	342,123	27,883	259,084
Animal products	26,886	6,259	2,204	35,349	91,458	126,807	2,792	94,250
Textile products	22,897	1,623	30,619	55,139	166,691	221,830	21,406	188,097
Wood and paper products	420,302	28,526	517,029	965,857	1,261,471	2,227,328	372,679	1,634,150
Iron and its products	130,456	24,002	3,599	158,057	522,981	681,038	76,342	599,323
Non-ferrous metal products	23,429	2,708	55,550	81,687	379,442	461,129	13,910	393,352
Non-metallic mineral products	40,445	7,189	26	47,660	189,503	237,163	5,863	195,366
Chemicals and allied products	17,491	238	8,508	26,237	111,205	137,442	7,521	118,726
Miscellaneous industries	3,094	151	[1]	3,245	23,762	27,007	105	23,867
1937.								
PROVINCE.								
Prince Edward Island	1,302	726	1,206	3,234	787	4,021	[1]	787
Nova Scotia	60,671	5,472	13,319	79,462	98,018	177,480	11,584	109,602
New Brunswick	88,921	4,500	28,129	121,550	111,381	232,931	45,534	156,915
Quebec	190,433	20,535	245,809	456,777	1,262,972	1,719,749	121,635	1,384,607
Ontario	314,952	44,924	247,157	607,033	1,220,648	1,827,681	293,514	1,514,162
Manitoba	15,396	2,609	25	18,030	110,831	128,861	2,044	112,875
Saskatchewan	12,417	2,553	80	15,050	23,153	38,203	115	23,268
Alberta	24,455	4,483	12	28,950	42,659	71,609	4,253	46,912
British Columbia	126,142	12,431	113,820	252,393	259,333	511,726	124,276	383,609
Yukon	14	Nil	Nil	14	8	22	Nil	8
Totals, 1937	**834,703**	**98,233**	**649,557**	**1,582,493**	**3,129,790**	**4,712,283**	**602,955**	**3,732,745**

[1] Not available.

20.—Power Equipment Installed in the Manufacturing and Mining Industries of Canada, 1923-35, with Details by Provinces and Industrial Groups, 1936 and 1937 —continued.

Year and Province or Group.	Steam Engines and Turbines.	Internal Combustion Engines.	Hydraulic Turbines and Water Wheels.	Total.	Electric Motors Operated by Purchased Power.	Total Power Equipment.	Electric Motors Operated by Power Generated by Establishments Reporting.	Total Electric Motors.
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
	MANUFACTURING INDUSTRIES—concluded.							
INDUSTRIAL GROUP.								
Vegetable products	60,527	20,322	29,301	110,150	236,852	347,002	32,989	269,841
Animal products	27,149	6,187	2,129	35,465	98,182	133,647	2,877	101,059
Textile products	22,747	1,597	24,695	49,039	162,690	211,729	26,071	188,761
Wood and paper products	488,838	36,810	525,617	1,051,265	1,369,171	2,420,436	427,219	1,796,390
Iron and its products	155,360	23,560	3,722	182,642	536,623	719,265	82,262	618,885
Non-ferrous metal products	18,850	825	55,557	75,232	396,799	472,031	14,258	411,057
Non-metallic mineral products	40,462	8,389	31	48,882	191,016	239,898	6,516	197,532
Chemicals and allied products	17,539	383	8,505	26,427	115,328	141,755	8,379	123,707
Miscellaneous industries	3,231	160	[1]	3,391	23,129	26,520	2,384	25,513
	MINING INDUSTRIES.							
Totals, 1923	**148,039**	**6,914**	**27,528**	**182,481**	**118,835**	**301,316**	**53,860**	**172,695**
Totals, 1924	**139,606**	**9,429**	**31,178**	**180,213**	**125,725**	**305,938**	**71,376**	**197,101**
Totals, 1925	**131,100**	**10,342**	**35,249**	**176,691**	**147,191**	**323,882**	**64,126**	**211,317**
Totals, 1926	**123,604**	**14,485**	**31,550**	**169,639**	**167,241**	**336,880**	**64,277**	**231,518**
Totals, 1927	**127,160**	**17,772**	**32,826**	**177,758**	**202,702**	**380,460**	**62,067**	**264,769**
Totals, 1928	**138,807**	**20,129**	**36,862**	**195,798**	**223,666**	**419,464**	**68,121**	**291,787**
Totals, 1929	**142,230**	**27,033**	**42,024**	**211,287**	**238,974**	**450,261**	**75,069**	**314,043**
Totals, 1930	**139,419**	**31,532**	**40,230**	**211,181**	**297,826**	**509,007**	**88,585**	**386,411**
Totals, 1931	**136,551**	**32,012**	**38,508**	**207,071**	**313,567**	**520,638**	**79,259**	**392,826**
Totals, 1932	**128,869**	**28,938**	**37,407**	**195,214**	**287,130**	**482,344**	**76,626**	**363,756**
Totals, 1933	**136,322**	**37,181**	**44,882**	**218,385**	**369,549**	**587,934**	**47,407**	**416,956**
Totals, 1934	**136,096**	**49,526**	**35,414**	**221,036**	**400,035**	**621,071**	**66,647**	**466,682**
Totals, 1935	**133,888**	**53,482**	**63,940**	**251,310**	**437,160**	**688,470**	**74,687**	**511,847**
1936. PROVINCE.								
Prince Edward Island	Nil	Nil	Nil	–	Nil	–	Nil	–
Nova Scotia	55,775	7,038	135	62,948	51,004	113,952	13,085	64,089
New Brunswick	1,627	1,125	75	2,827	1,357	4,184	242	1,599
Quebec	2,678	13,881	620	17,179	97,999	115,178	4,184	102,183
Ontario	7,166	24,772	3,682	35,620	192,548	228,168	6,329	198,877
Manitoba	931	1,883	1,900	4,714	45,688	50,402	1,680	47,368
Saskatchewan	3,099	1,652	Nil	4,751	14,833	19,584	2,574	17,407
Alberta	30,489	2,193	"	32,682	27,459	60,141	10,317	37,776
British Columbia	24,269	14,468	33,497	72,234	43,112	115,346	29,974	73,086
Yukon and N.W.T.	284	2,400	15,000	17,684	Nil	17,684	10,755	10,755
Totals, 1936	**126,318**	**69,412**	**54,909**	**250,639**	**474,000**	**724,639**	**79,140**	**553,140**
GROUP.								
Metals	13,273	44,520	39,813	97,606	303,271	400,877	38,687	341,958
Non-metals	107,709	16,537	12,345	136,591	143,259	279,850	38,258	181,517
Fuels	*104,878*	*9,484*	*12,000*	*126,362*	*85,467*	*209,769*	*34,888*	*118,355*
Other non-metals	*2,831*	*7,115*	*345*	*10,289*	*59,792*	*70,081*	*3,370*	*63,162*
Stone, sand and gravel	5,336	8,355	2,751	16,442	27,470	43,912	2,195	29,665
1937. PROVINCE.								
Prince Edward Island	Nil	Nil	Nil	–	Nil	–	Nil	–
Nova Scotia	52,912	7,502	500	60,914	53,240	114,154	12,128	65,368
New Brunswick	1,520	1,175	75	2,770	1,331	4,101	242	1,573
Quebec	2,913	16,926	1,160	20,999	124,236	145,235	9,026	133,262
Ontario	7,053	29,126	1,150	37,329	219,110	256,439	8,402	227,512
Manitoba	2,907	4,089	2,200	9,196	60,563	69,759	2,194	62,757
Saskatchewan	3,890	3,275	Nil	7,165	28,342	35,507	2,169	30,511
Alberta	39,226	2,855	"	42,081	34,106	76,187	10,454	44,560
British Columbia	33,918	16,927	37,490	88,335	56,775	145,110	38,967	95,742
Yukon and N.W.T.	115	3,882	Nil	3,997	Nil	3,997	17,944	17,944
Totals, 1937	**144,454**	**85,757**	**42,575**	**272,786**	**577,703**	**850,489**	**101,526**	**679,229**

[1] Not available.

20.—Power Equipment Installed in the Manufacturing and Mining Industries of Canada, 1923-35, with Details by Provinces and Industrial Groups, 1936 and 1937 —concluded.

Year and Province or Group.	Steam Engines and Turbines.	Internal Combustion Engines.	Hydraulic Turbines and Water Wheels.	Total.	Electric Motors Operated by Purchased Power.	Total Power Equipment.	Electric Motors Operated by Power Generated by Establishments Reporting.	Total Electric Motors.
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
GROUP.	MINING INDUSTRIES—concluded.							
Metals	25,055	55,781	28,520	109,356	385,062	494,418	65,560	450,622
Non-metals	113,579	19,461	12,295	145,335	159,771	305,106	34,036	193,807
Fuels	*111,244*	*11,341*	*12,000*	*134,585*	*93,925*	*228,510*	*31,856*	*125,781*
Other non-metals	*2,335*	*8,120*	*295*	*10,750*	*65,846*	*76,596*	*2,180*	*68,026*
Sand, stone and gravel	5,820	10,515	1,760	18,095	32,870	50,965	1,930	34,800
	COMBINED MANUFACTURING AND MINING INDUSTRIES.							
Totals, 1923	**702,230**	**53,743**	**614,719**	**1,370,692**	**1,077,527**	**2,448,219**	**410,996**	**1,488,523**
Totals, 1924	**787,107**	**63,643**	**606,347**	**1,457,097**	**1,376,143**	**2,833,240**	**468,638**	**1,844,781**
Totals, 1925	**811,924**	**67,574**	**631,977**	**1,511,475**	**1,689,775**	**3,201,250**	**498,052**	**2,187,827**
Totals, 1926	**821,947**	**70,553**	**635,168**	**1,527,668**	**1,931,589**	**3,459,257**	**455,985**	**2,387,574**
Totals, 1927	**839,771**	**74,905**	**620,319**	**1,534,995**	**2,122,820**	**3,657,815**	**448,250**	**2,571,070**
Totals, 1928	**870,229**	**78,894**	**694,105**	**1,643,228**	**2,356,636**	**3,999,864**	**525,412**	**2,882,048**
Totals, 1929	**904,927**	**87,874**	**687,294**	**1,680,095**	**2,625,814**	**4,305,909**	**570,990**	**3,196,804**
Totals, 1930	**933,368**	**97,118**	**708,438**	**1,738,924**	**2,809,090**	**4,548,014**	**567,013**	**3,376,103**
Totals, 1931	**917,038**	**105,388**	**706,054**	**1,728,480**	**2,892,090**	**4,620,570**	**618,689**	**3,510,779**
Totals, 1932	**864,849**	**97,489**	**690,611**	**1,652,949**	**2,972,053**	**4,625,002**	**587,463**	**3,559,516**
Totals, 1933	**874,619**	**113,764**	**702,565**	**1,690,948**	**3,031,994**	**4,722,942**	**544,799**	**3,576,793**
Totals, 1934	**910,590**	**136,646**	**633,089**	**1,680,325**	**3,170,418**	**4,850,743**	**611,361**	**3,781,779**
Totals, 1935	**908,054**	**141,747**	**667,657**	**1,717,458**	**3,302,500**	**5,019,958**	**586,864**	**3,889,364**
1936.								
Prince Edward Island	1,168	630	1,077	2,875	703	3,578	[1]	703
Nova Scotia	118,445	11,665	13,831	143,941	145,466	289,407	25,553	171,019
New Brunswick	66,628	5,214	28,586	100,428	106,818	207,246	48,515	155,333
Quebec	176,867	31,266	243,815	451,948	1,276,827	1,728,775	107,539	1,384,366
Ontario	272,584	70,252	252,770	595,606	1,366,873	1,962,479	247,513	1,614,386
Manitoba	15,432	5,315	1,925	22,672	157,841	180,513	3,039	160,880
Saskatchewan	14,864	4,377	60	19,301	36,399	55,700	2,635	39,034
Alberta	56,115	6,634	12	62,761	68,638	131,399	15,181	83,819
British Columbia	147,101	24,139	146,322	317,562	292,139	609,701	146,911	439,050
Yukon and N.W.T.	298	2,400	15,000	17,698	10	17,708	10,755	10,765
Totals, 1936	**869,502**	**161,892**	**703,398**	**1,734,792**	**3,451,714**	**5,186,506**	**607,641**	**4,059,355**
1937.								
Prince Edward Island	1,302	726	1,206	3,234	787	4,021	[1]	787
Nova Scotia	113,583	12,974	13,819	140,376	151,258	291,634	23,712	174,970
New Brunswick	90,441	5,675	28,204	124,320	112,712	237,032	45,776	158,488
Quebec	193,346	37,461	246,969	477,776	1,387,208	1,864,984	130,661	1,517,869
Ontario	322,005	74,050	248,307	644,362	1,439,758	2,084,120	301,916	1,741,674
Manitoba	18,303	6,698	2,225	27,226	171,394	198,620	4,238	175,632
Saskatchewan	16,307	5,828	80	22,215	51,495	73,710	2,284	53,779
Alberta	63,681	7,338	12	71,031	76,765	147,796	14,707	91,472
British Columbia	160,060	29,358	151,310	340,728	316,108	656,836	163,243	479,351
Yukon and N.W.T.	129	3,882	Nil	4,011	8	4,019	17,944	17,952
Totals, 1937	**979,157**	**183,990**	**692,132**	**1,855,279**	**3,707,493**	**5,562,772**	**704,481**	**4,411,974**

[1] Not available.

Section 4.—Power Generated from Fuel.

Industrial Use of Fuel.—Fuel is used quite generally throughout the industrial field for the generation of power by means of steam and internal combustion engines. It is also used for the heating of plants, and for providing the heat necessary

to some manufacturing processes. The most important industries where heat is applied to materials to facilitate or accomplish a desired transformation are: foundries and machine shops; brick, tile, lime, and cement works; petroleum refineries; the glass industry; distilleries; food preparation plants; rubber goods industry; etc. Fuel used for such heating purposes, as well as for power, is included in the figures of Table 21. The figures of the table do not include fuels that constitute the raw materials to be transformed as coal in the coke and gas industries, and crude petroleum in the refining industry. Electricity used in metallurgical processes as in the electrolytic refining of non-ferrous metals is also excluded.

The value of fuel consumed in the manufacturing and mining industries in 1937 showed an increase of 32 p.c. over 1936. Of the 1937 fuel account, the requirements of Ontario cost slightly over 50 p.c. of the total, Quebec's 24·7 p.c., British Columbia's 7·6 p.c., and Nova Scotia's 6·6 p.c.

The wood and paper products group used 21·2 p.c. of the fuel consumed by manufacturing industries, non-metallic mineral products 19·0 p.c., and iron and its products 17·6 p.c.

21.—Fuel Used in the Manufacturing and Mining Industries of Canada, 1922-35, with Details by Provinces and Industrial Groups, 1936 and 1937.

Year and Province or Group.	Coal.	Coke.	Fuel Oils.[1]	Wood.	Gas.	Other Fuel.[1]	Total.
	$	$	$	$	$	$	$
	MANUFACTURING INDUSTRIES.						
Totals, 1922	**32,362,465**	**3,295,785**	**5,462,572**	**2,001,113**	**1,599,185**	**1,522,829**	**46,243,949**
Totals, 1923	**41,199,317**	**3,237,497**	**5,970,810**	**2,444,582**	**1,896,295**	**1,349,549**	**56,098,050**
Totals, 1924	**37,144,928**	**2,227,856**	**5,549,456**	**2,479,312**	**4,648,333**	**1,740,056**	**53,789,941**
Totals, 1925	**34,881,063**	**5,024,427**	**6,933,153**	**2,580,267**	**3,516,646**	**1,793,702**	**54,729,258**
Totals, 1926	**37,207,397**	**4,157,935**	**7,102,676**	**2,533,424**	**4,182,186**	**1,496,882**	**56,680,500**
Totals, 1927	**37,467,319**	**3,867,043**	**6,862,229**	**2,359,951**	**5,207,853**	**1,278,994**	**57,043,389**
Totals, 1928	**39,129,922**	**1,787,828**	**6,884,693**	**2,332,090**	**5,374,007**	**1,131,819**	**56,640,359**
Totals, 1929	**40,334,254**	**2,332,823**	**7,926,574**	**2,604,803**	**6,125,954**	**1,239,563**	**60,563,971**
Totals, 1930	**34,584,983**	**1,906,850**	**7,287,460**	**2,222,243**	**5,895,325**	**1,163,440**	**53,060,301**
Totals, 1931	**28,786,767**	**1,784,288**	**5,545,743**	**1,720,700**	**4,930,991**	**1,152,203**	**43,920,692**
Totals, 1932	**21,938,349**	**1,592,015**	**4,684,042**	**1,483,066**	**4,692,700**	**974,884**	**35,365,056**
Totals, 1933	**19,897,799**	**1,574,426**	**4,606,527**	**1,635,689**	**4,827,310**	**981,591**	**33,523,342**
Totals, 1934	**23,140,344**	**1,670,877**	**5,182,216**	**1,450,553**	**5,734,229**	**1,549,086**	**38,727,305**
Totals, 1935	**23,988,177**	**1,921,138**	**5,981,169**	**1,419,130**	**5,707,589**	**1,773,040**	**40,790,243**
1936.							
PROVINCE.							
Prince Edward Island	23,330	3,278	1,112	7,613	Nil	4,333	39,666
Nova Scotia	1,293,964	115,360	503,599	28,095	723,294	27,578	2,691,890
New Brunswick	1,594,370	21,353	84,862	71,288	18,428	75,954	1,866,255
Quebec	7,358,361	267,314	1,944,841	545,778	1,609,476	340,930	12,066,700
Ontario	14,259,377	1,354,322	2,253,208	428,461	3,495,884	758,915	22,550,167
Manitoba	994,427	34,126	184,092	119,113	87,133	43,988	1,462,879
Saskatchewan	253,260	18,429	192,691	57,393	66,430	27,738	615,941
Alberta	349,308	11,409	70,227	22,266	364,060	28,685	845,955
British Columbia and Yukon	457,803	57,434	1,146,679	141,069	218,898	654,329	2,676,212
Totals, 1936	**26,584,200**	**1,883,025**	**6,381,311**	**1,421,076**	**6,583,603**	**1,962,450**	**44,815,665**
INDUSTRIAL GROUP.							
Vegetable products	3,932,412	405,135	605,278	428,955	654,280	238,660	6,264,720
Animal products	2,143,090	13,323	247,013	468,738	124,900	119,179	3,116,243
Textiles and textile products	2,576,502	23,178	323,565	33,225	65,755	101,475	3,123,700
Wood and paper products	7,922,442	22,212	944,073	205,572	145,472	1,115,740	10,355,511
Iron and its products	4,606,264	375,901	1,609,716	55,408	1,990,031	198,640	8,835,960
Non-ferrous metal products	834,301	89,873	240,748	3,309	159,387	26,763	1,354,381
Non-metallic mineral products	2,840,640	899,133	2,214,437	199,749	3,385,004	64,803	9,603,766
Chemicals and allied products	1,553,483	50,470	177,072	22,688	28,146	94,288	1,926,147
Miscellaneous industries	175,066	3,800	19,409	3,432	30,628	2,902	235,237

[1] Includes gasoline and kerosene.

21.—Fuel Used in the Manufacturing and Mining Industries of Canada, 1922-35 with Details by Provinces and Industrial Groups, 1936 and 1937—continued.

Year and Province or Group.	Coal.	Coke.	Fuel Oils.[1]	Wood.	Gas.	Other Fuel.[1]	Total.
	$	$	$	$	$	$	$
1937.	MANUFACTURING INDUSTRIES—concluded.						
PROVINCE.							
Prince Edward Island	25,158	3,252	2,414	9,450	Nil	6,853	47,127
Nova Scotia	1,320,989	131,017	535,188	29,844	833,935	39,872	2,890,845
New Brunswick	1,853,995	24,112	72,410	82,815	19,081	121,770	2,174,183
Quebec	9,491,873	313,004	2,478,560	623,606	1,743,516	530,843	15,181,402
Ontario	18,377,800	4,061,723	3,679,139	523,013	4,003,054	1,164,561	31,809,290
Manitoba	1,215,717	27,152	199,659	133,515	110,820	42,859	1,729,722
Saskatchewan	390,064	5,133	258,845	63,407	84,910	26,001	828,360
Alberta	357,860	11,278	46,783	23,836	374,398	39,356	853,511
British Columbia and Yukon	883,249	592,853	1,307,371	146,612	235,205	895,306	4,060,596
Totals, 1937	**33,916,705**	**5,169,524**	**8,580,369**	**1,636,098**	**7,404,919**	**2,867,421**	**59,575,036**
INDUSTRIAL GROUP.							
Vegetable products	3,922,281	422,394	636,070	460,095	690,702	472,979	6,604,521
Animal products	2,191,136	11,042	255,210	486,005	144,542	140,384	3,228,319
Textiles and textile products	2,685,298	6,370	323,046	30,200	62,197	94,256	3,201,367
Wood and paper products	9,830,384	17,602	918,637	230,636	161,074	1,503,789	12,662,122
Iron and its products	5,178,909	362,984	2,461,049	52,569	2,237,717	203,934	10,497,162
Non-ferrous metal products	4,628,910	3,420,453	1,380,037	82,570	195,277	48,102	9,755,349
Non-metallic mineral products	3,601,857	870,879	2,400,172	256,895	3,838,006	307,937	11,275,746
Chemicals and allied products	1,706,240	54,175	188,187	33,919	39,984	92,971	2,115,476
Miscellaneous industries	171,690	3,625	17,961	3,209	35,420	3,069	234,974
	MINING INDUSTRIES.						
Totals, 1922	**4,167,839**	**32,722**	**112,394**	**183,758**	**1,755**	**45,808**	**4,544,276**
Totals, 1923	**4,877,893**	**79,013**	**213,648**	**251,674**	**4,345**	**11,239**	**5,437,812**
Totals, 1924	**4,178,956**	**40,933**	**311,028**	**247,933**	**2,090**	**619**	**4,781,559**
Totals, 1925	**3,917,893**	**68,784**	**373,960**	**241,731**	**13,920**	**39,019**	**4,655,307**
Totals, 1926	**4,547,851**	**49,546**	**480,980**	**252,599**	**35,621**	**30,445**	**5,397,042**
Totals, 1927	**4,748,613**	**40,394**	**284,434**	**227,289**	**66,498**	**188,815**	**5,556,043**
Totals, 1928[2]	**4,925,546**	**43,861**	**374,012**	**323,558**	**158,520**	**214,757**	**6,040,254**
Totals, 1929[2]	**5,025,556**	**41,500**	**474,037**	**376,381**	**214,216**	**284,924**	**6,416,614**
Totals, 1930[2]	**4,317,209**	**33,969**	**587,153**	**157,064**	**231,859**	**298,980**	**5,626,234**
Totals, 1931[2]	**3,230,598**	**12,906**	**485,531**	**150,001**	**273,269**	**211,134**	**4,363,439**
Totals, 1932[2]	**2,705,396**	**13,831**	**374,594**	**192,113**	**126,605**	**172,522**	**3,585,061**
Totals, 1933[2]	**2,614,885**	**6,948**	**366,584**	**250,628**	**156,903**	**221,154**	**3,617,102**
Totals, 1934[2]	**2,989,478**	**9,833**	**611,978**	**484,044**	**187,989**	**318,497**	**4,601,819**
Totals, 1935[2]	**2,977,569**	**12,726**	**631,883**	**544,460**	**194,183**	**327,224**	**4,688,045**
1936.[2]							
PROVINCE.							
Prince Edward Island	Nil	Nil	Nil	Nil	Nil	Nil	-
Nova Scotia	1,421,228	"	55,296	10,223	3,998	34,345	1,525,090
New Brunswick	30,721	"	Nil	627	14,111	4,691	50,150
Quebec	420,328	902	193,049	189,229	Nil	103,280	906,788
Ontario	424,938	5,614	295,328	282,541	60,017	130,539	1,198,977
Manitoba	10,818	418	40,143	41,998	Nil	40,439	133,816
Saskatchewan	116,159	206	101,992	9,615	"	9,663	237,635
Alberta	340,990	Nil	34,943	1,274	149,933	7,517	534,657
British Columbia	465,524	862	259,805	73,857	Nil	49,003	849,051
Yukon and Northwest Territories	3,986	1,230	178,186	65,134	245	36,704	285,485
Totals, 1936[2]	**3,234,692**	**9,232**	**1,158,742**	**674,498**	**228,304**	**416,181**	**5,721,649**

[1] In the mining industries the figures for gasoline and kerosene are included with fuel oils from 1922 to 1926 and with other fuel from 1927 to 1937; in the manufacturing industries gasoline and kerosene are included with other fuel for the whole period. [2] Not including fuel used in metallurgical operations; prior to 1928 the fuel used in these operations was relatively small.

21.—Fuel Used in the Manufacturing and Mining Industries of Canada, 1922-35, with Details by Provinces and Industrial Groups, 1936 and 1937—concluded.

Year and Province or Group.	Coal.	Coke.	Fuel Oils.[1]	Wood.	Gas.	Other Fuel.[1]	Total.
	$	$	$	$	$	$	$
1937.[2]	MINING INDUSTRIES—concluded.						
PROVINCE.							
Prince Edward Island	Nil	Nil	Nil	Nil	Nil	Nil	-
Nova Scotia	1,389,674	34	77,188	8,045	26,778	30,304	1,532,023
New Brunswick	33,832	Nil	Nil	295	15,858	4,352	54,337
Quebec	620,024	3,219	265,772	256,840	Nil	152,083	1,297,938
Ontario	579,276	7,777	462,163	307,462	62,911	224,095	1,643,684
Manitoba	59,584	1,862	65,120	50,578	Nil	51,529	228,673
Saskatchewan	89,069	180	137,382	31,783	"	38,790	297,204
Alberta	345,459	Nil	54,714	4,588	365,221	13,875	783,857
British Columbia	526,838	1,058	323,173	81,908	Nil	86,284	1,019,261
Yukon and Northwest Territories	4,614	1,222	237,492	52,672	335	22,123	318,458
Totals, 1937[2]	**3,648,370**	**15,352**	**1,623,004**	**794,171**	**471,103**	**623,435**	**7,175,435**
	COMBINED MANUFACTURING AND MINING INDUSTRIES.						
Totals, 1922	**36,530,304**	**3,328,507**	**5,574,966**	**2,184,871**	**1,600,940**	**1,568,637**	**50,788,225**
Totals, 1923	**46,077,210**	**3,316,510**	**6,184,458**	**2,696,256**	**1,900,640**	**1,360,788**	**61,535,862**
Totals, 1924	**41,323,884**	**2,268,789**	**5,860,484**	**2,727,245**	**4,650,423**	**1,740,675**	**58,571,500**
Totals, 1925	**38,798,956**	**5,093,211**	**7,307,113**	**2,821,998**	**3,530,566**	**1,832,721**	**59,384,565**
Totals, 1926	**41,755,248**	**4,207,481**	**7,583,656**	**2,786,023**	**4,217,807**	**1,527,327**	**62,077,542**
Totals, 1927	**42,215,932**	**3,907,437**	**7,146,663**	**2,587,240**	**5,274,351**	**1,467,809**	**62,599,432**
Totals, 1928[2]	**44,055,468**	**1,831,689**	**7,258,705**	**2,655,648**	**5,532,527**	**1,346,576**	**62,680,613**
Totals, 1929[2]	**45,359,810**	**2,374,323**	**8,400,611**	**2,981,184**	**6,340,170**	**1,524,487**	**66,980,585**
Totals, 1930[2]	**38,902,192**	**1,940,819**	**7,874,613**	**2,379,307**	**6,127,184**	**1,462,420**	**58,686,535**
Totals, 1931[2]	**32,017,365**	**1,797,194**	**6,031,274**	**1,870,701**	**5,204,260**	**1,363,337**	**48,284,131**
Totals, 1932[2]	**24,643,745**	**1,605,846**	**5,058,636**	**1,675,179**	**4,819,305**	**1,147,406**	**38,950,117**
Totals, 1933[2]	**22,512,684**	**1,581,374**	**4,973,111**	**1,886,317**	**4,984,213**	**1,202,745**	**37,140,444**
Totals, 1934[2]	**26,129,822**	**1,680,710**	**5,794,194**	**1,934,597**	**5,922,218**	**1,867,583**	**43,329,124**
Totals, 1935[2]	**26,965,746**	**1,933,864**	**6,613,052**	**1,963,590**	**5,901,772**	**2,100,264**	**45,478,288**
1936.[2]							
PROVINCE.							
Prince Edward Island	23,330	3,278	1,112	7,613	Nil	4,333	39,666
Nova Scotia	2,715,192	115,360	558,895	38,318	727,292	61,923	4,216,980
New Brunswick	1,625,091	21,353	84,862	71,915	32,539	80,645	1,916,405
Quebec	7,778,689	268,216	2,137,890	735,007	1,609,476	444,210	12,973,488
Ontario	14,684,315	1,359,936	2,548,536	711,002	3,555,901	889,454	23,749,144
Manitoba	1,005,245	34,544	224,235	161,111	87,133	84,427	1,596,695
Saskatchewan	369,419	18,635	294,683	67,008	66,430	37,401	853,576
Alberta	690,298	11,409	105,170	23,540	513,993	36,202	1,380,612
British Columbia	917,874	58,296	1,406,484	214,487	218,898	703,277	3,519,316
Yukon and Northwest Territories	9,439	1,230	178,186	65,573	245	36,759	291,432
Totals, 1936[2]	**29,818,892**	**1,892,257**	**7,540,053**	**2,095,574**	**6,811,907**	**2,378,631**	**50,537,314**
1937.[2]							
PROVINCE.							
Prince Edward Island	25,158	3,252	2,414	9,450	Nil	6,853	47,127
Nova Scotia	2,710,663	131,051	612,376	37,889	860,713	70,176	4,422,868
New Brunswick	1,887,827	24,112	72,410	83,110	34,939	126,122	2,228,520
Quebec	10,111,897	316,223	2,744,332	880,446	1,743,516	682,926	16,479,340
Ontario	18,957,076	4,069,500	4,141,302	830,475	4,065,965	1,388,656	33,452,974
Manitoba	1,275,301	29,014	264,779	184,093	110,820	94,388	1,958,395
Saskatchewan	479,133	5,313	396,227	95,190	84,910	64,791	1,125,564
Alberta	703,319	11,278	101,497	28,424	739,619	53,231	1,637,368
British Columbia	1,402,246	593,911	1,630,544	228,046	235,205	981,535	5,071,487
Yukon and Northwest Territories	12,455	1,222	237,492	53,146	335	22,178	326,828
Totals, 1937[2]	**37,565,075**	**5,184,876**	**10,203,373**	**2,430,269**	**7,876,022**	**3,490,856**	**66,750,471**

[1] In the mining industries the figures for gasoline and kerosene are included with fuel oils from 1922 to 1926 and with other fuel from 1927 to 1937. [2] See footnote 2, p. 392.

CHAPTER XIV.—MANUFACTURES.

CONSPECTUS.

	PAGE.
Part I.—General Analyses of Manufacturing in the Dominion	396
SECTION 1. HISTORICAL SUMMARY STATISTICS, AND INDEXES OF VALUE AND VOLUME	396
Subsection 1. Growth of Manufacturing in Canada since 1870	396
Subsection 2. Value and Volume of Manufactured Products	404
SECTION 2. PRODUCTION OF INDUSTRIAL GROUPS AND INDIVIDUAL INDUSTRIES	407
Subsection 1. Manufactures Grouped by Chief Component Materials	407
Subsection 2. Manufactures Classified by the Purpose of the Products	420
Subsection 3. Manufactures Classified by Origin of the Materials	422
Subsection 4. Leading Manufacturing Industries	425
SECTION 3. PRINCIPAL FACTORS IN MANUFACTURING PRODUCTION	428
Subsection 1. Capital Employed	428
Subsection 2. Employment in Manufactures	430
Subsection 3. Wages and Salaries in Canadian Manufacturing Industries	436
Subsection 4. Size of Manufacturing Establishments	440
Part II.—Provincial and Local Distribution of Manufacturing Production	448
SECTION 1. THE MANUFACTURES OF THE MARITIME PROVINCES, 1937	456
SECTION 2. THE MANUFACTURES OF QUEBEC, 1937	457
SECTION 3. THE MANUFACTURES OF ONTARIO, 1937	459
SECTION 4. THE MANUFACTURES OF THE PRAIRIE PROVINCES, 1937	460
SECTION 5. THE MANUFACTURES OF BRITISH COLUMBIA, 1937	462
SECTION 6. MANUFACTURING INDUSTRIES IN CITIES AND TOWNS	463

This chapter deals with manufacturing industries in Canada in two main Parts. Part I gives general analyses of manufactures in the Dominion and Part II deals with the provincial and local distribution of manufacturing production.

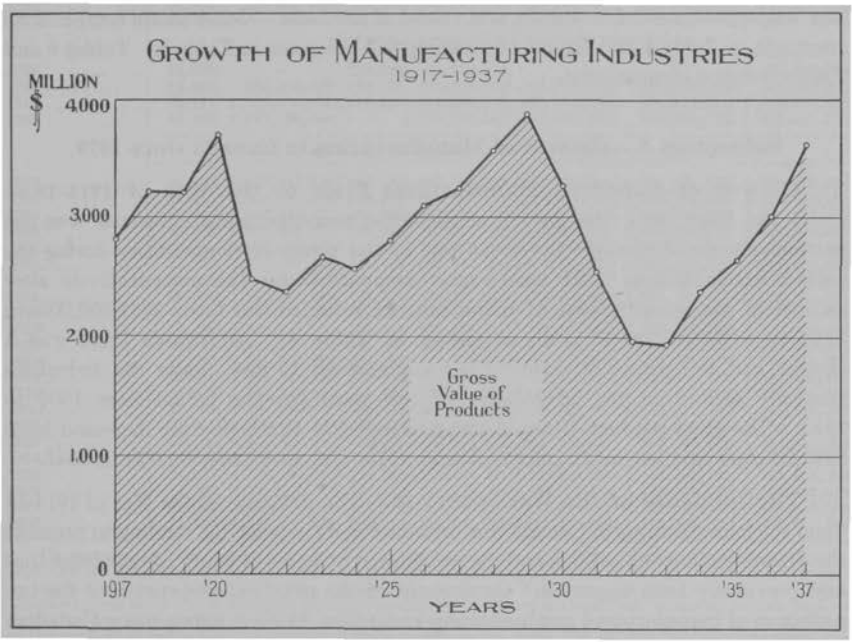
With regard to the first section of Part I, dealing with historical development, it has been impossible to compile absolutely comparable statistics over a long period of years. From 1870 to 1915 statistics were collected only in connection with decennial or quinquennial censuses, and there was inevitably some variation in the information collected. The annual Census of Manufactures was instituted in 1917 and, while numerous changes have been made since then in the information collected and the treatment of the data, an effort has been made in the present edition to carry all major revisions, in so far as possible, back to 1917, so that the figures for the period since then are on a reasonably comparable basis.

The Evolution of Canadian Manufacturing Industries.—The type of manufactures established in a community will, in the beginning, be determined largely by the raw materials available in that community, more especially where transportation charges are high. For example, the first agricultural process to be carried on by Europeans in what is now the Dominion of Canada was probably the raising of a crop of grain at Port Royal, Nova Scotia, in 1605; the first corresponding manufacturing process was the grinding of the grain in the autumn of that year. Other early manufactures were necessarily connected with the satisfaction of the primary needs of human beings for food, clothing, and shelter, and with the other primary need—protection.

Since the earliest settlements, two main influences have been operating upon the development of manufacturing in Canada: first, the domestic requirements of the growing Canadian population; and secondly, the processing of natural products of Canada to change them to more suitable forms for export. The comparatively small home market, a large part of it in scattered agricultural areas, has always limited the range of goods that may be economically manufactured in Canada for that market. As the Canadian population increases and as the means of distribution improve, the range of goods that may be efficiently manufactured for the home market is being constantly widened, although, as the general standard of living in

Canada rises, the variety of fabricated goods for which there is an effective demand within the country is continually expanding, so that there will always be a place in the Canadian market for imports of highly fabricated goods.

A striking modern feature of manufacture for the home market is the importation of raw materials not indigenous to Canada for the production of goods for which there is a large domestic market. Typical examples are the cotton textile and the rubber goods industries. Furthermore, a large iron and steel industry has grown up in Nova Scotia, Quebec, and Ontario, dependent upon imported iron ore from Newfoundland and the United States.



From the beginning, important manufacturing operations in Canada have been associated with the preparation of natural products for export. Early examples were the curing of fish and furs and the preparation of forest products. In the days of wooden ships, shipbuilding was an important industry along the St. Lawrence and in the Maritime Provinces. Similarly, under modern conditions, the largest industries are mainly based upon the country's natural resources in agriculture, forests, and minerals, while cheap water power is an important factor in the ability of these great manufactures to compete successfully in world markets.

Under modern conditions the major part of Canada's exports of natural products have undergone some manufacturing process before being shipped abroad. Typical examples are: wheat flour, dairy products, and dressed meats arising from the agricultural resources; lumber, shingles, and pulp and paper from the forests; refined metals from the mines; and cured and canned fish from the Atlantic and Pacific fisheries. The proportions of manufactured goods among Canadian exports are given in the "Condensed Preliminary Report on the Trade of Canada, 1938-39", pp. 37-43, and in the External Trade chapter of this volume (see Index).

PART I.—GENERAL ANALYSES OF MANUFACTURING IN THE DOMINION.

Section 1.—Historical Summary Statistics, and Indexes of Value and Volume.

This Section gives a picture of the growth of manufacturing in general as shown by comparable principal statistics, i.e., establishments, capital, employees, salaries and wages paid, cost of materials, and values of products. Other useful comparisons are made in Table 4 and figures of consumption are given in Table 5. Tables 6 and 7 show volume comparisons.

Subsection 1.—Growth of Manufacturing in Canada since 1870.

Growth of Canadian Manufactures Prior to the War of 1914-18.—Until the later '90's, the growth of Canadian manufacturing industries was not particularly rapid, though the great fall in the prices of commodities during the period from 1873 to 1897 was largely responsible for the comparatively slow growth of the gross values of manufactured commodities from $221,600,000 in 1870 to $469,800,000 in 1890, as shown in Table 1. Afterwards there was a change and the prices of commodities commenced to rise, while the industries generally shared in the advantages of the great growing period from 1900 to 1912. The gross product of establishments with five hands or over increased from $368,700,000 in 1890 to $1,166,000,000 in 1910, and to $1,381,500,000 in 1915.

The Influence of the War of 1914-18.—The influence of the War of 1914-18 upon the manufactures of Canada was profound and far-reaching, tending to promote the diversification of products and the production at home of many commodities that had previously been imported. On account of the practical suspension of the importation of manufactured goods of many kinds from Europe, enterprising Canadian manufacturers were given opportunities of entering upon new lines of manufacture with practical control of the market. There was added to this the reflex effect of the great prosperity of agriculture, produced by the unprecedented prices of war time, with the general result that industry worked at high pressure. Incidentally factory methods became more specialized, a high degree of administrative and mechanical efficiency was attained, and Canada became an important industrial country.

Since the annual Census of Manufactures was begun only in 1917, the growth of manufacturing production during the first years of the War of 1914-18 cannot be shown in Table 1. Figures of 1915 are not on a strictly comparable basis with those of later years. However, the effect of the inflation of the war period, which reached its height in the summer of 1920, is evident. The course of manufacturing production thereafter throughout the 1920's is clearly shown in the figures of the table. In 1929 gross values of production exceeded those of 1920, although the prices of manufactured goods had dropped about 41 p.c. in the intervening period.

1.—Historical Summary of Statistics of Manufactures for the Dominion, 1870-1938.

NOTE.—Statistics of the non-ferrous metal smelting industries were included in manufactures for the first time in 1925.

Year.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.[1]	Gross Value of Products.
	No.	$	No.	$	$	$	$
	(All establishments irrespective of the number of employees.)						
1870	41,259	77,964,020	187,942	40,851,009	124,907,846	96,709,927	221,617,773
1880	49,722	165,302,623	254,935	59,429,002	179,918,593	129,757,475	309,676,068
1890	75,964	353,213,000	369,595	100,415,350	250,759,292	219,088,594	469,847,886
	(Establishments with five hands or over.)						
1890	14,065	[2]	272,033	79,234,311	[2]	[2]	368,696,723
1900	14,650	446,916,487	339,173	113,249,350	266,527,858	214,525,517	481,053,375
1910	19,218	1,247,583,609	515,203	241,008,416	601,509,018	564,466,621	1,165,975,639
1915	15,593	1,958,705,230	[2]	283,311,505	791,943,433	589,603,792	1,381,547,225
	(All establishments irrespective of the number of employees.)[3]						
1917	21,845	2,333,991,229	606,523	497,801,844	1,539,678,811	1,281,131,980	2,820,810,791
1918	21,777	2,518,197,329	602,179	567,991,171	1,827,631,548	1,399,794,849	3,227,426,397
1919	22,083	2,670,559,435	594,066	601,715,668	1,779,056,765	1,442,400,638	3,221,457,403
1920	22,532	2,923,667,011	598,893	717,493,876	2,085,271,649	1,621,273,348	3,706,544,997
1921	20,848	2,697,858,073	438,555	497,399,761	1,365,292,885	1,123,694,263	2,488,987,148
1922	21,016	2,667,493,290	456,256	489,397,230	1,272,651,585	1,103,266,106	2,375,917,691
1923	21,080	2,788,051,630	506,203	549,529,631	1,456,595,367	1,206,332,107	2,662,927,474
1924	20,709	2,895,317,508	487,610	534,467,675	1,422,573,916	1,075,458,459	2,570,561,931
1925[3]	20,981	3,065,730,916	522,924	569,944,442	1,571,788,252	1,167,936,726	2,816,864,958
1926[3]	21,301	3,208,071,197	559,161	625,682,242	1,712,519,991	1,305,168,549	3,100,604,637
1927[3]	21,501	3,454,825,529	595,052	662,705,332	1,741,128,711	1,427,649,292	3,257,214,876
1928[3]	21,973	3,804,062,566	631,429	721,471,634	1,894,027,188	1,597,887,676	3,582,345,302
1929[3]	22,216	4,004,892,009	666,531	777,291,217	2,029,670,813	1,755,386,937	3,883,446,116
1930[3]	22,618	4,041,030,475	614,696	697,555,378	1,664,787,763	1,522,737,125	3,280,236,603
1931	23,083	3,705,701,893	528,640	587,566,990	1,221,911,982	1,252,017,248	2,555,126,448
1932	23,102	3,380,475,509	468,833	473,601,716	954,381,097	955,960,724	1,980,471,543
1933	23,780	3,279,259,838	468,658	436,247,824	967,788,928	919,671,181	1,954,075,785
1934	24,209	3,249,348,864	519,812	503,851,055	1,229,513,621	1,087,301,742	2,393,692,729
1935	24,034	3,216,403,127	556,664	559,467,777	1,419,146,217	1,153,485,104	2,653,911,209
1936	24,202	3,271,263,531	594,359	612,071,434	1,624,213,996	1,289,592,672	3,002,403,814
1937	24,834	3,465,227,831	660,451	721,727,037	2,006,926,787	1,508,924,867	3,625,459,500
1938	25,200	3,485,683,018	642,016	705,668,589	1,807,478,028	1,428,286,778	3,337,681,366

[1] In accordance with a resolution passed by the Conference of British Commonwealth Statisticians, 1935, the net value of production is now computed by subtracting the cost of fuel and electricity as well as the cost of materials from the gross value of the products. The figures for 1924 and later years have, therefore, been revised in accordance with this resolution. The revision could not be carried farther back as statistics for cost of electricity are not available for years prior to 1924. [2] Not reported. [3] A change in the method of computing the number of wage-earners in the years 1925 to 1930, inclusive, increased the number somewhat over that which the method otherwise used would have given. In 1931, however, the method in use prior to 1925 was re-adopted. The figures for 1931 and later years are, therefore, comparable with those for 1924 and earlier years.

Effects of the Depression on the Manufacturing Industries of Canada.—The downward trend in manufacturing operations that began in the autumn of 1929 continued with increasing force to about the middle of 1933. As a result, the output of manufactured products in 1933 was lower in value than in any other year since the annual census was begun in 1917 but the wholesale price index for fully and chiefly manufactured goods on the 1926 base declined from 93·0 in 1929 to 70·2 in 1933, and rose only to 73·6 in 1936. Because of the advance in prices that commenced in 1936, the index number rose to 80·5 in 1937, the highest since 1930. That the decline in the volume of manufactures produced was not so great as that of values is evident by comparing the figures of Table 6, p. 405, with those of Table 3. Table 8, p. 408, shows in percentages the effect of the depression on employment, salaries and wages, and gross value of products. Both these analyses indicate that the incidence of the depression affected some industries much more than others. Generally speaking, the production of consumption goods was much better maintained than that of capital goods.

2.—Summary Statistics of Manufactures, by Provinces, Representative Years, 1917-38.

Year and Province.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.[1]	Gross Value of Products.
	No.	$	No.	$	$	$	$
1917.							
P. E. Island	411	2,008,082	1,556	663,251	3,087,621	1,750,135	4,837,756
Nova Scotia	1,337	124,357,851	25,252	18,838,051	102,415,215	57,565 703	159,980,918
New Brunswick	943	60,301,007	19,710	12,893,014	32,380,621	27,027,725	59,408,346
Quebec	7,032	662,012,875	188,040	141,007,616	385,212,984	380,882.409	766,095,393
Ontario	9,061	1,157,850,643	299,842	258,891,136	794,556,502	662,174,261	1,456,730,763
Manitoba	732	82,566,858	18,939	16,513,423	69,715,149	42,280,801	111,995,950
Saskatchewan	560	24,372,585	6,230	5,402,332	22,040,674	13,894,179	35,934,852
Alberta	636	49,146,241	9,464	8,662,417	42,632,212	23,883,673	66,515,885
B.C. and Yukon	1,133	171,375,087	37,490	34,930,604	87,637,833	71,673,094	159,310,927
Canada, 1917	**21,845**	**2,333,991,229**	**606,523**	**497,801,844**	**1,539,678,811**	**1,281,131,980**	**2,820,810,791**
1920.							
P. E. Island	373	2,328,686	1,286	855,210	4,164,223	2,135,857	6,300,080
Nova Scotia	1,343	135,679,188	23,424	25,625,089	85,724,785	61,371,243	147,096,028
New Brunswick	901	101,216,395	19,007	19,266,821	60,812,641	45,803,164	106,615,805
Quebec	7,530	878,859,638	183,748	202,516,550	553,558,520	499,643,217	1,053,201,737
Ontario	9,113	1,464,097,346	295,674	362,941,317	1,071,843,374	792,267,562	1,864,110,936
Manitoba	745	94,424,145	23,727	32,372,081	92,729,271	62,776,912	155,506,183
Saskatchewan	556	24,640,520	6,769	9,657,478	34,894,105	22,610,861	57,504,966
Alberta	666	48,310,655	10,960	15,218,013	56,139,646	29,812,891	85,952,537
B.C. and Yukon	1,305	174,110,438	34,298	49,041,317	125,405,084	104,851,641	230,256,725
Canada, 1920	**22,532**	**2,923,667,011**	**598,893**	**717,493,876**	**2,085,271,649**	**1,621,273,348**	**3,706,544,997**
1922.							
P.E. Island	340	2,446,574	1,086	593,660	2,620,235	1,660,282	4,280,517
Nova Scotia	1,092	98,117,897	13,678	11,586,235	37,980,329	27,516,271	65,496,600
New Brunswick	846	77,036,627	13,934	11,801,670	38,032,967	25,163,444	63,196,411
Quebec	7,190	800,859,568	143,584	139,876,821	333,298,544	346,020,126	679,318,670
Ontario	8,703	1,400,041,955	235,070	265,818,003	674.025,732	572,098,704	1,246,124,436
Manitoba	697	65,172,676	13,076	16,853,345	54,373,811	36,842,899	91,216,710
Saskatchewan	490	22,734,469	3,494	4,734,885	22,366,129	13,186,266	35,552,395
Alberta	556	41,154,178	6,516	8,293,572	30,189,648	18,939,659	49,129,307
B.C. and Yukon	1,102	159,929,346	25,818	29,839,039	79,764,190	61,838,455	141,602,645
Canada, 1922	**21,016**	**2,667,493,290**	**456,256**	**489,397,230**	**1,272,651,585**	**1,103,266,106**	**2,375,917,691**
1926.[2]							
P.E. Island	287	2,186,192	2,215	651,891	2,636,617	1,174,803	3,893,651
Nova Scotia	1,077	105,243,253	16,099	12,294,112	39,094,533	28,425,438	70,341,089
New Brunswick	849	85,068,236	17,211	14,149,648	44,038,338	25,890,931	71,898,758
Quebec	6,919	967,453,188	174,988	182,867,362	439,344,919	399,990.947	865,719,634
Ontario	8,898	1,618,824,058	270,676	322,040,731	896,984,983	667,058,655	1,604,765,985
Manitoba	743	87,873,743	19,736	25,053,527	74,647,339	48,878,988	125,767,089
Saskatchewan	517	24,280.453	4,213	5,533,340	29,057,333	13,365,571	43,462,179
Alberta	640	56,346,245	9,088	11,403,539	49,708,921	27,632,183	78,675,108
B.C. and Yukon	1,371	260,795,829	44,935	51,688,092	137,007,008	92,751,033	236,081,144
Canada, 1926	**21,301**	**3,208,071,197**	**559,161**	**625,682,242**	**1,712,519,991**	**1,305,168,549**	**3,100,604,637**
1929.[2]							
P.E. Island	263	2,646,354	2,074	727,286	2,862,725	1,466,446	4,408,608
Nova Scotia	1,094	118,951,398	19,986	16,905,885	50,725,562	35,676,421	89,787,548
New Brunswick	803	91,376,948	17,952	15,127,716	39,800,366	26,640,786	68,145,012
Quebec	6,948	1,246,208,650	206,580	225,226,808	537,270,055	537,796,395	1,108,592,775
Ontario	9,348	1,986,736,556	328,533	406,622,627	1,056,530,202	916,971,816	2,020,492,433
Manitoba	861	121,363,898	24,012	31,224,596	87,832,324	63.925,015	155,266,294
Saskatchewan	594	43,925,797	7,025	9,105,597	51,003,566	23,002,952	75,368,605
Alberta	736	81,875,952	12,216	14,585,734	62,500,175	36,824,969	100,966,196
B.C. and Yukon	1,569	311,806,456	48,153	57,764,968	141,145,838	113,082,137	260,418,645
Canada, 1929	**22,216**	**4,004,892,009**	**666,531**	**777,291,217**	**2,029,670,813**	**1,755,386,937**	**3,883,446,116**

[1] See footnote 1, Table 1.

[2] See footnote 3, Table 1.

2.—Summary Statistics of Manufactures, by Provinces, Representative Years, 1917-38—concluded.

Year and Province.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.[1]	Gross Value of Products.
	No.	$	No.	$	$	$	$
1930.[2]							
P.E. Island	253	2,614,040	1,981	723,981	2,544,716	1,367,340	3,995,207
Nova Scotia	1,197	107,128,903	19,940	16,269,451	44,450,933	33,565,726	81,428,691
New Brunswick	867	112,840,644	17,742	14,303,224	33,853,418	24,051,688	60,169,932
Quebec	7,195	1,275,067,529	197,207	207,438,809	461,705,366	479,054,474	973,175,856
Ontario	9,315	1,980,604,670	295,593	354,328,542	835,842,111	776,909,888	1,655,006,362
Manitoba	876	126,806,801	24,003	30,876,043	74,535,962	56,007,805	133,845,947
Saskatchewan	591	41,602,686	6,137	7,825,229	35,493,353	20,018,476	56,806,380
Alberta	758	81,272,088	12,625	15,252,446	53,460,736	33,291,587	88,361,723
B.C. and Yukon	1,566	313,093,114	39,468	50,537,653	122,901,168	98,470,141	227,446,505
Canada, 1930	**22,618**	**4,041,030,475**	**614,696**	**697,555,378**	**1,664,787,763**	**1,522,737,125**	**3,280,236,603**
1933.							
P.E. Island	249	2,256,307	991	529,684	1,590,834	1,126,826	2,775,787
Nova Scotia	1,277	92,004,624	12,211	9,604,680	25,354,319	19,988,257	47,912,432
New Brunswick	747	90,148,317	11,336	9,308,100	20,442,421	18,166,713	41,345,622
Quebec	7,856	1,035,339,591	157,481	134,696,386	292,560,568	288,504,782	604,496,078
Ontario	9,542	1,587,947,947	224,816	220,530,088	464,544,563	465,103,842	958,776,858
Manitoba	1,010	100,074,404	18,871	18,687,430	44,579,998	37,390,275	83,934,777
Saskatchewan	673	38,688,433	4,782	4,848,763	19,124,030	11,478,634	31,559,387
Alberta	874	69,604,563	9,753	9,573,468	29,425,975	18,876,929	49,395,514
B.C. and Yukon	1,552	263,195,652	28,417	28,469,225	70,166,220	59,034,923	133,879,330
Canada, 1933	**23,780**	**3,279,259,838**	**468,658**	**436,247,824**	**967,788,928**	**919,671,181**	**1,954,075,785**
1936.							
P.E. Island	233	2,394,532	996	553,008	2,200,028	1,055,201	3,311,223
Nova Scotia	1,158	87,888,353	15,944	13,784,556	36,077,900	27,788,510	67,784,970
New Brunswick	784	81,468,098	13,710	11,855,051	29,292,851	23,781,487	56,225,201
Quebec	7,969	1,029,546,039	194,876	182,319,454	455,027,759	377,514,998	863,687,389
Ontario	9,753	1,588,484,130	288,992	314,872,843	822,884,081	686,470,917	1,547,551,931
Manitoba	1,011	118,515,841	22,507	24,490,299	74,374,078	45,015,577	122,050,502
Saskatchewan	694	42,055,557	5,782	6,013,378	35,311,152	15,185,500	51,604,510
Alberta	905	70,224,578	11,756	12,328,471	47,684,029	25,000,136	74,052,010
B.C. and Yukon	1,695	250,686,403	39,796	45,854,374	121,362,118	87,780,346	216,136,078
Canada, 1936	**24,202**	**3,271,263,531**	**594,359**	**612,071,434**	**1,624,213,996**	**1,289,592,672**	**3,002,403,814**
1937.							
P.E. Island	240	2,637,472	1,062	607,547	2,386,091	1,117,298	3,566,991
Nova Scotia	1,135	94,756,601	18,088	16,727,338	46,964,053	33,146,796	84,393,656
New Brunswick	805	89,797,597	15,612	14,563,310	36,983,284	28,770,727	69,479,207
Quebec	8,518	1,117,772,721	219,033	216,971,207	562,889,160	445,885,666	1,046,470,796
Ontario	9,796	1,674,806,201	321,743	373,018,048	1,025,871,741	804,703,114	1,880,388,188
Manitoba	1,043	119,363,026	23,706	27,198,978	87,684,514	49,950,465	140,805,451
Saskatchewan	689	39,279,050	6,107	6,758,154	43,782,999	17,068,655	62,205,884
Alberta	895	70,804,070	12,524	13,903,062	55,898,599	28,923,095	86,225,069
B.C. and Yukon	1,713	256,011,093	42,576	51,979,393	144,466,346	99,359,051	251,924,258
Canada, 1937	**24,834**	**3,465,227,831**	**660,451**	**721,727,037**	**2,006,926,787**	**1,508,924,867**	**3,625,459,500**
1938.							
P.E. Island	229	2,652,783	1,041	582,725	2,379,543	1,131,902	3,570,667
Nova Scotia	1,102	91,393,782	16,810	15,570,669	39,703,367	31,375,251	74,860,605
New Brunswick	826	81,965,576	13,967	13,177,238	31,578,262	23,865,877	58,570,952
Quebec	8,655	1,146,235,084	214,397	213,390,084	518,430,815	428,614,079	983,123,599
Ontario	9,883	1,676,896,175	311,274	362,351,277	909,958,721	757,620,632	1,712,496,421
Manitoba	1,072	114,367,743	23,507	27,195,923	80,447,740	48,308,248	131,770,280
Saskatchewan	678	38,364,021	6,123	6,988,061	43,437,556	16,143,335	61,027,853
Alberta	970	69,192,348	12,684	14,367,789	54,345,594	30,755,626	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
Canada, 1938	**25,200**	**3,485,683,018**	**642,016**	**705,668,589**	**1,807,478,028**	**1,428,286,778**	**3,337,681,366**

[1] See footnote 1, Table 1. [2] See footnote 3, Table 1.

3.—Summary Statistics of Manufactures, by Industrial Groups, Representative Years, 1917-38.

Year and Industrial Group.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.[1]	Gross Value of Products.
	No.	$	No.	$	$	$	$
1917.							
Vegetable products	4,151	279,627,827	62,791	45,916,557	367,214,061	183,782,501	550,996,562
Animal products	5,486	207,165,245	46,994	35,753,133	320,302,039	124,103,990	444,406,029
Textile products	1,033	190,664,564	76,315	47,386,592	131,071,158	109,227,157	240,298,315
Wood and paper	7,258	538,022,224	153,701	115,198,434	150,122,143	249,201,596	399,323,739
Iron products	1,495	695,677,552	161,745	161,875,426	378,193,116	371,792,489	749,985,605
Non-ferrous metals	296	69,421,911	18,220	15,898,890	46,445,469	41,039,351	87,484,820
Non-metallic minerals	1,075	145,423,082	20,781	18,224,724	36,994,392	58,092,396	95,086,788
Chemicals	539	175,836,690	56,153	51,505,484	99,068,092	131,381,995	230,450,087
Miscellaneous industries	512	32,152,134	9,823	6,042,604	10,268,341	12,510,505	22,778,846
Totals, 1917	**21,845**	**2,333,991,229**	**606,523**	**497,801,844**	**1,539,678,811**	**1,281,131,980**	**2,820,810,791**
1920.							
Vegetable products	4,549	402,383,047	74,241	77,750,189	536,828,044	239,328,371	776,156,415
Animal products	4,823	221,792,457	48,687	54,291,606	400,496,354	152,995,130	553,491,484
Textile products	1,304	302,758,185	87,730	84,433,609	256,233,300	173,741,035	429,974,335
Wood and paper	7,881	774,937,232	144,391	172,368,578	309,813,724	417,256,115	727,069,839
Iron products	1,789	726,371,335	164,087	231,595,911	377,499,134	411,875,057	789,374,191
Non-ferrous metals	324	109,382,033	23,162	27,895,343	48,434,120	52,847,178	101,281,298
Non-metallic minerals	846	215,281,921	25,500	32,351,764	69,856,558	80,205,472	150,062,030
Chemicals	464	122,123,730	17,653	22,193,421	62,644,608	65,183,212	127,827,820
Miscellaneous industries	552	48,637,071	13,442	14,613,455	23,465,807	27,841,778	51,307,585
Totals, 1920	**22,532**	**2,923,667,011**	**598,893**	**717,493,876**	**2,085,271,649**	**1,621,273,348**	**3,706,544,997**
1922.							
Vegetable products	4,638	379,567,139	64,753	66,228,286	333,295,009	210,835,301	544,130,310
Animal products	5,118	201,829,414	49,595	49,933,679	264,078,631	107,473,382	371,552,013
Textile products	1,089	259,324,870	80,558	69,685,529	151,333,320	142,577,057	293,910,377
Wood and paper	6,966	761,020,831	118,364	132,092,249	206,860,089	283,006,200	489,866,289
Iron products	1,083	567,011,222	78,565	95,443,053	171,529,909	170,769,391	342,299,300
Non-ferrous metals	325	102,208,275	18,222	21,451,629	30,861,895	39,993,798	70,855,693
Non-metallic minerals	812	230,486,004	20,932	25,401,278	60,671,305	74,022,607	134,693,912
Chemicals	469	118,025,483	14,082	16,770,503	37,650,061	48,981,277	86,631,338
Miscellaneous industries	516	48,020,052	11,185	12,391,024	16,371,366	25,607,093	41,978,459
Totals, 1922	**21,016**	**2,667,493,290**	**456,256**	**489,397,230**	**1,272,651,585**	**1,103,266,106**	**2,375,917,691**
1926.[2]							
Vegetable products	4,876	459,954,621	75,599	77,228,907	417,369,891	238,526,689	665,727,220
Animal products	4,896	223,938,559	67,843	60,203,986	329,114,267	118,071,730	452,034,925
Textile products	1,348	299,997,102	91,600	80,371,061	200,728,207	143,682,701	348,692,376
Wood and paper	6,741	928,531,443	134,035	160,800,772	260,538,320	314,716,662	599,623,525
Iron products	1,195	655,489,290	111,258	148,150,243	270,730,832	250,312,216	534,191,465
Non-ferrous metals	403	202,503,426	30,095	39,201,147	90,613,004	84,993,291	183,501,723
Non-metallic minerals	893	251,028,657	24,354	30,107,628	79,239,842	73,294,971	166,750,419
Chemicals	556	133,407,891	14,345	18,309,377	46,124,557	58,630,323	108,500,933
Miscellaneous industries	393	53,220,208	10,032	11,309,121	18,061,071	22,939,966	41,582,051
Totals, 1926	**21,301**	**3,208,071,197**	**559,161**	**625,682,242**	**1,712,519,991**	**1,305,168,549**	**3,100,604,637**
1929.[2]							
Vegetable products	5,350	581,820,861	91,032	95,853,121	431,595,751	341,688,938	783,706,883
Animal products	4,490	243,825,065	67,670	62,081,423	345,351,882	127,929,857	477,761,855
Textile products	1,534	360,762,584	103,881	94,969,433	217,954,088	180,469,064	403,205,809
Wood and paper	7,392	1,151,463,962	164,572	192,088,948	313,797,201	381,485,477	724,972,308
Iron products	1,224	826,063,942	142,772	203,740,658	405,818,468	367,465,582	790,726,338
Non-ferrous metals	408	298,721,106	39,867	54,501,806	124,900,632	150,415,215	283,545,666
Non-metallic minerals	843	316,692,818	29,257	38,958,390	112,573,103	99,065,847	229,774,300
Chemicals	554	165,886,912	16,694	22,639,449	55,184,337	78,785,911	138,545,221
Miscellaneous industries	421	59,654,759	10,786	12,457,989	22,495,351	28,081,046	51,207,736
Totals, 1929	**22,216**	**4,004,892,009**	**666,531**	**777,291,217**	**2,029,670,813**	**1,755,386,937**	**3,883,446,116**

[1] See footnote 1, Table 1.

[2] See footnote 3, Table 1.

3.—Summary Statistics of Manufactures, by Industrial Groups, Representative Years, 1917-38—concluded.

Year and Industrial Group.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Net Value of Products.[1]	Gross Value of Products.
	No.	$	No.	$	$	$	$
1930.[2]							
Vegetable products	5,426	584,338,567	86,622	88,303,694	361,177,542	314,597,138	685,574,073
Animal products	4,341	233,334,972	57,657	55,564,398	285,328,411	127,929,546	417,540,878
Textile products	1,518	344,481,374	97,691	86,653,151	182,367,726	152,173,075	339,118,853
Wood and paper	7,799	1,219,835,569	156,377	174,099,699	267,690,284	337,297,414	635,286,712
Iron products	1,245	791,495,989	125,365	172,893,150	287,140,960	285,943,762	587,884,700
Non-ferrous metals	429	325,605,549	38,756	52,319,027	111,738,411	130,320,719	250,458,721
Non-metallic minerals	849	321,084,124	27,428	36,196,714	103,539,472	83,751,500	203,262,420
Chemicals	591	168,119,152	15,503	21,041,789	48,165,038	67,798,313	119,969,637
Miscellaneous industries	420	52,735,179	9,297	10,483,756	17,639,919	22,925,658	41,140,609
Totals, 1930	**22,618**	**4,041,030,475**	**614,696**	**697,555,378**	**1,664,787,763**	**1,522,737,125**	**3,280,236,603**
1933.							
Vegetable products	5,916	522,389,736	75,416	68,535,349	226,879,373	196,820,952	432,315,617
Animal products	4,496	201,993,642	53,111	46,453,188	179,429,948	87,629,444	271,068,210
Textile products	1,740	298,730,436	95,707	72,813,424	143,184,861	131,065,992	279,475,267
Wood and paper	7,891	892,652,622	105,080	102,218,652	134,663,641	184,233,540	341,336,701
Iron products	1,334	614,632,403	73,348	72,296,179	98,793,191	109,198,169	216,828,992
Non-ferrous metals	478	266,266,443	25,273	28,099,026	71,990,608	88,427,984	164,765,604
Non-metallic minerals	770	295,139,543	16,975	19,282,401	69,077,701	52,817,078	131,325,706
Chemicals	696	153,900,930	15,397	18,738,629	34,271,854	55,394,284	92,820,761
Miscellaneous industries	459	33,554,083	8,351	7,810,976	9,497,751	14,083,738	24,138,927
Totals, 1933	**23,780**	**3,279,259,838**	**468,658**	**436,247,824**	**967,788,928**	**919,671,181**	**1,954,075,785**
1936.							
Vegetable products	5,824	524,164,493	87,071	84,397,961	333,562,766	254,135,013	597,461,635
Animal products	4,433	222,299,844	63,609	57,829,529	283,265,596	109,823,848	397,955,241
Textile products	1,879	316,273,003	114,966	95,016,170	197,336,683	162,677,272	366,285,008
Wood and paper	8,175	874,592,781	132,374	141,301,340	205,978,921	261,020,034	497,103,666
Iron products	1,317	600,424,322	107,203	126,537,657	227,886,781	211,572,641	453,385,553
Non-ferrous metals	512	266,322,074	36,935	45,091,191	212,783,636	132,423,707	351,164,860
Non-metallic minerals	803	282,596,535	21,974	26,402,410	96,534,218	68,707,776	177,771,597
Chemicals	745	147,664,533	19,910	25,227,267	52,482,873	69,854,217	126,874,791
Miscellaneous industries	514	36,925,946	10,317	10,267,909	14,382,572	19,378,164	34,401,463
Totals, 1936	**24,202**	**3,271,263,531**	**594,359**	**612,071,434**	**1,624,213,996**	**1,289,592,672**	**3,002,403,814**
1937.							
Vegetable products	5,968	539,531,357	94,258	94,632,901	395,491,147	266,869,693	672,540,162
Animal products	4,435	230,312,163	67,996	64,816,361	326,537,087	118,117,971	449,783,908
Textile products	1,941	322,204,180	121,677	105,056,051	219,813,775	174,076,945	400,383,726
Wood and paper	8,497	927,070,757	147,254	165,298,485	256,269,941	306,961,553	597,061,878
Iron products	1,345	651,398,528	127,148	163,261,130	328,091,063	280,165,582	624,819,877
Non-ferrous metals	526	306,522,643	44,614	57,722,728	282,532,128	182,968,223	482,440,562
Non-metallic minerals	823	287,473,542	23,837	30,389,958	115,938,578	77,667,225	208,205,148
Chemicals	754	161,165,068	21,968	28,612,719	64,460,947	79,290,240	148,973,220
Miscellaneous industries	545	39,549,593	11,699	11,936,704	17,792,121	22,807,435	41,251,018
Totals, 1937	**24,834**	**3,465,227,831**	**660,451**	**721,727,037**	**2,006,926,787**	**1,508,924,867**	**3,625,459,500**
1938.							
Vegetable products	6,076	531,073,166	95,541	98,750,708	370,466,550	267,471,208	648,159,901
Animal products	4,389	227,300,762	66,660	64,752,517	317,907,853	118,950,278	442,198,408
Textile products	1,927	307,299,840	115,745	99,275,365	180,050,478	159,978,801	346,215,005
Wood and paper	8,684	951,092,969	141,974	158,873,650	227,707,841	277,002,267	533,210,257
Iron products	1,391	657,304,274	121,235	154,459,640	272,544,238	261,639,134	548,801,929
Non-ferrous metals	521	327,463,534	44,440	58,010,696	252,624,911	164,692,324	434,699,676
Non-metallic minerals	856	283,268,960	22,799	29,774,927	108,574,069	74,967,075	197,620,490
Chemicals	790	161,266,586	21,896	29,570,517	60,714,102	80,506,965	146,139,312
Miscellaneous industries	566	39,612,927	11,726	12,200,569	16,887,986	23,078,726	40,636,388
Totals, 1938	**25,200**	**3,485,683,018**	**642,016**	**705,668,589**	**1,807,478,028**	**1,428,286,778**	**3,337,681,366**

[1] See footnote 1, Table 1. [2] See footnote 3, Table 1.

Summary Statistics of Manufactures.—In Table 4 will be found an analysis of the most important statistics of manufactures for certain representative years from 1917 to 1938. These trace the tendencies in Canadian manufacturing industries as clearly as possible through this latest period of their development. In analysing statistics of production and materials used, it should be borne in mind that, due to the inflation of values from 1914-18 and immediate post-war period and the drop in prices of commodities during the depressions of 1921 and 1930, the figures for these years are not completely comparable. One very important figure, however, which shows the trend of development clearly and uninterruptedly, is concerned with the use of power. The total horse-power employed increased from 1,658,475 in 1917 to 4,712,283 in 1937, an increase of 184 p.c. in twenty years. In the same period horse-power per wage-earner increased from 3·06 to 8·65, indicating the rapidly increasing utilization of electric power in manufacturing production. The significant feature is the increase in both the absolute figures of power employed and the averages per wage-earner during the depression years as compared with 1929, although the large numbers of persons again finding employment since 1933 have reduced the averages for later years. Another interesting comparison is the trend of value added by manufacture per employee and of average salaries and wages paid since 1929. Compared with 1917, the figures for average salaries and wages per employee in 1938 represent an increase of 33·9 p.c., while the estimated increase in the value added by manufacture per employee was only 5·3 p.c. Wholesale prices of commodities declined about 31 p.c. in the same period.

Consumption of Manufactured Products.—One of the beneficial results of adopting the same classification for external trade and for production is exhibited in Table 5, where the value of commodities made available for consumption in Canada is derived from these statistics. For example, the value of all manufactured commodities made available in a period approximately corresponding to 1937 was $3,411,000,000, a figure obtained by adding to the value of manufactured products in 1937 the value of the imports of manufactured and partly manufactured goods during the fiscal year ended Mar. 31, 1938, and deducting the value of the corresponding exports for the same period. In this table more accurate statistics could be presented were it possible to exclude from the gross value of manufactured products the duplications involved when the products of one manufacturing establishment become the materials worked upon in another. Iron, vegetable, textile, wood and paper and animal products were, in that order, the leading groups in the value of finished goods made available for consumption. The large amount of manufactured vegetable products made available for consumption resulted from domestic production, as the exports and imports were about equal, while manufactures of textiles and iron and steel products, in addition to a large production, showed an excess of imports over exports of $63,000,000 and $132,000,000, respectively. Wood and paper, animal, and non-ferrous metal products were manufactured in Canada in greater quantities than required for home consumption providing export balances in these groups.

In 1937, (see Table 5), the order of the groups by the values available for consumption was unchanged from 1929, viz., iron, vegetable, textile, wood and paper, and animal products. Since 1929 the consumption of vegetable, animal, chemical, and textile products has been much better maintained than that of iron, non-metallic mineral, and wood products.

4.—Summary Statistics of Manufactures, Representative Years, 1917-38.

Item.	1917.	1920.	1926.[1]	1929.[1]	1930 [1]	1933.	1936.	1937.	1938.
Establishments.....No.	21,845	22,532	21,301	22,216	22,618	23,780	24,202	24,834	25,200
Capital..... $	2,333,991,229	2,923,667,011	3,208,071,197	4,004,892,009	4,041,030,475	3,279,259,838	3,271,263,531	3,465,227,831	3,485,683,018
Averages, per establishment... $	106,843	129,756	150,607	180,271	178,664	137,900	135,165	139,536	138,321
Averages, per employee..... $	3,848	4,882	5,737	6,009	6,574	6,997	5,504	5,247	5,429
Averages, per wage-earner..... $	4,309	5,616	6,631	6,933	7,625	8,584	6,677	6,363	6,685
Totals, employees.....No.	606,523	598,893	559,161	666,531	614,696	468,658	594,359	660,451	642,016
Averages, per establishment... "	27·8	26·6	26·3	30·0	27·2	19·7	24·6	26·6	25·9
Totals, salaries and wages..... $	497,801,844	717,493,876	625,682,242	777,291,217	697,555,378	436,247,824	612,071,434	721,727,037	705,668,589
Averages, per establishment... $	22,788	31,843	29,373	34,988	30,841	18,345	25,290	29,062	28,003
Averages, per employee..... $	821	1,198	1,119	1,166	1,135	931	1,030	1,093	1,099
Employees on salaries.....No.	64,918	78,334	75,337	88,841	84,711	86,636	104,417	115,827	120,589
Averages, per establishment... "	3·0	3·5	3·5	4·0	3·7	3·6	4·3	4·7	4·7
Salaries..... $	85,353,667	141,837,361	142,353,900	175,553,710	169,992,216	139,317,946	173,198,057	195,983,475	207,386,381
Averages,per salaried employee $	1,315	1,811	1,890	1,976	2,007	1,608	1,659	1,692	1,720
Employees on wages.....No.	541,605	520,559	483,824	577,690	529,985	382,022	489,942	544,624	521,427
Averages, per establishment... "	24·8	23·1	22·7	26·0	23·4	16·1	20·2	21·9	20·7
Wages..... $	412,448,177	575,656,515	483,328,342	601,737,507	527,563,162	296,929,878	438,873,377	525,743,562	498,282,208
Averages, per wage-earner..... $	762	1,106	999	1,042	995	777	896	965	956
Cost of materials..... $	1,539,678,811	2,085,271,649	1,712,519,991	2,029,670,813	1,664,787,763	967,788,928	1,624,213,996	2,006,926,787	1,807,478,028
Averages, per establishment... $	70,482	92,547	80,396	91,361	73,605	40,698	67,111	80,814	71,725
Averages, per employee..... $	2,539	3,482	3,063	3,045	2,708	2,065	2,733	3,039	2,815
Values added in manufacture[2]... $	1,281,131,980	1,621,273,348	1,305,168,549	1,755,386,937	1,522,737,125	919,671,181	1,289,592,672	1,508,924,867	1,428,286,778
Averages, per establishment[2].. $	58,646	71,954	61,273	79,015	67,324	38,674	53,285	60,760	56,678
Averages, per employee[2]..... $	2,112	2,707	2,334	2,634	2,477	1,962	2,170	2,285	2,224
Gross value of products..... $	2,820,810,791	3,706,544,997	3,100,604,637	3,883,446,116	3,280,236,603	1,954,075,785	3,002,403,814	3,625,459,500	3,337,681,366
Averages, per establishment... $	129,128	164,501	145,561	174,804	145,028	82,173	124,056	145,988	132,051
Averages, per employee..... $	4,651	6,189	5,545	5,826	5,336	4,170	5,051	5,489	5,183
Power employed.....h.p.	1,658,475	2,068,875	3,122,377	3,855,648	4,039,007	4,135,008	4,461,867	4,712,283	[3]
Averages, per establishment.. "	76	92	147	174	179	174	184	190	[3]
Averages, per wage-earner.... "	3·06	3·97	6·45	6·67	7·62	10·82	9·11	8·65	[3]

[1] A change in the method of computing the number of wage-earners in the years 1925 to 1930, inclusive, increased the number somewhat over that which the method otherwise used would have given. There was, therefore, a proportionate reduction in the averages for 1925-30 per employee and wage-earner, as compared with what these averages would have been under the other method. In 1931, however, the method in use prior to 1925 was re-adopted. The figures for 1931 and later years are, therefore, comparable with those for 1924 and earlier years. [2] Net values of products; see footnote 1, Table 1, p. 397. [3] Not available at time of going to press.

5.—Consumption of Manufactured Products, by Groups, 1937, with Totals for 1922-37.

NOTE.—Statistics of manufacturing production are for the calendar year. Imports and exports of manufactured and partly manufactured goods are for the fiscal years ended Mar. 31 of the following years.

Year and Industrial Group.	Value of Products Manufactured.	Manufactured and Partly Manufactured Goods.		Value of Manufactured Products Available for Consumption.[1]
		Value of Net Imports.[1]	Value of Domestic Exports.	
	$	$	$	$
Totals, 1922	**2,375,917,691**	**574,551,323**	**515,173,415**	**2,435,295,599**
Totals, 1923	**2,662,927,474**	**639,343,645**	**591,829,306**	**2,710,441,813**
Totals, 1924	**2,570,561,931**	**576,031,243**	**591,598,479**	**2,554,491,695**
Totals, 1925	**2,816,864,958**	**671,462,940**	**695,325,245**	**2,793,002,653**
Totals, 1926	**3,100,604,637**	**767,022,008**	**673,709,266**	**3,193,917,379**
Totals, 1927	**3,257,214,876**	**825,147,919**	**648,178,000**	**3,434,184,795**
Totals, 1928	**3,582,345,302**	**954,387,551**	**698,376,615**	**3,838,356,238**
Totals, 1929	**3,883,446,116**	**939,130,201**	**686,876,071**	**4,135,700,246**
Totals, 1930	**3,280,236,603**	**675,828,233**	**490,108,470**	**3,465,956,366**
Totals, 1931	**2,555,126,448**	**423,519,849**	**347,456,198**	**2,631,190,099**
Totals, 1932	**1,980,471,543**	**281,855,757**	**267,765,614**	**1,994,561,686**
Totals, 1933	**1,954,075,785**	**298,068,344**	**365,232,113**	**1,886,912,016**
Totals, 1934	**2,393,692,729**	**357,320,284**	**419,094,297**	**2,331,918,716**
Totals, 1935	**2,653,911,209**	**385,597,041**	**582,041,141**	**2,457,467,109**
Totals, 1936	**3,002,403,814**	**468,455,981**	**676 890,803**	**2,793,968,992**
INDUSTRIAL GROUP, 1937.				
Vegetable products	672,540,163	74,906,961	80,940,852	666,506,272
Animal products	449,783,908	16,660,375	80,739,117	385,705,166
Textiles and textile products	400,383,726	75,865,854	13,170,220	463,079,360
Wood and paper products	597,061,878	33,108,329	233,815,615	396,354,592
Iron and its products	624,819,877	202,103,671	69,732,544	757,191,004
Non-ferrous metal products	482,440,562	39,392,799	255,488,383	266,344,978
Non-metallic mineral products	208,205,148	42,409,829	11,701,739	238,913,238
Chemicals and allied products	148,973,220	36,501,079	20,926,267	164,548,032
Miscellaneous industries	41,251,018	45,927,586	14,584,670	72,593,934
Totals, 1937	**3,625,459,500**	**566,876,483**	**781,099,407**	**3,411,236,576**

[1] Net imports are total imports less foreign products re-exported. For 1928 to 1937 foreign products imported and later re-exported are eliminated from the value of products available for consumption, but for 1927 and previous years this was impossible, since foreign exports for these years had never been analysed as raw materials or partly or fully manufactured goods. Therefore in this table the value of manufactured products made available for consumption, for the years 1922 to 1927, inclusive, is an overstatement by the amount of the foreign exports of manufactured goods in each year, probably varying from about $11,000,000 in 1922 to $18,000,000 in 1927.

Subsection 2.—Value and Volume of Manufactured Products.

Value of Manufactured Products.—In the interpretation of manufacturing values over a number of years, variations in the level of prices must be borne in mind, especially when such variations have been as great as those in the period since the annual Census of Manufactures was begun in 1917. The index number of wholesale prices in Canada, on the 1926 base, compiled by the Dominion Bureau of Statistics, stood at 114·3 in 1917, 155·9 in 1920, 97·3 in 1922, 95·6 in 1929, 67·1 in 1933, and 84·6 in 1937. Index numbers of the prices of fully or chiefly manufactured goods were: 113·5 in 1917, 156·5 in 1920, 100·4 in 1922, 93·0 in 1929, 70·2 in 1933, 73·6 in 1936 and 80·5 in 1937.

Volume of Manufacturing Production.*—Since real income is ultimately measured in goods and services, the growth of the volume of manufacturing production, as distinguished from its value, becomes a matter of great significance. The important thing to know is whether consumers are getting more goods and services, not whether they are expending more dollars and cents.

*For a much more detailed and comprehensive treatment of this subject, see the study "The Quantity of Manufacturing Production in Canada 1923-29" by A. Cohen, B. Com., Chief, General Manufactures Branch, Dominion Bureau of Statistics.

The index of volume is based on the quantities of manufactured products reported and covers 71·1 p.c. of the total value of the production in 1926. It is weighted according to the values added by manufacture in 1926. A complete description of the manner in which the index is constructed will be found in the publication referred to in the footnote to p. 404.

The physical volume of manufacturing production increased 50·2 p.c. from 1923 to 1929. When it is recalled that the population of Canada is estimated to have increased only 11·3 p.c. during the same period, the growth of manufacturing production is indeed remarkable. Of this advance, the part resulting from an increase in the domestic demand due to growth of population would be about 11·3 p.c. Exports of partly and fully manufactured goods increased from $591,830,000 in the fiscal year ended Mar. 31, 1924, to $686,876,000 in the fiscal year 1930, the increase in exports representing about 3·6 p.c. of the 1923 production. The remainder of the increase in production by 1929, or a margin equal to roughly 35 p.c. of the volume of manufactures of 1923, was, therefore, apparently absorbed by increases in capital equipment and by the rise in the standard of living of the population of Canada.

A similar analysis of the volume of manufactures since 1929 in relation to population and exports would show that the decline in the depression was due chiefly to reduced exports and a cessation in production of capital equipment.

As may be seen from Table 6, all groups in the component material classification reported declines in the volume of production during the depression. In comparing the low point of the depression, viz., 1933, with 1929, it is found that the iron and steel group suffered the greatest contraction in production with a decrease of 61·1 p.c. Since 1933 there has been material improvement in all groups, the index of production for all industries rising from 82·0 in 1933 to 132·0 in 1937. For the latest year three groups, viz., iron and its products, non-metallic minerals, and miscellaneous industries were below the level of 1929, but in each case the volume of production was very much upward compared with 1936.

6.—Indexes of the Volume of Manufacturing Production, According to Component Material and Purpose Classifications, Representative Years, 1923-37.

(1926=100.)

Classification and Group.	1923.	1929.	1932.	1933.	1935.	1936.	1937.
Component Material Classification—							
Vegetable products	78·3	121·6	92·5	90·9	108·6	118·2	128·7
Animal products	81·4	95·4	83·2	86·4	99·1	107·1	111·4
Textiles and textile products	84·9	113·6	98·5	107·1	124·8	131·9	139·9
Wood and paper products	83·4	127·5	87·2	89·3	115·0	126·3	140·6
Iron and its products	82·2	129·7	53·4	50·5	84·5	94·3	119·2
Non-ferrous metals	72·9	138·7	100·4	98·3	138·5	156·1	187·9
Non-metallic minerals	88·9	145·0	84·4	77·8	99·1	112·7	129·5
Chemicals and allied products	84·0	120·4	93·7	99·2	123·8	132·8	152·3
Miscellaneous industries	80·1	110·0	66·1	58·9	76·6	81·7	95·0
Totals, All Industries	**81·8**	**122·9**	**81·9**	**82·0**	**106·5**	**116·6**	**132·0**
Purpose Classification—							
Food	84·7	102·8	92·7	91·9	104·1	113·6	116·7
Clothing	82·9	114·8	93·2	97·9	110·5	117·3	124·6
Drink and tobacco	76·0	140·5	101·7	96·2	125·2	137·9	163·3
Personal utilities	85·4	101·9	70·6	71·0	87·9	94·7	107·0
House furnishings	78·9	137·7	89·9	87·3	109·2	121·3	140·5
Books and stationery	93·1	131·5	127·6	122·0	154·9	159·7	168·8
Producers materials	84·9	124·7	75·0	77·9	105·6	118·7	137·1
Industrial equipment	76·3	129·5	75·6	70·2	100·5	112·5	134·4
Vehicles and vessels	71·4	131·6	52·4	53·3	83·5	87·0	109·0
Miscellaneous	85·0	125·1	99·4	113·3	148·6	164·8	207·2

7.—Indexes of the Volume of Manufacturing Production for the Groups of the Purpose Classification, Representative Years, 1923-37.

(1926=100.)

Group and Class.	1923.	1929.	1932.	1933.	1935.	1936.	1937.
Food	84·7	102·8	92·7	91·9	104·1	113·6	116·7
Breadstuffs	90·8	110·6	97·4	94·5	103·8	109·8	112·8
Fish	74·1	77·9	57·2	59·2	66·7	74·2	63·7
Fruit and vegetable preparations	59·3	127·5	109·4	116·2	147·6	176·4	190·7
Meats	90·1	97·3	90·6	94·4	107·0	124·3	133·1
Milk products	87·4	96·7	100·8	98·5	113·3	121·4	125·3
Oils and fats	111·5	87·8	101·9	89·9	119·9	125·9	191·9
Sugar	74·3	83·0	84·1	77·4	86·1	96·9	90·7
Infusions	97·0	112·9	114·8	124·2	142·6	150·0	153·0
Miscellaneous	82·9	120·2	111·6	118·7	150·4	173·8	184·6
Clothing	82·9	114·8	93·2	97·9	110·5	117·3	124·6
Boots and shoes	79·8	110·0	83·0	87·4	97·2	104·0	115·0
Fur goods	48·3	114·6	89·3	95·1	101·2	113·3	115·1
Garments and personal furnishings	90·6	113·3	87·8	96·5	115·7	119·1	125·6
Gloves and mittens	93·9	133·3	97·7	121·1	145·9	167·9	172·1
Hats and caps	67·1	109·2	87·0	85·1	107·9	113·1	117·6
Knitted goods	83·9	111·4	103·2	107·5	116·4	126·2	131·8
Waterproofs	78·4	143·8	107·9	105·2	140·5	162·5	190·5
Drink and Tobacco	76·0	140·5	101·7	96·2	125·2	137·9	163·3
Beverages, alcoholic	69·2	148·0	94·0	84·6	119·7	135·7	156·9
Beverages, non-alcoholic	86·0	146·8	137·4	131·5	155·9	174·9	245·6
Tobacco	81·3	133·3	108·8	113·4	129·3	133·2	149·2
Personal Utilities	85·4	101·9	70·6	71·0	87·9	94·7	107·0
Jewellery and time-pieces	92·4	104·2	78·3	79·7	103·1	110·6	124·2
Recreational supplies	93·0	85·0	28·0	23·2	35·6	44·9	51·4
Personal utilities	78·6	111·7	104·1	109·3	127·0	131·9	149·2
House Furnishings	78·9	137·7	89·9	87·3	109·2	121·3	140·5
Books and Stationery	93·1	131·5	127·6	122·0	154·9	159·7	168·8
Producers Materials	84·9	124·7	75·0	77·9	105·6	118·7	137·1
Farm materials (fertilizers)	78·3	130·8	381·1	505·8	675·3	754·9	1,001·0
Manufacturers materials	82·9	124·4	82·9	91·0	123·7	137·8	159·3
Building materials	88·0	123·1	54·1	47·3	65·4	76·3	88·0
General materials	95·4	133·4	79·2	76·8	96·0	105·4	119·6
Industrial Equipment	76·3	129·5	75·6	70·2	100·5	112·5	134·4
Farming equipment	66·8	98·9	25·4	29·6	59·0	66·1	79·3
Manufacturing equipment	86·2	131·4	65·0	58·2	101·8	118·2	156·9
Trading equipment	83·3	116·4	120·2	120·6	137·3	135·0	156·7
Service equipment	96·3	107·9	103·7	103·1	157·6	128·9	143·3
Light, heat and power equipment	66·2	149·0	100·3	87·7	122·8	134·5	159·2
General equipment	84·3	130·0	68·2	66·4	93·8	109·5	130·3
Vehicles and Vessels	71·4	131·6	52·4	53·3	83·5	87·0	109·0
Miscellaneous	85·0	125·1	99·4	113·3	148·6	164·8	207·2
Totals, All Manufactures	81·8	122·9	81·9	82·0	106·5	116·6	132·0

In analysing the changes in the volume of production, on the purpose classification basis, some interesting facts are revealed. In comparing 1933 with 1929 it is found that the food group reported a decrease of 10·6 p.c., while that of clothing decreased 14·7 p.c. The output of vehicles and vessels, which is largely made up of the automobile and rubber-tire industries, recorded a decrease of 59·5 p.c.—this is the greatest decrease of any group. Producers materials and industrial equipment declined 37·5 p.c. and 45·8 p.c., respectively, due to the general decline in industrial activity. House furnishings dropped 36·6 p.c., personal utilities 30·3 p.c., drink and tobacco 31·5 p.c., and books and stationery 7·2 p.c. The decrease in the personal utilities group needs some explanation. The production of musical instruments, which is included in this group, has been decreasing steadily during the past few years, the output of pianos, phonographs, and phonograph records becoming smaller and smaller. The main product of the musical instruments industry, namely, the radio, is now produced in the electrical apparatus industry. This industry, however, is credited to the industrial equipment group, as by far the largest part of its output consists of industrial equipment.

All groups shared in the improvement since 1933, and all groups, with the exception of vehicles and vessels, showed increases in 1937 over 1929, the greatest percentage advances being in miscellaneous 65·6, books and stationery 28·4, drink and tobacco 16·2, and food 13·5.

The index of the physical volume of production dropped from 122·9 in 1929 to 82·0 in 1933 and has risen to 132·0 in 1937, being a net increase of 7·4 p.c. over 1929. This increase is significant when compared with a decrease of 14·0 p.c. in the net value of production and 5·7 p.c. in the number of wage-earners employed.

The construction of this new index of the volume of manufacturing production has superseded, for 1923 and later years, the index published in 1931 and previous years, and which was shown on p. 389 of the 1939 Year Book.

Section 2.—Production of Industrial Groups and Individual Industries.

For the purposes of the Census of Manufactures, the main detailed analysis is made under a classification in which industries are grouped according to the chief component material of the goods manufactured. This is, therefore, the grouping used in Table **9**, where the statistics of individual industries are presented in detail, and in the historical series already shown in Table **3**. However, there are also less detailed analyses under purpose groupings appearing in Table **10** and under origin groupings in Table **11.**

Subsection 1.—Manufactures Grouped by Chief Component Materials.

A classification based on the chief component materials in the various products of each manufacturing establishment was applied for the first time in the compilation of the returns for 1920. The number of groups was reduced from fifteen to nine to correspond with the external trade classification and the classes of industry were somewhat altered to conform with recent industrial developments. Subsequently, a number of minor changes have been made, the most important being the elimination of central electric stations and the dyeing, cleaning and laundry industry from the compilation in 1936. Revisions due to these changes have been carried back to 1917 in so far as possible.

Effects of the Depression upon the Main Groups.—In Table **8**, is shown the effects of the depression and the recovery since 1933 upon the main groups of industries with regard to the numbers employed, the salaries and wages paid, and the gross value of products. Owing to the price decline in the depression, money values both of wages and of products were naturally affected more than the number of employees. Furthermore, during periods of curtailed production there is a tendency for wage-earners to be put on part time, while the number of salaried employees responds less quickly to reduction in output than that of wage-earners. Therefore, there are a number of reasons why the variation in the number of employees should be less than that of money values. The figures of Table 8 should be compared with those of Table **6** which show changes in volume of production.

As noted elsewhere in this chapter (especially under the discussion of volume of manufacturing production on pp. 404 to 406), the depression affected the production of capital or durable goods much more than that of consumption goods. Therefore, production in such groups as iron products, and wood and paper products declined more seriously than that in such groups as textiles, vegetable products, and animal products, and in 1937 the recovery had not progressed far enough for the production of durable goods to have regained the relative position it held in 1929.

8.—Percentage Variation in Employment, Salaries and Wages, and Gross Value of Products in the Main Industrial Groups Compared for Specific Years, 1929, 1933 and 1937.

NOTE.—The highest pre-depression year was 1929, while the lowest depression year was 1933.

Industrial Groups.	1933 Compared with 1929.			1937 Compared with 1929.			1937 Compared with 1933.		
	Employees.	Salaries and Wages.	Gross Value of Products.	Employees.	Salaries and Wages.	Gross Value of Products.	Employees.	Salaries and Wages.	Gross Value of Products.
Vegetable products	−17·2	−28·5	−44·8	+ 3·5	− 1·3	−14·2	+25·0	+38·1	+55·6
Animal products	−21·5	−25·2	−43·3	+ 0·5	+ 4·4	− 5·9	+28·0	+39·5	+65·9
Textile products	− 7·9	−23·3	−30·7	+17·1	+10·6	− 0·7	+27·2	+44·3	+43·3
Wood and paper products	−36·1	−46·8	−52·9	−10·5	−13·9	−17·6	+40·1	+61·7	+74·9
Iron and its products	−48·6	−64·5	−72·6	−10·9	−19·9	−21·3	+73·3	+125·8	+187·1
Non-ferrous metals	−36·6	−48·4	−41·9	+11·9	+ 5·9	+70·1	+76·5	+105·4	+192·8
Non-metallic minerals	−42·0	−50·5	−42·8	−18·5	−22·0	− 9·4	+40·4	+57·6	+58·5
Chemicals	− 7·8	−17·2	−33·0	+31·6	+26·4	+ 7·5	+42·7	+52·7	+60·5
Miscellaneous products	−22·6	−37·3	−52·9	+ 8·5	− 4·2	−19·4	+40·1	+52·8	+70·9
Averages, All Industries	**−29·7**	**−43·9**	**−49·7**	**− 0·9**	**− 7·1**	**− 6·7**	**+40·9**	**+65·4**	**+85·4**

Vegetable Products.—The industries of this group are mainly dependent upon the agricultural crops of Canada for their raw materials and, in some instances, their products enter largely into the export trade. However, there are some important industries in the group—e.g., the rubber industry—that are almost entirely dependent upon imported raw materials.

The Flour-Milling Industry.—This is the most important member of the group from the standpoint of gross value of production. Under modern conditions the industry has a capacity for flour production far in excess of domestic consumption, so that its prosperity has fluctuated widely with the condition of the export market. Exports of wheat flour declined from 10,737,000 barrels in 1928 to 4,087,000 in 1937, but in spite of the decrease Canada continues to be one of the leading exporters of wheat flour. A majority of flour-mills also grind coarse grains for the production of live-stock feed. In rural districts there are many small mills devoted entirely to the grinding or chopping of feed grains, usually on a custom basis.

FLOUR-MILLS OF CANADA, WITH THEIR EQUIPMENT AND CAPACITIES, BY PROVINCES, 1937, WITH TOTALS, 1936.

Province.	Flour and Grist Mills.	Chopping Mills.	Total Mills.	Rolls.	Stones.	Daily Capacity of Flour-Mills.
	No.	No.	No.	pairs.	pairs.	bbl.
Prince Edward Island	11	1	12	56	7	481
Nova Scotia	2	7	9	5	Nil	53
New Brunswick	6	19	25	43	"	415
Quebec	81	148	229	377	146	12,716
Ontario	114	508	622	1,890	33	50,092
Manitoba	32	8	40	542	4	11,320
Saskatchewan	42	21	63	514	17	13,862
Alberta	44	34	78	602	1	12,394
British Columbia	3	5	8	46	Nil	724
TOTALS, 1937	335	751	1,086	4,075	208	102,057
TOTALS, 1936	363	755	1,118	4,425	219	102,042

Bread and Bakery Products.—With the increase in urban population, and the changes resulting from motor transportation which make it possible for factory-made bread to be economically distributed in rural communities, the bread industry

has expanded rapidly in the past decade. Table 12, p. 426, shows that in 1937 this industry ranked eleventh in gross value of products, ninth in net value, fifth in number of employees, and eighth in salaries and wages paid.

Rubber Goods.—The rubber industry in 1937 ranked third in this group and thirteenth among the industries of Canada in gross value of products. This industry is, of course, closely related to the use of motor vehicles, and the fact that in 1937 Canada stood fifth among the nations of the world in the number of such vehicles registered, partly accounts for her ranking among the leading countries as a manufacturer of rubber goods. The industry is able to operate so efficiently in Canada upon a quantity basis that, besides supplying the domestic market, it contributes largely to the export trade. See the "Condensed Preliminary Report on the Trade of Canada, 1938-39", p. 51, where it is shown that in 1938 Canada ranked third among the countries of the world in the export of rubber tires.

Fruit and Vegetable Preparations.—This industry, which includes canned fruits, canned vegetables, pickles, vinegar, jams, etc., is another important member of the vegetable products group. The industry has grown rapidly since the War of 1914-18. During the period 1923-37 the volume of fruit and vegetable preparations produced increased over 220 p.c. (see Table 7, p. 406). This growth is remarkable as it represents an increase in the domestic demand, both imports and exports being relatively small as compared with domestic production, although there is a small export surplus.

Tobacco, Cigars, and Cigarettes.—The tobacco manufacturing industry is another important division of this group that caters very largely to the domestic market. Imports and exports of manufactured tobacco are small. The industry normally absorbs about three-quarters of the tobacco crop of Canada, although a proportion of imported raw leaf is used for blending.

Other important industries of this group are: biscuits and confectionery, brewing, sugar refineries, and coffee, tea, and spices. With regard to the sugar-refining industry, refineries situated on the Atlantic and Pacific Coasts use imported raw cane sugars, while others in western Ontario and Alberta manufacture beet sugar. The production of the latter is shown in the Agriculture chapter, pp. 224-225.

Animal Products.—The industries of this group process the products of agricultural live stock, of fisheries, and of fur-bearing animals.

Slaughtering and Meat Packing.—The products of this, the leading industry of the group, besides supplying the home market, constitute an important element in exports, especially bacon and hams. The growth of the industry from a production valued at $3,800,000 in 1870, and $7,100,000 in 1890, to that of to-day has been accompanied by a concentration of the major part of the production into a comparatively small number of large establishments, thereby facilitating greater efficiency of operation and the utilization of by-products for the production of fertilizers, glue, and canned meats and soups. There has been a large increase in the number of establishments since 1930, due to the inclusion of wholesale butchers operating small plants engaged in slaughtering only. The inclusion of these small establishments did not affect materially the value of production of the industry. The numbers of live stock slaughtered at Canadian inspected establishments are shown in the Internal Trade chapter (see Index).

Butter and Cheese.—For many years this industry has been of leading importance in Canada. It originated in the mixed-farming and dairying districts of Eastern Canada, and about the beginning of the present century large quantities of butter

and cheese were exported. However, with the increase of population and expansion of grain growing on the prairies, exports of these products declined. Since the War of 1914-18 there has been a tendency for mixed farming and dairying to spread in certain districts of the West and in certain years a considerable export movement of butter has again occurred. Cheese production has declined since the War of 1914-18, but a large proportion of the production is still exported. Further information regarding the dairy industries appears in the Agriculture chapter at pp. 216 to 220.

Leather Tanneries, and Boots and Shoes.—The tanning industry has long been established on a considerable scale, mainly, of course, because the large numbers of cattle raised and slaughtered provide a ready supply of hides. The industry is now so well developed that there is an export surplus of tanned leather. The boot and shoe industry almost completely supplies the home market in standard lines, the small import surplus being largely confined to expensive shoes. The tanning industry is centred chiefly in Ontario, but more than half the total boots and shoes are manufactured in the Province of Quebec.

Fish Curing and Packing.—This industry occupies an important place in relation to the fisheries of Canada. A considerable proportion of the annual catch is exported to foreign markets in cured and canned forms. Further information regarding the industry appears in the Fisheries chapter especially at pp. 293 to 295.

Textile Products.—The industries of this group have developed from the household spinning and weaving of the early settlers. They now supply the bulk of the requirements of domestic consumption (see Table **5**, p. 404). The import balance under this heading consists largely of either raw materials or fine goods that cannot be competitively manufactured in Canada. Two important raw materials consumed by branches of industry in this group—namely, raw cotton and raw silk—are entirely imported. The industries of this group are developed chiefly in the eastern provinces, where the factors of climate, cheap power, available labour forces, and accessibility of raw materials are favourable to large-scale growth.

In net production, i.e., in value added by manufacture, which is a truer criterion than gross production of the place of the group in the industrial life of the country, the textile group was fifth in 1937 among the nine major groups shown in the summary statistics of Table **3**, p. 401, being exceeded by the wood and paper, iron and its products, vegetable, and non-ferrous metal products groups. Textiles accounted for about 12 p.c. of the net manufacturing production of Canada. As an indication of the contribution that the textile group made in 1937 to employment in the Dominion, the group stood third in the number of employees and third in salaries and wages paid, with about 18·4 p.c. of the total employees in manufacturing and 14·5 p.c. of the total salaries and wages paid. (See Table **19**, p. 437.) The manufacture of textiles may be regarded under two general divisions: (1) the spinning, weaving, and knitting trades, and (2) the finishing trades. In the past, the second division, which consists principally of the making up of piece goods into articles of clothing, has been the larger, but in recent years there has been a tendency for the first or primary division to equal or exceed the second in value of production.

Cotton Yarn and Cloth.—This is the largest industry in the textile group. In 1937 it ranked fourteenth among the industries of Canada (see Table **12**, p. 426), and third among the industries of Quebec (Table **4**, p. 458).

Finishing Trades.—As already mentioned, the industries engaged in making up piece goods into clothing are a very important division of the textile group. The largest of these industries are women's factory clothing, men's factory clothing, and men's furnishing goods, while the manufacture of hats and caps and of corsets are somewhat smaller industries in the same division. The manufacture of woollen textiles is not so largely developed in Canada as that of other textile products. Nevertheless, the woollen cloth, woollen goods, *n. e. s.*, woollen yarn, and carpet industries, taken together, constitute quite a large textile production and, in addition, the products of the hosiery and knitted goods industry include a large percentage of woollen materials. Detailed statistics of these industries are shown in Table **9**, while their relative importance compared with other industries in Canada appears in Tables **12** and **12A**. Imports and exports of textile products may be found in Tables **12** and **13** of the External Trade chapter (see Index).

Hosiery and Knitted Goods.—This industry is important from the standpoint of employment in the Dominion. In 1937, although ranking only eighteenth in value of production, it was thirteenth in salaries and wages paid (Table **12**, p. 426). The volume of knitted goods produced has increased materially in the years since 1934, being 131·8 in 1937 compared with 111·4 in 1929.

Silk and Artificial Silk.—This industry has shown a remarkable expansion during recent years. While the great majority of other manufactures have scarcely yet regained the level of production attained in 1929, this industry has since then increased 21 p.c. in capital investment, 135 p.c. in number of employees, 138 p.c. in salaries and wages paid, 96 p.c. in net value, and 93 p.c. in gross value of production. As most of these comparisons are in money values, the record is especially remarkable in view of the decline in price levels during the period. Much of the growth has been due to the development of artificial silk textiles.

Wood and Paper Products.—While the gross value of production by industries of this group ranked third in 1937 among the main groups, following vegetable products and iron products, the wood and paper group stood highest in net values, capital employed, employees, and salaries and wages paid. These industries draw their raw materials almost entirely from the forests of Canada. The primary operations in the woods provide work during part of the year for an average of 200,000 individuals, largely during the season when other forms of employment are at their minimum. This has a valuable steadying effect on general labour conditions throughout the year.

The operations of the two leading industries under this group, namely, pulp and paper mills and sawmills, are treated fully in the Forestry chapter at pp. 265 to 276, while statistics regarding capital, employees, power installed, etc., appear in Table **9**, p. 416.

The printing industries—printing and publishing, printing and bookbinding, lithographing, engraving, and trade composition—are included within this group

because paper is the principal material used by them. The first two especially make an important contribution to manufacturing production in Canada, as indicated by their place in the forty leading industries (Table 12). Other large industries included in the wood and paper group are: paper boxes and bags, furniture, and planing mills, sash and door factories.

Iron and Its Products.—The gross value of production by industries of this group was second among the nine main groups in 1937. In periods of active prosperity the relative standing of the group tends to rise; it stood first in 1920 and 1929, while in 1933 it was fifth (Table 3). The value of production increased nearly three times from 1933 to 1937, while the volume (Table 6) increased by 136 p.c. The demand for durable goods depends in large measure upon the rate of capital improvement, which is almost at a standstill in times of depression and rises to a high level in times of prosperity.

Primary Iron and Steel.—There are at present four companies operating blast furnaces in Canada for the production of pig-iron. One of these is located in Nova Scotia and uses local coal and iron ore from the great Wabana deposit in Newfoundland which it controls. The other three are located in Ontario on the Great Lakes waterways where they have the advantage of cheap water transportation for iron ore imported from the Messabi Range of Minnesota and coal from Pennsylvania. These firms also operate open-hearth steel furnaces and rolling mills to make steel ingots, blooms and billets, merchant and alloy steel bars, rails, structural shapes, plates, sheets, rail fastenings, etc. There is also a large production in Canada of ferro-alloys (ferro-silicon, ferro-manganese, etc.) which are produced in electric furnaces. These alloys usually constitute the most important item of Canadian exports of primary iron. Output of these products since 1920 is shown in Table 16 of the Mines and Minerals chapter, p. 337.

Automobiles.—This is the most important industry of the iron group and is indeed one of the largest industries in Canada (Table 12). Table 4 of Part III of the Transportation chapter shows the number of vehicles manufactured, imported, and exported in each year, while in the Internal Trade chapter the retail sales of motor vehicles are shown.

Automobile Supplies.—As an adjunct to the manufacture and wide use of motor vehicles, a large industry has developed for the independent production of parts and supplies required for the making, repair, and upkeep of such vehicles.

Railway Rolling-Stock.—With railway transportation so important a factor in the economic life of Canada, the manufacture and repair of railway vehicles is a large and widespread industry. In addition to rolling-stock for the standard steam and electric railways, the industry produces locomotives and cars for industrial, mining, and engineering purposes. The industry stands high among the industries of Canada in the number of employees engaged and in salaries and wages paid.

Other important industries classified under the iron group are: machinery, sheet metal products, castings and forgings, wire and wire goods, hardware and tools, agricultural implements, etc. The manufacture of agricultural implements has been at a low level for some years owing to the depressed condition of agriculture, especially in the grain-growing West.

Non-Ferrous Metals.—Two industries classified under this group have shown outstanding development in the period since the War of 1914-18.

Non-Ferrous Metal Smelting and Refining.—This industry now ranks first in gross value of products and second in net value. An important factor in its rapid growth has been the discovery and development of a number of large deposits of base metal ores in Canada, while the availability of low-cost electric power has been another factor in its expansion. This latter factor accounts very largely for the establishment of one large plant on the Saguenay where imported aluminium ore is smelted into bars and other forms of pure metal for export. The products of the whole industry now constitute an important element of the export trade.

Electrical Apparatus and Supplies.—The total horse-power installed in central electric stations in Canada has increased from 1,900,000 in 1919 to 7,477,000 in 1938, while the production in kilowatt hours has increased in the same period from 5,500,000,000 to 26,154,000,000 (see Table 6, Water Powers chapter, p. 369). Accompanying this growth of production there has been a very widespread extension of the use of electricity for industrial, commercial, and domestic purposes. A large market has therefore developed in Canada for a wide variety of electrical equipment from the largest generators down to household appliances, and a very large industry (eighth among the industries of Canada in 1937, as shown in Table 12) has grown up to supply that market.

Non-Metallic Mineral Products.—About half the total production of this group is accounted for by the petroleum-refining industry.

Petroleum Products.—The petroleum-refining industry has grown to its present size with the increased use of motor vehicles. In the past the crude petroleum has been largely imported and the refineries were located where such imports were economically available either by water or pipe-line transportation. Developments in the Turner Valley are providing a large supply of crude petroleum in Canada.

Coke and Gas Products.—This industry, being chiefly the production of domestic heating and illuminating gas, has not shown striking expansion, being affected by the competition of low-cost electricity. However, most of the main centres of population are provided with gas services. Production in 1921, valued at $33,000,000, compares with a production valued at $42,000,000 for 1937.

Other important industries included in the non-metallic mineral group are: glass products, abrasives, cement, and clay products. The two last-mentioned industries, which in recent years have been below normal production owing to the low level of activity in construction and building, showed some improvement in 1937. The manufacture of artificial abrasives is well developed in Canada because of the advantage of low-cost electric power and a considerable part of the product of the industry is exported.

Chemicals and Allied Products.—Industries of this group are widely developed in Canada. Production attained a very high level during the War of 1914-18. However, since those war industries disappeared there has been a very real growth for ordinary commercial and industrial purposes. Volume of production under this group was higher in 1937 than in any other year since 1923 (Table 6).

9.—Statistics of the Numbers, Capital, Employees, Salaries and Wages, Power, Fuel,

	Province, Group or Kind of Industry.	Establishments.	Capital Employed.	Salaried Employees.		
				Male.	Female.	Salaries.
	PROVINCE.	No.	$	No.	No.	$
1	Prince Edward Island	240	2,637,472	219	45	211,951
2	Nova Scotia	1,135	94,756,601	1,849	428	3,187,215
3	New Brunswick	805	89,797,597	1,668	428	3,245,800
4	Quebec	8,518	1,117,772,721	29,574	6,874	59,072,673
5	Ontario	9,796	1,674,806,201	44,713	14,330	104,676,703
6	Manitoba	1,043	119,363,026	3,629	879	7,295,154
7	Saskatchewan	689	39,279,050	1,627	273	2,495,225
8	Alberta	895	70,804,070	2,455	463	4,445,935
9	British Columbia and Yukon	1,713	256,011,093	5,358	1,015	11,352,819
	Totals	**24,834**	**3,465,227,831**	**91,092**	**24,735**	**195,983,475**
	INDUSTRIAL GROUP.					
1	Vegetable products	5,968	539,531,357	15,593	3,805	31,157,950
2	Animal products	4,435	230,312,163	11,592	2,315	18,672,367
3	Textiles and textile products	1,941	322,204,180	9,830	4,216	24,459 516
4	Wood and paper products	8,497	927,070,757	23,205	5,293	46,350,850
5	Iron and its products	1,345	651,398,528	13,593	3,482	32,751,724
6	Non-ferrous metal products	526	306,522,643	6,540	2,171	16,795,769
7	Non-metallic mineral products	823	287,473,542	3,509	784	7,824,906
8	Chemicals and allied products	754	161,165,068	5,435	2,033	13,803,106
9	Miscellaneous industries	545	39,549,593	1,795	636	4,167,287
	1.—Vegetable Products—					
1	Aerated and mineral waters	436	15,432,234	861	182	1,675,624
2	Biscuits, confectionery, cocoa, etc.	223	38,565,652	2,299	575	4,609,104
3	Bread and other bakery products	3,179	49,164,576	2,484	671	3,208,837
4	Breweries	65	64,162,671	1,240	141	3,224,327
5	Coffee, tea, and spices	90	15,495,053	652	207	1,570,472
6	Distilleries	17	34,563,076	444	121	1,065,689
7	Flour and feed mills	1,086	56,280,032	1,632	201	2,295,245
8	Foods, breakfast	34	5,161,165	109	40	239,151
9	Foods, stock and poultry	96	5,156,010	267	82	508,995
10	Foods, miscellaneous	124	11,232,061	477	185	1,156,110
11	Fruit and vegetable preparations	348	47,488,051	969	318	1,811,904
12	Ice cream cones	8	571,446	13	8	21,969
13	Linseed oil and oil cake	11	2,450,557	36	7	93,730
14	Macaroni, vermicelli, etc.	15	2,152,651	67	21	122,104
15	Malt and malt products	12	9,390,608	69	8	191,670
16	Rice mills	6	1,095,821	17	2	45,016
17	Rubber goods, including rubber footwear	50	65,119,212	1,459	479	3,449,685
18	Starch and glucose	8	7,307,050	116	55	372,921
19	Sugar refineries	10	35,413,781	349	65	1,181,584
20	Tobacco, cigars, and cigarettes	93	59,359,240	1,666	396	3,596,195
21	Tobacco processing and packing	16	6,766,504	184	12	303,064
22	Wine	41	7,203,906	183	29	414,554
	Totals, Vegetable Products	**5,968**	**539,531,357**	**15,593**	**3,805**	**31,157,950**
	2.—Animal Products—					
1	Animal oils and fats	5	288,864	16	2	22,686
2	Belting, leather	13	1,038,756	52	17	118,023
3	Boot and shoe findings, leather	18	1,350,035	51	12	113,652
4	Boots and shoes, leather	221	27,374,704	1,308	397	2,842,222
5	Butter and cheese	2,568	60,001,842	4,893	893	5,296,892
6	Condensed milk	24	5,477,783	140	33	281,617
7	Dairy products, other	49	2,706,867	124	35	218,813
8	Fish curing and packing	597	18,130,385	522	80	722,651
9	Fur dressing and dyeing	14	1,293,174	65	13	148,034
10	Fur goods	351	12,034,990	680	195	1,322,194
11	Gloves and mittens, leather	52	2,666,266	192	58	320,119
12	Hair goods, animal and human	4	63,176	2	Nil	2,506
13	Leather tanneries	83	24,596,637	319	62	946,872
14	Miscellaneous leather goods	231	6,758,365	503	135	842,342
15	Sausage and sausage casings	67	1,118,713	96	17	128,869
16	Slaughtering and meat packing	138	65,411,606	2,629	366	5,344,875
	Totals, Animal Products	**4,435**	**230,312,163**	**11,592**	**2,315**	**18,672,367**
	3.—Textiles and Textile Products—					
1	Awnings, tents, and sails	71	1,988,744	130	39	206,739
2	Bags, cotton, and jute	29	6,307,277	112	36	313,632
3	Batting and wadding	4	1,412,376	15	4	58,147
4	Carpets, mats, and rugs	21	7,266,517	148	49	429,812

Materials, and Values of Products of Canadian Manufacturing Industries, 1937.

Employees on Wages.			Power Installed.	Cost of Fuel and Electricity.	Cost of Materials.	Values of Products.		
Male.	Female.	Wages.				Net.	Gross.	
No.	No.	$	h.p.	$	$	$	$	
555	243	395,596	4,021	63,602	2,386,091	1,117,298	3,566,991	1
13,422	2,389	13,540,123	177,480	4,282,807	46,964,053	33,146,796	84,393,656	2
11,478	2,038	11,317,510	232,931	3,725,196	36,983,284	28,770,727	69,479,207	3
131,850	50,735	157,898,534	1,719,749	37,695,970	562,889,160	445,885,666	1,046,470,796	4
208,673	54,027	268,341,345	1,827,681	49,813,333	1,025,871,741	804,703,114	1,880,388,188	5
15,875	3,323	19,903,824	128,861	3,170,472	87,684,514	49,950,465	140,805,451	6
3,929	278	4,262,929	38,203	1,354,230	43,782,999	17,068,655	62,205,884	7
8,510	1,096	9,457,127	71,609	1,403,375	55,898,599	28,923,095	86,225,069	8
32,993	3,210	40,626,574	511,748	8,098,861	144,466,346	99,359,051	251,924,258	9
427,285	**117,339**	**525,743,562**	**4,712,283**	**109,607,846**	**2,006,926,787**	**1,508,924,867**	**3,625,459,500**	
52,659	22,201	63,474,951	347,002	10,179,323	395,491,147	266,869,693	672,540,163	1
42,406	11,683	46,143,994	133,647	5,128,850	326,537,087	118,117,971	449,783,908	2
49,600	58,031	80,596,535	211,729	6,493,006	219,813,775	174,076,945	400,383,726	3
108,551	10,205	118,947,635	2,420,436	33,830,384	256,269,941	306,961,553	597,061,878	4
106,346	3,727	130,509,406	719,265	16,563,232	328,091,063	280,165,582	624,819,877	5
30,551	5,352	40,926,959	472,031	16,940,211	282,532,128	182,968,223	482,440,562	6
18,938	606	22,565,052	239,898	14,599,345	115,938,578	77,667,225	208,205,148	7
11,272	3,228	14,809,613	141,755	5,222,033	64,460,947	79,290,240	148,973,220	8
6,962	2,306	7,769,417	26,520	651,462	17,792,121	22,807,435	41,251,018	9
2,806	119	2,800,194	4,032	284,955	7,692,636	14,405,522	22,383,113	1
4,028	4,977	6,282,900	22,564	771,517	24,351,815	24,352,071	49,475,403	2
15,711	2,386	16,550,903	17,055	2,190,098	39,498,456	34,774,337	76,462,891	3
3,732	38	4,680,190	23,279	777,515	18,155,465	24,552,091	43,485,071	4
701	589	1,087,317	3,121	102,661	20,691,430	6,241,184	27,035,275	5
976	500	1,361,819	9,134	420,633	7,039,910	17,295,469	24,756,012	6
3,817	153	3,582,511	117,482	1,221,492	111,558,331	20,854,356	133,634,179	7
394	221	657,037	5,262	194,806	4,377,758	6,888,649	11,461,213	8
553	16	562,247	7,487	106,743	9,448,963	2,894,129	12,449,835	9
851	525	1,147,459	6,665	176,661	10,812,700	9,183,448	20,172,809	10
4,493	4,850	5,382,573	21,156	725,398	30,620,211	18,944,102	50,289,711	11
39	14	33,718	53	15,385	141,707	182,307	339,399	12
198	1	199,713	2,183	63,748	4,036,075	949,705	5,049,528	13
147	96	158,248	1,875	49,069	1,184,874	629,101	1,863,044	14
270	9	366,114	5,628	296,395	4,944,903	3,946,667	9,187,965	15
67	Nil	68,087	814	6,298	1,089,856	330,775	1,426,929	16
8,039	3,058	10,591,381	66,424	1,339,517	31,126,755	41,797,481	74,263,753	17
532	20	547,938	4,537	223,456	3,658,857	2,477,767	6,360,080	18
1,829	89	2,137,277	23,310	951,416	29,013,057	10,951,571	40,916,044	19
2,045	3,813	3,981,915	3,150	167,388	23,169,834	21,772,913	45,110,135	20
1,024	700	932,433	562	43,586	10,824,227	1,766,885	12,634,698	21
407	27	362,977	1,229	50,586	2,053,327	1,679,163	3,783,076	22
52,659	**22,201**	**63,474,951**	**347,002**	**10,179,323**	**395,491,147**	**266,869,693**	**672,540,163**	
32	Nil	34,465	265	12,101	135,793	95,756	243,650	1
99	"	94,836	303	9,771	466,241	422,977	898,989	2
331	61	315,989	2,753	58,248	700,040	732,363	1,490,651	3
9,209	5,859	10,184,420	7,100	281,207	22,295,404	18,512,102	41,088,713	4
10,274	523	10,402,193	42,815	1,768,084	91,175,996	31,990,975	124,935,055	5
599	30	612,209	4,306	377,531	7,902,889	2,967,403	11,247,823	6
313	41	379,730	2,091	60,538	1,312,181	1,525,160	2,897,879	7
3,812	1,013	2,632,120	13,402	397,251	16,318,781	9,372,593	26,088,625	8
654	113	574,708	1,245	36,969	276,224	1,084,574	1,397,767	9
1,452	1,092	2,407,982	514	68,635	10,485,009	5,707,456	16,261,100	10
722	951	1,050,318	368	23,025	2,301,112	1,856,488	4,180,625	11
14	2	12,020	75	1,478	38,504	42,032	82,014	12
3,868	133	3,629,831	16,162	518,940	18,592,794	7,158,060	26,269,794	13
1,748	765	1,785,910	1,674	66,541	4,732,144	3,917,960	8,716,645	14
281	23	287,130	579	42,223	1,746,324	776,720	2,565,267	15
8,998	1,077	11,740,133	39,995	1,406,308	148,057,651	31,955,352	181,419,311	16
42,406	**11,683**	**46,143,994**	**133,647**	**5,128,850**	**326,537,087**	**118,117,971**	**449,783,908**	
260	200	361,472	405	18,411	1,155,729	1,020,721	2,194,861	1
300	496	592,295	1,413	37,814	7,554,563	1,612,090	9,204,467	2
128	16	160,532	782	16,954	669,840	391,465	1,078,259	3
753	420	964,790	3,386	141,265	2,631,844	2,592,467	5,365,576	4

9.—Statistics of the Numbers, Capital, Employees, Salaries and Wages, Power, Fuel,

	Province, Group or Kind of Industry.	Establishments.	Capital Employed.	Salaried Employees.		
				Male.	Female.	Salaries.
	3.—Textiles and Textile Products—concl.	No.	$	No.	No.	$
5	Clothing, men's factory	198	20,868,845	1,592	467	2,994,446
6	Clothing, women's factory	593	26,734,768	2,043	984	4,816,453
7	Clothing contractors, men's and women's	129	751,653	215	25	298,807
8	Cordage, rope, and twine	10	11,254,478	88	26	243,495
9	Corsets	23	3,437,503	171	215	594,718
10	Cotton and wool waste	18	996,992	40	15	102,222
11	Cotton textiles, *n.e.s.*	48	3,107,954	117	63	273,829
12	Cotton thread	5	3,079,155	150	46	294,351
13	Cotton yarn and cloth	36	67,832,556	495	171	1,383,263
14	Dyeing and finishing of textiles	26	5,051,200	131	36	341,120
15	Flax, dressed	6	178,239	2	1	3,900
16	Furnishing goods, men's	195	17,722,232	864	422	2,242,845
17	Gloves and mittens, fabric	9	655,539	18	6	41,791
18	Hats and caps	171	7,158,794	588	222	1,354,703
19	Hosiery and knitted goods	171	51,666,165	1,172	667	3,265,006
20	Miscellaneous textiles, *n.e.s.*	14	11,701,357	338	77	977,965
21	Oiled and waterproofed clothing	12	787,217	29	14	80,135
22	Silk and artificial silk	29	34,135,176	678	344	2,016,630
23	Woollen cloth	57	20,551,152	377	131	1,064,367
24	Woollen goods, *n.e.s.*	30	8,671,651	114	32	407,937
25	Woollen yarn	34	8,579,813	192	119	602,809
26	All other industries	2	306,827	11	5	50,394
	Totals, Textiles and Products	**1,941**	**323,204,180**	**9,830**	**4,216**	**24,459,516**
	4.—Wood and Paper Products—					
1	Beekeepers' and poultrymen's supplies	8	224,216	15	3	19,347
2	Blue printing	22	221,484	34	6	53,661
3	Boat building	134	2,094,054	185	17	201,490
4	Boxes and bags, paper	147	23,400,776	823	268	2,383,772
5	Boxes, wooden	142	7,927,779	333	48	655,785
6	Carriages, wagons, and sleighs	88	1,014,854	108	5	96,115
7	Charcoal	195	95,109	198	Nil	37,337
8	Coffins and caskets	49	4,249,880	137	24	274,291
9	Cooperage	77	1,746,986	96	7	142,782
10	Engraving, stereotyping, and electrotyping	105	10,540,269	559	152	1,427,204
11	Excelsior	11	334,480	25	8	22,603
12	Flooring, hardwood	18	3,253,191	89	24	219,988
13	Furniture	435	27,445,103	1,289	297	2,260,928
14	Lasts, trees, and shoe findings	12	1,404,501	55	19	120,893
15	Lithographing	41	10,770,936	407	177	1,331,814
16	Miscellaneous paper products	129	19,445,381	639	262	1,708,510
17	Miscellaneous wooden products	120	4,888,274	221	53	412,730
18	Planing mills, sash and door factories	669	29,653,158	1,287	207	1,953,933
19	Printing and bookbinding	1,238	42,091,744	2,966	755	6,013,297
20	Printing and publishing	779	53,235,912	6,274	2,000	12,397,079
21	Pulp and paper	98	570,352,287	3,475	569	9,561,449
22	Refrigerators, other than electric	13	647,913	46	12	80,297
23	Roofing paper, wall-board, etc.	14	5,530,295	216	72	606,931
24	Sawmills	3,836	90,405,105	3,394	223	3,416,279
25	Trade composition	35	1,086,694	69	16	185,334
26	Woodenware	19	1,081,013	41	13	97,450
27	Wood turning	41	2,447,651	86	13	135,005
28	All other industries	22	11,481,712	138	43	534,546
	Totals, Wood and Paper Products	**8,497**	**927,070,757**	**23,205**	**5,293**	**46,350,850**
	5.—Iron and Its Products—					
1	Agricultural implements	37	60,927,315	701	216	1,538,918
2	Aircraft	8	2,836,836	116	14	188,515
3	Automobiles	15	57,996,242	1,650	519	4,626,793
4	Automobile supplies	88	28,440,176	763	263	1,913,557
5	Bicycles	4	2,297,866	31	11	53,056
6	Boilers, tanks, and engines	54	13,875,620	487	117	1,077,873
7	Bridge and structural steel work	19	21,200,308	766	96	1,780,214
8	Castings and forgings	231	48,814,929	1,196	312	2,768,908
9	Hardware and tools	148	28,068,779	620	254	1,694,012
10	Heating and cooking apparatus	68	16,820,091	651	190	1,462,501
11	Iron and steel products, *n.e.s.*	104	5,170,436	292	55	544,972
12	Machinery	214	66,323,206	2,006	588	4,611,155
13	Primary iron and steel	55	96,875,377	870	214	2,643,902
14	Railway rolling-stock	37	88,426,476	1,357	81	3,104,117
15	Sheet metal products	148	56,527,585	1,235	348	2,688,202
16	Shipbuilding and repairs	40	29,163,717	377	42	814,714
17	Wire and wire goods	75	27,633,569	475	162	1,240,315
	Totals, Iron and Its Products	**1,345**	**651,398,528**	**13,593**	**3,482**	**32,751,724**

Materials, and Values of Products of Canadian, Manufacturing Industries 1937—con.

Employees on Wages.			Power Installed.	Cost of Fuel and Electricity.	Cost of Materials.	Value of Products.		
Male.	Female.	Wages.				Net.	Gross.	
No.	No.	$	h.p.	$	$	$	$	
5,301	4,816	9,140,997	1,799	164,272	25,594,619	19,490,283	45,249,174	5
4,698	12,256	12,110,018	3,016	234,857	34,915,469	25,460,429	60,610,755	6
876	1,269	1,430,552	360	31,551	156,492	1,971,641	2,159,684	7
656	260	888,940	7,561	106,246	3,907,340	2,565,381	6,578,967	8
154	1,144	733,301	606	21,191	2,100,321	2,446,195	4,567,707	9
180	97	204,497	1,706	34,223	1,390,909	600,660	2,025,792	10
378	667	669,023	1,122	34,680	2,389,533	1,893,157	4,317,370	11
191	393	464,477	2,122	83,103	1,731,015	2,011,104	3,825,222	12
11,958	6,536	14,967,693	98,991	2,069,230	42,063,654	27,980,994	72,113,878	13
748	156	678,271	4,052	231,610	1,535,898	2,026,808	3,794,316	14
97	Nil	39,698	417	3,203	104,646	68,144	175,993	15
1,383	7,404	4,930,469	2,249	140,359	16,053,321	10,567,996	26,761,676	16
47	258	174,163	371	8,464	443,270	342,201	793,935	17
1,837	2,000	3,062,014	2,038	137,455	6,709,478	6,842,435	13,689,368	18
6,984	11,427	12,963,807	20,433	754,717	26,446,763	25,654,274	52,855,754	19
976	221	1,107,565	8,736	241,442	5,186,600	4,790,408	10,218,450	20
158	238	262,024	191	13,268	952,973	581,528	1,547,769	21
5,579	3,645	7,082,807	19,307	1,010,714	10,453,196	16,407,382	27,871,292	22
3,589	2,401	4,505,858	14,368	588,731	13,938,282	9,199,482	23,726,495	23
989	308	1,185,500	9,492	135,227	4,803,689	3,469,627	8,408,543	24
1,306	1,349	1,827,726	6,646	228,620	6,590,796	3,800,825	10,620,241	25
74	54	88,046	160	5,399	333,535	289,248	628,182	26
49,600	**58,031**	**80,596,535**	**211,729**	**6,493,006**	**219,813,775**	**174,076,945**	**400,383,726**	
37	Nil	24,075	278	4,162	68,621	162,467	235,250	1
71	3	50,172	97	6,988	71,545	201,625	280,158	2
599	2	466,224	2,085	24,528	701,666	1,002,902	1,729,096	3
3,062	2,484	4,384,199	8,703	287,981	17,097,334	12,649,984	30,035,299	4
3,037	257	2,211,526	16,083	143,503	4,036,333	4,630,162	8,809,998	5
210	1	170,930	1,427	26,189	272,098	350,485	648,772	6
17	Nil	10,039	69	361	49,176	52,108	101,645	7
635	124	617,921	1,965	45,763	1,014,120	1,451,795	2,511,678	8
518	Nil	400,311	1,825	24,655	1,219,365	915,639	2,159,659	9
1,554	392	2,841,060	2,775	121,733	1,406,112	6,016,238	7,544,083	10
80	10	56,431	821	8,880	88,956	140,460	238,296	11
766	5	637,395	5,554	50,439	2,245,532	1,352,033	3,648,004	12
8,859	359	7,221,018	21,363	474,976	10,965,149	15,078,642	26,518,767	13
407	175	401,730	1,235	21,886	417,066	835,641	1,274,593	14
1,457	585	2,385,098	3,576	99,283	4,553,159	5,832,409	10,484,851	15
1,593	951	2,392,769	9,269	308,659	11,432,444	9,106,399	20,847,502	16
1,116	108	926,957	5,591	92,238	2,061,756	2,213,687	4,367,681	17
6,849	26	5,426,703	49,903	472,922	12,772,336	11,702,460	24,947,718	18
7,121	2,516	9,576,543	13,656	464,190	13,747,403	23,547,011	37,758,604	19
8,314	1,246	12,792,297	28,812	760,420	12,990,521	47,231,468	60,982,409	20
28,626	535	39,196,346	1,894,405	29,121,065	91,121,629	106,002,017	226,244,711	21
162	2	134,798	824	8,253	308,628	316,380	633,261	22
497	2	534,505	3,777	184,986	3,176,969	3,522,077	6,884,032	23
30,129	171	23,757,593	332,918	842,403	57,280,080	46,727,302	104,849,785	24
223	6	299,004	144	16,464	56,130	703,443	776,037	25
688	77	420,003	1,598	12,721	527,449	959,159	1,499,329	26
875	40	572,810	3,223	38,794	938,134	1,141,836	2,118,764	27
1,049	128	1,039,178	8,460	165,942	5,650,230	3,115,724	8,931,896	28
108,551	**10,205**	**118,947,635**	**2,420,436**	**33,830,384**	**256,269,941**	**306,961,553**	**597,061,878**	
5,466	63	5,811,125	22,935	567,240	9,319,032	9,075,122	18,961,394	1
458	18	503,419	418	23,762	879,654	827,308	1,730,724	2
12,442	335	17,512,198	67,464	831,318	92,706,147	41,272,815	134,810,280	3
6,622	768	8,444,541	39,942	849,963	26,631,014	19,150,666	46,631,643	4
358	29	431,833	1,211	39,495	988,546	854,627	1,882,668	5
2,331	1	2,616,520	16,521	226,991	4,872,296	6,112,214	11,211,501	6
2,556	Nil	3,224,242	29,332	247,801	8,657,728	7,944,795	16,850,324	7
10,524	132	11,565,015	53,216	1,505,625	17,091,230	23,316,898	41,913,753	8
4,838	799	5,545,611	15,427	519,154	7,663,076	14,282,488	22,464,718	9
4,357	41	4,398,122	8,704	353,941	6,040,819	9,581,258	15,976,018	10
944	21	924,012	5,076	86,707	1,520,705	2,195,315	3,802,727	11
9,760	284	11,448,237	46,027	759,245	22,204,200	34,133,371	57,096,816	12
12,927	43	17,282,596	212,824	6,934,008	33,805,631	33,841,030	74,580,669	13
20,027	31	26,083,040	117,700	2,090,074	56,191,146	35,573,335	93,854,555	14
6,072	844	6,830,123	19,549	645,412	28,338,113	20,149,241	49,132,766	15
3,078	5	3,597,196	44,631	279,993	3,204,905	6,875,788	10,360,686	16
3,586	313	4,291,576	18,288	602,503	7,976,821	14,979,311	23,558,635	17
106,346	**3,727**	**130,509,406**	**719,265**	**16,563,232**	**328,091,063**	**280,165,582**	**624,819,877**	

9.—Statistics of the Numbers, Capital, Employees, Salaries and Wages, Power, Fuel,

	Province, Group or Kind of Industry.	Establishments.	Capital Employed.	Salaried Employees.		
				Male.	Female.	Salaries.
		No.	$	No.	No.	$
	6.—Non-ferrous Metal Products—					
1	Aluminium products	18	4,630,491	138	55	335,984
2	Brass and copper products	125	23,686,294	821	198	1,896,008
3	Electrical apparatus and supplies	191	97,187,905	4,038	1,449	10,139,101
4	Jewellery and silverware	121	9,794,908	425	207	1,187,041
5	Miscellaneous non-ferrous metal products	19	1,370,847	79	35	216,504
6	Non-ferrous metal smelting and refining	14	162,696,595	862	141	2,575,849
7	White metal alloys	38	7,155,603	177	86	445,282
	Totals, Non-ferrous Metal Products	**526**	**306,522,643**	**6,540**	**2,171**	**16,795,769**
	7.—Non-Metallic Mineral Products—					
1	Abrasive products	16	7,151,369	186	59	575,319
2	Asbestos products	13	2,003,659	72	15	150,243
3	Cement	9	54,150,672	94	6	211,778
4	Cement products	109	3,695,565	152	17	215,947
5	Clay products from domestic clay	143	20,427,232	232	29	471,891
6	Clay products from imported clay	19	4,457,109	94	39	241,601
7	Coke and gas products	33	91,911,250	836	253	1,690,746
8	Glass products	77	15,750,801	365	120	847,463
9	Lime	57	4,931,831	64	10	108,195
10	Miscellaneous non-metallic mineral products	47	8,951,098	154	27	329,068
11	Petroleum products	57	64,280,266	810	129	2,156,901
12	Salt	9	4,001,568	86	41	260,753
13	Sand-lime brick	5	547,691	14	1	20,089
14	Stone, monumental and ornamental	229	5,213,431	350	38	544,912
	Totals, Non-Metallic Products	**823**	**287,473,542**	**3,509**	**784**	**7,824,906**
	8.—Chemicals and Chemical Products—					
1	Acids, alkalies and salts	21	35,094,008	603	114	1,467,125
2	Adhesives	18	2,357,662	70	21	170,681
3	Coal tar distillation	10	4,392,474	31	7	100,347
4	Fertilizers	20	16,689,720	213	64	492,874
5	Gases, compressed	27	4,605,170	246	95	577,307
6	Inks, printing and writing	31	2,921,173	156	48	528,206
7	Medicinal and pharmaceutical preparations	174	22,780,119	1,135	660	3,189,081
8	Miscellaneous chemical products	137	24,285,123	763	247	1,923,336
9	Paints, pigments, and varnishes	82	23,853,360	1,107	305	2,796,450
10	Polishes and dressings	46	2,475,656	160	69	349,940
11	Soaps and washing compounds	101	14,201,659	704	161	1,411,718
12	Toilet preparations	82	5,962,591	236	242	775,022
13	Wood distillation	5	1,546,353	11	Nil	21,019
	Totals, Chemicals and Products	**754**	**161,165,068**	**5,435**	**2,033**	**13,803,106**
	9.—Miscellaneous Industries—					
1	Artificial flowers and feathers	19	322,449	38	20	81,850
2	Automobile accessories, fabric	10	441,279	25	13	54,426
3	Brooms, brushes, and mops	84	4,351,652	247	86	518,298
4	Buttons	21	1,432,343	95	31	210,029
5	Candles	12	813,417	45	16	109,745
6	Fountain pens and pencils	9	2,057,349	81	38	222,882
7	Ice, manufactured	50	4,236,143	135	20	250,469
8	Jewellery and silverware cases	5	257,610	14	16	37,777
9	Mattresses and springs	72	7,699,473	309	95	786,899
10	Motion pictures	6	1,035,984	52	20	122,541
11	Musical instruments and materials	17	2,405,317	49	14	89,654
12	Novelties, advertising, and other	15	240,338	22	7	43,836
13	Pipes, tobacco	4	42,775	7	Nil	4,912
14	Regalia and society emblems	10	128,725	11	5	18,166
15	Scientific and professional equipment	28	6,911,956	179	96	551,773
16	Signs, electric, neon, and other	43	2,538,719	158	29	313,601
17	Sporting goods	33	1,392,785	79	39	148,417
18	Stamps and stencils, rubber and metal	36	769,344	75	17	138,849
19	Statuary and art goods	38	887,853	73	28	144,412
20	Store and display accessories	3	82,567	12	4	13,914
21	Toys	13	227,908	23	12	55,893
22	Typewriter supplies	8	878,877	42	23	185,117
23	Umbrellas	8	246,524	22	6	56,222
24	All other industries	1	148,206	2	1	7,605
	Totals, Miscellaneous Industries	**545**	**39,549,593**	**1,795**	**636**	**4,167,287**
	Grand Totals, All Industries	**24,834**	**3,465,227,831**	**91,092**	**24,735**	**195,983,475**

Materials, and Values of Products of Canadian Manufacturing Industries, 1937—conc.

Employees on Wages.			Power Installed.	Cost of Fuel and Electricity.	Cost of Materials.	Values of Products.		
Male.	Female.	Wages.				Net.	Gross.	
No.	No.	$	h.p.	$	$	$	$	
1,022	130	1,199,128	6,565	140,180	4,525,571	2,490,492	7,156,243	1
3,781	294	4,414,376	25,999	625,961	21,498,095	12,329,104	34,453,160	2
12,260	3,959	16,152,335	81,117	1,331,249	41,695,446	55,815,297	98,841,992	3
2,025	659	2,614,189	3,733	112,616	6,647,300	6,333,630	13,093,546	4
185	62	216,899	345	14,265	552,909	1,038,913	1,606,087	5
10,567	Nil	15,415,098	349,905	14,607,421	201,862,965	101,807,865	318,278,251	6
711	248	914,934	4,367	108,519	5,749,842	3,152,922	9,011,283	7
30,551	**5,352**	**40,926,959**	**472,031**	**16,940,211**	**282,532,128**	**182,968,223**	**482,440,562**	
1,043	1	1,420,270	7,997	1,222,529	4,351,854	8,599,968	14,174,351	1
337	27	314,639	3,167	91,252	812,639	992,786	1,896,677	2
983	Nil	1,161,666	73,299	1,904,418	540,915	6,650,534	9,095,867	3
665	6	588,077	2,827	57,511	1,566,870	1,674,950	3,299,331	4
2,026	Nil	1,622,901	23,781	1,032,755	103,568	3,380,536	4,516,859	5
891	194	1,024,312	2,298	286,499	971,497	2,341,185	3,599,181	6
2,936	2	4,018,823	37,711	2,906,092	17,217,957	21,578,880	41,702,929	7
2,981	333	3,441,568	14,169	1,030,993	5,768,738	7,637,519	14,437,250	8
798	Nil	673,079	7,033	871,131	167,827	2,785,959	3,824,917	9
843	27	957,608	11,420	420,739	2,752,716	4,661,689	7,835,144	10
4,189	9	6,089,942	41,544	4,450,005	80,401,880	13,602,129	98,454,014	11
416	Nil	392,383	3,656	183,117	75,947	1,540,401	1,799,465	12
66	Nil	52,130	813	20,095	63,285	114,541	197,921	13
764	7	807,654	10,183	122,209	1,142,885	2,106,148	3,371,242	14
18,938	**606**	**22,565,052**	**239,898**	**14,599,345**	**115,938,578**	**77,667,225**	**208,205,148**	
2,634	8	3,426,293	74,170	2,810,364	6,008,977	13,590,827	22,410,168	1
311	14	313,138	2,046	116,842	901,194	886,101	1,904,137	2
215	1	257,397	666	170,910	2,189,237	1,039,394	3,399,541	3
745	1	954,751	23,283	506,965	6,693,841	3,066,147	10,266,953	4
265	Nil	342,466	5,887	140,221	527,410	3,261,611	3,929,242	5
282	34	354,243	2,001	37,053	1,278,720	1,954,733	3,270,506	6
1,136	1,365	2,122,039	4,094	175,551	8,808,929	15,830,167	24,814,647	7
2,237	787	2,792,234	13,194	432,469	10,092,295	12,899,967	23,424,731	8
1,742	170	2,030,749	8,214	305,775	12,307,011	12,918,331	25,531,117	9
134	99	178,522	255	18,296	1,400,923	1,317,050	2,736,269	10
1,162	257	1,424,490	6,880	396,694	11,253,146	8,044,048	19,693,888	11
237	492	494,318	671	26,645	2,577,943	4,238,349	6,842,937	12
172	Nil	118,973	394	84,248	421,321	243,515	749,084	13
11,272	**3,228**	**14,809,613**	**141,755**	**5,222,033**	**64,460,947**	**79,290,240**	**148,973,220**	
66	226	119,839	12	1,566	170,919	354,405	526,890	1
132	56	165,202	209	7,510	432,213	380,007	819,730	2
914	225	820,692	1,866	46,353	1,931,924	2,356,716	4,334,993	3
431	282	460,785	973	30,064	634,647	925,731	1,590,442	4
48	27	56,068	72	8,630	227,400	330,757	566,787	5
219	209	343,596	374	17,277	950,914	1,245,869	2,214,060	6
462	12	394,294	11,143	179,592	76,923	1,522,794	1,779,309	7
72	75	99,748	126	5,231	176,363	196,368	377,962	8
1,787	290	1,894,031	4,542	109,323	6,059,627	4,425,672	10,594,622	9
188	25	231,640	280	9,454	760,366	807,390	1,577,210	10
505	11	456,011	1,472	41,230	452,336	717,722	1,211,288	11
30	70	56,656	26	1,951	153,455	168,649	324,055	12
31	2	19,673	23	1,221	17,851	37,021	56,093	13
16	18	23,688	21	736	31,152	65,944	97,832	14
510	277	886,030	2,015	61,518	2,672,535	4,150,034	6,884,087	15
453	11	511,771	185	47,445	549,380	1,755,064	2,351,889	16
413	133	403,045	1,581	32,479	781,147	923,891	1,737,517	17
160	7	173,926	164	9,359	104,487	478,649	592,495	18
198	155	266,505	750	11,085	549,308	628,811	1,189,204	19
40	1	29,662	133	3,095	19,452	50,166	72,713	20
157	90	150,345	172	12,861	318,363	463,171	794,395	21
87	25	119,652	299	8,509	406,152	508,012	922,673	22
29	66	64,567	37	2,775	246,752	203,783	453,310	23
14	13	21,991	45	2,198	68,455	110,809	181,462	24
6,962	**2,306**	**7,769,417**	**26,520**	**651,462**	**17,792,121**	**22,807,435**	**41,251,018**	
427,285	**117,339**	**525,743,562**	**4,712,283**	**109,607,846**	**2,006,926,787**	**1,508,924,867**	**3,625,459,500**	

Subsection 2.—Manufactures Classified by the Purpose of the Products.

In addition to the classification according to the chief component material of the products used for the industrial census in detailed presentation, a separate and distinct classification, based on the chief purpose of the products, was applied for the first time to the census returns of 1922.

Significant changes have occurred since 1922 in the importance of the various groups shown in the purpose classification. Indicative of the increasing industrialization of the Dominion is the increase in the industrial equipment group from 14·2 p.c. of the total value of production in 1922 to 15·2 p.c. of the total in 1937, and the increase in producers materials from 27·9 p.c. to 33·7 p.c. during the same period. Another significant change is the decline in the food group which dropped from a production of 28·2 p.c. to 21·8 p.c. of the total. Whereas in 1922 food products comprised the leading group, in 1937 the production of producers materials ranked first in importance. It should also be noted, however, that the cost of materials in this group is abnormally high. Vehicles and vessels advanced from an output of 6·7 p.c. of the total value of production in 1922 to 8·8 p.c. in 1937, and miscellaneous from 0·2 p.c. to 0·9 p.c.; drink and tobacco held the same proportion at 4·2 p.c.

10.—Principal Statistics of the Manufacturing Industries of Canada, Classified According to the Purpose of the Principal Product, by Main Groups, Representative Years 1922-37, and in Detail for 1937.

Year and Purpose Heading.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
1922.	No.	$	No.	$	$	$
Food	8,256	343,867,673	66,815	67,738,707	490,731,438	673,794,031
Drink and tobacco	496	104,047,461	13,402	13,777,986	33,027,203	99,529,819
Clothing	659	166,336,319	63,441	59,056,687	117,015,780	221,903,467
Personal utilities	936	56,060,262	16,904	17,080,049	21,879,031	57,258,476
House furnishings	600	75,168,053	18,032	19,861,883	24,956,960	62,961,050
Books and stationery	1,557	82,240,691	28,103	36,920,804	27,190,071	99,118,969
Vehicles and vessels	1,154	191,257,804	30,067	37,237,412	87,840,814	160,624,079
Producers materials	5,588	1,086,692,015	143,354	147,581,011	316,400,400	666,241,271
Industrial equipment	1,740	556,862,578	75,269	89,081,303	160,035,399	338,882,958
Miscellaneous	30	4,960,434	869	1,061,388	2,964,354	4,916,418
Totals, 1922	**21,016**	**2,667,493,290**	**456,256**	**489,397,230**	**1,282,041,450**[1]	**2,385,230,538**[1]
1924.						
Food	8,036	364,420,646	74,721	73,119,482	515,708,299	702,713,901
Drink and tobacco	518	124,000,298	14,702	15,748,590	39,159,283	111,877,777
Clothing	1,438	182,111,110	73,664	67,911,133	127,911,158	245,366,956
Personal utilities	341	48,367,616	9,547	11,057,386	20,304,177	41,815,384
House furnishings	587	64,787,015	15,820	17,142,226	22,448,984	54,944,837
Books and stationery	1,690	100,017,954	29,486	40,212,100	32,360,935	107,272,029
Vehicles and vessels	980	205,551,891	34,149	44,977,607	117,515,075	195,403,284
Producers materials	5,716	1,251,962,266	163,523	176,646,967	384,533,201	767,759,256
Industrial equipment	1,253	521,063,329	67,578	82,937,356	160,470,513	330,066,562
Miscellaneous	150	33,035,383	4,420	4,714,828	15,779,166	27,086,778
Totals, 1924	**20,709**	**2,895,317,508**	**487,610**	**534,467,675**	**1,436,190,791**[1]	**2,584,306,764**[1]
1926.						
Food	8,259	394,159,943	87,343	78,143,619	581,403,701	783,223,094
Drink and tobacco	574	137,139,189	15,341	16,817,622	45,115,122	130,895,267
Clothing	1,528	193,870,758	82,243	77,135,327	156,831,454	288,909,404
Personal utilities	384	50,497,988	10,633	12,470,247	24,236,592	49,724,101
House furnishings	543	60,277,954	15,684	16,858,549	22,673,689	55,353,652
Books and stationery	1,716	108,582,186	31,500	43,781,918	34,575,475	116,119,226
Vehicles and vessels	917	271,239,055	50,731	70,315,573	178,558,815	298,064,166
Producers materials	5,807	1,404,509,475	182,599	206,672,939	453,319,993	935,766,746
Industrial equipment	1,400	556,955,826	78,550	98,219,492	213,697,326	427,447,094
Miscellaneous	173	30,838,823	4,537	5,266,956	16,107,849	29,190,480
Totals, 1926	**21,301**	**3,208,071,197**	**559,161**	**625,682,242**	**1,726,520,016**[1]	**3,114,693,230**[1]

[1] For the years 1922, 1924, and 1926 the figures for cost of materials and gross value of products include the value placed on intermediate products used in further processes in the chemical group of industries. For this reason these figures differ slightly from those contained in the other tables of this report.

10.—Principal Statistics of the Manufacturing Industries of Canada, Classified According to the Purpose of the Principal Product, by Main Groups, Representative Years 1922-37, and in Detail for 1937—continued.

Year and Purpose Heading.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	$	No.	$	$	$
1929.						
Food	8,351	463,984,558	94,707	87,960,036	597,396,238	837,986,384
Drink and tobacco	599	201,365,785	18,976	21,670,376	65,440,053	208,968,998
Clothing	1,680	223,376,104	93,935	88,914,849	172,726,557	336,452,685
Personal utilities	380	56,155,234	11,148	13,595,331	29,389,246	61,191,750
House furnishings	600	76,185,921	20,857	23,248,775	34,293,465	77,811,331
Books and stationery	1,917	144,222,275	38,141	56,003,183	45,384,362	155,947,960
Vehicles and vessels	781	310,942,038	61,835	91,239,185	243,258,350	407,947,648
Producers materials	6,227	1,776,758,115	223,071	258,255,079	524,193,104	1,154,908,260
Industrial equipment	1,576	719,112,914	99,922	131,820,142	304,581,449	614,827,756
Miscellaneous	105	32,789,065	3,939	4,584,261	13,007,989	27,403,344
Totals, 1929	**22,216**	**4,004,892,009**	**666,531**	**777,291,217**	**2,029,670,813**	**3,883,446,116**
1933.						
Food	8,759	408,995,499	75,434	68,652,798	313,760,942	492,729,174
Drink and tobacco	670	185,612,678	18,289	17,626,141	40,454,300	98,409,638
Clothing	1,922	143,382,092	75,363	56,001,234	103,209,050	194,627,734
Personal utilities	601	39,681,900	8,938	8,616,372	15,323,848	35,589,961
House furnishings	654	66,047,002	15,587	12,887,200	16,022,584	38,684,649
Books and stationery	2,170	132,507,101	34,300	42,830,661	28,818,380	103,477,707
Vehicles and vessels	479	232,153,543	37,618	35,725,625	56,917,292	120,992,781
Producers materials	6,564	1,459,569,284	139,734	126,208,238	252,383,314	573,991,467
Industrial equipment	1,819	588,147,285	60,061	64,155,426	133,382,392	277,075,032
Miscellaneous	142	23,163,454	3,334	3,544,129	7,516,826	18,497,642
Totals, 1933	**23,780**	**3,279,259,838**	**468,658**	**436,247,824**	**967,788,928**	**1,954,075,785**
1935.						
Food	8,561	405,894,748	83,930	78,173,759	415,364,620	614,425,247
Drink and tobacco	677	183,501,357	19,165	19,785,411	49,941,998	121,157,062
Clothing	2,028	154,799,641	85,141	67,334,391	127,396,562	233,209,222
Personal utilities	612	39,588,755	10,284	10,333,919	21,585,937	43,453,234
House furnishings	679	66,402,670	18,018	15,911,383	24,494,871	52,944,629
Books and stationery	2,262	128,707,801	36,626	46,896,177	34,354,450	117,736,267
Vehicles and vessels	464	226,007,916	45,717	53,362,973	120,325,337	215,103,397
Producers materials	6,737	1,410,095,540	177,160	175,890,774	427,693,908	845,108,272
Industrial equipment	1,856	577,491,236	76,377	86,974,026	187,338,713	387,721,840
Miscellaneous	158	23,913,463	4,246	4,804,964	10,649,821	23,052,039
Totals, 1935	**24,034**	**3,216,403,127**	**556,664**	**559,467,777**	**1,419,146,217**	**2,653,911,209**
1936.						
Food	8,596	431,309,246	89,893	85,083,543	481,136,652	705,259,946
Drink and tobacco	651	179,038,633	19,742	21,481,951	57,637,978	137,265,390
Clothing	2,073	165,053,967	89,460	71,629,227	134,693,738	247,386,145
Personal utilities	625	38,851,436	11,137	11,227,804	23,011,381	46,932,602
House furnishings	768	84,064,261	23,928	22,580,127	32,795,275	72,887,652
Books and stationery	2,321	132,739,983	38,143	49,586,742	37,049,911	125,513,235
Vehicles and vessels	451	229,849,466	48,148	57,206,737	128,834,560	235,440,142
Producers materials	6,637	1,400,194,926	186,191	191,294,293	497,944,281	961,155,247
Industrial equipment	1,920	583,841,518	83,299	96,950,642	219,247,904	445,102,028
Miscellaneous	160	26,320,095	4,418	5,030,368	11,862,316	25,461,427
Totals, 1936	**24,202**	**3,271,263,531**	**594,359**	**612,071,434**	**1,624,213,996**	**3,002,403,814**
1937.						
Food	8,696	441,611,585	96,740	94,656,930	558,118,480	792,271,852
Drink and tobacco	668	187,487,631	21,646	24,398,981	68,935,399	152,152,105
Clothing	2,158	173,474,299	95,274	79,547,935	148,901,374	271,690,917
Personal utilities	634	43,476,516	12,420	12,729,626	28,185,411	55,289,473
House furnishings	800	89,293,123	27,446	27,169,931	41,836,387	90,102,397
Books and stationery	2,349	137,392,420	40,348	53,453,842	44,257,314	138,673,644
Vehicles and vessels	376	248,949,257	55,141	71,890,706	186,070,917	319,280,534
Producers materials	6,892	1,482,194,043	208,930	232,733,013	634,232,482	1,221,670,588
Industrial equipment	2,086	629,908,231	97,250	119,070,287	280,546,886	551,891,976
Miscellaneous	175	31,440,726	5,256	6,075,786	15,842,137	32,436,014
Totals, 1937	**24,834**	**3,465,227,831**	**660,451**	**721,727,037**	**2,006,926,787**	**3,625,459,500**

10.—Principal Statistics of the Manufacturing Industries of Canada, Classified According to the Purpose of the Principal Product, by Main Groups, Representative Years 1922-37, and in Detail for 1937—concluded.

Year and Purpose Heading.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
1937—DETAIL.	No.	$	No.	$	$	$
Food	**8,696**	**441,611,585**	**96,740**	**94,656,930**	**558,118,480**	**792,271,852**
Breadstuffs	4,563	162,381,951	40,545	38,432,614	187,147,700	283,851,023
Fish	597	18,130,385	5,427	3,354,771	16,318,781	26,088,625
Fruits and vegetables	348	47,488,051	10,630	7,194,477	30,620,211	50,289,711
Meats	205	66,530,319	13,487	17,501,007	149,803,975	183,984,578
Milk products	2,641	68,186,492	17,898	17,191,454	100,391,066	139,080,757
Oils and fats	5	288,864	50	57,151	135,793	243,650
Sugar	10	35,413,781	2,332	3,318,861	29,013,057	40,916,044
Infusions	90	15,495,053	2,149	2,657,789	20,691,430	27,035,275
Miscellaneous	237	27,696,689	4,222	4,948,806	23,996,467	40,782,189
Drink and Tobacco	**668**	**187,487,631**	**21,646**	**24,398,981**	**68,935,399**	**152,152,105**
Beverages, alcoholic	82	98,725,747	7,192	10,332,025	25,195,375	68,241,083
Beverages, non-alcoholic	477	22,636,140	4,614	5,253,349	9,745,963	26,166,189
Tobacco	109	66,125,744	9,840	8,813,607	33,994,061	57,744,833
Clothing	**2,158**	**173,474,299**	**95,274**	**79,547,935**	**148,901,374**	**271,690,917**
Boots and shoes	221	27,374,704	16,773	13,026,642	22,295,404	41,088,713
Fur goods	365	13,328,164	4,264	4,452,918	10,761,233	17,658,867
Garments, etc.	1,138	69,515,001	46,299	39,292,606	78,820,222	139,348,996
Gloves and mittens	61	3,321,805	2,252	1,586,391	2,744,382	4,974,560
Hats and caps	190	7,481,243	4,997	4,618,406	6,880,397	14,216,258
Knitted goods	171	51,666,165	20,250	16,228,813	26,446,763	52,855,754
Waterproofs	12	787,217	439	342,159	952,973	1,547,769
Personal Utilities	**634**	**43,476,516**	**12,420**	**12,729,626**	**28,185,411**	**55,289,473**
Jewellery and time pieces	126	10,052,518	3,493	3,938,755	6,823,663	13,471,508
Recreational supplies	63	4,026,010	1,525	1,303,365	1,551,846	3,743,200
Personal utilities	445	29,397,988	7,402	7,487,506	19,809,902	38,074,765
House Furnishings	**800**	**89,293,123**	**27,446**	**27,169,931**	**41,836,387**	**90,102,397**
Books and Stationery	**2,349**	**137,392,420**	**40,348**	**53,453,842**	**44,257,314**	**138,673,644**
Vehicles and Vessels	**376**	**248,949,257**	**55,141**	**71,890,706**	**186,070,917**	**319,280,534**
Producers Materials	**6,892**	**1,482,194,043**	**208,930**	**232,733,013**	**634,232,482**	**1,221,670,588**
Farm materials	20	16,689,720	1,023	1,447,625	6,693,841	10,266,953
Manufacturers materials	1,065	1,149,348,303	134,849	164,149,435	492,318,256	940,799,516
Building materials	5,181	240,260,689	54,972	49,588,794	99,351,528	201,202,291
General materials	626	75,895,331	18,086	17,547,159	35,868,857	69,401,828
Industrial Equipment	**2,086**	**629,908,231**	**97,250**	**119,070,287**	**280,546,886**	**551,891,976**
Farming equipment	45	61,151,531	6,501	7,393,465	9,387,653	19,196,644
Manufacturing equipment	226	67,727,707	13,294	16,582,015	22,621,266	58,371,409
Trading equipment	155	8,745,988	1,902	2,231,747	1,309,849	6,043,134
Service equipment	295	35,865,792	7,017	8,406,233	13,805,258	36,976,826
Light, heat, and power equipment	543	268,388,906	34,189	44,202,476	144,702,996	251,211,070
General equipment	822	188,028,307	34,347	40,254,351	88,719,864	180,092,893
Miscellaneous	**175**	**31,440,726**	**5,256**	**6,075,786**	**15,842,137**	**32,436,014**

Subsection 3.—Manufactures Classified by Origin of the Materials.

A study of manufactures, classified upon the basis of origin, as presented in Table **11**, leads to the analysis of manufacturing production from another angle, and interesting comparisons can be made with the external trade classification according to origin (see Table **15** of the External Trade chapter).

The distinction made between farm materials of Canadian and foreign origin is based on whether the materials are indigenous to Canada rather than on their actual source. Thus, the industries included in the foreign origin classes are those depending upon materials that cannot be grown in Canada, such as tea, coffee, spices, cane sugar, rice, rubber, cotton, etc. Industries included in the Canadian origin classes may be using large quantities of imported materials, however.

The mineral origin group includes, in addition to the non-ferrous metals so largely produced in Canada, the manufactures of iron and steel, of petroleum, and of other mineral substances the raw materials for which are very largely imported. Products of mineral origin, with the exception of fuels, are nearly all durable goods.

A high standard of living and advanced industrial organization is usually indicated by a relatively large production and consumption of mineral products. In 1937, the gross value of manufactures of mineral origin in Canada exceeded those of farm origin, which included raw materials for textiles as well as foods.

In value added in manufacture the mineral origin group advanced from second place in 1924 with 30·5 p.c. of the total value added by manufacture in all industries to first place in 1937 with 41·1 p.c. of the total. On the other hand, the manufacture of materials of farm origin receded from first place with 33·3 p.c. in 1924 to second place with 28·8 p.c. of the total in 1937. The value added in the manufacture of material of forest origin was in third place at both the beginning and the end of the period, but the proportion dropped from 26·0 p.c. in 1924 to 20·7 p.c. in 1937. These three groups accounted for about 90 p.c. of the value added.

In 1937, industries of the mineral group had the largest number of employees, the greatest capital, and paid out the most in salaries and wages. Industries of this group had an average capital per employee of nearly $6,500 and an average salary or wage of $1,292, while for industries of the farm origin group the respective averages were $4,400 and $970.

11.—Principal Statistics of the Manufacturing Industries of Canada, Classified According to the Origin of the Material Used, by Main Groups, Representative Years 1924-37.

Year and Origin.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
1924.	No.	$	No.	$	$	$
Farm Origin—						
From field crops	4,595	525,717,571	89,436	87,789,237	433,443,376	691,513,259
Canadian origin	4,311	299,158,049	51,462	53,793,131	270,753,367	440,469,831
Foreign origin	284	226,559,522	37,974	33,996,106	162,690,009	251,043,428
From animal husbandry	4,068	247,073,900	63,052	65,424,526	282,604,516	407,766,406
Canadian origin	4,068	247,073,900	63,052	65,424,526	282,604,516	407,766,406
Totals, Farm Origin	**8,663**	**772,791,471**	**152,488**	**153,213,763**	**716,047,892**	**1,099,279,665**
Canadian origin	8,379	546,231,949	114,514	119,217,657	553,357,883	848,236,237
Foreign origin	284	226,559,522	37,974	33,996,106	162,690,009	251,043,428
Wild life origin	226	10,837,249	2,944	3,194,213	7,506,169	13,386,266
Marine origin	836	20,304,785	11,157	3,344,348	16,089,332	26,637,962
Forest origin	6,873	876,149,932	126,907	147,719,245	245,183,429	544,282,597
Mineral origin	2,806	1,010,517,944	136,837	171,068,497	349,800,585	700,002,097
Mixed origin	1,305	204,716,127	57,277	55,927,609	101,563,384	200,718,177
Grand Totals, 1924	**20,709**	**2,895,317,508**	**487,610**	**534,467,675**	**1,436,190,791**[1]	**2,584,306,764**[1]
1926.						
Farm Origin—						
From field crops	4,697	565,932,312	99,200	95,403,666	486,522,508	773,023,228
Canadian origin	4,434	323,033,863	56,017	54,719,806	299,452,868	486,709,022
Foreign origin	263	242,898,449	43,183	40,683,860	187,069,640	286,314,206
From animal husbandry	4,137	248,759,804	65,939	69,690,146	333,770,293	467,253,826
Canadian origin	4,137	248,759,804	65,939	69,690,146	333,770,293	467,253,826
Totals, Farm Origin	**8,834**	**814,692,116**	**165,139**	**165,093,812**	**820,292,801**	**1,240,277,054**
Canadian origin	8,571	571,793,667	121,956	124,409,952	633,223,161	953,962,848
Foreign origin	263	242,898,449	43,183	40,683,860	187,069,640	286,314,206
Wild life origin	232	13,321,668	3,662	4,328,731	12,459,350	21,775,688
Marine origin	831	28,868,071	17,408	5,622,837	22,034,129	36,190,764
Forest origin	6,710	926,726,166	133,428	159,969,652	260,039,864	597,551,657
Mineral origin	3,284	1,200,704,022	173,515	226,802,705	489,898,292	982,103,019
Mixed origin	1,410	223,759,154	66,009	63,864,505	121,795,580	236,795,048
Grand Totals, 1926	**21,301**	**3,208,071,197**	**559,161**	**625,682,242**	**1,726,520,016**[1]	**3,114,693,230**[1]

[1]For the years 1924 and 1926 the figures for cost of materials and gross value of products include the value placed on intermediate products used in further processes in the chemical group of industries. For this reason these figures differ slightly from those contained in the other tables of this report.

11.—Principal Statistics of the Manufacturing Industries of Canada, Classified According to the Origin of the Material Used, by Main Groups, Representative Years 1924-37—continued.

Year and Origin.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	$	No.	$	$	$
1929.						
Farm Origin—						
From field crops	5,191	697,206,163	114,236	115,201,292	496,842,580	889,075,246
Canadian origin	4,893	436,282,846	67,234	67,235,530	326,292,523	598,311,861
Foreign origin	298	260,923,317	47,002	47,965,762	170,550,057	290,763,385
From animal husbandry	3,850	272,178,703	67,446	73,105,463	355,763,503	507,694,323
Canadian origin	3,850	272,178,703	67,446	73,105,463	355,763,503	507,694,323
Totals, Farm Origin	**9,041**	**969,384,866**	**181,682**	**188,306,755**	**852,606,083**	**1,396,769,569**
Canadian origin	8,743	708,461,549	134,680	140,340,993	682,056,026	1,106,006,184
Foreign origin	298	260,923,317	47,002	47,965,762	170,550,057	290,763,385
Wild life origin	234	14,338,686	3,767	4,783,323	12,847,817	20,861,039
Marine origin	730	28,644,442	16,367	5,411,855	21,496,859	34,966,260
Forest origin	7,353	1,148,558,242	163,863	191,044,307	313,088,964	722,269,066
Mineral origin	3,219	1,550,662,908	218,879	304,027,803	678,683,203	1,392,499,868
Mixed origin	1,639	293,302,865	81,973	83,717,174	150,947,887	316,080,314
Grand Totals, 1929	**22,216**	**4,004,892,009**	**666,531**	**777,291,217**	**2,029,670,813**	**3,883,446,116**
1933.						
Farm Origin—						
From field crops	5,746	609,044,529	93,433	81,655,182	263,007,043	494,048,930
Canadian origin	5,424	393,913,114	59,378	51,750,819	173,684,115	322,289,909
Foreign origin	322	215,131,415	34,055	29,904,363	89,322,928	171,759,021
From animal husbandry	3,949	235,537,529	65,169	56,056,567	191,875,661	297,907,540
Canadian origin	3,949	235,537,529	65,169	56,056,567	191,875,661	297,907,540
Totals, Farm Origin	**9,695**	**844,582,058**	**158,602**	**137,711,749**	**454,882,704**	**791,956,470**
Canadian origin	9,373	629,450,643	124,547	107,807,386	365,559,776	620,197,449
Foreign origin	322	215,131,415	34,055	29,904,363	89,322,928	171,759,021
Wild life origin	335	10,507,157	3,498	3,481,885	7,159,079	13,000,927
Marine origin	620	15,532,775	4,064	2,287,385	10,960,289	17,380,323
Forest origin	7,796	882,445,602	102,807	99,046,012	133,550,374	335,886,257
Mineral origin	3,539	1,306,641,651	130,565	138,101,092	271,434,337	601,428,003
Mixed origin	1,795	219,550,595	69,122	55,619,701	89,802,145	194,423,805
Grand Totals, 1933	**23,780**	**3,279,259,838**	**468,658**	**436,247,824**	**967,788,928**	**1,954,075,785**
1935.						
Farm Origin—						
From field crops	5,620	592,460,185	102,120	92,346,954	332,576,494	594,405,019
Canadian origin	5,268	385,787,001	64,088	58,212,158	219,828,843	392,090,889
Foreign origin	352	206,673,184	38,032	34,134,796	112,747,651	202,314,130
From animal husbandry	3,881	242,276,644	74,556	67,115,718	264,608,357	389,696,072
Canadian origin	3,881	242,276,644	74,556	67,115,718	264,608,357	389,696,072
Totals, Farm Origin	**9,501**	**834,736,829**	**176,676**	**159,462,672**	**597,184,851**	**984,101,091**
Canadian origin	9,149	628,063,645	138,644	125,327,876	484,437,200	781,786,961
Foreign origin	352	206,673,184	38,032	34,134,796	112,747,651	202,314,130
Wild life origin	322	11,432,808	3,724	3,797,913	8,163,673	13,893,417
Marine origin	630	17,144,806	4,766	2,874,553	14,772,722	23,458,356
Forest origin	8,058	862,608,889	120,578	123,959,435	173,104,957	432,743,826
Mineral origin	3,603	1,260,176,377	171,051	202,180,299	511,639,555	961,973,179
Mixed origin	1,920	230,303,418	79,869	67,192,905	114,280,459	237,741,340
Grand Totals, 1935	**24,034**	**3,216,403,127**	**556,664**	**559,467,777**	**1,419,146,217**	**2,653,911,209**
1936.						
Farm Origin—						
From field crops	6,042	621,273,209	110,000	103,311,060	387,870,445	691,001,191
Canadian origin	5,267	399,167,986	67,353	63,080,019	256,931,499	450,793,956
Foreign origin	775	222,105,223	42,647	40,231,041	130,938,946	240,207,235
From animal husbandry	3,912	253,730,953	79,361	72,356,777	303,076,995	440,171,338
Canadian origin	3,912	253,730,953	79,361	72,356,777	303,076,995	440,171,338
Totals, Farm Origin	**9,954**	**875,004,162**	**189,361**	**175,667,837**	**690,947,440**	**1,131,172,529**
Canadian origin	9,179	652,898,939	146,714	135,436,796	560,008,494	890,965,294
Foreign origin	775	222,105,223	42,647	40,231,041	130,938,946	240,207,235

11.—Principal Statistics of the Manufacturing Industries of Canada, Classified According to the Origin of the Material Used, by Main Groups, Representative Years 1924-37—concluded.

Year and Origin.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
1936—concluded.	No.	$	No.	$	$	$
Wild life origin	345	12,822,777	3,952	4,140,861	9,489,349	15,991,697
Marine origin	624	18,614,592	5,252	3,279,581	16,459,938	26,684,801
Forest origin	8,080	864,302,280	129,900	137,426,273	204,820,245	490,306,490
Mineral origin	3,301	1,293,369,809	185,581	223,553,588	584,795,869	1,097,328,476
Mixed origin	1,898	207,149,911	80,313	68,003,294	117,701,155	240,919,821
Grand Totals, 1936	**24,202**	**3,271,263,531**	**594,359**	**612,071,434**	**1,624,213,996**	**3,002,403,814**
1937.						
Farm Origin—						
From field crops	6,197	635,995,955	118,765	115,999,546	456,791,911	774,683,154
Canadian origin	5,384	407,460,322	72,932	70,208,302	306,315,594	507,319,224
Foreign origin	813	228,535,633	45,833	45,791,244	150,476,317	267,363,930
From animal husbandry	3,942	265,543,245	85,143	81,862,273	353,172,795	501,566,129
Canadian origin	3,942	265,543,245	85,143	81,862,273	353,172,795	501,566,129
Totals, Farm Origin	**10,139**	**901,539,200**	**203,908**	**197,861,819**	**809,964,706**	**1,276,249,283**
Canadian origin	9,326	673,003,567	158,075	152,070,575	659,488,389	1,008,885,353
Foreign origin	813	228,535,633	45,833	45,791,244	150,476,317	267,363,930
Wild life origin	365	13,328,164	4,264	4,452,918	10,761,233	17,658,867
Marine origin	597	18,130,385	5,427	3,354,771	16,318,781	26,088,625
Forest origin	8,392	916,530,488	144,597	161,030,221	254,863,829	589,517,795
Mineral origin	3,384	1,401,562,788	216,959	280,323,383	784,742,328	1,451,202,762
Mixed origin	1,957	214,136,806	85,296	74,703,925	130,275,910	264,742,168
Grand Totals, 1937	**24,834**	**3,465,227,831**	**660,451**	**721,727,037**	**2,006,926,787**	**3,625,459,500**

Subsection 4.—Leading Manufacturing Industries.

In the following statement, the rank of the ten leading industries in 1937, from the standpoint of gross value of production, is compared with their respective ranks in representative years since 1922.

THE TEN LEADING INDUSTRIES, 1937, COMPARED AS TO RANK, REPRESENTATIVE YEARS 1922-36.

Industry.	Rank in—						
	1937.	1936.	1934.	1933.	1929.	1926.	1922.
Non-ferrous metal smelting and refining	1	1	2	2	9	9	-
Pulp and paper	2	2	1	1	1	1	2
Slaughtering and meat packing	3	3	3	3	2	3	3
Automobiles	4	6	7	11	4	5	6
Flour and feed mills	5	4	4	4	3	2	1
Butter and cheese	6	5	5	5	6	6	5
Sawmills	7	8	11	14	5	4	4
Electrical apparatus and supplies	8	9	14	16	8	13	17
Petroleum products	9	7	6	6	10	11	9
Railway rolling-stock	10	14	24	24	8	11	25

A prominent feature of Canadian manufacturing development in recent years has been the growth of non-ferrous metal smelting. This industry, based upon mineral resources, has now taken its place among the leading manufactures along with the industries based upon forest, agricultural, and live-stock resources.

The incidence of the depression resulted in a re-arrangement in the rank of many industries which has proved temporary in some cases. The suspension or curtailment of capital expenditures 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, the demand for goods for immediate consumption was more stable, including such industries as: petroleum products, bakeries, cotton yarn and cloth, printing and publishing, clothing, tobacco, beverages, etc.

12.—Principal Statistics of the Forty Leading Industries of Canada, Ranked According to the Gross Value of the Products, 1937.

	Industry.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Values of Products.	
							Net.	Gross
		No.	$	No.	$	$	$	$
1	Non-ferrous metal smelting and refining	14	162,696,595	11,570	17,990,947	201,862,965	101,807,865	318,278,251
2	Pulp and paper	98	570,352,287	33,205	48,757,795	91,121,629	106,002,017	226,244,711
3	Slaughtering and meat packing	138	65,411,606	13,070	17,085,008	148,057,651	31,955,352	181,419,311
4	Automobiles	15	57,996,242	14,946	22,138,991	92,706,147	41,242,815	134,810,280
5	Flour and feed mills	1,086	56,280,032	5,803	5,877,756	111,558,331	20,854,356	133,634,179
6	Butter and cheese	2,568	60,001,842	16,583	15,699,085	91,175,996	31,990,975	124,935,055
7	Sawmills	3,836	90,405,105	33,917	27,173,872	57,280,080	46,727,302	104,849,785
8	Electrical apparatus and supplies	191	97,187,905	21,706	26,291,436	41,695,446	55,815,297	98,841,992
9	Petroleum products	57	64,280,266	5,137	8,246,843	80,401,880	13,602,129	98,454,014
10	Railway rolling-stock	37	88,426,476	21,496	29,187,157	56,191,146	35,573,335	93,854,555
11	Bread and other bakery products	3,179	49,164,576	21,252	19,759,740	39,498,456	34,774,337	76,462,891
12	Primary iron and steel	55	96,875,377	14,054	19,926,498	33,805,631	33,841,030	74,580,669
13	Rubber goods, including footwear	50	65,119,212	13,035	14,041,066	31,126,755	41,797,481	74,263,753
14	Cotton yarn and cloth	36	67,832,556	19,160	16,350,956	42,063,654	27,980,994	72,113,878
15	Printing and publishing	779	53,235,912	17,834	25,189,376	12,990,521	47,231,468	60,982,409
16	Clothing, women's factory	593	26,734,768	19,981	16,926,471	34,915,469	25,460,429	60,610,755
17	Machinery	214	66,323,206	12,638	16,059,392	22,204,200	34,133,371	57,096,816
18	Hosiery and knitted goods	171	51,666,165	20,250	16,228,813	26,446,763	25,654,274	52,855,754
19	Fruit and vegetable preparations	348	47,488,051	10,630	7,194,477	30,620,211	18,944,102	50,289,711
20	Biscuits, confectionery, cocoa, etc	223	38,565,652	11,879	10,892,004	24,351,815	24,352,071	49,475,403
21	Sheet metal products	148	56,527,585	8,499	9,518,325	28,338,113	20,149,241	49,132,766
22	Automobile supplies	88	28,440,176	8,416	10,358,098	26,631,014	19,150,666	46,631,643
23	Clothing, men's factory	198	20,868,845	12,176	12,135,443	25,594,619	19,490,283	45,249,174
24	Tobacco, cigars, and cigarettes	93	59,359,240	7,920	7,578,110	23,169,834	21,772,913	45,110,135
25	Breweries	65	64,162,671	5,151	7,904,517	18,155,465	24,552,091	43,485,071
26	Castings and forgings	231	48,814,929	12,164	14,333,923	17,091,230	23,316,898	41,913,753
27	Coke and gas products	33	91,911,250	4,027	5,709,569	17,217,957	21,578,880	41,702,929
28	Boots and shoes, leather	221	27,374,704	16,773	13,026,642	22,295,404	18,512,102	41,088,713
29	Sugar refineries	10	35,413,781	2,332	3,318,861	29,013,057	10,951,571	40,916,044
30	Printing and bookbinding	1,238	42,091,744	13,358	15,589,840	13,747,403	23,547,011	37,758,604
31	Brass and copper products	125	23,686,294	5,094	6,310,384	21,498,095	12,329,104	34,453,160
32	Boxes and bags, paper	147	23,400,776	6,637	6,767,971	17,097,334	12,649,984	30,035,299
33	Silk and artificial silk	29	34,135,176	10,246	9,099,437	10,453,196	16,407,382	27,871,292
34	Coffee, tea, and spices	90	15,495,053	2,149	2,657,789	20,691,430	6,241,184	27,035,275
35	Furnishing goods, men's	195	17,722,232	10,073	7,173,314	16,053,321	10,567,996	26,761,676
36	Furniture	435	27,445,103	10,804	9,481,946	10,965,149	15,078,642	26,518,767
37	Leather tanneries	83	24,596,637	4,382	4,576,703	18,592,794	7,158,060	26,269,794
38	Fish curing and packing	597	18,130,385	5,427	3,354,771	16,318,781	9,372,593	26,088,625
39	Paints, pigments, and varnishes	82	23,853,360	3,324	4,827,199	12,307,011	12,918,331	25,531,117
40	Planing mills, sash and door factories	669	29,653,158	8,369	7,380,636	12,772,336	11,702,460	24,947,718
	Totals, Forty Leading Industries	**18,465**	**2,589,126,930**	**495,467**	**542,121,161**	**1,648,078,289**	**1,117,218,392**	**2,852,555,727**
	Totals, All Industries	**24,831**	**3,465,227,831**	**660,451**	**721,727,037**	**2,006,926,787**	**1,508,924,867**	**3,625,459,590**
	Percentages of forty leading industries to all industries	74·4	74·7	75·0	75·1	82·1	74·0	78 7
	Primary textiles[1]	457	209,941,339	65,009	55,389,076	112,584,670	95,036,120	212,898 687

[1]On this broader classification basis, the primary textile industry includes the production of cottons, woollens, silk, hosiery and knitted goods, and the dyeing and finishing of textiles.

12A.—Principal Statistics of the Forty Leading Industries of Canada, Ranked According to the Gross Value of the Products, 1938.

	Industry.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Values of Products.	
							Net.	Gross.
		No.	$	No.	$	$	$	$
1	Non-ferrous metal smelting and refining	14	184,337,126	12,788	19,549,963	184,970,812	87,091,374	287,295,733
2	Pulp and paper	99	594,908,222	30,943	42,619,311	71,062,580	89,034,186	183,897,503
3	Slaughtering and meat packing	145	56,119,509	12,503	16,596,710	143,481,692	30,854,054	175,767,382
4	Butter and cheese	2,528	62,481,408	17,336	16,538,956	94,057,247	31,659,971	127,659,343
5	Flour and feed mills	1,080	50,111,006	5,778	6,163,351	99,418,794	21,989,098	122,598,168
6	Automobiles	12	59,798,250	14,872	20,993,362	76,202,670	39,709,707	116,746,239
7	Petroleum products	59	62,620,908	4,675	7,873,040	76,419,516	15,900,614	97,003,347
8	Sawmills	3,873	88,812,313	31,182	25,345,064	52,788,246	39,264,528	92,855,906
9	Electrical apparatus and supplies	188	97,122,970	20,353	24,978,077	35,916,344	53,013,672	90,129,119
10	Railway rolling-stock	37	87,314,298	19,358	26,736,265	46,536,416	32,487,618	80,977,701
11	Bread and other bakery products	3,231	48,026,819	22,358	21,410,506	38,446,525	37,821,360	78,535,333
12	Clothing, men's factory	387	36,899,228	21,205	18,406,572	35,827,036	28,190,311	64,303,613
13	Printing and publishing	806	53,757,534	18,403	26,070,920	13,416,562	47,541,592	61,743,480
14	Rubber goods	53	64,854,448	12,879	14,061,788	24,301,221	35,491,971	61,030,710
15	Primary iron and steel	55	100,272,104	13,100	18,256,627	24,786,761	29,289,556	59,606,150
16	Clothing, women's factory	605	26,254,827	19,909	16,984,546	32,046,796	24,988,318	57,271,953
17	Cotton yarn and cloth	37	60,862,966	18,049	14,639,317	29,902,346	25,171,408	57,055,615
18	Biscuits, confectionery, cocoa, etc.	226	38,253,958	12,133	11,387,597	23,005,548	25,928,836	49,717,409
19	Hosiery and knitted goods	174	51,808,989	20,031	16,154,050	23,049,120	25,713,067	49,505,474
20	Machinery	213	63,137,547	11,631	14,586,263	17,841,141	29,713,831	48,272,442
21	Fruit and vegetable preparations	341	48,862,472	9,491	6,853,116	29,307,862	17,853,103	47,821,350
22	Sheet-metal products	169	51,717,455	8,262	9,455,645	25,890,565	19,737,217	46,266,684
23	Tobacco, cigars, and cigarettes	87	59,480,641	7,967	7,588,453	22,880,770	22,239,882	45,292,513
24	Breweries	65	62,745,249	5,379	8,343,279	17,140,219	24,461,793	42,378,853
25	Sugar refineries	10	36,347,866	2,318	3,315,633	28,838,685	11,557,871	41,392,096
26	Coke and gas products	33	93,337,572	3,930	5,799,502	16,603,643	20,275,567	39,721,530
27	Printing and bookbinding	1,284	42,332,591	13,429	15,808,068	13,576,663	23,246,734	37,291,232
28	Boots and shoes, leather	213	25,328,677	15,932	12,396,670	19,054,739	17,865,780	37,194,770
29	Automobile supplies	97	27,480,773	7,900	9,349,996	19,168,459	17,039,545	36,680,424
30	Castings and forgings	230	48,989,131	11,098	12,808,529	13,702,714	20,460,000	35,460,962
31	Boxes and bags, paper	151	22,948,019	6,494	6,763,074	16,228,350	11,721,367	28,229,194
32	Fish curing and packing	561	21,962,498	5,177	3,547,918	17,082,060	10,459,517	27,949,208
33	Brass and copper products	127	22,991,460	5,030	6,155,367	16,002,647	11,147,389	27,727,637
34	Coffee, tea, and spices	91	14,226,282	2,151	2,698,837	19,776,481	6,748,379	26,628,880
35	Aerated and mineral waters	454	18,879,487	4,569	5,160,805	7,750,190	18,005,477	26,094,126
36	Medicinal preparations	171	23,508,341	4,270	5,690,826	8,566,007	15,778,090	24,536,474
37	Paints, pigments, and varnishes	87	24,252,436	3,412	5,003,001	11,333,307	12,676,436	24,317,532
38	Silk and artificial silk	28	31,780,203	8,922	8,147,841	8,882,157	14,022,364	23,871,992
39	Furniture	392	26,585,729	10,284	9,388,227	10,100,463	13,273,796	23,869,316
40	Miscellaneous chemical products	143	25,989,719	4,073	5,026,018	9,239,464	13,669,495	23,361,669
	Totals, Forty Leading Industries	**18,556**	**2,617,501,031**	**479,574**	**528,653,090**	**1,474,602,818**	**1,073,094,874**	**2,628,359,062**
	Totals, All Industries	**25,200**	**3,485,683,018**	**642,016**	**705,668,589**	**1,807,478,028**	**1,428,286,778**	**3,337,681,366**
	Percentages of forty leading industries to all industries	73·6	75·1	74·7	74·9	81·6	75·8	78·7
	Primary textiles[1]	451	199,640,313	60,727	50,884,296	86,015,577	84,923,017	175,937,437

Section 3.—Principal Factors in Manufacturing Production.

Subsection 1.—Capital Employed.

The remarkable increase in capital employed in Canadian manufactures from the beginning of the twentieth century denotes rapid growth in industrial operations. From 1900 to 1905 the capital increased from $446,900,000 to $833,900,000, and advanced to $1,958,700,000 in 1915. During this period returns were received from establishments with 5 hands or over, and, while the rise in wholesale prices did not exceed 37 p.c., the capital employed in manufactures increased nearly 340 p.c.

The capital investment in 1937 in all establishments, irrespective of the number of employees, but exclusive of central electric stations, was $3,465,000,000 as compared with $2,334,000,000 in 1917, an increase of 48 p.c. in 20 years, while wholesale prices have declined about 34 p.c. in the same period.

The wood and paper products led in 1937. Next in importance were the iron and its products and the vegetable products groups, respectively. It is interesting to note that in the case of the wood, iron, non-metallic mineral, and chemical groups the capital exceeded the gross value of products, while in the remaining groups the reverse was the case. These remaining groups, however, had relatively high material costs. By a comparison with Table **19**, the non-metallic mineral group had the largest capital per wage-earner and also paid the highest average wage, but this relationship does not hold good in the case of all groups.

The statistics of capital employed in the manufacturing industries are of interest in deducing the proportions of fixed and liquid assets. In 1924, land, buildings, machinery and tools constituted 59 p.c. of the total capital; in 1929 the proportion was still 59 p.c.; in 1933 it was 66 p.c.; but in 1937 it had declined again to 61 p.c. The fixed assets amounted to $2,127,000,000 in 1937, while current assets, including inventories of raw materials and finished products, bills and accounts receivable, cash, and sundries, were valued at $1,338,000,000. Details by provinces and industrial groups are given in Table **14.**

13.—Percentage Distribution of Capital Employed in the Manufacturing Industries of Canada, by Provinces and Industrial Groups, Representative Years 1917-37.

Province or Group.	1917.	1920.	1926.	1929.	1933.	1936.	1937.
PROVINCE.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Prince Edward Island	0·1	0·1	0·1	0·1	0·1	0·1	0·1
Nova Scotia	5·3	4·6	3·3	3·0	2·8	2·7	2·7
New Brunswick	2·6	3·5	2·6	2·3	2·7	2·5	2·6
Quebec	28·4	30·1	30·2	31·1	31·6	31·5	32·3
Ontario	49·6	50·1	50·4	49·6	48·4	48·5	48·3
Manitoba	3·6	3·2	2·7	3·0	3·1	3·6	3·5
Saskatchewan	1·0	0·8	0·8	1·1	1·2	1·3	1·1
Alberta	2·1	1·6	1·8	2·0	2·1	2·1	2·0
British Columbia and Yukon	7·3	6·0	8·1	7·8	8·0	7·7	7·4
Totals	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
INDUSTRIAL GROUP.							
Vegetable products	12·0	13·7	14·3	14·5	15·9	16·0	15·6
Animal products	8·9	7·6	7·0	6·1	6·2	6·8	6·6
Textiles and textile products	8·2	10·4	9·4	9·0	9·1	9·7	9·3
Wood and paper products	23·0	26·5	28·9	28·8	27·2	26·8	26·8
Iron and its products	29·8	24·8	20·4	20·6	18·8	18·4	18·8
Non-ferrous metal products	3·0	3·7	6·3	7·5	8·1	8·1	8·8
Non-metallic mineral products	6·2	7·4	7·8	7·9	9·0	8·6	8·3
Chemicals and allied products	7·5	4·2	4·2	4·1	4·7	4·5	4·7
Miscellaneous industries	1·4	1·7	1·7	1·5	1·0	1·1	1·1

14.—Forms of Capital Employed in the Manufacturing Industries of Canada, by Provinces and Industrial Groups, 1937, and Totals for Representative Years 1924-36.

Province or Group.	Establishments.	Fixed Capital.	Working Capital.		Total Capital.
		Land, Buildings, Fixtures, Machinery, Tools, and Other Equipment.	Inventory Value of Raw Materials and Finished Products on Hand, Stocks in Process, Fuel, Supplies, etc.	Cash, Bills and Accounts Receivable, Prepaid Expenses, etc.	
	No.	$	$	$	$
Totals, 1924	**20,709**	**1,717,122,081**	**658,360,445**	**519,834,982**	**2,895,317,508**
Totals, 1926	**21,301**	**1,905,620,436**	**707,413,136**	**595,037,625**	**3,208,071,197**
Totals, 1929	**22,216**	**2,356,913,335**	**867,689,319**	**780,289,355**	**4,004,892,009**
Totals, 1932	**23,102**	**2,218,729,234**	**597,939,060**	**563,807,215**	**3,380,475,509**
Totals, 1933	**23,780**	**2,151,091,557**	**573,587,617**	**554,580,664**	**3,279,259,838**
Totals, 1934	**24,209**	**2,109,729,523**	**598,110,478**	**541,508,863**	**3,249,348,864**
Totals, 1935	**24,034**	**2,080,221,792**	**610,814,942**	**525,366,393**	**3,216,403,127**
Totals, 1936	**24,202**	**2,061,610,260**	**651,771,457**	**557,881,814**	**3,271,263,531**
1937.					
PROVINCE.					
Prince Edward Island	240	1,603,889	506,595	526,988	2,637,472
Nova Scotia	1,135	63,396,176	19,224,898	12,135,527	94,756,601
New Brunswick	805	59,709,122	16,625,457	13,463,018	89,797,597
Quebec	8,518	711,072,474	225,435,702	181,264,545	1,117,772,721
Ontario	9,796	977,861,703	387,417,746	309,526,752	1,674,806,201
Manitoba	1,043	77,758,680	24,510,594	17,093,752	119,363,026
Saskatchewan	689	23,294,266	10,332,987	5,651,797	39,279,050
Alberta	895	46,285,687	16,607,544	7,910,839	70,804,070
British Columbia and Yukon	1,713	165,947,812	56,660,770	33,402,511	256,011,093
Totals, 1937	**24,834**	**2,126,929,809**	**757,322,293**	**580,975,729**	**3,465,227,831**
INDUSTRIAL GROUP.					
Vegetable products	5,968	274,669,951	150,619,312	114,242,094	539,531,357
Animal products	4,435	126,959,607	62,838,555	40,514,001	230,312,163
Textiles and textile products	1,941	168,510,360	89,602,286	64,091,534	322,204,180
Wood and paper products	8,497	701,339,700	123,483,694	102,247,363	927,070,757
Iron and its products	1,345	368,847,786	157,821,003	124,729,739	651,398,528
Non-ferrous metal products	526	169,193,707	70,631,701	66,697,235	306,522,643
Non-metallic mineral products	823	210,053,415	53,050,342	24,369,785	287,473,542
Chemicals and allied products	754	88,912,411	39,719,889	32,532,768	161,165,068
Miscellaneous industries	545	18,442,872	9,555,511	11,551,210	39,549,593

Subsection 2.—Employment in Manufactures.

The numbers of salaried employees and wage-earners, ascertained by the methods outlined below, are given, for each of the years 1931 to 1937, in Table **15.** The total number of persons engaged in those manufacturing industries of Canada for which statistics were obtained in 1937 was 660,451, as compared with 468,658 in the same industries in 1933. The 1937 employees included 115,827 salaried employees, this figure being obtained from the manufacturers at the end of the year, and 544,624 wage-earners, the average number employed as derived from the manufacturers' records of the numbers on the payrolls on the 15th of each of the twelve months. Using the year 1917 as a base, and taking the percentages of the wage-earners and the total employees in each year, by dividing these percentages into the corresponding volumes of manufacturing production (see p. 405 for the index of volume), tentative conclusions are arrived at regarding the efficiency of production per wage-earner and per employee. These indexes of the efficiency of production are, of course, affected by the changes in the method of computing the number of employees adopted in 1925, and then again in 1931. Inasmuch as the change increased the apparent number of employees between 1925 and 1930, it proportionately decreased the index of the efficiency of production. The table illustrates the development of modern industry which has accomplished, by better organization and the use of improved equipment, a large increase in production with a comparatively small increase in wage-earners. Capital invested in manufacturing industries has increased by 48 p.c. from 1917 to 1937, compared with an increase of 0·6 p.c. in wage-earners, while the horse-power used per wage-earner has increased from 3·06 in 1917 to 8·65 in 1937. The factor of better organization is not susceptible to measurement. However, salaried employees have increased 78 p.c. since 1917, or more nearly in proportion to the growth in production than wage-earners. The result of these developments has been the increase of 68·1 p.c. in the efficiency of production per wage-earner and a smaller increase of 55·0 p.c. per employee, owing to the increased proportion of salaried employees in the total. The indexes may be considered as supplying satisfactory evidence of a general gain in volume of production per person employed. In this connection it should be remembered, however, that in 1917, owing to the large numbers overseas, many persons of low efficiency were being employed, their inefficiency being concealed at the time by the prevailing inflation of prices; it is possible that the sudden rise in the indexes of efficiency in 1921 and 1922 may be partly accounted for by the elimination of less competent workers in the contraction of industrial operations that occurred at that time. During the recent depression years the reduced volume of production lowered the indexes of efficiency.

15.—Salaried Employees and Wage-Earners in the Manufacturing Industries of Canada, with Volume of Manufacturing Production and Comparative Efficiency of Production, 1931-37.

(1917=100.)

NOTE.—Figures, with qualifications as to comparability, for 1917 to 1930 are given on p. 421 of the 1939 Year Book.

Year.	Salaried Employees.	Wage-Earners.	Total Employees.	Percentages Relative to 1917.		Index Number of Volume of Mf'd. Products.	Indexes of Efficiency of Production.	
				Of Wage-Earners.	Of Total Employees.		Per Wage-Earner.	Per Employee.
	No.	No.	No.	p.c.	p.c.			
1931.....	91,491	437,149	528,640	80·7	87·2	124·1	153·8	142·3
1932.....	87,050	381,783	468,833	70·5	77·3	105·0	148·9	135·8
1933.....	86,636	382,022	468,658	70·5	77·3	105·1	149·1	136·0
1934.....	92,095	427,717	519,812	79·0	85·7	123·7	156·6	144·3
1935.....	97,930	458,734	556,664	84·7	91·8	136·4	161·0	148·6
1936.....	104,417	489,942	594,359	90·5	98·0	149·4	165·1	152·4
1937.....	115,827	544,624	660,451	100·6	109·1	169·1	168·1	155·0

Distribution of Employees in 1937.—The percentages, by provinces and industrial groups, of employees on salaries and on wages are shown for 1937 in Table **16**. The actual numbers upon which these percentages are based appear in Table **19**. Interesting comparisons may be made with the distribution of capital appearing in Tables **13** and **14** and with that of values produced shown in Tables **2** and **3**. In 1937, the 24,834 establishments covered, employed 115,827 salaried employees and 544,624 wage-earners, a total of 660,451 persons. Out of every 1,000 persons employed in manufacturing, 175 were classed as salary earners and 825 as wage-earners; the former earned 27·2 p.c. and the latter 72·8 p.c. of the total amount paid out as remuneration for services.

Ontario had a lower percentage of both salaried employees and wage-earners than its proportion of gross production (51·8 p.c.) or of net production (53·3 p.c.). In Quebec, on the other hand, the percentages of both salaried and wage-earning employees were higher than the proportions of gross (28·8 p.c.) and net (29·5 p.c.) production. The percentages of salaries were relatively high in both Ontario and Quebec, as these provinces contain the head offices of many large corporations with their salaried executives. In Ontario the percentage of female salaried employees was higher than that of the male, i.e., it had a larger proportion of females among its salaried employees than the other provinces. The same was true of Quebec with regard to the wage-earners, due, no doubt, to the textile industries of Quebec.

The proportion of salaried employees was relatively high in the wood and paper group, while the proportion of wage-earning employees was high in the wood and paper, the textile, and the iron groups. The proportion of females to males among both salaried and wage-earning employees was high in the textile group. The vegetable products group also had a high proportion of female wage-earners, while the wood and paper, iron, and non-metallic mineral groups had very low proportions. It is of interest to note that out of every 1,000 wage-earners in the textile industries 539 were females, while in all other groups 135 were females. The importance of the textile industries in providing employment to females is strikingly illustrated by the fact that out of all female wage-earners engaged in the manufacturing industries of Canada, 49·5 p.c. were found in the textile group.

16.—Percentages of Male and Female Employees on Salaries and Wages and Percentages of Total Salaries and Wages, by Provinces and Industrial Groups, 1937.

NOTE.—For actual figures upon which this table is based, see Table 19.

Province or Group.	P.C. of Employees on Salaries.			P.C. of Total Salaries.	P.C. of Employees on Wages.			P.C. of Total Wages.
	Male.	Female	Total.		Male.	Female.	Total.	
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
PROVINCE.								
Prince Edward Island	0·2	0·2	0·2	0·1	0·1	0·2	0·2	0·1
Nova Scotia	2·0	1·7	2·0	1·6	3·2	2·0	2·9	2·6
New Brunswick	1·8	1·7	1·8	1·7	2·7	1·7	2·5	2·2
Quebec	32·5	27·8	31·5	30·1	30·9	43·3	33·6	30·0
Ontario	49·1	58·0	51·0	53·4	48·8	46·1	48·0	51·0
Manitoba	4·0	3·5	3·9	3·7	3·7	2·8	3·5	3·8
Saskatchewan	1·8	1·1	1·6	1·3	0·9	0·2	0·8	0·8
Alberta	2·7	1·9	2·5	2·3	2·0	0·9	1·8	1·8
British Columbia and Yukon	5·9	4·1	5·5	5·8	7·7	2·8	6·7	7·7
Totals	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
INDUSTRIAL GROUP.								
Vegetable products	17·1	15·4	16·8	15·9	12·3	18·9	13·7	12·1
Animal products	12·7	9·4	12·0	9·5	9·9	10·0	9·9	8·8
Textiles and textile products	10·8	17·0	12·1	12·5	11·6	49·5	19·8	15·3
Wood and paper products	25·5	21·4	24·6	23·7	25·4	8·7	21·8	22·6
Iron and its products	14·9	14·1	14·7	16·7	24·9	3·2	20·2	24·8
Non-ferrous metal products	7·2	8·7	7·5	8·6	7·2	4·5	6·6	7·8
Non-metallic mineral products	3·8	3·2	3·7	4·0	4·4	0·5	3·6	4·3
Chemicals and allied products	6·0	8·2	6·5	7·0	2·7	2·7	2·7	2·8
Miscellaneous industries	2·0	2·6	2·1	2·1	1·6	2·0	1·7	1·5

Monthly Record of Employment in Manufactures.—A monthly record of the numbers of wage-earners employed in Canadian manufactures, as compiled from the Census of Industry, is given in Table **17** for representative years 1922 to 1937 and by sex for certain of the years. Ordinarily, manufacturing employment in Canada reaches its highest point during the summer months. Some of the seasonal industries, such as canning, are most active then, textile industries are preparing winter goods, and industry generally feels the active demand of the agricultural purchasing power resulting from the prospects of the season's harvest. After the check of 1929, employment during 1930, 1931, 1932 and the first half of 1933 declined steadily, the monthly employment figures in each case being lower than the corresponding month of the previous year. The previous peak of employment was in June, 1929, when 575,693 wage-earners were on the payrolls. This compared with the high month in 1933 of 410,954 wage-earners, 444,151 in 1934, 476,961 in 1935, 511,072 in 1936 and 582,305 in 1937. In July, 1933, employment took an upward swing; the improvement has been generally maintained since then.

17.—Wage-Earners Employed in the Manufacturing Industries of Canada, by Months and Sex, Representative Years 1922-37.

Month.	Total Wage-Earners.						
	1922.	1926.	1929.	1933.	1934.	1936.	1937.
	No.	No.	No.	No.	No.	No.	No.
January	324,257	417,469	502,644	340,027	377,227	448,706	484,480
February	336,729	430,469	519,423	347,777	394,005	458,114	502,635
March	349,110	444,597	536,866	355,888	407,421	468,053	518,663
April	360,248	457,680	555,711	358,759	418,289	477,860	536,691
May	382,504	478,541	574,905	377,659	439,981	496,874	558,205
June	393,935	491,858	575,693	392,196	444,151	500,829	569,613
July	391,186	494,467	573,554	393,464	432,515	497,840	564,685
August	389,511	489,367	567,022	402,249	435,377	499,134	559,760
September	392,423	490,115	564,796	410,954	440,664	511,072	582,305
October	385,262	486,996	553,338	405,757	434,800	507,922	564,493
November	378,992	467,936	527,213	396,384	424,817	497,313	546,473
December	367,724	449,342	499,893	380,612	409,253	486,116	521,565

Month.	Wage-Earners by Sex.									
	1922.		1929.		1933.		1936.		1937.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
January	243,682	80,575	397,459	105,185	257,445	82,582	348,703	100,003	380,314	104,166
February	253,178	83,551	410,865	108,558	260,728	87,049	354,513	103,601	392,475	110,160
March	263,849	85,261	426,713	110,153	267,259	88,629	363,250	104,803	406,202	112,461
April	274,821	85,427	443,569	112,142	271,348	87,411	372,777	105,083	422,678	114,013
May	294,095	88,409	459,783	115,122	285,705	91,954	387,636	109,238	440,211	117,994
June	304,395	89,540	460,294	115,399	296,937	95,259	391,998	108,831	450,121	119,492
July	304,020	87,166	459,051	114,503	300,329	93,135	392,594	105,246	448,991	115,694
August	301,234	88,277	449,721	117,301	302,969	99,280	387,892	111,242	440,123	119,637
September	298,918	93,505	441,510	123,286	304,908	106,046	389,444	121,628	449,011	133,294
October	291,973	93,289	432,576	120,762	301,315	104,442	388,681	119,241	438,890	125,603
November	286,511	92,481	412,114	115,099	294,945	101,439	381,687	115,626	425,171	121,302
December	277,854	89,870	391,903	107,990	285,690	94,922	376,457	109,659	408,663	112,902

Hours Worked by Wage-Earners.—The numbers of wage-earners working specified numbers of hours per week in the month of highest employment in 1932 to 1937 with details for the latest year are shown in Table 18. An explanation should be made of the term "month of highest employment" as there used. Each firm is required to report the number of hours per week worked by its wage-earners during the month in which the greatest number have been employed. In the case of one firm, the month of highest employment might be May, in that of another firm, October. The month of highest employment as shown in the following table, therefore, does not refer to any particular month but represents the summation of the different months of highest employment as reported by all firms. For a given industry, however, the month of highest employment has more significance, as in this case it coincides for a great number of the firms engaged in the same industry.

18.—Wage-Earners Working Specified Numbers of Hours per Week in the Month of Highest Employment, 1932-36, and in Detail by Provinces, Groups, and the Forty Leading Industries, 1937.

NOTE.—These are the regular hours worked per week and do not therefore include overtime.

Year, Province, or Group.	Hours Worked per Week.											Total Wage-Earners.	Average Hours Worked per Week.
	40 or Less.	41-43.	44.	45-47.	48.	49-50.	51-53.	54.	55.	56-59.	60 or Over.		
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Totals,[1] 1932	**78,223**	**9,593**	**65,063**	**31,193**	**81,894**	**67,823**	**14,438**	**30,098**	**39,817**	**18,131**	**62,296**	**498,569**	**48.0**
Totals,[1] 1933	**82,896**	**9,671**	**63,598**	**33,033**	**75,558**	**66,310**	**15,764**	**28,770**	**44,465**	**14,150**	**59,158**	**493,273**	**48·7**
Totals,[1] 1934	**70,736**	**9,814**	**69,217**	**38,805**	**95,669**	**71,997**	**16,562**	**24,520**	**46,437**	**21,938**	**64,659**	**530,354**	**49·2**
Totals,[1] 1935	**72,528**	**11,448**	**78,564**	**44,672**	**130,830**	**62,328**	**19,100**	**25,935**	**42,261**	**21,068**	**59,712**	**568,446**	**48·7**
Totals,[1] 1936	**75,224**	**11,820**	**80,202**	**51,259**	**138,500**	**67,740**	**18,287**	**29,712**	**43,377**	**23,369**	**64,222**	**603,712**	**48·7**
1937.													
PROVINCE.													
Prince Edward Island	252	27	162	30	297	49	56	190	113	10	656	1,842	53·1
Nova Scotia	1,315	99	1,195	2,288	3,736	1,601	616	2,330	645	3,245	3,467	20,537	52·2
New Brunswick	1,847	269	459	1,102	4,392	2,014	578	2,239	264	1,938	4,418	19,520	52·3
Quebec	20,623	3,562	24,498	17,726	44,524	24,839	8,558	12,538	30,571	6,643	29,710	223,792	50·2
Ontario	38,019	5,422	55,278	35,673	64,342	44,480	10,294	11,243	17,414	11,755	25,598	319,518	48·1
Manitoba	6,724	771	4,742	1,604	4,100	1,298	422	684	217	316	1,375	22,253	44·5
Saskatchewan	561	112	731	159	1,382	244	102	517	26	328	1,186	5,348	51·0
Alberta	2,190	258	1,992	566	3,175	458	582	1,576	90	114	966	11,967	47·3
British Columbia and Yukon	7,647	753	8,152	1,951	22,451	1,543	607	2,044	130	577	912	46,767	45·8
Totals,[1] 1937	**79,178**	**11,273**	**97,209**	**61,099**	**148,399**	**76,526**	**21,815**	**33,361**	**49,470**	**24,926**	**68,288**	**671,544**	**48·8**
INDUSTRIAL GROUP.													
Vegetable products	13,477	2,323	8,272	8,212	17,088	12,458	5,093	9,970	6,760	7,845	18,835	110,333	50·7
Animal products	5,925	951	5,134	3,793	12,694	8,148	2,768	3,543	4,436	1,798	4,257	53,447	49·0
Textiles and textile products	8,703	2,266	24,525	9,621	18,460	22,530	6,344	1,398	24,082	2,034	2,899	122,862	48·5
Wood and paper products	6,325	1,921	15,990	10,685	53,319	9,636	3,167	11,985	5,544	6,587	33,494	158,653	51·7
Iron and its products	31,001	1,396	22,840	16,466	23,431	16,296	2,942	4,038	5,557	4,177	4,622	132,766	45·6
Non-ferrous metal products	5,119	320	11,178	7,965	9,324	3,374	553	482	1,311	519	464	40,609	45·6
Non-metallic mineral products	4,643	982	2,578	613	6,993	1,488	424	1,217	950	1,382	2,872	24,142	48·1
Chemicals and allied products	3,157	902	3,735	2,296	4,686	1,108	266	312	270	213	424	17,369	45·1
Miscellaneous industries	828	212	2,957	1,448	2,404	1,488	258	416	560	371	421	11,363	47·4

[1] Exclusive of dairy factories.

18.—Wage-Earners Working Specified Numbers of Hours per Week in the Month of Highest Employment, 1932-36, and in Detail by Provinces, Groups, and the Forty Leading Industries, 1937—concluded.

	Industry.	Hours Worked per Week.											Total Wage-Earners.	Average Hours Worked per Week.
		40 or Less.	41-43.	44.	45-47.	48.	49-50.	51-53.	54.	55.	56-59.	60 or Over.		
		No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1	Non-ferrous metal smelting and refining	2,899	Nil	202	788	7,082	Nil	3	207	Nil	265	16	11,412	44·8
2	Pulp and paper	1,243	345	298	591	20,008	1,392	1,226	2,717	776	1,054	3,574	33,224	50·4
3	Slaughtering and meat packing	765	402	511	791	3,454	1,184	938	1,029	864	602	838	11,378	49·9
4	Automobiles	10,348	27	4,683	326	151	19	14	66	4	34	206	15,878	38·4
5	Flour and feed mills	221	13	487	21	1,755	44	29	315	335	160	979	4,359	52·0
6	Butter and cheese	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]	10,797	[1]
7	Sawmills	611	235	781	300	14,029	2,280	614	6,502	776	3,556	25,253	54,937	57·1
8	Electrical apparatus and supplies	951	101	7,992	5,577	1,052	1,642	244	169	853	144	279	19,004	45·9
9	Petroleum products	3,592	73	112	16	578	54	67	36	6	95	84	4,713	38·5
10	Railway rolling-stock	14,294	219	2,687	5,001	1,036	470	253	101	127	163	348	24,699	40·0
11	Bread and other bakery products	671	157	657	306	3,597	1,636	1,073	4,350	1,190	2,363	2,963	18,963	53·5
12	Rubber goods, including footwear	2,006	539	366	1,958	1,041	2,089	1,310	1,504	524	703	532	12,572	48·2
13	Primary iron and steel	837	80	178	2,334	5,753	1,159	93	352	1,068	1,818	1,353	15,025	50·3
14	Cotton yarn and cloth	169	15	Nil	715	2,335	5,008	346	40	11,472	192	942	21,234	52·9
15	Printing and publishing	1,309	327	2,348	1,245	4,298	327	124	156	14	30	34	10,212	45·3
16	Clothing, women's factory	4,024	367	8,163	2,083	4,499	1,449	199	60	80	151	38	21,113	44·0
17	Machinery	717	77	2,556	1,109	1,382	3,864	280	762	277	251	463	11,738	48·1
18	Hosiery and knitted goods	349	183	1,453	2,277	2,823	6,234	1,020	335	5,011	121	231	20,037	50·0
19	Fruit and vegetable preparations	7,662	524	574	857	1,242	1,296	1,266	1,402	2,058	3,257	11,001	31,139	52·5
20	Biscuits, confectionery, cocoa, etc	382	434	1,164	2,254	2,341	1,719	473	736	1,005	323	379	11,210	48·8
21	Sheet metal products	383	96	3,063	575	1,998	1,307	286	57	350	307	128	8,550	47·1
22	Automobile supplies	669	51	1,865	1,560	2,508	1,281	22	202	320	162	35	8,675	46·6
23	Clothing, men's factory	166	392	7,783	167	2,094	308	12	66	Nil	Nil	Nil	10,988	44·8
24	Tobacco, cigars, and cigarettes	516	158	1,217	526	590	2,796	368	29	353	107	87	6,747	47·6
25	Breweries	277	37	694	162	302	1,336	109	86	286	195	668	4,152	50·7
26	Castings and forgings	2,185	228	1,322	2,374	2,048	1,467	321	718	603	523	578	12,367	47·0
27	Coke and gas products	178	421	216	66	1,351	111	50	181	14	415	167	3,170	48·8
28	Boots and shoes, leather	1,285	331	1,349	1,626	3,310	4,224	866	809	2,531	651	456	17,438	49·1
29	Sugar refineries	519	38	55	99	1,115	97	133	108	48	128	834	3,174	51·0
30	Printing and bookbinding	464	168	3,981	1,441	5,052	224	15	7	1	2	11	11,366	45·8
31	Brass and copper products	1,094	199	1,035	583	195	911	75	98	175	85	139	4,589	44·5
32	Boxes and bags, paper	208	59	959	1,193	1,755	1,521	173	105	435	92	142	6,642	48·1
33	Silk and artificial silk	211	629	45	85	1,168	2,186	1,596	23	2,666	626	613	9,848	51·9
34	Coffee, tea, and spices	65	30	501	315	378	78	41	Nil	Nil	5	1	1,414	45·7
35	Furnishing goods, men's	418	134	2,802	1,996	1,607	1,158	847	158	586	136	140	9,982	47·2
36	Furniture	537	328	1,680	3,784	1,178	1,061	250	225	886	212	585	10,726	47·9
37	Leather tanneries	18	18	657	142	680	1,830	109	494	333	66	216	4,563	50·1
38	Fish curing and packing	1,420	65	197	233	2,857	236	149	743	208	356	2,557	9,021	51·7
39	Paints, pigments, and varnishes	345	19	714	204	402	297	32	1	12	49	40	2,115	45·1
40	Planing mills, sash and door factories	391	63	2,136	125	1,758	523	245	969	703	669	1,013	8,595	50·5
	Totals, Forty Leading Industries	64,399	7,582	67,483	45,805	110,752	54,818	15,271	25,918	36,950	20,068	57,923	506,969	49·0
	Totals, All Industries	79,178	11,273	97,209	61,099	148,399	76,526	21,815	33,361	49,470	24,926	68,288	671,544	48·8

[1] Figures not available.

The number of hours worked per week is affected both by business conditions and by changes due to government legislation and union demands. In times of depression the average number of hours per week is reduced, due to the policy of some employers of spreading the available work over as many employees as possible. With the return of better times the number of hours worked by each employee is naturally increased. This increase is, however, offset by the reduction in hours through legislative enactments and union agreements. The period of six years, for which the figures of Table **18** are available, is not long enough to establish a definite trend in the average hours worked.

For Canada as a whole, 37 p.c. of the wage-earners worked under 48 hours in 1937, 22 p.c. worked 48 hours, 20 p.c. worked between 49 and 54 hours, while 21 p.c. worked 55 hours or over.

Subsection 3.—Salaries and Wages in Canadian Manufacturing Industries.

The total salaries and wages disbursed by manufacturers in 1937 was $721,727,037 paid to 660,451 workers, compared with $777,291,217 paid to 666,531 persons in 1929 and $497,801,844 paid to 606,523 persons in 1917. Of the 1937 aggregate, $195,983,475 or 27·1 p.c. was paid to 115,827 salaried employees who constituted 17·6 p.c. of the total number, and $525,743,562 or 72·9 p.c. was paid in wages to 544,624 wage-earners, who formed 82·4 p.c. of the aggregate number of employees.

The average salary paid in the manufacturing industries during 1937 was $1,692, compared with $2,007 in 1930 and $1,315 in 1917, while the average wage in 1937 was $965, compared with $777 in 1933, $1,042 in 1929 and $762 in 1917. Thus during the twenty years since 1917, average salaries have increased by 29 p.c., while average wages have increased by 27 p.c. (See Table **20.**)

Average Earnings, by Provinces and Industrial Groups.—In 1937, British Columbia showed the highest average salary of $1,781, followed by Ontario with $1,773, Quebec, $1,621, and Manitoba with $1,618. The head offices of many large corporations being located in Montreal, Toronto, Vancouver, and Winnipeg tends to raise the average salaries in the provinces in which these cities are situated. In the other provinces the averages were smaller, the lowest being in Saskatchewan. No regional tendency is observable in average salaries as shown in Table **19.**

British Columbia, with average wages paid of $1,122 per annum, was the highest in 1937, being $157 higher than the general average. In the western provinces, average wages are usually higher, due to an unusually small proportion of women workers. In the three most easterly provinces average wages in manufacturing were lower than the mean for the Dominion, Quebec average was the same, while from Ontario westward the averages were higher. The seasonal nature of some of the leading industries, notably fish preserving and lumbering, tends to reduce the mean wage in the Maritime Provinces and Quebec. In addition to this, Quebec has a larger proportion of female wage-earners (employed chiefly in the textile, food, and tobacco industries) than any other province except Prince Edward Island.

In 1937 the highest average salary, viz., $1,929 was reported by the non-ferrous metal products group, while the animal products group, with an average salary of $1,343, was the lowest. In wages paid, the iron and the non-metallic groups were highest with averages of $1,186 and $1,155, respectively, there being few female wage-earners in these groups. The textile industries, on the other hand had the lowest average wage of $749 due to the fact that in this group about 54 p.c. of the wage-earners were females. As is stated at the foot of p. 431, of all the female wage-earners in the manufactures of Canada, over 49 p.c. found employment in the textile industries.

19.—Employees on Salaries and Wages in the Manufacturing Industries, 1937, by Sex, and Average Salaries and Wages, 1936 and 1937, by Provinces and Groups.

Province or Group.	Employees on Salaries.			Average Salaries.		Employees on Wages.			Average Wages.	
	Male.	Female.	Total.	1937.	1936.	Male.	Female.	Total.	1937.	1936.
	No.	No.	No.	$	$	No.	No.	No.	$	$
PROVINCE.										
Prince Edward Island	219	45	264	803	796	555	243	798	496	480
Nova Scotia	1,849	428	2,277	1,400	1,349	13,422	2,389	15,811	856	792
New Brunswick	1,668	428	2,096	1,549	1,534	11,478	2,038	13,516	837	762
Quebec	29,574	6,874	36,448	1,621	1,631	131,850	50,735	182,585	965	798
Ontario	44,713	14,330	59,043	1,773	1,718	208,673	54,027	262,700	1,021	947
Manitoba	3,629	879	4,508	1,618	1,579	15,875	3,323	19,198	1,037	974
Saskatchewan	1,627	273	1,900	1,313	1,282	3,929	278	4,207	1,013	932
Alberta	2,455	463	2,918	1,524	1,448	8,510	1,096	9,606	994	937
British Columbia and Yukon	5,358	1,015	6,373	1,781	1,722	32,993	3,210	36,203	1,122	1,055
Totals and Averages	**91,092**	**24,735**	**115,827**	**1,692**	**1,659**	**427,285**	**117,339**	**544,624**	**965**	**896**
INDUSTRIAL GROUP.										
Vegetable products	15,593	3,805	19,398	1,606	1,594	52,659	22,201	74,860	848	814
Animal products	11,592	2,315	13,907	1,343	1,338	42,406	11,683	54,089	853	806
Textiles and textile products	9,830	4,216	14,046	1,741	1,748	49,600	58,031	107,631	749	715
Wood and paper products	23,205	5,293	28,498	1,626	1,593	108,551	10,205	118,756	1,002	940
Iron and its products	13,593	3,482	17,075	1,918	1,831	106,346	3,727	110,073	1,186	1,070
Non-ferrous metal products	6,540	2,171	8,711	1,929	1,866	30,551	5,352	35,903	1,140	1,063
Non-metallic mineral products	3,509	784	4,293	1,823	1,744	18,938	606	19,544	1,155	1,070
Chemicals and allied products	5,435	2,033	7,468	1,752	1,816	11,272	3,228	14,500	1,021	958
Miscellaneous industries	1,795	636	2,431	1,714	1,647	6,962	2,306	9,268	838	813

Average Earnings in the Forty Leading Industries.—Table **20** shows employees by sex and average salaries and wages paid in the forty leading industries during 1937, together with average salaries and wages paid in 1936. The rank of each industry is based on the aggregate salaries and wages paid.

In only ten industries did the average salaries exceed $2,000; in seven they ranged from $1,800 to $2,000; in fourteen they ranged from $1,500 to $1,800; while in the remaining nine they were below $1,500. The lowest salaries were reported by the sawmilling, butter and cheese, and bread and other bakery products industries which include a large proportion of small establishments.

The highest wages, those above $1,250, were paid in eight industries—non-ferrous metal smelting and refining, $1,459; petroleum products, $1,451; automobiles, $1,371; coke and gas products, $1,368; pulp and paper, $1,344; printing and publishing, $1,338; primary iron and steel, $1,333; railway rolling-stock, $1,300—in all of which the proportion of skilled workers is probably high. In nine others average wages ranged from $1,000 to $1,250. In most of these seventeen industries the proportion of women workers is low. In ten other industries average wages ranged between $800 and $1,000, while in the remaining thirteen they were below $800. This last group includes seasonal industries, such as fruit and vegetable canning, fish curing and packing, and industries that contain a large number of small units in which the work is intermittent, such as feed mills. Other industries with low average wages were: textiles, tobacco, and boots and shoes, in which the proportion of female wage-earners is high, in some cases over 50 p.c.

20.—Statistics of Salaries and Wages Paid in the Forty Leading Industries, 1937, together with Comparative Figures of Average Salaries and Wages Paid in 1936, and Totals and Averages Paid in Previous Representative Years.

NOTE.—Industries ranked according to the aggregate salaries and wages paid.

	Industry.	Salaries.					Wages.				
		Salaried Employees.		Total Salaries.	Average Salaries.		Wage-Earners.		Total Wages.	Average Wages.	
		Male.	Female.		1937.	1936.	Male.	Female.		1937.	1936.
		No.	No.	$	$	$	No.	No.	$	$	$
1	Pulp and paper	3,475	569	9,561,449	2,364	2,337	28,626	535	39,196,346	1,344	1,201
2	Railway rolling-stock	1,357	81	3,104,117	2,159	2,001	20,027	31	26,083,040	1,300	1,126
3	Sawmills	3,394	223	3,416,279	945	956	30,129	171	23,757,593	784	720
4	Electrical apparatus	4,038	1,449	10,139,101	1,881	1,783	12,260	3,959	16,152,335	996	924
5	Printing and publishing	6,274	2,000	12,397,079	1,498	1,460	8,314	1,246	12,792,297	1,338	1,316
6	Automobiles	1,650	519	4,626,793	2,133	2,059	12,442	335	17,512,198	1,371	1,286
7	Primary iron and steel	870	214	2,643,902	2,439	2,278	12,927	43	17,282,596	1,333	1,144
8	Bread, bakery products	2,484	671	3,208,837	1,017	1,038	15,711	2,386	16,550,903	915	881
9	Non-ferrous metal smelting	862	141	2,575,849	2,568	2,522	10,537	Nil	15,415,098	1,459	1,330
10	Slaughtering and meat-packing	2,629	366	5,344,875	1,785	1,736	8,998	1,077	11,740,133	1,165	1,032
11	Clothing, women's factory	2,043	984	4,816,453	1,591	1,556	4,698	12,256	12,110,018	714	686
12	Cotton yarn and cloth	495	171	1,383,263	2,077	2,466	11,958	6,536	14,967,693	809	740
13	Hosiery, knitted goods	1,172	667	3,265,006	1,775	1,839	6,984	11,427	12,963,807	704	684
14	Machinery	2,006	588	4,611,155	1,778	1,680	9,760	284	11,448,237	1,140	1,046
15	Butter and cheese	4,893	893	5,296,892	915	920	10,274	523	10,402,193	963	965
16	Printing and book-binding	2,966	755	6,013,297	1,616	1,586	7,121	2,516	9,576,543	994	981
17	Castings and forgings	1,196	312	2,768,908	1,836	1,815	10,524	132	11,565,015	1,085	971
18	Rubber goods, including footwear	1,459	479	3,449,685	1,780	1,734	8,039	3,058	10,591,381	954	876
19	Boots and shoes, leather	1,308	397	2,842,222	1,667	1,625	9,209	5,859	10,184,420	676	626
20	Clothing, men's factory	1,592	467	2,994,446	1,454	1,464	5,301	4,816	9,140,997	904	872
21	Biscuits, confectionery, cocoa, etc	2,299	575	4,609,104	1,604	1,682	4,028	4,977	6,282,900	698	678
22	Automobile supplies	763	263	1,913,557	1,865	1,787	6,622	768	8,444,541	1,143	1,044
23	Sheet metal products	1,235	348	2,688,202	1,698	1,586	6,072	844	6,830,123	988	931
24	Furniture	1,289	297	2,260,928	1,426	1,424	8,859	359	7,221,018	783	741
25	Silk and artificial silk	678	344	2,016,630	1,973	1,970	5,579	3,645	7,082,807	768	749
26	Petroleum products	810	129	2,156,901	2,297	2,104	4,189	9	6,089,942	1,451	1,302
27	Breweries	1,240	141	3,224,327	2,335	2,107	3,732	38	4,680,190	1,241	1,191
28	Tobacco, cigars, etc	1,666	396	3,596,195	1,744	1,776	2,045	3,813	3,981,915	680	653
29	Planing mills	1,287	207	1,953,933	1,308	1,214	6,849	26	5,426,703	789	727
30	Agricultural implements	701	216	1,538,918	1,678	1,619	5,466	63	5,811,125	1,051	996
31	Hardware and tools	620	254	1,694,012	1,938	1,854	4,838	799	5,545,611	984	901
32	Fruit and vegetable preparations	969	318	1,811,904	1,408	1,426	4,493	4,850	5,382,573	576	552
33	Furnishing goods, men's	864	422	2,242,845	1,744	1,715	1,383	7,404	4,930,469	561	538
34	Boxes and bags, paper	823	268	2,383,772	2,185	1,965	3,062	2,484	4,384,199	791	770
35	Brass and copper	821	198	1,896,008	1,861	1,718	3,781	294	4,414,376	1,083	1,000
36	Flour and feed mills	1,632	201	2,295,245	1,252	1,248	3,817	153	3,582,511	902	857
37	Heating and cooking apparatus	651	190	1,462,501	1,739	1,687	4,357	41	4,398,122	1,000	922
38	Coke and gas products	836	253	1,690,746	1,553	1,590	2,936	2	4,018,823	1,368	1,298
39	Woollen cloth	377	131	1,064,367	2,095	2,021	3,589	2,401	4,505,858	752	735
40	Wire and wire goods	475	162	1,240,315	1,947	1,802	3,586	313	4,291,576	1,101	980
	Totals, Forty Leading Industries	**66,199**	**17,259**	**138,200,018**	**1,656**	–	**333,152**	**90,473**	**416,738,225**	**984**	–
	Grand Totals, All Industries—										
	1937	**91,092**	**24,735**	**195,983,475**		**1,692**	**427,285**	**117,339**	**525,743,562**		**965**
	1936	**81,409**	**23,008**	**173,198,057**		**1,659**	**379,977**	**109,965**	**438,873,377**		**896**
	1935	**76,213**	**21,717**	**160,455,080**		**1,638**	**353,790**	**104,944**	**399,012,697**		**870**
	1934	**71,963**	**20,132**	**148,760,126**		**1,615**	**326,598**	**101,119**	**355,090,929**		**830**
	1933	**67,875**	**18,761**	**139,317,946**		**1,608**	**287,266**	**94,756**	**296,929,878**		**777**
	1932	**68,264**	**18,786**	**151,355,790**		**1,739**	**288,817**	**92,966**	**322,245,926**		**844**
	1931	**71,198**	**20,293**	**172,289,095**		**1,883**	**337,636**	**99,513**	**415,277,895**		**950**
	1930[1]	**64,161**	**20,550**	**169,992,216**		**2,007**	**416,790**	**113,195**	**527,563,162**		**995**
	1929[1]	**67,731**	**21,110**	**175,553,710**		**1,976**	**454,768**	**122,922**	**601,737,507**		**1,042**
	1926[1]	**58,245**	**17,092**	**142,353,900**		**1,890**	**374,244**	**109,580**	**483,328,342**		**999**
	1924	**54,379**	**15,641**	**130,344,822**		**1,857**	**322,719**	**94,871**	**404,122,853**		**968**
	1922	**71,586**		**129,836,831**		**1,814**	**384,670**		**359,560,399**		**935**
	1920	**78,334**		**141,837,361**		**1,811**	**520,559**		**575,656,515**		**1,106**
	1917	**64,918**		**85,353,667**		**1,315**	**541,605**		**412,448,177**		**762**

[1]The averages of wage-earners and earnings for the years 1931 to 1937 are strictly comparable with those for the years up to 1925 but not with those for the intervening years. The figures for the latest years —as for the earliest—represent the earnings for complete man-years of work, with no allowance for periods of unemployment. The difference amounts only to about 3 or 4 p.c. in the total figures and affects chiefly the seasonal industries.

Real Earnings of Employees in Recent Years.—When the index number representing the average yearly wages, with 1917 as a base, is divided by the index number of the cost of living, converted to the same base, it is seen that real wages advanced by 30·4 p.c. between 1917 and 1936. Index numbers for 1931 to 1937 are given in Table 21. In 1931 real wages reached 119·1, declined to 112·7 in 1933 and rose again to 130·4 in 1937, the highest on record.

21.—Average Yearly Earnings, and Index Numbers of Earnings, Cost of Living and Real Wages of Wage-Earners, in Manufacturing Industries, 1931-37.

NOTE.—Figures, with qualifications as to comparability, for 1917 to 1930 were published at p. 421 of the 1939 Year Book.

Year.	Wages Paid.	Average Wage-Earners.	Average Yearly Earnings.	Index Numbers (1917=100).		
				Average Yearly Earnings.	Cost of Living.	Real Value of Average Yearly Earnings.
	$	No.	$			
1931	415,277,895	437,149	950	124·7	104·7	119·1
1932	322,245,926	381,783	844	110·8	95·0	116·6
1933	296,929,878	382,022	777	102·0	90·5	112·7
1934	355,090,929	427,717	830	108·9	91·8	118·6
1935	399,012,697	458,734	870	114·2	92·4	123·6
1936	438,873,377	489,942	896	117·6	94·4	124·6
1937	525,743,562	544,624	965	126·6	97·1	130·4

Percentages of Salaries and Wages to Net Value of Products.—Table 22 shows the relation between salaries and wages paid by manufacturers and the total net value of production. Figures of gross production are often used in such calculations, but the values out of which the wages of employees must come in the long run are the values added to the raw materials while they are in the factory. Such added values constitute the real production of the manufacturing plant and are alone available for payment of salaries and wages, interest, rent and taxes, repairs, and all other overhead charges that ordinarily must be met. The percentage of salaries was highest in the years 1931 to 1937. These were years in which manufacturing production was curtailed and it is probable that, salaried employees being a part of the organization of an industry rather than of its productive force, salaries were an abnormally high percentage of the lower levels of production then prevailing. The percentage declined steadily with the increasing manufacturing production maintained during the period 1924 to 1929, while from 1931 to 1937, due to decreased industrial activity, the percentage of salaries to value added was abnormally high. It should be borne in mind, however, that salaried employees increased 65·4 p.c. during the period 1924-37 while wage-earners increased but 30·4 p.c. The percentage of wages has fluctuated much less than that of salaries. The number of wage-earning employees may be more rapidly adjusted to the activity of the industry and wage levels likewise more readily adjusted to the price levels of the products. The percentage of wages to the values added by manufacture was thus only 2·8 p.c. lower in 1937 than in 1924. The percentage was highest in 1920, when, in the post-war inflation, average wages were highest and the efficiency of production lowest.

In previous reports on manufactures the percentage of salaries and wages paid to the value added by manufacture was carried back to 1917. Under the new method of calculating the value added, whereby the cost of materials plus fuel and electricity is deducted from gross values, it is possible to go back to 1924 only.

22.—Percentages of Salaries and Wages Paid to the Total Net Values of Manufacturing Production, 1924-37.

Year.	Value Added by Processes of Manufacture.[1]	Salaries Paid.	Wages Paid.	Percentage— of Salaries to Value Added.	Percentage— of Wages to Value Added.	Percentage— of Total Salaries and Wages to Value Added.
	$	$	$	p.c.	p.c.	p.c.
1924	1,075,458,459	130,344,822	404,122,853	12·1	37·6	49·7
1925	1,167,936,726	133,409,498	436,534,944	11·4	37·4	48·8
1926	1,305,168,549	142,353,900	483,328,342	10·9	37·0	47·9
1927	1,427,649,292	151,419,411	511,285,921	10·6	35·8	46·4
1928	1,597,887,676	162,903,007	558,568,627	10·2	35·0	45·2
1929	1,755,386,937	175,553,710	601,737,507	10·0	34·3	44·3
1930	1,522,737,125	169,992,216	527,563,162	11·2	34·6	45·8
1931	1,252,017,248	172,289,095	415,277,895	13·8	33·2	47·0
1932	955,960,724	151,355,790	322,245,926	15·8	33·7	49·5
1933	919,671,181	139,317,946	296,929,878	15·1	32·3	47·4
1934	1,087,301,742	148,760,126	355,090,929	13·7	32·7	46·4
1935	1,153,485,104	160,455,080	399,012,697	13·9	34·6	48·5
1936	1,289,592,672	173,198,057	438,873,377	13·4	34·0	47·4
1937	1,508,924,867	195,983,475	525,743,562	13·0	34·8	47·8

[1] Equivalent to net value of products; see footnote 1, Table 1, p. 397.

Subsection 4.—Size of Manufacturing Establishments.

A modern characteristic of industry in all industrial countries has been the increase in the size of the typical manufacturing establishment. Full utilization of highly specialized machinery has necessitated large-scale production, while improvements in transportation have widened markets.

The size of the manufacturing establishment is generally measured either by the value of product, or by the number of employees, but each of these methods has its limitations. The latter takes no account of the differences in capital equipment at different times or in various industries and obviously the increased use of machinery, as in the flour-milling industry, may lead to an increase in production concurrently with a decrease in number of employees. The former measure has to be adjusted for changes in the price level; and, as between industries, it makes those in which the cost of raw materials is relatively high, appear to operate on a larger scale. Both measures depend on the fluctuation of business activity and the demand of the consumer; over any lengthy period of time there is also the difficulty of comparability resulting from changes in the method of the census.

Size as Measured by Gross Value of Products.—While in 1922 the 420 establishments each producing over $1,000,000 had an aggregate value of products of $1,268,056,129 or 51 p.c. of the total production of all manufacturing industries, the 719 establishments producing over $1,000,000 each in 1929 had an aggregate value of products of $2,516,064,954, or 62 p.c. of the grand total for all manufacturing establishments—a very significant change in the short period of eight years. In 1931, however, the number of plants with a production of over $1,000,000 dropped again to 482, their output being valued at $1,451,658,954 or 53 p.c., of the total. Owing to the elimination of central electric stations, the figures since 1932 are not directly comparable with those for 1929 or 1922.

23.—Manufacturing Establishments, Grouped According to Gross Values of Products, with Total and Average Values of Products in Each Class, for Canada, 1922, 1929, 1936, and 1937.

Group of Gross Values.	1922.[1]			1929.[1]		
	Establishments.	Total Production.	Average Production	Establishments.	Total Production.	Average Production.
	No.	$	$	No.	$	$
Under $25,000	14,978	114,205,770	7,625	14,024	106,735,470	7,611
$ 25,000 but under $ 50,000	2,401	85,075,807	35,433	2,802	99,529,725	35,521
50,000 " 100,000	1,793	129,320,947	72,125	2,209	156,308,744	70,760
100,000 " 200,000	1,355	191,675,689	141,458	1,688	237,532,492	140,718
200,000 " 500,000	1,078	330,533,712	306,618	1,519	504,218,217	331,941
500,000 " 1,000,000	516	363,341,076	704,149	636	443,597,677	697,481
1,000,000 " 5,000,000	364	692,463,530	1,902,372	601	1,217,866,089	2,026,400
5,000,000 or over	56	575,592,599	10,278,439	118	1,298,198,865	11,001,685
Totals and Averages	22,541	2,482,209,130	110,120	23,597	4,063,987,279	172,225
	1936.[2]			1937.[2]		
Under $25,000	15,846	119,766,944	7,558	15,662	121,743,486	7,773
$ 25,000 but under $ 50,000	2,625	93,736,051	35,709	2,865	101,926,099	35,576
50,000 " 100,000	2,040	144,718,010	70,940	2,167	153,597,904	70,880
100,000 " 200,000	1,413	198,268,333	140,317	1,602	225,586,676	140,816
200,000 " 500,000	1,251	391,284,269	312,777	1,353	423,457,705	312,977
500,000 " 1,000,000	512	358,345,875	699,894	588	416,026,053	707,527
1,000,000 " 5,000,000	447	949,275,501	2,123,659	496	1,021,079,946	2,058,629
5,000,000 or over	68	747,008,831	10,985,423	101	1,162,041,631	11,505,363
Totals and Averages	24,202	3,002,403,814	124,056	24,834	3,625,459,500	145,988

[1]Figures for this year include the production of central electric stations and the dyeing, cleaning and laundry industry. [2]Figures for this year exclude central electric stations and the dyeing, cleaning and laundry industry.

Size of Establishments as Measured by Number of Employees.—In 1923, establishments employing 501 hands or over accounted for 21·4 p.c. of the total number of employees engaged in manufacturing. By 1929 the proportion had increased to 27·3 p.c. of the total, thereby showing the increasing concentration of production into larger units. This tendency, however, was checked by the depression, the percentage having dropped in 1933 to 20·5 p.c. (central electric stations included). With the recovery in production since 1933 the percentage has risen again and in 1937 stood at 27·1 p.c. The same also holds true for all establishments employing 101 hands or over. In 1923 they employed 58·6 p.c. of the total, in 1929, 61·9 p.c., in 1933, 55·7 p.c., and in 1937, 62·8 p.c.

24.—Establishments and Employees in Canadian Manufactures, Grouped According to Number of Employees per Establishment, 1923, 1929, 1936, and 1937.

Group	1923.[1]			1929.[1]		
	Establishments.	Employees.	Average Employed	Establishments.	Employees.	Average Employed.
	No.	No.	No.	No.	No.	No.
Under 5 employees	13,156	22,789	1·7	12,273	30,446	2·5
5 to 20 employees	5,310	53,852	10·1	6,160	62,310	10·1
21 " 50 "	2,093	67,408	32·2	2,531	81,846	32·3
51 " 100 "	1,031	73,449	71·2	1,262	90,238	71·5
101 " 200 "	566	79,737	140·9	745	103,944	139·5
201 " 500 "	374	115,585	309·1	444	136,397	307·2
501 or over	112	112,447	1,004·0	182	189,253	1,040·0
Totals and Averages	22,642	525,267	23·2	23,597	694,434	29·4

[1]First year for which statistics are available. See footnote 1, Table 23.

24.—Establishments and Employees in Canadian Manufactures, Grouped According to Number of Employees per Establishment, 1923, 1929, 1936, and 1937—concluded.

Group.	1936.[1]			1937.[1]		
	Establishments.	Employees.	Average Employed.	Establishments.	Employees.	Average Employed.
	No.	No.	No.	No.	No.	No.
Under 5 employees	13,441	26,659	2·0	13,378	27,400	2·0
5 to 20 employees	6,353	62,298	9·8	6,724	65,942	9·8
21 " 50 "	2,151	69,017	32·1	2,266	73,059	32·2
51 " 100 "	1,042	72,902	70·0	1,132	79,307	70·0
101 " 200 "	657	91,966	140·0	709	99,271	140·0
201 " 500 "	411	126,368	307·5	449	136,586	304·2
501 or over	147	145,149	987·4	176	178,886	1,016·4
Totals and Averages.	**24,202**	**594,359**	**24·6**	**24,834**	**660,451**	**26·6**

[1]See footnote 2, Table 23.

Size of Establishments of Some of the Leading Industries.—The following statement and Table 25 show the degree of concentration in some of the leading industries in Canada. Concentration is extremely marked in the cases of non-ferrous metal smelting, automobiles, pulp and paper, petroleum products, railway rolling-stock, slaughtering and meat packing, and rubber goods, whereas in the cases of men's and women's factory clothing, bread and bakery products, and butter and cheese, the degree of concentration is low. With regard to flour and feed mills, concentration is marked in the case of flour mills, but the small size of the average feed mill offsets this for the industry as a whole.

PERCENTAGE IMPORTANCE OF ESTABLISHMENTS, EACH WITH A GROSS PRODUCTION OF $1,000,000 OR OVER, IN THE TWENTY-FIVE LEADING INDUSTRIES, 1937.

NOTE.—For principal statistics of these industries, see Table 12, p. 426.

	Industry.	Number of Such Establishments.	Percentage to Total Number in the Industry.	Percentage of Total Production in the Industry.
1	Non-ferrous metal smelting and refining	14	100·0	100·0
2	Pulp and paper	58	59·2	93·7
3	Slaughtering and meat packing	36	26·1	91·1
4	Automobiles	7	46·7	98·5
5	Flour and feed mills	24	2·2	70·2
6	Butter and cheese	12	0·5	14·6
7	Sawmills	17	0·4	27·7
8	Electrical apparatus and supplies	17	8·9	79·0
9	Petroleum products	14	24·6	92·5
10	Railway rolling-stock	19	51·4	92·1
11	Bread and other bakery products	7	0·2	14·9
12	Primary iron and steel	15	27·3	85·9
13	Rubber goods, including rubber footwear	16	32·0	90·4
14	Cotton yarn and cloth	21	58·3	89·9
15	Printing and publishing	14	1·8	50·8
16	Clothing, women's factory	3	0·5	7·1
17	Machinery	9	4·2	43·9
18	Hosiery and knitted goods	13	7·6	36·0
19	Fruit and vegetable preparations	5	1·4	30·3
20	Biscuits, confectionery, cocoa, etc.	14	6·3	57·6
21	Sheet metal products	12	8·1	58·2
22	Automobile supplies	11	12·5	73·9
23	Clothing, men's factory	6	3·0	24·6
24	Tobacco, cigars, and cigarettes	8	8·6	89·2
25	Breweries	11	16·9	57·4

25.—Principal Statistics of the Twenty-Five Leading Industries of Canada, Grouped According to Size of Establishment (Gross Production per Unit), 1937.

NOTE.—For principal statistics of the manufacturing industries in each province by size of establishment, see Table 2 of Part II, p. 455.

Industry and Group.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	$	No.	$	$	$
Non-Ferrous Metal Smelting and Refining—						
$ 500,000 to 1,000,000	2	9,753,089	547	850,101	3,096,490	6,047,816
1,000,000 to 5,000,000	3					
5,000,000 or over	9	152,943,506	11,023	17,140,846	198,766,475	312,230,435
Totals, Non-Ferrous Metal Smelting and Refining	**14**	**162,696,595**	**11,570**	**17,990,947**	**201,862,965**	**318,278,251**
Pulp and Paper—						
$ 25,000 to 50,000	3	271,652	79	46,958	46,491	127,320
50,000 to 100,000	5	351,022	106	94,174	128,028	333,430
100,000 to 200,000	7	1,902,366	379	292,275	509,206	995,570
200,000 to 500,000	13	7,367,174	947	1,023,828	2,405,448	4,707,058
500,000 to 1,000,000	12	19,660,422	1,602	1,939,710	4,161,066	8,034,234
1,000,000 to 5,000,000	43	266,642,141	17,015	24,760,567	46,696,246	114,616,517
5,000,000 or over	15	274,157,510	13,077	20,600,283	37,175,144	97,430,582
Totals, Pulp and Paper	**98**	**570,352,287**	**33,205**	**48,757,795**	**91,121,629**	**226,244,711**
Slaughtering and Meat Packing—						
Under $25,000	18	71,602	42	26,908	202,389	248,227
$ 25,000 to 50,000	19	278,818	118	102,035	559,893	722,888
50,000 to 100,000	15	373,873	134	121,370	843,593	1,105,073
100,000 to 200,000	25	1,825,711	351	376,282	2,692,391	3,562,563
200,000 to 500,000	20	1,443,123	504	535,629	5,380,681	6,525,743
500,000 to 1,000,000	5	755,359	297	360,707	3,249,216	3,919,974
1,000,000 to 5,000,000	29	23,658,956	5,548	7,127,205	60,364,133	74,111,689
5,000,000 or over	7	37,004,164	6,076	8,434,872	74,765,355	91,223,154
Totals, Slaughtering and Meat Packing	**138**	**65,411,606**	**13,070**	**17,085,008**	**148,057,651**	**181,419,311**
Automobiles—						
Under $25,000	1					
$ 25,000 to 50,000	1	2,746,000	197	273,381	81,064	148,244
50,000 to 100,000	1					
100,000 to 200,000	2					
200,000 to 500,000	2	2,320,224	734	1,103,631	569,156	1,925,818
500,000 to 1,000,000	1					
1,000,000 to 5,000,000	4	7,987,210	1,214	1,879,426	8,925,050	11,226,287
5,000,000 or over	3	44,942,808	12,801	18,882,553	83,130,877	121,509,931
Totals, Automobiles	**15**	**57,996,242**	**14,946**	**22,138,991**	**92,706,147**	**134,810,280**
Flour and Feed Mills—						
Under $25,000	600	3,365,572	753	311,792	5,541,645	6,772,213
$ 25,000 to 50,000	281	3,216,751	580	385,726	8,428,938	10,092,979
50,000 to 100,000	125	2,387,237	409	338,600	6,839,923	8,178,885
100,000 to 200,000	34	1,577,954	254	233,299	3,988,209	4,736,627
200,000 to 500,000	14	2,650,245	279	316,703	3,698,223	4,354,962
500,000 to 1,000,000	8	1,520,344	212	253,162	4,941,592	5,723,676
1,000,000 to 5,000,000	17	18,607,045	1,573	1,878,171	32,757,893	38,208,035
5,000,000 or over	7	22,954,884	1,743	2,155,303	45,361,908	55,566,802
Totals, Flour and Feed Mills	**1,086**	**56,280,032**	**5,803**	**5,877,756**	**111,558,331**	**133,634,179**
Butter and Cheese—						
Under $25,000	1,556	6,991,490	3,029	1,204,597	17,487,386	20,049,277
$ 25,000 to 50,000	449	4,867,540	1,624	1,018,345	13,363,289	15,687,862
50,000 to 100,000	312	7,587,481	2,214	1,914,499	17,638,578	22,226,084
100,000 to 200,000	169	8,839,024	2,194	2,230,770	17,412,567	23,082,184
200,000 to 500,000	58	9,349,724	2,505	2,752,831	10,954,920	17,182,655
500,000 to 1,000,000	12	5,459,320	1,408	1,916,073	4,906,879	8,414,555
1,000,000 to 5,000,000	12	16,907,263	3,609	4,661,970	9,412,377	18,292,438
Totals, Butter and Cheese	**2,568**	**60,001,842**	**16,583**	**15,699,085**	**91,175,996**	**124,935,055**

25.—Principal Statistics of the Twenty-Five Leading Industries of Canada, Grouped According to Size of Establishment (Gross Production per Unit), 1937—continued.

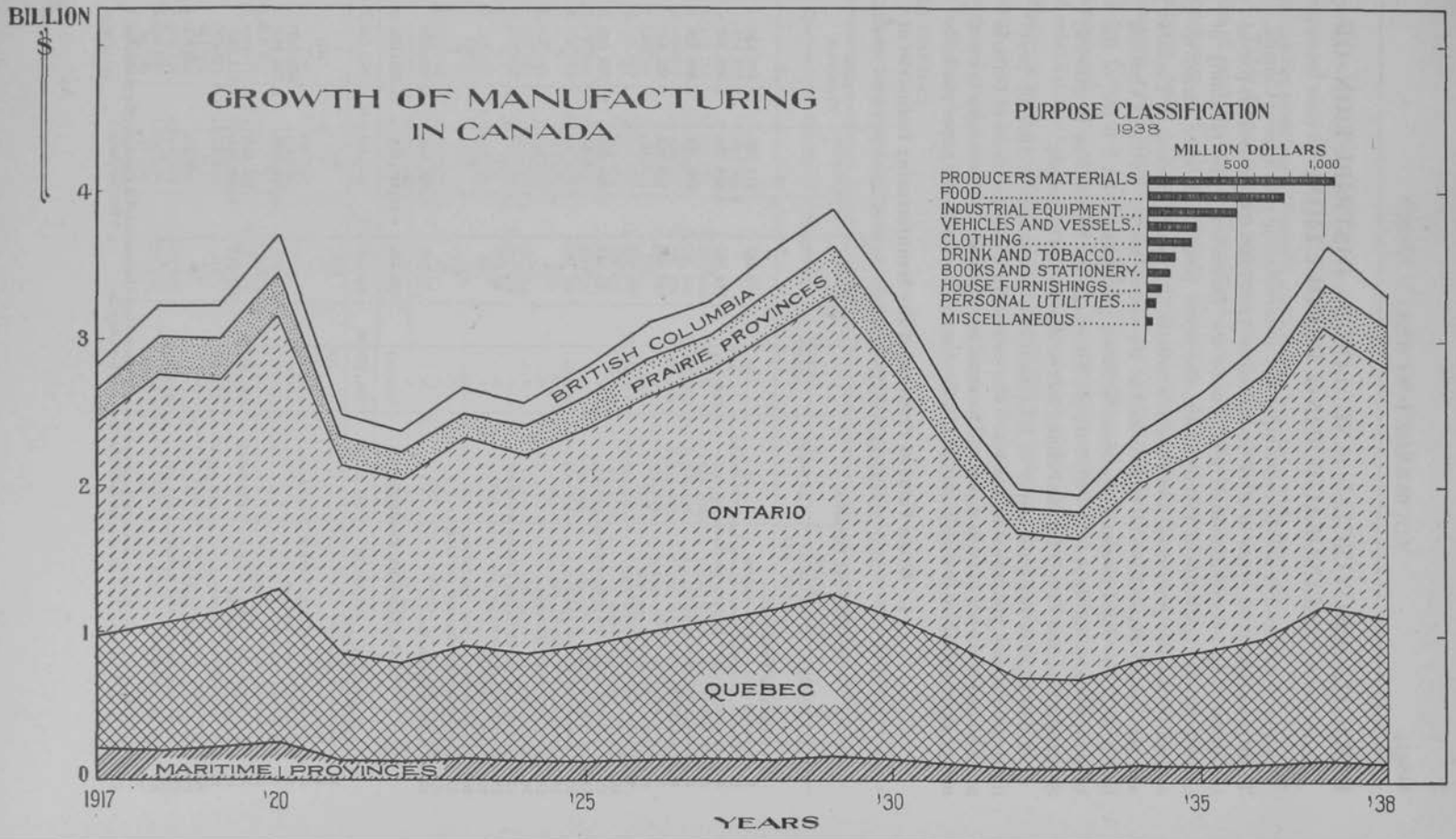
Industry and Group.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	$	No.	$	$	$
Sawmills—						
Under $25,000	3,384	12,854,029	9,370	3,100,990	8,441,611	15,414,363
$ 25,000 to 50,000	177	3,443,996	2,576	1,499,617	3,286,803	6,070,414
50,000 to 100,000	108	7,151,803	3,094	2,255,113	3,804,469	7,524,400
100,000 to 200,000	68	7,829,387	3,227	2,873,990	5,027,024	9,648,503
200,000 to 500,000	52	15,176,313	4,522	4,339,155	8,266,643	15,658,359
500,000 to 1,000,000	30	19,902,113	5,244	5,427,907	11,865,072	21,423,146
1,000,000 to 5,000,000	17	24,047,464	5,884	7,677,100	16,588,458	29,110,600
Totals, Sawmills	**3,836**	**90,405,105**	**33,917**	**27,173,872**	**57,280,080**	**104,849,785**
Electrical Apparatus and Supplies—						
Under $25,000	59	721,812	278	193,481	221,822	510,505
$ 25,000 to 50,000	18	776,287	245	261,584	245,872	598,218
50,000 to 100,000	23	1,106,096	457	472,712	765,543	1,673,686
100,000 to 200,000	26	2,819,003	766	925,109	1,484,280	3,321,827
200,000 to 500,000	24	6,369,454	1,518	1,720,854	3,643,205	8,263,873
500,000 to 1,000,000	24	11,852,385	2,953	3,327,150	7,562,424	16,243,737
1,000,000 to 5,000,000	12	17,687,728	3,771	4,411,069	9,909,007	20,084,302
5,000,000 or over	5	55,855,140	11,718	14,979,477	17,863,293	48,145,844
Totals, Electrical Apparatus and Supplies	**191**	**97,187,905**	**21,706**	**26,291,436**	**41,695,446**	**98,841,992**
Petroleum Products—						
Under $25,000	8	209,017	30	29,637	65,844	123,890
$ 25,000 to 50,000	8	208,672	39	51,658	139,436	296,559
50,000 to 100,000	10	965,548	88	111,186	553,019	764,682
100,000 to 200,000	7	636,325	91	101,202	739,221	1,018,415
200,000 to 500,000	6	1,485,652	121	161,120	1,210,416	1,885,412
500,000 to 1,000,000	4	5,311,671	95	139,858	2,768,579	3,325,302
1,000,000 to 5,000,000	6	10,050,893	725	1,145,294	12,532,975	16,183,327
5,000,000 or over	8	45,412,488	3,948	6,506,888	62,392,390	74,856,427
Totals, Petroleum Products	**57**	**64,280,266**	**5,137**	**8,246,843**	**80,401,880**	**98,454,014**
Railway Rolling-Stock—						
Under $25,000	1					
$ 25,000 to 50,000	1	133,147	16	19,483	105,743	148,994
50,000 to 100,000	1					
100,000 to 200,000	3	706,322	106	137,412	214,136	395,286
200,000 to 500,000	6	4,429,501	536	661,801	1,136,958	2,162,452
500,000 to 1,000,000	6	4,470,520	1,209	1,504,368	2,217,920	4,697,069
1,000,000 to 5,000,000	14	48,317,320	12,699	16,714,939	21,656,210	40,475,431
5,000,000 or over	5	30,369,666	6,930	10,149,154	30,860,179	45,975,323
Totals, Railway Rolling-Stock	**37**	**88,426,476**	**21,496**	**29,187,157**	**56,191,146**	**93,854,555**
Bread and Other Bakery Products—						
Under $25,000	2,714	16,281,102	7,360	4,894,363	12,395,906	22,192,307
25,000 to 50,000	251	4,290,875	2,389	2,029,524	4,745,668	8,530,702
50,000 to 100,000	110	4,348,361	2,123	1,968,628	3,974,462	7,529,889
100,000 to 200,000	48	3,689,193	1,525	1,633,475	3,308,463	6,300,581
200,000 to 500,000	35	6,997,140	2,758	3,033,293	5,739,672	11,025,907
500,000 to 1,000,000	14	8,091,106	2,485	2,799,810	4,437,569	9,509,142
1,000,000 to 5,000,000	7	5,466,799	2,612	3,400,647	4,896,716	11,374,363
Totals, Bread and Other Bakery Products	**3,179**	**49,164,576**	**21,252**	**19,759,740**	**39,498,456**	**76,462,891**
Primary Iron and Steel—						
Under $25,000	2					
$ 25,000 to 50,000	1	1,729,886	523	1,041,240	1,762,525	62,871
50,000 to 100,000	7	706,732	165	191,825	114,574	486,476
100,000 to 200,000	5	523,214	187	218,171	219,681	743,185
200,000 to 500,000	18	21,308,836	2,631	3,619,026	12,294,922	3,844,015
500,000 to 1,000,000	7	9,186,286	1,083	1,480,609	3,882,791	5,370,609
1,000,000 to 5,000,000	11	27,550,743	4,854	5,791,706	14,819,420	24,655,099
5,000,000 or over	4	35,869,680	4,611	7,583,921	711,718	39,418,414
Totals, Primary Iron and Steel	**55**	**96,875,377**	**14,054**	**19,926,498**	**33,805,631**	**74,580,669**

25.—Principal Statistics of the Twenty-Five Leading Industries of Canada, Grouped According to Size of Establishment (Gross Production per Unit), 1937—continued.

Industry and Group.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	$	No.	$	$	$
Rubber Goods—						
Under $25,000	11	125,861	65	49,573	81,845	100,087
$ 25,000 to 50,000	4	96,148	63	46,824	46,401	140,234
50,000 to 100,000	1	404,084	174	179,633	141,797	512,784
100,000 to 200,000	4					
200,000 to 500,000	9	1,742,030	772	619,079	1,132,007	2,027,479
500,000 to 1,000,000	5	3,073,384	1,142	1,106,541	1,679,572	3,741,548
1,000,000 to 5,000,000	11	28,961,595	6,613	6,738,080	10,687,771	28,173,566
5,000,000 or over	5	30,716,110	4,206	5,301,336	17,357,362	38,968,055
Totals, Rubber Goods	**50**	**65,119,212**	**13,035**	**14,041,066**	**31,126,755**	**74,263,753**
Cotton Yarn and Cloth—						
Under $25,000	2	1,653,355	507	431,026	1,110,008	1,842,312
$ 200,000 to 500,000	5					
500,000 to 1,000,000	8	4,344,019	1,627	1,375,921	2,943,699	5,443,589
1,000,000 to 5,000,000	17	35,733,817	9,678	8,382,474	20,325,603	36,282,838
5,000,000 or over	4	26,101,365	7,348	6,161,535	17,684,344	28,545,139
Totals, Cotton Yarn and Cloth	**36**	**67,832,556**	**19,160**	**16,350,956**	**42,063,654**	**72,113,878**
Printing and Publishing—						
Under $25,000	597	6,733,251	2,364	2,051,490	671,616	3,884,270
$ 25,000 to 50,000	53	2,197,758	893	964,987	312,933	1,805,097
50,000 to 100,000	38	3,074,938	1,160	1,388,773	482,551	2,789,895
100,000 to 200,000	42	6,215,877	2,132	2,736,961	1,036,484	6,175,149
200,000 to 500,000	22	5,986,358	2,141	2,960,508	1,305,778	6,334,630
500,000 to 1,000,000	13	8,428,434	2,668	3,743,753	1,652,449	9,003,995
1,000,000 to 5,000,000	14	20,599,296	6,476	11,342,904	7,528,710	30,989,373
Totals, Printing and Publishing	**779**	**53,235,912**	**17,834**	**25,189,376**	**12,990,521**	**60,982,409**
Clothing, Women's Factory—						
Under $25,000	163	1,426,992	1,158	765,850	866,441	1,955,547
$ 25,000 to 50,000	108	1,866,676	1,606	1,280,283	2,116,556	3,983,561
50,000 to 100,000	144	4,979,788	3,369	2,894,480	5,916,903	10,280,007
100,000 to 200,000	102	5,975,412	4,203	3,993,490	8,557,005	14,649,820
200,000 to 500,000	63	7,884,699	5,632	4,875,775	11,026,020	18,761,357
500,000 to 1,000,000	10	2,925,980	2,259	1,873,210	3,699,100	6,662,714
1,000,000 to 5,000,000	3	1,675,221	1,754	1,243,383	2,733,444	4,317,749
Totals, Clothing, Women's Factory	**593**	**26,731,768**	**19,981**	**16,926,471**	**34,915,469**	**60,610,755**
Machinery—						
Under $25,000	57	1,423,542	329	328,236	241,761	707,123
$ 25,000 to 50,000	35	2,089,652	438	546,560	386,694	1,315,311
50,000 to 100,000	29	3,867,426	529	714,807	812,579	2,100,777
100,000 to 200,000	33	7,300,426	1,319	1,585,218	1,404,030	4,594,470
200,000 to 500,000	31	11,012,620	1,997	2,676,121	4,318,491	10,177,737
500,000 to 1,000,000	20	16,205,230	3,192	3,858,928	5,967,907	13,163,356
1,000,000 to 5,000,000	8	24,424,310	4,834	6,349,522	9,072,738	25,038,042
5,000,000 or over	1					
Totals, Machinery	**214**	**66,323,206**	**12,638**	**16,059,392**	**22,204,200**	**57,096,816**
Hosiery and Knitted Goods—						
Under $25,000	31	323,782	179	103,689	146,155	292,913
$ 25,000 to 50,000	22	772,297	361	256,116	418,733	809,704
50,000 to 100,000	25	1,425,952	774	558,355	937,035	1,772,742
100,000 to 200,000	27	2,970,855	1,372	1,049,081	2,004,336	3,780,766
200,000 to 500,000	29	8,126,040	3,430	2,601,865	4,660,205	8,793,084
500,000 to 1,000,000	24	18,183,445	6,885	5,656,236	8,954,458	18,352,480
1,000,000 to 5,000,000	13	19,863,794	7,249	6,003,471	9,325,841	19,054,065
Totals, Hosiery and Knitted Goods	**171**	**51,666,165**	**20,250**	**16,228,813**	**26,446,763**	**52,855,754**
Fruit and Vegetable Preparations—						
Under $25,000	131	1,332,123	618	218,011	685,189	1,107,873
$ 25,000 to 50,000	54	1,608,778	645	318,306	1,209,696	1,972,795
50,000 to 100,000	53	3,815,191	1,167	582,603	2,409,067	3,621,060
100,000 to 200,000	47	6,480,896	1,572	1,019,119	4,337,299	6,617,392
200,000 to 500,000	45	13,121,981	3,197	2,030,993	8,437,061	13,403,460
500,000 to 1,000,000	13	7,350,114	1,633	1,359,327	5,145,079	8,342,597
1,000,000 to 5,000,000	4	13,778,968	1,798	1,666,118	8,396,820	15,224,534
5,000,000 or over	1					
Totals, Fruit and Vegetable Preparations	**348**	**47,488,051**	**10,630**	**7,194,477**	**30,620,211**	**50,289,711**

25.—Principal Statistics of the Twenty-Five Leading Industries of Canada, Grouped According to Size of Establishment (Gross Production per Unit), 1937—concluded.

Group and Industry.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.
	No.	$	No.	$	$	$
Biscuits, Confectionery, Cocoa, etc.—						
Under $25,000	120	1,041,883	423	251,798	451,668	885,558
$ 25,000 to 50,000	23	633,142	283	208,415	476,075	827,584
50,000 to 100,000	12	596,375	281	216,515	426,017	787,682
100,000 to 200,000	19	1,537,694	830	648,320	1,375,813	2,551,363
200,000 to 500,000	23	5,574,566	2,124	1,657,602	4,228,454	7,533,156
500,000 to 1,000,000	12	6,619,514	1,977	1,766,892	4,057,361	8,368,290
1,000,000 to 5,000,000	14	22,562,478	5,961	6,142,462	13,336,427	28,521,770
Totals, Biscuits, Confectionery, Cocoa, etc	**223**	**38,565,652**	**11,879**	**10,892,004**	**24,351,815**	**49,475,403**
Sheet Metal Products—						
Under $25,000	55	986,713	256	227,031	213,517	543,183
$ 25,000 to 50,000	16	570,694	191	178,971	290,940	598,506
50,000 to 100,000	15	1,349,906	333	340,771	537,324	1,109,009
100,000 to 200,000	19	2,550,077	593	727,042	1,292,834	2,880,701
200,000 to 500,000	19	7,311,726	1,469	1,581,531	3,031,102	6,223,540
500,000 to 1,000,000	12	9,322,505	1,699	1,971,253	4,992,700	9,204,645
1,000,000 to 5,000,000	12	34,435,964	3,958	4,491,726	17,979,696	28,573,182
Totals, Sheet Metal Products	**148**	**56,527,585**	**8,499**	**9,518,325**	**28,338,113**	**49,132,766**
Automobile Supplies—						
Under $25,000	25	377,874	136	122,220	94,522	245,043
$ 25,000 to 50,000	17	522,373	207	232,661	238,029	583,147
50,000 to 100,000	10	598,664	183	203,000	248,929	700,175
100,000 to 200,000	7	982,348	256	294,131	428,098	1,079,972
200,000 to 500,000	9	3,112,834	779	981,808	1,384,401	3,226,680
500,000 to 1,000,000	9	5,095,785	1,203	1,435,582	3,443,811	6,330,162
1,000,000 to 5,000,000	9	17,750,298	5,652	7,088,696	20,793,224	34,466,464
5,000,000 or over	2					
Totals, Automobile Supplies	**88**	**28,440,176**	**8,416**	**10,358,098**	**26,631,014**	**46,631,643**
Clothing, Men's Factory—						
Under $25,000	21	214,187	129	96,299	184,859	339,643
$ 25,000 to 50,000	33	627,315	287	222,826	748,550	1,230,961
50,000 to 100,000	38	1,308,497	554	480,181	1,593,539	2,659,778
100,000 to 200,000	47	3,361,371	1,478	1,381,265	3,630,570	6,526,272
200,000 to 500,000	38	6,052,665	3,296	3,176,482	6,995,453	12,659,348
500,000 to 1,000,000	15	4,565,982	2,926	2,921,500	6,225,637	10,720,996
1,000,000 to 5,000,000	6	4,738,828	3,506	3,856,890	6,216,011	11,112,176
Totals, Clothing, Men's Factory	**198**	**20,868,845**	**12,176**	**12,135,443**	**25,594,619**	**45,249,174**
Tobacco, Cigars, and Cigarettes—						
Under $25,000	67	494,724	329	168,227	215,580	439,794
$ 25,000 to 50,000	4	141,525	70	56,311	77,483	135,191
50,000 to 100,000	7	465,580	239	169,619	226,486	523,718
100,000 to 200,000	2	1,550,647	444	378,063	493,999	1,144,975
200,000 to 500,000	2					
500,000 to 1,000,000	3	1,736,350	337	314,186	1,089,774	2,613,331
1,000,000 to 5,000,000	6	54,970,414	6,501	6,491,704	21,066,512	40,253,126
5,000,000 or over	2					
Totals, Tobacco, Cigars, and Cigarettes	**93**	**59,359,240**	**7,920**	**7,578,110**	**23,169,834**	**45,110,135**
Breweries—						
Under $25,000	3	383,253	28	21,770	36,203	87,194
$ 25,000 to 50,000	1					
50,000 to 100,000	9	1,497,199	116	166,965	326,779	667,889
100,000 to 200,000	8	1,793,378	216	331,851	556,756	1,233,939
200,000 to 500,000	19	8,446,375	865	1,180,006	2,647,311	5,761,337
500,000 to 1,000,000	14	12,372,316	1,175	1,809,257	3,990,547	10,753,617
1,000,000 to 5,000,000	9	39,670,150	2,751	4,394,668	10,597,869	24,981,095
5,000,000 or over	2					
Totals, Breweries	**65**	**64,162,671**	**5,151**	**7,904,517**	**18,155,465**	**43,485,071**


BILLION $
GROWTH OF MANUFACTURING IN CANADA
PURPOSE CLASSIFICATION
1938
MILLION DOLLARS
500
1,000
PRODUCERS MATERIALS
FOOD
INDUSTRIAL EQUIPMENT
VEHICLES AND VESSELS
CLOTHING
DRINK AND TOBACCO
BOOKS AND STATIONERY
HOUSE FURNISHINGS
PERSONAL UTILITIES
MISCELLANEOUS
BRITISH COLUMBIA
PRAIRIE PROVINCES
ONTARIO
QUEBEC
MARITIME PROVINCES
4
3
2
1
0
1917
'20
'25
'30
'35
'38
YEARS

PART II.—PROVINCIAL AND LOCAL DISTRIBUTION OF MANUFACTURING PRODUCTION.

Ontario and Quebec are the most important manufacturing provinces of Canada. Their combined production in 1937 amounted to $2,927,000,000 or over 80 p.c. of the gross value of manufactured products of the Dominion. The proximity of Ontario to the coalfields of Pennsylvania, the water power and other varied resources of the two provinces, and their nearness to the larger markets of Canada and the United States have all contributed to the above result. British Columbia had in 1937 the third largest gross manufacturing production with 7·0 p.c. of the total, and Manitoba the fourth with 4·0 p.c.; Alberta, Nova Scotia, New Brunswick, Saskatchewan, and Prince Edward Island followed in the order named.

Table 1 gives the gross value of manufacturing production in 1937 by provinces, groups, and individual industries. The outstanding predominance of Ontario and Quebec is shown in each group. The standing of these two provinces is most nearly approached by British Columbia in the case of the wood and paper products

1.—Gross Value of Products of the Manufacturing Industries of

	Group and Industry.	Prince Edward Island.	Nova Scotia.	New Brunswick.
		$	$	$
	1.—Vegetable Products—			
1	Aerated and mineral waters	40,347	615,388	475,930
2	Biscuits, confectionery, cocoa, and chocolate	[1]	2,407,766	1,672,915
3	Bread and other bakery products	141,367	1,654,753	1,558,100
4	Breweries	Nil	[1]	[1]
5	Coffee, tea, and spices	"	860,659	3,589,214
6	Distilleries	"	Nil	Nil
7	Flour and feed mills	142,690	780,033	803,918
8	Foods, breakfast	Nil	Nil	Nil
9	Foods, stock and poultry	188,609	[1]	[1]
10	Foods, miscellaneous	Nil	[1]	[1]
11	Fruit and vegetable preparations	49,944	1,062,009	279,449
12	Ice cream cones	Nil	Nil	Nil
13	Linseed oil and oil cake	"	"	"
14	Macaroni, vermicelli, etc	"	"	"
15	Malt and malt products	"	"	"
16	Rice mills	"	"	"
17	Rubber goods, including rubber footwear	"	"	"
18	Starch and glucose	42,070	"	[1]
19	Sugar refineries	Nil	[1]	[1]
20	Tobacco, cigars, and cigarettes	[1]	Nil	Nil
21	Tobacco processing and packing	Nil	"	"
22	Wine	"	"	"
23	All other industries	73,368	4,968,864	6,684,625
	Totals, Vegetable Products	**678,395**	**12,349,472**	**15,064,151**
	2.—Animal Products—			
1	Animal oils and fats	Nil	Nil	[1]
2	Belting, leather	"	"	Nil
3	Boot and shoe findings, leather	"	"	"
4	Boots and shoes, leather	"	[1]	562,867
5	Butter and cheese	738,421	2,763,530	1,773,530
6	Condensed milk	Nil	[1]	Nil
7	Dairy products, other	[1]	118,442	"
8	Fish curing and packing	621,745	6,308,091	3,115,280
9	Fur dressing and dyeing	Nil	Nil	Nil
10	Fur goods	"	[1]	[1]
11	Gloves and mittens, leather	"	Nil	Nil
12	Hair goods, animal and human	"	"	"
13	Leather tanneries	"	[1]	[1]

[1] Included with "All other industries", since there are fewer than three establishments in the province. The amount for this item, however, is included in the total for Canada. [2] See footnote 1.

group, where the latter province accounts for 16·0 p.c. of the gross production compared with 39·0 p.c. for Ontario and 32·1 p.c. for Quebec; in each of the other groups the positions of Ontario and Quebec lead by a wide margin.

Table 2 analyses the principal statistics of manufacturing in each province, by size of establishment. The picture here given reflects, in outline, the same general conclusion as Table 1. British Columbia, the third manufacturing province, has, in point of size, 41 establishments with individual gross production of over $1,000,000, compared with 305 for Ontario, 177 for Quebec, 22 for Manitoba, 18 for Alberta, 13 for Nova Scotia, 12 for New Brunswick, and 9 for Saskatchewan. Capital investment, employees, and other factors show variation, in proportion to the size of establishment and according to the nature of the industry concerned (the 3 in Manitoba with production of over $5,000,000 for instance, employ over five times as many persons as the 3 in the same class in Saskatchewan, and the 4 in the same class in British Columbia employ over thirteen times as many on the average as the 3 in Saskatchewan), but in a broad way the factor of size is reflected throughout the statistics.

Canada, by Provinces, Groups, and Individual Industries, 1937.

Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia and Yukon.	Canada.	
$	$	$	$	$	$	$	
9,624,978	8,240,158	1,501,172	547,240	762,605	575,295	22,383,113	1
13,398,175	27,842,993	2,169,886	1	645,759	1,320,905	49,475,403	2
21,052,046	36,367,699	3,823,334	2,122,097	3,300,306	6,443,189	76,462,891	3
16,062,467	16,690,187	2,235,859	1,808,524	2,346,413	3,403,736	43,485,071	4
5,914,596	8,617,830	2,628,766	1	287,684	5,075,638	27,035,275	5
7,524,129	15,354,038	Nil	Nil	Nil	1,877,845	24,756,012	6
16,413,027	70,815,603	11,054,577	19,113,820	13,684,149	826,362	133,634,179	7
1	11,095,948	220,623	5,849	51,712	79,001	11,461,213	8
1,942,130	6,888,835	254,104	1	177,648	2,856,911	12,449,835	9
7,857,447	10,780,588	602,337	1	28,075	662,383	20,172,809	10
6,908,853	34,855,005	550,743	18,782	394,265	6,170,661	50,289,711	11
1	323,574	Nil	Nil	Nil	1	339,399	12
3,001,540	1,189,015	1	"	1	Nil	5,049,528	13
901,244	531,271	170,944	"	1	178,735	1,863,044	14
1,514,045	2,164,955	3,934,047	"	1	Nil	9,187,965	15
1	Nil	Nil	"	Nil	647,314	1,426,929	16
13,172,026	61,040,569	1	1	"	1	74,263,753	17
Nil	1	Nil	Nil	"	1	6,360,080	18
1	1	"	"	1	1	40,916,044	19
38,338,640	6,668,253	1	"	Nil	25,447	45,110,135	20
599,073	12,035,625	Nil	"	"	Nil	12,634,698	21
Nil	3,499,390	"	"	"	283,686	3,783,076	22
18,433,422	9,629,874	557,456	181,117	5,484,047	6,067,849	2	23
182,657,838	**344,631,410**	**29,703,848**	**23,797,429**	**27,162,663**	**36,494,957**	**672,540,163**	
Nil	229,553	1	Nil	Nil	Nil	243,650	1
464,035	434,954	Nil	"	"	"	898,989	2
1,169,155	321,496	"	"	"	"	1,490,651	3
24,902,027	14,639,105	319,104	"	1	559,961	41,088,713	4
33,908,571	54,744,598	9,917,509	8,086,166	8,619,901	4,382,829	124,935,055	5
Nil	9,567,377	Nil	Nil	1	1	11,247,823	6
663,651	1,316,725	1	23,587	256,629	483,716	2,897,879	7
634,126	Nil	Nil	Nil	Nil	15,409,383	26,088,625	8
1,026,604	298,568	1	"	"	Nil	1,397,767	9
7,669,613	6,730,905	1,438,695	35,892	122,433	214,056	16,261,100	10
2,315,307	1,300,356	349,631	Nil	Nil	215,331	4,180,625	11
14,745	67,268	Nil	"	"	Nil	82,014	12
2,647,004	23,223,992	1	40,203	29,704	201,514	26,269,794	13

1.—Gross Value of Products of the Manufacturing Industries of

	Group and Industry.	Prince Edward Island.	Nova Scotia.	New Brunswick.
		$	$	$
	2.—Animal Products—concluded.			
14	Miscellaneous leather goods	[1]	89,641	63,225
15	Sausage and sausage casings	Nil	[1]	[1]
16	Slaughtering and meat packing	[1]	128,343	1,596,005
17	All other industries	456,746	379,170	46,131
	Totals, Animal Products	**1,816,912**	**9,787,217**	**7,157,038**
	3.—Textiles and Textile Products—			
1	Awnings, tents, and sails	Nil	13,745	[1]
2	Bags, cotton and jute	[1]	Nil	Nil
3	Batting and wadding	Nil	"	"
4	Carpets, mats, and rugs	"	[1]	[1]
5	Clothing, men's factory	"	[1]	Nil
6	Clothing, women's factory	"	Nil	[1]
7	Clothing contractors, men's and women's	"	"	Nil
8	Cordage, rope and twine	"	[1]	"
9	Corsets	"	Nil	"
10	Cotton and wool waste	"	"	"
11	Cotton textiles, *n.e.s.*	"	"	"
12	Cotton thread	"	"	"
13	Cotton yarn and cloth	"	[1]	[1]
14	Dyeing and finishing of textiles	"	[1]	Nil
15	Flax, dressed	"	Nil	"
16	Furnishing goods, men's	"	[1]	[1]
17	Gloves and mittens, fabric	"	Nil	Nil
18	Hats and caps	"	[1]	[1]
19	Hosiery and knitted goods	"	2,392,846	[1]
20	Miscellaneous textiles	"	Nil	Nil
21	Oiled and waterproofed clothing	"	130,510	"
22	Silk and artificial silk	"	Nil	"
23	Woollen cloth	[1]	[1]	[1]
24	Woollen goods, *n.e.s.*	Nil	[1]	Nil
25	Woollen yarn	"	11,170	49,046
26	All other industries	132,781	3,189,679	4,771,291
	Totals, Textiles and Textile Products	**132,781**	**5,737,950**	**4,820,337**
	4.—Wood and Paper Products—			
1	Beekeepers' and poultrymen's supplies	Nil	Nil	Nil
2	Blue printing	"	[1]	"
3	Boatbuilding	"	144,191	79,796
4	Boxes and bags, paper	"	[1]	135,911
5	Boxes, wooden	[1]	213,924	256,601
6	Carriages, wagons, and sleighs	6,766	9,209	46,870
7	Charcoal	Nil	Nil	Nil
8	Coffins and caskets	[1]	[1]	[1]
9	Cooperage	Nil	372,240	[1]
10	Engraving, stereotyping, and electrotyping	"	39,314	[1]
11	Excelsior	"	[1]	Nil
12	Flooring, hardwood	"	Nil	[1]
13	Furniture	"	106,530	[1]
14	Lasts, trees, and shoe findings	"	[1]	Nil
15	Lithographing	"	[1]	"
16	Miscellaneous paper products	"	[1]	"
17	Miscellaneous wooden products	"	[1]	[1]
18	Planing mills, sash and door factories	98,881	939,750	771,685
19	Printing and bookbinding	28,444	294,606	325,906
20	Printing and publishing	174,618	2,058,891	1,164,239
21	Pulp and paper	Nil	[1]	20,195,064
22	Refrigerators, other than electric	"	Nil	Nil
23	Roofing paper, wall-board, etc.	"	"	[1]
24	Sawmills	152,818	3,238,037	7,585,133
25	Trade composition	Nil	Nil	Nil
26	Woodenware	"	[1]	[1]
27	Wood turning	"	[1]	[1]
28	All other industries	87,396	6,439,108	1,396,767
	Totals, Wood and Paper Products	**548,923**	**13,855,800**	**31,957,972**

[1] Included with "All other Industries", since there are fewer than three establishments in the province. The amount for this item, however, is included in the total for Canada. [2] See footnote 1.

Canada, by Provinces, Groups, and Individual Industries, 1937—continued.

Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia and Yukon.	Canada.	
$	$	$	$	$	$	$	
2,810,470	5,121,426	379,554	12,033	55,144	173,407	8,716,645	14
807,511	1,120,274	438,086	Nil	Nil	175,825	2,565,267	15
32,727,910	75,917,387	29,204,985	9,367,563	22,230,483	9,810,734	181,419,311	16
Nil	Nil	221,208	Nil	287,851	1,164,910	[2]	17
111,760,730	**195,033,984**	**42,268,772**	**17,565,441**	**31,602,145**	**32,791,666**	**449,783,908**	
550,468	1,034,809	51,614	[1]	78,020	444,509	2,194,861	1
3,242,311	2,662,895	2,082,005	[1]	Nil	[1]	9,204,467	2
[1]	[1]	Nil	Nil	"	Nil	1,078,259	3
Nil	5,293,139	[1]	"	"	[1]	5,365,576	4
28,303,883	15,419,144	934,670	"	[1]	[1]	45,249,174	5
40,077,126	17,044,367	2,620,638	"	[1]	629,905	60,610,755	6
1,854,967	304,717	Nil	"	Nil	Nil	2,159,684	7
[1]	5,167,963	"	"	"	[1]	6,578,967	8
2,615,760	1,951,947	"	"	"	Nil	4,567,707	9
539,436	1,322,708	"	"	"	163,648	2,025,792	10
2,681,205	1,626,665	[1]	"	"	Nil	4,317,370	11
[1]	[1]	Nil	"	"	"	3,825,222	12
49,815,471	17,557,163	"	"	"	"	72,113,878	13
1,409,366	2,383,714	"	"	"	"	3,794,316	14
113,284	62,709	"	"	"	"	175,993	15
12,252,642	9,080,786	2,994,600	"	1,155,911	701,609	26,761,676	16
272,853	489,719	[1]	"	Nil	[1]	793,935	17
6,480,112	6,105,373	499,544	"	[1]	76,666	13,689,368	18
16,273,908	32,794,797	389,272	"	[1]	401,078	52,855,754	19
6,943,634	3,269,592	Nil	"	Nil	[1]	10,218,450	20
650,511	766,748	"	"	"	Nil	1,547,769	21
19,556,018	8,315,274	"	"	"	"	27,871,292	22
5,545,875	17,544,839	[1]	"	"	167,732	23,726,495	23
3,024,955	5,173,976	Nil	"	"	[1]	8,408,543	24
1,351,534	9,208,491	"	"	"	Nil	10,620,241	25
3,338,494	2,223,863	85,511	441,848	606,435	1,468,232	628,182 [2]	26
206,893,813	**166,805,398**	**9,657,854**	**441,848**	**1,840,366**	**4,053,379**	**400,383,726**	
143,520	60,278	[1]	Nil	Nil	[1]	235,250	1
146,754	72,642	[1]	[1]	[1]	32,995	280,158	2
[1]	1,156,720	Nil	Nil	[1]	245,810	1,729,096	3
7,641,641	19,016,500	1,583,888	[1]	[1]	1,203,166	30,035,299	4
2,101,900	3,056,562	503,121	[1]	474,320	2,142,438	8,809,998	5
168,591	259,850	142,690	[1]	[1]	Nil	648,772	6
[1]	[1]	Nil	Nil	Nil	"	101,645	7
604,212	1,306,639	242,400	[1]	17,310	95,300	2,511,678	8
237,183	1,337,840	[1]	Nil	Nil	102,360	2,159,659	9
1,248,266	5,459,983	470,256	[1]	72,991	212,398	7,544,083	10
[1]	126,583	[1]	Nil	[1]	[1]	238,296	11
881,107	2,309,038	Nil	"	Nil	[1]	3,648,004	12
7,225,233	15,734,206	873,180	[1]	256,304	2,295,356	26,518,767	13
981,699	[1]	Nil	Nil	Nil	Nil	1,274,593	14
1,908,738	7,423,475	[1]	"	"	525,939	10,484,851	15
5,835,727	12,487,583	233,752	[1]	"	2,220,151	20,847,502	16
482,109	2,379,255	37,887	[1]	[1]	986,815	4,367,681	17
5,779,760	10,186,565	536,371	537,191	563,239	5,534,276	24,947,718	18
9,635,775	21,441,482	3,051,451	308,582	1,003,409	1,668,949	37,758,604	19
14,179,356	28,993,467	4,067,783	2,345,423	2,717,649	5,280,983	60,982,409	20
107,196,316	72,948,378	[1]	Nil	Nil	18,038,957	226,244,711	21
[1]	475,186	[1]	"	"	Nil	633,261	22
2,839,872	2,988,160	[1]	"	"	522,729	6,884,032	23
18,800,636	17,644,737	1,284,939	781,417	1,714,467	53,647,601	104,849,785	24
220,863	478,558	[1]	7,226	[1]	[1]	776,037	25
690,804	503,285	[1]	Nil	Nil	[1]	1,499,329	26
967,677	1,031,119	Nil	"	"	109,573	2,118,764	27
1,770,362	3,550,070	4,338,121	174,591	1,622,768	1,754,396	8,931,896 [2]	28
191,688,101	**232,428,161**	**17,365,839**	**4,154,430**	**8,442,457**	**96,620,195**	**597,061,878**	

1.—Gross Value of Products of the Manufacturing Industries of

	Group and Industry.	Prince Edward Island.	Nova Scotia.	New Brunswick.
		$	$	$
	5.—Iron and Its Products—			
1	Agricultural implements	[1]	Nil	Nil
2	Aircraft	Nil	"	"
3	Automobiles	"	"	"
4	Automobile supplies	"	"	[1]
5	Bicycles	"	"	Nil
6	Boilers, tanks, and engines	"	514,705	"
7	Bridge and structural steel	"	Nil	"
8	Castings and forgings	134,086	1,202,241	337,864
9	Hardware and tools	Nil	133,434	64,613
10	Heating and cooking apparatus	"	76,518	1,305,578
11	Iron and steel products, *n.e.s.*	"	Nil	Nil
12	Machinery	"	[1]	"
13	Primary iron and steel	"	14,883,039	"
14	Railway rolling-stock	"	6,707,720	[1]
15	Sheet metal products	[1]	[1]	143,455
16	Shipbuilding and repairs	Nil	1,401,994	[1]
17	Wire and wire goods	"	[1]	[1]
18	All other industries	105,355	2,431,739	4,588,172
	Totals, Iron and Its Products	**239,441**	**27,351,390**	**6,439,682**
	6.—Non-Ferrous Metal Products—			
1	Aluminium products	Nil	Nil	Nil
2	Brass and copper products	"	[1]	[1]
3	Electrical apparatus and supplies	"	[1]	Nil
4	Jewellery and silverware	"	[1]	[1]
5	Miscellaneous non-ferrous metal products	"	Nil	Nil
6	Non-ferrous metal smelting and refining	"	"	"
7	White metal alloys	"	"	"
8	All other industries	"	67,477	781,045
	Totals, Non-Ferrous Metal Products	**Nil**	**67,477**	**781,045**
	7.—Non-Metallic Mineral Products—			
1	Abrasive products	Nil	Nil	Nil
2	Asbestos products	"	[1]	"
3	Cement	"	Nil	"
4	Cement products	"	[1]	8,493
5	Clay products from domestic clay	"	406,846	123,876
6	Clay products from imported clay	"	Nil	Nil
7	Coke and gas products	"	[1]	[1]
8	Glass products	"	Nil	[1]
9	Lime	"	[1]	150,362
10	Miscellaneous non-metallic mineral products	"	[1]	[1]
11	Petroleum products	"	[1]	[1]
12	Salt	"	[1]	Nil
13	Sand-lime brick	"	Nil	"
14	Stone, monumental and ornamental	"	111,581	75,417
15	All other industries	35,035	12,230,453	589,342
	Totals, Non-Metallic Mineral Products	**35,035**	**12,748,880**	**947,490**
	8.—Chemicals and Allied Products—			
1	Acids, alkalies and salts	Nil	[1]	Nil
2	Adhesives	"	Nil	"
3	Coal tar distillation	"	[1]	"
4	Fertilizers	[1]	[1]	1,239,424
5	Gases, compressed	Nil	[1]	Nil
6	Inks, printing and writing	"	Nil	[1]
7	Medicinal and pharmaceutical preparations	"	[1]	[1]
8	Miscellaneous chemical products	"	[1]	Nil
9	Paints, pigments, and varnishes	"	[1]	[1]
10	Polishes and dressings	"	[1]	Nil
11	Soaps and washing compounds	"	[1]	[1]
12	Toilet preparations	"	Nil	Nil
13	Wood distillation	"	"	"
14	All other industries	115,504	2,258,737	532,922
	Totals, Chemicals and Allied Products	**115,504**	**2,258,737**	**1,772,346**

[1] Included with "All other industries", since there are fewer than three establishments in the province. The amount for this item, however, is included in the total for Canada. [2] See footnote 1.

Canada, by Provinces, Groups, and Individual Industries, 1937—continued.

Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia and Yukon.	Canada.	
$	$	$	$	$	$	$	
322,642	18,139,802	474,480	Nil	[1]	Nil	18,961,394	1
[1]	890,635	[1]	"	Nil	"	1,730,724	2
[1]	133,315,645	[1]	[1]	"	[1]	134,810,280	3
[1]	45,987,041	93,182	[1]	166,829	179,104	46,631,643	4
Nil	1,882,668	Nil	Nil	Nil	Nil	1,882,668	5
2,156,886	7,844,253	[1]	[1]	"	597,950	11,211,501	6
4,848,357	7,793,585	[1]	Nil	[1]	[1]	16,850,324	7
9,293,962	28,172,336	622,671	122,853	636,324	1,391,416	41,913,753	8
6,814,768	14,879,439	[1]	Nil	Nil	569,688	22,464,718	9
2,553,572	11,783,401	[1]	"	[1]	236,663	15,976,018	10
763,782	2,147,434	[1]	"	[1]	127,432	3,802,727	11
17,791,198	38,093,540	316,713	[1]	[1]	656,098	57,096,816	12
10,416,386	47,228,609	1,606,032	Nil	[1]	[1]	74,580,669	13
45,313,773	21,820,963	13,058,914	"	[1]	Nil	93,854,555	14
12,568,732	29,381,216	1,025,880	225,817	289,935	5,397,026	49,132,766	15
4,926,014	1,472,038	[1]	Nil	Nil	2,193,751	10,360,686	16
6,187,934	12,928,443	[1]	"	"	1,415,979	23,558,635	17
1,618,953	Nil	1,668,336	274,725	3,823,283	4,280,276	[2]	18
125,576,959	**423,761,048**	**18,866,208**	**623,395**	**4,916,371**	**17,045,383**	**624,819,877**	
1,708,469	5,447,774	Nil	Nil	Nil	Nil	7,156,243	1
10,204,934	22,170,620	754,454	"	[1]	170,227	34,453,160	2
23,455,526	74,510,006	500,802	"	47,431	326,711	98,841,992	3
2,582,827	10,317,959	21,536	[1]	[1]	141,443	13,093,546	4
126,399	1,478,609	[1]	Nil	Nil	Nil	1,606,087	5
69,800,390	192,248,914	[1]	[1]	"	[1]	318,278,251	6
2,417,910	6,058,767	[1]	Nil	"	[1]	9,011,283	7
Nil	Nil	10,810,931	7,338,998	322,076	38,628,327	[2]	8
110,296,455	**312,232,649**	**12,087,723**	**7,338,998**	**369,507**	**39,266,708**	**482,440,562**	
[1]	[1]	Nil	Nil	Nil	Nil	14,174,351	1
1,227,285	[1]	"	"	"	"	1,896,677	2
[1]	3,657,067	[1]	"	[1]	[1]	9,095,867	3
967,724	2,018,530	[1]	[1]	[1]	246,295	3,299,331	4
1,053,153	2,033,845	95,531	115,330	338,638	349,640	4,516,859	5
[1]	2,760,718	[1]	[1]	Nil	Nil	3,599,181	6
10,072,569	23,554,869	[1]	Nil	[1]	2,417,251	41,702,929	7
4,995,111	8,353,266	[1]	"	[1]	[1]	14,437,250	8
909,116	2,152,644	215,165	"	[1]	154,037	3,824,917	9
2,217,235	4,044,371	463,214	[1]	104,608	309,584	7,835,144	10
33,906,272	28,842,214	[1]	7,659,551	8,373,725	10,498,679	98,454,014	11
Nil	[1]	[1]	Nil	Nil	Nil	1,799,465	12
[1]	[1]	Nil	"	"	"	197,921	13
691,420	1,924,360	115,574	100,638	109,940	207,277	3,371,242	14
5,269,303	15,652,831	3,481,440	153,884	1,940,109	719,730	Nil	15
61,309,188	**94,994,715**	**4,370,924**	**8,029,403**	**10,867,020**	**14,902,493**	**208,205,148**	
4,678,248	16,145,428	Nil	Nil	Nil	[1]	22,410,168	1
[1]	1,258,311	"	"	"	[1]	1,904,137	2
[1]	[1]	[1]	"	"	[1]	3,399,541	3
1,495,089	3,788,623	Nil	"	"	2,816,431	10,266,953	4
1,021,634	1,665,830	335,909	[1]	[1]	[1]	3,929,242	5
401,387	2,788,572	[1]	Nil	Nil	[1]	3,270,506	6
8,112,533	15,230,681	1,249,960	[1]	[1]	79,139	24,814,647	7
12,434,955	8,293,895	632,335	[1]	45,510	1,891,608	23,424,731	8
10,070,024	12,135,757	1,422,216	[1]	[1]	1,306,900	25,531,117	9
863,696	1,859,548	Nil	Nil	[1]	[1]	2,736,269	10
1,752,103	16,060,328	659,661	"	308,525	422,657	19,693,888	11
2,368,972	4,418,944	[1]	[1]	Nil	24,964	6,842,937	12
[1]	[1]	Nil	Nil	"	Nil	749,084	13
1,898,024	2,105,188	269,629	227,029	304,029	1,982,361	[2]	14
45,096,665	**85,751,105**	**4,569,710**	**227,029**	**658,064**	**8,524,060**	**148,973,220**	

1.—Gross Value of Products of the Manufacturing Industries of Canada, by Provinces, Groups, and Individual Industries, 1937—concluded.

Group and Industry.	Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.
	$	$	$	$	$
9.—Miscellaneous Industries—					
Artificial flowers and feathers	Nil	Nil	Nil	412,727	114,163
Automobile accessories, fabric	"	"	"	1	662,226
Brooms, brushes, and mops	"	"	1	596,499	2,793,492
Buttons	"	"	Nil	748,933	841,509
Candles	"	"	"	1	1
Fountain pens and pencils	"	"	"	720,283	1,493,777
Ice, manufactured	"	"	"	1	1,140,321
Jewellery and silverware cases	"	"	"	Nil	377,962
Mattresses and springs	"	1	1	4,477,712	3,763,664
Motion pictures	"	Nil	Nil	1	300,387
Musical instruments and materials	"	"	"	557,938	652,330
Novelties, advertising and other	"	"	"	46,205	258,892
Pipes, tobacco	"	"	"	1	1
Regalia and society emblems	"	"	"	1	70,002
Scientific and professional equipment	"	"	1	62,831	6,775,849
Signs, electric, neon and, other	"	"	Nil	655,816	832,857
Sporting goods	"	1	"	251,045	1,415,316
Stamps and stencils, rubber and metal	"	1	"	128,181	371,512
Statuary and art goods	"	Nil	"	197,122	882,486
Store and display accessories	"	"	"	1	1
Toys	"	1	"	73,569	719,051
Typewriter supplies	"	Nil	"	1	1
Umbrellas	"	"	"	257,718	1
All other industries	"	236,733	539,146	2,004,468	1,283,922[2]
Totals, Miscellaneous Industries	**Nil**	**236,733**	**539,146**	**11,191,047**	**24,749,718**
Grand Totals	**3,566,991**	**84,393,656**	**69,479,207**	**1,046,470,796**	**1,880,388,188**

	Manitoba.	Saskatchewan.	Alberta.	British Columbia and Yukon.	Canada.
	$	$	$	$	$
9.—Miscellaneous Industries—					
Artificial flowers and feathers	Nil	Nil	Nil	Nil	526,890
Automobile accessories, fabric	1	"	"	"	819,730
Brooms, brushes, and mops	1	1	1	220,080	4,334,993
Buttons	Nil	Nil	Nil	Nil	1,590,442
Candles	"	"	"	"	566,787
Fountain pens and pencils	"	"	"	"	2,214,060
Ice, manufactured	1	"	"	328,832	1,779,309
Jewellery and silverware cases	Nil	"	"	Nil	377,962
Mattresses and springs	1,411,630	"	1	552,566	10,594,622
Motion pictures	Nil	"	Nil	1	1,577,210
Musical instruments and materials	"	"	"	1	1,211,288
Novelties, advertising and other	1	1	"	1	324,055
Pipes, tobacco	Nil	Nil	"	Nil	56,093
Regalia and society emblems	1	"	"	1	97,832
Scientific and professional equipment	18,704	"	1	1	6,884,087
Signs, electric, neon and, other	112,890	1	169,219	573,755	2,351,889
Sporting goods	1	Nil	Nil	1	1,737,517
Stamps and stencils, rubber and metal	20,770	"	1	56,247	592,495
Statuary and art goods	1	"	Nil	107,705	1,189,204
Store and display accessories	Nil	"	"	Nil	72,713
Toys	"	"	"	"	794,395
Typewriter supplies	"	"	"	"	922,673
Umbrellas	"	"	"	1	453,310
All other industries	350,579	27,908	197,257	386,232	181,462[2]
Totals, Miscellaneous Industries	**1,914,573**	**27,908**	**366,476**	**2,225,417**	**41,251,018**
Grand Totals	**140,805,451**	**62,205,884**	**86,225,069**	**251,924,258**	**3,625,459,500**

[1] Included with "All other industries", since there are fewer than three establishments in the province. The amount for this item, however, is included in the total for Canada. [2] See footnote 1.

2.—Principal Statistics of the Manufacturing Industries in Each Province, by Size of Establishment (Gross Production per Unit), 1937.

Province and Group.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.[1]	Gross Value of Products.
	No.	$	No.	$	$	$
Canada—						
Under $25,000	15,662	119,882,336	51,493	33,102,509	68,650,820	121,743,486
$ 25,000 to 50,000	2,865	79,964,961	29,827	25,720,436	57,179,216	101,926,099
50,000 to 100,000	2,167	131,004,882	41,559	39,069,783	83,279,569	153,597,904
100,000 to 200,000	1,602	191,674,966	57,597	56,992,363	119,085,579	225,586,676
200,000 to 500,000	1,353	397,597,338	104,236	105,923,398	220,604,816	423,457,705
500,000 to 1,000,000	588	412,093,715	91,658	98,634,631	213,115,963	416,026,053
1,000,000 to 5,000,000	496	1,156,484,477	174,941	211,020,793	550,753,684	1,021,079,946
5,000,000 or over	101	976,525,156	109,140	151,263,124	693,442,622	1,162,041,631
Totals, Canada	**24,834**	**3,465,227,831**	**660,451**	**721,727,037**	**2,006,112,269**	**3,625,459,500**
Prince Edward Island—						
Under $25,000	213	1,054,909	633	249,384	978,096	1,458,211
$ 25,000 to 50,000	12	198,886	68	46,128	295,759	419,156
50,000 to 100,000	9	591,997	181	159,186	330,896	598,402
100,000 to 200,000	4	791,680	180	152,849	781,340	1,091,222
200,000 to 500,000	2					
Totals, P.E. Island	**240**	**2,637,472**	**1,062**	**607,547**	**2,386,091**	**3,566,991**
Nova Scotia—						
Under $25,000	875	6,193,303	3,637	2,398,073	4,613,717	5,416,801
$ 25,000 to 50,000	97	2,574,802	1,363	815,949	1,800,537	3,316,323
50,000 to 100,000	62	3,422,130	1,397	993,841	2,365,761	4,313,305
100,000 to 200,000	43	5,146,411	1,645	1,421,304	2,992,245	5,836,498
200,000 to 500,000	37	19,376,777	3,264	3,020,044	9,397,744	11,380,871
500,000 to 1,000,000	8	4,406,905	1,190	1,099,017	2,496,765	5,262,548
1,000,000 to 5,000,000	10	36,654,832	3,814	4,498,562	11,056,131	24,260,679
5,000,000 or over	3	16,981,441	1,778	2,480,548	12,234,702	24,606,631
Totals, Nova Scotia	**1,135**	**94,756,601**	**18,088**	**16,727,338**	**46,957,602**	**84,393,656**
New Brunswick—						
Under $25,000	590	3,333,109	2,185	993,181	2,467,046	4,288,332
$ 25,000 to 50,000	82	1,528,677	920	577,219	1,544,995	2,799,345
50,000 to 100,000	48	4,144,930	1,205	1,013,671	1,640,133	3,400,107
100,000 to 200,000	30	3,503,648	1,445	1,080,940	2,351,393	4,333,809
200,000 to 500,000	34	14,452,195	2,647	2,217,584	6,221,707	10,461,216
500,000 to 1,000,000	9	5,537,404	1,485	1,603,082	2,971,728	5,873,589
1,000,000 to 5,000,000	10	57,297,634	5,725	7,077,633	19,780,773	38,322,809
5,000,000 or over	2					
Totals, New Brunswick	**805**	**89,797,597**	**15,612**	**14,563,310**	**36,977,775**	**69,479,207**
Quebec—						
Under $25,000	5,916	37,824,731	18,464	10,126,761	25,778,559	43,352,788
$ 25,000 to 50,000	824	20,431,563	9,101	6,894,353	16,901,557	28,939,116
50,000 to 100,000	600	30,835,935	13,554	10,956,420	23,176,800	42,162,006
100,000 to 200,000	437	50,065,558	17,747	16,087,383	32,922,939	61,706,426
200,000 to 500,000	411	109,625,441	35,195	31,328,174	68,059,159	130,167,340
500,000 to 1,000,000	153	113,668,016	27,990	26,009,504	54,733,456	109,033,886
1,000,000 to 5,000,000	141	384,605,663	59,650	68,255,193	139,056,770	294,678,754
5,000,000 or over	36	370,715,814	37,332	47,313,419	201,957,618	336,430,480
Totals, Quebec	**8,518**	**1,117,772,721**	**219,033**	**216,971,207**	**562,586,858**	**1,046,470,796**
Ontario—						
Under $25,000	5,369	47,241,487	17,933	13,077,973	25,769,140	48,445,304
$ 25,000 to 50,000	1,326	37,913,937	12,469	11,623,279	26,812,254	47,379,591
50,000 to 100,000	1,020	60,791,913	18,031	18,367,594	38,891,590	72,414,362
100,000 to 200,000	803	102,251,164	28,169	29,211,392	57,531,526	113,280,402
200,000 to 500,000	648	192,961,400	48,879	53,105,894	99,638,979	201,915,620
500,000 to 1,000,000	325	221,210,599	50,485	56,937,015	116,519,316	229,568,779
1,000,000 to 5,000,000	257	533,146,627	84,632	102,696,246	280,441,584	504,592,534
5,000,000 or over	48	479,289 074	61,145	87,998,655	379,984,840	662,791,596
Totals, Ontario	**9,796**	**1,674,806,201**	**321,743**	**373,018,048**	**1,025,589,229**	**1,880,388,188**

[1]The figures of cost of materials vary slightly from those published in the other tables of this report. This is due to adjustments made in process supplies used by some of the mining industries considered also as manufacturers.

2.—Principal Statistics of the Manufacturing Industries in Each Province, by Size of Establishment (Gross Production per Unit), 1937—concluded.

Province and Group.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.[1]	Gross Value of Products.
	No.	$	No.	$	$	$
Manitoba—						
Under $25,000	616	5,639,682	2,075	1,464,004	2,384,488	4,227,911
$ 25,000 to 50,000	128	3,984,091	1,667	1,406,269	2,533,608	4,715,382
50,000 to 100,000	116	5,849,713	1,768	1,770,853	4,921,419	8,385,145
100,000 to 200,000	74	7,804,876	2,431	2,462,504	6,051,694	10,711,210
200,000 to 500,000	65	19,625,753	4,570	5,054,325	11,091,790	20,242,454
500,000 to 1,000,000	22	17,882,239	2,324	3,026,257	7,698,933	15,430,178
1,000,000 to 5,000,000	19	46,927,085	7,311	9,884,205	27,270,873	45,266,982
5,000,000 or over	3	11,649,587	1,560	2,130,561	25,656,266	31,826,189
Totals, Manitoba	**1,043**	**119,363,026**	**23,706**	**27,198,978**	**87,609,071**	**140,805,451**
Saskatchewan—						
Under $25,000	504	4,909,435	1,263	783,214	1,239,317	2,647,551
$ 25,000 to 50,000	57	1,926,741	511	506,798	1,195,441	2,067,415
50,000 to 100,000	54	5,329,386	738	793,944	2,519,909	3,936,177
100,000 to 200,000	44	4,601,698	1,012	1,094,743	4,012,698	6,188,074
200,000 to 500,000	17	4,293,587	771	918,579	3,012,517	5,406,691
500,000 to 1,000,000	4	1,519,284	356	577,420	817,632	2,170,591
1,000,000 to 5,000,000	6	8,092,393	1,171	1,684,131	14,366,561	17,867,875
5,000,000 or over	3	8,606,526	285	399,325	16,617,767	21,921,510
Totals, Saskatchewan	**689**	**39,279,050**	**6,107**	**6,758,154**	**43,781,842**	**62,205,884**
Alberta—						
Under $25,000	591	4,983,769	1,805	1,206,072	1,946,162	4,034,835
$ 25,000 to 50,000	116	3,194,696	973	927,439	2,492,362	4,288,175
50,000 to 100,000	86	5,816,383	1,301	1,294,023	3,431,827	6,033,434
100,000 to 200,000	45	4,054,296	1,071	1,145,997	3,507,068	5,843,439
200,000 to 500,000	26	9,924,097	1,584	1,842,459	4,398,949	8,482,822
500,000 to 1,000,000	13	12,810,787	1,566	2,092,714	5,026,181	9,667,322
1,000,000 to 5,000,000	16	30,020,042	4,224	5,394,358	35,047,695	47,875,042
5,000,000 or over	2					
Totals, Alberta	**895**	**70,804,070**	**12,524**	**13,903,062**	**55,850,244**	**86,225,069**
British Columbia—						
Under $25,000	988	8,701,911	3,498	2,803,847	3,474,295	7,871,753
$ 25,000 to 50,000	223	8,211,568	2,755	2,923,002	3,602,703	8,001,596
50,000 to $100,000	172	14,222,495	3,384	3,720,251	6,001,234	12,354,966
100,000 to 200,000	122	13,726,680	3,969	4,400,548	9,422,738	17,184,347
200,000 to 500,000	113	27,067,043	7,254	8,371,042	18,295,909	34,811,940
500,000 to 1,000,000	54	35,058,481	6,262	7,289,622	22,851,952	39,019,160
1,000,000 to 5,000,000	37	88,227,793	10,467	14,556,552	40,241,600	73,601,844
5,000,000 or over	4	60,795,122	4,987	7,914,529	40,483,126	59,078,652
Totals, British Columbia	**1,713**	**256,011,093**	**42,576**	**51,979,393**	**144,373,557**	**251,924,258**

[1]The figures of cost of materials vary slightly from those published in the other tables of this report. This is due to adjustments made in process supplies used by some of the mining industries considered also as manufacturers.

Section 1.—The Manufactures of the Maritime Provinces, 1937.

In Prince Edward Island the predominant agricultural and fishery resources make butter and cheese, fish curing and packing, and foods, stock and poultry the leading manufactures of the Province. Nova Scotia is renowned for its coal mines and its fisheries, but it has also extensive forests and agricultural lands and is favoured with easy access by sea to the high-grade iron ore supply of Newfoundland. These resources give rise to its leading manufactures of primary iron and steel, railway rolling-stock, fish curing and packing, pulp and paper, sawmills, and butter and cheese. The forests of New Brunswick give a leading place to its pulp and paper and sawmilling industries, although manufactures of fish and agricultural products add to the varied output of the Province.

3.—Statistics of the Leading Industries of the Maritime Provinces, 1937.

	Industry.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.[1]
		No.	$	No.	$	$	$
		PRINCE EDWARD ISLAND.					
1	Butter and cheese	28	320,965	100	70,202	585,049	738,421
2	Fish curing and packing	86	200,675	275	73,560	474,805	621,745
3	Foods, stock, and poultry	3	85,711	24	25,914	102,753	188,609
4	Printing and publishing	4	245,769	100	88,290	25,320	174,618
5	Sawmills	54	149,391	91	24,327	83,873	152,818
6	Flour and feed mills	12	67,573	15	6,816	103,210	142,690
7	Bread and other bakery products	11	104,566	47	27,855	87,794	141,367
8	Castings and forgings	3	361,741	55	47,338	23,029	134,086
9	All other leading industries[2]	4	265,827	92	67,249	578,706	679,756
	Totals, Leading Industries[2]	**205**	**1,802,218**	**799**	**431,551**	**2,064,539**	**2,974,110**
	Totals, All Industries	**240**	**2,637,472**	**1,062**	**607,547**	**2,386,091**	**3,566,991**
		NOVA SCOTIA.					
1	Primary iron and steel	6	21,337,252	2,316	3,342,720	7,086,235	14,883,039
2	Railway rolling-stock	3	4,014,479	742	930,232	4,713,515	6,707,720
3	Fish curing and packing	161	3,294,111	2,028	1,043,459	4,043,818	6,308,091
4	Pulp and paper	5	13,913,806	739	1,079,845	1,567,390	4,944,848
5	Sawmills	471	1,852,861	1,953	646,513	1,807,060	3,238,037
6	Butter and cheese	29	1,248,532	314	314,500	1,871,477	2,763,530
7	Biscuits, confectionery, cocoa, etc.	11	2,373,861	847	724,808	1,153,321	2,407,766
8	Hosiery and knitted goods	3	2,153,238	807	604,065	1,209,197	2,392,846
9	Printing and publishing	34	2,003,533	713	850,007	350,199	2,058,891
10	Bread and other bakery products	81	861,106	447	332,378	935,181	1,654,753
11	Shipbuilding and repairs	8	4,167,247	517	648,125	366,725	1,401,994
12	Castings and forgings	10	1,837,761	532	591,481	454,660	1,202,241
13	Fruit and vegetable preparations	15	885,314	550	233,385	539,959	1,062,009
14	All other leading industries[2]	6	20,631,006	1,644	2,165,691	13,641,805	19,580,664
	Totals, Leading Industries[2]	**843**	**80,574,107**	**14,149**	**13,507,209**	**39,740,542**	**70,606,429**
	Totals, All Industries	**1,135**	**94,756,601**	**18,088**	**16,727,338**	**46,964,053**	**84,393,656**
		NEW BRUNSWICK.					
1	Pulp and paper	6	39,169,492	2,627	3,524,336	8,292,820	20,195,064
2	Sawmills	275	6,276,382	2,969	1,676,578	4,264,825	7,585,133
3	Coffee, tea, and spices	5	3,146,994	253	322,427	2,681,399	3,589,214
4	Fish curing and packing	125	2,394,339	903	377,488	1,884,862	3,115,280
5	Butter and cheese	33	1,039,489	251	218,309	1,223,209	1,773,530
6	Biscuits, confectionery, cocoa, etc.	7	1,417,055	606	440,288	889,117	1,672,915
7	Slaughtering and meat packing	7	610,155	169	246,595	1,342,511	1,596,005
8	Bread and other bakery products	84	852,507	425	328,184	884,089	1,558,100
9	Heating and cooking apparatus	3	1,544,475	441	481,809	449,499	1,305,578
10	Fertilizers	3	890,240	90	102,945	985,207	1,239,424
11	Printing and publishing	24	1,441,474	465	578,102	189,860	1,164,239
12	All other leading industries[2]	6	14,298,777	2,705	3,044,538	7,966,339	13,178,480
	Totals, Leading Industries[2]	**578**	**73,081,379**	**11,904**	**11,341,599**	**31,053,737**	**57,972,962**
	Totals, All Industries	**805**	**89,797,597**	**15,612**	**14,563,310**	**36,983,284**	**69,479,207**

[1]Net value is derived from gross value by deducting cost of materials, fuel, and electricity. [2]Individual statistics cannot be given because there are fewer than three establishments in each industry. Such industries are: in Prince Edward Island, cotton and jute bags, slaughtering and meat packing, and fertilizers; in Nova Scotia, sugar refineries, cotton yarn and cloth, wire and wire goods, coke and gas, and petroleum products; in New Brunswick, sugar refineries, railway rolling-stock, and cotton yarn and cloth.

Section 2.—The Manufactures of Quebec, 1937.

Among the assets of Quebec, which have tended to develop manufacturing industries in the Province, may be mentioned its natural resources of forests, water powers, minerals, and agricultural lands, and also its geographic position astride the St. Lawrence estuary permitting sea-going shipping to reach its main centres of population. Added to these natural advantages, there is a stable and industrious population, which is an important factor in industries such as textiles, clothing, boots and shoes, etc., where a large labour force is required.

The most notable change among the manufactures of Quebec in recent years has been the development of the non-ferrous metal smelting industry. This industry first appeared among the forty leading industries of the Province in nineteenth place in 1927; it was in second place in 1935, 1936 and 1937. The petroleum-refining industry has also expanded and risen in importance during the same period.

The importance of the pulp and paper industry in Quebec is shown by comparison with the industry thoughout Canada. The Quebec section of the industry, in addition to supplying over 10 p.c. of the total gross value of all products manufactured in the province, furnished 47 p.c. of the products of pulp and paper mills throughout the country. The gross value of cotton yarn and cloth products from Quebec mills formed 69 p.c., the value of railway rolling-stock 48 p.c., the value of tobacco, cigars, and cigarettes 85 p.c., and the value of boots and shoes 61 p.c. of the Dominion totals for these products.

4.—Statistics of the Leading Industries of the Province of Quebec, 1937.

	Industry.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.[1]
		No.	$	No.	$	$	$
1	Pulp and paper	42	284,731,402	16,444	23,133,490	42,908,208	107,196,316
2	Non-ferrous metal smelting and refining	4	40,959,789	1,985	2,744,306	46,240,328	69,800,390
3	Cotton yarn and cloth	14	46,053,187	12,192	10,361,173	30,412,731	49,815,471
4	Railway rolling-stock	11	37,019,987	9,531	13,641,516	27,481,375	45,313,773
5	Clothing, women's factory	322	16,658,689	12,720	10,503,921	23,413,890	40,077,126
6	Tobacco, cigars, and cigarettes	60	50,816,579	6,660	6,303,801	19,751,984	38,338,640
7	Butter and cheese	1,203	16,274,478	5,023	3,480,383	26,341,734	33,908,571
8	Petroleum products	8	24,247,079	1,212	2,117,224	26,680,351	33,906,272
9	Slaughtering and meat packing	28	10,924,949	2,118	2,518,278	27,420,396	32,727,910
10	Clothing, men's factory	128	13,067,638	6,794	6,300,491	16,586,174	28,303,883
11	Boots and shoes, leather	137	14,846,548	11,054	7,927,333	13,675,389	24,902,027
12	Electrical apparatus	30	23,527,941	5,590	6,610,037	10,220,362	23,455,526
13	Bread and other bakery products	1,020	13,315,237	5,847	5,019,016	11,346,198	21,052,046
14	Silk and artificial silk products	19	23,382,045	7,056	6,150,405	7,706,233	19,556,018
15	Sawmills	1,761	19,793,812	8,117	4,045,548	10,217,006	18,800,636
16	Machinery	36	21,831,966	4,263	5,477,090	6,295,151	17,791,198
17	Flour and feed mills	229	7,497,430	768	846,135	13,752,078	16,413,027
18	Hosiery and knitted goods	53	15,683,784	6,571	4,902,029	8,275,139	16,273,908
19	Breweries	8	29,424,953	2,000	3,122,119	7,110,426	16,062,467
20	Printing and publishing	71	12,547,957	4,507	5,733,070	3,211,427	14,179,356
21	Biscuits, confectionery, cocoa, etc.	52	9,631,420	3,292	2,713,691	7,373,732	13,398,175
22	Rubber goods, including footwear	13	11,759,020	3,641	3,189,368	5,128,655	13,172,026
23	Sheet metal products	31	14,719,601	2,337	2,495,576	7,141,915	12,568,732
24	Miscellaneous chemical products	40	15,077,171	2,540	2,747,798	5,073,985	12,434,955
25	Furnishing goods, men's	86	7,544,332	4,979	3,098,462	7,552,303	12,252,642
26	Primary iron and steel	14	13,202,552	2,866	3,590,722	4,191,863	10,416,386
27	Brass and copper products	30	7,361,977	1,407	1,773,108	6,431,763	10,204,934
28	Coke and gas products	4	12,055,904	633	1,020,370	3,176,005	10,072,569
29	Paints, pigments, and varnishes	25	11,198,411	1,275	1,895,875	5,102,651	10,070,024
30	Printing and bookbinding	359	11,232,845	3,649	4,001,522	3,401,988	9,635,775
31	Aerated and mineral waters	142	6,440,563	1,545	1,637,763	3,196,854	9,624,978
32	Castings and forgings	53	12,099,101	2,624	2,833,424	4,449,737	9,293,962
33	Medicinal and pharmaceutical preparations	66	8,208,977	1,429	1,819,918	2,515,725	8,112,533
34	Miscellaneous food products	42	4,278,830	780	792,324	3,548,044	7,857,447
35	Fur goods	135	5,161,295	1,533	1,634,672	5,239,440	7,669,613
36	Boxes and bags, paper	38	6,406,582	1,925	1,630,092	4,284,907	7,641,641
37	Distilleries	5	11,659,526	711	723,374	2,747,920	7,524,129
38	Furniture	101	7,269,542	2,924	2,336,942	2,982,533	7,225,233
39	Miscellaneous textile products	8	9,141,835	1,069	1,354,922	3,187,337	6,943,634
40	Fruit and vegetable preparations	63	6,054,166	1,844	1,104,645	4,558,667	6,908,853
	Totals, Forty[2] Leading Industries	**6,491**	**913,109,100**	**173,455**	**173,331,933**	**470,332,604**	**860,902,802**
	Totals, All Industries	8,518	1,117,772,721	219,033	216,971,207	562,889,160	1,046,470,796
	Percentages of forty leading industries to totals of all industries in the Province	76·2	81·7	79·2	79·9	83·6	82·3

[1]See footnote 1 to Table 3, p. 457. [2]Statistics for sugar refining, which is also one of the leading industries of this Province, cannot be published, since there are less than three establishments reporting.

Section 3.—The Manufactures of Ontario, 1937.

The gross value of the manufactured products of Ontario in 1937 represented about 52 p.c. of the total for the whole Dominion, while that of Quebec amounted to about 29 p.c. This premier position in manufacturing has been fairly uniformly maintained by Ontario, as the following percentages show: in 1926, 52 p.c.; 1918, 53 p.c.; 1910, 50 p.c.; 1900, 50 p.c., 1890, 51 p.c.; and 1880, 51 p.c. In spite of the rapid industrial development in recent years in other provinces, such as Quebec, British Columbia, and Manitoba, Ontario is maintaining a manufacturing production roughly equal to that of the remainder of the Dominion.

The geographic position of Ontario on the Great Lakes waterway system, by means of which the iron ore of Minnesota and the coal of Pennsylvania are readily accessible, has resulted in a greater development of the iron and steel industries in this Province than in any other. The Province is endowed with a wide range of natural resources of forests, minerals, water powers, and agriculture. Its large population and central position in Canada, with excellent water and rail transportation facilities to other parts of the country, have encouraged industrial development. Other factors in this development have been proximity to one of the most densely populated sections of the United States and the establishment within the Province of branch factories of United States industries, as in automobile manufacturing.

The depression was particularly hard on industries producing capital or durable goods, and these constitute an important factor in the manufactures of Ontario. Thus, production was disproportionately curtailed in such important industries as automobiles, electrical equipment, machinery, agricultural implements, primary iron and steel, etc. This resulted in a lowering of the manufacturing production of the whole Province relatively to that of other provinces less affected by these influences. Since 1933, however, these industries in general have made good recovery, and Ontario, which accounted for 49 p.c. of the gross value of all products manufactured in the Dominion in 1933, had by 1937 increased the relative value to 51·9 p.c.

Outstanding among industries in which Ontario was pre-eminent, was that of automobile manufacturing, which was carried on practically in this Province alone. Other important industries in which the Province led, with the percentage which the production of each bore to that of the Dominion in 1937, were as follows; agricultural implements, 95 p.c.; leather tanneries, 88 p.c.; rubber goods, 82 p.c.; furniture, 60 p.c.; fruit and vegetable canning, preserving, etc., 69 p.c.; electrical apparatus and supplies, 75 p.c.; castings and forgings, 64 p.c.; primary iron and steel, 62 p.c.; slaughtering and meat packing, 42 p.c.; flour and feed mills, 53 p.c.; hosiery and knitted goods, 62 p.c.; sheet metal products, 60 p.c.; biscuits, confectionery, cocoa, and chocolate, 56 p.c.; coke and gas products, 56 p.c.; brass and copper products, 64 p.c.

5.—Statistics of the Leading Industries of the Province of Ontario, 1937.

	Industry.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.[1]
		No.	$	No.	$	$	$
1	Non-ferrous metal smelting and refining	7	88,229,188	6,380	10,223,088	113,911,485	192,248,914
2	Automobiles	9	54,220,174	14,480	21,480,937	92,216,000	133,315,645
3	Slaughtering and meat packing	62	30,194,115	5,162	6,980,966	62,779,797	75,917,387
4	Electrical apparatus and supplies	136	72,979,088	15,884	19,416,686	31,080,611	74,510,006
5	Pulp and paper	37	174,858,267	10,093	16,078,752	31,170,538	72,948,378
6	Flour and feed mills	622	25,664,756	3,111	2,888,144	59,672,848	70,815,603
7	Rubber goods, including footwear	32	53,312,956	9,358	10,825,369	25,979,621	61,040,569
8	Butter and cheese	982	25,408,606	7,331	7,498,341	39,405,922	54,744,598
9	Primary iron and steel	25	59,959,463	8,360	12,323,970	21,903,343	47,228,609
10	Automobile supplies	61	27,916,992	8,183	10,081,051	26,378,429	45,987,041
11	Machinery	149	42,340,271	7,993	10,074,711	15,487,936	38,093,540
12	Bread and other bakery products	1,262	22,807,508	10,168	10,006,150	18,151,648	36,367,699
13	Fruit and vegetable preparations	178	34,193,107	6,355	4,557,806	13,604,752	34,855,005
14	Hosiery and knitted goods	99	32,320,498	12,253	10,261,759	16,213,221	32,794,797
15	Sheet metal products	79	32,305,388	5,102	5,819,379	16,653,759	29,381,216
16	Printing and publishing	292	23,680,211	7,681	11,677,063	6,698,619	28,993,467
17	Petroleum products	14	20,444,475	2,129	3,360,737	24,751,152	28,842,214
18	Castings and forgings	111	29,120,444	7,669	9,331,780	11,288,650	28,172,336
19	Biscuits, confectionery, cocoa, etc.	88	22,195,507	6,048	6,029,613	12,950,537	27,842,993
20	Coke and gas products	19	52,099,768	2,459	3,477,059	10,380,104	23,554,869
21	Leather tanneries	31	21,780,530	3,694	3,977,832	16,434,310	23,223,992
22	Brass and copper products	78	14,632,058	3,159	3,981,848	14,099,139	22,170,620
23	Railway rolling-stock	15	22,032,424	4,173	5,514,523	13,649,342	21,820,963
24	Printing and bookbinding	562	22,146,360	7,029	8,479,030	7,995,341	21,441,482
25	Boxes and bags, paper	86	14,459,787	4,064	4,449,474	10,970,052	19,016,500
26	Agricultural implements	26	59,986,980	6,166	7,109,663	8,950,605	18,139,802
27	Sawmills	695	19,125,069	5,737	4,288,091	9,582,805	17,644,737
28	Cotton yarn and cloth	17	15,316,337	5,492	4,683,301	9,416,707	17,557,163
29	Woollen cloth	32	15,011,895	4,696	4,211,566	10,292,123	17,544,839
30	Clothing, women's factory	224	8,589,979	5,980	5,380,519	9,430,037	17,044,367
31	Breweries	25	17,511,496	1,903	2,910,624	6,717,211	16,690,187
32	Acids, alkalies, and salts	12	22,277,527	2,021	3,094,798	3,958,359	16,145,428
33	Soaps and washing compounds	44	10,644,684	1,690	2,108,538	9,577,412	16,060,328
34	Furniture	222	17,477,464	6,587	5,922,360	6,494,646	15,734,206
35	Clothing, men's factory	53	6,960,925	4,842	5,439,147	8,059,801	15,419,144
36	Distilleries	9	18,822,681	1,104	1,396,723	3,780,791	15,354,038
37	Medicinal and pharmaceutical preparations	92	13,131,007	2,653	3,249,240	5,752,785	15,230,681
38	Hardware and tools	104	19,905,341	4,542	5,240,935	5,137,944	14,879,439
39	Boots and shoes, leather	66	10,795,583	5,131	4,666,681	7,681,443	14,639,105
40	Abrasive products	15	6,627,104	1,183	1,864,619	4,041,785	13,288,972
	Totals, Forty Leading Industries	**6,672**	**1,281,486,013**	**238,015**	**280,362,873**	**822,701,610**	**1,486,700,879**
	Totals, All Industries	**9,796**	**1,674,806,201**	**321,743**	**373,018,048**	**1,025,871,741**	**1,880,388,188**
	Percentages of forty leading industries to total of all industries in the Province	68·1	76·5	74·0	75·2	80·2	79·0

[1]See footnote 1, Table 3, p. 457.

Section 4.—The Manufactures of the Prairie Provinces, 1937.

The leading industries of these Provinces are those based on their agricultural resources—their grain-growing, cattle-raising, and dairying areas. Next in importance, generally, are industries serving the resident population, such as bread and baking, printing and publishing, etc. The extensive railway services require large shops for the maintenance of rolling-stock. The widespread use of motor vehicles and power machinery on farms has given rise to petroleum refineries in each province. The greatly increased production of crude petroleum in Alberta seems likely to lead to further development of the refining industry. Manitoba, as the early commercial centre of the prairies, has had a greater industrial development than either of the other provinces. Its natural resources of accessible water powers, forests, and, more recently, minerals, have given rise to quite a diversification of industrial production.

Considering the three Provinces as an economic group, slaughtering and meat packing had the largest gross production in 1937, amounting to $60,800,000, followed by flour milling with $43,900,000, and butter and cheese with $26,600,000. These three industries for the processing of the agricultural products of the Provinces accounted for 45 p.c. of their total manufacturing production.

6.—Statistics of the Leading Industries of the Prairie Provinces, 1937.

	Industry.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.[1]
		No.	$	No.	$	$	$
				MANITOBA.			
1	Slaughtering and meat packing	8	7,850,638	1,986	2,619,498	23,087,879	29,204,985
2	Railway rolling-stock	4	14,345,375	4,514	5,888,408	6,703,777	13,058,914
3	Flour and feed mills	40	5,434,554	524	526,031	9,516,186	11,054,577
4	Butter and cheese	84	5,713,024	1,245	1,584,858	6,671,475	9,917,509
5	Printing and publishing	79	3,585,041	1,170	1,624,377	691,851	4,067,783
6	Malt and malt products	4	3,833,530	117	218,331	2,224,670	3,934,047
7	Bread and other bakery products	142	3,090,586	1,060	1,010,632	1,940,468	3,823,334
8	Printing and bookbinding	78	3,857,647	1,168	1,410,615	1,146,506	3,051,451
9	Furnishing goods, men's	18	1,424,328	1,011	717,081	1,907,528	2,994,600
10	Coffee, tea and spices	9	1,856,286	169	218,294	2,080,236	2,628,766
11	Clothing, women's factory	26	1,059,098	925	765,805	1,589,594	2,620,638
12	Breweries	6	2,578,168	332	493,888	790,116	2,235,859
13	Biscuits, confectionery, cocoa, etc.	20	1,668,632	525	454,415	1,053,082	2,169,886
14	Bags, cotton, and jute	5	2,116,527	180	200,128	1,733,130	2,082,005
15	Primary iron and steel	4	2,032,194	387	507,625	533,946	1,606,032
16	Boxes and bags, paper	7	1,217,206	266	322,100	915,135	1,583,888
17	Petroleum products	3	614,858	66	74,834	991,665	1,569,130
18	Aerated and mineral waters	17	749,287	234	291,469	530,946	1,501,172
19	Fur goods	35	1,131,563	406	376,312	870,799	1,438,695
20	Paints, pigments, and varnishes	5	1,491,957	227	262,076	748,960	1,422,216
21	Mattresses and springs	4	1,162,392	336	366,148	756,062	1,411,630
22	Sawmills	85	1,438,653	504	332,752	481,434	1,284,939
23	Medicinal and pharmaceutical preparations	7	1,166,312	142	165,538	485,366	1,249,960
24	Sheet metal products	8	1,630,960	294	292,867	536,809	1,025,880
	Totals, Leading Industries[2]	**698**	**71,048,816**	**17,788**	**20,724,082**	**67,987,620**	**106,937,896**
	Totals, All Industries	**1,043**	**119,363,026**	**23,706**	**27,198,978**	**87,684,514**	**140,805,451**
				SASKATCHEWAN.			
1	Flour and feed mills	63	9,410,184	547	677,920	15,330,889	19,113,820
2	Slaughtering and meat packing	6	2,546,215	767	1,005,374	7,667,694	9,367,563
3	Butter and cheese	69	3,659,737	872	950,466	5,704,845	8,086,166
4	Petroleum products	17	4,697,033	463	670,500	5,937,890	7,659,551
5	Printing and publishing	122	2,336,577	857	1,109,642	441,140	2,345,423
6	Bread and other bakery products	136	2,015,491	589	486,888	1,172,550	2,122,097
7	Breweries	6	2,533,635	208	274,735	665,920	1,808,524
8	Sawmills	95	645,615	456	229,555	264,115	781,417
9	Aerated and mineral waters	19	428,535	113	112,913	217,356	547,240
10	Planing mills, sash and door factories	18	1,096,294	235	176,988	295,897	537,191
	Totals, Leading Industries[2]	**551**	**29,369,316**	**5,107**	**5,694,981**	**37,698,296**	**52,368,992**
	Totals, All Industries	**689**	**39,279,050**	**6,107**	**6,758,154**	**43,782,999**	**62,205,884**
				ALBERTA.			
1	Slaughtering and meat packing	10	8,230,723	1,964	2,597,322	17,318,344	22,230,483
2	Flour and feed mills	78	7,142,187	687	786,033	11,193,083	13,684,149
3	Butter and cheese	105	4,429,957	957	1,006,728	6,271,156	8,619,901
4	Petroleum products	8	3,863,406	410	642,974	2,410,015	8,373,725
5	Railway rolling-stock	3	6,984,318	1,393	1,735,157	1,549,878	3,382,604
6	Bread and other bakery products	157	2,270,585	793	772,491	1,764,092	3,300,306
7	Printing and publishing	81	3,043,449	808	1,136,429	447,093	2,717,649
8	Breweries	5	4,446,511	230	396,214	1,075,977	2,346,413
9	Sawmills	146	1,840,495	1,098	559,268	663,796	1,714,467
10	Furnishing goods, men's	3	782,324	319	293,193	673,796	1,155,911
11	Printing and bookbinding	50	1,451,150	404	466,082	331,873	1,003,409
12	All other leading industries[2]	5	9,222,057	515	549,306	3,838,402	6,509,585
	Totals, Leading Industries[2]	**651**	**53,707,162**	**9,578**	**10,941,197**	**47,537,505**	**75,038,602**
	Totals, All Industries	**895**	**70,804,070**	**12,524**	**13,903,062**	**55,898,599**	**86,225,069**

[1]See footnote 1 to Table 3, p. 457. [2]Other leading industries, individual statistics of which cannot be given because there are fewer than three establishments in each industry, are: Manitoba, pulp and paper, coke and gas products, and non-ferrous metal smelting and refining; Saskatchewan, non-ferrous metal smelting and refining; Alberta, sugar refining, wood preservation, and malt and malt products. The statistics of the three industries of Alberta are included under the heading "All other leading industries".

Section 5.—The Manufactures of British Columbia,* 1937.

British Columbia was, in 1937, the third most important manufacturing province in the Dominion with 7·0 p.c. of the total production. The rich forests have given the wood industries a pre-eminence in the Province. Sawmilling, in 1937, accounted for 21 p.c. of the manufacturing production of the Province and for 51 p.c. of the total value of sawmill output in the Dominion. Further emphasizing the importance of the forests in the industrial life of the Province, the pulp and paper industry ranked second. Third in importance was fish curing and packing, based principally on the estuarial salmon fisheries. British Columbia accounted for 59 p.c. of the total production of this industry in Canada. The varied resources of the Province and its position on the Pacific Coast have resulted in a good deal of diversification in its manufactures.

*Including Yukon.

7.—Statistics of the Leading Industries of the Province of British Columbia,[1] 1937.

	Industry.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.[2]
		No.	$	No.	$	$	$
1	Sawmills	254	39,282,827	12,992	15,371,240	29,915,166	53,647,601
2	Pulp and paper	7	47,130,784	2,997	4,395,682	6,070,885	18,038,957
3	Fish curing and packing	85	11,839,166	1,763	1,751,282	9,459,843	15,409,383
4	Petroleum products	5	5,270,813	377	643,669	8,455,693	10,498,679
5	Slaughtering and meat packing	11	4,827,720	847	1,067,698	7,957,377	9,810,734
6	Bread and other bakery products	286	3,846,990	1,876	1,776,146	3,216,436	6,443,189
7	Fruit and vegetable preparations	59	5,406,312	1,503	1,089,599	3,956,646	6,170,661
8	Planing mills, sash and door factories	53	3,356,193	1,434	1,443,452	2,728,259	5,534,276
9	Sheet metal products	13	6,734,284	545	692,275	3,537,660	5,397,026
10	Printing and publishing	72	4,351,901	1,533	2,392,396	935,012	5,280,983
11	Coffee, tea, and spices	12	1,974,090	242	286,237	4,193,183	5,075,638
12	Butter and cheese	35	1,907,054	490	575,298	3,101,129	4,382,829
13	Breweries	11	6,478,322	310	506,281	1,317,863	3,403,736
14	Foods, stock, and poultry	27	1,529,120	214	242,278	2,205,462	2,856,911
15	Fertilizers	4	10,556,992	392	728,651	1,872,040	2,816,431
16	Coke and gas products	4	12,265,870	313	449,758	705,901	2,417,251
17	Furniture	60	1,693,580	842	814,767	901,699	2,295,356
18	Miscellaneous paper products	10	1,541,244	272	318,100	1,532,235	2,220,151
19	Shipbuilding and repairs	16	6,592,367	720	1,050,089	570,662	2,193,751
20	Boxes, wooden	21	1,394,565	646	607,101	1,106,215	2,142,438
21	Miscellaneous chemical products	8	1,666,092	274	373,171	702,170	1,891,608
22	Distilleries	3	4,080,869	226	307,411	511,199	1,877,845
23	Printing and bookbinding	100	2,060,565	641	762,116	568,380	1,668,949
24	Acids, alkalies, and salts	3	1,104,557	182	353,573	128,050	1,488,946
25	Wire and wire goods	8	1,404,111	160	207,028	875,191	1,415,979
26	Castings and forgings	29	1,674,968	545	659,534	369,840	1,391,416
27	Biscuits, confectionery, cocoa, etc.	31	952,510	407	387,535	623,437	1,320,905
28	Paints, pigments, and varnishes	8	1,785,792	190	255,052	564,769	1,306,900
29	Boxes and bags, paper	9	769,642	205	234,683	609,070	1,203,166
30	All other leading industries[3]	11	36,765,167	4,054	6,136,562	35,709,072	50,426,067
	Totals, Leading Industries[3]	**1,255**	**230,244,467**	**37,192**	**45,878,664**	**134,400,541**	**230,027,762**
	Totals, All Industries	**1,713**	**256,011,093**	**42,576**	**51,979,393**	**144,466,346**	**251,924,258**
	Percentages of leading industries to total of all industries	73·3	89·9	87·3	88·3	93·0	91·3

[1]Including Yukon. [2]See footnote 1 to Table 3, p. 457. [3]Includes other leading industries, statistics of which cannot be published because there are fewer than three establishments in each industry. Such industries are: condensed milk, sugar refineries, wood preservation, non-ferrous metal smelting and refining, bridge and structural steel.

Section 6.—Manufacturing Industries in Cities and Towns.

The prosperity of most of the cities and towns of Canada, especially in the East, is intimately connected with their manufacturing industries, which provide employment for a large proportion of their gainfully occupied population. In the West the cities are more largely distributing centres, though manufactures are rapidly increasing there also.

Table 8, indicating the extent to which the manufacturing industries of Canada are concentrated in urban centres, shows by provinces the proportion of the gross manufacturing production contributed by cities and towns having a gross production of over $1,000,000 each. In the more highly industrialized provinces of Ontario and Quebec such cities and towns accounted for over 90 p.c. of the total, while in the Maritime Provinces and British Columbia, where sawmilling, fish packing, and dairying are leading industries, the proportions fell to 66·9 p.c. and 53·7 p.c., respectively. In the Prairie Provinces manufacturing is confined largely to a few urban centres.

8.—Cities and Towns Each with a Gross Manufacturing Production of over $1,000,000, Number of Establishments and Total Gross Production in such Cities and Towns as a Percentage of the Grand Total, by Provinces, 1937.

NOTE.—Statistics published in this table are in some cases higher than the figures published in Table 10, since, in the table below are included statistics of towns with less than three establishments and production of over $1,000,000 each. It was not possible to publish this information in Table 10 without disclosing the operations of individual establishments.

Province.	Cities and Towns with a Gross Production of over $1,000,000 each.	Establishments Reporting in Cities and Towns Producing over $1,000,000 each.	Total Production in Cities and Towns Producing over $1,000,000 each.	Total Production in Each Province.	Production in Cities and Towns as a Percentage of Total Production in Each Province.
	No.	No.	$	$	p.c.
Prince Edward Island	1	36	1,590,233	3,566,991	44·6
Nova Scotia	10	264	60,271,885	84,393,656	71·4
New Brunswick	10	256	43,497,136	69,479,207	62·6
Quebec	60	3,709	946,182,135	1,046,470,796	90·4
Ontario	108	6,537	1,768,626,010	1,880,388,188	94·1
Manitoba	6	713	118,064,885	140,805,451	83·9
Saskatchewan	4	223	46,163,117	62,205,884	74·2
Alberta	6	404	71,711,086	86,225,069	83·2
British Columbia	10	1,128	135,407,198	251,924,258	53·7
Totals	**215**	**13,270**	**3,191,513,685**	**3,625,459,500**	**88·0**

Tables 9 and 10 give the principal statistics of manufactures in the six leading manufacturing cities, 1933-37, and in all municipalities each with a gross manufacturing production of $1,000,000 or over, in 1937, respectively.

9.—Principal Statistics of the Manufacturing Industries of the Six Leading Manufacturing Cities of Canada, 1933-37.

NOTE.—The dyeing, cleaning and laundry industry is included for the years prior to 1936.

City and Year.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Materials.	Gross Value of Products.[1]
	No.	$	No.	$	$	$
Montreal 1933	2,226	363,342,078	80,212	74,150,933	148,504,215	300,636,197
1934	2,360	373,098,770	88,131	84,228,834	185,459,720	361,058,212
1935	2,346	382,332,791	94,612	89,934,540	201,022,033	383,547,972
1936	2,372	389,225,593	95,420	96,705,020	228,676,144	427,270,916
1937	2,474	415,816,451	105,931	112,652,112	281,407,645	511,481,054
Toronto 1933	2,604	388,995,096	75,645	80,855,883	146,286,472	308,983,639
1934	2,627	392,080,083	81,629	89,569,170	174,820,861	357,706,747
1935	2,689	386,898,652	86,226	97,144,947	190,370,255	385,883,455
1936	2,762	396,257,636	89,056	102,217,057	209,320,347	417,724,888
1937	2,797	423,350,508	96,247	115,520,050	247,422,098	475,470,149
Hamilton 1933	469	171,625,714	21,524	21,523,337	35,672,272	83,530,255
1934	494	174,755,759	24,072	25,772,958	44,548,853	100,272,872
1935	484	176,246,963	26,769	30,162,244	53,740,074	114,691,789
1936	466	176,519,530	28,625	32,288,022	61,676,060	130,578,232
1937	479	182,730,036	32,616	40,255,040	83,978,873	170,651,205
Windsor 1933	247	66,398,372	10,212	10,719,819	25,752,258	49,359,245
1934	251	63,066,481	11,926	15,057,327	43,208,280	76,487,032
1935	236	64,298,564	15,227	20,714,545	64,062,711	104,908,197
1936	214	66,934,274	15,613	21,180,684	59,871,643	104,556,881
1937	228	77,750,511	18,650	26,919,449	78,667,058	136,896,194
Vancouver 1933	746	74,209,271	12,094	11,754,124	28,588,106	55,160,883
1934	773	84,254,515	13,206	13,595,812	34,258,919	63,475,103
1935	811	83,594,899	15,683	16,789,590	39,863,397	73,981,872
1936	807	83,199,508	16,397	18,479,302	47,394,136	87,581,068
1937	824	85,851,189	17,641	20,783,032	53,139,109	95,717,017
Winnipeg 1933	600	73,886,398	15,336	15,155,537	28,355,612	59,287,280
1934	612	75,513,530	15,745	15,985,206	31,761,326	60,860,444
1935	616	71,837,683	16,649	17,568,803	36,825,174	67,217,042
1936	594	71,757,177	16,673	18,060,555	40,822,725	73,316,055
1937	622	72,419,041	17,284	19,687,511	45,498,865	80,108,696

[1]Net value is derived from gross value by deducting cost of materials, fuel, and electricity. For cost of fuel and electricity in 1937 see Table **10.**

10.—Statistics of Manufactures of Municipalities, Each with a Gross Production of $1,000,000 or Over, and with Three or More Establishments, 1937.

Province and Municipality.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Fuel and Electricity.	Cost of Materials.	Gross Value of Products.[1]
	No.	$	No.	$	$	$	$
Prince Edward Island—							
Charlottetown	36	1,415,596	409	335,710	30,093	986,262	1,590,233
Nova Scotia—							
Sydney	28	26,034,979	2,472	3,651,474	1,735,786	8,090,737	18,883,015
Halifax	99	14,076,486	3,084	3,361,731	217,879	5,658,535	12,241,969
Trenton	4	7,582,928	1,226	1,464,773	240,847	6,017,555	9,219,153
Dartmouth	10	4,340,435	427	505,807	171,207	3,500,290	5,478,473
Liverpool	8	11,412,373	592	937,566	638,268	1,346,025	4,246,565
Truro	22	3,365,416	1,069	827,819	58,381	1,823,376	3,357,496
Yarmouth	29	2,268,595	514	418,433	68,284	884,085	1,851,541
New Glasgow	25	1,906,556	657	669,589	130,460	696,701	1,837,159
Amherst	25	3,173,327	595	483,062	77,871	858,999	1,679,878
Windsor	14	979,219	361	257,211	22,623	1,003,401	1,476,636

[1]Net value is derived from gross value by deducting cost of materials, fuel, and electricity.

10.—Statistics of Manufactures of Municipalities, Each with a Gross Production of $1,000,000 or Over, and with Three or More Establishments, 1937—continued.

Province and Municipality.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Fuel and Electricity.	Cost of Materials.	Gross Value of Products.[1]
	No.	$	No.	$	$	$	$
New Brunswick—							
Saint John	130	20,808,490	3,075	3,208,861	362,442	11,458,156	18,198,634
Moncton	42	6,808,479	2,081	2,322,839	177,621	4,421,661	7,218,943
Edmundston	8	7,281,529	620	724,649	611,518	1,972,272	5,045,516
Bathurst	9	6,000,175	606	810,341	473,859	1,497,057	4,031,0b3
St. Stephen	14	2,013,934	542	448,080	37,704	1,115,704	1,939,967
Milltown	4	2,342,583	664	532,306	34,696	871,141	1,655,670
Fredericton	23	1,401,082	430	361,038	34,886	672,992	1,380,594
Sackville	11	1,632,803	448	472,523	23,388	453,050	1,309,789
Newcastle	14	1,468,139	438	273,680	8,771	678,188	1,116,232
Quebec—							
Montreal	2,474	415,816,451	105,931	112,652,112	7,854,743	281,407,645	511,481,054
Montreal East	11	39,820,004	2,018	2,802,796	1,967,523	49,062,688	63,651,833
Quebec	299	47,856,602	9,674	8,562,341	1,648,195	15,817,137	31,480,065
Three Rivers	52	59,203,086	5,737	6,579,468	3,496,896	13,446,983	29,102,521
Sherbrooke	77	22,692,855	5,843	5,325,505	438,196	8,004,777	19,817,265
Shawinigan Falls	28	39,954,049	3,255	3,789,937	2,149,861	6,849,955	16,543,642
Lachine	34	18,979,363	3,466	4,851,639	349,390	7,705,816	16,495,629
Drummondville	26	19,833,345	4,558	4,499,981	631,966	4,950,582	14,618,898
Hull	47	14,536,112	2,616	2,813,369	595,293	7,342,997	14,130,084
St. Hyacinthe	59	11,007,803	3,800	2,739,064	236,842	7,142,550	12,028,494
La Salle	7	11,608,796	1,009	1,115,043	168,889	4,420,588	11,831,381
Granby	31	12,450,275	3,124	2,613,280	173,924	5,046,678	11,291,430
Magog	20	7,654,711	1,716	1,602,166	289,600	8,380,702	11,266,582
St. Jean	44	11,106,067	3,347	3,191,146	280,529	5,013,273	11,136,267
Valleyfield	31	10,530,811	2,825	2,348,627	363,599	5,168,561	9,267,273
St. Jérôme	32	7,816,415	2,050	1,586,940	119,367	2,954,148	7,209,234
Grand'Mère	17	16,529,519	1,644	1,606,882	707,193	2,647,989	6,340,869
La Tuque	13	12,073,072	772	1,019,206	316,571	2,669,918	6,191,723
Kenogami	5	11,727,662	963	1,514,600	850,962	2,335,419	5,939,333
Belœil	10	3,535,489	438	587,946	74,987	2,343,467	4,82b,935
Buckingham	10	8,599,738	555	811,925	606,736	1,668,157	4,042,517
Windsor	10	6,742,196	797	902,957	215,485	1,318,145	3,296,619
Louiseville	13	2,424,950	1,030	734,464	91,543	1,864,490	3,120,605
Brownsburg	6	2,566,408	652	790,798	27,131	1,153,225	3,109,218
Dolbeau	5	11,307,174	290	485,966	596,034	963,098	3,049,129
Westmount	8	1,389,638	677	855,043	54,829	1,117,505	2,947,604
Lachute	8	4,130,762	656	626,528	25,437	1,391,455	2,944,944
Farnham	13	3,821,195	719	558,304	90,781	1,502,438	2,933,808
East Angus	7	6,243,689	666	727,364	427,769	1,227,325	2,891,739
St. Pierre	5	4,058,140	783	1,192,850	129,109	945,925	2,684,450
Victoriaville	21	2,390,039	968	719,287	49,156	1,124,517	2,648,118
St. Laurent	12	2,262,273	926	926,666	60,575	1,348,701	2,618,192
Joliette	40	1,802,769	870	627,018	92,756	1,181,708	2,534,723
Cowansville	13	2,649,202	974	733,660	55,889	1,049,446	2,286,916
Montmagny	22	3,231,012	895	660,074	39,789	964,443	2,077,817
Outremont	10	1,756,833	417	492,197	20,250	1,073,413	2,011,254
Coaticook	20	1,977,051	698	421,424	31,212	1,171,356	2,006,067
Beauharnois	10	3,467,222	472	499,373	71,534	980,832	1,921,904
Plessisville	14	1,187,779	492	372,812	20,556	976,598	1,635,095
Cap de la Madeleine	11	637,013	361	241,616	15,364	881,741	1,485,286
Rock Island	11	1,035,739	411	361,359	26,910	422,741	1,386,398
Acton Vale	10	1,040,774	433	286,946	26,444	646,044	1,309,352
Longueuil	10	1,399,017	434	448,307	16,021	576,295	1,242,575
Notre-Dame de Portneuf	8	556,487	107	87,807	27,775	480,204	1,212,403
Jonquière	12	1,376,504	288	367,031	74,061	712,912	1,197,088
Ste. Thérèse	16	1,307,651	370	267,375	26,382	531,761	1,149,263
Berthier	9	5,281,681	263	191,874	35,553	463,902	1,142,965
Marieville	16	489,078	388	240,099	10,797	700,053	1,054,394
St. Rémi	8	636,253	203	118,728	20,629	658,541	1,051,404
Waterloo	10	912,283	455	327,997	29,186	513,061	1,040,862
Lauzon	5	1,762,247	283	335,690	31,138	378,039	1,023,355
Ontario—							
Toronto	2,797	423,350,508	96,247	115,520,050	6,761,603	247,422,098	475,470,149
Hamilton	479	182,730,036	32,616	40,255,040	5,588,805	83,978,873	170,651,205
Windsor	228	77,750,511	18,650	26,919,449	1,803,454	78,667,058	136,896,194
Oshawa	45	25,155,927	6,652	8,831,017	518,107	39,347,172	59,884,575
Kitchener	161	35,456,720	9,338	9,754,831	606,287	24,043,367	46,747,407

[1]Net value is derived from gross value by deducting cost of materials, fuel, and electricity

10.—Statistics of Manufactures of Municipalities, Each with a Gross Production of $1,000,000 or Over, and with Three or More Establishments, 1937—continued.

Province and Municipality.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Fuel and Electricity.	Cost of Materials.	Gross Value of Products.[1]
	No.	$	No.	$	$	$	$
Ontario—continued.							
London	239	36,891,879	9,731	10,793,097	644,590	21,373,863	46,168,611
Peterborough	76	22,279,586	5,766	5,928,739	425,017	17,954,515	32,478,113
Ottawa	203	33,743,492	7,013	8,546,417	605,893	13,155,129	28,244,935
New Toronto	19	26,571,130	2,957	4,256,507	529,298	15,238,764	28,066,405
Brantford	107	38,999,182	7,277	7,411,079	619,940	14,714,828	28,017,964
Sarnia	47	16,868,650	3,159	4,368,227	1,260,058	21,261,941	26,720,108
St. Catharines	90	21,874,082	5,463	6,295,818	471,358	13,593,287	25,291,903
Niagara Falls	64	28,062,348	3,464	4,580,874	1,789,625	8,998,885	24,695,752
Sault Ste. Marie	48	42,326,421	3,506	4,970,180	2,074,650	9,669,985	20,692,093
Welland	49	24,245,181	3,971	4,552,955	1,179,786	9,196,030	20,260,871
Cornwall	43	24,840,087	5,364	5,258,557	923,025	7,369,631	18,841,251
Chatham	58	15,052,067	2,204	2,368,633	255,805	11,564,553	15,855,721
Guelph	90	12,320,013	4,119	4,184,395	351,002	7,596,653	15,200,363
Galt	78	14,175,933	4,278	4,184,106	281,053	5,912,650	13,413,331
Leaside	26	11,000,933	1,783	2,216,963	142,329	5,860,224	12,472,619
Thorold	16	14,153,532	1,544	2,464,847	1,461,627	5,290,115	11,632,960
Woodstock	48	6,830,767	2,588	2,369,236	171,530	6,194,221	11,467,560
Brockville	32	5,839,758	1,064	1,117,074	142,642	8,630,983	11,141,393
Simcoe	29	9,896,619	1,129	1,078,731	97,255	6,354,258	9,659,207
Stratford	53	7,790,387	2,457	2,744,879	187,115	5,378,632	9,402,009
Leamington	14	6,013,574	1,147	1,006,806	109,776	5,482,947	8,952,670
Kapuskasing	5	33,714,358	933	1,617,723	626,195	3,007,151	8,155,172
Chippewa	4	1,365,265	337	567,482	407,609	1,459,610	7,473,633
Fort William	29	23,552,493	1,170	1,815,980	1,088,467	3,246,739	7,456,342
Kingston	56	8,611,220	1,762	1,775,600	176,782	4,377,033	7,312,924
Port Arthur	25	15,363,648	1,242	1,891,018	865,373	2,794,823	7,123,010
Preston	30	6,516,012	1,821	1,917,331	103,688	3,517,153	7,000,158
Merritton	9	5,729,883	1,068	1,444,946	279,018	3,747,681	6,637,779
Waterloo	44	9,033,344	1,533	1,472,439	96,726	2,951,253	6,412,007
Belleville	44	11,353,480	1,290	1,130,935	282,961	2,095,461	5,357,925
Owen Sound	53	5,641,738	1,067	1,533,176	103,749	2,661,801	5,289,402
Paris	19	5,230,850	1,307	1,154,325	108,496	2,397,180	4,690,936
Goderich	15	2,043,397	329	318,682	103,369	3,487,114	4,558,266
Fort Francis	10	6,823,162	761	1,113,115	335,606	2,156,503	4,463,315
Trenton	21	3,436,990	787	734,078	163,995	2,384,045	4,370,528
Kenora	16	9,842,423	527	773,692	585,417	2,609,478	4,302,865
Cardinal	3	3,843,422	481	626,776	154,652	2,366,721	4,140,510
Ingersoll	21	4,373,297	787	879,700	92,080	2,446,683	4,053,660
Bowmanville	12	3,281,262	620	650,799	88,011	1,406,620	3,999,042
St. Thomas	40	2,894,733	1,051	1,016,766	82,008	1,910,081	3,852,911
St. Mary's	17	5,611,362	454	439,417	455,044	1,740,997	3,792,822
Fergus	14	2,309,122	929	1,059,838	48,067	1,892,358	3,774,949
Wallaceburg	15	3,977,765	969	1,157,450	272,826	1,437,756	3,769,404
Delhi	8	1,248,935	487	301,252	9,637	3,310,105	3,752,906
Amherstburg	9	2,706,657	345	505,568	320,173	660,461	3,567,023
Port Hope	27	2,440,647	806	933,456	91,893	1,265,645	3,467,335
Hawkesbury	9	2,859,280	575	824,610	339,186	1,755,147	3,398,478
Hespeler	15	3,933,461	1,262	1,005,373	150,569	1,852,095	3,355,029
Weston	15	3,308,081	862	987,274	74,507	1,666,629	3,353,530
Newmarket	14	3,878,592	807	850,937	54,813	2,074,263	3,259,910
Tilbury	6	887,333	399	412,492	30,986	2,135,835	3,228,760
Cobourg	26	2,821,796	586	608,482	94,539	1,592,131	3,216,954
Orillia	37	3,416,017	1,053	967,379	67,254	1,566,809	3,216,435
Fort Erie	32	3,129,957	509	646,724	45,065	1,282,718	3,215,186
Perth	18	3,350,435	843	955,495	50,425	1,415,284	3,198,903
Petrolia	13	2,846,130	245	306,563	248,194	2,345,653	3,189,936
Tilsonburg	20	1,667,251	622	496,807	60,219	2,371,019	3,085,632
Pembroke	37	4,484,334	934	771,483	47,745	1,515,244	3,076,894
Huntsville	10	2,236,312	364	290,191	31,135	1,908,603	3,047,893
Brampton	22	2,316,214	875	909,730	37,837	1,551,132	2,821,553
Barrie	20	1,354,839	453	434,102	40,068	2,075,622	2,813,301
Georgetown	12	2,746,496	554	570,748	91,113	1,605,728	2,726,390
Renfrew	20	2,492,082	792	695,326	68,597	1,291,093	2,710,329
Dunnville	19	3,694,227	827	795,546	47,605	1,627,620	2,654,237
Kingsville	14	2,264,736	370	292,381	15,517	1,897,800	2,413,660
Aylmer	12	1,203,268	171	183,354	40,621	1,402,777	2,300,326
Hanover	15	2,424,005	710	581,163	39,850	1,212,316	2,279,534
Sudbury	34	2,601,639	507	564,430	41,629	1,217,665	2,264,725
Burlington	11	1,617,899	303	295,098	30,927	1,238,241	2,133,118

[1]Net value is derived from gross value by deducting cost of materials, fuel, and electricity.

10.—Statistics of Manufactures of Municipalities, Each with a Gross Production of $1,000,000 or Over, and with Three or More Establishments, 1937—concluded.

Province and Municipality.	Establishments.	Capital.	Employees.	Salaries and Wages.	Cost of Fuel and Electricity.	Cost of Materials.	Gross Value of Products.[1]
	No.	$	No.	$	$	$	$
Ontario—concluded.							
Midland	12	1,540,269	209	204,806	24,723	1,861,734	2,088,970
Oakville	17	1,146,630	494	498,284	31,294	1,207,900	2,051,412
Dundas	18	3,184,694	706	881,586	38,473	1,024,448	2,033,114
Aurora	8	1,541,350	405	414,911	23,948	1,442,943	2,020,219
Lindsay	33	1,831,868	586	497,227	64,995	1,062,859	2,007,118
Carleton Place	14	1,909,026	717	653,276	57,738	944,551	1,911,955
Strathroy	14	1,262,848	354	279,905	22,520	1,144,130	1,691,860
Chesterville	4	726,582	74	70,934	28,466	1,243,655	1,656,118
Dryden	9	5,504,334	288	360,963	154,776	712,359	1,646,716
Gananoque	18	2,163,786	395	433,190	58,546	847,624	1,639,989
Humberstone	5	955,107	477	402,858	7,961	840,721	1,586,504
Arnprior	15	2,301,777	289	337,488	36,879	633,989	1,555,472
North Bay	26	1,280,495	342	358,684	26,927	743,794	1,547,195
Smith's Falls	21	2,687,890	590	613,767	40,318	782,958	1,502,332
Streetsville	7	313,280	99	100,627	8,187	1,230,955	1,453,116
Tavistock	9	345,653	164	122,003	14,376	1,207,434	1,429,611
Timmins	24	1,561,602	384	369,751	28,486	747,036	1,377,162
Elmira	14	1,214,427	269	282,458	20,598	641,555	1,282,254
Grimsby	17	1,465,992	410	296,808	20,932	685,322	1,251,586
Listowel	14	616,876	327	265,013	32,079	698,845	1,246,665
Kincardine	13	1,204,700	423	301,111	27,441	745,571	1,214,879
Napanee	18	1,178,255	328	294,395	37,621	581,728	1,200,418
Campbellford	13	838,549	296	242,667	49,151	723,855	1,179,664
Wingham	16	676,611	275	245,013	17,511	730,113	1,103,297
Milton	12	1,494,383	275	254,394	108,339	340,322	1,066,892
Almonte	12	844,653	316	258,263	18,687	700,610	1,060,789
Manitoba—							
Winnipeg	622	72,419,041	17,284	19,687,511	1,386,201	45,498,865	80,108,696
St. Boniface	42	10,533,632	1,778	2,252,237	232,568	19,066,261	25,627,615
Transcona	4	6,680,222	1,830	2,420,156	202,350	4,207,131	7,186,299
Selkirk	8	2,227,658	420	559,764	185,241	901,169	2,075,076
Portage la Prairie	8	608,209	136	116,657	40,529	1,470,939	1,841,028
Brandon	29	1,039,040	255	273,535	27,179	739,048	1,226,171
Saskatchewan—							
Moose Jaw	42	8,497,904	982	1,238,789	285,558	13,515,295	17,210,219
Saskatoon	67	7,565,703	1,176	1,451,980	214,075	9,578,045	13,585,926
Regina	97	11,348,171	1,813	2,325,176	395,844	7,484,527	11,907,878
Prince Albert	17	1,831,231	404	477,670	60,580	2,444,319	3,459,094
Alberta—							
Calgary	170	26,048,084	4,238	5,308,491	529,325	19,480,087	30,555,736
Edmonton	175	19,559,054	4,460	5,294,026	338,294	19,480,580	29,264,699
Medicine Hat	20	4,958,563	477	503,126	45,295	4,673,579	5,959,761
Lethbridge	30	1,877,390	425	477,410	43,406	1,596,088	2,965,017
Redcliffe	7	1,694,277	317	311,804	30,770	460,915	1,024,473
British Columbia—							
Vancouver	824	85,851,189	17,641	20,783,032	1,309,031	53,139,109	95,717,017
New Westminster	79	11,839,356	2,561	2,929,989	254,459	10,455,433	16,991,658
Victoria	126	9,203,975	2,212	2,576,082	191,445	3,489,846	8,007,823
Port Alberni	9	2,809,181	691	1,081,031	2,032	2,294,130	4,420,297
North Vancouver	18	3,980,901	559	756,683	64,058	1,411,483	3,127,331
Prince Rupert	17	4,599,638	263	392,251	37,235	1,476,829	2,219,161
Kelowna	21	1,236,407	438	345,826	20,403	701,050	1,302,758
Duncan	9	606,315	450	460,659	3,987	616,121	1,167,423
Nelson	23	1,397,734	288	355,276	25,686	566,234	1,155,308

[1]Net value is derived from gross value by deducting cost of materials, fuel, and electricity.

CHAPTER XV.—CONSTRUCTION.

CONSPECTUS.

	Page.		Page.
Section 1. Government Aid to Housing.	468	Section 3. Contracts Awarded and Building Permits Issued.....	475
Section 2. The Annual Census of Construction.....	471		

The construction industry is necessarily subject to great fluctuations, being extremely susceptible to the effects of general economic influences and, in a country with the climatic conditions of Canada, having to combat the effects of seasonal factors. Improved methods of construction, however, now make possible the performance of a much greater volume of work in the winter season than was possible a few years ago.

In the present survey of conditions in the industry, the first Section deals with the aid extended by the Dominion Government under the national program; this is designed to cope with the shortage of housing consequent upon the curtailment of building operations during the depression years. The second Section shows statistics that cover the bulk of building and construction work actually completed to the end of 1938, and the third Section shows the value of construction contemplated, as shown by contracts awarded and building permits issued, to the end of 1939.

Section 1.—Government Aid to Housing.

Dominion Housing Act, 1935.—Prior to August, 1938, loaning facilities to assist in the construction of new homes were provided under the Dominion Housing Act, 1935 (see pp. 473-474 of the 1938 Year Book). In 1938 more extensive facilities of a similar nature were provided under Part I of the National Housing Act as described below.

National Housing Act.—Administered by the Department of Finance, the National Housing Act, 1938, was passed with a twofold purpose in mind: (1) to assist in the improvement of housing conditions; and (2) to assist in the absorption of the unemployed by the stimulation of the construction and building material industries. The Act comprises three separate Parts.

Part I re-enacts the main features of the Dominion Housing Act, 1935, with important amendments designed to encourage the construction of low-cost houses and the extension of lending facilities to the smaller and more remote communities. Under wartime regulations made public the early part of December, 1939, and effective as of and from Jan. 1, 1940, loans are restricted to the financing of single-family dwellings. The maximum loan in respect of each house is also limited to $4,000. The other features of Part I of the Act remain unchanged.

The Minister is empowered to make advances and pay expenses of administering this Part to the extent of $20,000,000, less advances already made and administrative expenses already incurred under the Dominion Housing Act which amounted to approximately $5,500,000. All loans are made through approved lending institutions. Loans may be for an amount not exceeding 80 p.c. of the lending value of the property. Where lending value is $2,500 or less, and the house is being built for an owner-occupant, loans may be for an amount not exceeding 90 p.c.

of such lending value. The equity of at least 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. 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 of 10 years upon revaluation of the security and on conditions satisfactory to all parties concerned. Interest, principal, and taxes are payable in monthly instalments. Amortization of principal over 20 years is provided for, but more rapid amortization may be arranged to suit the borrower. Sound standards of construction are required.

1.—Loans, Units, and Amounts of Loans Approved under the Dominion Housing Act, 1935, and Part I of the National Housing Act, 1938, by Provinces, 1935-39.

Province.	Loans.					Family Units Provided.				
	1935.[1]	1936.	1937.	1938.	1939.	1935.	1936.	1937.	1938.	1939.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island	Nil	6	4	5	2	–	6	4	5	2
Nova Scotia	"	93	186	139	144	–	96	186	149	147
New Brunswick	"	12	48	50	50	–	12	51	55	66
Quebec	38	193	303	355	512	62	413	524	745	1,244
Ontario	37	324	604	1,076	2,823	37	385	839	2,119	3,691
Manitoba	Nil	12	36	110	264	–	12	36	170	351
Saskatchewan	"	Nil	2	5	30	–	–	2	5	101
Alberta	"	"	Nil	Nil	Nil	–	–	–	–	–
British Columbia	"	10	243	784	724	–	10	319	890	765
Totals	**75**	**650**	**1,426**	**2,524**	**4,549**	**99**	**934**	**1,961**	**4,138**	**6,367**

Province.	Amounts.					Totals, 1935-39.		
	1935.	1936.	1937.	1938.	1939.	Loans.	Units.	Amount.
	$	$	$	$	$	No.	No.	$
Prince Edward Island	–	32,364	21,670	26,000	11,400	17	17	91,434
Nova Scotia	–	421,437	837,692	571,831	563,880	562	578	2,394,840
New Brunswick	–	45,179	219,188	240,750	223,130	160	184	728,247
Quebec	326,614	1,906,780	2,348,514	2,939,553	4,256,502	1,401	2,988	11,777,963
Ontario	198,456	1,907,289	3,434,833	7,376,842	11,341,565	4,864	7,071	24,258,985
Manitoba	–	100,564	207,750	606,539	1,269,896	422	569	2,184,749
Saskatchewan	–	–	8,200	16,800	236,302	37	108	261,302
Alberta	–	–	–	–	–	Nil	–	–
British Columbia	–	31,175	988,348	2,863,634	2,405,043	1,761	1,984	6,288,200
Totals	**525,070**	**4,444,788**	**8,066,195**	**14,641,949**	**20,307,718**	**9,224**	**13,499**	**47,985,720**

[1] October to December only.

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 to families of low income who cannot afford the 'economic rental' for such accommodation (designated as 9½ p.c. of the cost of construction plus the taxes that would ordinarily be levied on the property by the municipality). The Dominion is authorized to make first mortgage loans to local housing authorities up to a maximum amount of $30,000,000, but loans to any one municipality must not exceed the proportion of $30,000,000 that the

population of the municipality bears to the total urban population of Canada, based on the 1931 Census. Loans of 80 p.c. of the cost of construction (including cost of land, building, architectural, and legal expenses, and any other expenses necessary to complete the project), but not exceeding $2,400 per family unit, may be made to limited dividend housing corporations organized to construct, hold, and manage houses built as a low-rental housing project, and dividends on the shares of which are limited to 5 p.c. annually. Loans of 90 p.c. of the cost of construction, and not exceeding $2,700 per family unit, may be made to other local housing authorities. Interest is at 1¾ p.c. in the case of limited dividend corporations, and 2 p.c. for other local housing authorities. Payments are made half-yearly covering principal and interest so as to amortize the loan in approximately 35 years. The municipality must agree not to levy taxes in excess of 1 p.c. of the cost of construction. Loans to local authorities other than limited dividend housing corporations are to be guaranteed as to principal and interest by the government of the province concerned.

PART III of the Act originally authorized the Minister of Finance to pay, under certain conditions, a portion of the municipal taxes on new low-cost single-family houses commenced between June 1, 1938, and Dec. 31, 1940. In order to qualify, a house was required to be built for an owner's own occupancy, and to cost, complete, not more than $4,000. The payments provided for were 100 p.c. of the general real estate and school taxes on the new house for the first year in which it was taxed, 50 p.c. the second year, and 25 p.c. the third year. These benefits became operative in any municipality only when such municipality co-operated, by passing a by-law, making available a reasonable number of lots at not more than $50 per lot. Early in December, 1939, the final date for submitting by-laws was set at Dec. 31, 1939, and to that date 203 municipalities had qualified. The period during which construction on a new house might be commenced was also shortened making the benefits applicable only in respect of those houses upon which construction should be begun on or before May 30, 1940.

The Government Home Improvement Plan.—Although operative, by agreement between the Dominion Government and lending institutions, since Nov. 1, 1936, the Home Improvement Plan derives its legislative sanction from "An Act to Increase Employment by Encouraging the Repair of Rural and Urban Homes", assented to on Mar. 31, 1937. Its objectives are (1) to provide employment in the construction and related industries and (2) to assist in the improvement of housing conditions. The method adopted to stimulate the advance of money for home repair and improvement is a Government guarantee up to 15 p.c. of the aggregate amount loaned under the plan by each approved lending institution.

First sponsored by the National Employment Commission, the Plan is now administered by the Department of Finance. It provides for the making of loans by chartered banks and other approved lending institutions to owners of residential property (including farm buildings) for repairs, alterations, and additions (including built-in equipment) to urban and rural dwellings. Loans may be made up to a maximum of $2,000 on any single-family house. In the case of a multiple-family dwelling the maximum amount that can be borrowed is $1,000, plus $1,000 for

each family unit provided for in the building when the repairs or improvements are completed. Loans of $1,000 or less are required to be repaid within 3 years, and loans of more than $1,000 within 5 years. Payment may be made in equal monthly instalments or in such other instalments as are adapted to the financial circumstances of the borrower. The maximum charge must not exceed a rate of discount of 3¼ p.c. for a one-year loan, repayable in equal monthly instalments. This is equivalent to an effective interest rate of 6·32 p.c. and loans involving other terms are discounted at a rate to produce approximately the same effective interest rate.

The limit of the aggregate loans is $50,000,000, and the limit of the Government's guarantee is therefore $7,500,000.

2.—Loans Made Under the Government Home Improvement Plan, by Provinces, 1936-39.

Province.	1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.
	No.	No.	No.	No.	$	$	$	$
Prince Edward Island	31	375	203	299	10,837	100,943	48,425	63,126
Nova Scotia	328	2,533	1,972	2,115	102,362	786,789	570,747	636,639
New Brunswick	179	1,223	986	1,183	56,565	421,672	321,042	370,160
Quebec	518	4,531	4,388	5,479	266,463	2,245,178	2,243,932	2,814,482
Ontario	1,153	13,728	13,684	18,275	415,054	5,403,473	5,848,524	7,524,717
Manitoba	131	2,070	1,616	2,356	50,238	784,302	628,852	960,640
Saskatchewan	91	796	397	576	28,796	279,098	127,996	238,106
Alberta	281	2,319	2,048	2,669	121,863	994,133	898,354	1,112,248
British Columbia	447	3,197	2,783	3,090	146,075	1,036,285	828,551	986,110
Totals	**3,159**	**30,772**	**28,077**	**36,042**	**1,198,253**	**12,051,873**	**11,516,423**	**14,706,228**

Section 2.—The Annual Census of Construction.

The annual Census of Construction undertaken by the Dominion Bureau of Statistics covers all construction, maintenance and repair work undertaken by contractors, builders, and public bodies (except the smaller municipalities) throughout Canada. It does not include maintenance and repair work on steam and electric railways, telegraph and telephone systems, and the lesser public utilities when such work is done by the employees of these concerns in the ordinary way: nor can it include a substantial amount of construction in the aggregate done by farmers and other individuals who might be otherwise unemployed, performing work on their own structures. It is doubtful whether a great deal of the work of railways and utilities is construction in the sense understood in the census: for instance, the routine "maintenance of way" expenditures, so far as they relate to inspection work, are not construction, although so far as they concern rebuilding of line for road-bed or structures they might be said to fall in that category.

The following statement shows the expenditures by steam and electric railways, telegraph and telephone systems. Most of the railway work is done by the railway employees but much of the telegraph and telephone work is done by contractors, consequently these total expenditures cannot be added to industrial construction performed by contractors without including duplications. Also, no data are available of the value of work done by farmers and others working on their own account. The statistics presented in Tables 3 to 6 are, therefore, necessarily limited as explained above.

EXPENDITURES BY STEAM AND ELECTRIC RAILWAYS, AND TELEGRAPH AND TELEPHONE SYSTEMS ON MAINTENANCE OF WAY AND STRUCTURES, AND MAINTENANCE OF EQUIPMENT, 1935-38.

Item.	1935.	1936.	1937.	1938.
	$	$	$	$
Steam Railways—				
Maintenance of way and structures	55,250,291	60,378,275	58,309,150	55,217,352
Maintenance of equipment	57,424,660	63,755,028	73,166,522	69,233,176
Totals, Steam Railways	112,674,951	124,133,303	131,475,672	124,450,528
Electric Railways—				
Maintenance of way and structures	2,435,644	2,654,875	2,561,156	2,509,225
Maintenance of equipment	2,966,127	3,179,552	3,276,960	3,407,339
Totals, Electric Railways	5,401,771	5,834,427	5,838,116	5,916,564
Telegraph maintenance	1,839,751	1,906,054	2,200,002	2,152,588
Telephone maintenance	10,287,026	10,923,509	11,829,389	12,080,383
Grand Totals	130,203,499	142,797,293	151,343,179	144,600,063

Industrial Statistics of Construction.*—A census of construction was made by the Dominion Bureau of Statistics for 1934, but the basis of compilation was not standardized until 1935 so that with the completion of the 1938 figures comparable statistics are now available covering the years 1935-38. Summary statistics are given in Tables **3**, **4**, and **5**.

No relationship exists between the total value of construction as shown in these tables, and the value of contracts awarded as indicated in Table **9** of Section 3, p. 475. In the latter case all values are included as soon as awards are made irrespective of whether the contract is completed or even begun in that year, whereas the tables below cover construction work carried on and actually performed in the calendar year.

* Revised by F. I. Tanner, Chief, Construction Statistics Branch, Dominion Bureau of Statistics.

3.—Principal Statistics of the Construction Industry in Canada, 1935-38.

Item.	1935.	1936.	1937.	1938.
Firms reporting.....No.	7,689	9,976	10,855	12,964
Capital invested.....$	158,471,916	164,322,276	176,971,223	184,200,541
Salaried employees.....No.	18,670	21,059	22,431	25,278
Salaries paid.....$	22,579,526	25,270,846	30,398,287	34,809,919
Wage-earning employees (average).....No.	126,098	121,285	129,221	121,913
Wages paid.....$	82,607,097	87,575,538	120,239,004	112,595,479
Employees.....No.	144,768	142,344	151,652	147,191
Salaries and wages paid.....$	105,186,623	112,846,384	150,637,291	147,405,398
Cost of materials used.....$	94,733,584	122,189,238	175,844,435	176,562,208
Value of work performed[1].....$	215,548,873	258,040,400	351,874,114	353,223,285
New construction[1].....$	*140,988,228*	*170,645,824*	*244,948,916*	*240,549,164*
Alterations, maintenance, and repairs[1] $	*74,560,645*	*87,394,576*	*106,927,198*	*112,674,121*
Subcontract work performed.....$	*31,437,270*	*35,710,083*	*46,975,118*	*54,024,399*
New construction.....$	*22,813,416*	*29,979,166*	*40,025,508*	*45,322,673*
Alterations, maintenance, and repairs.....$	*8,623,854*	*5,730,917*	*6,949,610*	*8,701,726*

[1] Includes subcontract work indicated in the lower part of the table.

4.—Value of Work Performed by the Construction Industry in Canada, by Groups and Provinces, 1935-38.

Group or Province.	1935.	1936.	1937.	1938.
GROUP.	$	$	$	$
Contractors, builders, etc.	147,530,111	196,737,443	278,209,051	281,484,690
Municipalities	19,635,554	18,637,886	20,128,323	22,863,476
Harbour Commissions	1,966,576	1,983,044	1,616,949	1,481,456
Provincial Government Departments	32,032,120	31,914,208	45,435,326	38,136,854
Dominion Government Departments	14,384,512	8,767,819	6,484,465	9,256,809
TYPE OF WORK PERFORMED.				
Building construction	71,302,664	100,098,833	130,538,998	134,912,175
Street, highway, power, water, etc., construction	99,691,021	104,939,449	158,661,078	156,411,564
Harbour and river construction	19,072,688	14,767,948	14,658,272	15,216,967
Trade construction	25,482,500	38,234,170	48,015,766	46,682,579
PROVINCE.				
Prince Edward Island	1,190,030	816,141	754,448	1,331,442
Nova Scotia	15,657,298	15,434,295	20,180,404	18,038,687
New Brunswick	9,988,340	11,982,253	17,557,146	14,974,820
Quebec	58,309,829	67,902,087	101,460,731	100,830,603
Ontario	90,848,941	108,260,433	148,352,327	151,435,842
Manitoba	10,473,633	12,929,022	12,475,326	14,247,661
Saskatchewan	5,061,354	8,314,668	8,436,495	11,020,224
Alberta	10,183,322	9,611,860	11,198,894	13,166,662
British Columbia and Yukon	13,836,126	22,789,641	31,458,343	28,177,344
Totals	**215,548,873**	**258,040,400**	**351,874,114**	**353,223,285**

5.—Principal Statistics of the Construction Industry in Canada, by Groups and Provinces, 1938.

NOTE.—Comparable figures for 1935, 1936, and 1937 are given in the corresponding table of the 1937, 1938, and 1939 Year Books.

Group or Province.	Capital Invested.	Employees.	Salaries and Wages.	Cost of Materials.	Values of Work Performed.		
					New Construction.	Alterations and Repairs.	Total.
GROUP.	$	No.	$	$	$	$	$
Contractors, builders, etc.	150,913,995	96,010	106,869,444	152,976,356	204,781,181	76,703,509	281,484,690
Municipalities	16,885,563	15,611	13,951,327	7,255,141	9,531,261	13,332,215	22,863,476
Harbour Commissions	1,249,029	759	886,608	355,852	423,711	1,057,745	1,481,456
Provincial Govt. Depts.	9,660,238	29,592	19,921,879	12,535,948	21,645,327	16,491,527	38,136,854
Dominion Govt. Depts.	5,491,716	5,219	5,776,140	3,438,911	4,167,684	5,089,125	9,256,809
Totals	**184,200,541**	**147,191**	**147,405,398**	**176,562,208**	**240,549,164**	**112,674,121**	**353,223,285**
PROVINCE.							
Prince Edward Island	368,157	636	526,343	656,300	1,026,827	304,615	1,331,442
Nova Scotia	6,405,831	7,525	7,660,028	8,333,105	12,156,383	5,882,304	18,038,687
New Brunswick	6,308,619	6,471	5,845,894	6,797,579	12,095,740	2,879,080	14,974,820
Quebec	57,476,052	46,606	43,516,616	48,672,929	69,087,891	31,742,712	100,830,603
Ontario	83,024,032	58,110	61,864,890	78,399,121	103,116,424	48,319,418	151,435,842
Manitoba	6,780,438	5,477	5,575,528	8,017,396	8,115,875	6,131,786	14,247,661
Saskatchewan	4,250,413	5,643	4,236,968	3,812,031	6,995,661	4,024,563	11,020,224
Alberta	5,525,267	5,018	5,598,911	6,155,289	7,625,598	5,541,064	13,166,662
British Columbia and Yukon	14,061,732	11,705	12,580,220	15,718,458	20,328,765	7,848,579	28,177,344

Table 6 classifies the various types of construction carried out in 1938. The item "Trade Construction" covers such items as brick laying, carpentry, plumbing, heating, electrical work, etc., reported by contractors who confine themselves to a specific type of work. Details by provinces and more complete information on the industry than it is possible to include in the limited space available here, will be found in the Bureau's report on the construction industry for 1938.

6.—Description, Classification, and Value of Construction in Canada, 1938.

NOTE.—Comparable figures for 1935, 1936, and 1937 are given in the corresponding table of the 1937, 1938, and 1939 Year Books.

Item.	New Construction.	Repairs, Alterations, and Maintenance.	Total Value.
Building Construction—	$	$	$
Dwellings and apartments	36,783,451	9,640,405	46,423,856
Hotels, clubs, and restaurants	1,442,134	1,113,992	2,556,126
Churches, hospitals, etc	17,498,559	4,730,195	22,228,754
Office buildings, stores, theatres, and amusement halls	12,620,889	7,688,623	20,309,512
Grain elevators, factories, warehouses, farm and mine buildings	22,990,349	10,771,804	33,762,153
Garages and service stations	2,919,684	2,189,201	5,108,885
Radio stations	255,249	8,448	263,697
Armouries	427,223	Nil	427,223
Aeroplane hangars	513,426	"	513,426
All other building construction	1,458,500	1,860,043	3,318,543
Totals, Building Construction	**96,909,464**	**38,002,711**	**134,912,175**
Street, Highway, Power, Water, etc., Construction—			
Streets, highways, and parks	66,429,279	26,375,500	92,804,779
Bridges, culverts, subways, etc	10,750,665	2,126,059	12,876,724
Water, sewage, and drainage systems	8,828,477	3,160,964	11,989,441
Electric power plants, including dams, reservoirs, transmission lines, and underground conduit	24,450,260	5,914,105	30,364,365
Railway construction, steam and electric	Nil	265,680	265,680
Aerodromes or landing fields	3,186,238	334,880	3,521,118
All other construction, including installation of boilers and machinery	3,251,736	1,337,721	4,589,457
Totals, Street, etc., Construction	**116,896,655**	**39,514,909**	**156,411,564**
Harbour and River Construction	**9,489,335**	**5,727,632**	**15,216,967**
Trade Construction	**17,253,710**	**29,428,869**	**46,682,579**
Grand Totals	**240,549,164**	**112,674,121**	**353,223,285**

In Tables 7 and 8 the employment figures, shown on a monthly basis, reflect the fact that, while the industry is seasonal in nature, it is not as decidedly so as is sometimes thought; this is noted especially when the statistics for the period 1935-38 are studied. The month of highest employment in the industry as a whole, in 1938, was September with 173,184 wage-earners and the lowest was February with 67,738.

7.—Employment of Wage-Earners in the Construction Industry and Their Remuneration, by Groups and Months, 1938.

NOTE.—Comparable figures for 1935, 1936, and 1937 are given in the corresponding table of the 1937, 1938, and 1939 Year Books.

Item.	General and Trade Contractors and Sub-contractors.	Municipalities.	Harbours Board.	Provincial Government Departments.	Dominion Government Departments.	Total.
	No.	No.	No.	No.	No.	No.
January	50,425	8,556	395	6,641	2,308	68,325
February	49,073	9,048	406	6,689	2,522	67,738
March	50,930	10,764	543	9,479	3,364	75,080
April	57,061	13,071	751	18,184	2,348	91,415
May	75,755	14,984	660	27,059	2,941	121,399
June	91,947	17,675	630	36,964	4,074	151,290
July	99,885	17,432	628	39,006	5,170	162,121
August	104,496	17,665	682	40,785	6,055	169,683
September	103,765	17,103	660	44,491	7,165	173,184
October	97,279	16,357	695	39,736	7,617	161,684
November	81,864	15,195	706	31,592	5,165	134,522
December	59,994	11,718	536	11,247	3,014	86,509
Monthly Averages	76,873	14,131	608	25,989	4,312	121,913
Totals, Wages Paid During Year	$ 79,621,533	$ 11,717,926	$ 628,684	$ 15,833,740	$ 4,793,596	$ 112,595,479

8.—Average Wage-Earners Employed in the Construction Industry and Total Wages Paid, by Provinces, 1938.

Province.	Monthly Average of Wage-Earners Employed.	Total Wages Paid During Year.
	No.	$
Prince Edward Island	572	453,039
Nova Scotia	6,542	6,411,212
New Brunswick	5,889	4,852,526
Quebec	40,465	34,186,002
Ontario	46,085	45,306,849
Manitoba	4,140	4,010,585
Saskatchewan	4,966	3,447,129
Alberta	4,138	4,486,742
British Columbia and Yukon	9,116	9,441,395

Section 3.—Contracts Awarded and Building Permits Issued.

In this section barometric statistics are given of work actually in sight as contracts awarded and building permits. These figures are related to the figures of work performed during the year only so far as the work thus provided for is completed and duly reported in the Census of Construction. Further, values of contracts awarded, and especially of building permits, are estimates (more often under-estimates) of work to be done. Obviously, these statistics and those of Section 1, cannot be expected to agree, since much work contracted for towards the end of any one year is often not commenced until the next and, especially as regards big contracts, extends into more than one year. The figures here given are, therefore, supplementary to those of Section 2 and are valuable as showing from year to year the work immediately contemplated during the period.

Over the period 1911-39, inclusive, or since the beginning of MacLean's record of construction contracts awarded as shown in Table 9, there has been an average annual per capita expenditure on construction of about $28. The period covered includes, of course, the war years of 1915-18 and the depression since 1930, as well as the booms of 1911-13 and 1926-30. This average, consequently, is not unreasonably high. For the present population, the annual total of construction, on the basis of this average, should amount to about $317,000,000. Furthermore, there is undoubtedly an accumulated deficiency in construction from the recent years of subnormal activity. Some idea may be gained, therefore, of the part that the normal functioning of the construction industry might play in the reduction of unemployment.

9.—Values of Construction Contracts Awarded in Canada, 1911-39.
(From MacLean Building Reports, Ltd.)

Year.	Value of Construction Contracts.	Year.	Value of Construction Contracts.	Year.	Value of Construction Contracts.
	$		$		$
1911	345,425,000	1921	240,133,300	1931	315,482,000
1912	463,083,000	1922	331,843,800	1932	132,872,400
1913	384,157,000	1923	314,254,300	1933	97,289,800
1914	241,952,000	1924	276,261,100	1934	125,811,500
1915	83,916,000	1925	297,973,000	1935	160,305,000
1916	99,311,000	1926	372,947,900	1936	162,588,000
1917	84,841,000	1927	418,951,600	1937	224,056,700
1918	99,842,000	1928	472,032,600	1938	187,277,900
1919	190,028,000	1929	576,651,800	1939	187,178,500
1920	255,605,000	1930	456,999,600		

Engineering contracts accounted for 22·5 p.c. of the total value of the contracts awarded in 1939, residential buildings for 36·0 p.c., industrial buildings for 12·2 p.c., and business buildings for 29·3 p.c. As compared with 1938, residential building showed an increase of 22·6 p.c. in value, and industrial construction of 42·3 p.c., while engineering projects decreased 20·6 p.c. and business construction 13·2 p.c.

10.—Values of Construction Contracts Awarded in Canada, by Provinces and Types of Construction, 1934-39.

(From MacLean Building Reports, Ltd.)

Item.	1934.	1935.	1936.	1937.	1938.	1939.
PROVINCE.	$	$	$	$	$	$
Prince Edward Island	384,600	414,800	339,900	459,000	1,781,400	946,100
Nova Scotia	4,993,700	7,903,400	8,073,800	11,220,000	10,537,600	9,505,400
New Brunswick	4,590,300	6,055,300	9,495,100	9,878,200	7,203,800	5,694,800
Quebec	34,135,500	44,471,900	45,749,500	71,940,800	65,778,900	62,846,600
Ontario	63,358,300	70,872,800	72,393,300	97,777,400	73,070,100	82,605,500
Manitoba	3,905,000	8,744,400	6,994,400	7,945,100	6,115,200	5,374,400
Saskatchewan	1,563,200	3,841,300	2,200,600	6,704,900	3,969,000	3,246,100
Alberta	3,489,400	5,893,000	6,297,400	4,901,000	8,180,000	5,234,900
British Columbia	9,391,500	12,108,100	11,044,000	13,230,300	10,641,900	11,724,700
Totals	**125,811,500**	**160,305,000**	**162,588,000**	**224,656,700**	**187,277,900**	**187,178,500**
TYPE OF CONSTRUCTION.						
Residential—						
Apartments	1,641,900	3,249,600	3,921,100	5,815,100	7,807,900	9,829,000
Residences	28,946,200	33,158,900	38,936,800	50,391,900	47,217,700	57,622,200
Totals, Residential	**30,588,100**	**36,408,500**	**42,857,900**	**56,207,000**	**55,025,600**	**67,451,200**
Business—						
Churches	1,827,900	1,698,400	2,625,300	2,662,100	4,440,100	4,697,700
Public garages	2,280,300	2,267,600	2,746,100	4,429,800	3,418,100	3,755,600
Hospitals	4,977,900	2,979,900	2,127,800	7,425,100	7,027,600	7,468,700
Hotels and clubs	1,756,000	2,312,000	2,031,500	2,715,100	2,899,600	3,187,400
Office buildings	3,989,300	1,687,900	3,149,000	5,911,600	5,076,900	4,773,300
Public buildings	7,012,800	20,243,500	7,126,200	8,066,200	13,118,600	9,889,500
Schools	6,161,900	5,429,200	4,133,600	6,378,600	11,141,600	7,375,300
Stores	4,127,000	4,374,300	6,625,400	7,315,100	10,069,800	7,160,600
Theatres	633,600	1,429,600	2,516,000	2,397,600	1,867,100	1,418,500
Warehouses	4,713,600	6,019,800	4,690,100	7,987,600	4,267,700	5,218,600
Totals, Business	**37,480,300**	**48,442,200**	**37,771,000**	**55,288,800**	**63,327,100**	**54,945,200**
Totals, Industrial	**8,037,900**	**10,292,200**	**14,973,700**	**33,779,800**	**15,982,200**	**22,753,000**
Engineering—						
Bridges	5,329,800	3,362,200	7,751,200	7,584,800	4,273,100	3,067,300
Dams and wharves	2,932,800	8,557,800	3,119,400	4,374,800	5,285,800	8,441,700
Sewers and water-mains	3,873,000	3,715,000	2,515,800	2,946,000	3,428,500	4,133,800
Roads and streets	24,432,400	27,421,300	23,649,200	35,840,200	16,732,600	23,565,400
General engineering	13,137,200	22,105,800	29,949,800	28,035,300	23,223,000	2,820,900
Totals, Engineering	**49,705,200**	**65,162,100**	**66,985,400**	**78,781,100**	**52,943,000**	**42,029,100**
Grand Totals	**125,811,500**	**160,305,000**	**162,588,000**	**224,656,700**	**187,277,900**	**187,178,500**

Building Permits.—The estimated value of construction in 58 cities of Canada, as indicated by their building permits, is shown for the years 1934 to 1939, inclusive, in Table **11.** These cities had, in 1931, about 36 p.c. of the population of Canada while their 1939 building permits aggregated 32·2 p.c. of the total contracts awarded, as shown in Table **9.**

Owing to the increasing use of the automobile and other means of rapid transportation, a growing percentage of those who work in the cities reside outside the municipal boundaries. Hence arises, in part, the necessity for an extension of the record of building permits to include such suburban areas as the York Townships in the case of Toronto, and North Vancouver in the case of Vancouver.

The construction contracts in 1939 as shown in Table **10** declined by 0·05 p.c. compared with 1938, while the building permits of 58 cities in Table **11** decreased by 0·9 p.c.

11.—Values of Building Permits Taken Out in 58 Cities, 1934-39.

NOTE.—Asterisks indicate the 35 original cities, statistics for which are available since 1910.

Province and City.	1934.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$	$
Prince Edward Island	**87,310**	**168,395**	**154,455**	**140,170**	**92,210**	**133,788**
Charlottetown	87,310	168,395	154,455	140,170	92,210	133,788
Nova Scotia	**835,672**	**1,619,097**	**1,320,202**	**1,929,025**	**1,897,641**	**1,562,125**
*Halifax	749,428	1,545,824	1,103,988	1,488,326	1,420,142	1,129,481
New Glasgow	11,252	18,855	36,818	86,135	81,415	53,688
*Sydney	74,992	54,418	179,396	354,564	396,084	378,956
New Brunswick	**1,277,333**	**265,115**	**453,756**	**602,163**	**631,966**	**1,069,111**
Fredericton	42,775	19,325	142,220	126,400	118,230	105,620
*Moncton	978,228	106,261	100,292	214,608	280,202	460,680
*Saint John	256,330	139,529	211,244	261,155	233,534	502,811
Quebec	**5,994,676**	**10,207,383**	**10,011,608**	**11,271,918**	**14,451,635**	**14,796,421**
*Maisonneuve	4,098,025	7,455,436	6,905,323	8,217,344	10,205,422	9,253,506
*Montreal						
*Quebec	415,308	2,141,695	816,835	915,119	1,945,961	2,493,572
Shawinigan Falls	184,535	52,137	126,175	414,080	264,910	491,070
*Sherbrooke	130,060	314,450	278,700	792,240	750,700	1,171,550
*Three Rivers	465,765	55,555	1,528,197	383,417	769,565	1,007,360
*Westmount	700,983	188,110	356,378	549,718	515,077	379,363
Ontario	**14,351,380**	**23,847,536**	**19,256,177**	**28,156,707**	**25,424,507**	**26,543,103**
Belleville	76,455	145,602	85,065	150,395	119,340	251,396
*Brantford	283,586	272,648	161,602	270,003	273,563	233,175
Chatham	55,200	108,931	156,345	192,050	471,156	532,178
*Fort William	621,700	152,450	207,500	495,880	542,553	524,315
Galt	135,006	388,688	141,226	369,458	286,730	268,995
*Guelph	110,078	273,608	100,200	138,267	152,778	198,294
*Hamilton	772,535	1,887,622	1,466,906	1,694,189	2,325,908	2,265,265
*Kingston	141,398	213,929	253,398	360,629	392,733	415,153
*Kitchener	234,449	589,325	449,123	891,247	615,092	774,419
*London	671,840	1,835,110	672,745	949,790	708,140	1,895,870
Niagara Falls	73,540	92,057	141,258	246,436	326,919	226,578
Oshawa	50,970	125,300	108,022	218,760	103,085	235,225
*Ottawa	1,257,000	4,085,140	1,781,555	2,325,445	5,188,059	2,050,656
Owen Sound	23,885	48,727	173,410	56,847	176,961	122,760
*Peterborough	149,238	195,588	269,164	199,686	426,144	502,078

11.—Values of Building Permits Taken Out in 58 Cities, 1934-39—concluded.

Province and City.	1934.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$	$
Ontario—concluded.						
*Port Arthur	101,807	163,971	212,671	708,143	747,444	441,656
Riverside	3,100	11,475	29,810	109,605	99,330	125,100
*Stratford	53,095	50,227	53,105	145,047	75,687	77,852
*St. Catharines	151,648	238,694	823,398	793,227	367,405	599,389
*St. Thomas	42,261	128,350	79,545	52,106	189,296	166,106
Sarnia	127,203	137,052	123,229	192,830	173,752	231,222
Sault Ste. Marie	257,340	131,320	226,340	355,950	343,345	596,491
*Toronto	7,496,983	10,005,455	8,182,799	11,258,900	8,535,401	10,313,943
Welland	108,326	74,609	107,645	231,429	146,663	198,854
*Windsor	385,352	709,304	703,970	3,524,699	970,948	928,402
Woodstock	67,593	102,223	206,321	214,065	129,355	325,118
York Townships	899,792	1,680,131	2,339,825	2,011,624	1,536,720	2,042,613
Manitoba	**833,048**	**2,945,175**	**1,559,940**	**2,543,559**	**3,073,175**	**3,097,593**
*Brandon	44,758	111,235	55,211	57,310	50,085	74,540
St. Boniface	80,640	110,540	97,279	334,149	1,037,190	439,003
*Winnipeg	707,650	2,723,400	1,407,450	2,152,100	1,985,900	2,584,050
Saskatchewan	**722,108**	**1,029,854**	**640,739**	**905,029**	**972,707**	**1,237,633**
*Moose Jaw	350,687	252,260	57,818	191,087	46,042	387,354
*Regina	291,696	632,944	358,966	464,041	477,780	598,785
*Saskatoon	79,725	144,650	223,955	249,901	448,885	251,494
Alberta	**1,262,407**	**1,686,457**	**1,966,556**	**1,828,377**	**3,930,553**	**3,198,979**
*Calgary	687,094	874,286	845,287	667,809	911,311	1,064,076
*Edmonton	479,108	676,535	895,440	865,560	2,806,340	1,662,109
Lethbridge	70,110	118,442	200,414	232,298	203,117	463,904
Medicine Hat	26,095	17,194	25,415	62,710	9,785	8,890
British Columbia	**2,093,590**	**4,791,611**	**5,962,260**	**8,468,051**	**10,342,938**	**8,633,626**
Kamloops	34,201	69,652	78,735	58,277	67,872	104,757
Nanaimo	49,841	36,856	166,378	231,602	110,895	80,913
*New Westminster	77,695	210,490	369,215	541,715	690,182	1,172,705
North Vancouver	14,505	20,250	57,929	68,188	111,485	103,995
Prince Rupert	66,420	43,235	63,940	46,694	274,086	81,990
*Vancouver	1,418,816	3,892,665	4,641,545	6,760,880	8,224,300	6,283,796
*Victoria	432,112	518,463	584,518	760,695	864,118	805,470
Totals—58 Cities	**27,457,524**	**46,560,623**	**41,325,693**	**55,844,999**	**60,817,332**	**60,272,379**
***Totals—35 Cities**	**24,911,430**	**42,839,627**	**36,337,439**	**49,694,847**	**54,532,781**	**53,048,231**

The indexes given in Table 12 show as far as possible the fluctuations in building costs with their effect upon construction work and employment. At various times attempts have been made to determine the relative proportions of material and wage costs in general building; such proportions vary with the type of building and the centres studied, and accurate and representative data are difficult to obtain. However, the results of a survey made in 1934 and published in *Building in Canada* (June, 1934) showed that in fifteen cities the average proportions in all types of construction were 63·6 p.c. for materials and 36·4 p.c. for labour. The reduction in the cost of building operations in the depression years has probably been much more than is indicated by the declines in the indexes of wholesale prices and wages from the relatively high averages shown since the War of 1914-18.

12.—Values of Building Permits Taken Out in 35 Cities and Index Numbers of the Building Construction Industries, 1910-39.

Year.	Value of Building Permits.	Average Index Numbers of—		
		Wholesale Prices of Building Materials.	Wages in the Building Trades.[1]	Employment in Building Construction.[2]
	$	(1913=100.)		(1926=100.)
1910	100,357,546	[3]	86·9	[3]
1911	138,170,390	[3]	90·2	[3]
1912	185,233,449	[3]	96·0	[3]
1913	153,662,842	100·0	100·0	[3]
1914	96,780,981	93·8	100·8	[3]
1915	33,566,749	90·3	101·5	[3]
1916	39,724,466	103·8	102·4	[3]
1917	33,936,426	130·7	109·9	[3]
1918	36,838,270	150·5	125·9	[3]
1919	77,113,413	175·0	148·2	[3]
1920	106,054,379	214·9	180·9	[3]
1921	100,797,355	183·2	170·5	62·1
1922	129,338,017	162·2	162·5	60·0
1923	117,243,806	167·0	166·4	66·4
1924	113,329,707	159·1	169·1	71·2
1925	110,314,698	153·5	170·4	75·8
1926	143,052,669	149·2	172·1	100·0
1927	164,791,231	143·4	179·3	108·7
1928	197,566,322	145·3	185·6	112·0
1929	214,277,386	147·7	197·5	135·3
1930	152,404,222	135·5	203·2	134·3
1931	101,821,221	122·2	195·7	104·3
1932	38,443,406	115·2	178·2	54·1
1933	19,890,150	116·8	158·0	38·5
1934	24,911,430	123·1	154·8	47·8
1935	42,839,627	121·2	159·8	55·4
1936	36,337,439	127·3	160·8	55·4
1937	49,694,847	140·8	165·3	60·1
1938	54,532,781	134·2	169·4	60·1
1939	53,048,231	117·8[4]	170·7	62·1

[1] Compiled by the Department of Labour. [2] As reported by employers. [3] Not available. [4] Preliminary.

Employment in Building Construction, 1939.—The Dominion Bureau of Statistics makes current surveys of the employment afforded by industrial establishments normally employing 15 persons or over. The index of employment in building construction, calculated (1926 average=100) from data furnished by some 850 employers, averaged 62·1 in 1939; in 1938 the figure was 60·2, the same as in 1937. The 1939 index is the highest since 1931.

CHAPTER XVI.—EXTERNAL TRADE.

CONSPECTUS.

SECTION 1. THE DEVELOPMENT OF TARIFFS..... 480
Subsection 1. Historical Sketch of External Trade and Tariffs..... 480
Subsection 2. Tariff Relationships with Other Countries..... 483
SECTION 2. THE COMMERCIAL INTELLIGENCE SERVICE..... 494
Canadian Government Trade Commissioners..... 495
SECTION 3. STATISTICS OF EXTERNAL TRADE..... 497
Subsection 1. Value and Quantum of World Trade..... 501
Subsection 2. Historical Statistics of Canadian Trade..... 508
Subsection 3. General Analysis of Current Import and Export Trade..... 509
Subsection 4. Trade with the United Kingdom and the British Empire.... 511
Subsection 5. Trade with the United States and Other Foreign Countries.. 514
Subsection 6. Geographical Distribution of Canadian Trade by Continents and Countries..... 516
Subsection 7. Principal Commodities Imported and Exported..... 518
Subsection 8. Proportions of Trade in Raw and Manufactured Products... 522
Subsection 9. Main Historical Tables and Tables showing Current Trends in External Trade..... 524
Subsection 10. Comparison of the Volume of Imports and Exports..... 577
SECTION 4. THE TOURIST TRADE OF CANADA..... 582
SECTION 5. BALANCE OF INTERNATIONAL PAYMENTS..... 584

Section 1.—The Development of Tariffs.

The development of tariffs as affecting Canada is here outlined under two divisions: first, a historical sketch showing phases in the growth of Canadian trade that have influenced tariff development; and second, the present tariff relationships with other countries. Owing to the limitations of space in the Year Book, it is impossible to go into detail with such an intricate matter as tariffs. It has therefore been necessary to adopt the policy of confining any detail regarding commodities and countries to tariff relationships at present in force, and to summarize as much as possible historical data and details of preceding tariffs, giving references where possible to those editions of the Year Book where extended treatments can be found.

Subsection 1.—Historical Sketch of External Trade and Tariffs.

In the early history of the American Continent each of the European nations establishing settlements in the New World endeavoured to monopolize the commerce of its colonies, prohibited the ships of other nations from resorting to them, and prohibited its colonials from importing European goods from other countries, generally granting them, however, preferential treatment in its own market. In these circumstances the colonial wars in America were carried on, by Governments permeated by the mercantile spirit, for "ships, colonies, and commerce". Owing to this fact, wars resulting in the transfer of colonies from one European power to another involved great economic as well as political changes in the community so transferred. The traders who had previously controlled the trade between the Mother Country and its colony found their occupations gone, while new traders from the conquering State arrived to take over the import and export trade, which thereafter flowed in new channels, perhaps no more artificial than those that had previously existed.

Throughout the earlier part of the French *régime* in Canada, the foreign trade of the colony was in the hands of the monopolistic chartered companies, of which the Company of One Hundred Associates was the most notable. When its monopoly

was cancelled in 1663, the external trade of Canada still remained a preserve of the merchants of Old France. Upon the conquest of the country by the British, the French merchants, who had their offices in Quebec and Montreal, for the most part returned to France, and the trade of the Colony fell into the hands of the traders from England, Scotland, and New England, who had flocked into the country on the heels of the invading armies. Some of their descendants are still among the leading figures in Canadian import and export trade.

For the first sixty years of British rule, Canadian commerce was carried on almost exclusively with or through the United Kingdom, the merchants of New England complaining, after the American Revolution, of being shut out from the Canadian trade. The geographical juxtaposition of the United States to British North America was, however, a factor that could not be permanently ignored, and smuggling became more and more prevalent as settlement extended westward along the International Boundary. In 1822 the United Kingdom made large concessions to United States traders in respect of the Canadian trade. In 1846 she abolished the preferential treatment that she had given to Canadian wheat, and in 1860 all vestige of preference to colonial products disappeared from the British tariff. As a consequence, the colonies which, like Canada, Nova Scotia, and New Brunswick, were by this time enjoying responsible government, could no longer be refused the right to control their own commercial policy—a fact that was emphasized in an important report prepared in 1859 by the then Minister of Finance, (Sir) A. T. Galt, and forwarded to the British Government. This report declared that the responsibility of the Canadian Government must be to the Canadian people, more especially in matters of taxation (the greater part of the revenue being raised by customs duties), and that the Canadian Government must affirm the right of the Canadian Parliament to adjust the taxation of the people in the way it deemed best, even if this should happen to meet with the disapproval of the British Ministry. This doctrine remained unchallenged by the British Government and, coming at a time when all important parties in the United Kingdom had accepted free trade as a *fait accompli*, it facilitated the setting up in Canada of a protective tariff, designed to secure the establishment in Canada of manufacturing industries, at a time when British opinion desired that the colonies should concentrate their attention on the production of food and raw materials and import from the United Kingdom the manufactured commodities they required.

The Abolition of Preference and the Reciprocity Treaty of 1854.—The abolition of the British preference on Canadian wheat in 1846 brought about a depression in the flour-milling industry of Montreal and an ephemeral agitation for union with the United States. The effects of the repeal of the preference were, however, mitigated in 1849 by the repeal of the Navigation Acts and the consequent opening of the carrying trade between Canada and the United Kingdom to the shipping of the world. Meanwhile, the abandonment of protection in the Mother Country led to the initiation of negotiations for a reciprocity treaty with the United States. A treaty for the free exchange of natural products between them and the British North American colonies was negotiated in 1854, and became effective on Mar. 16, 1855. From its operation the Canadian farmer and fisherman derived considerable benefit, more especially during the period of the Civil War, when prices in the United States were particularly high. Partly as a consequence of the friction between the United Kingdom and the United States during the Civil War period, and partly because the new Canadian tariff of 1859 shut out the manufactured goods

of the United States, the treaty was denounced by the United States at the end of the ten-year period for which it had been negotiated and ceased to operate 12 months later on Mar. 17, 1866. The denunciation of the treaty had a considerable effect in bringing about the confederation of the British North American colonies, which, it was hoped, would to a great extent consume each other's products.

Tariff Policy since Confederation.—The immediate effect of Confederation was to abolish the tariff barriers that existed between the provinces entering the Dominion. As the area of Canada increased until, except for Newfoundland and Labrador, it became conterminous with British North America, the area of internal free trade was thereby extended, while protection against outside competition was generally maintained. However, the protective tariff of the old Province of Canada, adopted in 1859 with a prevailing rate of 20 p.c., was replaced in 1866 by a tariff assimilated to the revenue tariffs of the Maritime Provinces, with the rates of duties on the great bulk of manufactured commodities reduced from 20 and 25 p.c. to 15 p.c. Later on, the world-wide depression that commenced in 1873, and the consequent falling-off in a revenue based upon trade, necessitated an increase of the general rate to 17½ p.c., with a 20 p.c. rate on certain luxuries. Even this increase failed to fill the treasury.

In 1879, after the people had declared for a protective policy in the general election of 1878, the duties on imported manufactured goods were considerably increased, the rate on goods "not otherwise provided" being raised from 17½ p.c. to 20 p.c., the rates on cotton goods from 17½ p.c. to rates, specific and *ad valorem* equivalent, on the importations of 1881, to 30 p.c., while the duties on woollens were practically doubled. The rate on furniture and clocks was increased to 35 p.c.; on carriages, glassware, wallpaper, and silks, to 30 p.c.; on boots and shoes, buttons, rubber goods, and woodenware, to 25 p.c. Pig-iron, previously free, now paid $2 a ton, and the duty on iron billets, bars and rods was increased from 5 p.c. to 10 and 17½ p.c., while manufactured iron and steel products and machinery were given 25 to 35 p.c. protection. Throughout the '80's the general trend of the minor revisions made in the tariff was still upwards, but in the '90's a downward tendency became manifest. In 1891 the duty on raw sugar was repealed, and in 1894 material reductions were made on agricultural implements and minor readjustments on cottons and woollens. This period was also marked by the thorough-going extension of protection to the iron and steel industry, both by customs duties and bounties.

In the tariff revision of 1897, the duties on Indian corn, binder twine, barbed wire, pig-iron, flour, and refined sugar were reduced or abolished, while the bounties on domestic pig-iron were not reduced but in certain cases increased. But the most distinctive feature of the tariff revision of 1897 was the adoption of what was called a "reciprocal" tariff, one-eighth lower than the general. This reciprocal tariff was at once applied to the United Kingdom, and afterwards to New South Wales and to British India. Belgium and Germany, in virtue of their trade treaties with the United Kingdom, were also admitted to the benefits of the reciprocal tariff, together with Argentina, Austria-Hungary, Bolivia, Colombia, Denmark, Persia, Russia, Sweden, Switzerland, Tunisia, and Venezuela, on account of most-favoured-nation treaties between these countries and the United Kingdom, also France and her colonies, in consequence of the Franco-Canadian treaty of 1893. A little later the reciprocal tariff was also extended to the Netherlands, Japan, Siberia, Morocco, Salvador, South African Republic, Tonga, and Spain under most-favoured-nation treaties between these countries and the United Kingdom.

The numerous concessions mentioned above were, however, of a merely temporary character, ceasing to exist in 1898 as a consequence of the denunciation by the United Kingdom of her most-favoured-nation treaties with Germany and Belgium. This left Canada free to confine her lower tariff rates to the United Kingdom and to sister Dominions and colonies. A British preferential tariff, consisting at first of a remission of 25 p.c. of the duty ordinarily paid (Aug. 1, 1898), and later of a remission of 33⅓ p.c. of the ordinary rate of duty (July 1, 1900), was established. This method of preference was abandoned in 1904 for a specially low rate of duty on almost all imported dutiable commodities.

Subsection 2.—Tariff Relationships with Other Countries.*

Tariff relations between Canada and other countries are governed by: (1) application to Canada of some old commercial treaties of Great Britain; (2) participation in commercial treaties of Great Britain by Canadian Acts of Parliament; (3) Canadian Conventions of Commerce or Trade Agreements; (4) Exchange of Notes respecting reciprocal tariff concessions; (5) British preferential rates granted by the Tariff Act; (6) power of extending, by Orders in Council, British preferential or lower rates, intermediate rates, or other reduced duties as compensation for concessions received; (7) authority to impose a surtax on goods from a foreign country whose tariff discriminates against Canadian goods.

EMPIRE COUNTRIES.

Empire Preferences.—The Tariff Act assented to June 13, 1898, by which Canada replaced the Reciprocal Tariff of the year before by a purely British Preferential Tariff, specifically granted the benefit of the new preferential duties to the United Kingdom, Bermuda, British West Indies, and British Guiana. A provision whereby the benefit could be extended to any British possession whose tariff was equally favourable to Canada was at once invoked to give the preferences to British India, Ceylon, Straits Settlements, and New South Wales. In 1904 these preferences were extended to New Zealand, to the colonies now comprising the Union of South Africa, and to Southern Rhodesia, all of which, about that time, had granted newly introduced preferences to Canada. All these countries, except New South Wales, which had ceased to be a separate customs area, were named in the Tariff Act of Apr. 12, 1907 (still in force, in amended form), as being entitled to British preferential rates. The British preference margin, which had been increased in 1900 from one-quarter to one-third, remained at approximately one-third in the 1907 revision, but has since been much varied and enlarged. The 1907 Tariff contains three columns—British Preferential, Intermediate, and General. Sect. 4 of the Tariff Act empowers the Governor in Council to extend British preferential rates, intermediate rates in whole or in part, or most-favoured-foreign-nation treatment to any part of the Empire or British mandated territories.

British preference has been extended to many new areas under Sect. 4. (See p. 520 of the 1934-35 Year Book.) The year 1937 witnessed its further extension (Order in Council Sept. 29, 1937) to Malta, Gilbert and Ellice Islands, British Solomon Islands Protectorate, Nauru, Papua, and Norfolk Island. The Intermediate Tariff was extended to Hong Kong as from Feb. 4, 1933. Orders in Council were passed that accorded most-favoured-foreign-nation treatment to the United

* Revised by W. Gilchrist, Chief, Foreign Tariffs Division, Department of Trade and Commerce.

Kingdom and the Union of South Africa on July 19, 1935; to Australia and New Zealand on Aug. 21, 1935; to the British West Indies on Oct. 20, 1936; to all the non-self-governing British colonies and protectorates, Palestine, Tanganyika territory, and the territories of Togoland and Cameroons under British Mandate on Sept. 29, 1937. Ireland (Eire) is similarly favoured because of the fact that her Trade Agreement with Canada guarantees to her duties as low as apply to the United Kingdom.

Either by means of the Tariff Act or Trade Agreements with the United Kingdom, Ireland, Australia, New Zealand, Union of South Africa, and British West Indies, Canada now accords her British Preferential Tariff, or lower rates, to almost the whole Empire, including British protectorates and mandated territories. In addition, the products of the Newfoundland fisheries are declared by Sect. 8 of the Tariff Act to be free of customs duty until otherwise determined by Order in Council.

Reciprocal concessions in Empire markets are widespread. Nearly all Canadian products are given tariff preferences when entering Great Britain and Northern Ireland, Australia, New Zealand, British West Indies, Bermuda, British Guiana, British Honduras, Fiji, Northern Rhodesia (Zambesi Basin), Gambia, Sierra Leone, Seychelles, British Somaliland, St. Helena, Western Samoa, British Protectorate of Tonga, British Solomon Islands, Gilbert and Ellice Islands, Cyprus, Channel Islands, and Isle of Man, while Southern Rhodesia, Mauritius, Ceylon, and Malta grant preference to most Canadian goods. To a considerable extent tariff preference is granted to Canadian goods in Ireland and Union of South Africa; also, on some goods, in the Federated and Unfederated Malay States, British North Borneo, Sarawak, Brunei, and Cayman Islands. Empire motor-cars enjoy preference in Hong Kong and the Straits Settlements; spirits, wines, malt liquors, and tobaccos in Gibraltar; and wines in the Falkland Islands.

United Kingdom.—Canada has granted to the United Kingdom her British Preferential Tariff since its inception in 1897. The United Kingdom, in 1919, introduced preferences for Canada and the rest of the Empire on the limited number of products then comprising her tariff. In subsequent years, with expansion of the tariff, Empire preferences in the United Kingdom extended to more commodities. (See pp. 521-522 of the 1934-35 Year Book.) The Import Duties Act, effective Mar. 1, 1932, imposed a duty of 10 p.c. *ad valorem* on all non-Empire goods not already dutiable or specifically exempted. On the report of an Advisory Committee created by the Act the general rate was increased within two months on many manufactured articles to 15, 20, 25, 30, or 33⅓ p.c. Less comprehensive Orders issued from time to time have made further changes. The Act exempted products of the Colonial Empire altogether and exempted products of the Dominions, India, and Southern Rhodesia until Nov. 15, 1932. A Trade Agreement between Canada and the United Kingdom signed on Aug. 20, 1932, extended the period of exemption of Canadian goods (see p. 486 of the 1936 Year Book) for five years. The 1932 Agreement was superseded by one signed Feb. 23, 1937, which renewed exemption of Canadian goods from the Import Duties Act, or any other duties not already applicable, with the qualification, as in the previous Agreement, that the United Kingdom, after notification, may impose duty (preferential) on Canadian eggs, poultry, butter, cheese, and other milk products, or in consultation with the Canadian Government may regulate supplies. The United Kingdom granted specified preferences on Canadian wheat, copper, lead, zinc (conditional on Empire producers supplying the demand at world prices), butter, cheese, raw or canned apples, pears, eggs, processed milk, honey, fish, timber, asbestos, and patent leather. The preference margin on Canadian natural silk hosiery was increased, the rate on

motor-cars and parts stabilized, the duty on reed organs removed, and a fixed preference on tobacco assured until Aug. 19, 1942. Canada obtained the benefit of all British Preferential Tariffs in the Colonial Empire and also exchanged specific preferences with certain colonies. Canada conceded to the United Kingdom reduced duties under 179 tariff items, gave assurance of no upward revision of existing preferential rates under 246 items, and in the case of 91 items (mainly products of a class not made in Canada), undertook that margins of preference would not be reduced. (See p. 489 of the 1938 Year Book.) The 1937 Agreement was approved by the Canadian Parliament on Mar. 31, 1937, implemented by the United Kingdom Budget of Apr. 20, 1937, and formally proclaimed in force from Sept. 1, 1937. It is to remain in force until Aug. 20, 1940, and afterwards until terminated on six months' notice.

To facilitate conclusion of a United Kingdom-United States Trade Agreement signed Nov. 17, 1938, Canada, Australia, New Zealand, the Union of South Africa, Newfoundland, and India consented to certain modifications of their rights under their existing trade agreements with the United Kingdom, Canada agreeing to cancellation of the 3 pence per bushel preference on wheat, seasonal reduction of preference on apples and pears, and some reduction of preference on canned apples, honey, chilled or frozen salmon, certain timber, and patent leather, as well as to certain changes in Colonial preferences. Similarly, the United Kingdom and the Union of South Africa consented to modification of preferences guaranteed to them by Canada to facilitate a new trade agreement between Canada and the United States, also signed Nov. 17, 1938.

Ireland.—Ireland at its inception in 1923 as the Irish Free State, granted Canada any preferential rates in force, and in return received the benefit of the British Preferential Tariff. A formal Trade Agreement between Canada and Ireland, signed Aug. 20, 1932, secured for all goods, the produce and manufacture of Canada, the benefits of the lowest rates of duty accorded to similar products of any country. In return, goods, the produce or manufacture of Ireland, when imported into Canada, were to be accorded the same tariff treatment as similar goods imported from the United Kingdom.

Australia.—A Trade Agreement between Canada and Australia (superseding a 1925 arrangement of limited scope) was brought into force on Aug. 3, 1931. British Preferential Tariffs were exchanged, with some reservations by Australia, and some additional concessions by Canada. Enlarged margins of preference were also granted by each country on certain products of importance to the other. (See p. 484 of the 1936 Year Book.) The Agreement, which was obligatory for one year, has remained in force subject to six months' notice of denunciation by either Government. During the fiscal year 1936-37 Canada's exports to Australia reached $27,000,000. Imports from Australia were $9,500,000. In view of trade balances being so much in Canada's favour, the Australian Government had intimated that if the Agreement were to continue, further Canadian concessions should be accorded Australian products. After negotiations, the Canadian duties on certain Australian goods were reduced by Order in Council effective Oct. 1, 1937, and the Trade Agreement was kept in force, subject, as before, to denunciation on six months' notice by either Government.

New Zealand.—Canada was granted the British preferential rates of the New Zealand Tariff established in 1903. Canada has extended her British Preferential Tariff to New Zealand since 1904. On Oct. 1, 1925, Canadian special rates then

granted Australia were also extended to New Zealand, but withdrawn on Oct. 12, 1930. As from June 2, 1931, New Zealand cancelled nearly all her British preferential rates to Canada. On May 24, 1932, a new Trade Agreement was brought into force for one year (applicable also to Western Samoa and Cook Islands), whereby Canada granted New Zealand some rates lower than British preferential, and otherwise the British Preferential Tariff. New Zealand restored the British preferential rates to Canada except for 6 items upon which intermediate rates were conceded. A New Zealand surtax of 22½ p.c. of duty (in a few instances 5 p.c.) instituted on Aug. 18, 1930, was cancelled by a New Zealand tariff amendment of Nov. 19, 1932, as regards all Empire goods except those from Canada, Union of South Africa, Ireland, Newfoundland, and India. The 1932 Trade Agreement was made for one year, but has been kept in force by various renewals. A one-year renewal to Sept. 30, 1938, was effected by Canada granting further reductions in duty on some New Zealand products. Another renewal to Sept. 30, 1939, was arranged by Canada waiving exchange dumping duty on New Zealand butter and New Zealand undertaking to co-operate as far as possible by limiting shipments to proportions that would not unduly prejudice the interests of Canadian producers. A further renewal extended the agreement to Sept. 30, 1940, without any change in terms of the Agreement.

Union of South Africa.—In addition to the British Preferential Tariff, which Canada accords to the Union of South Africa under the Tariff Act of 1907, commerce with the Union of South Africa is governed by a Trade Agreement signed Aug. 20, 1932. It provides for exchange of preferential treatment on selected commodities. (See p. 487 of the 1936 Year Book.) By an Exchange of Notes (Union of South Africa dated Aug. 2, 1935; Canada dated Aug. 31, 1935) effective July 1, 1935, each Dominion assures the other of as low rates as apply to any foreign country.

Southern Rhodesia.—A Trade Agreement signed Aug. 20, 1932, exchanging preferences on a few selected commodities and each country's British Preferential Tariffs on nearly all other commodities, was terminated as from Jan. 2, 1938, on notice by Southern Rhodesia. Although the Trade Agreement was cancelled, Southern Rhodesia, under a new tariff of 331 items, adopted May 18, 1937, accords Canada and the United Kingdom the same preferences over foreign countries on 177 tariff items. On 78 items Canada has a rate intermediate between the United Kingdom and foreign countries. On 10 items Canada has no preference over foreign countries although the United Kingdom has preference. On the remaining 66 items the rates are the same to all countries. Canada, under the Tariff Act of 1907, applies her British Preferential Tariff to Southern Rhodesian goods.

British West Indies.—Under the Canadian Customs Tariff Act, 1907, the British Preferential Tariff applies to the British West Indies, Bermuda, and British Guiana, and by Order in Council effective Feb. 1, 1913, to British Honduras. Special tariff concessions were made to the British West Indies in a reciprocal Trade Agreement of 1912, enlarged in 1920. The latter was replaced on July 6, 1925, by an Agreement still more extensive and brought formally into force by proclamation as from Apr. 30, 1927, and binding for a 12-year period and thereafter until terminated, on a year's notice. It includes: Jamaica, Trinidad, Barbados, Bahamas, Leeward Islands, Windward Islands, Bermuda, British Guiana, and British Honduras. (For further details see p. 484 of the 1936 Year Book.) A Canadian notice involving revision of the 1925 Agreement in 1939 was replaced by one of Dec. 27, 1939, proposing continuance of the agreement subject to the right of either party to terminate it on six months' notice.

FOREIGN COUNTRIES.

The power given under Sect. 4 of the Tariff Act to extend the Intermediate Tariff, in whole or in part, by Order in Council, to British countries, applies equally to foreign countries. Another important means of arranging for reciprocal concessions from foreign countries is afforded by Sect. 11 of the Customs Tariff which authorizes the making by Order in Council of such reductions of duties on goods imported into Canada from any other country as may be deemed reasonable by way of compensation for concessions granted by any such country. On the other hand, power is given under Sect. 7 to impose a surtax of 33⅓ p.c. *ad valorem* on goods from any foreign country that treats imports from Canada less favourably than those from other countries.

Most-Favoured-Nation Treatment.—Mutual guarantee of most-favoured-foreign-nation treatment, or, as it is commonly called, most-favoured-nation treatment, enters into many of the tariff arrangements between Canada and foreign countries. Usually, this means that Canada and the other contracting State agree that each party will accord to the goods of the other the benefit of the lowest duties applied to similar goods of any other foreign origin. There may be reservations. These reservations are likely to be tariff advantages, not relatively of far-reaching importance, such as one State may grant to another on historical, political, or geographical grounds, or some other special relationship. The concessions arising out of most-favoured-nation treatment under the Canadian tariff now consist of the rates of the Intermediate Tariff, and lower rates on some goods provided in Trade Agreements with France, the United States, and Poland. It will be seen that the guarantee by Canada of most-favoured-nation treatment to a foreign country does not entitle the foreign country to preferences existing only under the British Preferential Tariff or an Empire Trade Agreement. In other words, Empire preferences are confined within the Empire. On Apr. 26, 1939, a special 3 p.c. tax was cancelled, except as regards imports under the General Tariff, thus enlarging the benefit of most-favoured-nation treatment.

The benefit to Canadian exports of most-favoured-nation treatment in any country depends on the customs and treaty system of the particular importing country concerned. Several foreign nations have maximum and minimum schedules, meaning that there are two scales of duties for practically all goods imported. There may be also an intermediate scale of duties. Some countries maintain reduced duties only on specified items of their tariffs, which they have conceded in one or more commercial treaties. A country, too, may adhere strictly to a single-column tariff. Even when it makes concessions in a commercial treaty it may incorporate these in the normal tariff, thus discriminating against no country. The number of countries maintaining uniform tariffs regardless of the origin of goods, however, is becoming smaller from year to year. The benefit of most-favoured-nation treatment would, of course, depend also on the extent to which tariff favours apply to countries competing in the market in question. It has been the practice to include import restrictions when bargaining for most-favoured-nation treatment but the significance of this is greatly lessened in recent years by countries administering import quotas independently of most-favoured-nation commitments.

Argentina.—A Treaty of Amity, Commerce and Navigation between Great Britain and Argentina, signed Feb. 2, 1825, exchanging most-favoured-nation treatment is still applicable to the tariff relations between Canada and Argentina.

Argentine customs duties, with minor exceptions, apply equally to imports from all countries. Extensive tariff reductions made in an Agreement of Sept. 26, 1933, with the United Kingdom, have been extended to imports from all countries.

Belgium.—A Convention of Commerce between Canada and Belgium, signed July 3, 1924, provided for exchange of most-favoured-nation treatment of each other's goods. The Belgian Tariff consists of a Minimum Tariff and a Maximum Tariff (three times the minimum). The Minimum Tariff, however, is in practice applied equally to imports from all countries.

Bolivia.—Article 15 of the Treaty of Commerce of Aug. 1, 1911, between the United Kingdom and Bolivia, was accepted by Canadian Order in Council of July 20, 1935, the effect being an arrangement between Canada and Bolivia for exchange of most-favoured-nation treatment of each other's goods. Customs duties in Bolivia are applied equally to imports from all countries.

Brazil.—On account of Brazilian policy to cancel old Trade Agreements, an arrangement was made between Canada and Brazil by Exchange of Notes, July 25-30, 1936, granting the Canadian Intermediate Tariff for the Brazilian Minimum or lowest tariff. This arrangement continued the former reciprocal relationship between the two countries. It was superseded by an Exchange of Notes of June 12, 1937, providing for the mutual concession of most-favoured-nation treatment in tariff matters. The Tariff of Brazil consists mainly of a Minimum Tariff and a General Tariff, approximately one-quarter higher. Some rates lower than the minimum, established by an Agreement of Feb. 2, 1935, with the United States, apply to imports from countries enjoying most-favoured-nation treatment.

Colombia.—A Treaty of Friendship, Commerce and Navigation between the United Kingdom and Colombia, signed Feb. 16, 1866, requires Colombia and Canada to give each other most-favoured-nation treatment in tariff matters. Colombia, on Mar. 1, 1938, gave one year's notice of termination of this treaty, but Notes were exchanged on Dec. 30, 1938, continuing the Treaty in force until Sept. 30, 1939, and thereafter until terminated on three months' notice. An Agreement between Colombia and the United States, signed Sept. 13, 1935, created many reduced Colombian duties, to which treaty countries became entitled. Otherwise Colombian duties apply equally to imports from all countries.

Costa Rica.—A Costa Rican law of Feb. 16, 1933, established a surcharge of 30 p.c. of the duty on imports from countries not granting most-favoured-nation treatment to Costa Rica. Reduced duties appeared in an Agreement with the United States signed Nov. 28, 1936. An Exchange of Notes of Mar. 1-2, 1933, with the United Kingdom, set forth that Costa Rica would extend most-favoured-nation rates to any part of the British Empire on a reciprocal basis. A Canadian Order in Council of July 20, 1935, extended most-favoured-nation treatment to Costa Rica, thus entitling Canadian goods to a reciprocal concession in Costa Rica.

Czechoslovakia.—A Convention of Commerce between Canada and Czechoslovakia of Mar. 15, 1928, exchanged most-favoured-nation treatment in tariff matters. Czechoslovakia had conventional or reduced duties on many goods. The absorption by Germany of a large part of Czechoslovakia in March, 1939, and the outbreak of war in September, 1939, interfered with the operation of the Canada-Czechoslovakia Trade Agreement.

Denmark.—Danish Treaties of Peace and Commerce with Great Britain of Feb. 13, 1660-1, and July 11, 1670, establishing reciprocal most-favoured-nation

treatment of each other's goods, still apply to the tariff relations between Canada and Denmark. Although Denmark has a single-tariff schedule, which is applicable to all countries, provision is made for penalty duties against countries that discriminate against her.

Dominican Republic.—A Trade Agreement between Canada and the Dominican Republic, signed Mar. 8, 1940, and brought into force provisionally as from Mar. 15, 1940, provides for exchange of most-favoured-nation treatment in tariff matters. In addition, the Dominican Republic agreed to remove internal revenue taxes from imported Canadian dry salted hake, pollock and cusk, smoked herring, and other smoked fish. Canadian seed potatoes were made free of both customs duty and internal revenue tax. Continued entry of Canadian wheat free of internal revenue tax was also guaranteed.

Estonia.—Article 28 of the United Kingdom-Estonia Treaty of Commerce and Navigation of Jan. 18, 1926, providing means for a most-favoured-nation arrangement between Canada and Estonia, was accepted by the Canadian Trade Agreements Act of June 11, 1928. The duties of the Estonian Minimum Tariff are half those of the General Tariff, while on some goods conventional rates lower than the Minimum Tariff exist.

Finland.—Article 23 of the United Kingdom-Finland Treaty of Commerce and Navigation of Dec. 14, 1923, providing means for exchange of most-favoured-nation treatment between Canada and Finland, was accepted by the Finland Trade Agreement Act of June 12, 1925. Finland has in force some conventional rates lower than her General Tariff.

France.—The Franco-Canadian Trade Agreement of 1922 having lapsed on June 16, 1932, negotiations for a new Agreement ensued and were concluded by the signing of a Trade Agreement on May 12, 1933. This Agreement was brought into force as from June 10, 1933. Under its terms Canada was accorded the rates of the French Minimum Tariff and most-favoured-nation treatment on 185 items or parts of items and reductions varying from 17 p.c. to 73 p.c. of the General Tariff on 24 items or parts. The French General Tariff is, for most goods, four times the Minimum Tariff. Intermediate rates are expressed as varying percentage reductions from the General Tariff. In return Canada conceded to France a rate as low as British preferential on 7 items, reductions from the Intermediate Tariff of from 10 p.c. to 25 p.c. on 95 items, and Intermediate Tariff rates on an extensive list of items. The French colonies are included within the scope of the Agreement. The Agreement was supplemented by a Protocol of Feb. 26, 1935, and Notes exchanged Mar. 20, 1936, July 30, 1937, and Nov. 12-18, 1938, under which Canada secured the Minimum Tariff on 25 more items of the French Tariff, in return for adjustments of duty on some French products. These supplementary arrangements also made provision for quotas on many Canadian articles of which the import into France is subject to quantitative restrictions. The Canadian Intermediate Tariff was extended to France, her colonies and protectorates as from June 5, 1939.

Germany.—In the absence of a commercial agreement, a 'Super Tariff' (*Obertariff*) created by a German law of Jan. 18, 1932, two to four times as high as the General Tariff, on goods affected, was invoked against Canada on Apr. 1, 1932. On account of negotiations that ensued, the Super Tariff was suspended on July 1, 1932, for six months. By Exchange of Notes effective Jan. 1, 1933, an Agreement, for the duration of three months, was entered into, giving Germany the

Canadian Intermediate Tariff in return for its ordinary General Tariff and any existing conventional duties. This arrangement was renewed, first for nine months, and on Jan. 1, 1934, for an indefinite period, subject to termination on six months' notice. A Provisional Trade Agreement, including exchange of most-favoured-nation treatment and a payments agreement, on account of the control exercised by Germany over exchange for payment of goods, were entered into on Oct. 22, 1936 (see page 465 of the 1939 Year Book). An Order in Council (P.C. 2512) of Sept. 5, 1939, passed under the War Measures Act, brought into force regulations that prohibit trading with the enemy during the War. The enemy was defined as any State or sovereign of a State at war with His Majesty. Order in Council (P.C. 2586) of Sept. 8, 1939, relating to "apprehended state of war" specified the German Reich as an enemy State. In this way the Trade Agreements with Germany were automatically suspended.

Guatemala.—A Guatemalan law of Jan. 25, 1936 (renewing with slight changes a surtax law of Jan. 26, 1935), provided for increasing by 100 p.c. the customs duties on goods from countries whose trade balances are adverse to Guatemala and who had increased their exports to Guatemala by 100 p.c. or more in 1935 as compared with 1934. A Trade Agreement between Canada and Guatemala, signed Sept. 28, 1937, by exchange of most-favoured-nation treatment, exempted Canadian goods from the customs surcharge and entitled Canada to reduced duties provided for some items in a Guatemalan Agreement of Apr. 24, 1936, with the United States. Pending ratification of the Agreement, an Exchange of Notes on the same date established most-favoured-nation treatment reciprocally as from Oct. 14, 1937. A Canadian Act ratifying the Agreement was assented to on May 25, 1938. Ratifications were exchanged bringing the Agreement into force as from Jan. 14, 1939. It is drawn for three years and thereafter until terminated on six months' notice.

Haiti.—Haiti reduced duties on some United States products in a Trade Agreement of Mar. 28, 1935, and on Apr. 9, 1935, adopted a new Maximum Tariff (double the Minimum) which would have applied to Canada, if by Exchange of Notes of June 10, 1935 (renewed Apr. 6, 1936, and Apr. 15, 1937) Canada and Haiti had not exchanged most-favoured-nation treatment in tariff matters. A Canadian-Haiti Trade Agreement signed Apr. 23, 1937, and approved by a Canadian Act assented to on May 25, 1938, confirms this tariff arrangement. The Agreement is for one year and thereafter until terminated on six months' notice. Ratifications were exchanged bringing the Agreement into effect in both countries on Jan. 10, 1939.

Hungary.—Article 20 of the United Kingdom-Hungary Treaty of Commerce and Navigation of July 23, 1926, affording means for exchange of most-favoured-nation treatment in tariff matters between Canada and Hungary, was accepted by the Canadian Trade Agreements Act of June 11, 1928. Hungary has in force various conventional rates lower than her General Tariff, resulting from treaties with other countries.

Italy.—A Convention of Commerce between Canada and Italy of Jan. 4, 1923, provided for exchange of most-favoured-nation treatment in tariff matters. The General Tariff of Italy is applicable to imports from all countries except where reduced rates for many goods have been established by commercial treaties.

Japan.—A Treaty of Commerce and Navigation between the United Kingdom and Japan on a most-favoured-nation basis, signed Apr. 3, 1911, was accepted by Canada (with minor provisos) in an Act of Apr. 10, 1913. Certain surtaxes were imposed by Japan on July 20, 1935, and by Canada on Aug. 5, 1935, against each

other's goods. An Exchange of Notes on Dec. 26, 1935, effected the removal of the surtaxes by both countries and stated the basis for Canadian customs valuations on Japanese goods. (See p. 489 of the 1936 Year Book.)

Latvia.—Article 26 of the United Kingdom-Latvia Treaty of Commerce and Navigation of June 22, 1923, providing means for exchange of most-favoured-nation treatment in tariff matters between Canada and Latvia, was accepted by the Canadian Trade Agreements Act of June 11, 1928. Latvia has a minimum schedule of duties and a maximum schedule twice as high, as well as some rates of duty fixed by conventions with other countries.

Lithuania.—Article 4 of the United Kingdom-Lithuania Agreement of May 6, 1922, providing means for exchange of most-favoured-nation treatment in tariff matters between Canada and Lithuania, was accepted by the Canadian Trade Agreements Act of June 11, 1928. Lithuania has in force a Maximum Tariff on certain specified items double the Ordinary Tariff. There are rates lower than the Ordinary Tariff on a few items resulting from treaties.

Netherlands.—A Canadian-Netherlands Convention of Commerce of July 11, 1924, provided for exchange of most-favoured-nation treatment in tariff matters between Canada, Netherlands, Netherlands Indies, Surinam, and Curaçao. The Netherlands Tariff consists of a single schedule of duties, without tariff preference to any country.

Norway.—A Convention of Commerce and Navigation between the United Kingdom and Norway (and Sweden) of Mar. 18, 1826, is applicable to British territories to the extent of still providing exchange of most-favoured-nation treatment in tariff matters between Canada and Norway. Norway has a single-tariff schedule but there exist provisions for imposing penalty duties on non-reciprocating countries.

Panama.—Article 12 of a United Kingdom-Panama Treaty of Commerce and Navigation, signed Sept. 25, 1928, affording means for reciprocal most-favoured-nation relations with Panama, was accepted by Canadian Order in Council of July 20, 1935. A Canadian Order in Council of Dec. 29, 1936, conceded the Canadian Intermediate Tariff to the Panama Canal Zone. Duties in Panama apply equally to imports from all countries.

Poland.—A Convention of Commerce between Canada and Poland, signed July 3, 1935, effective Aug. 15, 1936, exchanged most-favoured-nation treatment and, as regards scheduled goods, granted reductions from the Canadian Intermediate Tariff and from the lowest Polish Tariff. The Polish Tariff comprises two columns of rates for all goods, the rates of Column I being about 25 p.c. higher than the rates of Column II. On some goods there are conventional rates resulting from trade treaties that Poland has concluded with other countries and that are lower even than the rates of Column II. The Free City of Danzig was declared party to the Convention from Jan. 1, 1937. The dismemberment of Poland and outbreak of war in September, 1939, interrupted trade under the terms of this Agreement.

Portugal.—Article 21 of the Treaty of Commerce and Navigation between the United Kingdom and Portugal, signed Aug. 12, 1914, providing for exchange of most-favoured-nation treatment in tariff matters, was accepted in the Canadian Trade Agreements Act of June 11, 1928. The Portuguese Tariff has maximum and minimum scales, the treaty arrangement securing the minimum for Canada.

Roumania.—Article 36 of the Treaty of Commerce and Navigation between the United Kingdom and Roumania of Aug. 6, 1930, affording means for exchange of most-favoured-nation treatment between Canada and Roumania, was utilized in

an Exchange of Notes of Sept. 30, 1930. Roumania has a Minimum Tariff on some commodities, one-third lower than her General Tariff, also, as a result of treaties, reductions from the Minimum Tariff on certain goods.

Russia.—A Canadian Order in Council of Feb. 27, 1931, prohibiting importation from the Union of Soviet Socialist Republics of coal, wood-pulp, pulpwood, lumber, asbestos, and dressed furs, was cancelled by an Order in Council of Sept. 10, 1936, in consequence of which the Soviet Union repealed an Order of Apr. 20, 1931, that had prevented her importing organizations and trade representatives from purchasing Canadian goods or chartering Canadian vessels.

Salvador.—By Exchange of Notes of Nov. 2, 1937, Canada and El Salvador granted each other most-favoured-nation treatment in tariff matters. The Tariff of El Salvador consists of a Maximum Tariff, a Minimum Tariff (one-third the Maximum) and some conventional rates lower than the Minimum.

Spain.—A Treaty of Commerce and Navigation between the United Kingdom and Spain, signed Oct. 31, 1922 (revised Apr. 5, 1927), providing for exchange of most-favoured-nation treatment in tariff matters, was accepted on behalf of Canada by the Spanish Treaty Act of June 11, 1928. The Tariff of Spain consists of a First Tariff (the highest), a Second Tariff (usually one-third of the First) and some conventional rates lower than the Second.

Sweden.—A Convention of Commerce and Navigation between the United Kingdom and Sweden (and Norway) of Mar. 18, 1826, had the effect of establishing most-favoured-nation tariff relationship between Canada and Sweden. Sweden, in commercial treaties with various countries, has granted conventional rates of duty which, however, have been incorporated into the ordinary tariff and made applicable to all countries.

Switzerland.—Under the Treaty of Friendship, Commerce and Reciprocal Establishment between the United Kingdom and Switzerland of Sept. 6, 1855, Canada and Switzerland exchanged most-favoured-nation treatment of each other's goods. Switzerland has reduced some of her rates in treaties, but reductions are incorporated in a single-column tariff that applies to all countries.

United States.—A Trade Agreement between Canada and the United States, signed on Nov. 15, 1935, became operative as regards tariff reductions on Jan. 1, 1936 (See p. 496 of the 1938 Year Book).

A more comprehensive Trade Agreement, signed Nov. 17, 1938, grants Canada concessions on 202 items or sub-items of the United States tariff, covering 83 p.c. of Canadian sales (dutiable and free) to the United States for the year 1937. On 107 of these items, representing $76,577,000 (about half the dutiable imports in 1937) the maximum 50 p.c. reduction in duty was obtained. Of the remaining items 58 are accorded reductions in duty ranging from 10 to 50 p.c., 5 are assured continuance of the existing rate, and 32 continuance of free entry. All concessions of the 1935 Agreement are retained and quotas, where they existed, are either increased or the quota limitation entirely removed. Principal Canadian products benefiting are lumber, shingles, horses, cattle, dairy products, hog products, potatoes, fish, certain grains, hay, poultry, pulp and paper, metals, non-metallic minerals, ferro-alloys, and many lines of manufactured goods. Among the benefits accruing to Canada under the reciprocal most-favoured-nation clause are many reductions in United States duty arising out of a United States-United Kingdom Trade Agreement signed on the same day as the Canadian Agreement. Canada's concessions

to the United States affect 447 tariff items or sub-items, under which imports for the fiscal year 1937 amounted to about 58 p.c. of the total imports from the United States. Reductions in Canadian duty are made on 283 items or sub-items, and duty is fixed at rates hitherto effective on 146. Canada undertook to remove a special excise tax of 3 p.c. then levied on these items. The Agreement contains safe-guarding clauses as to quantitative restrictions, customs valuation, variations in rate of exchange, preventing the principal benefit of a concession going to a third country. The Agreement exchanges unconditional most-favoured-nation treatment with reservation of Canada's Empire preferences and United States preferences granted to Cuba, Philippine Islands, and the Panama Canal Zone. The United States negotiations were, under a tariff amendment Act of June 12, 1934, (Reciprocal Trade Agreements Act) first enacted for three years but extended for another three years by a law of Mar. 1, 1937. The President of the United States formally proclaimed the new Trade Agreement on Nov. 25, 1938. On the day following the President's Proclamation, i.e., Nov. 26, 1938, Article IX of the Agreement became provisionally effective, the result being to exempt Canadian lumber, shingles, and telegraph poles shipped to the United States from the necessity of a mark of origin. Duty concessions, except where otherwise stated, became provisionally effective in both countries on Jan. 1, 1939. The Canadian ratifying Act was assented to in Ottawa by His Majesty the King on May 19, 1939. The Agreement went into force fully on exchange of ratification by the King and a copy of the President's Proclamation on June 17, 1939. It is to be effective for three years from the effective date of Article IX and thereafter, subject to termination on six months' notice by either country.

A Presidential Proclamation of Feb. 27, 1939, allocated to Canada 86·2 p.c. and to other foreign countries 13·8 p.c. of the quota of cattle weighing 700 pounds or more, in consequence of which Canada's quota for the last nine months of 1939 was 142,230 head, and other foreign countries 22,770 head. Quarterly shipments were not to exceed 51,720 head and 8,280 head, respectively. These allocations of cattle weighing 700 pounds or more were renewed on Nov. 30, 1939, for the year 1940, allocating to Canada 193,950 head and to other foreign countries 31,050 head.

A United States-Cuban Trade Agreement brought into force on Dec. 23, 1939, released the United States from obligation to grant Cuban seed potatoes a 50 p.c. preference during December, January, and February of each year, with the result that the tariff reduction on a quota of Canadian seed potatoes was, in accordance with the Canada-United States Trade Agreement, reduced during these months from 60 cents to 37½ cents per 100 lb., the rate already in effect during the other nine months of the year.

A supplementary Trade Agreement, signed on Dec. 30, 1939, reduced United States duty on silver or black fox furs from 37½ to 35 p.c. *ad valorem* and limited total imports into United States of silver and black foxes and their furs to 100,000 units per twelve-month period, beginning Dec. 1, 1939. Canada's share of this quota is 58,300 units per year.

Uruguay.—Canada signed a most-favoured-nation Agreement with Uruguay on Aug. 12, 1936, as regards customs duties, quotas, and allocation of exchange for commercial transactions. Notes then exchanged, and renewed from time to time pending the coming into force of the formal agreement, granted the Canadian Inter-

mediate tariff in return for Uruguayan trading facilities for Canadian exports. A Canadian Act ratifying the Agreement was assented to on Apr. 10, 1937. Ratifications were exchanged at Montevideo, Uruguay, on Apr. 15, 1940, bringing the Agreement into force as from May 15, 1940. It is to remain in force for three years and thereafter until terminated on six months' notice. Under the tariff of Uruguay duties may be increased by 50 p.c. on imports from countries that do not offer reciprocity, or do not accord most-favoured-nation treatment to Uruguayan goods.

Venezuela.—A Treaty of Amity, Commerce and Navigation between the United Kingdom and Colombia (of which Venezuela was then part) of Apr. 18, 1825, applies to Canada and provides for exchange of most-favoured-nation treatment. The Venezuelan Executive Power is authorized to increase duties up to 100 p.c. on certain goods originating in a specified country, but it has not been learned that this power has been used. A limited number of reduced Venezuelan duties are provided in a Trade Agreement of Aug. 6, 1936, between France and Venezuela and in a Trade Agreement of Nov. 6, 1939, between United States and Venezuela. Otherwise no preferences exist under the Venezuelan Tariff.

Yugoslavia.—Article 30 of the United Kingdom-Serb-Croat-Slovene Kingdom Treaty of Commerce and Navigation of May 12, 1927 (affording means for exchange of most-favoured-nation treatment of each other's goods between Canada and Yugoslavia), was accepted by means of the Canadian Trade Agreements Act of June 11, 1928. The Yugoslavian Tariff comprises maximum, minimum, and conventional duties (usually incorporated in the minimum duties).

Section 2.—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 in Ottawa specific inquiries for Canadian goods and, in general, exert their best efforts for the development and expansion of overseas markets.

Organization at Ottawa.—Besides the overseas organization of the Commercial Intelligence Service, there is a headquarters staff at Ottawa. This is presided over by a Director, who is the head of the Service and administers and unifies the work assigned to the various Trade Commissioners. Assisting the Director are the following divisions: Directories—where the Exporters Directory, listing Canadian exporters with their agents abroad, commodities handled, ratings, cables and codes used, etc., and the Foreign Importers Directory are kept up to date; Editorial—where the Commercial Intelligence Journal is compiled; 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 Manufactured Products. These last five divisions handle correspondence falling within their respective classifications.

*Revised by L. D. Wilgress, Director, Commercial Intelligence Service, Department of Trade and Commerce.

In order to keep abreast of Canadian industrial development, each Trade Commissioner makes a periodic tour of Canada and, while in this country, gives first-hand information to possible Canadian exporters and makes direct contacts with Canadian manufacturers regarding opportunities and conditions of trade in his territory.

Organization Abroad.—A list of the countries in which Canadian Trade Commissioners are located, showing territory covered, name, post office, and cable address of the Trade Commissioner in each case is given below:—

CANADIAN GOVERNMENT TRADE COMMISSIONERS.

NOTE.—This list was revised as at Jan. 1, 1940. Cable address of Trade Commissioners is "Canadian" unless otherwise stated.

Argentine Republic—(Territory includes Uruguay.)	J. A. Strong, B. Mitre 430, Buenos Aires (1).
Australia—	
Sydney (territory covers Australian Capital Territory, New South Wales, Queensland, Northern territory and Dependencies).	L. M. Cosgrave. Address for letters—P.O. Box No. 3952V. Office—City Mutual Life Building, Hunter and Bligh Streets.
Melbourne (territory covers States of Victoria, South Australia, Western Australia, and Tasmania).	Frederick Palmer, 83 William St., Melbourne, C. 1.
Belgium and Luxemburg.....	Yves Lamontagne, Shell Building, 60 Ravenstein Street, Brussels.
Brazil.....	L. S. Glass. Address for letters—Caixa Postal 2164, Rio de Janeiro. Office—Ed. Da "A Noite", Sala 802, Praca Maua.
British India—(Territory includes Burma and Ceylon.)	Paul Sykes. Address for letters—P.O. Box 886 Bombay. Office—Gresham Assurance House, Mint Road, Bombay.
British Malaya—(Territory includes the Straits Settlements, the Federated and Unfederated Malay States, British Borneo, Northern Sumatra, Siam [Thailand] and Netherlands Indies.)	J. L. Mutter, Union Building, Singapore, Straits Settlements.
British West Indies—	
Trinidad (territory includes Barbados, Windward and Leeward Islands, and British Guiana).	M. B. Palmer. Address for letters—P.O. Box 125, Port of Spain. Office—Barclay's Bank Building.
Jamaica (territory covers Jamaica, Haiti, the Bahamas, and British Honduras).	F. W. Fraser, P.O. Box 225. Office—Canadian Bank of Commerce Chambers, Kingston.
China—	
Shanghai (territory includes North and Central China and Manchuria).	V. E. Duclos. P.O. Box 264, Shanghai. Office—Ewo Building, 27 The Bund, Shanghai.
Cuba—(Territory includes Dominican Republic and Puerto Rico.)	C. S. Bissett. Address for letters—Apartado 1945, Havana. Office address—Royal Bank of Canada Building, Calle Aguiar 367, Havana.
Egypt—(Territory includes the Sudan, Palestine, Cyprus, Iraq, Syria, Iran, Greece, Turkey, Bulgaria, and Roumania.)	Henri Turcot. Address for letters—P.O. Box 1770, Cairo. Office—22 Shari Kasr el Nil, Cairo.
France—(Territory includes French Colonies in North Africa.)	Hercule Barré, Commercial Attaché, 3 rue Scribe, Paris (9). Cable address—Cancomac.
Hong Kong—(Territory includes South China, the Philippines, and Indo-China.)	P. V. McLane. Address for letters—P.O. Box 80, Hong Kong. Office—Hong Kong and Shanghai Bank Building, Hong Kong.
Ireland and Northern Ireland.....	James Cormack, 66 Upper O'Connell Street, Dublin, Ireland, and 36 Victoria Square, Belfast, Northern Ireland. Cable address—Adanac.
Italy—(Territory includes Spain, Portugal, Gibraltar, Malta, Albania, and Yugoslavia.)	A. B. Muddiman, Via Manzoni Nr. 5, Milan (102).
Japan—	
Tokyo.....	C. M. Croft, Commercial Secretary. Address for letters—P.O. Box 18, Akasaka Post Office, Tokyo. Office—Canadian Legation, 16 Omotecho, 3-chome, Akasakaku, Tokyo.

CANADIAN GOVERNMENT TRADE COMMISSIONERS—concluded.

Mexico—(Territory includes Guatemala, Honduras, and Salvador.)	R. T. Young. Address for letters—Apartado Num. 126-bis, Mexico City. Office—Edificio Banco de Londres y Mexico, Num. 30, Mexico City. Cable address—Cancoma.
Netherlands—(Territory includes Switzerland.)	James Langley, Coolsingel 111b, Rotterdam.
New Zealand—(Territory includes Fiji and Western Samoa.)	W. F. Bull. Address for letters—P.O. Box 33, Auckland. Office—Yorkshire House, Shortland Street, Auckland.
Norway—(Territory includes Scandinavian countries and Finland.)	Richard Grew. Address for letters—Stortingsgaten 28, Oslo.
Panama—(Territory includes the Canal Zone, Venezuela, Colombia, Nicaragua, and Costa Rica.)	H. W. Brighton. Address for letters—P.O. Box 222, Panama City. Office—98 Central Avenue, Panama City.
Peru—(Territory includes Bolivia, Chile, and Ecuador.)	M. J. Vechsler. Address for letters—Casilla 1212, Lima. Office—Edificio Boza Carabaya 831, Plaza, San Martin, Lima.
South Africa—	
Cape Town (territory includes Cape Province and Southwest Africa, Natal, Tanganyika, Kenya, Uganda, Mauritius, and Madagascar).	J. C. Macgillivray. Address for letters—P.O. Box 683, Capte Town. Office—New South African Mutual Buildings, 17 Parliament Street, Cape Town. Cable address—Cantracom.
Johannesburg (territory includes Transvaal, Orange Free State, Bechuanaland, Somaliland, the Rhodesias, Portuguese East Africa, Mozambique, and Nyasaland).	J. H. English. Address for letters—P.O. Box 715. Office—Prudential Assurance Building, 92 Fox St., Johannesburg. Cable address—Cantracom.
United Kingdom—	
London.....	Frederic Hudd, Chief Trade Commissioner in the United Kingdom, Canada House, Trafalgar Square, S.W. 1. Cable address—Sleighing, London.
London (territory covers Home Counties, Southeastern Counties, and East Anglia).	G. R. Heasman, Canada House, Trafalgar Square, S.W. 1.
London (territory—for fresh fruit only—covers United Kingdom, Norway, Denmark, Sweden, France, Holland, Belgium, and Germany).	W. B. Gornall, Fruit Trade Commissioner, Aldine House, Bedford Street, Strand, W.C. 2. Cable address—Canfrucom.
London.....	G. R. Paterson, Animal Products Trade Commissioner, Canada House, Trafalgar Square, S.W. 1. Cable address—Agrilson.
Liverpool (territory covers North of England, Lincolnshire, North Midlands, and North Wales).	A. E. Bryan, Martins Bank Building, Water Street, Liverpool.
Bristol (territory covers West of England, South Wales, and South Midlands).	E. L. McColl, Northcliffe House, Colston Ave., Bristol.
Glasgow.....	G. B. Johnson, 200 St. Vincent Street, Glasgow. Cable address—Cantracom.
United States—	
Chicago (territory covers the Middle States of the United States).	W. J. Riddiford, Tribune Tower Building, 435 North Michigan Avenue, Chicago.
Los Angeles (territory covers the Mid-Western and Western States of the United States).	B. C. Butler, Associated Realty Building, 510 West Sixth Street, Los Angeles.
New York City (territory includes Bermuda).	D. S. Cole, British Empire Building, Rockefeller Centre, New York City. Cable address—Cantracom.

Under an arrangement made by the Minister of Trade and Commerce with the British Foreign Office, Canadian manufacturers, exporters, and others 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.

Section 3.—Statistics of External Trade.*

External trade statistics are derived by recording the physical movement of goods outwards or inwards across the frontiers or through ocean ports and the valuations placed upon them at the time of movement. Such statistics cannot take cognizance of the complex financial transactions involved in this physical movement of goods, which transactions may take place prior to or subsequent to the actual shipment (although in investigating the balance of international payments, as in Sect. 5 of this chapter, such financial transactions are the sole consideration). Certain problems of procedure arise in recording trade statistics and it is necessary to explain these. Such problems may be conveniently classified as those relating generally to recording the movements of goods and those relating to the movements of gold.

General Explanations regarding Trade Statistics.—For the correct interpretation of the statistics of external trade, it is necessary that the following definitions and explanations of terms used, as well as certain features of the statistics that necessitate adjustments to the external trade figures, be carefully kept in mind, if the true position of trade in relation to the total of Canada's international transactions is to be understood.

Fiscal Years.—The Canadian fiscal year ended on June 30 of the years from 1868 to 1906, and on Mar. 31 of 1907 and subsequent years.

Quantities and Values.—In all tables of imports and exports, the quantities and values are based upon the declarations of importers (import entries) and exporters (export entries), as subsequently checked by customs officials.

Imports: Valuation.—"Imports" means imports entered for consumption. "Entered for consumption" does not necessarily imply that the goods have been actually consumed in Canada, but that they have passed into the possession of the mporter and that duty has been paid on that portion liable for duty.

Under the main provisions of the law, the value of merchandise imported into Canada is the fair market value or price thereof when sold for home consumption in the principal markets of the country from which, and at the same time when, said merchandise was exported directly to Canada; but the value shall not be less than the price to jobbers and wholesalers generally, nor less than the actual cost of production at the time of shipment plus a reasonable advance for cost of selling and profit. (See Sects. 35 to 45 of the Customs Act.) Under these provisions and amendments thereto, some imports are given arbitrary valuations differing from those upon which actual payments for the imports are made.

For Customs entry purposes, the value of the currency of the country of export is converted to Canadian currency at exchange ratios as authorized by law and Orders in Council. (See Sect. 55 of the Customs Act and Orders in Council respecting currency valuations.) Differences arising from fluctuations in the exchange rates of foreign currencies are treated more fully below under the heading "Discrepancies in Trade Statistics between Canada and Other Countries".

*Revised by A. L. Neal, B.A., B.Sc. (Econ.), Chief, External Trade Branch, Dominion Bureau of Statistics. This Branch publishes the Annual Report on the Trade of Canada, the Condensed Preliminary Report on the Trade of Canada (annual), the Quarterly Report on the Trade of Canada, the Calendar Year Report on the Trade of Canada, the Summary of the Trade of Canada (monthly), etc. For complete list of the publications of this Branch, see Chapter XXIX, Sect. 1, under "External Trade"

Canadian Exports: Valuation.—"Canadian produce" exported includes Canadian products or manufactures, also exports of commodities of foreign origin which have been changed in form or enhanced in value by further manufacture in Canada, such as sugar refined in Canada from imported raw sugar, aluminium extracted from imported ore, and articles constructed or manufactured from imported materials. The value of exports of Canadian merchandise is the actual cost or the value at the time of exportation at the points in Canada whence consigned for export.

Foreign Exports: Valuation.—"Foreign produce" exported consists of foreign merchandise that had previously been imported (entered for home consumption). The value of such commodities is the actual cost.

Countries to Which Trade is Credited.—Imports are classified as received from the countries whence they were consigned to Canada. The countries of consignment are the countries from which the goods have come, without interruption of transit, save in the course of transhipment or transfer from one conveyance to another. The countries whence goods are consigned are not necessarily the countries of actual origin, since goods produced in one country may be purchased by a firm in another country and thence dispatched, after a longer or shorter interval, to Canada. In such cases the second country would be the country of consignment, to which the goods would be credited. An example is the case of tea grown in the Orient but purchased in the bonded market in London, England; Canadian statistics record such imports as coming from the United Kingdom.

Exports are credited to the country of final destination, i.e., the country to which they are consigned, whether that country possesses a seaboard or not. The country of final destination is the country to which goods exported from Canada are intended to pass, without interruption of transit save in the course of transshipment or transfer from one means of conveyance to another.

Discrepancies in Trade Statistics between Canada and Other Countries.—Canadian statistics of exports are rarely in exact agreement with the import figures of her customers and similar differences occur with Canadian imports. Many factors contribute to these discrepancies; among these are the following:—

1. Differences in the basis of the Canadian valuations and those of the valuations of other countries.

The recent period of disturbed currency relations between countries has introduced an additional element of difference in valuations. Thus imports from the United Kingdom have been valued all along at $4·86⅔ to the £, although for two years after Sept. 21, 1931, the actual value of the £ was below that figure, dropping as low as $3·70, and the actual value of imports from the United Kingdom was thereby greatly exaggerated. More recently, when the exchange value of the £ was above par, imports from the United Kingdom were undervalued. Similar difficulties have resulted from disturbances in exchange levels with other countries, and the placing of arbitrary valuations upon their currencies, as in the case of imports from Japan.

A further discrepancy in valuation of imports from the United Kingdom existed from 1920 to Mar. 31, 1935, in connection with distilled spirits, an important item in imports from that country. The valuation of Canadian imports of spirits from the United Kingdom included, during this period, the excise duty in addition to the British export valuation, an excess valuation aggregating over $200,000,000 for the period 1920-34. The excise duty has been excluded from the valuation of such imports since Apr. 1, 1935.

2. Even where the statistics cover the same period of time, there are quantities of goods on their way from the exporting to the importing country at the beginning and end of the period.

3. By far the greatest discrepancies occur from the impossibility of determining the country of final destination for exports or the actual country of origin for imports. A considerable proportion of Canada's exports to overseas countries (8·4 p.c. in 1939) is shipped via the United States. Some of this is credited by importing countries to the United States. Canadian grain exports, for example, are frequently routed through the United States in bond. Most of this grain leaves Canada with the United Kingdom as the stated destination, but large quantities are later diverted to other European or overseas countries and some is taken out of bond for consumption in the United States. Thus the Canadian record of exports to the United Kingdom may be $100,000,000 or more in excess of Canadian products actually received by the United Kingdom, while stated exports to other overseas countries are short this amount. Again, United States grain is routed through Canada and shipped from Montreal and is therefore frequently shown by other countries as imported from Canada, while it is included in United States statistics as an export to Canada. As mentioned above, purchases in bonded markets in England, Germany, Belgium, and France are included in Canadian imports from those countries but are not included by those countries in exports to Canada.

For more detailed discussion of this subject see the article and tables on "Discrepancies in Trade Statistics" on pp. 778-781 of the Annual Report on the Trade of Canada, 1928, and pp. 21-29 of the Condensed Preliminary Report on the Trade of Canada, 1939, both published by the Dominion Bureau of Statistics.

Treatment of Gold in Trade Statistics.—Exports of gold in Canadian trade statistics are distinguished as between monetary and non-monetary. Monetary gold exports are those that entail a corresponding reduction in the Dominion's monetary gold stocks. All other gold exports (classed as non-monetary) are shown as merchandise and included with total merchandise exports in trade statistics. This procedure was determined, following the Conference of British Commonwealth Statisticians in 1935, by the Dominion Bureau of Statistics in conference with the Bank of Canada and the Department of National Revenue. In former times there was a movement of gold from Canada in the form of "gold-bearing quartz, dust, nuggets, and gold bullion obtained direct from mining operations" When the Royal Mint in Ottawa began to refine gold, exports formerly shipped as "gold-bearing quartz, dust, etc." began to be exported in the form of bullion and were recorded under "coin and bullion" as distinct from "merchandise" In order to maintain comparability with the statistics of previous years it was considered expedient to adopt the present procedure. It was also felt that since gold, like other great export staples, is a product of Canadian resources and industry and, in large part, is exported independently of domestic monetary considerations, it ought not to be excluded from the statistics of exports, and should not be classed as 'money' when it bears no relation to the Canadian monetary system. The change was inaugurated on Apr. 1, 1936, and appropriate revisions made in the trade statistics for previous years back to 1926. Prior to this time no substantial revision was necessary. When the change was made it was considered that there would be no re-exports of non-monetary gold, i.e., exports (non-monetary in character) of

previously imported gold; therefore no provision was made for this distinction with respect to exports of foreign products. However, it was found, as will be indicated below, that in order to represent faithfully the facts of the case the distinction was necessary for foreign exports as well as domestic exports and, accordingly, that has been done since Apr. 1, 1938. Since June 1, 1931, gold exports have been valued at the monthly average current market price.

Certain difficulties, however, arise when gold is included with ordinary commercial commodities.

The fact that gold is a money metal gives it peculiar attributes that distinguish it from other commodities. In particular, the movement of gold in international trade is determined almost exclusively by monetary factors. The amount of exports may fluctuate widely from month to month owing to other than ordinary trade or commercial considerations. The nationality of gold does not affect its value as an export asset and, therefore, domestic and foreign gold are mutually substitutable. It is doubtless correct to treat new gold based on current production as a commodity of mineral origin and so classify it in export statistics, but it may happen that foreign (i.e., previously imported) gold may be exported without reducing monetary stocks. At certain times recently, substantial amounts of foreign gold coin have been exported owing to the premium obtainable on coined gold. Exports of domestic bullion were correspondingly smaller, since it was substituted for the foreign gold in stocks held in Canada. Furthermore, gold does not move in international trade in any direct or normal relation to sales and purchases. It may be sold abroad without moving out across the frontier. Trade statistics deal only with physical movements, sales or purchases of gold which do not involve an actual movement being more properly taken care of in the "International Balance of Payments" statements dealt with in Sect. 5 of this chapter. Domestic gold added to earmark stock, although sold abroad, does not appear in export statistics because it remains in Canada. In view, however, of the relation to external trade, statistics respecting holdings of earmarked gold are now appended in the Bureau of Statistics trade reports with an explanatory footnote (see also p. 585).

To comprehend in its entirety, therefore, the effect of gold movements upon the figures of the export trade of Canada, it is necessary to consider non-monetary exports of domestic gold and of foreign gold, as well as earmarkings by the Bank of Canada. Admittedly, the statistics in this connection are somewhat complicated, but they represent complicated facts. However, it is very necessary that the effects of fluctuations in the movement of gold should be borne in mind in dealing with statistics of trade. Gold may now form a very large item in the value of annual exports (Canada's production in 1939 is estimated as worth over $181,000,000) so that fluctuations in the movement may materially affect the apparent value and distribution of Canada's trade. For instance, in one year the major part of the gold may be shipped to London, in another year to New York, or it may be accumulated under earmark, resulting in wide variation in the value and proportion of exports to the United Kingdom and the United States. So far exports have been confined almost entirely to these two countries. It may sometimes be desirable to view movements of trade in strictly commercial commodities alone. In order to facilitate doing so, a statement of non-monetary gold exports is given below, which will enable the student to make the desired adjustments to the trade statistics given in the main body of this chapter.

I.—EXPORTS OF NON-MONETARY GOLD INCLUDED IN MERCHANDISE TRADE STATISTICS, FISCAL YEARS 1935-39.

Item and Country.	1935.	1936.	1937.	1938.	1939.
Domestic Exports.	$	$	$	$	$
United Kingdom	16,702,500	2,600,196	1,884,894	2,533,022	51,607
United States	83,741,672	85,583,067	81,117,759	90,921,880	95,274,563
Other countries	6,970	33,620	161,897	210,448	375,890
Totals, Domestic Exports	100,451,142	88,216,883	83,164,550	93,665,350	95,702,060
Foreign Exports.					
United Kingdom	Nil	Nil	Nil	Nil	Nil
United States	38,325	87,000	11,200	12,999	214,734
Other countries	Nil	Nil	Nil	Nil	Nil
Totals, Foreign Exports	38,325	87,000	11,200	12,999	214,734
Grand Totals	100,489,467	88,303,883	83,175,750	93,678,349	95,916,794

Subsection 1.—Value and Quantum of World Trade.*

World imports and exports, on which the figures in Statement V, pp. 507-508, are based, are the sum of the recorded imports and exports of individual countries reduced to the common monetary unit of United States old gold dollars (i.e., of gold valued at $20.67 per fine ounce). On this basis, the value of world trade fell off by nearly 13 p.c. in 1938 compared with 1937. The average prices in gold for goods entering into world trade fell by 5 p.c. and the quantum of trade fell by about 8 p.c., being about 11 p.c. below that of 1929. The quantum of trade declined annually from 1929 to 1932 when it had reached a level of about 25 p.c. below that of 1929. After 1932, quantum increased each year until 1937 and dropped again in 1938. Average gold prices of goods comprising world trade had been declining since 1925, the annual declines being comparatively small until the end of 1929, but became quite precipitous to 1932 and then tapered off to 1935, in which year they were only 42·5 p.c. of their level in 1929 or about 41 p.c. of that of 1927. The trend of gold prices turned upward in 1936 and the first half of 1937, but declined again in the second half of 1937, the year's average being 48·0 p.c. For 1938 the average was 45·5 p.c. Signs of an improvement in trade occurred in the middle of the year, the downward trend of the first half being arrested in the second half, while a normal seasonal expansion in quantum is noticeable for the last quarter.

Recent changes in world trading conditions appear to have been determined chiefly by the variations in the United States demand for goods, raw materials in particular, that resulted from the sharp changes in her industrial activity in 1937 and 1938. In the latest year, United States imports were over a third lower than in 1927, but her exports declined at a lower rate than those of her chief competitors. Japan also suffered a severe set-back in her trade with countries outside the 'yen bloc', while Germany increased both the quantum and the value of her imports in 1938, in spite of a decline in her competitive power in export markets. The increased demand for materials for armament purposes and for machinery and other capital equipment from non-industrialized countries were off-setting factors that appear to have abated the aggravation of trading conditions that began in 1937. The non-industrial countries as a general rule maintained their imports at a high level despite the reduced demand for most of their products and the deterioration in

*Abbreviated from "Review of World Trade, 1938", published by the League of Nations.

their terms of trade. Both exports and imports of the United Kingdom fell by 11 p.c. in gold value, the decline in exports being due to a reduction in quantum and that in imports to lower prices. The decline of about one-fifth in the exchange value of the franc somewhat obscured the trade situation of France, but there was an apparent increase in the quantum of exports, confined, in the main, to such highly manufactured goods as textiles, while imports fell off in quantity.

Later monthly reports of the League of Nations indicate that prices were down slightly in the first half of 1939 while quantum, after declining in the first quarter, showed a sharp increase in the second quarter.

Trade by Groups of Commodities.—The commodities that enter into world trade may be roughly divided into three groups, namely, foodstuffs, raw materials, and manufactured goods.

The estimated movement since 1929 of the proportion of total trade, average gold prices, and quantum of commodities belonging to the three groups is shown in Statement II below. The estimates are based on information concerning five* principal trading countries representing about 41 p.c. of world trade.

II.—PRICE AND QUANTUM MOVEMENTS OF GROUPS OF COMMODITIES IN WORLD TRADE, 1929 AND 1932-38.

(1929=100.)

Item.	1929.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
PERCENTAGE SHARE IN VALUE OF WORLD TRADE.								
Foodstuffs	24·5	29·0	26·5	25·0	24·5	24·5	23·0	24·0
Materials, raw or partly manufactured	36·0	33·0	36·0	37·0	37·5	38·0	39·5[1]	36·0
Manufactured goods	39·5	38·0	37·5	38·0	38·0	37·5	37·5[1]	40·0
ALL COMMODITIES	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
PRICE MOVEMENT (IN U.S.A. old gold dollars).								
Foodstuffs	100·0	52·0	45·5	41·5	40·5	42·0[1]	45·5	43·0
Materials, raw or partly manufactured	100·0	44·0	40·0	39·5	39·0[1]	41·5	47·0[1]	42·5
Manufactured goods	100·0	63·5[1]	56·5[1]	50·0	48·0	48·0	51·0[1]	50·5
ALL COMMODITIES	100·0	52·4	46·7	43·5	42·4	43·7	48·0[1]	45·5
QUANTUM MOVEMENT.								
Foodstuffs	100·0	89·0	83·0	82·0	85·5	88·0	93·5[1]	91·5
Materials, raw or partly manufactured	100·0	81·5	87·5	88·0	92·5[1]	95·5	108·0[1]	95·0
Manufactured goods	100·0	59·5[1]	60·0[1]	66·5	69·5	75·0	87·0[1]	82·0
ALL COMMODITIES	100·0	74·6	75·4	78·2	81·8	85·8	96·5[1]	88·8

[1]Revised since the publication of the 1939 Year Book.

The improvement, developing since 1932 in the barter terms of trade of agricultural and mineral-producing countries, continued in 1938, although the terms of trade of these countries had deteriorated so rapidly during the early years of the depression that they still remained lower than in the years 1925-29. Such countries reached their most advantageous position since 1929 in the first half of 1937. Declining prices of primary commodities caused a deterioration in their barter terms again toward the end of the year and throughout 1938.

*United Kingdom, United States, Germany, France, and Italy.

Trade in Certain Staple Products.—A study of the trade in the major staple products throws some light upon certain of the tendencies that have recently affected the international exchange of goods.

Of important food staples, coffee registered an increase in the quantity entering into world trade in 1938, maize and sugar showed decreases, and wheat, butter, and cheese were on practically the same level as in 1937. The decrease in the supply of wheat from the Argentine and certain Danubian countries was offset by larger sales from the United States, Canada, and Australia. Imports into European countries were somewhat lower, and into other countries somewhat higher, than in 1937. During the latter half of 1938, however, European imports, in spite of abundant crops in several importing countries, rose to a higher level than in the corresponding period of 1937. This increase is explained by the fall in price, the building-up of emergency reserves by some countries and the subsidizing of exports by the United States. The fall in the price of wheat also contributed to the reduction in the amount of maize entering world markets, but the major cause was the great reduction in the size of the crop in Argentina. The increase in the quantity of coffee marketed was due to the fall in prices consequent upon the breakdown of the Brazilian coffee valorization.

The decrease in quantum as well as in the price of raw materials was generally greater than in the case of foodstuffs. Trade in cotton was lower, owing to decreased demand from the United Kingdom and Japan, while an increase of 18 p.c. in the world crop kept prices low. Exports of wool were higher, owing to increased demand from the United Kingdom, Germany, and France. Decreased production of rubber was attended by an increased demand, with a consequent lowering of stocks and an increase in prices. The estimated absorption of rubber during the second half of the year was 14 p.c. over the first half. Trade in coal and coke was depressed, but coal prices were higher. Imports of mineral oils into six leading importing countries registered increases of 6·8 p.c. and 8·3 p.c. for crude and refined oils, respectively. While complete statistics regarding the amount of copper entering into world trade are lacking, there was an apparent increase in quantum due to larger imports by Germany. Tin prices fell up to the end of May, but rose by about a third during the remainder of the year; the quantum was lower, owing to further restrictions upon output. Imports into the United States and the United Kingdom were lower by 44·4 p.c. and 47·6 p.c., respectively, while those into Germany increased by 20·0 p.c.

Geographic Distribution of World Trade.—In Statement III, showing the percentage distribution of world trade by continents for the period 1929-38, the figures for each continental group are the sums of those of the individual countries comprising such group and therefore include trade between the members of the group. The United Kingdom and the United States have been separated from the remainder of their respective continental groups because trade tendencies in these two principal trading countries show movements differing from those of the remainder of their continental groups. Thus, while the total trade of the United Kingdom has become an increased percentage of total world trade, that of the remainder of Europe has become considerably less, although an improvement was noted in 1938. The trade of the United States has declined materially as a percentage of world trade, but that of the remainder of North America (chiefly Canada), after declining during the depression, was about the same percentage in 1936 as in 1929. In the two latest years, however, there has been a recession to a point lower than the 1929 figure.

The outstanding change in world imports was the decline in the share of North America from 16·1 p.c. in 1929 to 13·9 p.c. in 1937 and 10·9 p.c. in 1938. The

decline in 1938 was due chiefly to the setback of United States production and the resulting fall in United States imports, particularly of raw materials. All other continental groups increased their shares in world imports.

The share of North America in world exports increased, however, in 1938, although still lower than the 1929 position. The United States alone was responsible for this increase, mainly a result of greater exports of cereals. Europe also increased its share of exports, Oceania showed approximately the same percentage as in 1937, while Latin America, Africa, and Asia showed smaller proportions.

III.—PERCENTAGE DISTRIBUTION OF WORLD TRADE BY CONTINENTS, 1929, 1932, 1937 AND 1938.

(Basis: Recorded values in U.S.A. old gold dollars.)

Continental Group.	Imports.				Exports.				Total Trade.			
	1929.	1932.	1937.	1938.	1929.	1932.	1937.	1938.	1929.	1932.	1937.	1938.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Europe (incl. U.S.S.R.)	55·5	60·6	55·9[1]	57·3	48·8	51·1	45·7[1]	47·0	52·4	56·2	51·0[1]	52·3
United Kingdom	*15·2*	*16·3*	*17·0*[1]	*17·3*	*10·8*	*9·9*	*9·9*	*10·1*	*13·1*	*13·2*	*13·5*[1]	*13·8*
Other Europe	*40·3*	*44·3*	*38·9*[1]	*40·0*	*38·0*	*41·2*	*35·8*[1]	*36·9*	*39·3*	*43·0*	*37·5*[1]	*38·5*
North America[2]	16·1	12·5	13·9[1]	10·9	19·5	16·3	17·0[1]	17·7	17·7	14·2	15·4[1]	14·2
United States	*12·2*	*9·5*	*10·9*[1]	*8·1*	*15·6*	*12·2*	*12·6*[1]	*13·5*	*13·8*	*10·8*	*11·7*[1]	*10·7*
Other North America	*3·9*	*3·0*	*3·0*	*2·8*	*3·9*	*4·1*	*4·4*	*4·2*	*3·9*	*3·4*	*3·7*	*3·5*
Latin America	7·7	5·4	7·1	7·6	9·6	9·1	10·3	9·4	8·6	7·2	8·6	8·4
Africa	4·8	5·8	6·2[1]	6·3	4·5	6·7	6·9[1]	6·6	4·6	6·2	6·5[1]	6·5
Asia (excl. U.S.S.R.)	13·2	13·7	14·2[1]	14·8	14·9	13·7	16·7[1]	15·8	14·0	13·7	15·4[1]	15·3
Oceania	2·7	2·0	2·7	3·1	2·7	3·1	3·4	3·5	2·7	2·5	3·1	3·3
WORLD	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0

[1]Revised since the publication of the 1939 Year Book. [2]United States, Canada, Newfoundland, Greenland, St. Pierre-Miquelon.

The above analysis of trade by continental groups may be supplemented by analysing the trade of the principal political groups or empires, as in Statement IV. As in the case of the preceding statement, the figures for each group are the sums of those of the individual countries comprising the group.

IV.—PERCENTAGE DISTRIBUTION OF WORLD TRADE BY POLITICAL GROUPS, 1929, 1932, 1937, AND 1938.

(Basis: Recorded values in U.S.A. old gold dollars.)

Group.	Imports.				Exports.				Total Trade.			
	1929.	1932.	1937.	1938.	1929.	1932.	1937.	1938.	1929.	1932.	1937.	1938.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
British Commonwealth	29·4	28·9	31·5[1]	32·0	26·3	26·0	28·0[1]	27·2	27·9	27·5	29·8	29·7
United Kingdom	*15·2*	*16·3*	*17·0*[1]	*17·3*	*10·8*	*9·9*	*9·9*	*10·1*	*13·1*	*13·2*	*13·5*[1]	*13·8*
Other British	*14·2*	*12·6*	*14·5*[1]	*14·7*	*15·5*	*16·1*	*18·1*[1]	*17·1*	*14·8*	*14·3*	*16·3*[1]	*15·9*
French Empire	8·5	11·6	8·1[1]	7·6	7·6	8·6	5·7[1]	6·1	8·0	10·2	7·0[1]	6·8
Netherlands Empire	4·8	5·3	4·7	5·2	4·6	4·9	5·0	5·0	4·7	5·1	4·9[1]	5·1
TOTALS	42·7	45·8	44·3[1]	44·8	38·5	39·5	38·7[1]	38·3	40·6	42·8	41·7[1]	41·6
Rest of the World—												
United States	12·2	9·5	10·9[1]	8·1	15·6	12·2	12·6[1]	13·5	13·8	10·8	11·7[1]	10·7
Other countries	45·1	44·7	44·8[1]	47·1	45·9	48·3	48·7[1]	48·2	45·6	46·4	46·6[1]	47·7
TOTALS	57·3	54·2	55·7[1]	55·2	61·5	60·5	61·3[1]	61·7	59·4	57·2	58·3[1]	58·4
GRAND TOTALS	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0

[1]Revised since the publication of the 1939 Year Book.

Intra-Commonwealth trade was estimated at 25·7 p.c. of the total trade of the British Commonwealth in 1929 and 1931, 29·1 p.c. in 1932, 30·6 p.c. in 1936, and 31·4 p.c. in 1937. The rise from 1932 to 1938 in the share of the British Commonwealth in world trade contrasts sharply with the fall in that of the French Empire.

Factors Influencing World Trade.—In addition to the considerations of price and industrial and trade conditions, there are other factors that are exerting a strong influence on world trade. While space does not permit an exhaustive analysis of the circumstances that have determined the changes taking place, certain of the chief factors may be mentioned.

Effects of War Apprehensions.—The uncertainties of the international situation had a very depressing effect on trading conditions as between nations during the year 1938. This is not so much a result of the continuance of the 'undeclared wars' in China and Spain as of the danger—almost expectancy—of more extensive conflicts. All the nations whose foreign communications were vulnerable had taken the precaution to increase their stocks of foreign raw materials and foodstuffs and trade in armaments was very active with consequent demand for commodities directly concerned.

United Kingdom imports of whale oil, for example, increased in quantity by 50 p.c. (from 152,000 long tons in 1937 to 226,000 in 1938) and her imports of aluminium and nickel were twice as high in 1938 as they were in 1936. There was a tenfold increase in German cereal imports in 1937 and 1938 and a heavy rise in the last-mentioned year in German purchases of certain metals and mineral oils. The same is true of Japanese trade and indeed of that of several other countries.

In 1938 the stimulating influence of the threat of war on trade was obvious, and its importance was enhanced by the fact that the purchases for armament purposes gathered pace just at a period—from the middle of 1937 to the middle of 1938—when the decline in the United States demand for goods threatened to initiate a world-wide depression similar to that which began in 1929. The depression that actually occurred was serious enough to cause a considerable fall in the prices of primary products.

However, there are in most countries rather narrow limits to the increase in imports for armaments. A heavy increase in purchases of foreign goods for such purposes is likely in most countries to lead sooner or later to a decline in the imports of other goods, or in exports, or both. Thus, the chief reasons for the collapse, in 1938, of Japanese trade with countries outside the 'yen bloc' appear to have been the scarcity of raw materials for the export industry—aggravated by the exchange control introduced as one of the means of putting Japanese economy on a war basis, increased manufacturing costs within Japan, and consequent inability to pursue the policy of selling at low prices that had previously been Japan's strongest weapon in her competition in foreign markets. As a result, a substantial part of Japan's markets was won by competitors. Germany's sale of coal, coke, iron, and crude iron products fell off sharply while imports of iron ore and mineral ores showed a big increase. In spite of increased value of imports in 1938, certain civil industries in Germany suffered from an acute shortage of raw materials, resulting in an adverse influence upon exports.

The stimulating influence of increased armaments upon trade is likely to be limited, therefore, but in the latter part of 1937 and in 1938, when there was a rapid expansion of purchases for armament purposes, at the same time as the relatively low industrial activity in the United States was exercising a deflationary

influence, the stimulating effect seems to have preponderated. But even to the extent that armament policies have not directly affected the terms of trade between industrial and non-industrial countries, it has probably contributed to the maintenance of a higher business activity within countries, in general, and has indirectly stimulated international trade.

Formation of Economic Groups of Countries.—The disintegration of world trade through the formation of economic groups reflects the measures of trade and currency control through which countries have endeavoured to avert the effect of the disturbances in their international account that became manifest during the early part of the trade depression. There has been a relative increase in trade between certain big industrial countries and such raw-material-producing countries as are bound to them by political ties or are otherwise dominated by their influence. In the first instance, trade has increased between mother countries and their dominions, colonies, and protectorates. But the relative increase in trade within these groups has been brought about not only by discriminatory measures but largely by the fact that the countries of each group have the same currency, or currencies, which have been linked to each other. The importance of monetary stability may be illustrated by the fact that, besides the British Commonwealth, other countries which are generally classed as belonging to the 'sterling bloc' have also increased their share in the trade of the United Kingdom.

As an illustration of the changes in trade that this procedure brought about, the trading percentages for the years 1929, 1935, and 1938 show the current trend. Imports of the United Kingdom from countries comprising her Empire were 30·2 p.c. of the total in 1929, 39 p.c. in 1935, and 41·9 p.c. in 1938. Similarly, imports from countries of the sterling bloc increased slightly from 12 p.c. in 1929 to 12·5 p.c. in 1935, and 12·8 p.c. in 1938. In 1929, 44·4 p.c. of exports from the United Kingdom went to Empire countries as compared with 47·6 p.c. in 1935, and 49·9 p.c. in 1938. Exports to countries of the sterling bloc made up 7·4 p.c. of total exports in 1929, 11·5 p.c. in 1935, and 11·7 p.c. in 1938.

The redistribution of trade is illustrated even more strikingly in the case of Japan. Between 1935 and 1938, the share in Japan's exports of countries falling within her special sphere of influence rose from 41 p.c. to 63 p.c. In the same period German exports to southeastern Europe and Latin America rose from 17 p.c. to 25 p.c. of the total.

The disorganization of the system of multilateral trade has led to difficulties in financing imports of primary products required by industrial countries. The non-industrial countries within the respective "empires" are indebted to their mother countries and normally have to meet the payments due by the aid of an excess of exports over imports. The production of these countries is highly specialized and their exports—and accordingly their surplus of exports—have a natural tendency to spread over a wide range of industrial countries besides those to which the debts are due. The transfer of the debt payment is rendered possible by an excess of exports of these raw-material-producing countries, either in their trade with the respective creditor countries or with countries that in their turn have an excess of exports to the creditor countries. Practically all important trading countries, irrespective of their political and geographical situation, are involved in this system of triangular and multilateral trade.

In 1938, the decline in the imports of several creditor countries, the deterioration in the terms of trade of agricultural countries and the resulting prominence given to

the transfer problem gave new impetus to the tendencies of disintegration of world trade. In the shelter of the new trade and currency regulations there has grown up a range of vested interests which, together with considerations of a political nature, block the way to the restoration of a "world" market.

Commercial agreements, particularly between the United States and Canada and the United Kingdom tend to counteract the tendencies described above. In view of the volume of trade they regulate, these agreements will do a great deal towards the abolition of trade discriminations.

Canada's Position in World Trade.—The foregoing brief outline of the course of world trade in the period since 1929, taken from the League of Nations reports, is presented as a background against which Canada's position in world trade may be viewed. According to these figures, Canada, in 1938, stood eighth in imports, fourth in exports, and fifth in total trade, whereas in 1929 she was fifth in each category. In total trade, Canada gained fifth place from Japan whose share, in world imports particularly, declined considerably. The positions of the leading countries are shown in the first section of Statement V.

The second section of Statement V shows the indexes of gold prices and quantum of trade for each of these countries. The index of gold prices is significant as an indication of changes in the barter terms of trade.

Some of the factors that especially affected Canada's trade in 1938 deserve mention. Exports of "Agricultural and Vegetable Products" registered increases in quantity but were seriously affected by price declines. The metal groups were favoured with higher prices but the increases were not sufficient to overcome the declines in volume.

V.—PERCENTAGES, PRICES, AND QUANTUM OF TRADE OF TWENTY-TWO LEADING COUNTRIES OF THE WORLD, 1929, 1932, 1937, AND 1938.

NOTE.—Basis: Recorded values of merchandise trade converted to U.S.A. old gold dollars. Price indexes are on the basis of old gold dollars. The year 1927 is taken as the base for both price and quantum indexes.

Country.	Percentages of World Total.									
	Imports.				Exports.				Total Trade.	
	1929.	1932.	1937.	1938.	1929.	1932.	1937.	1938.	1929.	1938.
United Kingdom	15·2	16·3	17·0	17·3	10·8	9·9	9·9	10·1	13·1	13·8
United States	12·2	9·5	10·9	8·1	15·6	12·2	12·6	13·5	13·8	10·7
Germany	9·0	8·0	8·0	10·1	9·7	10·6	9·2	10·0	9·4	10·0
France	6·4	8·4	6·2	5·5	6·0	6·0	3·7	3·9	6·2	4·7
Canada [1, 2]	3·7	2·8	2·9	2·8	3·7	3·8	4·3	4·2	3·7	3·5
Belgium	2·8	3·2	3·4	3·2	2·7	3·2	3·3	3·2	2·7	3·2
Japan	2·8	2·8	3·9	3·1	2·9	2·8	3·5	3·3	2·9	3·2
India (incl. Burma)	2·6	2·5	2·5	2·6	3·6	2·8	3·6	3·4	3·1	3·0
Netherlands	3·1	3·8	3·1	3·2	2·4	2·7	2·4	2·5	2·8	2·9
Italy	3·2	3·0	2·7	2·4	2·4	2·7	2·1	2·4	2·8	2·4
Australia	2·0	1·3	1·8	2·1	1·8	2·1	2·3	2·3	1·9	2·2
Sweden	1·3	1·5	2·0	2·1	1·5	1·4	2·0	2·0	1·4	2·1
Union of South Africa [1]	1·2	1·2	1·9	2·0	1·4	2·5	2·3	2·2	1·3	2·1
China (including Manchuria)	2·3	2·7	1·9	2·5	2·0	1·6	1·5	1·4	2·1	2·0
Argentine	2·3	1·5	1·7	1·8	2·8	2·6	2·9	1·9	2·5	1·9
Denmark	1·3	1·5	1·3	1·5	1·3	1·6	1·3	1·5	1·3	1·5
British Malaya	1·4	1·1	1·4	1·3	1·6	1·0	2·0	1·5	1·5	1·4
Czechoslovakia	1·7	1·6	1·4	1·2	1·8	1·7	1·6	1·6	1·7	1·4
Netherlands Indies	1·3	1·1	1·0	1·1	1·8	1·7	2·0	1·7	1·5	1·4
Switzerland [3]	1·5	2·4	1·5	1·5	1·2	1·2	1·1	1·3	1·3	1·4
Brazil	1·2	0·8	1·2	1·2	1·4	1·4	1·3	1·3	1·3	1·3
U.S.S.R. (Russia)	1·3	2·6	0·9	1·1	1·4	2·3	1·3	1·1	1·4	1·1
TOTALS FOR WORLD [4]	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0

For footnotes, see end of statement, p. 508.

V.—PERCENTAGES, PRICES, AND QUANTUM OF TRADE OF TWENTY-TWO LEADING COUNTRIES OF THE WORLD, 1929, 1932, AND 1938—concluded.

Country.	Indexes of Gold Prices.						Indexes of Quantum.					
	Imports.			Exports.			Imports.			Exports.		
	1929.	1932.	1938.	1929.	1932.	1938.	1929.	1932.	1938.	1929.	1932.	1938.
United Kingdom	98·9	46·6	43·6	97·0	52·8	49·0	101·4	88·9	102·9	104·0	68·1	77·4
United States	91·6	45·3	33·5	101·2	59·3	44·6	114·8	69·8	82·4	107·1	55·9	85·0
Germany	101·3	50·2	51·4	98·7	70·7	66·2	93·3	65·4	74·5	126·5	75·2	73·5
France	94·0	55·2	42·8	95·8	64·9	42·4	122·0	108·3	93·0	100·7	58·9	60·1
Canada [1, 2]	95·2	50·8	39·0 [5]	94·6	47·8	42·9 [5]	118·2	62·7	89·5 [5]	96·0	78·4	102·7 [5]
Belgium	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]
Japan [7]	95·1	39·7	44·1	93·3	33·0	28·2	104·9	100·9	99·6	116·2	125·0	174·4
India (incl. Burma)	93·2	46·8	[6]	90·2	39·5	[6]	103·4	81·4	[6]	108·0	74·9	[6]
Netherlands	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]
Italy	92·0	48·0	47·7	86·8	47·8	34·2	116·6	83·2	68·4	114·3	90·6	116·9
Australia	89·1	[6]	[6]	96·3	31·8	[6]	97·7	[6]	[6]	107·4	139·5	[6]
Sweden	98·9	55·8	[6]	96·6	51·4	[6]	113·7	89·9	[6]	116·1	78·1	[6]
Union of South Africa [1]	94·3	58·1	[6]	97·8	70·7	[6]	120·6	75·7	[6]	102·0	102·1	[6]
China [8]	90·7	53·1	[6]	105·8	44·4	[6]	127·8	93·0	[6]	97·0	57·1	[6]
Argentine	83·1	50·4	37·1	103·5	41·2	[6]	119·6	51·8	85·5	90·2	82·7	[6]
Denmark	101·0	57·3	52·6	109·9	43·4	47·7	[6]	[6]	[6]	105·9	123·4	[6]
British Malaya	93·6	48·8	[6]	66·9	20·5	[6]	[6]	[6]	[6]	130·4	107·1	[6]
Czechoslovakia	94·8	59·3	[6]	97·7	70·0	[6]	[6]	[6]	[6]	104·2	52·1	[6]
Netherlands Indies	96·5	57·8	48·4	73·2	29·4	[6]	126·8	71·9	[6]	120·1	112·3	[6]
Switzerland [3]	96·6	63·6	[6]	102·0	75·7	[6]	110·4	107·4	[6]	101·5	50·6	[6]
Brazil	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]
U.S.S.R. (Russia)	101·1	[6]	[6]	89·6	40·2	[6]	116·0	[6]	[6]	125·6	183·5	[6]
Averages for World [4]	96·4	51·1	–	96·8	50·2	–	109·4	81·0	–	108·3	81·5	

[1]Includes exports of gold produced within the country. [2]Imports are adjusted for over- or under-valuation (see pp. 498-499). Exports include exports of foreign produce. [3]Including improvement and repair trade in 1937 and 1938. [4]Totals include other countries not specified. [5]Dominion Bureau of Statistics figures for year ended Mar. 31, 1939. [6]Data were not given in the Review of World Trade, 1938. [7]Indexes based on year 1928. [8]Excluding Manchuria since July 1, 1932.

Subsection 2.—Historical Statistics of Canadian Trade.

The most important features of Canadian trade are reviewed historically (since Confederation in most cases) in the first nine main tables of this chapter (pp. 526-533).

A general view of the trade of Canada in the fiscal years from 1868 to 1939 is furnished in Table **1** (p. 526), giving the imports of merchandise for home consumption, dutiable and free, and the exports of Canadian and foreign produce, the total trade as here given being the aggregate of the two. Necessarily, some difficulties have been met in maintaining comparable statistics through such a length of time, one of the most serious of these arising from the different methods adopted in dealing with exports of foreign produce. For example, the shrinkage in the exports of foreign produce since 1920 has been due to change of statistical method rather than to actual diminution in value or volume of such goods exported. For the past 19 years, re-exports of foreign products from bonded warehouses have not been included in Canadian trade statistics either as imports or as exports; exports of foreign produce during this period have been composed of goods previously entered as imports for home consumption. Such goods are debited to Canada when entering this country, and should be credited to Canada when re-exported.

From Table **2** it will be observed that, in most of the years from Confederation to the outbreak of the War of 1914-18, imports entered for consumption exceeded total exports, especially during the great growing period from 1904 to 1914. Since that

time, however, there has been an annual excess of exports except in the fiscal years ended 1921, 1930, and 1931, when there were heavy return movements of funds to Canada in the form of an excess of imports.

The values of coin and bullion imported and exported are shown in Table 3 (p. 528). Exports of non-monetary gold bullion are not included in this table (see pp. 499-500).

The figures of Tables 5 and 6 (pp. 530-531) show the overwhelming predominance of the two English-speaking countries in Canada's foreign trade; in the year ended Mar. 31, 1939, for example, 75·7 p.c. of the Dominion's exports of domestic produce was shipped to these two countries, which, in the same year, together provided 80·3 p.c. of Canada's imports for home consumption. Tables 7 and 8 show, respectively, by years, the percentage proportions of imports from the United Kingdom and the United States to totals of dutiable and free imports since 1911, and the *ad valorem* rates of duty collected on imports from these and from all countries from 1868 to 1939. The apparently higher average rate collected on imports from the United Kingdom than on those from the United States, in spite of the preferential tariff accorded British goods since 1897, is explained briefly on p. 512 and in more detail at pp. 58-59 of the "Condensed Preliminary Report on the Trade of Canada, 1936", and at pp. 509-510 of the 1937 Year Book.

Subsection 3.—General Analysis of Current Import and Export Trade.

The figures of Statement VI, p. 510, indicate the seriousness of the decline in trade during the depression shown by the figures for the fiscal year 1933, and the extent of the recovery since then. That the decline in the quantum or volume of trade was not so great as that of the values here shown is evident from the analyses in Subsections 1 and 10 of this chapter. The recovery from the low point of the depression has been greater in exports than in imports. Imports are an indication of purchasing power and are especially influenced by the expansion or contraction of capital expenditures within Canada. In the past, years of population growth and rapid expansion in the productive equipment of Canada have been associated with greatly increased imports, since such imports of goods provide the means by which external capital is brought into the country. Conditions for such capital imports on a large scale do not exist at present, while Canada's productive facilities provide a large volume of exports, the surplus of which represents in large measure retirements of foreign indebtedness (see Sect. 5 of this chapter, pp. 584-589).

Current trends in external trade are determined largely by conditions and policies throughout the world that influence the geographical distribution of trade, and by changes regarding the supply of, and demand for, commodities of trade in which Canada is interested. These factors are discussed as completely as space permits in Subsections 1, 6, and 7 of this Section.

The figures of exports shown in Statement VI indicate that a shift is taking place in the importance of groups in the composition of our exports. In the prosperity period, 1925-29, Canadian exports were predominantly agricultural. Indeed, in that period it was largely because bountiful harvests coincided with an active world demand at good prices that prosperity was widespread in Canada. In 1927 the two groups, vegetable and animal products, made up 59 p.c. of exports, while non-ferrous metals constituted only 6·4 p.c. In 1939, on the other hand, vegetable and animal products made up only 33 p.c. of exports, but non-ferrous metals (including gold) increased to over 29 p.c. In this connection see the text regarding principal commodities exported on pp. 520-521.

VI.—SUMMARY OF THE TRADE OF CANADA BY MAIN GROUPS, FISCAL YEARS 1914, 1927, 1933, 1938, AND 1939.

Group.	Values of Imports. $'000,000					Values of Domestic Exports. $'000,000				
	1914.	1927.	1933.	1938.	1939.	1914.	1927.	1933.	1938.	1939.
ALL COUNTRIES.										
Agricultural and Vegetable Products	97·6	213·1	88·3	146·3	121·3	201·2	575·0	203·4	235·3	182·9
Animals and Products	41·1	53·2	15·4	30·4	24·4	76·6	167·3	54·3	136·1	121·2
Fibres and Textiles	109·2	183·6	61·2	108·9	85·0	1·9	7·7	4·7	14·2	13·3
Wood and Paper	37·4	48·0	20·5	34·2	31·9	63·2	284·1	120·9	253·4	214·5
Iron and Its Products	143·8	229·4	58·9	209·3	154·1	15·5	74·3	17·3	69·8	58·7
Non-Ferrous Metals	35·6	52·7	18·1	47·1	36·2	53·3	82·6	96·9	292·5	272·6
Non-Metallic Minerals	85·3	156·8	87·7	136·7	121·3	9·3	28·9	9·2	29·3	24·6
Chemicals and Allied Products	17·1	31·8	25·5	36·9	34·9	4·9	16·2	11·1	20·9	20·6
Miscellaneous Commodities	52·1	62·2	30·8	49·3	49·1	5·7	18·1	10·3	18·7	18·6
TOTALS	619·2	1,030·9	406·4	799·1	658·2	431·6	1,254·2	528·1	1,070·2	927·0
UNITED KINGDOM.										
Agricultural and Vegetable Products	16·2	38·3	17·4	18·5	15·5	146·8	330·1	114·2	145·3	99·4
Animals and Products	5·7	5·4	2·4	5·7	4·2	35·4	67·8	29·9	78·0	73·2
Fibres and Textiles	60·6	72·8	25·6	50·7	39·5	0·2	0·9	1·3	3·8	3·4
Wood and Paper	3·7	3·9	3·4	3·9	3·6	12·8	15·8	11·3	45·4	37·0
Iron and Its Products	17·3	15·0	12·0	31·1	19·8	1·4	8·1	5·6	16·5	12·6
Non-Ferrous Metals	4·8	5·6	3·3	7·3	5·6	16·6	14·2	14·6	107·9	87·2
Non-Metallic Minerals	6·3	9·3	12·6	13·1	12·9	0·4	2·3	1·3	3·4	2·8
Chemical and Allied Products	4·3	4·9	4·6	7·7	6·9	0·6	3·6	2·9	5·1	5·6
Miscellaneous Commodities	13·2	8·8	5·2	7·0	7·6	1·0	4·1	3·3	4·0	4·3
TOTALS	132·1	163·9	86·5	145·0	115·6	215·2	446·9	184·4	409·4	325·5
UNITED STATES.										
Agricultural and Vegetable Products	44·1	97·1	30·2	46·1	44·5	34·1	60·0	3·9	33·2	30·4
Animals and Products	23·3	35·4	8·6	11·6	11·0	32·3	75·3	13·9	42·6	33·4
Fibres and Textiles	32·5	66·9	22·5	36·2	29·4	1·2	3·5	0·9	2·1	1·8
Wood and Paper	31·7	41·1	15·1	27·8	26·2	45·2	242·0	93·9	169·0	145·3
Iron and Its Products	121·4	206·7	43·9	170·6	128·6	2·0	10·7	2·0	6·9	3·8
Non-Ferrous Metals	27·7	42·2	12·9	31·0	23·0	34·2	41·0	68·1	132·8	132·2
Non-Metallic Minerals	74·2	132·0	62·9	105·5	91·8	7·2	17·6	4·9	17·4	11·9
Chemicals and Allied Products	9·6	20·6	15·5	22·7	21·8	3·2	7·7	4·7	9·1	8·1
Miscellaneous Commodities	31·8	45·0	20·9	35·8	36·2	4·0	10·6	5·1	10·0	9·0
TOTALS	396·3	687·0	232·5	487·3	412·5	163·4	468·4	197·4	423·1	375·9

Statistical Tables of Current Trade.—Tables **10** to **18** (pp. 534-575) deal with the current trade statistics of the Dominion. Tables **10** and **11** are summary tables, showing by groups Canada's trade with the United Kingdom, the United States, and all countries, by values and percentages, for the latest four fiscal years. Table **12** shows the same in detail for exports and Table **13** for imports of all important commodities. Table **14** shows, by main classes, imports as dutiable or free and exports as of Canadian or foreign produce for the five fiscal years 1935-39. Table **15** shows imports and exports for the fiscal year ended 1939 by degree of manufacture and by origin, and Table **16** gives similar information on a classification according to purpose.

In past years, Table **17** showed imports and exports for the two latest years by ports and provinces. The value of imports and exports at the several ports of entry were not a criterion of total imports for consumption at such ports nor all exports that originated there. The figures were therefore misleading unless these

limitations were understood and even then their value in summary form was slight. For this reason, the table has been discontinued this year. A full treatment of the subject is given in the annual report on the Trade of Canada issued by the Dominion Bureau of Statistics. Table **17** in this issue therefore corresponds to Table **18** of previous editions and shows the values imported from different countries dutiable or free under the general, preferential, and treaty tariffs in 1939.

Subsection 4.—Trade with the United Kingdom and the British Empire.

Trade with the United Kingdom.—Ever since Confederation the external trade of Canada has been carried on predominantly with one or other of the two great English-speaking countries, the United Kingdom and the United States (see Tables **5** and **6** of this chapter). In the early years of the Dominion, the United Kingdom, which was then lending Canada capital on a considerable scale for those times, supplied more than half her imports, though as a customer she came second to the United States. The export trade continued for some time to follow its accustomed channels to the United States, in spite of the denunciation of the Reciprocity Treaty that had expired on Mar. 17, 1866. However, partly as a result of the free trade policy of the United Kingdom and the protectionist policy of the United States, the proportion of exports tended to increase to the United Kingdom and decrease to the United States. In the '70's this proportion to the latter country, which had been over 50 p.c. in the first few years of Confederation, declined materially, but for the most part remained at over 40 p.c. until after the enactment of the McKinley Tariff of 1890 when it fell to 35 p.c. in 1892, and as low as 27 p.c. in 1898. The United Kingdom, although it had been the chief market for Canadian exports in certain years between 1874 and 1887, definitely took the lead in 1890 and steadily retained that position until 1920. During the War of 1914-18 the flow of goods from Canada to the United Kingdom was naturally exceptionally large. However, the United States again became the chief market in 1921 and has maintained that position continuously since 1927, except in the fiscal year 1934, when exports to the United States dropped to 34 p.c. of the total, partly because of the diversion of exports of gold to London during that year (see pp. 500-501), and also to the industrial depression in the United States.

As already indicated, at the time of Confederation, the United Kingdom was the principal source of Canadian imports and until 1875 that country supplied half or more of the requirements. The United States took the lead in 1876 and has maintained it since 1883. Imports from that country have exceeded half the total from 1877 to 1879 and continuously since 1896, the proximity of the two countries, the increasing population on both sides of the boundary line, the common language, and the similarity of tastes and economic conditions being largely responsible. The proportion of imports coming from the United Kingdom has shown a generally declining trend since 1872, although after the enactment of the British Preference in 1897 the actual values of imports from the United Kingdom grew larger until the first World War. (See under the Preferential Tariff and Empire Trade below.) Even during the great growing period before 1914, when large amounts of British capital were being invested in Canada, the proportion of imports from the United Kingdom tended to decline while that from the United States increased. During the War of 1914-18, when the resources of the United Kingdom were absorbed in the struggle, imports from that source were curtailed and dropped as low as 8·0 p.c. in the fiscal year 1919, while imports from the United States rose to about 82 p.c. of the

total at that time. Since then, the proportion of imports from the United Kingdom has been generally a trifle lower and that from the United States higher than in the period before 1914, although during the depression, under the influence of the Ottawa Agreements and the suspension of imports of capital goods from the United States, the trend was reversed, apparently temporarily.

Statement VI, p. 510, shows Canada's trade with the United Kingdom in two recent years compared with that in 1933, 1927, and 1914. It may be noted that in the latest years there has been a very great decline in imports of textiles, partially compensated by some increase in imports of iron, non-metallic mineral, and chemical products. Vegetable and animal products continue to make up the major part of exports to the United Kingdom, but there has been an actual and a great proportional increase in exports of wood and paper products and non-ferrous metals.

The commodities making up Canada's export and import trade with the United Kingdom in recent years are dealt with in summary form in Tables **10** and **11**, and in detail in Tables **12** and **13** of this chapter.

The Preferential Tariff and Empire Trade.—Canada was the first of the British Dominions to grant a preference on goods the produce and manufacture of the United Kingdom and reciprocating British Dominions and possessions. This preference was extended from time to time to other portions of the British Empire until now it is applicable to practically every British Dominion and possession. In the case of Newfoundland, in addition to the preference, Canada grants free admission to fish and fish products. The British West Indies receives special concessions under the Agreement of 1925 referred to on p. 487.

The British preferential tariff enacted in 1897 has had the effect of stimulating Canada's Empire trade. When the British preference became effective in 1897, Canada's total imports from the United Kingdom amounted to only $29,401,000, compared with imports in 1887 valued at $44,741,000 and in 1873 at $67,997,000, so that from 1873 to 1897 imports from the United Kingdom declined by $38,596,000 or 56·7 p.c. After the introduction of the British preferential tariff, the downward trend in the value of imports from the United Kingdom was reversed, although the proportion of total imports coming from the United Kingdom continued to decline. Imports from other Empire countries, which were insignificant before the beginning of the century, have increased both in actual value and proportion of total imports.

Average Rates of Duty under the British Preference.—Table **17** on p. 573 shows for the latest fiscal year the imports from countries of the British Empire entering Canada either at lower rates of duty or free under the preferential tariff, while Table **8**, on p. 532, shows the average *ad valorem* rates of duty on imports from the United Kingdom, United States, and all countries in each year since Confederation. The apparently higher average rate collected on imports from the United Kingdom than on those from the United States, in spite of the preferential tariff accorded British goods since 1897, is due largely to the following factors: (1) imports of alcoholic beverages, which are subject to high duties, bulk largely in imports from the United Kingdom but are negligible from the United States; (2) imports of raw materials for processing in Canada, which are free of duty, form an important part of imports from the United States; and (3) dutiable imports from the United Kingdom are largely highly manufactured goods which are subject to relatively higher rates than the semi-manufactured goods for further manufacture in Canada that form another large element of imports from the United States. To make a fair comparison between the United Kingdom and the United States of the average

rates of duty collected on ordinary dutiable imports, imports of alcoholic beverages and manufactured tobaccos should be eliminated, while imports free of duty under the British preference but dutiable when imported from the United States should be added to the dutiable imports from the United Kingdom. After these logical adjustments the average rate of duty on imports from the United Kingdom has been lower in each year since 1922, while the difference in favour of the United Kingdom has become 50 p.c. or more in recent years. This subject is treated in more detail at pp. 58-59 of the "Condensed Preliminary Report on the Trade of Canada, 1936," and at pp. 509-510 of the 1937 Year Book.

Trade with the British Empire.—This is marked by a much larger proportion of exports than of imports. The percentage of both import and export trade with the Empire, other than the United Kingdom, has shown a generally upward trend in the period covered since 1886. The industrial organization of Canada draws increasing imports of raw materials from other Empire countries, which in turn provide an expanding market for her manufactured and specialized products.

For the intelligent interpretation of trends in trade over a long period such as is covered in Statement VII, it is essential to bear in mind the effects of shifts in the production of commodities and in world demand, as well as fluctuations in price levels and in business cycles. These factors are discussed at pp. 516-522 in connection with the principal commodities imported and exported and in connection with world trade at pp. 501-508.

VII.—CANADA'S TRADE WITH THE BRITISH EMPIRE, REPRESENTATIVE FISCAL YEARS 1886-1939.

Item and Year.	Canada's Trade with—			Percentages of Total Trade with—		
	United Kingdom.	Other British Empire.	Total British Empire.	United Kingdom.	Other British Empire.	Total British Empire.
IMPORTS.	$	$	$	p c.	p c.	p.c.
1886	39,033,006	2,383,560	41,416,566	40·7	2·5	43·2
1896	32,824,505	2,388,647	35,213,152	31·2	2·2	33·4
1906	69,183,915	14,605,519	83,789,434	24·4	5·1	29·5
1914	132,070,406	22,456,440	154,526,846	21·4	3·6	25·0
1921	213,973,562	52,029,126	266,002,688	17·3	4·2	21·5
1922	117,135,343	31,973,910	149,109,253	15·7	4·3	20·0
1926	163,731,210	45,088,918	208,820,128	17·6	4·9	22·5
1929	194,041,381	63,346,829	257,388,210	15·3	5·0	20·3
1930	189,179,738	63,494,864	252,674,602	15·2	5·1	20·3
1933	86,466,055	33,918,269	120,384,324	21·3	8·3	29·6
1934	105,100,764	35,303,122	140,403,886	24·2	8·2	32·4
1937	129,507,885	68,657,957	198,165,842	19·3	10·2	29·5
1938	145,008,771[1]	88,196,645[1]	233,205,416[1]	18·2	11·0	29·2
1939	115,636,017	65,074,178	180,710,195	17·6	9·9	27·4
EXPORTS (Canadian).						
1886	36,694,263	3,262,803	39,957,066	47·2	4·2	51·4
1896	62,717,941	4,048,198	66,766,139	57·2	3·7	60·9
1906	127,456,465	10,964,757	138,421,222	54·2	4·5	58·7
1914	215,253,969	23,388,548	238,642,517	49·9	5·4	55·3
1921	312,844,871	90,607,348	403,452,219	26·3	7·6	33·9
1922	299,361,675	46,473,735	345,835,410	40·4	6·3	46·7
1926	508,237,560	90,330,435	598,567,995	38·5	6·8	45·3
1929	429,730,485	106,258,803	535,989,288	31 4	7·8	39·2
1930	281,745,965	97,825,173	379,571,138	25·2	8·7	33·9
1933	184,361,019	37,757,908	222,118,927	34·9	7·2	42·1
1934	288,582,666	50,423,723	339,006,389	43·3	7·6	50·9
1937	407,996,698	87,601,407	495,598,105	38·4	8·3	46·7
1938	409,411,682	108,027,338	517,439,020	38·2	10·1	48·3
1939	325,465,011	102,768,387	428,233,398	35·1	11·1	46·2

[1] Revised since the publication of the 1939 Year Book.

Subsection 5.—Trade with United States and Other Foreign Countries.*

For convenience of comparison and to avoid repetition, the relative importance of the United Kingdom and the United States in the trade of Canada is discussed in connection with the United Kingdom under Subsection 4, p. 511. A record of the value and proportion of trade with the United States in each year since 1868 is given in Tables 5 and 6 of this chapter, pp. 530 and 531.

The commodities of Canadian export and import trade with the United States are shown in summary form in Tables 10 and 11 and in detail in Tables 12 and 13 of this chapter.

Trade with the United States by main groups of commodities for two recent fiscal years compared with 1933, 1927, and 1914 is shown in Statement VI, p. 510. Non-metallic minerals (chiefly coal and petroleum products) and chemicals are an increasingly important factor in imports from the United States, although iron products again became the most important group in 1935 and there are still large imports of textiles, which include raw cotton, and of vegetable products largely comprised of tropical or out-of-season fruits and vegetables. Aside from the effects of the Ottawa Agreements, with their purpose of increasing intra-Empire trade, and of the at-times heavy discount against Canadian funds in the United States, a factor in the fluctuation of the United States share in imports into Canada that should not be overlooked is the influence of capital expenditures here. The United States is the principal external source for machinery, equipment, and structural materials. The almost complete cessation of capital expenditures in the depression, therefore, affected imports from the United States more than from any other country, while recovery tended to cause them to rise more rapidly again.

Another important factor influencing imports from the United States is Canadian purchasing power which is very directly affected by exports to the United States. These latter were seriously curtailed by the very high rates on important Canadian products introduced by the Hawley-Smoot Tariff of June, 1930, and thereafter imports from the United States showed a greater decline than Canadian exports to that country. (See the 1936 Year Book, p. 508.)

However, this situation has been relieved by the trade agreements. The influence of the economic recovery in both Canada and the United States should not be overlooked as a factor in the recent increases of trade, while shipments of gold to the United States have augmented exports to that country.

Canadian Trade via the United States.—Imports from overseas countries via the United States have steadily declined in recent years, especially those from the British Empire. This decrease has followed: (1) general propaganda to utilize Canadian sea and river ports; (2) additional concessions to goods imported under the preferential tariff if they come direct. Provision has been made, in trade treaties and agreements negotiated with foreign countries, that goods must be imported via a Canadian sea or river port in order to obtain the full benefits of special rates of duty. Between 1920 and 1939 imports via the United States have decreased from 9·5 p.c. to 1·9 p.c. of the total imports from overseas countries.

The proportion of exports from Canada to overseas countries going via the United States has shown a considerable decline since 1927, the percentages by fiscal

*Tables 14 to 45 (pp. 93-133) of the "Condensed Preliminary Report on the Trade of Canada, 1939", published by the Dominion Bureau of Statistics, show the trade of Canada in leading commodities with 96 British and foreign countries for the fiscal years 1937 and 1938.

years being: 1927, 39·4; 1928, 38·7; 1929, 36·6; 1930, 33·7; 1931, 27·3; 1932, 18·7; 1933, 14·2; 1934, 14·4; 1935, 17·3; 1936, 18·4; 1937, 16·5; 1938, 11·4, and 1939, 8·4. An important factor in the decline for recent years was the requirement of direct shipment for goods to qualify under the Empire preferences introduced in Britain, but this factor was cancelled, so far as wheat is concerned, under the United Kingdom-United States Trade Agreement which came into effect Jan. 1, 1939. Details of exports via the United States by countries are given in Table 20 of this chapter.

Trade with Other Foreign Countries.—The positions occupied by the United States and other foreign countries in Canada's trade in various years from 1886 to 1939 are shown in Statement VIII below. During the War of 1914-18 and the years immediately following, when production and exports by many European countries were curtailed, imports from the United States rose to a high proportion, while those from other foreign countries declined. With this exception, the proportion of imports from other foreign countries has remained surprisingly constant, at about one-tenth to one-eighth of total imports, over the period of nearly half a century. Canadian exports to other foreign countries increased from 4·5 p.c. to 24·0 p.c. in 1929 but they have since declined.

VIII.—CANADA'S TRADE WITH THE UNITED STATES AND OTHER FOREIGN COUNTRIES REPRESENTATIVE FISCAL YEARS 1886-1939.

Item and Year.	Canada's Trade with—			Percentages of Total Trade with—		
	United States.	Other Foreign Countries.	All Foreign Countries.	United States.	Other Foreign Countries.	All Foreign Countries.
	$	$	$	p.c.	p.c.	p.c.
IMPORTS.						
1886	42,818,651	11,756,920	54,575,571	44·6	12·2	56·8
1896	53,529,390	16,618,619	70,148,009	50·8	15·8	66·6
1906	169,256,452	30,694,394	199,950,846	59·6	10·9	70·5
1914	396,302,138	68,365,014	464,667,152	64·0	11·0	75·0
1921	856,176,820	117,979,374	974,156,194	69·0	9·5	78·5
1922	515,958,196	82,736,883	598,695,079	69·0	11·0	80·0
1926	608,618,542	109,890,062	718,508,604	65·6	11·9	77·5
1929	868,012,229	140,278,652	1,008,290,881	68·6	11·1	79·7
1930	847,442,037	148,156,943	995,598,980	67·9	11·8	79·7
1933	232,548,055	53,451,365	285,999,420	57·2	13·2	70·4
1934	238,187,681	55,207,058	293,394,739	54·9	12·7	67·6
1937	393,720,662	79,989,062	473,709,724	58·6	11·9	70·5
1938	487,279,507[1]	78,584,995[1]	565,864,502[1]	61·0	9·8	70·8
1939	412,476,817	65,041,022	477,517,839	62·7	9·9	72·6
EXPORTS (Canadian).						
1886	34,284,490	3,515,148	37,799,638	44·1	4·5	48·6
1896	37,789,481	5,152,185	42,941,666	34·4	4·7	39·1
1906	83,546,306	13,516,428	97,062,734	35·5	5·8	41·3
1914	163,372,825	29,573,097	192,945,922	37·9	6·8	44·7
1921	542,322,967	243,388,515	785,711,482	45·6	20·5	66·1
1922	292,588,643	101,816,627	394,405,270	39·5	13·8	53·3
1926	480,199,723	241,800,429	722,000,152	36·4	18·3	54·7
1929	504,161,604	328,108,239	832,269,843	36·8	24·0	60·8
1930	515,049,763	225,637,401	740,687,164	46·0	20·1	66·1
1933	197,424,723	108,520,628	305,945,351	37·4	20·5	57·9
1934	220,072,810	106,874,872	326,947,682	33·0	16·1	49·1
1937	435,014,544	130,569,257	565,583,801	41·0	12·3	53·3
1938	423,131,091	129,658,498	552,789,589	39·6	12·1	51·7
1939	375,939,361	122,789,486	498,728,847	40·6	13·2	53·8

[1] Revised since the publication of the 1939 Year Book. Changes do not affect percentages.

Subsection 6.—Geographical Distribution of Canadian Trade by Continents and Countries.

Canadian Trade by Continents.—A summary of the imports and exports of Canada by continents for representative fiscal years since 1929 is given in Statement IX, below. The part of the table showing percentages is of particular interest as indicating trends in the distribution of trade. In connection with these trends, the influences affecting the geographical distribution of world trade as outlined on pp. 503-505 should be considered. The fiscal year 1929 was the peak year before the depression while 1933 was the lowest year. In the declining phase of the depression the percentage of imports from the United Kingdom and "Other Europe" tended to increase while that from the United States fell off very considerably. In the recovery phase since 1933 the percentage of imports from the United States has risen again, while that from "Other Europe" has declined to a much lower figure than formerly. Compared with 1929, much larger proportions of imports are now coming from Asia, Oceania, and Africa, due to increased direct imports of industrial raw materials from these continents. The restrictive measures regarding trade adopted by many European countries have greatly reduced the share of "Other Europe" in the exports of Canada while the market for Canadian goods in Oceania and Africa has expanded.

IX.—CANADA'S TRADE BY CONTINENTS, REPRESENTATIVE FISCAL YEARS 1929-39.

Item and Continent.	Values in Millions of Dollars.						Percentages of Totals.					
	1929.	1933.	1934.	1936.	1938.	1939.	1929.	1933.	1934.	1936.	1938.	1939.
IMPORTS.												
Europe	286·7	121·4	139·1	156·1	190·7	154·0	22·6	29·9	32·1	27·7	23·8	23·4
United Kingdom	*194·0*	*86·5*	*105·1*	*117·2*	*145·0*	*115·6*	*15·3*	*21·3*	*24·2*	*20·9*	*18·1*	*17·6*
Other	*92·7*	*34·9*	*34·0*	*38·2*	*45·7*	*38·4*	*7·3*	*8·6*	*7·9*	*6·8*	*5·7*	*5·8*
North America	894 3	246·5	251·3	335·9	504·2	429·6	70·7	60·6	57·9	59·7	63·1	65·3
United States	*868·1*	*232·6*	*238·2*	*319·5*	*487·8*	*412·5*	*68·6*	*57·2*	*54·9*	*56·8*	*61·0*	*62·7*
Other	*26·2*	*13·9*	*13·1*[1]	*16·4*	*16·9*	*17·1*	*2·1*	*3·4*	*3·0*	*2·9*	*2·1*	*2·6*
South America	26·5	10·6	11·6[1]	19·5	23·8	21·6	2·1	2·6	2·7	3·5	3·0	3·3
Asia	33·5	12·4	16·2	28·4	43·6	32·6	2·6	3·1	3·7	5·0	5·5	4·9
Oceania	22·5	9·1	9·7	12·8	22·3	15·0	1·8	2·2	2·3	2·3	2·8	2·3
Africa	2·2	6·4	5·9	10·0	14·5	5·4	0·2	1·6	1·3	1·8	1·8	0·8
TOTALS, IMPORTS	1,265·7	406·4	433·8	562·7	799·1	658·2	100·0	100·0	100·0	100·0	100·0	100·0
EXPORTS (Canadian).												
Europe	642·8	257·1	360·9	372·7	480·6	401·6	47·0	48·7	54·2	44·0	45·0	43·3
United Kingdom	*429·7*	*184·4*	*288·6*	*321·6*	*409·4*	*325·5*	*31·4*	*34·9*	*43·3*	*37·9*	*38·3*	*35·1*
Other	*213·1*	*72·7*	*72·3*	*51·1*	*71·2*	*76·1*	*15·6*	*13·8*	*10·9*	*6·1*	*6·7*	*8·2*
North America	547·1	223·3	243·3	381·8	453·4	402·7	40·0	42·3	36·6	44·9	42·3	43·5
United States	*504·2*	*197·4*	*220·1*	*360·3*	*423·1*	*375·9*	*36·9*	*37·4*	*33·0*	*42·4*	*39·5*	*40·6*
Other	*42·9*	*25·9*	*23·2*	*21·5*	*50·3*	*26·8*	*3·1*	*4·9*	*3·6*	*2·5*	*2·8*	*2·9*
South America	32·6	6·6	7·9	12·9	19·4	13·3	2·4	1·2	1·2	1·5	1·8	1·4
Asia	88·2	22·7	26·3	28·1	43·3	36·2	6·4	4·3	3·9	3·3	4·0	3·9
Oceania	37·3	12·4	17·5	35·2	50·1	52·3	2·7	2·4	2·6	4·1	4·7	5·7
Africa	20·3	6·0	10·0	18·3	23·4	20·8	1·5	1·1	1·5	2·2	2·2	2·2
TOTALS, EXPORTS	1,368·3	528·1	665·9	849·0	1,070·2	926·9	100·0	100·0	100·0	100·0	100·0	100·0

[1]Revised since the publication of the 1939 Year Book.

Imports from Principal Countries.—Statement X, which follows, shows how predominant are the two great English-speaking countries as sources of supply of Canadian imports. Trade with these two leading countries is more fully covered

in Subsections 4 and 5 of this Section. The percentage of imports from countries from which Canada obtains important industrial materials is tending to rise with the progress of recovery in Canada. Imports from France have been seriousiy affected in recent years by the unfavourable economic conditions prevailing in that country, while Germany's restrictive policy regarding trade is resulting in a declining trend in iimports from that country. In Table **18** of this chapter will be found the values of imports from all important countries in recent years.

X.—PERCENTAGES OF TOTAL IMPORTS INTO CANADA FROM EACH OF TWELVE LEADING COUNTRIES, FISCAL YEARS 1936-39.

NOTE.—Countries arranged in order of importance, 1939.

Rank in—				Country.	Percentages of Total Imports.				P.C. Increases or Decreases in 1939 Compared with—		
1936	1937	1938	1939		1936.	1937.	1938.	1939.	1936.	1937.	1938.
1	1	1	1	United States	56·8	58·6	61·1	62·7	+29·1	+ 4·8	−15·3
2	2	2	2	United Kingdom	20·9	19·3	18·1	17·6	− 1·9	−10·7	−20·3
16	5	3	3	British Straits Settlements	1·3	1·6	1·9	1·6	+46·8	+ 0·2	−32·2
3	4	5	4	Germany	1·8	1·7	1·4	1·5	+ 2·1	−13·4	−11·2
5	6	4	5	Australia	1·3	1·4	1·5	1·3	+21·0	− 7·0	−27·6
4	7	6	6	British India	1·3	1·2	1·2	1·3	+12·0	+ 0·4	−11·2
13	15	16	7	Colombia	0·7	0·7	0·6	1·2	+82·3	+69·2	+66·0
10	13	14	8	British Guiana	0·8	0·8	0·7	1·1	+47·7	+39·1	+26·5
8	8	8	9	Belgium	0·9	1·0	0·9	0·9	+21·9	− 7·2	−16·8
11	12	13	10	Jamaica	0·8	0·8	0·7	0·9	+40·6	+20·9	+ 7·0
7	9	10	11	France	1·2	1·0	0·8	0·9	−11·4	− 7·8	− 8·3
18	14	12	12	Japan	0·6	0·7	0·7	0·7	+28·9	− 6·9	−22·7
				Percentages of Total Imports Coming from Above 12 Countries	88·5	88·7	89·7	91·7	-	-	

Exports to Principal Countries.—Percentages in Statement XI, as in the import statement, are indicative of the predominance of the United Kingdom and the United States as customers of Canada. Similarity of tastes and standards of living, as well as favourable tariff arrangements, are important factors in expanding exports of Canadian products to the other British dominions. Table **19** of this chapter gives actual values of Canadian exports to all important British and foreign countries for the latest five fiscal years.

XI.—PERCENTAGES OF TOTAL DOMESTIC EXPORTS FROM CANADA TO EACH OF TWELVE LEADING COUNTRIES, FISCAL YEARS 1936-39.

NOTE.—Countries arranged in order of importance 1939.

Rank in—				Country.	Percentages of Domestic Exports.				P.C. Increases or Decreases in 1939 Compared with—		
1936	1937	1938	1939		1936.	1937.	1938.	1939.	1936.	1937.	1938.
1	1	1	1	United States	42·4	41·0	39·5	40·6	+ 4·3	−13·6	−11·2
2	2	2	2	United Kingdom	37·9	38·4	38·3	35·1	+ 1·2	−20·2	−20·5
3	3	3	3	Australia	2·8	2·5	3·0	3·6	+38·7	+23·4	+ 2·6
4	5	4	4	Japan	1·7	2·0	2·5	2·3	+41·8	− 2·7	−21·0
12	10	9	5	Germany	0·5	0·7	1·1	1·9	+290·3	+127·3	+45·2
7	8	6	6	New Zealand	1·2	1·1	1·5	1·8	+66·7	+52·3	+ 6·3
5	6	5	7	British South Africa	1·7	1·5	1·5	1·7	+17·9	+ 2·2	− 1·8
6	4	7	8	Belgium	1·3	2·2	1·4	1·1	−10·0	−57·5	−31·7
8	9	8	9	Netherlands	1·1	1·0	1·2	1·1	+ 4·8	− 9·3	−25·4
9	7	11	10	France	0·9	1·1	0·7	0·9	+14·8	−25·1	+15·4
10	11	10	11	Newfoundland	0·8	0·7	0·9	0·9	+16·5	+ 4·0	−14·4
11	12	13	12	Norway	0·5	0·7	0·6	0·8	+67·4	+11·0	+14·9
				Percentages of Total Domestic Exports Going to Above 12 Countries	92·9	93·0	92·3	91·8	-	-	

Subsection 7.—Principal Commodities Imported and Exported.

The commodities that make up Canada's external trade are shown in detail for the four latest fiscal years in Tables **12,** dealing with exports, and **13,** with imports, beginning on p. 536 and p. 548, respectively.

Canada's Principal Imports.—In the interpretation of the trends in imports, shown in Statement XII, the effects of price changes and of fluctuations of the so-called business cycle should be kept in mind. Thus the Bureau of Statistics index number of wholesale prices on the 1926 base was 59·3 in the calendar year 1889, 52·1 in 1899, 59·5 in 1909, 134·0 in 1919, 95·6 in 1929, and 78·6 in 1938; these calendar years approximate to the fiscal years ended 1890, 1900, 1910, 1920, 1930, and 1939. In the matter of business fluctuations, the fiscal years 1890 and 1900 were affected by the long period of depressed commercial conditions accompanying declining price trends extending from 1872 to 1897; the fiscal year 1910 was influenced by the general development boom in Western Canada; 1920 was affected by the feverish activity that immediately followed the War of 1914-18; 1930 represented the end of the security inflation period and the beginning of the downturn; while in 1939, recovery, as compared with the low figures of 1933, was under way to a marked degree, both in general activity and in the level of wholesale prices.

During the period of 49 years covered by the statement, great changes have occurred in the character of the leading imports, due to developments both in the industrial organization of the country and the goods consumed by the people. Thus in 1890, many present-day leading imports, such as crude petroleum, automobiles and parts, artificial silk, electrical apparatus, and aluminium, were either non-existent or formed very insignificant items of trade. Imports of farm implements in 1890 were valued at only $161,000 but, due to the tremendous agricultural expansion in Canada since that time, as well as to increasing mechanization of agricultural operations, imports of farm implements have grown to a large item in spite of the wide development of their manufacture within the country. On the other hand, a number of the leading imports of 1890, such as woollen goods and raw wool, sugar and products, silk goods, tea, grain products, and meats, have become relatively much less important as imports. Then again, there were certain leading imports in 1890, such as coal, rolling-mill products, machinery, and fruits, that still remain among the chief items of imports owing to the absence of coal and high-grade iron ore deposits in the central portion of Canada, where population and industry are chiefly concentrated, and to the demand for fruits that cannot be grown in Canada. Owing to the industrial development of Canada since the beginning of the century, many of the leading imports are now raw materials required by Canadian industries. The quantities of a number of these raw materials imported in each year since 1911 are shown in Table **9,** p. 533.

Among the factors affecting short-term fluctuations of imports, as distinct from the long-term trends outlined above, probably the greatest is the so-called business cycle. In periods of prosperous industrial and commercial activity, when exports move freely to world markets at remunerative prices, the national income is on a correspondingly high level and the demand for imported goods in great variety expands accordingly. Especially typical of prosperity periods are large expenditures on capital improvements and upon luxuries, while in years of depression expenditures under these two categories are eliminated or very seriously curtailed. It is,

therefore, an indication of returning prosperity in Canada to find imports of machinery, rolling-mill products, electrical apparatus, farm implements, automobiles, unmanufactured wood, etc., recovering something of the relative importance among imports that they held for a few years up to 1930.

XII.—CANADA'S LEADING IMPORTS, FISCAL YEARS 1890, 1900, 1910, 1920, 1930, AND 1939.

NOTE.—Commodities arranged in order of importance, 1939.

No.	Commodity.	1890.	1900.	1910.	1920.	1930.	1939.
		$	$	$	$	$	$
1	Petroleum, crude	[1]	23,344	1,189,081	20,306,693	50,951,202	41,483,348
2	Coal	8,013,156	11,012,223	27,516,678	60,072,629	56,812,418	35,937,195
3	Machinery, except farm	1,877,551	5,159,952	14,690,873	36,716,791	69,702,213	35,286,756
4	Rolling-mill products	5,645,704	11,905,937	15,692,052	39,985,746	61,943,553	23,482,193
5	Automobile parts	[1]	[1]	269,586	12,674,823	35,746,929	23,455,938
6	Fruits	2,400,851	3,133,407	8,316,462	33,463,270	34,277,882	21,209,784
7	Sugar and products	6,452,654	8,610,845	14,962,770	73,618,354	27,987,156	20,281,515
8	Farm implements	161,277	2,148,867	2,661,207	14,578,106	30,075,453	18,079,948
9	Books and printed matter	1,404,583	1,588,432	4,127,179	11,228,018	18,130,779	15,340,194
10	Grain and grain products	3,034,049	8,298,884	7,806,665	9,806,073	25,082,671	15,070,858
11	Cotton goods	3,792,584	6,399,705	17,928,093	49,088,060	27,275,170	14,466,653
12	Automobiles	[1]	[1]	1,732,215	15,035,545	34,464,666	13,131,262
13	Woollen goods, incl. carpets	10,900,600	9,427,575	20,767,010	45,545,127	32,632,927	12,735,945
14	Electrical apparatus	317,315	810,900	3,688,538	15,550,254	37,611,263	12,501,483
15	Rubber products	1,512,427	2,942,044	6,151,157	18,059,435	20,025,316	12,105,836
16	Petroleum, refined	690,283	830,025	2,326,681	10,566,692	25,180,476	12,034,010
17	Cotton, raw	3,539,249	4,229,198	9,384,801	33,854,457	21,682,463	11,311,409
18	Vegetable oils	612,671	826,882	1,872,265	15,973,417	12,244,151	10,538,840
19	Tea	3,073,643	3,604,027	5,347,854	8,336,163	10,694,379	9,598,848
20	Flax, hemp, and jute	1,416,217	3,551,037	5,340,312	15,923,836	14,995,198	7,981,962
21	Paper	1,208,683	1,378,749	4,567,810	9,949,574	14,764,904	7,575,317
22	Clay and products	948,876	1,593,255	3,418,844	6,371,567	12,256,769	7,193,037
23	Engines and boilers	188,759	778,364	2,019,558	12,997,757	15,146,436	7,132,502
24	Alcoholic beverages	1,695,161	1,938,112	4,459,566	9,135,536	45,026,487	6,805,490
25	Stone and products	862,037	1,029,711	1,773,953	3,687,702	8,702,988	6,718,684
26	Glass and glassware	1,268,314	1,658,694	2,932,104	6,926,459	10,453,706	6,696,774
27	Vegetables	337,859	625,749	1,751,265	5,722,600	11,040,765	6,075,290
28	Noils, tops, and waste wool	12,100	151,510	599,446	5,830,957	3,833,801	5,582,058
29	Furs	1,058,001	2,106,441	5,768,075	12,877,520	11,923,949	5,458,739
30	Leather	1,173,777	1,879,333	4,202,934	17,102,702	11,537,331	5,052,200
31	Wood, unmanufactured	1,444,727	3,775,240	8,324,585	14,112,391	15,348,150	4,786,947
32	Aluminium	159	12,543	794,490	2,747,385	6,058,864	4,562,424
33	Silk, raw	193,529	277,708	393,011	3,090,845	8,360,968	4,499,278
34	Dyeing and tanning materials	484,217	711,508	1,412,099	5,623,720	3,548,656	4,418,127
35	Wood, manufactured	1,355,230	824,195	3,085,079	7,893,284	12,711,307	4,239,406
36	Silk, artificial	[1]	[1]	[1]	[1]	13,418,910	4,212,772
37	Fertilizers	14,444	88,974	5,395,423	1,796,752	5,033,592	3,863,293
38	Paints and varnishes	672,885	1,012,535	1,376,023	3,821,880	5,957,078	3,779,167
39	Wool, raw	1,729,058	1,574,834	1,587,175	2,672,211	4,306,945	3,784,320
40	Coffee, green	591,158	491,148	1,194,061	4,711,079	5,924,635	3,622,669
41	Nuts, edible	231,449	400,441	1,237,292	5,889,573	5,095,109	3,483,983
42	Drugs and medicines	513,331	481,359	962,083	3,402,932	3,808,721	3,368,361
43	Hides and skins, raw	1,703,093	4,214,012	8,235,819	22,654,661	8,402,075	3,236,395
44	Settlers' effects	1,810,217	3,065,410	10,273,428	10,181,034	11,181,203	3,123,599
45	Iron ore	551	282,191	3,345,550	4,601,716	5,020,921	2,735,091
46	Soda and compounds	329,084	624,873	785,524	2,982,371	4,410,621	2,610,663
47	Cotton yarns	17,879	321,348	767,760	4,078,510	3,827,867	2,504,708
48	Brass and products	554,545	851,606	2,228,215	4,531,015	7,000,455	2,437,964
49	Woollen yarns	117,729	402,328	1,671,765	4,445,270	5,870,353	2,353,577
50	Fish	899,683	1,060,708	1,630,744	3,491,678	3,474,921	2,325,702
51	Silk goods	2,654,505	3,880,535	3,590,829	31,341,944	19,606,589	2,271,307
52	Hardware and cutlery	1,250,369	1,434,209	1,937,647	4,210,142	4,950,119	2,122,906
53	Cocoa and chocolate	118,569	286,363	1,130,335	7,626,745	3,651,425	2,104,090
54	Tools	427,305	825,541	891,820	2,050,286	3,192,449	2,090,617
55	Clocks and watches	773,534	698,378	1,459,617	3,126,267	3,495,659	2,072,602
56	Tubes and pipe, iron	484,008	1,122,987	2,358,848	4,160,378	5,948,162	1,902,843

[1] None recorded.

XII.—CANADA'S LEADING IMPORTS, FISCAL YEARS 1890, 1900, 1910, 1920, 1930, AND 1939—concluded.

No.	Commodity.	1890.	1900.	1910.	1920.	1930.	1939.
		$	$	$	$	$	$
57	Tobacco, raw	1,344,985	1,508,359	3,229,239	13,604,757	6,471,626	1,853,969
58	Manila, sisal, istle, etc., fibre	[1]	[1]	1,548,457	5,195,812	3,822,613	1,801,513
59	Meats	1,632,143	1,371,184	2,427,901	22,100,333	7,599,473	1,798,249
60	Stamped and coated products	42,042	268,545	492,884	1,016,777	2,349,230	1,548,253
61	Seeds	478,397	1,916,994	1,167,321	4,210,782	5,061,255	1,462,895
62	Gums and resins	159,508	287,276	2,256,307	4,987,716	3,431,591	1,428,266
63	Coke	155,513	506,839	1,695,603	2,476,450	6,403,354	1,413,111
64	Animals, living	837,385	841,168	1,711,723	2,570,377	2,802,754	1,406,109
65	Sulphur	44,276	215,433	430,632	1,296,458	3,823,245	1,376,302
66	Wire, iron	387,490	1,844,788	3,530,226	5,843,623	3,658,798	1,335,684
67	Musical instruments	434,814	390,407	1,207,592	4,329,093	3,130,873	1,171,754
68	Surgical instruments	25,186	103,740	209,302	1,137,567	1,937,334	1,035,249
69	Diamonds, unset	110,480	451,792	1,902,710	4,470,846	3,193,871	1,033,184
70	Plants and trees	136,326	28,510	178,470	709,507	1,913,447	889,464
71	Celluloid in lumps	18,311	27,136	120,002	743,856	2,042,941	885,964
72	Nickel-plated ware	13,578	18,843	573,591	1,630,047	3,022,935	833,810
73	Spices	213,677	842,597	428,075	1,130,902	1,478,575	794,553
74	Copper and products	484,189	1,271,270	3,488,260	8,568,035	14,898,632	780,780
75	Optical instruments	40,515	181,852	575,929	947,075	1,391,045	702,272
76	Hats and caps	1,258,409	1,637,422	3,420,609	4,216,333	2,908,340	546,009
77	Soap	148,618	446,135	813,619	1,534,082	1,316,418	473,531
78	Salt	309,840	325,433	465,253	1,336,176	897,925	437,779
79	Butter	62,212	290,220	92,934	176,994	14,471,688	96,454

[1] None recorded.

Canada's Principal Exports.—In the interpretation of the figures of the commodities exported, as shown in Statement XIII, the same qualifications should apply regarding price changes and business fluctuations as cited above in the case of imports. Furthermore, factors influencing world trade, as outlined for recent years in Subsection 1, pp. 501-508, have an important bearing upon trends in Canadian exports. Since agricultural products are still an important element in Canadian exports, variations in crop conditions here and in other parts of the world cause important fluctuations in the year-to-year volume and value of exports. Among special circumstances affecting Canadian exports in the fiscal year 1939, may be mentioned lower prices for wheat, further industrial recovery in the United States and other countries, and a steady demand for metals, due partly to armament programs.

Over the period of 49 years covered by the statement, the changes in Canada's exports have been very great, both in volume and in the relative importance of commodities. The great agricultural expansion of the Canadian West had scarcely begun in 1890. The leading exports then were sawmill and timber products, cheese, fish, cattle, barley, coal, and furs—indicating the large dependence of Canadian production at that time upon the eastern forests, mixed-farming areas, and fisheries. The five leading exports in 1939 were very unimportant in 1890. The year 1910 is the earliest year in which wheat appears as the leading export in the statement, although this first occurred in 1906. The rise of the great pulp and paper industry to a leading position has been still more recent, as have industries connected with the production of non-ferrous metals, automobiles, and rubber tires. On the other hand, exports of the products of mixed-farming operations, such as cattle, hides, cheese, and butter, while showing wide fluctuations, have not expanded proportionately, and in some cases were very little or no greater in 1939 than in 1800.

Much of the new agricultural area developed since 1890 has been better adapted to grain growing than to mixed-farming operations, so that, owing to the growth of population, the products of the older mixed-farming districts are consumed to a larger extent within the country. The rapid progress during the past two decades of the mining and metallurgical industries producing non-ferrous metals in Canada is illustrated in this statement by the increased importance since 1910 of exports of non-monetary gold, copper, nickel, silver, zinc, lead, aluminium, and platinum. The part played by these industries in supporting Canada's export trade has increased since 1930 with the curtailment of world trade in agricultural products. Indeed, in 1939, these great mining and metallurgical industries provided exports slightly greater than those of either the agricultural or forest resources of Canada. The direct effect of Canada's resources of water power may be traced in the statement, not only in the growth of exports of pulp and paper and of electric energy, but also in that of non-ferrous metals, artificial abrasives, and certain chemicals such as fertilizers, sodium compounds, and acids, in all of which economic production is due largely to cheap hydro-electric power.

The wide variety of exports illustrates the extent to which the Canadian economy has been broadened and strengthened since the beginning of the century. While exports are still derived chiefly from the natural resources, the products are now exported in more finished manufactured forms, and in greater variety. The increased production of minerals and the wider range of forest products have made Canadian exports more readily adaptable to changing conditions throughout the world. Furthermore, fully manufactured commodities such as automobiles, whisky, rubber goods, farm and other machinery, electrical apparatus, etc., now form important items of the list. The self-sufficiency programs with regard to food supplies of nations with dense industrial populations have had a serious effect on Canadian agriculture, but the situation for the Canadian economy at large would have been infinitely worse, had it not been for the broadened production indicated above.

XIII.—CANADA'S LEADING DOMESTIC EXPORTS, FISCAL YEARS 1890, 1900, 1910, 1920, 1930, AND 1939.

NOTE.—Commodities arranged in order of importance, 1939.

No.	Commodity.	1890.	1900.	1910.	1920.	1930.	1939.
		$	$	$	$	$	$
1	Newsprint	[1]	[1]	2,612,243	53,640,122	145,610,519	107,360,211
2	Gold bullion, non-monetary	[1]	[1]	[1]	[1]	[1]	87,590,120
3	Wheat	388,861	11,995,488	52,609,351	185,045,806	215,753,475	84,494,433
4	Nickel	[1]	1,040,498	3,320,054	9,039,221	25,034,975	49,565,526
5	Copper in forms	[1]	[1]	[1]	541,338	48,181	42,190,363
6	Planks and boards	17,637,308	22,015,990	33,100,387	75,216,193	49,446,887	37,100,824
7	Meats	895,767	13,615,621	8,013,680	96,161,234	15,030,671	35,375,618
8	Wood-pulp	168,180	1,816,016	5,204,597	41,383,482	44,704,958	26,814,418
9	Fish	8,099,674	10,564,688	15,179,015	40,687,172	34,767,739	25,622,980
10	Aluminium, in bars, etc.	[1]	[1]	1,202,723	5,680,871	13,828,010	24,794,611
11	Automobiles	[1]	[1]	405,011	14,883,607	35,607,645	22,806,873
12	Wheat flour	521,383	2,791,885	14,859,854	94,262,922	45,457,195	15,777,707
13	Furs, raw	1,874,327	2,264,580	3,749,005	20,628,109	18,706,311	13,584,861
14	Fruits, chiefly apples	1,073,890	3,305,662	5,492,197	8,347,549	9,593,484	13,569,438
15	Asbestos, raw	444,159	490,909	1,886,613	8,767,856	12,074,065	13,265,885
16	Pulpwood	80,005	902,772	6,076,638	8,454,863	13,860,209	13,231,521
17	Cheese	9,372,212	19,856,324	21,607,692	36,336,863	18,278,004	12,052,703
18	Silver ore and bullion	201,615	1,354,053	15,009,937	14,255,601	11,569,855	11,509,345
19	Copper ore and blister	133,251	1,387,388	6,023,925	11,871,039	37,735,413	10,572,203

[1] None recorded.

XIII.—CANADA'S LEADING DOMESTIC EXPORTS, FISCAL YEARS 1890, 1900, 1910, 1920, 1930, AND 1939—concluded.

No.	Commodity.	1890.	1900.	1910.	1920.	1930.	1939.
		$	$	$	$	$	$
20	Cattle	6,949,417	8,704,523	10,792,156	46,064,631	13,119,462	10,280,469
21	Machinery, except farm	143,815	446,391	924,510	6,416,591	7,154,706	9,703,463
22	Whisky	25,383	396,671	1,010,657	1,504,132	25,856,136	9,457,275
23	Lead	2,000	688,891	529,422	1,193,144	10,637,887	9,433,528
24	Platinum or other metals of the platinum group, in concentrates or other forms	[1]	[1]	61,717	39,058	357,748	8,988,895
25	Zinc	[1]	[1]	[1]	950,082	8,366,712	8,872,584
26	Rubber tires and tubes	[1]	[1]	[1]	7,395,172	18,153,225	8,174,002
27	Gold, raw	657,022	14,148,543	6,016,126	5,974,334	34,375,003	8,111,940
28	Barley	4,600,409	1,010,425	1,107,732	20,206,972	10,388,735	7,997,617
29	Fertilizers	4,291	51,410	371,315	6,694,037	7,990,313	7,312,976
30	Vegetables	597,074	503,993	1,534,228	11,656,483	11,240,747	6,723,768
31	Farm implements and machinery	367,198	1,692,155	4,319,385	11,614,400	18,396,688	6,453,042
32	Shingles, wood	340,872	1,131,506	2,331,443	10,848,602	6,704,494	5,742,216
33	Stone and products	949,158	575,749	955,636	3,531,916	6,909,442	5,292,968
34	Rubber footwear	[1]	[1]	129,618	1,750,967	9,986,392	4,776,273
35	Tobacco, raw	234	3,661	76,564	130,264	504,264	4,766,103
36	Logs, wood	682,572	760,416	999,681	1,819,083	3,677,917	4,593,802
37	Electric energy	[1]	[1]	[1]	[1]	4,028,154	4,188,644
38	Sodium compounds	[1]	[1]	[1]	[1]	4,208,518	4,144,020
39	Paper board	[1]	[1]	[1]	4,568,066	2,506,496	3,978,111
40	Electrical apparatus	[1]	[1]	27,743	424,474	2,521,045	3,864,778
41	Hides and skins, raw	506,402	1,396,907	5,508,185	19,762,646	7,730,914	3,716,630
42	Cereal foods	[1]	[1]	1,689,648	1,087,901	2,431,137	3,545,354
43	Films	[1]	[1]	7,746	1,486,079	4,790,619	3,432,603
44	Milk, processed	[1]	[1]	541,372	8,517,771	3,262,101	3,428,080
45	Seeds	182,200	322,652	4,602,797	9,915,391	3,237,774	3,267,647
46	Oatmeal and rolled oats	254,857	475,991	1,123,861	4,283,772	2,440,968	3,189,346
47	Pigs, ingots, and blooms, iron	[1]	137,651	228,183	6,595,688	4,727,137	3,031,805
48	Oats	256,156	2,143,179	1,566,612	9,349,455	4,055,855	2,726,956
49	Automobile parts	[1]	[1]	[1]	3,097,466	2,298,742	2,528,397
50	Settlers' effects	818,001	1,095,536	2,274,005	7,631,498	6,304,199	2,444,514
51	Hardware and cutlery	84,109	278,054	100,085	7,730,826	1,743,096	2,342,847
52	Bran and shorts	86,225	145,206	1,842,620	2,983,843	2,582,484	2,195,494
53	Butter	340,131	5,122,156	1,010,274	9,844,359	543,851	2,092,518
54	Sugar and products	18,101	100,108	153,357	30,695,005	4,798,712	2,022,987
55	Malt	150,380	10,939	11,328	1,320,773	64,736	1,624,148
56	Coal	2,447,936	4,599,602	5,013,221	13,183,666	3,998,692	1,510,350
57	Leather, unmanufactured	727,087	1,535,440	1,296,480	11,742,268	6,496,951	1,452,453
58	Timber, square	4,353,870	2,013,746	934,723	2,148,162	4,235,309	1,439,243
59	Acids	5,545	67	[1]	901,397	5,096,529	1,360,300
60	Wrapping paper	[1]	[1]	9,098	2,917,197	1,655,568	1,188,077
61	Poles, telegraph and phone	92,326	36,891	56,177	206,834	3,917,536	1,089,807
62	Brass and products	[1]	[1]	[1]	1,644,157	2,332,962	1,062,151
63	Binder twine	[1]	[1]	[1]	5,530,908	1,502,921	1,043,127
64	Petroleum products	15,812	1,653	1,155	1,176,644	2,527,178	900,232
65	Stationery	[1]	[1]	23,380	276,224	602,170	875,510
66	Tubes and pipe, iron	[1]	[1]	[1]	2,325,369	2,202,769	816,747
67	Sausage casings	[1]	[1]	[1]	564,222	955,933	788,835
68	Hair	1,068,554	1,414,109	1,805,849	4,087,670	2,007,944	624,671
69	Laths, wood	392,500	749,301	1,882,950	3,668,511	3,095,417	522,357
70	Rye	220,761	279,286	84,658	3,475,834	1,451,640	509,811
71	Ale, beer, and porter	10,347	6,272	2,687	144,077	1,995,990	119,496
72	Milk and cream, fresh	[1]	[1]	[1]	1,699,090	5,379,174	6,486

[1]None recorded.

Subsection 8.—Proportions of Trade in Raw and Manufactured Products.

The stage attained in the industrial development of a country is indicated by the character of the goods it imports and exports. This is discussed as extensively as space permits in the preceding subsection. Statement XIV shows how Canada's imports and exports, analysed into the three categories of raw materials, partly

manufactured goods, and fully or chiefly manufactured goods, are divided between the continents and leading countries of the world. In trade with industrialized continents, such as Europe and Asia, Canada's imports are largely manufactured goods and her exports mainly raw materials or partly manufactured goods, while in trade with South America, Oceania, Africa, and North America (if the United States be excluded) the situation is the reverse. See also Table 15 of this chapter which shows the external trade classified by main groups according to origin and degree of manufacture.

XIV.—CANADA'S IMPORTS AND EXPORTS, BY CONTINENTS AND LEADING COUNTRIES, ACCORDING TO DEGREE OF MANUFACTURE, FISCAL YEAR 1939.

(Figures are preliminary.)

Continent and Country.	Imports.						Exports (Domestic).					
	Raw Materials.		Partly Manufactured.		Fully Manufactured.		Raw Materials.		Partly Manufactured.		Fully Manufactured.	
	Value.	P.C. of Total.	Value.	P.C. of Total.	Value.	P.C. of Total.	Value.	P.C. of Total.	Value.	P.C. of Total.	Value.	P.C. of Total.
EUROPE.	$'000		$'000		$'000		$'000		$'000		$'000	
Belgium	504	8·1	809	13·0	4,899	78·9	8,284	83·2	1,055	10·6	613	6·2
Czechoslovakia	33	1·7	12	0·6	1,906	97·7	412	14·3	2,404	83·5	62	2·2
Denmark	29	16·5	35	19·9	112	63·6	1,462	87·4	113	6·7	98	5·9
France	317	5·3	231	3·9	5,403	90·8	5,129	58·4	2,576	29·4	1,072	12·2
Germany	1,877	18·6	133	1·3	8,107	80·1	8,511	47·8	8,320	46·7	965	5·5
Ireland (Eire)	15	53·6	Nil	–	13	46·4	2,528	71·3	145	4·1	870	24·6
Italy	358	14·4	226	9·1	1,897	76·5	808	45·2	950	53·1	31	1·7
Netherlands	848	24·0	193	5·5	2,494	70·5	6,956	70·2	1,511	15·3	1,437	14·5
Norway	49	6·7	20	2·7	661	90·6	6,205	81·0	330	4·3	1,129	14·7
Sweden	37	1·8	58	2·9	1,908	95·3	807	13·8	3,418	58·3	1,634	27·9
Switzerland	6	0·2	2	0·1	2,993	99·7	218	28·2	55	7·1	501	64·7
United Kingdom	10,122	8·7	11,264	9·7	94,250	81·6	98,597	30·3	102,490	31·5	124,378	38·2
TOTALS, EUROPE[1]	14,621	9·5	13,441	8·7	125,976	81·8	142,511	35·5	125,153	31·2	133,980	33·3
NORTH AMERICA.												
Bermuda	38	55·1	3	4·3	28	40·6	417	29·4	44	3·1	957	67·5
Br. W. Indies—												
Barbados	[2]	[2]	724	34·5	1,376	65·5	102	8·6	207	17·5	873	73·9
Jamaica	2,226	36·7	3,705	61·1	135	2·2	129	2·9	189	4·3	4,117	92·8
Trinidad-Tobago	423	17·7	1,847	76·9	130	5·4	263	6·9	224	5·9	3,300	87·2
Other B.W.I.	668	29·3	1,314	57·8	294	12·9	129	7·6	88	5·2	1,482	87·2
Cuba	331	75·2	36	8·2	73	16·6	391	27·8	164	11·7	849	60·5
Mexico	509	89·0	Nil	–	63	11·0	44	1·9	207	8·7	2,111	89·4
Newfoundland	1,585	76·7	38	1·8	444	21·5	1,741	21·7	88	1·1	6,210	77·2
United States	122,330	29·7	718,200	4·4	271,947	65·9	83,470	22·2	158,245	42·1	134,224	35·7
TOTALS, NORTH AMERICA[1]	129,151	30·1	25,884	6·0	274,518	63·9	86,897	21·6	159,575	39·6	156,248	38·8
SOUTH AMERICA.												
Argentina	1,637	76·5	Nil	–	503	23·5	307	7·6	60	1·5	3,647	90·9
Brazil	509	70·5	"	–	213	29·5	130	4·0	607	18·4	2,558	77·6
British Guiana	1,473	20·9	5,194	73·9	361	5·2	126	9·2	71	5·2	1,174	85·6
Colombia	7,659	99·9	Nil	–	4	0·1	138	9·5	19	1·3	1,295	89·2
Peru	1,726	71·5	7	0·3	681	28·2	7	0·8	293	33·8	566	65·4
Venezuela	1,277	99·9	Nil	–	[2]	0·1	43	3·3	6	0·5	1,237	96·2
TOTALS SOUTH AMERICA[1]	14,346	66·2	5,371	24·8	1,940	9·0	807	6·1	1,151	8·7	11,299	85·2

[1]Totals include other countries not specified. [2]Too small to be expressed.

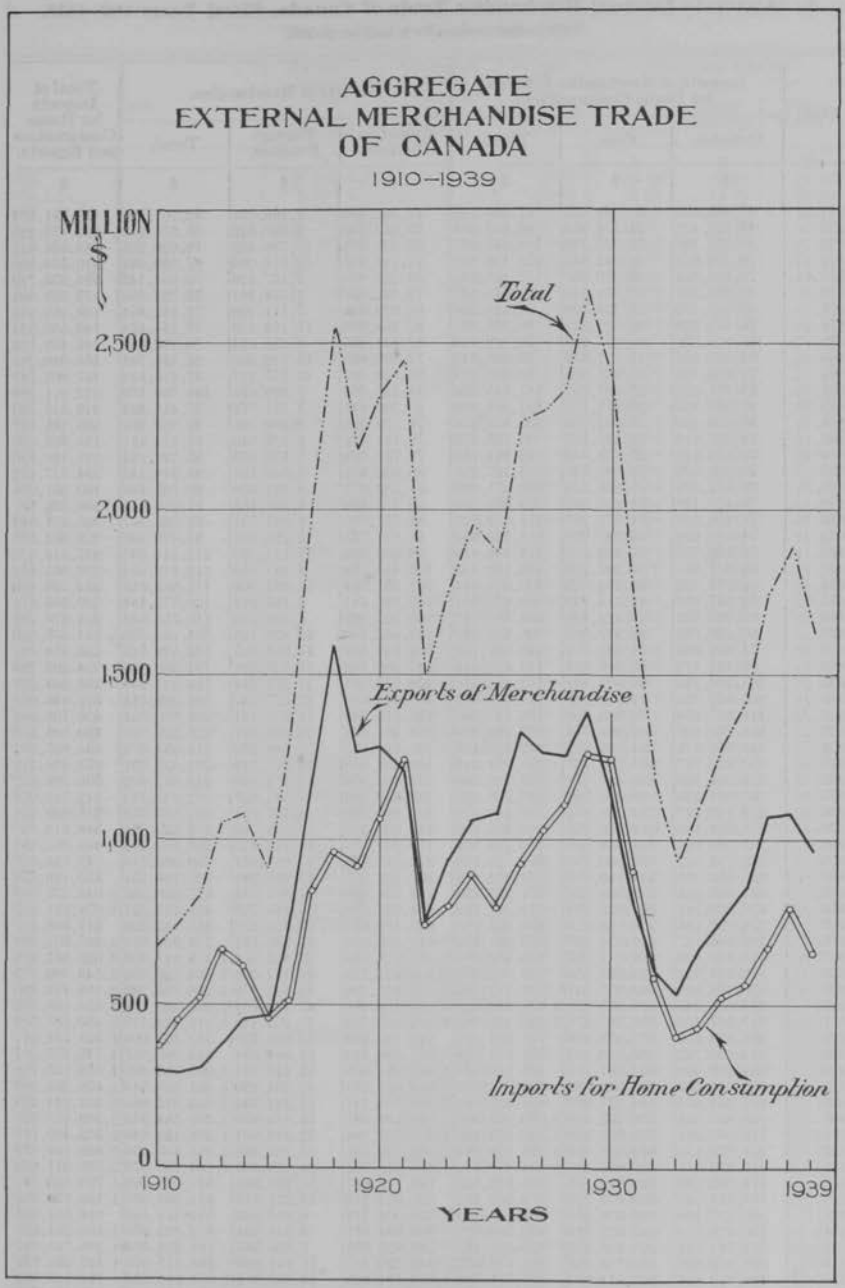
XIV.—CANADA'S IMPORTS AND EXPORTS, BY CONTINENTS AND LEADING COUNTRIES, ACCORDING TO DEGREE OF MANUFACTURE, FISCAL YEAR 1939—concluded.

Continent and Country.	Imports.						Exports (Domestic).					
	Raw Materials.		Partly Manufactured.		Fully Manufactured.		Raw Materials.		Partly Manufactured.		Fully Manufactured.	
	Value.	P.C. of Total.	Value.	P.C. of Total.	Value.	P.C. of Total.	Value.	P.C. of Total.	Value.	P.C. of Total.	Value.	P.C. of Total.
	$'000		$'000		$'000		$'000		$'000		$'000	
ASIA.												
British India	650	7·8	84	1·0	7,622	91·2	200	6·0	383	11·5	2,736	82·5
Br. Str. Settlements	7,229	68·4	2,778	26·3	557	5·3	42	2·0	43	2·0	2,034	96·0
Ceylon	530	14·8	662	18·5	2,384	66·7	3	1·5	[1]	[1]	198	98·5
China	856	33·1	519	20·1	1,207	46·8	415	12·9	1,834	56·9	976	30·2
Hong Kong	367	47·2	5	0·6	405	52·2	109	5·7	111	5·9	1,675	88·4
Japan	562	12·6	233	5·2	3,672	82·2	4,649	22·1	16,008	76·1	388	1·8
Philippine Is.	64	19·9	241	74·8	17	5·3	4	0·3	17	1·3	1,333	98·4
TOTALS, ASIA[2]	10,821	33·2	5,026	15·4	16,710	51·4	5,449	15·0	18,439	50·9	12,323	34·1
OCEANIA.												
Australia	1,391	15·8	3,324	37·7	4,092	46·5	2,069	6·2	2,658	8·0	28,527	85·8
Fiji	13	0·6	2,160	99·3	3	0·1	8	2·0	136	33·5	262	64·5
New Zealand	2,753	71·0	1,023	26·4	102	2·6	303	1·8	331	1·9	16,393	96·3
TOTALS, OCEANIA[2]	4,179	27·8	6,514	43·3	4,350	28·9	2,421	4·6	3,287	6·3	46,614	89·1
AFRICA.												
British E. Africa	1,554	87·1	156	8·7	74	4·2	1	0·2	2	0·3	610	99·5
British S. Africa	1,147	63·6	387	21·5	269	14·9	245	1·5	903	5·7	14,765	92·8
British W. Africa	632	66·7	306	32·3	10	1·0	91	17·8	7	1·4	413	80·8
S. Rhodesia	2	66·7	[1]	[1]	1	33·3	2	0·2	31	2·9	1,024	96·9
TOTALS, AFRICA[2]	4,014	74·6	888	16·5	478	8·9	1,228	5·9	1,387	6·7	18,193	87·4
GRAND TOTALS	177,132	26·9	57,124	8·7	423,972	64·4	239,313	25·8	308,992	33·3	378,657	40·9
BRITISH EMPIRE.												
United Kingdom	10,122	8·8	11,264	9·7	94,250	81·5	98,597	30·3	102,490	31·5	124,378	38·2
Other Br. Empire	22,924	35·2	23,736	36·5	18,414	28·3	8,567	8·3	5,704	5·6	88,497	86·1
TOTALS, BRITISH EMPIRE	33,046	18·3	35,000	19·4	112,664	62·3	107,164	25·0	108,195	25·3	212,874	49·7
FOREIGN COUNTRIES.												
United States	122,330	29·7	18,200	4·4	271,947	65·9	83,470	22·2	158,245	42·1	134,224	35·7
Other foreign countries	21,757	33·5	3,923	6·0	39,361	60·5	48,679	39·6	42,552	34·7	31,559	25·7
TOTALS, FOREIGN COUNTRIES	144,087	30·2	22,123	4·6	311,308	65·2	132,149	26·5	200,797	40·3	165,783	33·2

[1]Too small to be expressed. [2]Totals include other countries not specified.

Subsection 9.—Main Historical Tables and Tables Showing Current Trends in External Trade.

In this subsection are assembled, in summary form, the main tables of Canadian trade since Confederation, while the figures of trade in the latest years are given in greater detail by countries and commodities.


AGGREGATE
EXTERNAL MERCHANDISE TRADE
OF CANADA
1910–1939
MILLION $
2,500
2,000
1,500
1,000
500
0
Total
Exports of Merchandise
Imports for Home Consumption
1910
1920
1930
1939
YEARS

1.—Aggregate External Merchandise Trade of Canada, Fiscal Years 1868-1939.

NOTE.—See explanatory text on p. 508.

Year.	Imports of Merchandise Entered for Home Consumption.			Exports of Merchandise.			Total of Imports for Home Consumption and Exports.
	Dutiable.	Free.	Total.	Canadian Produce.	Foreign Produce.	Total.	
	$	$	$	$	$	$	$
1868....	43,655,696	23,434,463	67,090,159	48,504,899	4,196,821	52,701,720	119,791,879
1870....	45,127,421	21,774,653	66,902,074	59,043,590	6,527,622	65,571,212	132,473,286
1872....	68,276,157	36,679,210	104,955,367	65,831,083	12,798,182	78,629,265	183,584,632
1874....	76,232,530	46,948,357	123,180,887	76,741,997	10,614,096	87,356,093	210,536,980
1875....	78,138,511	39,270,057	117,408,568	69,709,823	7,137,319	76,847,142	194,255,710
1876....	60,238,297	32,274,810	92,513,107	72,491,437	7,234,961	79,726,398	172,239,505
1877....	60,916,770	33,209,624	94,126,394	68,030,546	7,111,108	75,141,654	169,268,048
1878....	59,773,039	30,622,812	90,395,851	67,989,800	11,164,878	79,154,678	169,550,529
1879....	55,426,836	23,275,683	78,702,519	62,431,025	8,355,644	70,786,669	149,489,188
1880....	54,182,967	15,717,575	69,900,542	72,899,697	13,240,006	86,139,703	156,040,245
1881....	71,620,725	18,867,604	90,488,329	83,944,701	13,375,117	97,319,818	187,808,147
1882....	85,757,433	25,387,751	111,145,184	94,137,657	7,628,453	101,766,110	212,911,294
1883....	91,588,339	30,273,157	121,861,496	87,702,431	9,751,773	97,454,204	219,315,700
1884....	80,010,498	25,962,480	105,972,978	79,833,098	9,389,106	89,222,204	195,195,182
1885....	73,269,618	26,486,157	99,755,775	79,131,735	8,079,646	87,211,381	186,967,156
1886....	70,658,819	25,333,318	95,992,137	77,756,704	7,438,079	85,194,783	181,186,920
1887....	78,120,679	26,986,531	105,107,210	80,960,909	8,549,333	89,510,242	194,617,452
1888....	69,645,824	31,025,804	100,671,628	81,382,072	8,803,394	90,185,466	190,857,094
1889....	74,475,139	34,623,057	109,098,196	80,272,456	6,938,455	87,210,911	196,309,107
1890....	77,106,286	34,576,287	111,682,573	85,257,586	9,051,781	94,309,367	205,991,940
1891....	74,536,036	36,997,918	111,533,954	88,671,738	8,798,631	97,470,369	209,004,323
1892....	69,160,737	45,999,676	115,160,413	99,032,466	13,121,791	112,154,257	227,314,670
1893....	69,873,571	45,297,259	115,170,830	105,488,798	8,941,856	114,430,654	229,601,484
1894....	62,779,182	46,291,729	109,070,911	103,851,764	11,833,805	115,685,569	224,756,480
1895....	58,557,655	42,118,236	100,675,891	102,828,441	6,485,043	109,313,484	209,989,375
1896....	67,239,759	38,121,402	105,361,161	109,707,805	6,606,738	116,314,543	221,675,704
1897....	66,220,765	40,397,062	106,617,827	123,632,540	10,825,163	134,457,703	241,075,530
1898....	74,625,088	51,682,074	126,307,162	144,548,662	14,980,883	159,529,545	285,836,707
1899....	89,433,172	59,989,244	149,422,416	137,360,792	17,520,088	154,880,880	304,303,296
1900....	104,346,795	68,304,881	172,651,676	168,972,301	14,265,254	183,237,555	355,889,231
1901....	105,969,756	71,961,163	177,930,919	177,431,386	17,077,757	194,509,143	372,440,062
1902....	118,657,496	78,080,308	196,737,804	196,019,763	13,951,101	209,970,864	406,708,668
1903....	136,796,065	88,298,744	225,094,809	214,401,674	10,828,087	225,229,761	450,324,570
1904....	148,909,576	94,999,839	243,909,415	198,414,439	12,641,239	211,055,678	454,965,093
1905....	150,928,787	101,035,427	251,964,214	190,854,946	10,617,115	201,472,061	453,436,275
1906....	173,046,109	110,694,171	283,740,280	235,483,956	11,173,846	246,657,802	530,398,082
1907[1]....	152,065,529	98,160,306	250,225,835	180,543,306	11,541,927	192,087,233	442,313,068
1908....	218,160,047	134,380,832	352,540,879	246,960,968	16,407,984	263,368,952	615,909,831
1909....	175,014,160	113,580,036	288,594,196	242,603,584	17,318,782	259,922,366	548,516,562
1910....	227,264,346	143,053,853	370,318,199	279,247,551	19,516,442	298,763,993	669,082,192
1911....	282,723,812	170,000,791	452,724,603	274,316,553	15,683,657	290,000,210	742,724,813
1912....	335,304,060	187,100,615	522,404,675	290,223,857	17,492,294	307,716,151	830,120,826
1913....	441,606,885	229,600,349	671,207,234	355,754,600	21,313,755	377,068,355	1,048,275,589
1914....	410,258,744	208,935,254	619,193,998	431,588,439	23,848,785	455,437,224	1,074,631,222
1915....	279,792,195	176,163,713	455,955,908	409,418,836	52,023,673	461,442,509	917,398,417
1916....	289,366,527	218,834,607	508,201,134	741,610,638	37,689,432	779,300,070	1,287,501,204
1917....	461,733,609	384,717,269	846,450,878	1,151,375,768	27,835,332	1,179,211,100	2,025,661,978
1918....	542,341,522	421,191,056	963,532,578	1,540,027,788	46,142,004	1,586,169,792	2,549,702,370
1919....	526,494,658	393,217,047	919,711,705	1,216,443,806	52,321,479	1,268,765,285	2,188,476,990
1920....	693,655,165	370,872,958	1,064,528,123	1,239,492,098	47,166,611	1,286,658,709	2,351,186,832
1921....	847,561,406	392,597,476	1,240,158,882	1,189,163,701	21,264,418	1,210,428,119	2,450,587,001
1922....	495,626,323	252,178,009	747,804,332	740,240,680	13,686,329	753,927,009	1,501,731,341
1923....	537,258,782	265,320,462	802,579,244	931,451,443	13,844,394	945,295,837	1,747,875,081
1924....	591,299,094	302,067,773	893,366,867	1,045,351,056	13,412,241	1,058,763,297	1,952,130,164
1925....	516,014,455	280,918,082	796,932,537	1,069,067,353	12,294,290	1,081,361,643	1,878,294,180
1926....	583,051,670	344,277,062	927,328,732	1,320,568,147	13,344,346	1,333,912,493	2,261,241,225
1927....	659,897,013	370,995,492	1,030,892,505	1,254,168,897	15,415,636	1,269,584,533	2,300,477,038
1928....	710,050,228	398,906,238	1,108,956,466	1,233,903,994	22,248,691	1,256,152,685	2,365,109,151
1929....	821,075,430	444,603,661	1,265,679,091	1,368,259,131	25,186,403	1,393,445,534	2,659,124,625
1930....	819,230,474	429,043,108	1,248,273,582	1,120,258,302	24,679,768	1,144,938,070	2,393,211,652
1931....	574,090,230	332,522,465	906,612,695	799,742,667	17,285,381	817,028,048	1,723,640,743
1932....	388,498,048	190,005,855	578,503,904	600,031,812	11,221,215	611,253,027	1,189,756,931
1933....	256,377,100	150,006,644	406,383,744	528,064,278	6,913,842	534,978,120	941,361,864
1934....	250,476,412	183,322,213	433,798,625	665,954,071	6,311,324	672,265,395	1,106,064,020
1935....	301,245,922	221,185,231	522,431,153	756,625,925	7,658,963	764,284,888	1,286,716,041
1936....	309,933,096	252,785,967	562,719,063	849,030,417	13,441,659	862,472,076	1,425,191,139
1937....	369,933,634	301,941,932	671,875,566	1,061,181,906	13,062,314	1,074,244,220	1,746,119,786
1938....	434,165,772	364,904,146	799,069,918	1,070,228,609	14,592,595	1,084,821,204	1,883,891,122
1939....	369,096,167	289,131,867	658,228,034	926,962,245	42,807,906	969,770,151	1,627,998,185

[1] Nine months.

2.—Ratio of Exports to Imports and Values per Capita of Exports, Imports, and Total Trade, Fiscal Years 1868-1939.

Year.	Excess of Imports over Total Exports.	Excess of Total Exports over Imports.	Percentage Rate of Total Exports to Imports.	Values per Capita.[1]		
				Exports of Canadian Produce.	Total Imports.	Total Trade.[2]
	$	$	p.c.	$	$	$
1868	14,388,439		78·55	14·38	19·90	34·28
1869	6,898,368		89·07	15·35	18·50	33·85
1870	1,330,862	-	98·01	17·09	19·37	36·46
1871	16,731,120	-	80·13	16·38	23·94	40·32
1872	26,326,102		74·92	18·23	29·06	47·29
1873	38,565,194		69·03	20·87	33·94	54·81
1874	35,824,794		70·92	20·06	32·20	52·26
1875	40,561,426		64·45	17·93	30·21	48·14
1876	12,786,709		86·18	18·36	23·43	41·79
1877	18,984,740		79·83	16·97	23·45	40·42
1878	11,241,173		87·56	16·67	22·16	38·83
1879	7,915,850	-	89·94	15·06	18·98	34·04
1880	..	16,239,161	123·23	17·29	16·58	33·87
1881	-	6,831,489	107·05	19·36	20·86	40·22
1882	9,379,074	-	91·57	21·47	25·35	46·82
1883	24,407,292	-	79·97	19·78	27·49	47·27
1884	16,750,774		84·19	17·80	23·63	41·43
1885	12,544,394		87·42	17·43	21·98	39·41
1886	10,797,354		88·75	16·94	20·92	37·86
1887	15,596,968		85·16	17·46	22·66	40·12
1888	10,486,162		89·58	17·36	21·47	38·83
1889	21,187,285		79·93	16·94	23·02	39·96
1890	17,373,206		84·44	17·79	23·30	41·09
1891	14,063,585		87·39	18·31	23·02	41·33
1892	3,006,156		97·39	20·26	23·55	43·81
1893	740,176	-	99·36	21·37	23·33	44·70
1894	-	6,614,658	106·06	20·84	21·88	42·72
1895		8,637,593	108·58	20·43	20·00	40·43
1896		10,453,382	110·40	21·57	20·72	42·29
1897		27,839,376	126·11	24·04	20·73	44·77
1898		33,222,383	126·30	27·80	24·29	52·09
1899		5,458,464	103·65	26·12	28·41	54·53
1900		10,585,879	106·13	31·75	32·44	64·19
1901		16,578,224	109·32	32·84	33·13	65·97
1902		13,233,060	106·73	35·43	35·56	70·99
1903	-	134,952	100·06	37·79	39·68	77·47
1904	32,853,737	-	86·53	34·06	41·87	75·93
1905	50,492,153		79·96	31·85	42·05	73·90
1906	37,082,478	-	86·93	38·16	45·98	84·14
1907 (9 months)	58,138,602		76·77	28·65	39·70	68·35
1908	89,171,927	-	74·71	38·05	54·31	92·36
1909	28,671,830		90·06	36·24	43·10	79·34
1910	71,554,200	-	80·68	40·37	53·54	93·91
1911	162,724,393	-	64·06	38·06	62·82	100·88
1912	214,688,524	-	58·90	39·40	70·93	110·33
1913	294,138,879		56·18	47·26	89·17	136·43
1914	163,756,774	-	73·56	56·10	80·49	136·59
1915	-	5,486,601	101·20	52·08	57·99	110·07
1916		271,098,936	153·34	92·29	63·24	155·53
1917		332,760,222	139·31	140·75	103·48	244·23
1918		622,637,214	164·62	184·91	115·69	300·60
1919		349,053,580	137·95	143·48	108·48	251·96
1920	-	222,130,586	120·87	143·61	123·34	266·95
1921	29,730,763	-	97·60	135·32	141·20	276·52
1922	-	6,122,677	100·82	83·00	83·84	166·84
1923		142,716,593	117·78	103·39	89·09	192·48
1924		165,396,430	118·51	114·35	97·72	212·07
1925		284,429,106	135·69	115·04	85·76	200·80
1926		406,583,761	144·50	139·73	98·12	237·85
1927		238,692,028	123·22	130·14	106·97	237·11
1928		147,196,219	113·25	125·46	112·76	238·22
1929	-	127,766,443	110·08	136·43	126·20	262·63
1930	103,335,512	-	91·72	109·75	122·28	232·03
1931	89,584,647	-	90·12	77·08	87·37	164·45
1932	-	32,749,123	105·63	57·11	55·07	112·18
1933		128,549,376	131·60	49·44	38·05	87·49
1934		238,466,770	154·98	61·53	40·08	101·61
1935		241,853,735	146·30	69·10	47·71	116·81
1936		299,753,013	153·15	76·99	51·03	128·02
1937		402,368,654	159·89	96·23	60·42	156·65
1938		285,751,286	135·76	95·43	71·86	167·29
1939	-	311,542,117	147·33	82·70	58·72	141·42

[1] Per capita figures are based on estimates of population given at p. 103.

[2] Not including exports of foreign produce.

3.—Movement of Coin and Bullion, Fiscal Years 1868-1939.

NOTE.—See pp. 499-501. See also pp. 264 and 835 of the "Annual Report on the Trade of Canada, 1939", for greater detail in recent years.

Year.	Total Imports.	Exports.			Total Imports and Exports of Coin and Bullion.
		Canadian.	Foreign.	Total.	
	$	$	$	$	$
1868	4,895,147	4,866,168	Nil	4,866,168	9,761,315
1869	4,247,229	4,218,208	"	4,218,208	8,465,437
1870	4,335,529	8,002,278	"	8,002,278	12,337,807
1871	2,733,094	6,690,350	"	6,690,350	9,423,444
1872	2,753,749	4,010,398	"	4,010,398	6,764,147
1873	3,005,465	3,845,987	"	3,845,987	6,851,452
1874	4,223,282	1,995,835	"	1,995,835	6,219,117
1875	2,210,089	1,039,837	"	1,039,837	3,249,926
1876	2,220,111	1,240,037	"	1,240,037	3,460,148
1877	2,174,089	Nil	733,739	733,739	2,907,828
1878	803,726	"	168,989	168,989	972,715
1879	1,639,089	"	704,586	704,586	2,343,675
1880	1,881,807	"	1,771,755	1,771,755	3,653,562
1881	1,123,275	"	971,005	971,005	2,094,280
1882	1,503,743	"	371,093	371,093	1,874,836
1883	1,275,523	"	631,600	631,600	1,907,123
1884	2,207,666	"	2,184,292	2,184,292	4,391,958
1885	2,954,244	"	2,026,980	2,026,980	4,981,224
1886	3,610,557	"	56,531	56,531	3,667,088
1887	532,218	"	5,569	5,569	537,787
1888	2,175,472	"	17,534	17,534	2,193,006
1889	575,251	"	1,978,256	1,978,256	2,553,507
1890	1,083,011	"	2,439,782	2,439,782	3,522,793
1891	1,811,170	129,328	817,599	946,927	2,758,097
1892	1,818,530	306,447	1,502,671	1,809,118	3,627,648
1893	6,534,200	309,459	3,824,239	4,133,698	10,667,898
1894	4,023,072	310,006	1,529,374	1,839,380	5,862,452
1895	4,576,620	256,571	4,068,748	4,325,319	8,901,939
1896	5,226,319	207,532	4,491,777	4,699,309	9,925,628
1897	4,676,194	327,298	3,165,252	3,492,550	8,168,744
1898	4,390,844	1,045,723	3,577,415	4,623,138	9,013,982
1899	4,629,177	1,101,245	2,914,780	4,016,025	8,645,202
1900	8,152,640	1,670,068	6,987,100	8,657,168	16,809,808
1901	3,307,069	Nil	1,978,489	1,978,489	5,285,558
1902	6,053,791	"	1,669,422	1,669,422	7,723,213
1903	8,695,707	"	619,963	619,963	9,315,670
1904	7,554,917	"	2,465,557	2,465,557	10,020,474
1905	9,961,340	"	1,844,811	1,844,811	11,806,151
1906	6,620,527	"	9,928,828	9,928,828	16,549,355
1907 (9 months)	7,029,047	"	13,189,964	13,189,964	20,219,011
1908	5,887,737	"	16,637,654	16,637,654	22,525,391
1909	9,611,761	2	1,589,791	1,589,793	11,201,554
1910	5,514,817	Nil	2,594,536	2,594,536	8,109,353
1911	9,226,715	"	7,196,155	7,196,155	16,422,870
1912	25,077,515	"	7,601,099	7,601,099	32,678,614
1913	4,309,811	"	16,163,702	16,163,702	20,473,513
1914	14,498,451	1,219	23,559,485	23,560,704	38,059,155
1915	131,483,396	667	29,365,701	29,366,368	160,849,764
1916	33,876,227	315	103,572,117	103,572,432	137,448,659
1917	26,986,548	86,087	196,460,961	196,547,048	223,533,596
1918	11,290,341	290,281	3,201,122	3,491,403	14,781,744
1919	[1]	[1]	[1]	[1]	[1]
1920	50,463,494	230,117	49,815,279	50,045,396	100,508,890
1921	7,218,775	24,368,846	9,815,827	34,184,673	41,403,448
1922	4,788,246	18,085,901	5,251,430	23,337,331	28,125,577
1923	26,455,231	1,766,060	25,782,806	27,548,866	54,004,097
1924	3,496,705	12,521,619	12,924,211	25,445,830	28,942,535
1925	4,142,292	2,948,353	1,971,620	4,919,973	9,062,265
1926	51,437,859	40,668,052	25,242,303	65,910,355	117,348,214
1927	46,086,458	Nil	43,040,819	43,040,819	89,127,277
1928	31,308,807	25,301,005	31,031,311	56,332,316	87,641,123
1929	29,560,310	32,383,006	58,299,998	90,683,004	120,243,314
1930	2,716,218	410,435	4,494,783	4,905,218	7,621,436
1931	39,126,924	80	44,996,512	44,996,592	84,123,516
1932	1,815,016	25,291,905	22,860,214	48,152,119	49,967,135
1933	1,011,685	3,876,674	6,842,342	10,719,016	11,730,701
1934	849,290	12,452,653	2,749,629	15,202,282	16,051,572
1935	730,612	28,196	803,782	831,978	1,562,590
1936	1,281,141	51,957	14,498,433	14,550,390	15,831,531
1937	1,730,895	59,178	1,785,452	1,844,630	3,575,525
1938	1,361,578	59,323	41,879,503	41,938,826	43,300,404
1939	64,256,965	19,220	1,438,028	[1]1,457,248	65,714,213

[1] No record of imports and exports of coin and bullion for 1919.

4.—Duties Collected on Exports, 1868-92, and on Imports for Home Consumption, 1868-1939, with Percentages of Expense of Collection to Gross Customs Revenue Collected, Fiscal Years 1868-1939.

NOTE.—The figures in this table are the gross figures of duties collected; the net national revenue from customs taxation, because of the drawbacks paid is considerably smaller. For net customs revenue, see statistics of revenue from customs duties in the historical revenue table in Chapter XXI on Public Finance.

Year.	Duties Collected on Exports.	Duties Collected on Imports.	Percentage of Expense of Collection to Gross Customs Revenue.	Year.	Duties Collected on Exports.	Duties Collected on Imports.	Percentage of Expense of Collection to Gross Customs Revenue.
	$	$	p.c.		$	$	p.c.
1868.....	17,986	8,801,446	5·99	1881.....	8,141	18,492,645	3·87
1869.....	14,403	8,284,507	7·09	1882.....	8,810	21,700,028	3·33
1870.....	37,912	9,425,028	5·41	1883.....	9,756	23,162,553	3·26
1871.....	36,066	11,807,590	4·21	1884.....	8,515	20,156,448	3·96
1872.....	24,809	13,020,684	4·04	1885.....	12,305	19,121,254	4·14
1873.....	20,152	12,997,578	4·35	1886.....	20,726	19,427,398	4·10
1874.....	14,565	14,407,318	4·55	1887.....	31,397	22,438,309	3·64
1875.....	7,243	15,354,139	4·44	1888.....	21,772	22,187,869	3·81
1876.....	4,500	12,828,614	5·61	1889.....	42,207	23,742,317	3·62
1877.....	4,103	12,544,348	5·75	1890.....	93,674	23,921,234	3·63
1878.....	4,161	12,791,532	5·58	1891.....	64,803	23,416,266	3·83
1879.....	4,272	12,935,269	5·56	1892.....	108	20,550,474	4·39
1880.....	8,896	14,129,953	5·04	1893.....	[1]	21,161,711	4·26

Year.	Duties Collected on Imports.	Percentage of Expense of Collection to Gross Customs Revenue.	Year.	Duties Collected on Imports.	Percentage of Expense of Collection to Gross Customs Revenue.	Year.	Duties Collected on Imports.	Percentage of Expense of Collection to Gross Customs Revenue.
	$	p.c.		$	p.c.		$	p.c.
1894.....	19,379,822	4·75	1910....	61,024,239	3·31	1926....	143,933,111	2·83
1895.....	17,887,269	5·13	1911....	73,312,368	2·98	1927....	158,966,367	2·66
1896.....	20,219,037	4·43	1912....	87,576,037	2·78	1928....	171,872,768	3·09
1897.....	19,891,997	4·73	1913....	115,063,688	2·74	1929....	200,479,505	3·02
1898.....	22,157,788	4·37	1914....	107,180,578	3·59	1930....	199,011,628	3·30
1899.....	25,734,229	4·02	1915....	79,205,910[2]	4·77	1931....	149,250,992	4·45
1900.....	22,889,110	3·71	1916....	103,940,101[2]	3·55	1932....	113,997,851	4·87
1901.....	29,106,980	3·86	1917. ..	147,631,455[2]	2·54	1933....	77,271,965	3·86
1902.....	32,425,532	3·62	1918....	161,595,629[2]	2·51	1934....	73,154,472	3·37
1903.....	37,110,355	3·31	1919....	158,046,334[2]	3·13	1935....	84,627,473	2·97
1904.....	40,954,349	3·31	1920....	187,524,182[2]	2·49	1936....	82,784,317	3·20
1905.....	42,024,340	3·49	1921....	179,667,683[2]	3·36	1937....	92,282,059	2·71
1906.....	46,671,101	3·31	1922....	121,487,394[2]	3·22	1938....	103,719,952	2·48
1907[3]....	40,290,172	3·04	1923....	133,803,370[2]	2·58	1939....	87,610,300	2·76
1908.....	58,331,074	3·30	1924....	135,122,345	2·49			
1909.....	48,059,792	4·15	1925....	120,222,454	3·09			

[1] Duties on exports were not collected after 1892. [2] Includes War tax. [3] Nine months.

5.—Exports to the United Kingdom, to the United States, and to Other Countries, of Merchandise the Produce of Canada, Fiscal Years 1868-1939.

Year.	Exports to United Kingdom.	P.C. Canadian Exports to U.K. to Total Canadian Exports.	Exports to United States.	P.C. Canadian Exports to U.S. to Total Canadian Exports.	Exports to Other Countries.	Total Exports of Canadian Produce.
	$	p.c.	$	p.c.	$	$
1868	17,905,808	36·9	25,349,568	52·3	5,249,433	48,504,809
1869	20,486,389	39·1	26,717,656	51·0	5,196,727	52,400,772
1870	22,512,991	38·1	30,361,328	51·4	6,169,271	59.043,590
1871	21,733,556	37·7	29,164,358	50·6	6,732,110	57,630,024
1872	25,223,785	38·3	32,871,496	49·9	7,735,802	65,831,083
1873	31,402,234	41·0	36,714,144	48·0	8,421,647	76,538,025
1874	35,769,190	46·6	33,195,805	43·3	7,777,002	76,741,997
1875	34,199,134	49·1	27,902,748	40·0	7,607,941	69,709,823
1876	34,379,005	47·4	30,080,738	41·5	8,031,694	72,491,437
1877	35,491,671	52·2	24,326,332	35·8	8,212,543	68,030,546
1878	35,861,110	52·7	24,381,009	35·9	7,747,681	67,989,800
1879	29,393,424	47·1	25,491,356	40·8	7,546,245	62.431,025
1880	35,208,031	48·3	29,566,211	40·6	8,125,455	72,899,697
1881	42,637,219	50·8	34,038,431	40·5	7,269,051	83,944,701
1882	39,816,813	42·3	45,782,584	48·6	8,538,260	94,137,657
1883	39,538,067	45·1	39,513,225	45·1	8,651,139	87,702,431
1884	37,410,870	46·9	34,332,641	43·0	8,089,587	79,833,098
1885	36,479,051	46·1	35,566,810	44·9	7,085,874	79,131,735
1886	36,694,263	47·2	34,284,490	44·1	6,777,951	77,756,704
1887	38,714,331	47·8	35,269,922	43·6	6,976,656	80,960,909
1888	33,648,284	41·3	40,407,483	49·6	7,326,305	81,382,072
1889	33,504,281	41·7	39,519,940	49·2	7,248,235	80,272,456
1890	41,499,149	48·7	36,213,279	42·5	7,545,158	85,257,586
1891	43,243,784	48·8	37,743,430	42·6	7,684,524	88,671,738
1892	54,949,055	55·5	34,666,070	35·0	9,417,341	99,032,466
1893	58,409,606	55·4	37,296,110	35·4	9.783,082	105,488,798
1894	60,878,056	58·6	32,562,509	31·4	10,411,199	103,851,764
1895	57,903,564	56·3	35,603,863	34·6	9,321,014	102,828,441
1896	62,717,941	57·2	37,789,481	34·4	9,200,383	109,707,805
1897	69,533,852	56·2	43,664,187	35·3	10,434,501	123,632,540
1898	93,065,019	64·4	38,989,525	27·0	12,494,118	144,548,662
1899	85,113,681	62·0	39,326,485	29·0	12,920,626	137,360,792
1900	96,562,875	57·1	57,996,488	34·2	14,412,938	168,972,301
1901	92,857,525	52·3	67,983,673	38·3	16,590,188	177,431,386
1902	109,347,345	55·8	66,567,784	34·0	20,104,634	196,019,763
1903	125,199,980	58·4	67,766,367	31·6	21,435,327	214,401,674
1904	110,120,892	55·5	66,856,885	33·7	21,436.662	198,414,439
1905	97,114,867	50·9	70,426,765	36·9	23,313,314	190,854,946
1906	127,456,465	54·1	83,546,306	35·5	24,481,185	235,483,956
1907 (9 months).	98,691,186	54·7	62,180,439	34·4	19,673,681	180,545,306
1908	126,194,124	51·1	90,814,871	36·8	29,951,973	246,960,968
1909	126,384,724	52·1	85,334,806	35·2	30,884,054	242,603,584
1910	139,482,945	50·0	104,199,675	37·3	35,564,931	279,247,551
1911	132,156,924	48·2	104,115,823	38·0	38,043,806	274,316,553
1912	147,240,413	50·7	102,041,222	35·2	40,942,222	290,223,857
1913	170,161,903	47·8	139,725,953	39·3	45,866,744	355,754,600
1914	215,253,969	49·9	163,372,825	37·9	52,961,645	431,588,439
1915	186,668,554	45·6	173,320,216	42·3	49,430,066	409,418,836
1916	451,852,399	60·9	201,106,488	27·1	88,651,751	741,610,638
1917	742,147,537	64·5	280,616,330	24·4	128.611,901	1,151,375,768
1918	845,480,069	54·9	417,233,287	27·0	277,314,432	1,540,027,788
1919	540,750,977	44·5	454,873,170	37·4	220,819,659	1,216,443,806
1920	489,152,637	39·5	464,028,183	37·4	286,311,278	1,239,492,098
1921	312,844,871	26·3	542,322,967	45·6	333,995,863	1,189,163,701
1922	299,361,675	40·4	292,588,643	39·5	148,290,362	740,240,680
1923	379,067,445	40·7	369,080,218	39·6	183,303,780	931,451,443
1924	360,057,782	34·4	430,707,544	41·2	254,585,730	1,045,351,056
1925	395,843,433	37·0	417,417,144	39·0	255,806,776	1,069,067,353
1926	508,237,560	38·5	480,199,723	36·4	332,130,864	1,320,568,147
1927	446,872,851	35·6	468,434,180	37·3	338,861,866	1,254,168,897
1928	410,691,392	33·3	483,700,034	39·2	339,512,568	1,233,903,994
1929	429,730,485	31·4	504,161,604	36·8	434,367,042	1,368,259,131
1930	281,745,965	25·1	515,049,763	46·0	323,462,574	1,120,258,302
1931	219,246,499	27·4	349,660,563	43·7	230,835,605	799,742,667
1932	174,043,725	29·0	257,770,160	42·9	168,217,927	600,031,812
1933	184,361,019	34·9	197,424,723	37·4	146,278,536	528,064,278
1934	288,582,666	43·3	220,072,810	33·0	157,298,595	665,954,071
1935	290,885,237	38·4	304,721,354	40·3	161,019,334	756,625,925
1936	321,556,798	37·9	360,302,426	42·4	167,171,193	849,030,417
1937	407,996,698	38·4	435,014,544	41·0	218,170,664	1,061,181,906
1938	409,411,682	38·3	423,131,091	39·5	237,685,836	1,070,228,609
1939	325,465,011	36·0	375,939,361	39·9	225,557,873	926,962,245

6.—Imports from the United Kingdom, from the United States, and from Other Countries, of Merchandise Entered for Home Consumption, Fiscal Years 1868-1939.

Year.	Imports from United Kingdom.	Per Cent Imports from U.K. to Total Imports.	Imports from United States.	Per Cent Imports from U.S. to Total Imports.	Imports from Other Countries.	Total Imports for Home Consumption.
	$	p.c.	$	p.c.	$	$
1868	37,617,325	56·1	22,660,132	33·8	6,812,702	67,090,159
1869	35,496,764	56·2	21,497,380	34·0	6,160,797	63,154,941
1870	37,537,095	56·1	21,697,237	32·4	7,667,742	66,902,074
1871	48,498,202	57·6	27,185,586	32·3	8,530,600	84,214,388
1872	62,209,254	59·7	33,741,995	32·1	9,004,118	104,955,367
1873	67,996,945	54·6	45,189,110	36·3	11,323,074	124,509,129
1874	61,424,407	49·9	51,706,906	42·0	10,049,574	123,180,887
1875	60,009,084	51·1	48,930,358	41·7	8,469,126	117,408,568
1876	40,479,253	43·8	44,099,880	47·7	7,933,974	92,513,107
1877	39,331,621	41·8	49,376,008	52·5	5,418,765	94,126,394
1878	37,252,769	41·2	48,002,875	53·1	5,140,207	90,395,851
1879	30,967,778	39·3	42,170,306	53·6	5,564,435	78,702,519
1880	33,764,439	48·3	28,193,783	40·3	7,942,320	69,900,542
1881	42,885,142	47·4	36,338,701	40·6	11,264,486	90,488,329
1882	50,356,268	45·3	47,052,935	42·3	13,735,981	111,145,184
1883	51,679,762	42·4	55,147,243	45·3	15,034,491	121,861,496
1884	41,925,121	39·6	49,785,888	47·0	14,261,969	105,972,978
1885	40,031,448	40·1	45,576,510	45·7	14,147,817	99,755,775
1886	39,033,006	40·7	42,818,651	44·6	14,140,480	95,992,137
1887	44,741,350	42·6	44,795,908	42·6	15,569,952	105,107,210
1888	39,167,644	38·9	46,440,296	46·1	15,063,688	100,671,628
1889	42,251,189	38·7	50,029,419	45·9	16,817,588	109,098,196
1890	43,277,009	38·8	51,365,661	46·0	17,039,903	111,682,573
1891	42,018,943	37·7	52,033,477	46·7	17,481,534	111,533,954
1892	41,063,711	35·7	51,742,132	44·9	22,354,570	115,160,413
1893	42,529,340	36·9	52,339,796	45·4	20,301,694	115,170,830
1894	37,035,963	34·0	50,746,091	46·5	21,288,857	109,070,911
1895	31,059,332	30·9	50,179,004	49·8	19,437,555	100,675,891
1896	32,824,505	31·2	53,529,390	50·8	19,007,266	105,361,161
1897	29,401,188	27·6	57,023,342	53·5	20,193,297	106,617,827
1898	32,043,461	25·4	74,824,923	59·2	19,438,778	126,307,162
1899	36,966,552	24·7	88,506,881	59·2	23,948,983	149,422,416
1900	44,280,041	25·7	102,224,917	59·2	26,146,718	172,651,676
1901	42,820,334	24·1	107,377,906	60·3	27,732,679	177,930,919
1902	49,022,726	25·0	115,001,533	58·4	32,713,545	196,737,804
1903	58,793,038	26·2	129,071,197	57·3	37,230,574	225,094,809
1904	61,724,893	25·3	143,329,697	58·7	38,854,825	243,909,415
1905	60,342,704	24·0	152,778,576	60·6	38,842,934	251,964,214
1906	69,183,915	24·4	169,256,452	59·6	45,299,913	283,740,280
1907 (9 months)	64,415,756	25·8	149,085,577	59·5	36,724,502	250,225,835
1908	94,417,320	26·8	205,309,803	58·2	52,813,756	352,540,879
1909	70,682,600	24·5	170,432,360	59·0	47,479,236	288,594,196
1910	95,337,058	25·8	218,004,556	58·9	56,976,585	370,318,199
1911	109,934,753	24·3	275,824,265	60·8	66,965,585	452,724,603
1912	116,906,360	22·4	331,384,657	63·4	74,113,658	522,404,675
1913	138,742,644	20·7	436,887,315	65·0	95,577,275	671,207,234
1914	132,070,406	21·4	396,302,138	64·0	90,821,454	619,193,998
1915	90,157,204	19·8	297,142,059	65·2	68,656,645	455,955,908
1916	77,404,361	15·2	370,880,549	73·0	59,916,224	508,201,134
1917	107,096,735	12·7	665,312,759	78·6	74,041,384	846,450,878
1918	81,324,283	8·4	792,894,957	82·3	89,313,338	963,532,578
1919	73,035,118	8·0	750,203,024	81·6	96,473,563	919,711,705
1920	126,362,631	11·9	801,097,318	75·3	137,068,174	1,064,528,123
1921	213,973,562	17·3	856,176,820	69·0	170,008,500	1,240,158,882
1922	117,135,343	15·7	515,958,196	69·0	114,710,793	747,804,332
1923	141,330,143	17·6	540,989,738	67·4	120,259,363	802,579,244
1924	153,586,690	17·2	601,256,447	67·3	138,523,730	893,366,867
1925	151,083,946	19·0	509,780,009	64·0	136,068,582	796,932,537
1926	163,731,210	17·6	608,618,542	65·6	154,978,980	927,328,732
1927	163,939,065	15·9	687,022,521	66·6	179,930,919	1,030,892,505
1928	186,435,824	16·7	718,896,270	64·9	203,624,372	1,108,956,466
1929	194,041,381	15·3	868,012,229	68·6	203,625,481	1,265,679,091
1930	189,179,738	15·2	847,442,037	67·9	211,651,807	1,248,273,582
1931	149,497,392	16·5	584,407,018	64·5	172,708,285	906,612,695
1932	106,371,779	18·4	351,686,775	60·8	120,445,350	578,503,904
1933	86,466,055	21·3	232,548,055	57·2	87,369,634	406,383,744
1934	105,100,764	24·2	238,187,681	54·9	90,510,180	433,798,625
1935	111,682,490	21·4	303,639,972	58·1	107,108,691	522,431,153
1936	117,874,822	20·9	319,479,594	56·8	125,364,647	562,719,063
1937	129,507,885	19·3	393,720,662	58·6	148,647,019	671,875,566
1938	145,008,771	18·1	487,279,507	61·0	166,781,640	799,069,918
1939	115,636,017	17·6	412,476,817	62·7	130,115,200	658,228,034

7.—Percentage Proportions of Imports from the United Kingdom and from the United States to Totals of Dutiable and Free, Fiscal Years 1911-39.

NOTE.—For the years 1868 to 1910, see Canada Year Book, 1927-28, p. 499.

Year.	United Kingdom.			United States.		
	Dutiable to Total Dutiable.	Free to Total Free.	Per Cent of All Imports.	Dutiable to Total Dutiable.	Free to Total Free.	Per Cent of All Imports.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1911	29·82	15·05	24·34	54·14	72·05	60·84
1912	26·69	14·72	22·42	58·72	71·74	73·37
1913	24·47	13·43	20·71	62·57	69·78	65·03
1914	24·95	14·26	21·35	60·81	70·16	63·96
1915	24·31	12·61	19·79	60·27	72·85	65·13
1916	17·97	11·63	15·24	68·93	78·29	72·95
1917	16·35	8·24	12·67	71·91	86·59	78·57
1918	10·70	5·54	8·45	79·61	86·29	82·27
1919	9·50	5·90	7·97	79·10	84·74	81·50
1920	13·44	8·93	11·87	72·04	81·26	75·25
1921	20·07	11·17	17·25	64·19	79·51	69·04
1922	19·20	8·72	15·66	62·97	80·88	69·02
1923	21·61	9·49	17·61	61·85	78·66	67·41
1924	21·32	9·12	17·19	60·20	81·21	67·30
1925	24·16	9·40	18·96	55·63	79·36	64·00
1926	22·83	8·89	17·65	57·97	78·94	65·76
1927	20·44	7·81	15·90	59·52	79·53	66·73
1928	21·13	8·98	16·76	58·59	76·06	64·87
1929	18·82	8·91	15·34	63·82	77·40	68·56
1930	18·14	9·45	15·1o	63·88	75·55	67·89
1931	18·91	12·31	16·49	62·65	67·59	64·46
1932	20·51	14·04	18·39	59·11	64·23	60·78
1933	21·71	20·52	21·28	56·07	59·16	57·20
1934	22·77	26·22	24·22	55·85	53·56	54·88
1935	19·53	23·89	21·38	60·14	55·38	58·12
1936	18·07	24·48	20·97	61·25	51·27	56·78
1937	16·30	22·92	19·27	63·99	51·99	58·60
1938	15·51	21·30	18·14	66·51	54·41	60·98
1939	14·53	21·10	17·57	67·22	56·89	62·66

8.—Average ad valorem Rates of Duty Collected on Dutiable[1] and Total Imports from the United Kingdom, the United States, and All Countries, Fiscal Years 1868-1939.

Year.	U.K.		U.S.		All Countries		Year.	U.K.		U.S.		All Countries	
	Dutiable Imports.	Total Imports.	Dutiable Imports.	Total Imports.	Dutiable Imports.	Total Imports.		Dutiable Imports.	Total Imports.	Dutiable Imports.	Total Imports.	Dutiable Imports.	Total Imports.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1868	[2]	[2]	[2]	[2]	20·2	13·1	1904	24·1	17·6	25·2	13·6	27·5	16·8
1869	16·9	13·5	20·1	7·3	20·2	13·1	1905	24·8	18·5	26·1	13·5	27·8	16·7
1870	16·8	13·4	19·5	7·8	20·9	14·1	1906	24·6	18·7	24·8	13·1	27·0	16·4
1871	16·4	13·5	16·3	8·4	19·6	14·0	1907[3]	24·3	18·4	24·2	12·8	26·5	16·1
1872	16·4	12·7	18·0	7·1	19·1	12·4	1908	24·2	18·3	24·6	13·2	26·7	16·5
1873	15·6	10·9	17·7	6·5	18·3	10·4	1909	25·8	19·0	24·9	13·2	27·5	16·7
1874	16·5	12·8	17·4	7·1	18·9	11·7	1910	25·1	18·9	24·8	13·5	26·8	16·5
1875	18·1	14·8	17·3	7·9	19·6	13·1	1911	24·6	18·9	24·7	13·7	25·9	16·2
1876	18·8	15·0	19·2	9·3	21·3	13·9	1912	25·0	19·1	25·0	14·8	26·1	16·8
1877	19·4	16·2	18·7	7·9	20·6	13·3	1913	25·1	19·6	24·9	15·8	26·1	17·1
1878	20·1	17·3	20·4	9·4	21·4	14·2	1914	25·2	19·5	24·8	15·6	26·1	17·3
1879	20·5	18·0	23·2	13·1	23·3	16·4	1915	27·1	20·5	25·1	14·2	27·4	16·8
1880	24·0	20·0	23·1	16·0	26·1	20·2	1916	28·4	19·1	25·0	13·5	27·2	15·5
1881	24·5	20·5	22·0	15·5	25·8	20·4	1917	24·9	17·6	22·7	11·4	23·8	13·0
1882	24·1	19·9	21·5	15·0	25·3	19·5	1918	24·3	17·3	20·5	11·1	21·5	12·1
1883	24·3	19·2	21·1	14·8	25·3	19·0	1919	22·3	15·3	20·9	11·6	21·5	12·3
1884	24·4	19·1	20·7	14·9	25·2	19·0	1920	22·1	16·2	22·5	14·0	22·5	14·7
1885	24·8	19·0	21·2	14·5	26·1	19·2	1921	20·9	16·6	20·3	12·9	20·6	14·1
1886	25·7	20·0	22·8	15·8	27·5	20·2	1922	24·8	20·1	23·0	13·9	24·5	16·2
1887	26·1	20·8	23·8	16·2	28·7	21·3	1923	24·5	20·1	22·5	13·8	24·9	16·7
1888	29·1	22·9	26·2	15·3	31·8	22·0	1924	22·3	18·3	22·3	13·2	22·9	15·1
1889	29·3	22·4	25·4	14·7	31·9	21·8	1925	22·1	18·2	23·1	13·0	23·3	15·1
1890	28·8	22·1	26·6	15·8	31·0	21·4	1926	21·6	18·4	23·9	13·2	24·7	15·5
1891	29·0	21·7	26·0	14·9	31·4	21·0	1927	23·9	19·7	23·1	13·2	24·1	15·4
1892	29·4	22·1	26·5	16·1	29·7	17·8	1928	25·6	20·6	23·3	13·5	24·2	15·5
1893	29·8	22·3	26·7	14·6	30·3	18·4	1929	25·9	20·6	23·4	14·1	24·4	15·8
1894	30·0	22·3	27·0	13·7	30·9	17·8	1930	25·5	20·0	23·3	14·4	24·3	15·9
1895	30·1	22·6	26·7	13·7	30·5	17·8	1931	26·9	19·5	24·8	15·2	26·0	16·4
1896	30·2	22·4	26·7	14·5	30·0	19·2	1932	29·2	21·9	27·4	17·9	29·3	19·7
1897	30·7	21·1	26·7	14·3	30·0	18·7	1933	25·8	16·6	28·1	17·4	30·1	19·0
1898	29·5	20·8	26·1	13·3	29·7	17·5	1934	26·2	14·2	28·6	16·8	29·2	16·9
1899	26·6	19·8	26·3	13·2	28·8	17·2	1935	26·2	13·8	27·4	16·3	28·1	16·2
1900	25·6	18·2	25·0	13·2	27·7	16·7	1936	26·7	12·7	26·3	15·6	26·7	14·7
1901	24·7	18·3	24·8	12·4	27·5	16·4	1937	25·8	12·0	23·8	14·3	24·9	13·7
1902	24·0	17·2	25·2	13·2	27·3	16·5	1938	23·8	11·0	23·0[4]	13·6	23·9	13·0
1903	23·3	16·7	24·9	13·3	27·1	16·5	1939	25·3	11·7	22·9	13·8	24·2	13·6

[1] See p. 512, also Table 17, p. 573. [2] Not separable by countries. [3] Nine months.
[4] Revised since the publication of the 1939 Year Book.

9.—Imports for Home Consumption of Certain Raw Materials Used in Canadian Manufactures, Fiscal Years 1911-39.

NOTE.—For the years 1902-10, see Canada Year Book, 1926, p. 463.

Year.	Sugar for Refining.	Vegetable Oil for Soap.	Crude Cotton-seed Oil.	Raw Rubber (including Balata).	Raw Tobacco.	Hides and Skins.	Raw Cotton (including Linters).	Hemp, Dressed or Undressed.	Raw Silk, etc.
	ton.	gal.	cwt.	cwt.	lb.	$	cwt.	cwt.	lb.
1911	271,533	297,338	[1]	28,035	17,204,271	8,105,330	812,622	81,017	121,748
1912	281,402	409,861	80,916	44,313	17,203,513	8,903,727	727,939	82,661	112,581
1913	310,101	439,973	243,872	56,755	22,153,588	13,486,459	774,578	64,990	75,776
1914	347,168	397,278	265,789	44,504	17,598,449	8,831,010	769,930	55,572	101,669
1915	335,820	413,819	293,849	65,045	18,595,957	12,842,558	730,325	55,370	94,458
1916	298,433	618,162	430,013	99,132	20,834,672	12,441,731	969,679	50,914	80,745
1917	365,772	1,281,233	315,621	107,580	17,702,637	12,873,970	877,634	15,846	138,765
1918	382,807	2,114,796	408,850	130,956	17,824,947	8,796,966	880,374	45,177	158,648
1919	359,470	2,393,003	459,685	192,272	25,103,080	5,427,544	1,117,235	72,887	213,441
1920	540,787	870,289	578,986	244,335	24,345,295	22,654,661	964,715	46,553	298,985
1921	347,594	1,114,470	417,301	228,062	20,007,411	10,652,787	986,315	47,090	272,508
1922	432,212	1,351,805	488,683	189,525	20,870,509	5,898,087	953,860	77,833	371,570
1923	572,120	1,945,464	258,381	253,957	14,548,694	7,947,410	1,252,615	203,844	368,026
1924	420,076	1,937,543	216,082	288,857	15,941,339	461,581[2]	955,966	340,402	335,495
1925	419,371	1,733,293	213,201	344,509	13,712,885	502,586[2]	1,008,793	249,032	361,403
1926	579,272	2,622,651	335,755	469,893	14,943,864	534,089[2]	1,355,738	281,639	529,446
1927	570,225	3,311,449	297,706	502,312	17,446,774	579,085[2]	1,497,438	123,426	679,923
1928	466,291	3,611,761	623,148	582,039	18,475,772	678,670[2]	1,462,246	99,503	938,459
1929	426,872	4,354,829	302,197	777,169	18,726,618	507,773[2]	1,511,270	27,390	1,282,815
1930	450,950	3,950,590	400,653	733,400	17,113,472	486,442[2]	1,260,699	42,620	1,668,972
1931	440,790	4,217,484	174,711	595,591	16,580,394	345,439[2]	1,067,222	28,423	1,954,395
1932	475,591	4,243,234	386,275	552,694	13,075,335	281,316[2]	1,009,023	18,348	2,539,133
1933	439,217	3,689,995	407,055	410,939	10,199,212	268,355[2]	1,009,073	15,810	2,572,949
1934	346,599	4,699,056	165,257	511,681	8,129,142	313,482[2]	1,394,536	23,498	2,505,200
1935	437,555	4,610,785	130,743	636,347	9,414,889	333,013[2]	1,434,408	19,166	2,692,693
1936	459,402	9,788,338	255,976	569,286	5,772,638	404,708[2]	1,425,413	19,324	3,001,902
1937	510,506	8,685,469	155,387	625,629	3,006,175	381,128[2]	1,540,314	47,848	2,318,030
1938	455,844[3]	11,000,233	219,857	788,141	2,645,355[3]	356,870[2]	1,598,675	9,590	2,457,274
1939	472,874	10,404,959	82,526	626,417	4,527,565	277,844[2]	1,293,943	15,696	2,488,075

Year.	Raw Wool.[4]	Noils and Worsted Tops.	Artificial Silk Rovings, Yarns, etc.	Manila, Sisal, Istle, Tampico.	Rags, Waste Paper, and Other Waste.	Iron Ore.	Alumina, Bauxite, Cryolite.	Tin in Blocks, Ingots, etc.	Crude Petroleum for Refining.
	cwt.	$	lb.	cwt.	cwt.	ton.	cwt.	cwt.	'000 gal.
1911	64,224	778,320	[1]	274,493	536,604	[1]	186,152	35,706	54,311[5]
1912	71,954	689,304	[1]	291,976	564,296	[1]	218,998	41,740	72,231[5]
1913	92,092	980,432	115,710	346,109	750,003	2,116,933	276,170	51,319	143,338[5]
1914	72,521	1,072,066	129,982	190,867	716,882	1,972,207	312,259	46,076	177,880[5]
1915	131,940	1,312,885	128,148	284,620	540,922	1,055,724	261,553	29,402	196,203[5]
1916	211,407	2,587,949	183,278	384,152	510,472	1,595,995	385,959	32,756	186,753[5]
1917	145,812	2,988,177	276,873	327,691	780,062	2,318,547	816,509	35,726	135,533
1918	115,380	4,418,854	160,090	496,904	505,643	2,203,506	1,664,799	38,683	191,376
1919	158,767	5,314,793	161,206	315,067	570,211	2,227,919	1,916,929	28,044	260,820
1920	117,717	5,847,787	360,297	456,801	826,593	1,632,011	451,349	44,010	298,541
1921	92,772	55,331[2]	512,109	457,497	1,142,850	1,950,291	1,198,605	42,727	311,719
1922	125,867	72,254[2]	570,450	189,071	686,483	656,902	166,695	27,242	391,293
1923	182,556	91,103[2]	933,791	219,591	870,542	1,044,999	792,210	39,258	397,604
1924	193,217	86,062[2]	1,239,986	272,462	1,123,282	1,807,223	1,266,799	39,837	418,791
1925	143,629	58,231[2]	1,684,811	258,804	1,232,567	911,586	1,358,148	43,535	440,672
1926	134,344	61,421[2]	1,689,730	442,561	1,307,473	1,053,593	1,336,538	44,409	470,617
1927	164,234	78,875[2]	1,516,448	523,074	1,364,897	1,445,504	1,647,244	50,858	596,467
1928	138,957	81,331[2]	1,563,020	529,541	1,371,469	1,491,234	2,663,166	48,742	709,960
1929	140,219	86,470[2]	2,240,704	770,936	1,314,494	2,272,130	3,444,911	58,928	865,336
1930	103,343	62,939[2]	2,132,362	464,378	1,606,931	2,456,919	2,738,777	56,318	1,110,170
1931	107,449	66,493[2]	2,569,574	487,035	1,254,557	1,428,970	2,221,550	49,727	994,385
1932	96,245	73,694[2]	1,501,739	469,827	1,363,974	802,163	1,704,029	38,095	1,016,355
1933	83,557	80,071[2]	958,047	753,350	792,085	66,514	745,455	28,763	845,588
1934	172,153	119,317[2]	2,082,202	699,657	880,381	205,811	1,241,609	31,322	1,026,711
1935	120,123	90,903[2]	965,341	424,579	1,132,684	1,060,843	1,856,059	42,283	1,058,729
1936	192,191	137,474[2]	1,078,504	623,696	1,151,442	1,431,111	2,578,380	45,757	1,166,803
1937	237,712	134,793[2]	1,410,756	585,808	1,140,861	1,325,195	3,650,911	51,876	1,243,339
1938	213,583	107,306[2]	1,829,438	405,907	1,393,529	2,174,559	6,037,285	57,024	1,352,086
1939	155,821	110,011[2]	2,189,533	443,188	840,898	1,247,128	7,282,157	51,030	1,248,419

[1] None recorded. [2] Cwt. [3] Revised since the publication of the 1939 Year Book.
[4] Includes hair of the camel, alpaca, goat, etc. [5] Includes all crude petroleum.

10.—Exports to the United Kingdom, to the United States, and to All Countries, of Classes of Merchandise the Produce of Canada, by Values and Percentages, Fiscal Years 1936-39.

Group.	1936.			1937.			1938.			1939.		
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.
	VALUES.											
Vegetable Products (except chemicals, fibres, and wood)	$ 154,261,975	$ 44,663,210	$ 242,861,877	$ 197,083,567	$ 73,603,221	$ 346,450,628	$ 145,273,747	$ 33,180,317	$ 235,324,412	$ 99,364,947	$ 30,370,523	$ 182,875,417
Animals and Their Products (except chemicals and fibres)	54,592,114	34,058,519	100,932,110	73,350,911	46,431,986	133,940,776	77,996,863	42,572,671	136,112,957	73,167,878	33,376,253	121,242,053
Fibres, Textiles, and Textile Products	2,330,693	2,612,474	10,273,697	2,508,340	3,003,772	12,830,212	3,800,047	2,161,630	14,225,183	3,420,771	1,845,215	13,250,837
Wood, Wood Products, and Paper	28,772,934	125,247,878	181,831,743	36,064,065	153,717,675	223,918,476	45,394,428	168,990,162	253,434,860	37,021,058	145,350,002	214,488,484
Iron and Its Products	11,159,695	5,411,683	52,368,057	13,032,283	6,072,255	53,173,175	16,523,218	6,945,336	69,744,157	12,616,853	3,814,538	58,682,214
Non-Ferrous Metals and Their Products	61,821,441	121,783,549	212,547,372	75,819,787	117,328,297	230,152,314	107,926,841	132,783,014	292,452,554	87,222,142	132,163,214	272,632,850
Non-Metallic Minerals and Their Products (except chemicals)	2,207,869	11,566,497	19,083,643	2,730,516	17,080,392	26,081,028	3,368,888	17,373,163	29,342,764	2,816,748	11,886,655	24,578,888
Chemicals and Allied Products	3,212,081	7,458,104	16,018,391	4,191,193	8,699,580	19,237,697	5,144,611	9,109,196	20,926,267	5,565,025	8,090,249	20,583,506
Miscellaneous Commodities	3,197,996	7,500,512	13,113,527	3,216,036	9,077,366	15,397,600	3,983,039	10,015,602	18,665,455	4,269,589	9,042,712	18,627,996
Totals	**321,556,798**	**360,302,426**	**849,030,417**	**407,996,698**	**435,014,544**	**1,051,181,906**	**409,411,682**	**423,131,091**	**1,070,228,609**	**325,465,011**	**375,939,361**	**926,962,245**
	PERCENTAGES OF EACH CLASS.											
Vegetable Products (except chemicals, fibres, and wood)	48·0	12·4	28·6	48·3	16·9	32·6	35·5	7·8	22·0	30·5	8·1	19·7
Animals and Their Products (except chemicals and fibres)	17·0	9·5	11·9	18·0	10·7	12·6	19·0	10·1	12·7	22·5	8·9	13·1
Fibres, Textiles, and Textile Products	0·7	0·7	1·2	0·6	0·7	1·2	0·9	0·6	1·3	1·0	0·5	1·4
Wood, Wood Products, and Paper	8·9	34·7	21·4	8·8	35·3	21·1	11·1	39·9	23·7	11·4	38·7	23·1
Iron and Its Products	3·5	1·5	6·2	3·2	1·4	5·0	4·0	1·6	6·5	3·9	1·0	6·4
Non-Ferrous Metals and Their Products	19·2	33·8	25·0	18·6	27·0	21·7	26·4	31·4	27·3	26·8	35·1	29·4
Non-Metallic Minerals and Their Products (except chemicals)	0·7	3·2	2·3	0·7	3·9	2·5	0·8	4·1	2·8	0·9	3·2	2·7
Chemicals and Allied Products	1·0	2·1	1·9	1·0	2·0	1·8	1·3	2·1	2·0	1·7	2·0	2·2
Miscellaneous Commodities	1·0	2·1	1·5	0·8	2·1	1·5	1·0	2·4	1·7	1·3	2·4	2·0
Totals	**100·0**	**100·0**	**100·0**	**100·0**	**100·00**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**

11.—Imports from the United Kingdom, from the United States, and from All Countries, of Classes of Merchandise Entered for Home Consumption, by Values and Percentages, Fiscal Years 1936-39.

Group.	1936.			1937.			1938.			1939.		
	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.	United Kingdom.	United States.	All Countries.
	VALUES.											
	$	$	$	$	$	$	$	$	$	$	$	$
Agricultural and Vegetable Products (except chemicals, fibres, and wood)	18,007,399	30,959,760	110,342,532	17,923,553	38,267,822	131,400,217	18,505,686	46,115,565	146,335,406	15,474,629	44,487,441	121,266,523
Animal Products (except chemicals and fibres)	3,792,424	10,973,245	24,314,220	5,070,766	12,659,575	27,863,224	5,752,255	11,621,353	30,399,795	4,200,628	11,039,471	24,399,286
Fibres, Textiles, and Textile Products	40,594,719	32,094,435	89,814,164	46,633,288	37,176,542	104,811,304	50,679,714	36,140,269	108,932,093	39,468,667	29,375,662	84,984,145
Wood, Wood Products, and Paper	3,513,396	17,863,399	23,271,631	3,761,818	23,060,903	28,927,720	3,952,707	27,830,148	34,221,181	3,569,583	26,188,693	31,941,864
Iron and Its Products	20,551,388	88,428,437	114,253,715	23,033,333	121,742,147	150,239,139	31,084,817	170,603,311	209,236,711	19,776,793	128,575,710	154,056,578
Non-Ferrous Metals and Their Products	5,829,425	23,305,389	33,685,919	6,062,639	25,400,426	37,037,954	7,271,504	30,954,351	47,063,972	5,656,394	23,026,331	36,254,270
Non-Metallic Minerals and Their Products (except chemicals)	12,932,009	78,088,621	105,421,236	13,102,638	86,809,009	116,948,261	13,092,732	105,477,040	136,662,502	12,910,420	91,750,604	121,306,624
Chemicals and Allied Products	6,336,345	17,500,123	29,919,921	6,957,434	19,388,229	33,105,448	7,706,251	22,712,830	36,890,149	6,962,942	21,828,690	34,890,675
Miscellaneous Commodities	6,317,717	20,266,185	31,695,725	6,962,416	29,216,009	41,542,299	6,963,105	35,824,640	49,328,109	7,615,961	36,204,215	49,128,069
Totals	**117,874,822**	**319,479,594**	**562,719,063**	**129,507,885**	**393,720,662**	**671,875,566**	**145,008,771**	**487,279,507**	**799,069,918**	**115,636,017**	**412,476,817**	**658,228,034**
	PERCENTAGES OF EACH CLASS.											
Agricultural and Vegetable Products (except chemicals, fibres, and wood)	15·3	9·7	19·6	13·8	9·7	19·6	12·8	9·5	18·3	13·4	10·8	18·4
Animal Products (except chemicals and fibres)	3·2	3·4	4·3	3·9	3·2	4·1	4·0	2·4	3·8	3·6	2·7	3·7
Fibres, Textiles, and Textile Products	34·4	10·0	16·0	36·0	9·4	15·6	35·0	7·4	13·6	34·1	7·1	12·9
Wood, Wood Products, and Paper	3·0	5·6	4·1	2·9	5·9	4·3	2·7	5·7	4·3	3·1	6·3	4·9
Iron and Its Products	17·4	27·7	20·3	17·8	30·9	22·4	21·4	35·0	26·2	17·1	31·2	23·4
Non-Ferrous Metals and Their Products	4·9	7·3	6·0	4·7	6·5	5·5	5·0	6·3	5·9	4·9	5·6	5·5
Non-Metallic Minerals and Their Products (except chemicals)	11·0	24·4	18·8	10·1	22·1	17·4	9·0	21·7	17·1	11·2	22·2	18·4
Chemicals and Allied Products	5·4	5·5	5·3	5·4	4·9	4·9	5·3	4·7	4·6	6·0	5·3	5·3
Miscellaneous Commodities	5·4	6·4	5·6	5·4	7·4	6·2	4·8	7·3	6·2	6·6	8·8	7·5
Totals	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**

12.—Principal Exports of Canadian Produce from Canada to United

No.	Item.		United Kingdom.			
			1936.	1937.	1938.	1939.
	I. Agricultural and Vegetable Products.					
	A. Mainly Food.					
	Fruits—					
1	Apples, fresh	bbl.	2,202,053	1,280,402	2,061,115	2,517,226
		$	8,456,959	4,662,634	7,243,374	8,749,649
2	Fruits, canned	lb.	22,726,011	20,333,851	25,331,184	32,500,547
		$	1,271,154	1,244,542	1,721,243	1,891,324
	Totals, Fruits[1]	$	10,452,283	6,279,061	9,346,664	11,491,171
	Vegetables—					
3	Potatoes	bu.	750	Nil	Nil	Nil
		$	225	-	-	-
4	Turnips	bu.	Nil	Nil	Nil	Nil
		$	-	-	-	-
5	Canned vegetables	lb.	31,317,592	37,416,350	51,118,733	60,308,537
		$	1,300,448	1,597,538	2,242,943	2,645,611
6	Pickles and sauces	$	1,497,404	1,957,829	1,353,048	1,706,952
	Totals, Vegetables[1]	$	2,803,197	3,563,209	3,596,222[2]	4,384,499
	Grains and Products—					
	Grains—					
7	Barley	bu.	5,179,377	5,213,812	9,666,274	13,384,405
		$	2,305,530	2,966,467	6,535,898	6,490,053
8	Oats	bu.	9,900,380	6,675,305	3,498,684	6,012,210
		$	3,491,878	2,508,878	1,830,864	2,051,367
9	Rye	bu.	405,235	1,763,042	324,056	82,570
		$	168,238	977,811	322,442	45,128
10	Wheat	bu.	133,095,085	155,360,472	69,332,458	64,681,374
		$	111,656,432	153,247,606	89,793,196	46,670,686
	Totals, Grains[1]	$	117,681,648	159,857,300	98,586,607	55,896,168
11	Bran, shorts, and middlings	cwt.	587,828	321,202	656,860	1,112,830
		$	548,109	317,144	823,233	1,252,142
12	Cereal foods	$	3,388,607	3,788,426	4,059,487	3,120,671
13	Malt	bu.	35,275	41,346	24,647	97,011
		$	42,276	45,091	37,024	102,009
14	Oatmeal and rolled oats	cwt.	482,358	543,454	554,101	638,135
		$	2,218,638	2,648,493	2,743,523	2,791,152
15	Wheat flour	bbl.	2,428,389	2,337,674	2,281,194	2,182,916
		$	9,577,241	10,661,520	13,517,262	8,363,406
	Totals, Grains and Products[1]	$	133,746,818	177,692,344	120,134,511	71,981,829
	Sugar—					
16	Confectionery	$	106,968	208,220	129,408	192,029
17	Maple sugar	lb.	30,179	28,028	25,750	24,236
		$	4,406	4,198	4,729	4,134
	Totals, Sugar[1]	$	116,512	220,511	141,515	205,189
	Totals, A. Mainly Food[1]	$	147,337,462	188,106,862	133,749,087[2]	88,387,987
	B. Other than Food.					
	Beverages, Alcoholic—					
18	Whisky	pf. gal.	14,021	21,178	25,524	22,481
		$	70,558	95,916	117,835	113,643
	Totals, Beverages, Alcoholic[1]	$	72,364	96,706	122,816	114,698
	Rubber—					
19	Belting of rubber	$	110,744	114,195	212,505	194,359
20	Canvas shoes, rubber soles	pair	1,718,202	1,642,082	1,216,833	1,466,100
		$	800,607	728,877	556,216	709,926
21	Boots and shoes, rubber	pair	1,891,306	3,190,182	3,973,983	3,600,834
		$	1,712,393	2,761,865	3,407,298	2,838,877
22	Heels and soles	$	347,574	308,193	320,873	275,724
23	Motor-vehicle tire casings	$	6,659	173,269	235,023	190,248
24	Motor-vehicle inner tubes	$	49	9,429	9,101	13,933
	Totals, Rubber[1]	$	3,436,653	4,625,107	5,381,946	5,001,010

[1] Totals include other items not specified.

[2] Excluding seed potatoes after Mar. 31, 1936 (see p. 538).

Kingdom, United States, and All Countries, Fiscal Years 1936-39.

United States.				All Countries.				No.
1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.	
2,834	8,323	2,973	19,999	2,288,010	1,506,227	2,213,735	2,897,090	1
7,923	34,826	9,410	95,371	8,821,752	5,453,273	7,776,958	10,179,330	
118,524	269,157	558,860	256,046	23,773,441	21,758,571	27,524,570	34,201,390	2
8,655	20,228	35,299	15,941	1,355,944	1,366,376	1,910,084	2,045,666	
251,105	489,937	657,989	492,665	11,258,853	7,778,559	10,932,826	13,569,438	
568,386	743,554[2]	191,563[2]	291,497[2]	1,409,663	1,130,350[2]	865,614[2]	980,758[2]	3
303,476	652,506	124,213	165,032	863,386	969,467	511,491	581,875	
2,375,906	2,612,010	2,456,891[3]	2,317,852	2,387,891	2,623,787	2,469,358	2,333,221	4
634,991	729,969	839,859[3]	755,265	639,259	734,745	845,261	762,509	
1,838,469	54,363	46,300	916,212	38,162,952	43,175,339	59,031,682	71,259,904	5
65,351	13,762	2,009	80,903	1,608,385	1,902,141	2,691,463	3,310,303	
408	239	57	33	1,601,844	2,061,367	1,500,184	1,908,655	6
1,042,514	1,404,927	973,024[3]	1,006,448	4,860,294	5,809,174	5,661,345	6,723,769[3]	
1,806,344	13,342,569	2,871,353	1,556,905	7,319,384	18,749,862	13,383,599	17,108,211	7
1,221,567	11,826,336	2,429,130	556,369	3,674,119	14,901,211	9,550,891	7,997,617	
787,085	226,095	23,721	287,923	12,739,083	8,142,122	4,727,833	7,675,058	8
212,645	87,731	13,985	106,643	4,520,822	3,176,469	2,572,102	2,726,956	
1,576	1,683,027	302	280,483	664,242	4,446,739	1,877,620	1,069,828	9
801	1,152,003	242	113,025	291,643	2,622,959	2,075,586	509,811	
21,583,831	22,878,726	917,165	20,159,985	179,124,180	227,996,513	89,628,923	120,847,635	10
16,660,253	21,698,808	1,182,452	12,053,316	148,576,975	223,461,009	116,273,709	84,494,433	
18,156,363	35,064,181	3,994,280	12,846,421	157,383,360	244,772,885	131,141,815	96,649,155	
2,613,665	3,933,025	774,393	990,427	3,240,413	4,326,863	1,486,507	2,161,593	11
2,398,136	4,591,824	1,144,619	877,827	2,988,324	5,020,834	2,049,468	2,195,494	
66,747	242,846	75,583	77,423	3,554,774	4,160,890	4,346,435	3,545,354	12
2,440,277	1,883,212	1,625,131	1,196,854	2,604,039	2,016,088	1,904,701	1,553,779	13
2,708,160	2,106,289	2,194,339	1,190,907	2,919,996	2,281,235	2,642,114	1,624,148	
16,505	16,008	1	6	573,412	626,650	619,888	708,963	14
32,767	18,743	6	23	2,670,864	3,083,738	3,155,023	3,189,346	
179,826	105,253	38,021	82,610	4,858,947	4,771,007	3,904,888	4,072,943	15
574,660	342,784	175,244	201,232	19,382,617	21,587,038	23,221,366	15,777,707	
24,287,603	43,588,573	8,234,619	15,464,898	189,850,047	282,820,331	167,930,875	124,267,388	
7,045	8,232	8,957	6,789	305,104	473,123	490,893	564,386	16
3,965,248	5,958,093	4,141,221	7,553,243	4,022,139	6,031,841	4,218,646	7,635,311	17
641,074	865,292	648,815	1,196,148	649,739	877,079	660,700	1,208,885	
1,031,801	1,107,292	786,885	1,315,563	1,481,776	1,683,217	1,396,043	2,022,987	
26,652,672	46,650,006	10,710,427[3]	18,322,811	207,926,168	298,742,686	186,860,405	147,351,121	
2,915,796	5,214,571	4,658,619	2,018,492	2,991,354	5,286,023	4,729,792	2,083,865	18
15,918,595	21,450,569	18,500,716	9,143,594	16,288,585	21,777,246	18,828,293	9,457,275	
15,943,851	21,546,860	18,637,257	9,218,685	16,355,413	21,913,616	19,015,209	9,592,554	
20,170	2,642	1,946	5	552,921	586,829	837,828	633,516	19
46	299	409	485	2,435,352	2,132,666	1,879,064	2,002,830	20
53	369	396	660	1,205,264	994,274	912,328	1,032,589	
5,775	5,843	2,955	2,591	2,560,801	3,940,220	4,916,114	4,482,340	21
12,256	9,596	5,894	4,397	2,480,596	3,589,091	4,452,641	3,743,684	
103	[4]	40	2	400,596	370,399	393,949	344,181	22
298,564	45,893	29,512	11,411	6,666,294	7,091,311	8,200,619	7,491,930	23
42,392	2,893	1,906	1,103	551,903	621,669	738,777	682,072	24
477,406	210,178	199,039	150,815	12,901,311	14,513,793	17,088,677	15,555,087	

[3] Revised since the publication of the 1939 Year Book. [4] None reported.

12.—Principal Exports of Canadian Produce from Canada to United

No.	Item.		United Kingdom. 1936.	1937.	1938.	1939.
	I. Agricultural and Vegetable Products—concluded.					
	B. OTHER THAN FOOD—concluded.					
	Seeds—					
1	Clover seed	bu.	22,933	29,138	14,965	62,558
		$	221,249	259,418	155,839	439,531
2	Flaxseed	bu.	17,434	175,653	15,996	12,644
		$	86,151	314,368	91,906	52,933
3	Grass seed	bu.	7,792	1,816	746	3
		$	9,790	4,940	1,640	18
4	Potatoes, seed	bu.	[1]	Nil	Nil	Nil
		$		–	–	
	Totals, Seeds[2]	$	340,423	594,583	270,892	506,752
5	Tobacco leaf	lb.	8,182,158	8,562,102	14,936,786	14,086,172
		$	2,531,612	2,653,121	4,930,022	4,512,397
6	Hay and fodder	$	438,103	822,850	666,330	713,562
	TOTALS, B. OTHER THAN FOOD[2]	$	6,924,513	8,976,705	11,524,660	10,976,960
	Totals, Agricultural and Vegetable Products[2]	$	**154,261,975**	**197,083,567**	**145,273,747[3]**	**99,364,947**
	II. Animals and Animal Products.					
	Animals, Living—					
7	Cattle	No.	2,811	36,453	17,964	19,381
		$	190,240	2,767,267	1,590,153	1,785,441
8	Horses	No.	222	298	461	240
		$	49,525	47,990	67,439	44,650
9	Swine	No.	5	Nil	Nil	Nil
		$	250	–	–	
	Totals, Animals, Living[2]	$	241,456	2,817,208	1,671,500	1,836,734
	Fishery Products—					
	Fish, Fresh—					
10	Lobsters	cwt.	1	Nil	Nil	Nil
		$	23	–	–	–
11	Salmon	cwt.	48,453	47,316	57,781	55,448
		$	670,979	667,219	920,939	919,171
12	Whitefish	cwt.	[4]	[4]	9	1
		$	–	–	61	13
	Totals, Fish, Fresh[2]	$	917,965	859,819	1,104,137	1,282,795
	Fish, Dried, Salted, Smoked, Pickled—					
13	Codfish, dried	cwt.	46	250	22	23
		$	425	1,443	200	232
	Totals, Fish, Dried, Salted, etc.[2]	$	61,022	49,612	59,402	61,542
	Fish, Preserved—					
14	Lobsters, canned	cwt.	25,131	19,692	21,683	28,031
		$	1,253,638	1,059,267	1,088,812	1,183,707
15	Salmon, canned	cwt.	192,223	184,325	188,984	195,333
		$	4,190,414	3,395,650	3,821,604	4,210,725
16	Sardines	cwt	Nil	Nil	1	Nil
		$	–	–	7	
	Totals, Fish, Preserved[2]	$	5,445,204	4,455,079	4,911,024	5,395,100
	Totals, Fishery Products[2]	$	6,424,191	5,389,876	6,074,628	6,739,460
	Furs—					
	Furs, Undressed—					
17	Beaver	$	240,177	302,359	504,535	448,303
18	Fox	$	6,710,773	6,903,481	5,740,845	5,325,349
19	Marten	$	175,396	213,467	235,819	251,746
20	Mink	$	506,217	526,841	523,836	778,901
21	Muskrat	$	672,447	962,585	834,636	585,370
	Totals, Furs, Undressed[2]	$	9,259,525	10,159,382	8,885,527	8,307,306
	Totals, Furs[2]	$	9,774,694	10,767,906	9,328,888	8,530,070

[1] Included with other potatoes prior to Apr. 1, 1936 (see footnote 2, p. 536). [2] Totals include other items not specified. [3] Revised since the publication of the 1939 Year Book.

Kingdom, United States, and All Countries, Fiscal Years 1936-39—continued.

United States.				All Countries.				No.
1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.	
952	242,889	213,334	202,809	31,545	295,367	233,431	292,044	1
9,322	1,857,508	1,681,433	732,857	300,051	2,396,019	1,907,557	1,472,977	
160	4,156	13	202	17,740	180,108	16,141	14,334	2
170	2,759	51	395	86,650	318,493	92,329	60,362	
86,399	97,610	87,401	156,672	103,181	101,514	93,772	161,933	3
224,686	187,557	179,239	240,207	252,713	196,508	192,311	253,150	
[1]	791,270	570,256	827,603	[1]	1,336,167	2,186,098	1,573,485	4
–	709,934	393,607	719,530	–	1,380,620	2,166,274	1,405,320	
245,982	2,790,121	2,291,493	1,749,259	681,103	4,344,968	4,422,212	3,267,647	
3,720	24,681	493	329	8,884,737	9,414,023	16,148,159	15,250,368	5
410	996	150	126	2,664,681	2,818,534	5,191,720	4,766,103	
815,345	1,678,187	861,825	384,923	1,544,629	3,072,489	1,909,949	1,450,834	6
18,010,538	26,953,215	22,469,890	12,047,712	34,935,709	47,707,942	48,464,007	35,524,296	
44,663,210	**73,603,221**	**33,180,317**[2]	**30,370,523**	**242,861,877**	**346,450,628**	**235,324,412**	**182,875,417**	
140,526	273,430	264,313	172,457	147,792	315,271	287,459	196,815	7
7,019,224	11,010,036	12,090,329	8,278,381	7,360,179	14,000,092	13,914,541	10,280,469	
10,703	15,289	8,104	5,249	11,257	16,028	9,166	5,613	8
1,216,246	1,899,446	1,040,193	647,589	1,311,191	2,011,696	1,192,576	708,954	
30,301	76,494	53,432	243	34,725	83,456	60,510	5,471	9
531,763	1,365,785	917,445	2,902	556,982	1,398,361	952,712	28,509	
9,078,806	14,879,807	15,246,530	9,504,035	9,577,305	18,053,751	17,313,745	11,656,306	
99,197	97,782	113,610	103,077	99,198	97,783	113,617	103,080	10
1,815,551	2,129,553	2,275,210	1,899,434	1,815,612	2,129,563	2,275,760	1,899,492	
61,940	98,071	64,224	54,150	119,697	164,871	134,714	125,328	11
483,009	699,517	538,945	561,290	1,256,453	1,512,205	1,622,516	1,610,147	
120,357	127,996	129,171	118,555	120,357	127,996	129,180	118,556	12
1,284,755	1,573,533	1,597,053	1,427,502	1,284,755	1,573,533	1,597,114	1,427,515	
8,916,554	10,131,354	10,642,290	9,920,243	9,984,674	11,197,210	12,002,625	11,431,080	
75,358	63,603	55,857	65,108	266,411	207,464	202,503	232,550	13
388,894	363,074	351,002	373,374	1,362,980	1,077,114	1,204,309	1,259,096	
1,172,006	1,295,982	1,380,306[3]	1,421,994	4,031,658	3,813,814	4,126,856[3]	3,864,525	
5,954	6,277	5,509	5,303	45,519	39,396	35,995	41,984	14
318,662	395,499	320,364	248,013	2,269,904	2,173,234	1,919,165	1,888,629	
39,977	19,563	44,531	175	513,301	554,694	543,793	497,026	15
235,113	113,422	299,400	3,727	7,344,642	6,969,946	7,351,118	7,452,314	
1	[5]	242	Nil	53,429	66,540	69,951	71,221	16
4	3	1,296	–	450,284	581,388	621,038	626,356	
747,768	693,692	627,805[3]	257,842	10,418,916	10,076,578	10,153,832[3]	10,327,375	
10,860,004	12,281,632	12,930,414	11,859,615	24,459,042	25,275,978	26,571,176	25,887,415	
413,793	492,935	612,711	517,689	662,645	819,023	1,131,192	974,484	17
1,287,022	1,586,680	748,242	900,267	8,707,437	9,234,142	6,989,772	6,797,433	18
207,672	331,834	261,061	324,994	389,639	555,696	503,633	583,244	19
1,622,049	1,966,952	1,174,761	1,524,907	2,154,509	2,506,195	1,753,070	2,400,382	20
663,679	558,894	251,559	338,999	1,386,059	1,548,562	1,135,555	977,439	21
5,623,071	7,363,645	4,428,199	4,514,183	15,738,166	18,444,030	13,998,235	13,584,861	
5,720,058	7,524,218	4,627,579	4,679,092	16,395,705	19,336,425	14,830,397	14,130,297	

[4] None reported. [5] Less than 0·5 cwt.

12.—Principal Exports of Canadian Produce from Canada to United

No.	Item.		United Kingdom.			
			1936.	1937.	1938.	1939.
	II. Animals and Animal Products—concluded.					
1	Hair	$	5,880	8,187	29,546	41,955
2	Hides and skins, raw	cwt.	23,608	25,660	20,721	16,576
		$	158,823	200,437	233,882	120,871
3	Leather, unmanufactured	$	3,426,423	5,343,490	4,051,287	3,783,665
4	Leather, manufactured	$	592,824	787,961	889,166	877,680
	Meats—					
5	Bacon and hams	cwt.	1,186,509	1,718,258	1,893,433	1,621,804
		$	19,030,333	27,839,974	32,622,079	29,441,133
6	Beef, fresh	cwt.	24,420	87,556	82,968	8,038
		$	157,316	359,287	509,406	97,655
7	Pork, fresh	cwt.	5,943	6,972	9,404	5,264
		$	85,282	95,305	150,827	90,136
8	Pork, dry salted, pickled	cwt.	2,403	905	1,092	653
		$	38,310	13,722	13,509	11,547
9	*Poultry*	lb.	1,582,543	3,509,152	2,831,964	2,826,310
		$	371,708	727,581	589,214	632,329
	Totals, Meats[1]	$	21,162,489	31,330,280	36,159,469	33,010,329
	Milk and Its Products—					
10	Butter	cwt.	71,358	44,330	36,265	90,607
		$	1,655,987	1,003,229	1,017,905	1,920,020
11	Cheese	cwt.	528,781	675,846	814,078	772,005
		$	6,001,637	9,334,456	11,862,240	11,161,499
12	Milk, processed	cwt.	160,615	111,629	228,609	231,423
		$	1,295,458	827,184	1,860,127	2,087,884
	Totals, Milk and Its Products[1]	$	8,953,082	11,164,869	14,740,272	15,169,403
	Oils, Fats, Greases, and Waxes—					
13	Fish and whale oil	gal.	592,108	1,506,141	1,252,373	528,328
		$	131,832	403,277	312,240	228,000
14	Lard and compounds	cwt.	181,797	323,559	259,894	144,535
		$	2,338,263	3,841,468	3,067,398	1,323,518
15	Tallow	cwt.	5	8,154	1,714	1,661
		$	40	38,779	5,573	4,909
	Totals, Oils, Fats, Greases, and Waxes[1]	$	2,539,908	4,350,339	3,484,924	1,657,106
16	Eggs	doz.	912,060	992,850	1,383,830	1,502,157
		$	235,292	261,186	359,716	391,717
17	Honey	lb.	1,542,807	2,415,795	2,260,096	3,881,357
		$	124,350	202,868	205,327	312,334
18	Sausage casings	$	667,054	469,611	542,142	360,452
19	Tankage	cwt.	Nil	Nil	Nil	1,568
		$	–	–	–	2,980
	Totals, Animals and Animal Products[1]	$	**54,592,114**	**73,350,911**	**77,996,863**	**73,167,878**
	III. Fibres and Textiles.					
20	Cotton	$	348,613	551,860	940,079	923,546
21	Silk and manufactures of, *n.o.p.*	$	55,729	57,181	42,359	72,230
22	Silk socks and stockings	doz. pair.	47,843	49,180	75,912	69,646
		$	327,304	328,897	482,490	429,088
	Wool—					
23	Wool, raw	lb.	3,176,279	1,230,582	2,061,832	2,280,995
		$	503,853	260,483	449,913	310,841
24	Woollen clothing	$	7,277	6,662	22,448	23,945
	Totals, Wool[1]	$	513,437	268,094	476,919	336,193
25	Silk, artificial	$	130,674	282,320	537,718	515,229
26	Binder twine	cwt.	67,737	68,205	62,892	50,541
		$	392,227	479,598	474,340	338,136
27	Felt manufactures	$	142,791	145,709	200,549	195,094
28	Rags	cwt.	6,773	6,300	14,018	13,548
		$	46,532	43,737	140,814	70,616
	Totals, Fibres and Textiles[1]	$	**2,330,693**	**2,508,340**	**3,800,047**	**3,420,771**

[1] Totals include other items not specified. [2] Revised since the publication of the 1939 Year Book.

Kingdom, United States, and All Countries, Fiscal Years 1936-39—continued.

United States.				All Countries.				No
1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.	
251,894	296,065	379,320	252,157	382,417	504,894	610,192	420,865	1
374,241	364,666	213,214	396,181	417,447	418,282	292,356	465,774	2
3,077,792	3,472,474	2,290,902	3,091,911	3,454,341	3,988,888	3,272,569	3,716,630	
463,906	532,862	470,795	761,855	4,312,861	6,335,282	4,885,831	4,960,223	3
53,649	111,352	56,174	36,062	823,790	1,197,583	1,532,738	1,524,702	4
6,889	25,092	18,563	5,854	1,201,012	1,757,048	1,922,064	1,634,109	5
213,710	663,823	551,926	220,201	19,407,285	28,801,291	33,404,206	29,812,724	
42,834	15,285	31,129	11,069	92,573	140,008	144,281	37,499	6
511,056	176,949	350,574	109,543	916,415	833,605	1,207,021	468,288	
57,177	128,769	129,843	20,171	65,223	139,895	143,169	27,811	7
885,613	1,777,264	2,077,488	398,948	1,002,572	1,936,265	2,290,594	529,276	
2,461	8,537	4,193	195	32,562	52,895	51,046	40,790	8
49,182	158,662	72,070	3,655	325,527	548,995	483,881	339,468	
97,913	168,882	42,947	2,272	2,064,402	4,139,279	3,332,720	3,287,673	9
19,782	42,613	8,685	448	488,431	884,562	715,434	753,544	
1,830,811	3,033,299	3,271,705	905,954	24,220,802	36,114,497	41,362,775	35,375,618	
661	213	108	151	76,911	51,406	41,349	97,185	10
16,609	5,634	3,318	2,973	1,795,784	1,183,633	1,163,288	2,092,518	
31,208	105,719	34,611	18,649	585,449	807,391	879,475	824,703	11
425,724	1,493,372	558,199	327,031	6,789,588	11,236,543	12,938,568	12,052,703	
15,356	6,174	4,842	4,487	243,574	199,668	359,388	343,230	12
178,129	112,417	105,838	97,088	2,215,410	1,946,435	3,402,267	3,428,080	
627,131	1,691,364	846,646	428,164	10,807,451	14,447,544	17,687,484	17,579,793	
647,203	816,906	684,876[2]	745,156	1,679,765	2,345,384	2,914,540	4,817,824	13
196,112	280,545	263,167	277,824	424,034	690,991	821,437	1,104,817	
5,558	4,798	13	1	190,013	331,258	264,915	146,262	14
52,284	36,807	159	11	2,426,343	3,913,141	3,133,608	1,342,585	
100,002	114,581	8,321	7,708	100,080	129,089	17,418	18,588	15
655,919	571,591	37,414	29,136	656,679	641,367	74,394	61,219	
957,084	934,172	334,528	310,208	3,631,980	5,396,160	4,200,457	2,615,697	
7,173	1,641	1,559	1,003	1,140,856	1,225,381	1,658,613	1,786,273	16
1,539	486	410	267	304,789	330,159	440,520	483,091	
6,369	21,783	10,069	17,073	1,957,982	2,728,262	2,913,736	4,506,602	17
693	1,858	1,077	1,608	151,204	224,507	246,088	350,825	
242,947	444,519	469,697	268,401	1,070,660	1,104,913	1,151,599	788,835	18
250,146	304,287	310,131	269,744	250,171	304,339	310,171	271,314	19
346,693	528,730	457,315	343,976	346,748	528,845	457,390	346,962	
34,058,519	**46,431,986**	**42,572,671**	**33,376,253**	**100,932,110**	**133,940,776**	**136,112,957**	**121,242,053**	
5,906	16,025	30,712	16,067	1,736,169	2,114,101	3,077,436	2,729,801	20
112,786	58,689	5,710	3,846	301,326	246,450	191,107	156,102	21
306	19	98	46	331,397	434,085	502,134	521,429	22
2,039	142	712	402	2,118,917	2,698,884	3,059,978	3,143,928	
4,676,866	3,629,466	1,147,727	726,245	8,723,846	9,104,460	4,153,511	3,955,269	23
982,172	996,223	360,530	148,034	1,645,767	2,307,462	1,054,963	608,579	
103,542	211,682	298,041	224,706	306,843	459,299	653,519	488,474	24
1,153,446	1,279,131	757,256	452,580	2,055,046	2,907,567	1,870,665	1,209,056	
2,821	3,870	12,033	8,451	589,376	1,020,098	1,869,929	2,359,034	25
107,648	81,771	90,789	108,013	186,826	161,583	160,896	159,245	26
623,394	551,052	634,522	700,582	1,077,961	1,115,234	1,161,126	1,043,127	
5,473	7,216	5,693	3,390	336,464	374,456	495,692	314,270	27
169,020	176,195	82,841	111,417	194,937	191,552	107,552	135,366	28
613,982	920,063	477,751	439,936	748,154	1,012,139	692,544	561,178	
2,612,474	**3,003,772**	**2,161,630**	**1,845,215**	**10,273,697**	**12,830,212**	**14,225,183**	**13,250,837**	

12.—Principal Exports of Canadian Produce from Canada to United

No.	Item.	United Kingdom.			
		1936.	1937.	1938.	1939.
	IV. Wood, Wood Products, and Paper.				
	Wood, Unmanufactured—				
	Logs and Round Timber—				
1	Logs, Douglas fir.....M ft.	20	Nil	206	17
	$	225	–	3,055	836
2	Logs, hardwood.....M ft.	6,923	8,265	7,124	6,771
	$	284,503	293,450	289,311	307,528
3	Poles, telegraph and telephone..... No.	Nil	Nil	Nil	Nil
	$	–	–	–	–
4	Railroad ties..... No.	320,203	171,630	892,362	313,856
	$	171,624	98,093	689,414	244,607
	Totals, Logs and Round Timber[1]..... $	461,922	392,107	984,278	562,392
5	Lath..... M	5	45	50	Nil
	$	23	125	100	
	Planks and Boards—				
6	Birch.....M ft.	67,921	59,489	74,027	48,631
	$	1,846,250	1,634,443	2,276,513	1,236,853
7	Douglas fir.....M ft.	390,946	540,758	484,386	540,314
	$	6,268,343	10,013,997	9,671,860	9,721,612
8	Pine.....M ft.	32,247	39,072	46,097	22,704
	$	1,296,120	1,576,636	1,812,379	931,850
9	Spruce.....M ft.	188,852	258,851	305,754	236,652
	$	3,505,808	5,257,757	6,854,327	5,186,283
	Totals, Planks and Boards[1].....M ft.	712,516	1,011,350	1,012,944	956,913
	$	13,926,422	20,768,318	23,106,201	19,497,397
10	Pulpwood..... cord	Nil	Nil	3,329	2,092
	$	–	–	33,315	26,298
11	Shingles..... squares	16,171	17,784	28,206	33,292
	$	38,243	47,097	83,708	94,168
12	Shooks..... $	162,884	205,384	281,476	216,011
13	Spoolwood.....M ft.	7,349	5,480	4,875	8,421
	$	333,716	235,448	210,114	384,464
14	Timber, square.....M ft.	26,215	30,837	33,390	28,415
	$	571,980	686,153	761,150	558,885
	Totals, Wood, Unmanufactured[1]..... $	16,273,650	23,626,490	27,131,812	22,872,176
	Wood, Manufactured—				
15	Doors..... $	2,234,800	2,455,098	2,688,707	1,051,171
16	Match splints..... $	318,191	295,845	299,523	325,715
	Wood-pulp—				
17	Chemical..... cwt.	699,710	643,764	1,475,595	661,877
	$	1,790,082	1,770,426	4,401,783	2,126,157
18	Mechanical..... cwt.	416,208	168,950	439,702	377,825
	$	426,603	174,484	777,337	474,655
	Totals, Wood-pulp[1]..... cwt.	1,116,427	812,714	1,915,827	1,040,302
	$	2,217,830	1,944,910	5,180,546	2,602,326
	Totals, Wood, Manufactured[1]..... $	5,296,334	5,232,242	8,809,183	4,539,946
	Paper—				
19	Pulp and fibreboard..... cwt.	193,923	211,170	204,888	176,159
	$	598,102	604,099	606,320	550,927
20	Paper board, *n.o.p.*..... $	2,375,489	2,048,393	3,155,320	2,171,755
21	Book paper..... cwt.	18,143	15,845	19,456	13,985
	$	132,035	118,530	142,996	103,873
22	Newsprint paper..... cwt.	2,269,553	2,406,052	2,936,599	3,496,998
	$	3,424,312	3,714,428	4,709,966	5,782,986
23	Wrapping paper..... cwt.	7,660	14,755	21,190	23,634
	$	36,491	59,232	85,654	149,583
	Totals, Paper[1]..... $	6,997,774	7,027,436	9,270,519	9,401,032
24	Books and printed matter..... $	205,176	177,897	182,914	207,904
	Totals, Wood, Wood Products, and Paper[1]..... $	**28,772,934**	**36,064,065**	**45,394,428**	**37,021,058**

[1] Totals include other items not specified.

[2] Revised since the publication of the 1939 Year Book.

Kingdom, United States, and All Countries, Fiscal Years 1936-39—continued.

United States.				All Countries.				No.
1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.	
43,838	3,936	24,261	38,234	205,815	156,747	126,714	128,902	1
467,639	40,193	286,441	427,881	2,037,924	2,291,820	2,658,256	2,312,149	
4,253	3,942	4,446	4,641	16,810	20,952	16,940	14,119	2
63,480	63,851	72,162	77,660	424,289	587,222	592,360	520,398	
200,400	294,209	400,359	336,300	201,013	295,061	401,514	336,302	3
563,508	808,370	1,242,667	1,089,791	565,018	812,456	1,247,540	1,089,807	
197,421	286,485	292,244	230,731	966,358	798,329	1,385,731	560,958	4
135,170	220,527	225,717	187,682	513,820	566,137	1,045,506	442,721	
1,916,444	2,053,089	3,196,599	3,247,534	4,455,839	5,646,508	7,112,697[2]	6,239,365	
278,075	286,626	214,162	160,522	284,470	290,730	215,942	162,951	5
727,597	1,043,498	864,590	513,061	743,847	1,057,697	871,712	522,357	
17,507	36,625	31,199	27,178	85,913	96,557	105,645	76,328	6
568,057	1,284,925	1,238,176	1,035,481	2,429,436	2,933,797	3,527,889	2,288,400	
91,589	88,002	130,750	121,619	646,878	813,094	772,022	811,942	7
1,414,427	1,539,209	2,487,517	2,149,869	10,179,725	14,926,588	15,777,205	14,673,554	
80,575	86,568	60,685	59,550	119,207	133,350	115,142	90,101	8
2,108,997	2,462,992	1,936,244	1,842,250	3,585,504	4,275,559	4,048,632	3,046,155	
166,497	275,793	212,638	187,357	368,540	549,080	535,836	437,158	9
3,953,726	6,627,444	5,706,003	4,610,897	7,896,565	12,341,036	13,119,705	10,199,964	
404,293	554,245	504,936	498,247	1,382,714	1,866,811	1,805,726	1,728,667	
9,448,877	14,165,558	14,178,502	12,649,864	27,605,281	40,284,864	43,662,909	37,100,824	
968,160	1,166,466	1,522,722	1,147,351	973,738	1,183,361	1,590,363	1,492,540	10
6,901,315	8,544,006	11,817,955	9,636,341	6,943,102	8,679,198	12,468,821	13,231,521	
2,828,836	2,530,088	2,227,331	1,984,289	2,867,885	2,586,892	2,297,061	2,052,978	11
7,609,429	6,432,913	6,247,531	5,546,109	7,692,957	6,578,972	6,430,760	5,742,216	
1,048	117	3,082	457	675,507	735,009	1,373,070	1,012,283	12
3,138	5,132	5,283	2,286	10,897	10,612	10,865	10,707	13
115,242	190,464	201,491	82,496	466,237	425,912	441,319	466,960	
2,968	3,936	1,496	1,248	89,346	104,575	115,954	86,167	14
52,447	65,618	39,298	23,430	1,477,822	1,797,211	2,333,873	1,439,243	
27,940,579	33,808,956	38,150,033	33,148,270	52,046,263	67,930,452	78,207,925	69,049,908	
344	892	331	351	2,239,547	2,462,391	2,707,746	1,071,316	15
Nil	Nil	Nil	Nil	318,191	295,845	299,523	326,015	16
8,280,235	10,197,666	9,058,047	7,147,951	10,339,190	12,147,032	12,250,777	8,227,568	17
20,053,432	24,838,959	25,786,527	19,543,264	24,547,748	29,222,085	35,434,552	23,259,309	
2,317,147	2,716,717	2,469,379	2,228,183	2,733,355	2,885,667	2,909,318	2,606,008	18
2,442,829	2,955,709	2,910,421	2,584,546	2,869,432	3,130,193	3,688,170	3,059,201	
11,210,106	13,626,850	12,076,146	9,703,053	13,722,878	15,792,020	15,739,081	11,173,247	
23,140,252	28,602,029	29,471,434	22,591,320	28,103,970	33,210,237	39,960,178	26,814,418	
23,246,887	28,786,375	29,620,038	22,692,583	31,872,820	37,217,274	44,399,645	29,413,474	
3,590	18,838	8,508	4,905	307,223	385,261	360,571	344,323	19
12,446	58,022	26,468	14,843	981,152	1,177,521	1,161,896	1,167,965	
445,609	640,942	558,300	336,786	3,039,637	2,894,383	4,262,780	2,810,146	20
336	277	2,455	381	61,296	65,833	118,505	61,036	21
3,563	3,167	8,527	4,104	435,014	444,507	777,729	402,544	
42,362,075	50,597,101	53,160,710	39,877,492	53,261,626	62,899,709	63,815,792	49,507,879	22
72,956,142	89,166,874	99,588,555	87,978,067	90,761,379	110,176,448	120,007,550	107,360,211	
18,386	17,446	13,866	16,784	251,291	384,777	419,531	280,880	23
27,881	29,178	26,548	28,234	751,887	1,295,775	1,699,929	1,188,077	
73,683,795	90,641,369	100,758,842	89,002,513	97,094,240	117,818,478	129,890,493	115,024,657	
376,617	480,975	461,249	506,636	818,420	952,272	936,797	1,000,445	24
125,247,878	**153,717,675**	**168,990,162**	**145,350,002**	**181,831,743**	**223,918,476**	**253,434,860**	**214,488,484**	

12.—Principal Exports of Canadian Produce from Canada to United

No.	Item.		United Kingdom.			
			1936.	1937.	1938.	1939.
	V. Iron and Its Products.					
1	Pigs, ingots, and billets	ton	62,988	91,187	148,072	60,213
		$	1,353,852	2,222,118	4,184,908	1,845,358
2	Scrap iron or steel	ton	139	2,857	26,749	2,959
		$	2,318	25,988	339,453	33,145
3	Rolling-mill products	ton	46,053	41,293	35,556	31,556
		$	1,376,305	1,298,031	1,611,573	1,441,111
4	Tubes and pipes	$	34,490	40,205	47,867	54,184
5	Wire	$	385,710	470,850	331,513	393,746
6	Farm implements	$	774,526	1,086,548	1,412,429	834,563
7	Hardware and cutlery	$	1,266,901	1,291,790	1,327,666	1,268,208
	Machinery—					
8	Adding machines	$	205,313	678,813	754,652	549,494
9	Electric vacuum cleaners	$	540,029	103,253	50,713	36,815
10	Sewing machines	$	1,766	433	655	335
11	Washing machines and wringers	$	388,163	452,637	750,930	639,654
12	Typewriters and parts	$	13,962	502,430	943,673	725,023
	Totals, Machinery[1]	$	2,560,694	3,713,677	4,492,832	4,736,903
13	Tools	$	315,855	394,115	477,931	357,278
	Vehicles—					
14	Automobiles, freight	No.	7	3	4	5
		$	2,973	1,506	1,923	3,208
15	Automobiles, passenger	No.	3,943	2,546	2,321	1,462
		$	2,725,993	2,145,036	1,889,937	1,156,609
16	Automobiles, parts of	$	19,018	8,839	17,200	25,673
	Totals, Vehicles[1]	$	2,751,303	2,155,847	1,911,323	1,185,657
	Totals, Irons and Its Products[1]	$	**11,159,695**	**13,032,283**	**16,523,218**	**12,616,853**
	VI. Non-Ferrous Metals.					
17	Aluminium in bars, blocks, etc	cwt.	330,608	417,592	576,103	721,852
		$	5,745,538	8,081,088	11,050,523	12,731,323
18	Brass	$	363,439	459,562	570,396	474,827
	Copper—					
19	Copper ore	cwt.	10,884	8,098	12,344	61,939
		$	58,277	63,141	116,367	452,148
20	Copper blister	cwt.	[2]	[2]	[2]	Nil
		$	–	–	–	–
21	Copper in ingots, bars, rods, strips, etc	cwt	2,034,342	2,568,253	2,687,641	2,585,410
		$	16,102,177	25,235,656	34,773,116	25,795,541
	Totals, Copper[1]	$	16,381,403	25,587,108	35,242,762	26,596,800
22	Lead in ore	cwt.	29	Nil	Nil	Nil
		$	104	–	–	–
23	Lead in pigs, etc	cwt.	1,877,370	2,069,348	2,255,929	2,479,019
		$	5,234,242	8,024,985	9,145,964	6,590,057
	Nickel—					
24	Nickel in ore, matte, etc	cwt.	400,898	301,646	467,767	580,255
		$	7,218,434	5,429,863	8,420,212	10,444,590
25	Nickel, fine	cwt.	204,364	179,533	528,901	295,632
		$	9,064,223	7,717,814	21,117,003	11,547,625
26	Nickel, oxide	cwt.	2,644	2,858	2,004	28,210
		$	84,605	96,801	68,299	925,137
	Totals, Nickel	$	16,367,262	13,244,478	29,605,514	22,917,352
	Precious Metals—					
27	Gold-bearing quartz, dust, etc	oz.	21	261	644	1,443
		$	696	8,394	21,586	51,607
28	Gold bullion, other than monetary	oz.	73,924	52,921	71,592	Nil
		$	2,599,500	1,876,500	2,511,436	–
29	Platinum in concentrates	$	5,174,200	8,052,314	7,116,351	8,701,871
30	Silver in ore	oz.	61,558	3,359	35,543	698
		$	32,504	1,525	13,882	285
31	Silver bullion	oz.	1,552,802	2,428,324	1,883,089	459,918
		$	1,035,669	1,099,263	843,392	197,967
	Totals, Precious Metals[1]	$	9,239,206	11,348,320	10,976,585	9,466,886

[1] Totals include other items not specified. [2] None reported.

Kingdom, United States, and All Countries, Fiscal Years 1936-39—continued.

United States.				All Countries.				No.
1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.	
55,838	71,793	36,911	32,355	119,881	164,848	200,542	95,580	1
1,325,181	1,744,250	1,304,403	942,361	2,739,748	4,074,851	6,208,317	3,031,805	
88,389	132,567	73,513	33,118	128,371	206,865	142,945	95,155	2
815,811	1,450,263	935,834	356,432	1,163,261	2,189,890	1,929,075	1,112,196	
1,962	1,635	2,370	348	78,704	91,526	61,921	106,201	3
56,784	41,077	58,367	13,181	2,463,441	3,093,006	2,925,865	4,619,344	
92,759	44,183	104,368	30,693	917,938	884,497	936,253	816,747	4
856	982	1,449	3,383	1,065,028	1,166,356	957,340	1,165,367	5
2,467,203	1,926,351	3,743,473	1,802,895	6,344,437	6,276,608	10,705,957	6,453,042	6
161,763	142,724	76,459	256,229	2,108,350	2,201,921	2,207,824	2,342,847	7
675	175	615	178	322,019	781,865	928,797	690,763	8
2,230	3,028	15,494	768	669,701	172,297	160,724	101,686	9
3,217	5,738	3,493	2,706	1,552,803	1,548,582	2,607,745	1,354,357	10
588	318	683	144	541,996	706,577	1,481,432	1,278,114	11
1,207	2,147	1,178	12,736	181,323	985,469	1,506,672	1,388,057	12
130,472	150,702	240,178	162,595	5,803,925	7,607,472	11,305,195	9,703,463	
15,592	27,945	17,872	16,005	994,314	1,203,200	1,561,001	1,247,629	13
13	19	29	17	17,420	15,155	22,774	16,934	14
3,948	6,498	4,718	3,535	6,158,129	5,616,387	8,409,621	6,715,234	
388	437	443	215	49,911	38,424	46,076	41,916	15
118,300	148,226	139,881	73,271	17,727,901	13,809,343	16,889,742	16,092,835	
38,094	59,324	33,135	35,355	3,224,008	2,902,938	2,992,353	2,528,397	16
191,265	241,655	214,347	140,259	27,208,481	22,460,693	28,525,967	25,660,339	
5,411,683	**6,072,255**	**6,945,336**	**3,814,538**	**52,368,057**	**53,173,175**	**69,744,157**	**58,682,214**	
41,989	85,039	193,254	50,921	558,859	680,357	1,096,131	1,450,851	17
622,700	1,365,224	2,874,731	745,010	9,358,074	12,522,047	20,748,973	24,794,611	
194,978	318,861	449,486	260,549	984,323	1,141,648	1,512,410	1,062,151	18
255,178	368,831	550,052	595,965	378,973	521,729	892,248	1,103,964	19
1,364,610	2,800,339	5,077,277	4,128,654	2,024,180	3,963,652	8,050,159	7,678,847	
544,845	Nil	197,606	293,475	544,845	Nil	197,606	293,475	20
4,174,227	–	2,267,800	2,893,356	4,174,227	–	2,267,800	2,893,356	
36	222	375	587	2,986,166	3,583,982	3,560,568	4,231,647	21
587	2,239	4,284	5,904	23,697,792	34,873,145	45,674,426	42,190,363	
5,633,968	3,089,411	7,587,725	7,198,970	31,031,411	40,221,226	57,269,726	53,881,376	
1,146	28,086	103,534	68,681	79,502	103,132	147,454	72,847	22
4,581	123,913	594,436	329,934	231,624	340,609	788,957	348,597	
21	10	10	415	2,860,854	3,439,935	3,200,544	3,428,832	23
111	63	71	1,469	8,055,158	13,438,592	13,326,989	9,084,931	
96,484	111,378	137,070	83,770	661,947	601,905	847,315	899,107	24
1,737,027	2,004,725	2,466,489	1,507,960	11,907,860	10,835,789	15,251,107	16,184,027	
615,251	842,984	656,259	560,972	908,645	1,131,141	1,380,447	1,025,065	25
15,433,539	21,067,972	16,407,716	14,026,554	28,439,250	33,413,742	45,323,544	32,062,395	
10,251	28,410	9,184	7,501	38,660	57,315	43,117	42,673	26
203,377	578,930	182,904	155,393	1,297,270	1,632,653	1,343,949	1,319,104	
17,373,943	23,651,627	19,057,109	15,689,907	41,644,380	45,882,184	61,918,600	49,565,526	
138,689	185,955	214,657	227,048	139,686	190,914	221,650	238,104	27
4,767,713	6,326,990	7,229,580	7,731,920	4,802,029	6,497,281	7,461,614	8,111,940	
2,300,548	2,135,278	2,400,524	2,502,914	2,383,472	2,188,199	2,472,116	2,504,687	28
80,815,354	74,790,769	83,692,300	87,542,643	83,414,854	76,667,269	86,203,736	87,590,120	
600	Nil	Nil	Nil	5,286,260	8,185,250	7,415,344	8,988,895	29
1,226,111	2,833,246	5,519,241	5,565,276	1,732,537	3,387,273	5,999,591	5,825,239	30
771,664	1,263,770	2,475,581	2,397,992	1,053,213	1,496,431	2,671,195	2,505,097	
16,871,081	10,145,504	13,751,218	20,199,361	18,458,481	12,800,319	16,214,486	20,930,863	31
10,361,830	4,538,264	6,136,389	8,689,608	11,420,747	5,747,319	7,242,280	9,004,248	
97,136,587	87,547,822	100,460,845	107,014,062	106,793,429	99,531,903	112,391,102	117,367,437	

12.—Principal Exports of Canadian Produce from Canada to United

No.	Item.		United Kingdom.			
			1936.	1937.	1938.	1939.
	VI. Non-Ferrous Metals—concluded.					
	Zinc—					
1	Zinc ore	cwt.	10,580	Nil	Nil	Nil
		$	17,500	–	–	–
2	Zinc spelter	cwt.	2,185,952	2,061,828	2,001,340	2,037,104
		$	6,690,035	6,756,236	8,804,247	6,333,061
	Totals, Zinc[1]	$	6,724,160	6,766,597	8,825,856	6,343,413
3	Electrical apparatus	$	620,339	951,395	1,019,595	596,181
	Totals, Non-Ferrous Metals[1]	$	**61,821,441**	**75,819,787**	**107,926,841**	**87,222,142**
	VII. Non-Metallic Minerals.					
	Asbestos—					
4	Asbestos, raw	ton	4,792	6,971	14,096	19,566
		$	292,560	449,251	886,066	1,260,456
5	Asbestos sand and waste	ton	3,630	4,576	6,357	4,846
		$	74,921	86,531	119,011	101,437
	Totals, Asbestos[1]	$	476,045	634,612	1,124,239	1,504,755
6	Clay and products	$	4,976	22,861	63,594	12,474
	Coal and Its Products—					
7	Coal	ton	37,948	26,209	Nil	Nil
		$	224,786	133,576	–	–
8	Coke	ton	779	1,090	1,990	1,580
		$	29,080	34,200	62,318	46,380
9	Tar, pitch, and oils	$	Nil	Nil	Nil	Nil
	Totals, Coal and Its Products[2]	$	253,866	167,776	62,318	46,380
10	Petroleum and products	$	53,711	68,094	21,991	57,333
11	Abrasives, artificial, crude	cwt.	94,023	167,594	255,273	114,325
		$	752,513	1,038,343	1,448,649	656,105
12	Gypsum, crude	ton	65,024	104,925	105,842	132,135
		$	66,764	110,282	110,443	135,546
	Totals, Non-Metallic Minerals[1]	$	**2,207,869**	**2,730,516**	**3,368,888**	**2,816,748**
	VIII. Chemicals and Allied Products.					
13	Acids	$	710,500	1,088,035	986,531	890,700
14	Cobalt oxide and salts	$	469,169	561,555	486,379	648,399
15	Drugs, medicinal	$	554,819	662,758	719,321	798,793
	Fertilizers—					
16	Ammonium sulphate	cwt.	Nil	Nil	Nil	Nil
		$	–	–	–	
17	Cyanamid	cwt.	Nil	56	Nil	Nil
		$	–	90	–	
	Totals, Fertilizers[1]	$	Nil	90	Nil	Nil
18	Paints and varnishes	$	323,262	454,538	440,904	376,396
19	Soap	$	595,074	814,967	1,009,451	1,216,489
20	Sodium compounds	$	63,596	93,068	35,154	22,792
	Totals, Chemicals and Allied Products[1]	$	**3,212,081**	**4,191,193**	**5,144,611**	**5,565,025**
	IX. Miscellaneous Commodities.					
21	Containers (outside coverings)	$	12,037	15,054	33,132	47,160
22	Electric energy	M kwh.	Nil	Nil	Nil	Nil
		$	–	–	–	–
23	Films	$	1,868,619	1,514,207	1,758,832	1,733,135
24	Settlers' effects	$	454,419	510,764	499,646	323,362
25	Ships	$	[2]	2,000	[2]	85,000
26	Stationery, *n.o.p.*	$	517,879	632,256	627,479	563,841
	Totals, Miscellaneous Commodities[1]	$	**3,197,996**	**3,216,036**	**3,983,039**	**4,269,589**
	Totals, Exports, Canadian Produce[1]	$	**321,556,798**	**407,996,698**	**409,411,682[3]**	**325,465,011**

[1] Totals include other items not specified. [2] None reported.

Kingdom, United States, and All Countries, Fiscal Years 1936-39—concluded.

United States.				All Countries.				No.
1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.	
8	3	1,702	Nil	160,468	436,781	689,359	332,678	1
30	13	3,860	–	288,665	945,303	2,689,190	783,708	
11,766	75,029	123,166	75,434	2,633,771	2,659,489	3,005,341	2,617,131	2
36,205	303,636	689,512	241,283	8,056,628	8,842,991	13,252,658	8,051,177	
39,353	304,675	710,874	255,478	8,418,199	9,863,937	16,059,164	8,872,584	
45,067	28,120	36,116	32,294	2,941,248	3,611,393	4,429,148	3,864,778	3
121,783,549	**117,328,297**	**132,783,014**	**132,163,214**	**212,547,372**	**230,152,314**	**292,452,554**	**272,632,850**	
64,354	83,664	91,248	54,136	109,270	140,804	192,967	164,296	4
3,321,538	4,346,725	4,978,829	3,215,914	5,865,136	7,602,623	10,930,264	10,831,140	
100,785	168,919	150,268	121,574	108,828	180,183	168,011	131,752	5
1,589,583	2,754,216	2,460,583	2,210,256	1,746,708	2,966,679	2,791,130	2,434,745	
4,911,947	7,101,580	7,441,272	5,426,824	7,778,782	10,793,696	14,009,619	13,525,998	
72,531	113,004	79,636	43,739	443,578	462,421	620,142	609,753	6
173,009	210,417	222,665	228,217	434,982	418,065	345,304	348,945	7
646,864	783,413	838,007	903,569	1,970,367	1,780,856	1,434,237	1,510,350	
29,815	28,615	50,632	37,286	33,325	33,670	55,310	39,353	8
271,144	237,331	379,393	361,086	350,267	343,695	493,297	416,275	
729,848	636,118	900,140	585,123	805,622	703,000	978,360	633,650	9
1,648,197	1,656,862	2,117,540	1,849,778	3,126,597	2,827,551	2,905,894	2,560,275	
252,804	620,629	518,226	61,251	986,735	1,585,929	1,165,661	900,232	10
1,340,606	1,651,369	1,847,263	938,426	1,455,723	1,857,674	2,126,157	1,093,149	11
3,295,236	4,410,575	4,856,668	2,518,122	4,121,292	5,569,676	6,391,033	3,288,141	
365,267	603,302	731,828	704,764	430,291	708,227	840,134	836,899	12
429,982	710,280	850,003	830,259	496,746	820,562	963,196	965,805	
11,566,497	**17,080,392**	**17,373,163**	**11,886,655**	**19,083,643**	**26,081,028**	**29,342,764**	**24,578,888**	
1,806,814	1,898,306	1,118,059	327,641	2,585,329	3,078,334	2,235,444	1,350,300	13
Nil	14	134,883	Nil	480,633	572,545	644,863	665,144	14
28,185	28,203	64,398	40,680	1,014,485	1,310,276	1,489,927	1,542,203	15
285,974	382,283	419,197	531,942	1,005,546	1,466,723	1,293,683	1,927,202	16
325,176	383,499	476,649	615,645	1,099,605	1,526,131	1,397,495	2,138,513	
2,209,296	2,722,530	2,783,035	2,573,963	2,275,723	2,833,169	2,960,650	2,719,701	17
2,290,663	2,934,849	3,101,519	2,858,205	2,384,610	3,089,325	3,353,515	3,072,359	
3,218,373	4,459,772	5,291,303	5,339,007	4,282,833	6,088,875	6,872,394	7,312,976	
58,375	52,402	38,136	112,181	723,313	911,049	1,042,670	1,010,389	18
391,462	703	443	838	1,152,439	999,349	1,261,210	1,366,976	19
1,484,119	1,642,885	2,013,282	1,738,543	4,019,629	4,221,697	4,479,006	4,144,020	20
7,458,104	**8,699,580**	**9,109,196**	**8,090,249**	**16,018,391**	**19,237,697**	**20,926,267**	**20,583,506**	
296,179	938,907	1,268,339	1,303,527	1,126,677	1,663,657	2,204,412	2,209,886	21
1,329,414	1,624,878	1,851,492	1,865,380	1,329,457	1,624,934	1,851,531	1,865,404	22
3,157,905	3,760,966	4,078,032	4,186,915	3,160,817	3,764,831	4,080,785	4,188,644	
1,414,532	1,417,840	1,410,970	1,124,943	3,768,115	3,432,860	3,728,078	3,432,603	23
2,173,530	2,340,145	2,513,473	1,869,334	2,911,546	3,137,466	3,311,990	2,444,514	24
8,235	8,950	111,245	4,330	78,235	164,950	530,590	132,830	25
30,326	20,496	25,422	25,480	716,550	883,782	976,863	875,510	26
7,500,512	**9,077,366**	**10,015,602**	**9,042,712**	**13,113,527**	**15,397,600**	**18,665,455**	**18,627,996**	
360,302,426	**435,014,544**	**423,131,091**[3]	**375,939,361**	**849,030,417**	**1,061,181,906**	**1,070,228,609**	**926,962,245**	

[3] Revised since the publication of the 1939 Year Book.

13.—Principal Imports into Canada for Consumption from United

No.	Item.	United Kingdom.			
		1936.	1937.	1938.	1939.
	I. Agricultural and Vegetable Products.				
	A. Mainly Food.				
	Fresh Fruits—				
1	Bananas.....stem	Nil	Nil	Nil	Nil
	$	–	–	–	
2	Grapefruit.....lb.	Nil	5,167	25,248	Nil
	$	–	191	748	–
3	Grapes.....lb.	103,790	43,334	46,740	1,300
	$	13,057	4,705	3,042	134
4	Lemons.....box	787	2,110	780	496
	$	3,435	8,397	3,174	1,429
5	Oranges.....cu. ft.	12,858	65,404	144,777	9,899
	$	19,033	70,094	183,938	9,851
6	Pears.....lb.	12,200	4,500	11,850	840
	$	961	125	584	54
7	Strawberries.....lb.	Nil	Nil	Nil	Nil
	$	–	–	–	
	Totals, Fresh Fruits[1].....$	37,103	83,866	195,840	11,512
	Dried Fruits—				
8	Currants.....lb.	50,842	597	973	Nil
	$	4,526	66	147	–
9	Dates.....lb.	2,387,383	1,249,097	728,602	1,345,500
	$	67,550	31,898	18,830	37,003
10	Prunes and dried plums.....lb.	4,480	Nil	17	34,548
	$	159	–	9	1,192
11	Raisins.....lb.	579,291	364,043	511,012	198,003
	$	35,838	22,611	28,407	9,597
	Totals, Dried Fruits[1].....$	143,923	110,588	50,720	52,407
	Preserved Fruits—				
12	Peaches, canned.....lb.	Nil	150	133	Nil
	$	–	10	12	
13	Pineapples, canned.....lb.	35,100	3,791	5,836	Nil
	$	892	360	540	
	Totals, Preserved Fruits[1].....$	57,268	88,734	79,384	70,525
14	Fruit juices.....$	9,150	17,186	18,350	12,822
	Nuts—				
15	Coco-nuts.....$	Nil	Nil	Nil	Nil
16	Nuts, not shelled.....lb.	1,217,319	778,549	416,515	747,397
	$	75,690	60,828	46,928	61,369
17	Nuts, shelled.....lb.	50,949	149,071	211,845	82,044
	$	12,167	27,655	63,584	31,082
	Totals, Nuts[1].....$	88,560	88,681	110,681	93,120
	Vegetables—				
18	Onions.....$	12,745	3,954	5,362	7,763
19	Potatoes, sweet.....$	Nil	Nil	Nil	Nil
20	Potatoes, *n.o.p.*.....cwt.	"	"	"	"
	$	–	–	–	
21	Tomatoes, fresh.....lb.	60	224	216	Nil
	$	7	20	34	–
22	Other fresh vegetables.....$	674	1,165	774	422
23	Vegetables, canned.....lb.	207	2,369	3,493	455
	$	117	316	238	46
24	Pickles and sauces.....$	184,668	221,445	207,626	196,769
	Totals, Vegetables[1].....$	210,898	244,213	233,582	228,058
	Grains and Products—				
25	Biscuits.....lb.	2,361,673	2,102,235	2,072,682	1,996,384
	$	321,962	318,887	314,394	287,131
26	Corn.....bu.	38	217,749	25,237	Nil
	$	73	167,160	22,078	–
27	Rice.....cwt.	3,042	1,305	2,283	235
	$	8,791	3,757	5,549	843
	Totals, Grains and Products[1].....$	651,516	680,959	455,232	366,465

[1] Totals include other items not specified. [2] Revised since the publication of the 1939 Year Book.

Kingdom, United States, and All Countries, Fiscal Years 1936-39.

United States.				All Countries.				No.
1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.	
324,317	325,754	435,963	499,001	2,967,234	3,392,309	3,623,135	3,372,334	1
527,845	553,362	717,475	819,625	1,767,092	2,002,966	2,242,459	2,197,263	
31,775,950	42,160,118	46,462,517	58,002,141	39,688,217	46,808,118	52,990,709	63,137,295	2
853,956	1,105,564	1,282,871	1,134,248	1,029,688	1,211,327	1,435,374	1,232,665	
19,088,754	25,699,639	30,353,567	30,530,302	19,420,406	26,137,351	30,791,593	31,027,921	3
629,828	937,825	975,754	901,305	653,770	963,392	1,000,012	931,494	
338,029	288,842	198,074	393,060	371,022	371,520	367,434	410,775	4
1,234,028	1,360,477	986,839	1,143,793	1,335,037	1,620,873	1,541,153	1,192,813	
4,260,658	4,501,344	4,496,873	6,348,176	4,904,674	5,197,043	5,438,847	6,783,613	5
5,239,209	6,388,233	6,417,897	5,475,178	5,772,238	6,980,752	7,235,709	5,800,089	
18,012,247	22,812,894	17,245,111	13,026,507	18,092,713	23,166,619	17,501,329	13,294,357	6
407,888	553,251	477,628	303,199	411,078	567,050	489,477	313,137	
4,988,431	4,640,085	5,641,611	4,688,106	4,988,431	4,640,175	5,641,641	4,688,106	7
391,012	424,025	430,717	379,367	391,012	424,053	430,720	379,367	
10,620,591	13,182,435	13,178,486	11,639,323	12,897,652	15,881,865	16,546,947	13,808,406	
250	300	Nil	766	5,625,746	4,669,960	6,157,747	5,551,939	8
32	39	–	96	521,438	443,648	566,317	551,440	
359,448	544,666	980,301	500,624	17,189,420	16,853,313	14,557,448	15,873,628	9
24,718	30,292	50,427	31,101	458,719	455,653	378,314	392,596	
19,310,460	17,747,349	19,051,158	14,846,577	19,318,665	17,747,691	19,051,205	14,881,145	10
786,951	809,359	793,426	560,517	787,459	809,389	793,441	561,714	
7,766,269	7,910,677	5,849,790	5,523,141	35,810,480	40,260,540	37,345,025	31,589,676	11
381,818	438,920	339,083	276,690	3,057,640	3,845,146	3,367 280	3,035,932	
1,553,809	1,692,373	1,635,781	1,238,892	5,496,178	6,257,465	5,716,757	5,087,719	
272,155	171,828	246,908	174,265	3,704,195	4,569,722	4,742,591	2,130,961	12
16,516	11,404	15,850	9,606	248,159	305,171	298,142	130,542	
195,897	634,210	300,089	167,503	19,239,113	26,271,885	19,686,871	19,719,536	17
17,335	50,584	24,877	15,172	642,196	906,779	670,641	621,161	
201,483	324,844	226,829	185,053	1,638,972	2,161,156	1,873,350	1,575,563	
189,830	339,770	548,716	490,694	266,083	495,779	750,013	738,096	14
345	714	653	544	196,666	213,815	242,733	208,255	15
1,624,887	2,518,902	2,862,708	3,098,479	39,193,302	41,278,469	41,308,142	45,282,966	16
189,967	363,141	399,638	401,740	1,407,446	1,622,016	1,733,674	1,652,375	
1,148,313	1,220,893	1,189,217	1,084,659	9,881,176	9,928,138	8,899,620	9,536,217	17
342,099	391,514	419,281	333,550	1,831,029	1,864,530	1,685,289	1,592,822	
532,467	755,730	819,584	735,995	3,470,937	3,748,241	3,696,170	3,483,983	
89,136	120,766	300,919	205,744	272,008	253,265	442,709	308,230	18
110,136	145,198	134,784	145,611	112,750	145,998	136,887	146,364	19
104,703	119,570	146,753	175,119	115,389	122,354	150,675	176,639	20
143,075	289,180	201,702	236,829	161,071	296,850	209,852	240,242	
6,148,044	16,305,971	17,994,085	25,430,587	32,242,753	40,503,715	42,003,267	48,000,012	21
317,018	581,311	717,166	778,648	1,028,059	1,307,263	1,422,127	1,353,035	
2,495,898	3,050,150	3,224,513	3,199,961	2,612,928	3,144,826	3,320,811	3,290,686	22
937,911	1,849,033	984,474	1,659,088	2,387,284	3,562,950	2,969,731	3,444,310	23
76,495	131,056	82,362	125,842	232,591	300,232	257,934	283,802	
51,914	63,478	49,276	53,762	310,784	361,390	345,764	332,549	24
3,302,454	4,439,492	4,789,112	4,823,437	4,773,138	5,900,976	6,253,132	6,075,290	
373,937	313,514	316,317	799,307	2,807,607	2,482,160	2,482,595	2,892,983	25
50,421	49,086	53,085	88,352	381,616	376,681[2]	380,056[2]	386,439	
292,449	490,134	969,221	7,503,149	8,307,618	18,632,448	15,505,439	9,221,249	26
307,611	480,128	677,113	4,171,886	4,958,387	10,551,080	10,336,265	5,336,534	
161,771	45,708	109,066	235,461	727,399	730,165	739,828	603,592	27
461,770	133,261	294,965	471,473	1,532,502	1,287,377	1,505,576	1,234,004	
1,613,249	1,810,403	7,786,493	12,397,572	8,375,007	14,209,382	19,634,814	15,070,858	

13.—Principal Imports into Canada for Consumption from United

No.	Item.		United Kingdom.			
			1936.	1937.	1938.	1939.
	I. Agricultural and Vegetable Products—con.					
	A. Mainly Food—concluded.					
	Oils, Vegetable, for Food—					
1	Olive oil	gal.	2,578	185	1,278	174
		$	775	178	2,556	294
	Totals, Oils, Vegetable, for Food[1]	$	148,632	211,357	126,606	115,443
	Sugar and Its Products—					
2	Confectionery	lb.	4,288,757	4,332,113	4,794,315	4,021,059
		$	538,480	533,891	613,143	507,975
3	Molasses and syrups	gal.	1,139,617	28,613	28,007[2]	35,264
		$	106,924	16,802	17,952[2]	23,202
4	Sugar, not above No. 16 D.S	cwt.	Nil	Nil	6	Nil
		$	–	–	22	
5	Sugar, for refining, above No. 16 D.S	cwt.	Nil	Nil	34	Nil
		$	–	–	114	–
6	Sugar, above No. 16 D.S., other, *n.o.p.*	cwt.	72	169	1,111	511
		$	386	475	3,414	919
	Totals, Sugar and Its Products[1]	$	645,797	551,248	634,645[2]	532,096
7	Cocoa and chocolate	$	201,112	589,108	553,552	597,799
8	Coffee and chicory	lb.	1,744,528	2,495,478	1,614,802	1,723,752
		$	220,191	326,879	240,786	228,000
9	Spices	$	311,696	283,224	333,041	274,052
10	Tea	lb.	10,675,961	11,280,343	10,696,060	9,871,809
		$	2,714,461	2,998,675	3,214,952	2,837,824
11	Yeast	lb.	304,755	308,821	275,062	311,866
		$	26,873	22,945	20,657	23,308
12	Hops	lb.	178,559	150,277	167,577	140,044
		$	48,400	30,516	61,262	63,992
13	Liquorice	lb.	1,393	1,255	28	345
		$	427	294	18	104
	Totals, A. Mainly Food[1]	$	5,554,113	6,367,900	6,377,592[2]	5,543,839
	B. Other than Food.					
	Beverages, Alcoholic—					
14	Brandy	pf. gal.	57	1,016	1,520[2]	889
		$	976	17,084	12,290[2]	4,956
15	Gin	pf. gal.	66,177	74,591	80,671	72,559
		$	238,056	248,991	264,874	235,600
16	Rum	pf. gal.	112,890	100,444	118,226	123,402
		$	2,199,837	1,968,724	639,208	257,101
17	Whisky	pf. gal.	603,887	650,882	772,610[2]	741,442
		$	3,710,956	3,431,055	4,167,340[2]	4,224,771
18	Wines, non-sparkling and sparkling	$	168,298	167,718	112,992	106,335
	Totals, Beverages, Alcoholic[1]	$	6,476,669	5,987,186	5,343,996	4,955,247
19	Gums and resins	$	67,712	46,066	47,667	65,209
20	Oilcake	cwt.	3,223	3,908	2,133	600
		$	4,308	7,295	4,152	630
	Oils, Vegetable, not Food—					
21	Cotton-seed oil, crude	cwt.	248,009	155,387	200,185	82,526
		$	1,438,251	912,191	1,083,369	330,904
22	Oil for soap	gal.	2,102,222	667,842	1,283,124	1,093,860
		$	939,085	395,052	813,404	471,980
23	Peanut oil, crude	cwt.	264,384	363,874	478,673	635,622
		$	1,651,959	2,296,392	2,825,691	2,656,613
	Totals, Oils, Vegetable, not Food[1]	$	4,380,860	4,117,038	5,120,907	3,718,550
24	Plants, shrubs, trees, and vines	$	55,602	32,938	49,635	41,389
	Rubber and Products—					
25	Rubber, crude	lb.	282,453	986,556	176,658	510,777
		$	38,819	166,346	34,152	78,845
26	Recovered, powdered, and substitute	cwt.	2,690	1,982	2,184	1,435
		$	60,622	39,942	33,401	14,253
27	Tires, pneumatic	$	30,664	59,294	105,342	94,799
	Totals, Rubber and Products[1]	$	751,285	625,280	516,482	497,925

[1] Totals include other items not specified.

[2] Revised since the publication of the 1939 Year Book.

Kingdom, United States, and All Countries, Fiscal Years 1936-39—continued.

United States.				All Countries.				No.
1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.	
2,048	3,517	1,291	1,228	390,257	273,447	262,627	327,910	1
5,322	6,892	3,273	2,565	473,498	393,297	456,668	437,571	
52,411	36,727	32,183	21,842	717,275	682,650	661,401	624,215	
295,464	517,316	659,943	718,059	5,513,832	5,813,405	6,259,785	5,563,614	2
59,802	105,220	137,403	109,681	669,800	699,145	818,628	697,839	
279,838	501,285	498,232	2,550,902	13,594,356	14,441,657	12,604,223	13,431,704	3
100,788	126,947	114,010	273,187	2,660,693	2,217,281	2,182,848	2,013,623	
Nil	Nil	Nil	Nil	5,927,162	6,602,157	4,494,749	6,241,883	4
–	–	–	–	10,196,464	11,147,651	8,605,052[2]	11,503,232	
Nil	Nil	Nil	Nil	3,260,887	3,607,966	4,622,138[2]	3,215,602	5
–	–	–	–	5,487,623	6,105,954	8,735,351[2]	5,775,938	
42,518	52,558	61,016	40,252	44,322	53,553	75,347	92,313	6
207,864	249,645	280,368	176,314	211,561	252,002	310,284	275,868	
384,764	500,546	543,419	574,180	19,242,458	20,440,887	20,663,829	20,281,515	
298,272	1,390,846	638,593	509,494	1,807,704	3,701,013	2,303,951	2,104,090	7
1,036,684	936,417	1,007,938	1,044,859	36,795,544	40,978,228	39,955,475	42,787,804	8
413,556	383,291	391,581	394,381	3,573,157	4,005,028	4,178,863	3,996,208	
163,335	235,367	209,909	194,998	845,829	936,718	848,367	794,553	9
54,922	15,547	25,115	48,262	37,148,787	40,620,874	37,980,035	39,046,899	10
6,338	3,625	5,486	9,406	8,153,748	9,348,409	9,846,850	9,598,848	
1,127,873	1,031,193	1,053,685	1,123,757	1,476,843	1,395,146	1,373,830	1,492,880	11
186,124	169,973	156,476	151,171	229,138	212,871	193,372	195,141	
690,595	325,289	486,263	324,244	1,509,175	1,300,092	1,416,845	1,154,692	12
155,017	98,711	148,031	70,536	436,912	392,096	416,335	322,845	
971,593	1,160,027	1,133,174	996,736	1,107,593	1,174,456	1,139,079	1,000,441	13
109,545	127,419	122,488	107,807	129,568	129,883	123,377	108,392	
19,822,571	25,543,867	31,299,235	33,603,102	72,143,851	88,605,608	93,827,579	83,966,349	
34	Nil	19	1	109,841	139,060	148,255[2]	146,868	14
457	–	145	25	795,516	917,041	779,859[2]	668,929	
[1]	[1]	2	Nil	70,252	77,427	84,117	76,412	15
–	–	24	–	273,100	274,935	291,265	265,884	
1	4	1	6	176,849	240,502	267,216[2]	276,509	16
9	33	10	23	2,293,061	2,137,814	812,582	413,702	
11	1,183	4,760	6,051	604,340	652,331	777,743[2]	747,725	17
46	14,005	66,931	88,446	3,719,490	3,448,351	4,236,130[2]	4,314,694	
137	6,079	6,822	4,016	1,007,548	1,009,666	1,016,100	898,377	18
1,435	21,145	74,230	92,741	8,392,380	8,094,533	7,429,632	6,805,490	
1,339,981	1,726,489	1,722,227[2]	1,022,763	1,757,319	2,023,197	2,070,675[2]	1,428,266	19
132,274	145,289	357,192	500,651	209,154	220,979	467,311	553,344	20
153,453	240,846	491,487	582,181	232,218	327,019	621,864	635,871	
5	Nil	19,672	Nil	255,976	155,387	219,857	82,526	21
50	–	118,275	–	1,476,823	912,191	1,201,644	330,904	
1,193,697	1,904,621	754,522	1,000,256	9,788,338	8,685,469	11,000,233	10,404,959	22
593,436	934,587	381,911	330,296	3,786,356	3,777,816	5,516,625	3,515,195	
22,816	Nil	1,217	6,727	566,500	652,960	732,168	816,959	23
184,747	–	8,367	17,273	3,329,721	3,888,640	4,098,048	3,208,101	
2,510,019	3,171,876	3,045,181	2,139,340	11,348,208	12,004,219	15,167,090	9,914,625	
199,679	228,439	265,255	250,415	844,593	837,588	1,001,989	889,464	24
12,211,949	10,002,961	10,927,770	6,925,467	56,915,391	62,546,059	78,791,841	62,617,210	25
1,559,105	1,859,083	2,062,479	1,028,035	6,736,561	10,310,668	14,729,016	8,987,960	
115,810	159,322	167,932	157,824	119,201	163,229	170,805	159,672	26
474,485	653,480	758,409	646,192	558,104	720,062	813,256	670,286	
137,112	139,508	211,277	195,205	181,905	220,383	342,874	319,644	27
3,397,346	4,181,685	5,060,912	3,554,575	9,400,819	13,284,292	18,445,286	12,105,836	

[1] None reported.

13.—Principal Imports into Canada for Consumption from United

No.	Item.		United Kingdom. 1936	1937.	1938.	1939.
	I. Agricultural and Vegetable Products—concluded.					
	B. Other than Food—concluded					
	Seeds—					
1	Flaxseed	bu	454	119	126	122
		$	1,955	396	762	620
2	Grass seed	lb.	69,300	34,154	48,483	32,744
		$	9,518	3,428	4,260	5,479
	Totals, Seeds[1]	$	206,173	208,699	443,433	127,624
	Tobacco—					
3	Tobacco, raw	lb.	66,587	67,950	176,995	164,035
		$	39,622	38,194	48,625	59,773
4	Tobacco, manufactured	lb.	95,928	104,879	109,690	98,416
		$	314,232	345,162	359,758	323,026
	Totals, Tobacco[1]	$	353,854	383,356	408,383	382,799
5	Broom corn	$	1,845	Nil	Nil	Nil
6	Turpentine, spirits of	gal.	819	280	251	563
		$	580	216	455	662
	Totals, B. Other than Food[1]	$	12,453,286	11,555,653	12,128,094	9,930,790
	Totals, Agricultural and Vegetable Products[1]	$	**18,007,399**	**17,923,553**	**18,505,686[2]**	**15,474,629**
	II. Animals and Animal Products.					
7	Animals, living	$	90,974	169,535	229,717	123,747
8	Bone, ivory, and shell products	$	63,945	80,116	108,549	92,654
9	Feathers and quills	$	26,190	36,064	56,120	31,154
	Fish—					
10	Fish, fresh	$	492	683	984	1,327
11	Fish, dried, salted, smoked	$	68,077	50,871	41,378	34,776
12	Fish, preserved or canned	$	48,286	65,934	55,340	44,830
	Totals, Fish[1]	$	116,855	117,488	97,702	80,933
	Furs—					
13	Furs, undressed	$	657,700	1,291,863	987,717	702,543
14	Furs, dressed	$	48,801	196,443	125,181	41,950
15	Hatters fur	$	122,330	130,622	157,385	102,166
	Totals, Furs[1]	$	845,699	1,631,091	1,317,572	875,314
16	Hair and bristles	$	23,431	37,446	49,841	9,819
17	Hides and skins, raw	cwt.	7,140	7,399	13,379	3,673
		$	80,994	85,184	157,665	37,509
	Leather, Unmanufactured—					
18	Glove leather	$	27,550	35,528	38,644	22,234
19	Tanned leather	$	121,992	86,336	186,800	105,780
20	Waxed or glazed leather	$	554,511	512,723	801,896	621,799
	Totals, Leather, Unmanufactured[1]	$	1,341,983	1,357,812	1,956,574	1,478,742
	Leather, Manufactured—					
21	Boots and shoes	pair	139,288	218,248	221,293	156,944
		$	260,379	331,486	371,705	310,147
22	Gloves and mitts	$	80,656	80,446	76,834	57,218
23	Harness and saddlery	$	56,441	64,883	85,568	69,684
	Totals, Leather, Manufactured[1]	$	529,699	618,956	684,960	557,698
	Meats—					
24	Canned meats	lb.	43,330	557,032	54,977	30,502
		$	10,824	54,686	16,958	12,446
25	Pork, in brine	lb.	Nil	Nil	Nil	Nil
		$	–	–	–	
	Totals, Meats[1]	$	219,745	254,707	145,217	150,039

[1] Totals include other items not specified.

[2] Revised since the publication of the 1939 Year Book.

Kingdom, United States, and All Countries, Fiscal Years 1936-39—continued.

United States.				All Countries.				No.
1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.	
141	218	19	211	797,917	1,145,166	1,324,483	631,100	1
352	557	60	517	876,505	1,435,637	1,781,127	769,476	
837,658	1,968,881	1,411,177	2,456,372	1,109,759	2,260,983	1,716,071	2,651,694	2
62,525	136,972	107,170	130,772	111,286	177,563	161,931	171,412	
312,003	388,072	391,032[2]	348,556	1,780,603	2,441,743	2,969,328[2]	1,462,895	
5,174,460	2,744,710	2,395,896	3,922,747	5,772,638	3,006,175	2,645,355[2]	4,527,565	3
1,555,889	838,172	878,792	1,420,514	2,069,117	1,051,510	994,984	1,853,969	
46,491	57,597	61,687	53,647	160,147	182,103	189,667	169,880	4
61,316	74,529	79,176	70,323	412,172	458,978	479,035	427,814	
1,617,205	912,701	957,968	1,490,837	2,481,289	1,510,488	1,474,019	2,281,783	
301,504	258,041	214,859	143,326	333,546	298,880	262,182	169,314	5
930,809	1,177,898	1,340,084	1,181,120	931,708	1,178,258	1,340,335	1,182,526	6
424,863	477,945	476,924	317,585	425,657	478,237	477,379	319,163	
11,137,189	12,723,955	14,816,330	10,884,339	38,198,681	42,794,609	52,507,827	37,300,174	
30,959,760	**38,267,822**	**46,115,565**	**44,487,441**	**110,342,532**	**131,400,217**	**146,335,406**	**121,266,523**	
540,394	547,565	1,099,118	1,219,490	696,998	812,702	1,402,697	1,406,109	7
136,761	163,342	152,534	146,450	374,038	386,812	404,082	334,653	8
55,283	72,048	57,554	77,952	128,138	161,460	170,573	156,091	9
298,406	336,557	324,691	469,189	462,813	623,802	735,688	912,684	10
41,970	41,654	36,576	40,906	307,806	293,061	255,078	300,192	11
183,983	207,831	233,269	249,956	955,334	1,164,548	1,019,418	1,112,826	12
524,359	586,042	594,536	760,051	1,725,953	2,081,411	2,010,184	2,325,702	
2,691,503	3,481,891	2,639,364	2,650,548	3,965,185	5,513,902	4,343,450	3,698,796	13
690,233	912,439	687,916	355,811	1,096,830	1,672,712	1,354,581	876,465	14
241,777	220,977	137,350	131,726	886,838	915,329	824,810	687,627	15
3,674,730	4,706,597	3,638,502	3,223,772	6,022,268	8,208,740	6,821,777	5,458,739	
466,095	527,528	664,290	386,448	528,570	711,151	818,982	474,171	16
142,021	165,394	116,107	105,526	404,708	381,128	356,870	277,844	17
1,541,221	2,105,281	1,706,310	1,048,503	4,519,627	5,253,091	5,457,361	3,236,395	
403,847	451,601	405,650	337,168	434,053	488,825	444,298	360,084	18
27,875	23,148	35,927	24,084	150,107	110,600	228,368	175,648	19
1,159,201	930,242	714,021	647,257	1,782,926	1,498,006	1,555,030	1,288,602	20
1,701,539	1,559,896	1,272,407	1,105,879	3,132,509	2,992,888	3,290,318	2,665,814	
117,908	134,023	170,206	402,086	316,472	475,300	552,016	703,298	21
348,482	372,912	442,193	791,647	677,162	836,513	998,933	1,271,468	
6,574	11,174	10,314	14,135	771,546	735,265	928,512	627,292	22
37,479	43,743	58,517	42,433	95,599	110,321	149,464	115,984	23
594,593	643,760	761,957	1,083,071	1,898,436	2,052,541	2,492,504	2,386,386	
69,889	158,509	106,163	56,475	12,315,651	12,112,526	11,843,511	10,240,554	24
8,537	16,083	12,044	9,066	578,245	601,422	669,947	630,566	
617,325	2,452,158	2,285,868	3,412,327	617,325	2,452,158	2,285,868	3,412,327	25
66,376	242,347	271,326	271,920	66,376	242,347	271,326	271,920	
147,957	349,533	410,294	924,601	964,164	1,147,349	1,260,157	1,798,249	

13.—Principal Imports into Canada for Consumption from United

No.	Item.		United Kingdom.			
			1936.	1937.	1938.	1939.
	II. Animals and Animal Products—concluded.					
	Milk and Its Products—					
1	Butter	lb.	8,032	49,112	901,276	70,100
		$	1,345	10,082	225,467	17,594
2	Cheese	lb.	47,353	61,035	48,818	41,051
		$	15,026	18,883	16,555	14,451
	Totals, Milk and Its Products[1]	$	21,312	35,175	246,474	33,642
	Oils, Fats, Greases—					
3	Fish oils	gal.	16,254	51,836	80,804	89,996
		$	32,288	82,844	129,846	133,745
4	Grease for soap and leather	cwt.	6,296	7,530	7,339	8,921
		$	20,915	28,045	25,157	28,736
5	Lard and compounds	lb.	17,516	6,551	4,077	1,833
		$	1,022	444	232	105
	Totals, Oils, Fats, Greases[1]	$	120,866	124,775	170,236	170,917
6	Eggs in the shell	doz.	29	296	273	88
		$	143	712	461	110
7	Eggs, *n.o.p.*	$	402	232	921	333
8	Gelatine, edible	lb.	614,734	868,231	892,238	901,877
		$	132,707	207,248	241,175	250,512
9	Sausage casings	$	4	94,040	21,438	104,972
	Totals, Animals and Animal Products[1]	$	**3,792,424**	**5,070,766**	**5,752,255**	**4,200,628**
	III. Fibres and Textiles.					
	Cotton and Its Products—					
10	Cotton, raw	lb.	73,031	138,835	356,007	190,100
		$	14,131	25,612	58,055	22,288
11	Cotton linters	lb.	43,644	55,811	Nil	Nil
		$	3,090	1,925	–	–
12	Cotton yarn	lb.	4,707,644	4,741,903	4,910,080	4,039,365
		$	2,324,179	2,458,341	2,763,071	2,101,200
13	Fabrics, bleached	lb.	1,397,226	1,427,376	911,228	618,991
		$	682,013	676,661	509,096	338,782
14	Fabrics, unbleached	lb.	2,678,185	2,780,595	3,904,064	2,510,657
		$	810,584	927,044	1,501,219	844,703
15	Fabrics, piece-dyed	lb.	3,380,584	3,609,819	3,067,073	2,456,819
		$	1,750,219	1,829,766	1,740,248	1,392,929
16	Fabrics, yarn-dyed	lb.	735,444	865,476	901,945	764,079
		$	394,902	475,338	546,412	466,087
17	Fabrics, printed	lb.	2,012,025	1,980,096	1,395,135	1,370,440
		$	1,105,865	1,055,251	843,645	795,096
18	Velveteens and corduroys	lb.	509,388	445,546	78,980	29,476
		$	461,114	428,285	78,043	25,913
19	Embroideries	$	144,114	131,918	160,304	63,954
20	Handkerchiefs	$	459,653	415,605	465,504	388,458
21	Lace	$	452,555	409,196	281,872	192,671
22	Wearing apparel	$	269,294	326,802	373,016	312,651
	Totals, Cotton and Its Products[1]	$	10,794,963	11,253,443	12,017,666	9,259,010
	Flax, Hemp, and Jute—					
23	Hemp, dressed or undressed	cwt	Nil	Nil	Nil	Nil
		$	–	–	–	–
24	Flax, hemp, and jute yarn	lb	4,455,585	4,545,503	4,239,512	3,167,311
		$	514,448	639,516	633,920	508,085
25	Linen thread	lb.	322,029	256,090	250,245	203,806
		$	309,784	251,122	246,534	201,723
26	Fabrics of flax or hemp	$	1,024,614	1,078,495	1,034,910	860,504
27	Fabrics of jute	yd.	5,180,098	4,231,855	5,075,979	3,431,028
		$	445,882	418,117	507,596	333,314
28	Handkerchiefs	$	462,377	478,128	482,959	370,273
29	Towels	$	180,398	157,017	167,450	132,316
	Totals, Flax, Hemp, and Jute[1]	$	4,066,803	4,331,836	4,606,524	3,574,919

[1] Totals include other items not specified.

[2] Revised since the publication of the 1939 Year Book.

Kingdom, United States, and All Countries, Fiscal Years 1936-39—continued.

United States.				All Countries.				No.
1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.	
68,229	57,048	10,723	7,572	164,923	112,745	4,914,890	347,155	1
18,686	17,409	3,705	2,090	39,746	29,368	1,323,543	96,454	
151,962	176,472	82,217	94,118	1,292,169	1,346,897	1,326,491	1,388,723	2
53,713	53,169	24,975	25,694	326,886	331,031	315,377	316,524	
88,748	98,631	103,284	50,743	395,864	407,324	1,767,419	463,054	
42,996	100,100	68,688	72,164	346,221	449,007	411,311	333,177	3
47,295	158,123	130,216	144,984	259,594	435,965	457,185	400,194	
69,584	46,269	16,023	12,506	111,960	80,615	138,304	88,032	4
483,865	287,517	122,786	73,251	702,583	444,027	731,656	331,193	
27,716	236,107	61,603	108,884	728,560	485,761	515,635	167,125	5
3,647	18,254	7,665	11,585	59,275	33,081	32,155	13,728	
827,562	564,289	312,282	271,984	1,493,990	1,214,029	1,511,029	930,590	
94,564	37,249	16,656	25,856	101,602	51,647	27,010	43,422	6
29,786	18,858	9,032	12,805	32,434	24,499	13,072	19,018	
41,252	69,206	75,353	51,373	50,716	89,377	76,864	51,801	7
182,601	185,642	73,403	51,560	2,113,026	2,221,834	2,244,658	2,080,388	8
89,082	96,511	28,148	19,945	501,285	519,189	500,576	474,347	
189,465	50,873	39,698	17,305	1,178,476	915,525	1,217,608	1,161,560	9
10,973,245	**12,659,575**	**11,621,353**	**11,039,471**	**24,314,220**	**27,863,224**	**30,399,795**	**24,399,286**	
131,352,641	143,748,459	148,520,301	114,741,709	136,555,504	147,836,584	151,361,351	119,495,894	10
16,402,279	19,257,365	16,957,618	10,717,011	17,209,869	19,905,775	17,444,618	11,311,409	
5,604,362	5,689,292	8,201,050	9,713,865	5,849,244	6,194,830	8,506,126	9,898,373	11
323,301	331,923	395,595	321,351	338,557	357,352	414,262	335,758	
378,235	354,772	887,829	893,940	5,098,482[2]	5,117,518	5,821,857[2]	4,951,643	12
220,619	204,322	402,406	390,380	2,563,673	2,679,451	3,186,667	2,504,708	
410,704	436,183	146,391	189,557	1,829,750	1,897,520	1,089,835	835,446	13
217,454	211,537	78,898	94,286	928,676	918,998	625,670	453,829	
2,408,621	3,571,267	3,669,184	2,720,819	5,091,807	6,360,392	7,593,770	5,311,333	14
582,270	971,099	1,046,751	597,180	1,398,396	1,902,333	2,555,591	1,460,171	
831,107	1,025,063	1,173,853	680,684	5,044,944	5,643,255	5,222,604	3,480,397	15
534,197	645,983	691,255	404,592	2,662,660	2,910,018	2,875,876	1,948,025	
232,533	296,698	350,635	364,020	1,240,762	1,593,738	2,058,827	1,778,742	16
131,999	180,461	211,385	168,172	659,030	842,030	1,100,884	891,087	
394,840	565,161	951,186	816,662	2,528,904	2,672,659	2,550,798	2,274,063	17
311,266	424,847	632,371	477,636	1,488,849	1,549,964	1,598,250	1,321,364	
33,476	47,241	52,409	77,429	594,661	716,305	572,525	573,408	18
33,165	45,552	50,435	63,265	527,277	584,804	349,258	303,293	
17,563	59,431	63,568	85,282	242,464	231,060	276,678	221,217	19
8,951	15,738	8,309	15,024	599,435	609,771	701,322	643,285	20
24,567	22,656	17,942	12,460	545,571	519,193	381,276	265,942	21
242,694	391,050	431,296	636,083	1,213,638	1,341,304	1,484,943	1,520,879	22
19,986,613	23,935,467	22,201,613	15,988,022	33,572,292	38,087,820	37,513,086	28,282,770	
2,404	1,876	3,142	3,927	19,324	47,848	9,590	15,696	23
34,084	17,141	35,466	26,611	102,585	348,682	80,685	72,473	
90,888	234,845	164,377	68,865	4,692,048	4,986,469	4,785,197	3,752,863	24
18,272	43,617	36,884	19,376	554,673	705,223	723,022	582,247	
932	1,476	2,178	2,275	323,145	261,280	258,339	210,754	25
1,127	1,956	2,917	2,815	311,231	253,803	252,983	207,351	
15,521	23,574	29,202	19,692	1,047,646	1,107,322	1,087,630	907,760	26
477,808	332,291	46,653	189,875	80,574,104	99,891,079	104,486,872	86,160,092	27
21,743	16,464	2,499	8,570	3,297,923	3,611,946	3,872,285	2,832,977	
2,188	2,282	3,006	3,549	582,990	613,201	592,104	493,126	28
950	4,639	2,866	1,308	192,704	199,243	224,861	173,644	29
510,733	674,244	714,668	669,728	8,423,237	9,526,053	10,293,829	7,981,962	

13.—Principal Imports into Canada for Consumption from United

No.	Item.		United Kingdom.			
			1936.	1937.	1938.	1939.
	III. Fibres and Textiles—concluded.					
	Silk and Its Products—					
1	Silk, raw	lb.	Nil	Nil	6,775	2,012
		$	–	–	11,627	3,354
2	Velvets and plushes	$	34,847	24,325	37,014	16,617
3	Other silk fabrics	$	99,430	137,982	142,517	109,232
4	Wearing apparel	$	134,514	154,243	146,277	133,298
	Totals, Silk and Its Products[1]	$	416,080	513,988	683,424	343,411
	Wool and Its Products—					
5	Wool, raw	lb.	6,617,868	6,582,608	4,429,243	4,098,086
		$	1,624,398	1,990,866	1,752,192	1,169,037
6	Noils	lb.	701,616	701,923	584,784	429,060
		$	305,535	392,157	334,617	214,098
7	Worsted tops	lb.	10,290,698	10,515,116	8,510,740[2]	8,688,323
		$	4,585,797	5,518,984	5,194,800[2]	4,170,062
8	Woollen yarn	lb.	3,363,525	3,423,436	3,520,293	2,780,938
		$	2,587,173	2,840,345	3,166,808	2,222,431
9	Carpets and rugs	$	200,812	287,785	363,314	373,462
10	Dress goods to be dyed	lb.	1,330,830	1,334,920	1,409,040	1,079,849
		$	1,363,558	1,437,263	1,686,906	1,204,218
11	Overcoatings	lb.	812,028	1,180,008	1,628,272	811,805
		$	710,011	1,055,450	1,666,168	821,137
12	Tweeds	lb.	1,366,002	1,436,403	1,172,130	971,886
		$	1,227,214	1,339,839	1,182,004	955,581
13	Worsteds and serges	lb.	3,403,409	4,087,034	4,823,353	4,249,942
		$	3,942,599	4,814,633	6,279,711	5,409,620
14	Blankets	lb.	548,381	790,653	689,436	626,845
		$	250,127	411,740	420,441	367,976
15	Socks and stockings	doz. pair	91,520	109,644	126,220	122,262
		$	357,127	439,031	529,513	487,457
16	Other wearing apparel	$	900,707	1,081,521	1,026,676	819,871
	Totals, Wool and Its Products[1]	$	19,785,339	23,184,795	25,410,274[2]	19,666,186
	Silk, Artificial—					
17	Silk yarn, artificial	lb.	445,949	996,624	1,364,384	2,197,966
		$	337,469	685,395	893,425	827,733
18	Fabrics, artificial silk	$	469,951	980,955	1,256,110	1,182,352
	Totals, Artificial Silk[1]	$	892,689	1,770,466	2,259,611	2,084,390
19	Fibre, manila	cwt.	Nil	Nil	Nil	Nil
		$	–	–	–	–
20	Fibre, sisal, istle, etc	cwt.	3,595	1,336	1,694	7,762
		$	14,084	8,706	17,675	31,376
21	Binder twine	cwt.	90,080	111,355	75,582	77,439
		$	567,701	921,127	648,452	582,733
22	Fishing lines	$	1,004,407	1,158,354	1,278,082	1,086,864
23	Gloves	$	179,616	152,576	154,701	112,568
24	Hats and caps	$	220,522[2]	270,871	261,865	230,859
25	Oilcloth	lb.	2,367,755	3,010,520	4,034,359	4,085,898
		$	216,713	278,356	390,562	372,743
26	Rags and waste	cwt.	54,584	62,900	54,146	20,029
		$	344,682	485,486	460,828	202,307
27	Surgical dressings	$	230,386	187,463	210,273	152,443
	Totals, Fibres and Textiles[1]	$	**40,594,719**	**46,633,288**	**50,679,714**[2]	**39,468,667**
	IV. Wood, Wood Products, and Paper.					
	Wood, Unmanufactured—					
28	Logs	M ft.	Nil	Nil	Nil	Nil
		$	–	–	–	
29	Railroad ties	No.	Nil	Nil	90	Nil
		$	–	–	210	–
30	Lumber	M ft.	8	24	78	33
		$	2,191	3,331	9,212	8,572
31	Veneers	$	5,862	5,374	9,721	7,208
	Totals, Wood, Unmanufactured[1]	$	9,783	10,531	23,070	18,521

[1] Totals include other items not specified.

[2] Revised since the publication of the 1939 Year Book

Kingdom, United States, and All Countries, Fiscal Years 1936-39—continued.

United States.				All Countries.				No.
1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.	
2,878,284	2,191,196	2,369,001	2,449,167	3,001,902	2,318,030	2,457,274	2,488,075	1
4,904,668	4,062,250	4,416,057	4,422,627	5,115,544	4,295,726	4,608,688	4,499,278	
298,921	271,266	157,566	179,085	577,332	465,319	325,027	349,227	2
365,168	464,520	390,804	354,876	1,287,443[3]	1,281,543	1,308,724	1,117,788	3
371,984	419,163	326,241	257,054	649,718	732,095	660,168	517,771	4
6,123,129	5,395,986	5,546,439	5,405,037	8,066,547	7,311,657	7,716,332	6,897,170	
3,274	3,336	4,785	2,531	19,219,073	23,771,236	21,358,266	15,582,118	5
2,306	1,839	2,992	2,029	3,969,519	6,476,705	7,379,315	3,784,320	
Nil	438	Nil	Nil	780,671	999,193	683,188	565,694	6
-	233	-	-	326,624	485,704	374,292	247,787	
873	6,615	Nil	377	12,966,686	12,480,068	10,047,388	10,435,431	7
777	6,267	-	298	5,844,162	6,616,297	6,168,942	5,062,227	
4,533	8,817	3,479	6,202	3,380,525	3,449,483	3,563,624[2]	2,845,377	8
7,927	13,699	4,869	8,400	2,637,026	2,899,099	3,252,713	2,353,577	
21,681	57,106	26,177	13,311	557,486	709,740	919,935	793,820	9
Nil	Nil	63	Nil	1,343,716	1,339,889	1,413,738	1,088,729	10
-	-	141		1,376,227	1,443,330	1,694,068	1,213,086	
380	488	1,042	43	830,557	1,188,439	1,674,005	830,887	11
647	750	1,599	86	733,315	1,073,369	1,725,385	838,620	
739	186	527	118	1,383,125	1,440,600	1,179,583	973,273	12
1,835	599	1,376	333	1,254,583	1,348,461	1,192,686	958,266	
3,267	3,647	1,293	1,872	3,441,185	4,129,775	4,946,946	4,309,618	13
8,544	10,318	3,518	4,085	4,027,717	4,902,746	6,458,868	5,504,393	
2,147	2,182	5,123	4,188	551,002	793,699	694,925	634,178	14
2,931	2,006	4,519	3,755	253,543	414,495	425,439	374,012	
193	259	116	57	92,749	110,871	127,225	123,108	15
794	1,060	760	477	364,090	445,230	536,193	492,326	
119,397	141,329	135,015	164,224	1,101,207	1,303,831	1,235,548	1,034,786	16
270,674	381,279	318,869[2]	278,555	24,460,824	30,152,054	33,647,081	24,455,900	
300,550	127,738	101,418	259,803	1,078,504	1,410,756	1,829,438	3,561,107	17
195,671	112,051	98,938	172,153	670,349	919,844	1,209,343	1,441,590	
247,714	369,445	380,566	391,938	863,328	1,670,480	1,978,150	1,816,630	18
659,127	870,219	998,927	1,284,729	1,945,377	3,186,546	3,955,233	4,212,772	
10,718	2,315	13,221	19,916	99,525	33,823	73,199	34,434	19
38,509	14,039	130,787	104,461	467,341	214,422	574,861	162,784	
226,329	251,211	188,957	290,497	524,171	551,985	332,708	408,754	20
765,502	1,243,910	1,037,442	1,182,350	1,950,718	2,885,450	1,781,299	1,638,729	
8,632	506	3,543	1,706	266,363	266,692	116,702	196,156	21
59,389	3,947	29,129	13,353	1,654,697	2,019,374	955,422	1,268,888	
274,148	297,378	282,247	260,979	1,379,865	1,562,467	1,700,598	1,470,639	22
7,860	14,597	18,658	32,565	460,313	527,426	502,403	421,521	23
194,176	237,564	232,663	233,446	515,015	595,671	601,654	546,009	24
347,963	1,497,435	1,725,710	1,221,906	2,716,354	4,511,565	5,808,713	5,346,542	25
60,368	200,927	273,709	172,885	277,270	479,418	666,871	547,195	
317,798	366,282	386,027	254,555	442,112	523,558	518,897	333,198	26
1,344,854	1,712,602	1,751,019	1,166,705	2,041,364	2,814,478	2,790,925	1,747,417	
34,823	36,792	43,913	53,806	268,518	227,400	256,377	208,599	27
32,094,435	37,176,542	36,140,269[2]	29,375,662	89,814,164	104,811,304	108,932,093	84,984,145	
8,973	4,861	7,595	28,558	9,075	4,865	7,598	28,558	28
158,581	88,425	123,603	509,485	160,796	88,571	123,783	509,485	
187,064	188,521	309,881	204,998	187,064	188,521	309,971	204,998	29
251,294	256,368	403,976	282,324	251,294	256,368	404,186	282,324	
73,153	100,208	113,235	69,993	73,630	100,661	113,903	71,040	30
2,865,014	3,964,469	4,396,835	2,904,530	2,897,853	3,995,014	4,459,866	2,969,414	
512,844	512,670	449,529	363,086	546,166	563,230	506,744	402,586	31
4,169,457	5,204,280	6,067,762	4,610,392	4,307,124	5,408,587	6,302,515	4,786,947	

13.—Principal Imports into Canada for Consumption from United

No	Item.		United Kingdom.			
			1936.	1937.	1938.	1939.
	IV. Wood, Wood Products, and Paper—concl.					
	Wood, Manufactured—					
1	Cork manufactures	$	64,823	72,220	60,543	44,451
2	Furniture	$	104,085	140,713	154,010	99,232
3	Staves	$	Nil	Nil	Nil	Nil
4	Wood-pulp	cwt.	200	"	"	9
		$	809	–	–	54
	Totals, Wood, Manufactured[1]	$	247,255	288,206	328,576	242,287
	Paper—					
5	Boxes and containers	$	31,136	45,081	54,834	28,635
6	Paper board	lb.	601,511	526,596	591,398	433,361
		$	46,589	53,334	64,265	45,415
7	Printing paper	lb.	2,049,729	1,924,999	1,707,393	1,168,147
		$	153,961	145,921	152,514	116,467
8	Wrapping paper	lb.	547,809	443,692	503,368	440,076
		$	33,009	23,090	43,901	31,091
	Totals, Paper[1]	$	1,101,114	1,208,352	1,365,379	1,104,223
	Books and Printed Matter—					
9	Advertising pamphlets, etc	lb.	384,537	446,526	444,352	395,572
		$	160,995	160,200	173,981	160,921
10	Bibles, prayer books, etc	$	121,527	106,678	107,838	265,518
11	Newspapers and magazines	$	340,083	394,465	364,779	346,876
12	Photographs, chromos, etc	$	55,556	65,373	66,186	59,753
13	Text books	$	408,839	468,430	523,859	427,364
	Totals, Books and Printed Matter[1]	$	2,155,244	2,254,729	2,235,682	2,204,552
	Totals, Wood, Wood Products, and Paper[1]	$	**3,513,396**	**3,761,818**	**3,952,707**	**3,569,583**
	V. Iron and Its Products.					
14	Iron ore	ton	288	Nil	Nil	14,722
		$	3,837	–	–	42,598
15	Pigs, ingots, etc	cwt.	106,422	182,801	87,328	2,967
		$	115,129	236,497	199,775	34,567
16	Scrap iron and steel	ton	15	3	82	Nil
		$	41	15	1,208	–
17	Castings and forgings	$	512,606	502,614	637,499	624,269
	Rolling-Mill Products—					
18	Band and hoop	cwt.	43,703	43,588	32,858	12,881
		$	251,189	343,727	421,481	263,041
19	Bars, including rails	cwt.	91,697	104,296	158,270	66,209
		$	585,755	719,366	1,183,912	532,007
	Plates and Sheets—					
20	Plates	cwt.	157,302	194,867	295,135	48,161
		$	326,961	421,950	732,495	124,141
21	Sheets, galvanized	cwt.	163,553	175,348	212,821	36,676
		$	530,183	586,059	942,784	168,389
22	Sheets for galvanizing	cwt.	130,955	175,547	195,334	66,026
		$	319,528	496,253	564,293	233,597
23	Sheets for tinning	cwt.	204,401	219,060	53,791	Nil
		$	602,033	644,396	163,035	–
24	Sheets, other	cwt.	476,989	340,533	377,027	70,413
		$	1,285,702	977,970	1,439,115	281,841
25	Skelp	cwt.	21,918	21,316	12,299	2,627
		$	47,228	41,830	32,283	7,458
26	Tin plate	cwt	1,537,085	1,642,049	1,824,476	1,077,982
		$	7,511,760	8,001,612	11,392,103	6,092,162
	Totals, Plates and Sheets[1]	cwt.	2,692,203	2,768,720	2,970,883	1,301,885
		$	10,623,395	11,170,070	15,266,108	6,907,588
27	Structural iron and steel	ton	14,234	6,152	3,856	1,861
		$	502,149	247,743	185,916	104,524
	Totals, Rolling-Mill Products[1]	$	11,962,488	12,480,906	17,057,417	7,808,064

[1] Totals include other items not specified.

[2] Revised since the publication of the 1939 Year Book.

Kingdom, United States, and All Countries, Fiscal Years 1936-39—continued.

United States.				All Countries.				No.
1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.	
192,007	286,667	378,567	350,920	456,646	650,013	846,029	735,531	1
364,021	746,446	819,599	723,621	564,988	971,243	1,102,192	918,338	2
200,222	223,338	226,783	217,399	200,222	223,338	226,825	217,399	3
314,561	403,264	392,730	372,543	325,737	403,522	392,730	372,552	4
510,459	650,385	657,417	616,755	529,926	651,070	657,417	616,809	
2,394,086	3,296,132	3,921,252	3,392,176	3,092,684	4,128,282	4,974,550	4,239,406	
222,312	377,071	432,702	421,784	265,142	437,366	501,019	459,785	5
13,476,995	16,881,467[2]	21,168,445	32,157,492	14,753,408	18,336,454	22,422,289	33,389,299	6
563,254	756,658	977,455	1,123,004	635,130	843,300	1,075,902	1,204,516	
4,676,617	4,505,664	4,553,519	5,573,668	7,957,532	7,958,828	7,519,147	7,829,415	7
434,276	489,678	508,002	522,201	680,612	745,919	760,226	721,005	
2,931,551	2,423,378	2,420,608	3,110,411	4,199,465	4,073,765	3,735,062	4,017,734	8
265,596	259,126	283,789	310,360	335,291	347,620	380,691	375,491	
4,015,053	4,955,607	5,706,905	5,642,855	5,989,251	7,060,499	7,984,806	7,575,317	
2,298,716	3,113,735	3,268,824	3,125,343	2,743,154	3,625,522	3,793,014	3,605,424	9
942,706	1,323,319	1,463,450	1,416,758	1,130,453	1,511,322	1,671,549	1,607,007	
135,160	131,889	143,893	170,689	365,260	362,783	406,962	589,296	10
2,927,171	4,507,233	6,261,241	6,427,149	3,275,745	4,910,045	6,640,616[2]	6,790,298	11
249,964	284,144	337,193	380,506	321,304	365,431	417,973	458,771	12
478,969	576,309	758,526	747,795	977,527	1,128,442	1,376,765	1,263,110	13
7,284,803	9,604,884	12,134,229	12,543,270	9,882,572	12,330,352	14,959,310	15,340,194	
17,863,399	**23,060,903**	**27,830,148**	**26,188,693**	**23,271,631**	**28,927,720**	**34,221,181**	**31,941,864**	
764,262	751,182	1,418,079	635,879	1,431,111	1,325,195	2,174,559	1,247,128	14
1,572,932	1,584,701	3,398,761	1,554,891	2,829,987	2,638,731	4,817,841	2,735,091	
238,019	136,940	310,356	179,128	395,394	323,963	421,335	188,103	15
474,392	411,028	773,433	412,566	661,854	662,695	1,131,268	530,439	
101,051	70,062	169,837	97,648	101,997	72,670	173,753	100,925	16
600,822	613,129	1,971,054	826,521	607,406	629,739	2,012,815	853,752	
1,818,245	1,557,108	2,617,257	1,875,216	2,331,413	2,065,465	3,255,655	2,499,730	17
538,495	691,539	679,631[2]	546,205	603,394	759,575	742,599[2]	578,794	18
1,913,035	2,492,736	2,830,936[2]	2,100,651	2,283,478	2,969,961	3,447,155[2]	2,495,378	
548,595	801,335	695,967	429,185	737,996	1,025,690	999,607	577,711	19
1,487,210	2,092,837	2,411,320	1,494,827	2,358,703	3,211,601	4,209,245	2,382,322	
187,632	328,079	763,210	283,449	360,910	537,815	1,063,695	335,210	20
422,781	760,650	2,018,872	773,639	774,994	1,209,709	2,766,771	907,130	
87,032	74,713	113,370	93,647	258,504	278,976	339,228	131,261	21
333,014	305,255	510,485	416,476	883,923	969,651	1,505,262	589,166	
5,767	334	6,282	4,430	136,722	175,881	201,616	70,456	22
13,901	1,970	20,539	13,986	333,429	498,223	584,832	247,583	
13,115	1,077	187,421	Nil	217,516	220,137	241,212	Nil	23
45,854	3,674	646,654	–	647,887	648,070	809,689	–	
1,261,847	1,616,725	1,888,963	1,208,619	1,785,689	2,015,705	2,295,803	1,300,594	24
3,633,281	4,785,758	6,449,424	3,904,107	5,017,865	5,886,662	7,987,016	4,260,398	
1,450,979	1,669,658	1,612,800[2]	1,274,214	1,735,994	1,971,208	1,848,783[2]	1,467,022	25
2,590,297	3,089,089	3,506,902[2]	2,561,142	2,955,046	3,452,541	3,952,702[2]	2,875,876	
64,220	399,027	500,372	308,600	1,603,517	2,042,112	2,325,056	1,386,650	26
313,755	1,974,405	2,484,105	1,676,406	7,840,011	9,980,990	13,877,823	7,769,133	
3,070,592	4,089,613	5,072,418[2]	3,172,959	6,098,852	7,241,834	8,315,393[2]	4,691,193	
7,352,883	10,920,801	15,636,981[2]	9,345,756	18,453,155	22,645,846	31,484,095[2]	16,649,286	
26,519	48,408	61,165	36,228	44,466	59,727	70,797	39,937	27
1,075,319	2,055,484	3,101,853	1,727,079	1,674,505	2,441,041	3,499,757	1,905,196	
11,851,580	17,597,625	24,123,771	14,696,323	24,805,933	31,351,446	42,895,952	23,482,193	

13.—Principal Imports into Canada for Consumption from United

No.	Item.		United Kingdom.			
			1936.	1937.	1938.	1939.
	V. Iron and Its Products—concluded.					
	Tubes and Pipes—					
1	Boiler tubes	$	183,113	171,047	309,182	178,506
2	Seamless tubing, 5c. per lb. and over	$	111,211	148,494	269,910	198,223
3	Wrought or seamless tubing	$	61,679	289,949	64,460	102,831
4	Fittings for pipe	$	251	961	13,879	6,130
	Totals, Tubes and Pipes[1]	$	362,708	617,087	663,095	497,134
5	Wire	$	1,057,495	1,308,138	1,509,693	897,235
6	Chains	$	120,056	134,608	216,856	174,999
	Engines and Boilers—					
7	Automobile engines	No	5	22	13	3
		$	5,489	14,067	34,982	15,827
8	Marine engines	No.	9	4	19	12
		$	5,875	3,821	14,651	22,901
9	Engines, diesel and parts	No.	424	422	330[2]	390
		$	566,714	734,359	658,167	622,953
10	Other internal combustion engines	No.	485	745	480	80
		$	23,549	27,319	30,801	14,728
	Totals, Engines and Boilers[1]	$	759,976	1,005,447	1,484,136	1,807,608
	Farm Implements—					
11	Traction engines (farm)	No.	23	94	629	640
		$	12,271	47,407	374,694	348,889
12	Traction engine parts	$	15,632	27,133	45,481	45,964
	Totals, Farm Implements[1]	$	214,607	263,160	639,048	591,205
	Hardware and Cutlery—					
13	Cutlery	$	591,724	596,043	526,009	446,484
14	Needles and pins	$	269,369	279,140	286,068	246,592
15	Nuts and washers	$	7,949	11,675	10,780	13,657
	Totals, Hardware and Cutlery[1]	$	926,544	938,615	875,823	749,355
	Machinery—					
16	Adding machines	$	34	Nil	1,160	272
17	Air-compressing machinery	$	66,914	57,138	92,759	67,192
18	Cranes and derricks	$	5,805	45,728	90,146	46,792
19	Logging equipment	$	181	2,630	175	15,964
20	Metal-working machinery	$	170,452	228,982	288,552	345,545
21	Mining machinery	$	548,317	462,741	632,551	466,650
22	Paper-mill machines	$	26,516	27,728	51,557	9,642
23	Printing presses	$	119,635	169,532	261,293	141,465
24	Pumps, power	$	26,901	40,324	31,187	40,942
25	Sewing machines	$	118,054	98,584	124,108	118,210
26	Textile machinery	$	554,384	511,088	1,155,170	976,924
27	Typewriting machines	$	6,409	5,974	13,965	12,468
28	Washing machines	$	Nil	218	169	39
	Totals, Machinery[1]	$	2,476,531	2,776,280	4,280,055[2]	3,706,869
29	Stamped and coated products	$	184,073	169,244	233,403[2]	162,180
30	Tools	$	346,401	368,079	484,512	385,308
	Automobiles and Parts—					
31	Freight	No.	94	123	86	47
		$	95,022	149,277	89,972	22,975
32	Passenger	No.	394	1,003	1,140	639
		$	257,735	622,624	754,907	361,981
33	Parts	$	125,734	185,386	172,913	111,135
	Totals, Automobiles and Parts	$	478,491	957,287	1,017,792	496,091
34	Railway cars and parts	$	14,274	14,524	14,739	14,322
35	Drums, tanks, cylinders	$	26,256	11,516	17,491	22,498
36	Furniture	$	6,461	13,972	44,715	41,215
37	Stoves (except electric)	$	2,614	12,656	40,413	58,275
38	Stoves and furnaces, electric	$	5,321	8,373	9,352	16,273
39	Valves	$	26,370	54,887	73,595	44,929
	Totals, Iron and Its Products[1]	$	**20,551,388**	**23,033,333**	**31,084,817**	**19,776,793**

[1] Totals include other items not specified.

[2] Revised since the publication of the 1939 Year Book.

Kingdom, United States, and All Countries, Fiscal Years 1936-39—continued.

United States.				All Countries.				No.
1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.	
274,421	302,653	470,890	392,511	476,289	494,873	819,229	593,243	1
239,435	285,099	361,284	214,168	350,942	436,030	643,223	413,226	2
232,170	285,816	343,249	254,285	294,048	577,224	414,964	366,218	3
213,487	297,658	495,128	398,485	213,830	299,537	512,233	406,770	4
1,058,793	1,273,788	1,782,933	1,353,166	1,446,251	1,928,253	2,546,223	1,902,843	
278,741	354,759	788,461	388,324	1,363,451	1,744,961	2,386,138	1,335,684	5
258,668	273,706	385,847	311,546	389,502	442,870	644,829	515,766	6
27,389	46,264	41,277	8,005	27,394	46,287	41,290	8,008	7
5,242,396	4,530,159	4,147,559	1,956,617	5,249,292	4,544,889	4,182,937	1,972,507	
529	676	783	774	553	686	818	791	8
190,512	221,095	230,222	148,728	202,523	227,221	264,475	175,083	
107	159	222[2]	146	606	637	613	576	9
365,099	543,311	898,923	655,520	1,120,397	1,424,374	1,822,691	1,621,934	
6,405	8,946	10,146	8,911	6,894	9,692	10,630	8,999	10
525,131	679,397	843,924	652,684	551,179	707,989	876,312	672,223	
7,272,560	7,502,600	9,093,457	4,969,991	8,240,278	8,663,262	10,872,390	7,132,507	
2,664	6,148	14,312	11,745	2,704	6,255	14,947	12,408	11
2,192,178	5,573,081	12,056,336	9,278,060	2,216,719	5,633,049	12,441,955	9,643,421	
1,580,654	2,090,350	2,805,121	3,089,522	1,602,687	2,124,530	2,857,219	3,140,798	12
5,712,752	10,141,308	18,181,100	17,041,017	6,182,218	10,803,750	19,245,768	18,079,948	
207,813	268,733	320,923	329,221	1,055,464	1,145,193	1,137,793	1,015,228	13
88,092	103,215	110,267	100,908	382,681	413,489	434,210	384,013	14
351,311	241,044	274,927	161,261	360,496	253,210	286,262	176,090	15
1,155,711	1,119,692	1,178,331	1,012,578	2,412,822	2,437,225	2,476,783	2,122,906	
876,876	1,173,922	1,144,736	1,106,715	892,734	1,189,215	1,181,460	1,137,593	16
310,982	461,690	697,227	836,797	378,279	519,012	794,953	907,536	17
88,367	305,420	605,651	300,332	98,544	351,148	696,971	347,124	18
458,472	628,666	747,117	487,214	473,572	638,066	755,532	523,660	19
2,196,866	3,845,379	6,794,640	3,371,774	2,397,248	4,128,244	7,189,159	3,808,523	20
1,715,217	3,088,289	6,032,680	4,609,245	2,301,847	3,615,416	6,711,009	5,125,050	21
292,399	398,299	397,700	248,938	363,931	473,887	532,963	280,618	22
736,367	1,115,996	1,675,643	870,912	903,287	1,352,574	2,037,505	1,073,487	23
360,622	547,804	752,083	604,620	392,168	589,234	784,847	652,433	24
320,634	410,553	463,996	426,548	452,815	525,725	602,164	553,628	25
2,371,642	2,691,075	3,572,129	2,791,077	3,216,411	3,376,720	5,021,025	3,975,005	26
147,930	163,686	202,103	141,757	155,240	178,765	231,148	164,332	27
272,314	520,575	702,839	635,132	272,354	520,793	703,008	635,171	28
18,562,224	27,403,682	42,667,842	30,607,752	21,914,192	31,086,819	48,368,499[2]	35,286,756	
949,891	1,243,829	1,405,360	1,327,624	1,181,796	1,478,720	1,724,676[2]	1,548,253	29
960,631	1,393,674	1,658,606	1,316,669	1,645,416	2,156,538	2,625,960	2,090,617	30
994	2,228	2,262	1,605	1,091	2,354	2,348	1,654	31
837,026	1,912,256	2,400,484	1,972,914	939,896	2,063,583	2,490,456	1,996,307	
3,055	9,950	15,774	12,521	3,451	10,953	16,945	13,176	32
2,106,130	7,723,895	12,385,856	10,766,186	2,364,932	8,346,519	13,154,005	11,134,955	
22,580,553	27,180,371	29,532,173	23,322,612	22,706,931	27,379,705	29,725,252	23,455,938	33
25,523,709	36,816,522	44,318,513	36,061,712	26,011,759	37,789,807	45,369,713	36,587,200	
323,313	359,756	1,040,022	486,433	339,152	374,280	1,056,993	500,755	34
197,145	335,046	480,700	321,852	244,580	363,168	513,079	363,709	35
208,996	470,763	471,167	465,010	221,647	496,305	530,551	517,691	36
493,514	820,375	1,035,897	1,183,062	500,461	840,688	1,084,063	1,250,227	37
254,335	389,115	450,840	447,486	259,919	398,313	461,123	464,499	38
281,108	391,176	585,226	422,988	307,696	446,070	664,037	468,581	39
88,428,437	**121,742,147**	**170,603,311**	**128,575,710**	**114,253,715**	**150,239,139**	**209,236,711**	**154,056,578**	

13.—Principal Imports into Canada for Consumption from United

No.	Item.		United Kingdom.			
			1936.	1937.	1938.	1939.
	VI. Non-Ferrous Metals.					
	Aluminium—					
1	Alumina, bauxite, and cryolite	cwt.	337,436	189,342	322	841
		$	861,254	381,354	1,286	1,870
2	Aluminium ingots, bars, rods, plates, etc.	cwt.	14,397	16,018	19,266	17,957
		$	392,888	469,740	628,099	596,606
3	Aluminium kitchen-ware	$	2,629	4,036	8,161	7,264
	Totals, Aluminium[1]	$	1,389,096	1,121,371	970,048	835,962
4	Brass and manufactures	$	361,238	336,788	438,968	307,572
5	Copper and manufactures	$	156,579	139,487	190,457	77,567
6	Lead and manufactures	$	53,070	65,749	91,910	60,769
7	Nickel and manufactures	$	109,648	103,788	197,781	130,526
	Precious Metals and Manufactures—					
8	Electro-plated ware	$	259,583	279,446	149,607	83,797
9	Silver, unmanufactured	$	893,711	661,554	208,444	161,613
	Totals, Precious Metals[1]	$	1,355,098	1,363,152	1,120,563	814,008
10	Tin (totals)	$	894,962	1,113,286	954,707	737,700
11	Tin in blocks, pigs, etc	cwt.	18,015	23,245	19,116	16,390
		$	878,869	1,099,787	941,392	710,379
12	Zinc	$	8,177	9,130	13,606	12,338
13	Alloys	$	83,944	127,888	158,516	75,726
14	Clocks and watches	$	48,526	39,725	37,703	34,266
	Electrical Apparatus—					
15	Batteries, storage	$	48,119	95,298	100,641	7,168
16	Dynamos, generators	$	65,689	157,356	186,522	96,674
17	Fixtures, electric light	$	9,823	12,360	26,104	25,781
18	Lamps, incandescent	$	1,472	37,554	9,469	6,233
19	Motors	$	239,806	243,268	463,338	307,317
20	Spark plugs, etc	$	4,376	1,619	754	444
21	Switches, etc	$	47,828	67,537	115,889	129,329
22	Telephones	$	84,091	46,875	77,462	131,789
23	Transformers	$	15,786	24,922	206,451	137,011
24	Tubes, radio	$	12,228	24,061	9,181	1,524
25	Wireless apparatus	$	77,742	131,350	190,639	188,039
	Totals, Electrical Apparatus[1]	$	1,022,964	1,279,542	2,132,015	1,853,438
26	Gas apparatus	$	3,586	5,398	8,586	10,950
27	Metallic articles for agr. implements, *n.o.p.*	$	11,437	9,937	7,211	17,167
28	Manganese oxide	cwt.	72	254	126	409
		$	199	598	383	1,185
29	Ores of metals, *n.o.p.*	$	5,998	12	389,788	58,563
30	Printing materials	$	20,900	22,794	31,303	44,860
31	Vessels, equipment for	$	115,053	106,808	182,695	428,419
	Totals, Non-Ferrous Metals[1]	$	**5,829,425**	**6,062,639**	**7,271,504**	**5,656,394**
	VII. Non-Metallic Minerals.					
32	Asbestos	$	241,362	327,950	401,040	302,392
	Clay and Clay Products—					
33	Bricks, fire	$	193,583	149,486	241,903	151,005
34	China clay	cwt	369,276	565,551	675,237	622,483
		$	161,367	236,948	281,362	265,512
35	Tableware of china	$	2,538,470	2,871,083	3,384,616	3,056,414
	Totals, Clay and Clay Products[1]	$	3,173,324	3,633,362	4,317,823	3,819,746
	Coal and Coal Products—					
36	Anthracite coal	ton	1,487,490	1,320,681	1,120,443[2]	1,202,729
		$	6,745,004	6,302,934	5,553,520[2]	6,352,516
37	Bituminous coal	ton	347,894	147,089	73,797	71,926
		$	961,765	448,606	297,776	303,185
38	Coal for ships	ton	[3]	1,061	77	Nil
		$	–	2,737	116	–
39	Coke for fuel	ton	8,643	7,234	3,444	3,690
		$	40,022	32,694	19,659	27,423
	Totals, Coal and Coal Products[1]	$	7,754,952	6,834,386	5,984,008[2]	6,703,600

[1] Totals include other items not specified.
[2] Revised since the publication of the 1939 Year Book.
[3] None reported.

Kingdom, United States, and All Countries, Fiscal Years 1936-39—continued.

United States.				All Countries.				No.
1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.	
1,745,761	1,875,105	2,372,458	957,612	2,578,380	3,650,911	6,037,285	7,282,157	1
1,911,057	2,056,835	2,754,055	639,380	2,902,275	3,040,061	4,237,225	2,625,164	
3,749	1,960	3,199	2,410	18,146	17,985	22,906	20,848	2
129,481	75,200	142,174	111,432	522,369	545,416	796,006	736,771	
76,366	60,430	66,748	71,233	80,747	68,564	81,780	84,826	3
2,646,866	2,944,919	3,825,005	1,630,661	4,224,716	4,751,819	6,431,332	4,562,424	
1,891,077	2,391,690	2,670,764	2,017,780	2,369,300	2,855,381	3,245,718	2,437,964	4
530,805	724,025	956,727	672,190	716,743	906,088	1,177,881	780,780	5
66,660	66,139	73,568	53,078	135,443	163,974	182,799	135,823	6
899,085	958,399	1,101,657	1,039,066	1,176,315	1,222,067	1,534,909	1,384,629	7
280,888	855,142	1,156,070	936,988	558,753	1,183,407	1,384,145	1,089,344	8
3,454,885	1,211,189	744,342	486,323	4,937,115	1,872,743	952,786	647,936	9
3,948,805	2,240,625	2,073,468	1,556,863	5,943,967	3,691,414	3,310,643	2,480,144	
473,601	231,385	150,040	70,616	2,307,535	2,496,821	2,960,777	2,225,439	10
8,423	3,436	2,108	951	45,757	51,876	57,024	51,030	11
418,638	156,629	108,885	44,195	2,236,476	2,408,521	2,906,228	2,170,578	
465,995	493,438	693,972	612,343	566,026	658,606	863,122	737,596	12
64,422	115,168	189,569	142,296	283,239	416,973	576,942	286,951	13
589,213	725,104	921,020	786,759	1,743,170	2,037,278	2,342,516	2,072,602	14
86,346	56,463	59,144	85,105	134,556	152,254	160,034	92,652	15
209,956	348,075	491,135	313,635	284,058	544,312	769,269	506,990	16
219,788	622,371	715,049	727,184	251,484	664,586	799,769	803,101	17
127,335	153,634	121,901	143,945	155,554	252,691	268,767	252,459	18
925,886	1,353,530	1,899,373	1,394,061	1,184,393	1,650,394	2,398,711	1,795,223	19
213,948	55,830	17,936	9,136	220,937	58,679	18,690	9,580	20
503,300	574,122	663,454	440,486	555,917	656,054	916,260	587,649	21
332,297	689,348	941,032	660,408	417,668	736,367	1,019,317	795,122	22
65,084	110,495	99,170	85,651	81,401	142,442	422,075	251,071	23
264,811	311,752	221,503	278,194	277,039	335,813	230,689	279,718	24
1,649,208	2,381,553	2,294,274	1,894,630	1,729,158	2,514,195	2,486,660	2,082,782	25
7,597,602	10,361,262	12,447,979	10,141,585	8,757,837	11,991,038	15,550,125	12,501,483	
118,502	129,245	135,488	116,758	125,465	143,540	157,928	143,836	26
1,598,090	1,382,075	2,450,545	1,546,353	1,646,682	1,431,643	2,541,011	1,620,351	27
36,633	39,841	45,456	40,746	737,754	1,285,095	1,543,230	421,477	28
82,892	82,957	89,089	89,340	357,866	683,945	798,939	464,000	
182,404	272,999	554,862	267,228	433,780	434,731	1,534,216	815,209	29
639,594	571,548	686,591	669,553	664,260	599,589	723,518	719,755	30
200,509	230,438	422,408	330,658	330,456	375,707	641,259	779,082	31
23,305,389	**25,400,426**	**30,954,351**	**23,026,331**	**33,685,919**	**37,037,954**	**47,063,972**	**36,254,270**	
480,995	617,244	718,828	547,442	733,499	954,487	1,133,782	867,934	32
1,417,685	2,041,293	2,587,628	1,592,843	1,612,408	2,190,930	2,835,033	1,748,910	33
345,872	305,247	404,333	143,953	715,664	870,820	1,082,309	766,436	34
127,916	114,765	156,323	64,297	289,755	351,721	439,221	329,809	
25,565	29,158	36,397	45,407	3,042,463	3,320,207	3,786,886	3,325,211	35
2,711,582	3,400,560	4,162,966	2,851,918	6,593,645	7,744,156	9,174,600	7,193,037	
1,701,101	1,607,410	2,017,623[2]	1,948,876	3,499,857	3,374,854	3,612,973	3,594,544	36
9,959,785	9,291,075	10,743,578[2]	10,540,794	17,788,829	17,310,207	17,927,824	18,730,248	
8,250,148	9,462,616	10,554,623	8,924,079	8,598,046	9,618,618	10,661,189	9,008,605	37
14,476,215	16,392,562	19,867,263	16,053,501	15,438,056	16,870,090	20,246,240	16,390,145	
306,039	356,243	353,734	402,152	306,039	357,304	353,811	402,152	38
586,511	660,612	725,923	803,928	586,511	663,349	726,039	803,928	
476,474	377,196	265,361	254,906	496,708	398,524	280,952	262,067	39
2,639,016	2,202,248	1,580,545	1,370,725	2,730,925	2,291,338	1,647,250	1,413,111	
29,306,212	30,335,051	35,219,986[2]	30,647,369	38,197,232	38,971,240	42,965,677	39,241,024	

13.—Principal Imports into Canada for Consumption from United

No.	Item.		United Kingdom.			
			1936.	1937.	1938.	1939.
	VII. Non-Metallic Minerals—concluded.					
	Glass—					
1	Carboys, bottles, jars, etc	$	52,570	52,241	68,066	57,144
2	Common window glass	sq. ft.	9,591,316	12,304,701	10,700,500	14,370,210
		$	330,884	430,754	368,319	443,797
3	Plate glass	sq. ft.	700,683	1,780,233	1,347,056	962,673
		$	256,391	571,252	473,130	369,485
4	Tableware of glass	$	68,362	96,509	103,944	85,186
	Totals, Glass[1]	$	925,033	1,429,446	1,391,229	1,384,171
5	Graphite and its products	$	52,552	51,629	75,433	52,053
	Petroleum and Asphalt—					
6	Asphalt	$	54	1	148	185
7	Crude petroleum	gal.	19,833	5,398	32,475	2,540
		$	3,168	928	6,067	471
8	Fuel oil for ships	gal.	Nil	Nil	Nil	Nil
		$	–	–	–	
9	Gasoline	gal.	450	6,802	6,682	Nil
		$	180	653	661	
10	Kerosene, refined	gal.	4,640	Nil	5,485	Nil
		$	887	–	921	–
11	Lubricating oils	gal.	94,520	91,142	110,512	81,265
		$	34,674	31,135	39,923	28,851
	Totals, Petroleum and Asphalt[1]	$	55,761	63,974	101,018	57,236
12	Diamond dust or bort	$	122,176	74,922	52,814	17,513
13	Sand, silica	cwt.	Nil	3,900	2,345	983
		$	–	737	403	303
14	Carbons, electric	$	726	1,114	1,582	737
15	Diamonds, unset	$	103,261	96,582	180,270	87,376
16	Salt	cwt.	574,482	683,686	651,989	509,735
		$	168,530	205,469	192,506	171,687
17	Sulphur	cwt.	1,337	45,324	630	1,241
		$	2,571	37,116	1,372	2,019
	Totals, Non-Metallic Minerals[1]	$	**12,932,009**	**13,102,638**	**13,092,732[2]**	**12,910,420**
	VIII. Chemicals and Allied Products.					
18	Acids	$	448,848	550,949	668,958	567,274
19	Cellulose products (totals)	$	137,749	132,882	83,189	111,393
	Drugs and Medicines—					
20	Medicinal preparations	$	584,963	539,082	598,204	559,974
21	Preparations for spraying	$	86,171	104,562	116,924[2]	193,546
	Totals, Drugs and Medicines[1]	$	897,396	816,147	846,115[2]	857,147
	Dyeing and Tanning—					
22	Aniline and coal-tar dyes	lb.	565,619	707,555	702,349	609,659
		$	357,470	455,397	436,051	417,149
23	Oak, quebracho, and similar extracts	lb.	534,175	250,101	735,208	308,440
		$	18,089	9,552	27,484	12,580
	Totals, Dyeing and Tanning[1]	$	603,024	683,293	694,930	599,075
24	Explosives	$	19,795	40,681	48,012	91,543
25	Fertilizers	$	3,396	51,675	33,241	3,968
26	Glycerine	lb.	101,964	675,984	168,403	4,480
		$	10,270	106,969	50,491	711
	Paints and Varnishes—					
27	Carbon black	lb.	56,784	65,524	69,328	49,952
		$	3,098	3,543	3,624	1,857
28	Lithopone	lb.	7,417,130	8,367,912	9,951,902	9,425,020
		$	256,732	301,419	382,915	351,454
29	Oxides	lb.	1,204,588	1,491,019	1,621,168	1,360,284
		$	170,418	187,885	218,504	186,963
30	Ready-mixed paints	gal.	27,483	28,052	34,394	25,137
		$	38,374	41,080	44,437	33,562
31	Varnish	gal.	5,832	8,425	9,102	5,667
		$	11,021	14,624	14,461	10,049
32	Zinc white	lb.	10,410,360	10,587,291	9,913,819	9,571,410
		$	398,292	408,730	510,015	352,429
	Totals, Paints and Varnishes[1]	$	1,346,596	1,555,349	1,801,118	1,457,291

[1] Totals include other items not specified. [2] Revised since the publication of the 1939 Year Book.

Kingdom, United States, and All Countries, Fiscal Years 1936–39—continued.

United States.				All Countries.				No.
1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.	
505,911	770,408	892,421	862,689	702,119	1,019,011	1,187,062	1,114,904	1
74,637	16,498	96,194	296,556	33,622,574	45,418,196	40,054,610	37,509,286	2
4,127	1,076	3,437	8,569	903,983	1,180,394	1,109,408	965,863	
2,315,312	1,985,646	1,712,946	1,205,745	3,510,746	6,052,694	4,296,125	2,826,738	3
649,814	573,158	528,932	381,948	1,046,865	1,763,318	1,368,788	971,265	
558,913	572,295	595,115	506,770	884,786	991,839	1,128,353	906,964	4
3,318,732	3,747,325	3,959,066	3,580,908	5,798,850	7,583,043	7,792,695	6,696,774	
78,828	92,475	101,776	71,364	135,731	147,365	179,995	131,113	5
133,495	164,992	184,624	184,470	137,330	168,815	189,740	187,746	6
898,669,739	924,396,420	998,850,826	919,543,852	1,198,116,475	1,246,881,256	1,352,819,133	1,249,052,392	7
27,408,732	30,755,321	36,680,968	31,530,202	35,564,978	39,562,633	46,634,720	41,483,348	
18,643,709	20,379,589	28,380,844	29,949,971	18,643,709	20,379,589	28,380,844	29,949,971	8
540,300	577,554	881,975	802,363	540,300	577,554	881,975	802,363	
44,681,047	37,420,852	57,266,050[2]	106,402,841	64,587,586	59,939,464	75,724,927[2]	119,410,143	9
3,111,680	2,796,900	4,427,706[2]	7,116,672	4,401,377	4,146,709	5,574,652[2]	7,794,626	
1,282,973	2,917,945	4,652,207	6,691,253	1,292,271	2,918,700	4,658,492	6,691,476	10
114,532	232,079	339,337	442,940	116,807	232,166	340,443	442,980	
13,377,559	14,689,865	15,622,886	15,806,695	13,489,156	14,794,269	15,749,016	15,901,859	11
2,643,633	3,034,666	3,412,155	3,049,697	2,685,733	3,071,588	3,461,383	3,033,651	
34,778,301	39,086,041	47,829,022[2]	44,961,839	44,489,337	49,775,547	59,263,675[2]	55,903,231	
1,624,119	2,624,307	4,706,578	3,818,310	1,785,554	2,772,146	4,927,347	3,873,302	12
2,330,415	2,884,684	4,203,674	3,188,047	2,623,959	2,977,679	4,210,461	3,337,629	13
227,526	270,182	372,425	309,627	281,228	283,086	373,470	331,696	
398,279	373,490	445,303	244,657	401,166	374,939	447,522	246,199	14
49,637	36,228	113,172	34,032	865,700	1,046,076	1,237,980	1,033,184	15
931,597	797,233	1,011,425	895,043	2,532,358	2,188,525	2,364,767	2,102,325	16
205,742	169,279	209,359	182,072	508,792	453,655	483,734	437,779	
2,715,426	3,417,255	4,457,265	1,763,011	2,717,959	3,463,597	4,458,747	1,764,302	17
2,285,191	2,835,461	3,617,447	1,374,165	2,290,127	2,874,357	3,620,728	1,376,302	
78,088,621	**86,809,009**	**105,477,040[2]**	**91,750,604**	**105,421,236**	**116,948,261**	**136,662,502**	**121,306,624**	
571,054	696,692	1,050,836[2]	912,920	1,318,389	1,473,684	1,966,256[2]	1,697,486	18
1,642,216	1,673,527	1,633,273	1,526,349	1,864,591	1,880,260	1,819,496	1,713,760	19
885,474	1,059,734	1,066,389	1,054,117	1,925,168	2,026,348	2,047,675	1,966,980	20
300,371	502,768	673,119	693,052	412,901	671,582	864,026[2]	953,464	21
1,345,613	1,731,719	2,028,504	1,967,527	2,968,389	3,274,066	3,489,286[2]	3,368,361	
2,387,013	2,504,405	2,332,122	1,892,116	4,585,399	5,148,175	4,902,262	4,133,327	22
1,225,588	1,366,026	1,321,707	1,042,454	3,536,124	4,036,864	3,397,730	2,977,189	
19,993,995	13,284,861	9,615,318	5,223,941	30,129,002	26,753,741	17,764,304	10,739,321	23
572,465	386,561	280,494	145,102	909,427	869,482	597,930	359,746	
2,289,751	2,254,144	2,222,133	1,785,535	5,486,921	5,975,440	5,114,017	4,418,127	
283,997	374,769	430,112	345,147	324,828	448,157	508,118	468,438	24
1,235,863	1,691,603	1,977,190	2,078,713	2,147,182	2,643,245	3,458,352	3,863,293	25
1,602,639	148,751	1,116,087[2]	2,116,819	2,004,996	1,668,323[2]	2,082,787	2,274,514	26
212,371	30,368	138,921	210,197	246,172	306,336	442,515	221,392	
12,748,100	14,826,222	15,786,429	14,036,084	12,808,870	14,915,659	15,855,757	14,086,036	27
600,567	685,621	605,773	365,030	603,919	690,276	609,397	366,887	
3,092,544	3,476,222	2,918,435	2,674,849	15,377,770	19,699,846	21,375,893	17,840,361	28
137,594	149,601	128,991	115,022	558,114	696,303	742,798	639,535	
3,278,005	4,248,593	3,577,990	3,314,114	6,458,497	6,608,193	7,755,960	5,829,341	29
409,356	542,238	511,478	478,474	616,793	788,527	797,853	719,895	
106,817	148,110	144,234	146,969	137,285	180,142	183,966	175,405	30
172,870	258,147	247,324	245,715	217,575	304,934	298,561	285,471	
83,925	100,166	102,917	63,600	90,507	109,660	112,753	70,020	31
161,491	172,735	162,643	118,122	174,704	190,256	178,992	130,089	
1,135,212	3,058,829	1,616,179	1,121,695	11,976,847	14,336,269	12,692,546	11,853,290	32
59,690	159,410	94,815	66,272	475,356	591,279	650,510	453,453	
1,987,443	2,522,492	2,349,365	1,994,412	3,620,464	4,497,644	4,603,721	3,779,167	

13.—Principal Imports into Canada for Consumption from United

No.	Item.		United Kingdom.			
			1936.	1937.	1938.	1939.
	VIII. Chemicals and Allied Products—concl.					
1	Perfumery	$	105,145	142,587	158,908	141,311
	Soap—					
2	Laundry soap	lb.	258,247	319,045	567,773	298,040
		$	17,200	21,762	36,972	22,563
3	Toilet soap	$	51,500	64,612	73,200	76,511
	Totals, Soap[1]	$	85,044	108,529	133,875	120,461
	Chemicals, Inorganic, *n.o.p.*—					
4	Sulphate of alumina	cwt.	82,885	105,325	127,191	114,109
		$	64,638	83,797	109,787	103,772
5	Ammonia and its compounds	$	146,756	254,104	484,429	594,694
6	Compounds of tetra-ethyl lead	lb.	[2]	[2]	38,853	Nil
		$	—		17,576	
7	Chlorine, liquid	lb.	Nil	Nil	Nil	Nil
		$	—	—	—	—
8	Calcium chloride	cwt.	1,171	300	154	272
		$	1,289	326	218	355
9	Potash and potassium compounds	$	97,509	87,185	71,357	121,480
10	Sodium compounds	$	935,842	1,017,527	1,070,937[3]	1,030,917
	Totals, Chemicals, Inorganic, *n.o.p.*[1]	$	1,725,016	1,722,021	2,172,543	2,157,824
	Totals, Chemicals and Allied Products[1]	$	**6,336,345**	**6,957,434**	**7,706,251**	**6,962,942**
	IX. Miscellaneous Commodities.					
	Amusement and Sporting Goods—					
11	Films	$	57,257	77,154	44,761	26,705
12	Dolls	$	5,548	3,994	11,370	10,267
13	Toys	$	189,825	200,756	178,623	169,644
	Totals, Amusement and Sporting Goods[1]	$	540,510	572,211	577,570	584,699
14	Brushes	$	129,438	140,858	140,199	110,564
15	Containers (outside coverings)	$	1,234,653	1,174,090	823,706	648,309
	Household and Personal Equipment—					
16	Buttons	$	14,457	13,528	14,327	14,692
17	Cases and boxes, fancy	$	114,688	146,746	161,258	156,985
18	Jewellery, *n.o.p.*	$	40,010	35,444	46,523	60,038
19	Pocket books, etc.	$	158,102	170,506	180,358	134,366
20	Refrigerators	$	1,099	1,589	515	1,741
21	Tobacco pipes, etc.	$	121,711	147,108	184,132	134,628
	Totals, Household, etc., Equipment[1]	$	794,512	879,827	962,300	850,812
22	Musical instruments	$	57,731	88,507	80,170	83,697
	Scientific and Educational Equipment—					
23	Philosophical and scientific apparatus	$	99,175	54,512	67,280	41,487
24	Surgical and dental instruments, etc.	$	302,107	255,996	146,309[3]	147,750
	Totals, Scientific and Educational Equipment[1]	$	565,617	475,934	662,969	661,438
25	Ships and vessels	$	23,343	24,653	8,575	24,379
26	Vehicles, *n.o.p.*	$	147,475	463,595	563,325	921,705
27	Works of art	$	218,518	385,235	346,443	391,584
28	Special imports	$	1,647,293	1,766,993	1,813,544	2,045,701
29	Cartridges	$	21,442	68,202	86,163	486,035
30	Electric energy	kwh.	Nil	Nil	Nil	Nil
		$	—	—	—	—
31	Express parcels	$	7,426	8,078	11,018	18,435
32	Pencils, lead	$	72,875	74,695	69,879	63,389
33	Post Office parcels	$	373,231	290,911	180,528	197,278
34	Precious stones	$	86,026	122,164	88,109	36,068
35	Settlers' effects	$	179,705	202,024	294,170	280,624
36	Waste-paper clippings	cwt.	40,909	29,799	21,097	13,225
		$	26,410	18,942	20,417	8,041
	Totals, Miscellaneous Commodities[1]	$	**6,317,717**	**6,962,416**	**6,963,105**	**7,615,961**
	Grand Totals, Imports for Consumption	$	**117,874,822**	**129,507,885**	**145,008,771**[3]	**115,636,017**

[1] Totals include other items not specified. [2] None reported. [3] Revised since the publication of the 1939 Year Book.

Kingdom, United States, and All Countries, Fiscal Years 1936-39—concluded.

United States.				All Countries.				No.
1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.	
231,622	215,964	242,005	234,215	418,559	433,696	475,328	437,742	1
4,087,338	4,472,234	3,277,073	2,862,503	4,599,156	4,904,170	4,030,494	3,208,714	2
252,255	274,927	202,085	177,667	284,214	303,211	250,144	202,807	
19,692	24,368	25,452	37,173	85,015	108,717	117,635	132,413	3
349,239	379,772	312,300	292,869	505,797	561,482	527,020	473,531	
491,048	549,666	562,855	453,622	582,492	725,323	696,469	598,671	4
532,925	573,622	606,159	518,304	604,813	701,714	720,985	643,256	
45,928	51,735	102,623	67,006	233,965	351,264	636,878	686,080	5
2,545,346	3,172,675	4,686,423	5,424,696	2,545,346	3,172,675	4,725,276	5,424,696	6
1,322,283	1,464,848	2,112,067	2,457,177	1,322,283	1,464,848	2,129,643	2,457,177	
10,405,676	6,268,312	7,148,340	8,541,966	10,405,676	6,268,312	7,148,340	8,541,966	7
223,668	131,503	153,438	179,347	223,668	131,503	153,438	179,347	
285,419	241,465	71,695	154,646[1]	289,939	245,331	75,794	156,036	8
273,665	228,527	67,813	150,998	277,109	231,805	70,678	152,249	
56,918	54,639	64,376	61,546	415,103	374,244	379,506	375,115	9
1,201,329	1,252,923	1,620,701[3]	1,414,723	2,304,046	2,423,785	2,825,384	2,610,663	10
3,993,864	4,266,807	5,105,564	5,179,261	6,373,544	6,571,205	7,810,709	7,821,621	
17,500,123	**19,388,229**	**22,712,830**	**21,828,690**	**29,919,921**	**33,105,448**	**36,890,149**	**34,890,675**	
284,826	244,561	266,968	258,878	440,356	416,095	432,687	384,633	11
21,383	29,795	46,350	32,918	124,727	134,534	140,801	110,611	12
489,374	632,872	698,536	731,590[1]	1,217,758	1,395,885	1,448,129	1,364,379	13
1,749,221	2,167,279	2,405,291	2,237,423	3,078,753	3,565,472	3,881,387	3,548,834	
112,404	156,143	164,831	170,972	302,832	396,707	418,302	362,672	14
350,252	410,147	487,388	430,375	2,283,950	2,278,666	2,034,701	1,628,673	15
139,306	199,435	168,476	143,718	228,353	311,506	267,417	208,230	16
160,095	322,626	399,134	396,406	396,137	642,421	727,335	684,114	17
415,494	461,320	535,079	680,646	621,921	653,080	792,051	960,661	18
256,258	400,118	427,738	439,939	552,395	726,707	818,587	713,907	19
330,250	868,182	1,194,735	955,308	331,349	869,916	1,195,250	957,153	20
44,915	54,992	50,482	39,956	426,984	421,964	492,868	364,366	21
2,557,102	3,684,842	4,281,274	4,121,331	4,485,086	5,737,375	6,562,960	6,002,433	
331,998	479,909	805,811	887,392	578,121	806,985	1,131,093	1,171,754	22
351,247	424,330	511,116	533,224	541,392	560,404	670,774	678,460	23
841,300	933,168	651,122[3]	753,681	1,293,050	1,364,473	919,923[3]	1,035,249	24
2,219,488	2,464,478	3,063,423	3,060,516	3,229,556	3,443,750	4,356,177	4,376,728	
198,817	315,524	427,790	395,560	256,736	350,857	441,709	421,775	25
328,446	908,978	1,830,087	2,011,076	478,516	1,375,572	2,395,254	2,933,656	26
210,648	833,208	1,514,227	1,571,353	575,458	1,363,915	2,044,340	2,204,810	27
5,204,711	9,532,942	11,156,316	12,672,048	7,768,446	12,151,363	14,369,999	15,622,512	28
126,965	123,698	160,779	101,523	148,905	192,743	247,667	588,487	29
4,940,659	4,882,978	3,619,908	3,655,793	4,940,659	4,882,978	3,619,908	3,655,793	30
75,292	80,785	72,863	61,442	75,292	80,785	72,863	61,442	
1,327,653	1,684,880	1,882,638	1,753,684	1,347,768	1,703,750	1,906,169	1,781,265	31
63,905	81,660	98,828[3]	92,765	193,649	230,977	263,850	209,515	32
1,843,415	2,412,888	2,744,046	2,341,260	2,217,027	2,710,643	2,935,022	2,543,947	33
50,937	83,034	99,156	76,379	210,191	290,158	292,870	180,568	34
2,454,626	2,255,406	2,730,831	2,567,590	2,803,668	2,641,324	3,260,276	3,123,599	35
667,857	586,862	852,535	491,837	709,330	617,303	874,632	507,700	36
301,489	406,379	722,905	308,751	328,837	427,029	746,123	322,126	
20,266,185	**23,216,069**	**35,824,640[3]**	**36,204,215**	**31,695,725**	**41,542,299**	**49,328,109**	**49,128,069**	
319,479,594	**393,720,662**	**487,279,507[3]**	**412,476,817**	**562,719,063**	**671,875,566**	**799,069,918**	**658,228,034**	

14.—Imports (Dutiable and Free) and Exports of Canadian and Foreign Produce, by Main Classes, and Totals of Duties Collected, Fiscal Years 1935-39.

Class.	1935.	1936.	1937.	1938.	1939.
Imports.	$	$	$	$	$
Agricultural and Vegetable Products (except chemicals, fibres, and wood)—					
Dutiable	74,225,634	68,478,004	78,995,471	83,868,367	79,184,937
Free	35,192,961	41,864,528	52,404,746	62,467,039	42,081,586
Totals for Group	109,418,595	110,342,532	131,400,217	146,335,406	121,266,523
Animals and Animal Products (except chemicals and fibres)—					
Dutiable	9,796,173	10,477,850	11,274,570	13,043,754	11,199,041
Free	10,161,304	13,836,370	16,588,654	17,356,041	13,200,245
Totals for Group	19,957,477	24,314,220	27,863,224	30,399,795	24,399,286
Fibres, Textiles, and Textile Products—					
Dutiable	36,788,973	38,575,440	44,807,865	51,352,707	43,094,656
Free	45,009,307	51,238,724	60,003,439	57,579,386	41,889,489
Totals for Group	81,798,280	89,814,164	104,811,304	108,932,093	84,984,145
Wood, Wood Products, and Paper—					
Dutiable	12,938,798	13,948,545	15,653,143	17,541,770	16,433,882
Free	8,260,889	9,323,086	13,274,577	16,679,411	15,507,982
Totals for Group	21,199,687	23,271,631	28,927,720	34,221,181	31,941,864
Iron and Its Products—					
Dutiable	71,529,016	79,531,376	105,174,728	136,878,679	101,395,788
Free	28,527,129	34,722,339	45,064,411	72,358,032	52,660,790
Totals for Group	100,056,145	114,253,715	150,239,139	209,236,711	154,056,578
Non-Ferrous Metals and Their Products—					
Dutiable	17,171,874	19,684,599	24,759,332	31,013,938	24,372,190
Free	11,324,755	14,001,320	12,278,622	16,050,034	11,882,080
Totals for Group	28,496,629	33,685,919	37,037,954	47,063,972	36,254,270
Non-Metallic Minerals and Their Products (except chemicals)—					
Dutiable	46,902,200	45,951,658	50,015,913	56,858,200	52,284,524
Free	55,525,837	59,469,578	66,932,348	79,804,302	69,022,100
Totals for Group	102,428,037	105,421,236	116,948,261	136,662,502	121,306,624
Chemicals and Allied Products—					
Dutiable	16,264,427	16,568,065	18,342,091	19,196,811	18,399,480
Free	12,607,626	13,351,856	14,763,357	17,693,338	16,491,195
Totals for Group	28,872,053	29,919,921	33,105,448	36,890,149	34,890,675
Miscellaneous Commodities—					
Dutiable	15,628,827	16,717,559	20,910,521	24,411,546	22,732,544
Free	14,575,423	14,978,166	20,631,778	24,916,563	26,395,525
Totals for Group	30,204,250	31,695,725	41,542,299	49,328,109	49,128,069
Total Imports—					
Dutiable	**301,245,922**	**309,933,096**	**369,933,634**	**434,165,772**	**369,097,042**
Free	**221,185,231**	**252,785,967**	**301,941,932**	**364,904,146**	**289,130,992**
Totals, Imports	**522,431,153**	**562,719,063**	**671,875,566**	**799,069,918**	**658,228,034**
Totals, Duties Collected[1]	**84,627,473**	**82,784,317**	**92,282,059**	**103,719,952**	**89,362,464**

[1] Includes the following additional and special duties that cannot be apportioned by groups of commodities: 1935, $1,903,854; 1936, $2,058,956; 1937, $2,096,414; 1938, $1,978,109; and 1939, $1,752,161.

14.—Imports (Dutiable and Free) and Exports of Canadian and Foreign Produce, by Main Classes, and Totals of Duties Collected, Fiscal Years 1935-39—concluded.

Class.	1935.	1936.	1937.	1938.	1939.
Exports.	$	$	$	$	$
Agricultural and Vegetable Products (except chemicals, fibres, and wood)—					
Canadian produce	226,233,097	242,861,877	346,450,628	235,324,412	182,875,417
Foreign produce	838,613	1,192,224	3,146,134	3,435,730	1,093,918
Totals for Group	227,071,710	244,054,101	349,596,762	238,760,142	183,969,335
Animals and Animal Products (except chemicals and fibres)—					
Canadian produce	86,848,144	100,932,110	133,940,776	136,112,957	121,242,053
Foreign produce	401,058	604,061	945,469	973,479	893,238
Totals for Group	87,249,202	101,536,171	134,886,245	137,086,436	122,135,291
Fibres, Textiles, and Textile Products—					
Canadian produce	7,523,144	10,273,697	12,830,212	14,225,183	13,250,837
Foreign produce	414,579	788,925	1,409,299	1,134,151	950,593
Totals for Group	7,937,723	11,062,622	14,239,511	15,359,334	14,201,430
Wood, Wood Products, and Paper—					
Canadian produce	160,932,709	181,831,743	223,918,476	253,434,860	214,488,484
Foreign produce	288,761	242,904	280,848	394,607	403,506
Totals for Group	161,221,470	182,074,647	224,199,324	253,829,467	214,891,990
Iron and Its Products—					
Canadian produce	40,736,038	52,368,057	53,173,175	69,744,157	58,682,214
Foreign produce	2,042,729	2,465,602	1,849,499	2,315,199	2,079,986
Totals for Group	42,778,767	54,833,659	55,022,674	72,059,356	60,762,200
Non-Ferrous Metals and Their Products—					
Canadian produce	191,345,386	212,547,372	230,152,314	292,452,554	272,632,850
Foreign produce	982,250	5,003,508	1,811,984	1,081,727	33,107,993
Totals for Group	192,327,636	217,550,880	231,964,298	293,534,281	305,740,843
Non-Metallic Minerals and Their Products (except chemicals)—					
Canadian produce	15,654,323	19,083,643	26,081,028	29,342,764	24,578,888
Foreign produce	302,786	711,448	954,319	1,540,972	1,116,776
Totals for Group	15,957,109	19,795,091	27,035,347	30,883,736	25,695,664
Chemicals and Allied Products—					
Canadian produce	15,270,064	16,018,391	19,237,697	20,926,267	20,583,506
Foreign produce	187,378	414,842	297,169	389,070	511,389
Totals for Group	15,457,442	16,433,233	19,534,866	21,315,337	21,094,895
Miscellaneous Commodities—					
Canadian produce	12,083,020	13,113,527	15,397,600	18,665,455	18,627,996
Foreign produce	2,200,809	2,018,145	2,367,593	3,327,660	2,650,507
Totals for Group	14,283,829	15,131,672	17,765,193	21,993,115	21,278,503
Total Exports—					
Canadian produce	**756,625,925**	**849,030,417**	**1,061,181,906**	**1,070,228,609**	**926,962,245**
Foreign produce	**7,658,963**	**13,441,659**	**13,062,314**	**14,592,595**	**42,807,906**
Totals, Exports	**764,284,888**	**862,472,076**	**1,074,244,220**	**1,084,821,204**	**969,770,151**
Total Trade—					
Imports, merchandise	**522,431,153**	**562,719,063**	**671,875,566**	**799,069,918**	**658,228,034**
Exports, merchandise	**764,284,988**	**862,472,076**	**1,074,244,220**	**1,084,821,204**	**969,770,151**
Totals, External Trade	**1,286,716,041**	**1,425,191,139**	**1,746,119,786**	**1,883,891,122**	**1,627,998,185**

15.—External Trade of Canada, by Main Groups and Degree of Manufacture, According to Origin, Fiscal Year 1939.

Origin.	Imports for Consumption.			Exports of Canadian Produce.		
	United Kingdom.	United States.	Total.	United Kingdom.	United States.	Total.
Farm Origin.	$	$	$	$	$	$
CANADIAN FARM PRODUCTS—[1]						
Field Crops—						
Raw materials	402,467	20,896,235	25,834,228	71,108,665	16,750,325	119,635,625
Partly manufactured	4,412	515,616	688,643	207,907	1,197,426	1,740,808
Fully or chiefly manufactured	8,566,387	3,435,893	14,015,122	22,982,994	12,098,457	45,650,057
Totals, Field Crops	8,973,266	24,847,744	40,537,993	94,299,566	30,046,208	167,026,490
Animal Husbandry—						
Raw materials	1,344,892	3,135,980	9,666,999	4,814,517	14,029,716	20,967,920
Partly manufactured	6,126,412	1,545,595	10,697,658	3,809,723	1,126,203	5,352,756
Fully or chiefly manufactured	15,491,973	2,676,325	21,177,921	49,136,850	1,055,792	53,844,992
Totals, Animal Husbandry	22,963,277	7,357,900	41,542,578	57,761,090	16,211,711	80,165,668
All Canadian Farm Products—						
Raw materials	1,747,359	24,032,215	35,501,227	75,923,182	30,780,041	140,603,545
Partly manufactured	6,130,824	2,061,211	11,386,301	4,017,630	2,323,629	7,093,564
Fully or chiefly manufactured	24,058,360	6,112,218	35,193,043	72,119,844	13,154,249	99,495,049
TOTALS, CANADIAN FARM PRODUCTS	31,936,543	32,205,644	82,080,571	152,060,656	46,257,919	247,192,158
FOREIGN FARM PRODUCTS—[1]						
Field Crops—						
Raw materials	519,212	24,303,147	42,804,307	2	11,308	12,567
Partly manufactured	3,508,180	1,769,735	26,859,399	16,569	165,517	196,855
Fully or chiefly manufactured	18,456,617	12,573,775	54,668,101	6,353,821	909,793	19,718,073
Totals, Field Crops	22,484,009	38,646,657	124,331,807	6,370,392	1,086,618	19,927,495
Animal Husbandry—						
Raw materials	370,539	4,850,146	5,341,981	Nil	Nil	Nil
Partly manufactured	7,952	45,395	58,006	"	"	"
Fully or chiefly manufactured	433,359	1,012,924	2,518,840	501,318	4,248	3,300,030
Totals, Animal Husbandry	811,850	5,908,465	7,918,827	501,318	4,248	3,300,030
All Foreign Farm Products—						
Raw materials	889,751	29,153,293	48,146,288	2	11,308	12,567
Partly manufactured	3,516,132	1,815,130	26,917,405	16,569	165,517	196,855
Fully or chiefly manufactured	18,889,976	13,586,699	57,186,941	6,755,139	914,041	23,018,103
TOTALS, FOREIGN FARM PRODUCTS	23,295,859	44,555,122	132,250,634	6,771,710	1,090,866	23,227,525
ALL FARM PRODUCTS—						
All Field Crops—						
Raw materials	921,679	45,199,382	68,638,535	71,108,667	16,761,633	119,648,192
Partly manufactured	3,512,592	2,285,351	27,548,042	224,476	1,362,943	1,937,663
Fully or chiefly manufactured	27,023,004	16,009,668	68,683,223	29,336,815	13,008,250	65,368,130
Totals, All Field Crops	31,457,275	63,494,401	164,869,800	100,669,958	31,132,826	186,953,985

[1] In this classification the expression "Canadian Farm Products" refers, in the case of exports, to commodities actually produced, in their original state, on Canadian farms. In the case of imports, it covers all commodities of which the basic raw materials are such as Canadian farms produce. "Foreign Farm Products" covers, in both imports and exports, materials or commodities such as Canada does not produce in their original forms, e.g., cane sugar, tea, rubber, cotton, silk, etc.

15.—External Trade of Canada, by Main Groups and Degree of Manufacture, According to Origin, Fiscal Year 1939—concluded.

Origin.	Imports for Consumption.			Exports of Canadian Produce.		
	United Kingdom.	United States.	Total.	United Kingdom.	United States.	Total.
	$	$	$	$	$	$
Farm Origin—concluded.						
ALL FARM PRODUCTS—concluded.						
All Animal Husbandry—						
Raw materials	1,715,431	7,986,126	15,008,980	4,814,517	14,029,716	20,967,920
Partly manufactured	6,134,364	1,590,990	10,755,664	3,809,723	1,126,203	5,352,756
Fully or chiefly manufactured	15,925,332	3,689,249	23,696,761	49,638,168	1,060,040	57,145,022
Totals, All Animal Husbandry	23,775,127	13,266,365	49,461,405	58,262,408	16,215,959	83,465,698
All Farm Products—						
Raw materials	**2,637,110**	**53,185,508**	**83,647,515**	**75,923,184**	**30,791,349**	**140,616,112**
Partly manufactured	**9,646,956**	**3,876,341**	**38,303,706**	**4,034,199**	**2,489,146**	**7,290,419**
Fully or chiefly manufactured	**42,948,336**	**19,698,917**	**92,379,984**	**78,974,983**	**14,068,290**	**122,513,152**
Totals, Farm Origin	**55,232,402**	**76,760,766**	**214,331,205**	**158,932,366**	**47,348,785**	**270,419,683**
Wild Life Origin.						
Raw materials	350,479	2,155,082	2,669,356	8,274,419	4,648,043	13,719,424
Partly manufactured	41,776	342,452	861,812	217,571	35,613	376,742
Fully or chiefly manufactured	99,383	92,876	280,373	5,193	129,296	168,694
Totals, Wild Life Origin	**491,638**	**2,590,410**	**3,811,541**	**8,497,183**	**4,812,952**	**14,264,860**
Marine Origin.						
Raw materials	16,333	571,289	1,131,693	1,318,523	10,276,621	11,887,079
Partly manufactured	1,530	Nil	1,530	Nil	Nil	Nil
Fully or chiefly manufactured	218,247	502,282	1,955,168	5,928,125	2,561,501	16,174,506
Totals, Marine Origin	**236,110**	**1,073,571**	**3,088,391**	**7,246,648**	**12,838,122**	**28,061,585**
Forest Origin.						
Raw materials	2,679	895,659	965,992	424,378	13,669,912	20,093,654
Partly manufactured	17,641	4,842,461	4,956,601	25,061,227	35,520,173	69,272,808
Fully or chiefly manufactured	3,569,079	21,835,578	27,705,674	11,624,619	96,165,371	125,276,485
Totals, Forest Origin	**3,589,399**	**27,573,698**	**33,628,267**	**37,110,224**	**145,355,456**	**214,642,947**
Mineral Origin.						
Raw materials	7,122,826	65,514,572	89,026,527	12,656,134	24,084,049	52,996,477
Partly manufactured	1,346,895	7,965,165	11,215,474	73,106,995	119,760,639	231,490,808
Fully or chiefly manufactured	33,943,664	181,735,506	231,786,467	18,068,116	9,826,569	83,037,540
Totals, Mineral Origin	**42,413,385**	**255,215,243**	**332,028,468**	**103,831,245**	**153,671,257**	**367,524,825**
Mixed Origin.						
Raw materials	17,887	160,196	195,337	Nil	Nil	Nil
Partly manufactured	243,101	2,103,010	2,738,276	70,616	439,936	561,178
Fully or chiefly manufactured	13,409,125	47,002,893	68,406,449	9,776,729	11,472,853	31,487,167
Totals, Mixed Origin	**13,670,113**	**49,266,099**	**71,340,062**	**9,847,345**	**11,912,789**	**32,048,345**
Recapitulation.						
Raw materials	**10,147,314**	**122,482,306**	**177,636,420**	**98,596,638**	**83,469,974**	**239,312,746**
Partly manufactured	**11,297,899**	**19,129,429**	**58,077,399**	**102,490,608**	**158,245,507**	**308,991,955**
Fully or chiefly manufactured	**94,187,834**	**270,868,052**	**422,514,115**	**124,377,765**	**134,223,880**	**378,657,544**
Grand Totals	**115,633,047**	**412,479,787**	**658,227,934**	**325,465,011**	**375,939,361**	**926,962,245**

16.—External Trade of Canada, by Main Groups, Compiled on a Classification According to Purpose, Fiscal Year 1939.

NOTE.—An analysis of external trade upon the purpose classification in greater detail for the fiscal year 1939, will be found at pp. 848-858 of the "Annual Report on the Trade of Canada, 1939", published by the Dominion Bureau of Statistics.

Group and Purpose.	Imports for Consumption.			Exports of Canadian Produce.		
	United Kingdom.	United States.	Total.	United Kingdom.	United States.	Total.
	$	$	$	$	$	$
Foods, Beverages, and Smokers Supplies (ready for consumption or not)	**14,632,473**	**33,017,795**	**99,767,495**	**139,690,072**	**45,112,627**	**235,710,395**
Foods[1]	*5,906,208*	*31,757,604*	*77,013,588*	*139,237,385*	*85,830,222*	*225,620,165*
Animals for food	Nil	3,437	3,437	1,785,441	7,071,969	9,060,476
Breadstuffs	357,362	8,571,105	11,154,409	64,057,316	12,726,066	112,246,272
Cocoa and chocolate	593,269	381,395	1,923,837	Nil	Nil	Nil
Fish	80,856	741,323	2,289,972	6,739,448	11,604,399	25,627,522
Fruits	134,444	13,063,268	20,471,688	11,224,234	447,399	13,209,044
Meats	150,039	921,426	1,795,074	33,010,329	905,954	35,375,618
Lard, substitutes, etc	105	11,585	13,728	1,355,744	752	1,446,313
Milk and its products	33,349	49,347	439,233	15,169,403	428,158	17,579,787
Nuts	93,120	735,995	3,483,983	1,373	Nil	1,598
Oils	2,772,056	86,687	4,309,593	Nil	"	Nil
Sugar and its products	532,096	574,180	20,281,303	185,432	1,314,249	1,968,672
Vegetables	228,058	4,823,437	6,075,290	4,384,499	1,006,448	6,723,763
Beverages and infusions[1]	*8,048,127*	*1,131,016*	*21,381,958*	*450,975*	*9,276,638*	*10,068,258*
Beverages, alcoholic	4,955,247	92,741	6,805,490	114,698	9,218,685	9,592,554
Infusions	3,070,354	531,886	13,775,521	65,429	11,667	109,243
Smokers supplies	684,138	129,175	1,371,949	1,712	5,767	21,972
Personal and Household Utilities (finished goods)	**17,749,855**	**42,030,383**	**70,673,728**	**11,003,213**	**3,012,766**	**26,576,090**
Books, stationery, etc	2,973,218	14,966,897	18,961,534	785,499	573,280	2,024,656
Clothing	4,502,794	8,108,964	15,268,179	5,840,102	426,625	13,340,350
Household utilities	8,484,487	11,597,406	23,193,484	2,032,614	77,733	5,560,995
Jewellery, timepieces, etc.	263,929	1,732,955	4,519,048	191,163	3,583	640,695
Personal utilities	698,781	2,158,616	3,544,018	93,804	236	206,654
Recreation equipment, etc.	826,646	3,465,545	5,187,465	2,060,031	1,931,309	4,802,740
Electric Energy	**61,442**	**Nil**	**61,442**	**Nil**	**4,186,915**	**4,188,644**
Electrical Equipment	**1,843,863**	**10,080,821**	**12,448,891**	**1,109,251**	**1,124,316**	**7,538,190**
Producers Equipment[1]	**15,236,362**	**102,197,629**	**123,981,908**	**7,066,879**	**10,115,776**	**29,753,036**
Abrasives	52,715	4,703,090	4,812,377	677,076	2,531,508	3,343,526
Containers, packing, etc	1,254,679	4,011,105	6,558,152	250,008	1,338,008	3,759,739
Farm equipment[1]	*941,396*	*17,938,681*	*20,006,284*	*938,526*	*4,332,068*	*9,291,508*
Agricultural implements	594,789	17,077,913	18,121,048	839,788	1,823,146	6,481,840
Animals (except for food)	112,558	562,282	737,712	46,493	2,171,181	2,326,545
Industrial equipment[1]	*5,749,334*	*34,458,325*	*42,077,928*	*5,006,933*	*253,581*	*9,808,708*
Fisheries equipment	1,153,480	378,157	1,722,760	Nil	6,700	11,365
Metal-working machinery	348,263	3,710,351	4,155,512	221,336	3,630	397,884
Mining and metallurgical	551,184	5,032,114	5,630,583	Nil	Nil	Nil
Office and business	145,599	2,635,218	2,823,212	1,288,752	13,817	2,096,445
Printing	294,559	2,924,578	3,337,395	4,273	14,457	21,694
Textile and cordage	1,003,231	2,872,720	4,117,953	Nil	Nil	Nfl
Tools, *n.o.p.*	385,308	1,316,669	2,090,617	357,278	16,005	1,247,629
Fuel	6,683,124	35,744,553	44,314,413	46,424	1,608,142	2,836,222
Lubricating oils and greases	32,691	3,358,782	3,400,036	56,922	48,522	255,570
Producers Materials (except unmftd. foods)	**55,192,788**	**141,541,833**	**252,142,582**	**157,774,887**	**220,630,187**	**482,436,613**
Construction materials	3,140,985	10,474,676	15,171,523	23,724,367	19,674,513	54,605,295
Farm materials	940,141	4,176,135	8,645,789	9,634,687	10,466,845	24,569,649
Manufacturers materials[1]	*51,111,662*	*126,891,022*	*228,325,270*	*124,415,833*	*190,488,829*	*403,261,669*
Textiles, clothing, etc	29,544,631	23,367,636	65,055,048	898,078	173,046	3,154,058
Dyeing and tanning	607,026	1,850,419	4,501,959	Nil	6,237	6,237
Fur and leather goods	2,296,544	5,338,444	10,711,838	12,429,413	8,418,695	22,655,076
Metals, raw or refined	900,091	3,783,186	9,071,459	36,263,069	22,075,788	73,146,872
For furniture and wooden wares	21,024	1,774,241	1,916,867	1,493,535	107,350	2,827,841
Pulp, paper, etc	327,472	3,794,078	4,240,062	10,758,026	121,476,327	151,709,041
Rubber	139,807	2,048,935	10,089,671	Nil	79,962	82,980
Transportation	**3,073,482**	**44,251,919**	**47,403,827**	**1,727,489**	**184,217**	**36,485,682**
Vehicles	2,983,251	43,563,783	46,619,578	1,637,126	148,344	36,289,745
Vessels	90,231	688,136	784,249	90,363	35,873	195,937
Medical Supplies	**1,372,302**	**4,349,794**	**6,800,243**	**867,544**	**196,983**	**1,849,621**
Arms, Explosives, and War Stores	**1,219,754**	**633,345**	**1,913,636**	**436,297**	**1,375**	**773,460**
Goods for Exhibition	**291,932**	**1,747,311**	**2,186,575**	**4,800**	**260,885**	**269,285**
Non-Monetary Gold	**Nil**	**Nil**	**Nil**	**Nil**	**87,542,643**	**87,590,120**

[1] Includes minor items not shown.

17.—Imports of Canada, by Values Entered for Consumption from British Empire and Foreign Countries, Dutiable and Free, under the General, Preferential, and Treaty Rate Tariffs, Fiscal Year 1939.

Country.	Dutiable Under—			Free Under—			Total Imports.
	General Tariff.	Preferential Tariff.	Treaty Tariff.	General Tariff.	Preferential Tariff.	Treaty Tariff.	
British Empire.	$	$	$	$	$	$	$
United Kingdom	704,949	52,307,802	600,211	12,446,898	49,573,187	Nil	115,633,047
Ireland (Eire)	56	10,175	Nil	497	17,126	"	27,854
Africa—British East	17,971	163,893	"	162,971	1,439,405	"	1,784,038
British South	955	381,297	129,712	154,813	1,436,677	"	1,803,454
British West	147	243	83,660	549,648	314,803	"	948,501
Southern Rhodesia	Nil	1,864	Nil	1,024	Nil	"	2,888
Australia	4,550	1,855,468	452,339	690,204	5,804,273	"	8,806,834
British East Indies—							
British India	16,125	4,752,855	28	382,017	2,874,473	"	8,025,498
Ceylon	1,957	2,368,834	53	467,907	736,870	"	3,575,621
Straits Settlements	1,789	534,968	38	8,594,796	1,482,338	"	10,613,929
British Guiana	7,000	5,341,412	3,790	1,476,457	199,214	"	7,027,873
British West Indies—							
Barbados	104	741,101	869	3,695	1,354,477	"	2,100,246
Jamaica	3,395	3,763,666	657	26,388	2,272,271	"	6,066,377
Trinidad and Tobago	3,904	1,855,650	9,946	3,925	526,835	"	2,400,260
Other	1,003	1,300,088	1,924	75,059	899,157	"	2,277,231
Fiji	1,050	2,162,362	Nil	106	12,115	"	2,175,633
Hong Kong	562,443	Nil	32,478	177,725	Nil	4,276	776,922
Newfoundland	904	11,807	1,740	2,041,644	10,996	Nil	2,067,091
New Zealand	1,976	3,913	146,208	969,719	2,756,295	"	3,878,111
Totals, British Empire[1]	**1,373,193**	**77,769,088**	**1,494,793**	**28,450,493**	**71,615,382**	**4,276**	**180,707,225**
Foreign Countries.							
Argentina	806,644	–	366,510	968,295		Nil	2,141,449
Belgium	1,489,086	–	2,174,902	2,513,115		34,164	6,211,267
China	2,358,429	–	Nil	223,914		Nil	2,582,343
Colombia	7,047	–	684,224	6,971,277		"	7,662,548
Czechoslovakia	177,069	–	1,685,656	78,601	–	9,286	1,950,612
Denmark	38,447	–	64,127	73,539	–	157	176,270
France	546,837	–	3,799,539	1,445,885	–	158,232	5,950,493
Germany	3,126,679	–	4,911,178	1,992,333	–	85,204	10,115,394
Italy	319,355	–	1,795,537	358,846	–	9,914	2,483,652
Japan	965,082	–	2,631,321	804,351	–	64,753	4,465,507
Netherlands	914,740	–	1,196,636	1,408,742	–	16,128	3,536,246
Norway	46,094	–	527,637	155,619	–	Nil	729,350
Peru	10,981	–	Nil	2,403,483	–	"	2,414,464
Spain	46,783	–	466,524	209,170	–	"	722,477
Sweden	556,284	–	1,110,959	334,708	–	1,195	2,003,146
Switzerland	1,415,206	–	1,005,471	577,405	–	2,621	3,000,703
United States	67,467,289	–	180,638,929	160,129,264	–	4,244,305	412,479,787
Totals, Foreign Countries[1]	**83,386,452**	**–**	**205,073,516**	**184,424,011**	**–**	**4,636,830**	**477,520,809**
Totals, Imports Entered for Consumption	**84,759,645**	**77,769,088**	**206,568,309**	**212,874,504**	**71,615,382**	**4,641,106**	**658,228,034**

[1] Totals include other minor countries not specified.

18.—Values of Imports into Canada of Merchandise Entered for Consumption, from the British Empire and from Foreign Countries, Fiscal Years 1935-39.

Country.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$
British Empire.					
United Kingdom	111,682,490	117,874,822	129,507,885	145,008,771	115,633,047
Ireland (Eire)	34,922	82,866	45,467	49,894	27,854
Aden	6,837	2,563	490	9,075	6,835
Africa—British East	1,330,089	3,225,242	2,828,726	3,287,710	1,784,238
British South	3,296,780	4,769,003	1,459,229	8,394,419	1,803,454
British West	587,069	1,002,774	1,498,135	1,580,245	948,501
Southern Rhodesia	163,431	Nil	1,082,088	493,109	2,888
Bermuda	147,706	145,229	156,635	72,231	68,783
British East Indies—British India	6,414,944	7,458,125	8,325,955	9,405,298	8,025,498
Ceylon	2,092,512	2,917,879	3,962,468	6,149,515	3,575,621
Straits Settlements	2,970,415	7,198,269	10,540,669	15,586,482	10,613,929
Other	23,938	37,715	62,655	60,168	70,735
British Guiana	2,449,442	4,757,937	5,051,357	5,557,529	7,027,873
British Honduras	48,276	131,360	31,176	43,117	153,246
British Sudan	12,919	28,905	19,935	28,545	23,884
British West Indies—Barbados	4,861,463	3,430,007	3,710,534	3,143,208	2,100,246
Jamaica	4,304,770	4,313,329	5,172,905	5,668,108	6,066,377
Trinidad and Tobago	1,357,030	2,593,296	2,786,898	1,497,473	2,400,260
Other	1,381,744	1,818,095	1,792,705	1,523,676	2,277,231
Hong Kong	676,243	1,185,141	709,316	771,290	776,922
Newfoundland	1,588,973	2,019,282	2,162,223	2,596,289	2,067,091
Oceania—Australia	6,327,175	7,277,099	9,469,823	12,171,071	8,806,834
Fiji	1,799,959	1,770,435	2,394,641	2,578,271	2,175,633
New Zealand	2,534,678	3,622,398	5,376,866	7,397,272	3,878,111
Palestine	91,865	59,313	15,907	115,824	58,496
Totals, British Empire[1]	**156,186,471**	**177,721,310**	**198,165,842**	**233,205,416**	**180,707,225**
Foreign Countries.					
Argentina	2,790,923	3,744,062	11,724,269	5,205,117	2,141,449
Austria	280,986	331,482	389,067	444,480	[2]
Belgium	3,613,538	5,093,778	6,695,533	7,462,052	6,211,267
Bolivia	25	24,824	61,959	36,706	5,635
Brazil	835,546	900,877	906,062	857,045	722,503
Chile	67,860	59,169	51,913	68,848	173,170
China	2,345,570	3,717,181	4,275,235	3,341,243	2,582,343
Colombia	4,563,821	4,202,197	4,529,017	4,617,350	7,662,548
Costa Rica	47,921	60,978	62,209	64,367	90,232
Cuba	929,267	441,942	456,614	815,884	440,131
Czechoslovakia	2,310,315	1,969,644	2,364,982	3,087,848	1,950,612
Denmark	126,382	109,977	160,129	166,192	176,270
Greenland	Nil	Nil	230,235	555,818	511,601
Ecuador	20,765	75,418	49,482	34,590	31,517
Egypt	956,491	814,138	612,684	539,454	567,667
Estonia	22,293	26,127	23,876	28,001	19,845
Finland	36,315	48,374	55,126	98,624	76,968
France	6,443,695	6,717,668	6,454,161	6,489,301	5,950,493
French Africa	35,400	63,643	57,228	56,464	79,661
French East Indies	22,672	86,097	81,023	145,040	137,396
St. Pierre and Miquelon	291,579	42,786	14,281	25,758	4,971
Germany	10,014,434	9,907,685	11,683,528	11,397,491	10,115,394
Greece	39,938	48,019	67,188	56,512	24,515
Guatemala	5,210	16,131	29,696	62,341	90,846
Haiti	62,001	56,811	100,554	32,698	73,746
Honduras	53,711	96,056	19,931	71,314	33,694
Hungary	67,898	45,955	134,700	162,309	149,807
Iraq (Mesopotamia)	254,427	345,358	366,369	291,304	312,635
Italy	2,714,878	1,943,916	1,722,424	3,358,432	2,483,652
Japan	4,424,654	3,466,081	4,796,508	5,782,416	4,465,507
Latvia	4,664	10,243	12,120	5,875	18,113
Mexico	494,184	885,039	812,701	634,864	571,710
Morocco	23,237	14,867	24,902	16,845	71,898
Netherlands	4,343,945	4,258,497	4,252,461	3,547,135	3,536,246
Netherlands East Indies	398,093	780,755	1,000,630	702,356	887,962
Netherlands West Indies	Nil	273,019	207,955	81	38
Norway	713,577	862,644	713,955	716,697	729,350
Panama	91,799	42,460	9,735	4,313	16,571
Paraguay	13,307	52,082	56,937	65,058	35,112
Persia	129,119	156,245	156,838	148,382	98,274
Peru	3,430,387	4,171,236	5,271,737	4,540,979	2,414,464
Poland and Danzig	154,309	115,818	149,826	244,154	230,380
Portugal	199,846	154,213	270,206	362,341	278,746
Azores and Madeira	123,912	173,637	131,511	162,532	173,482

[1] Totals include other minor countries not specified.

[2] Included with Germany.

18.—Values of Imports into Canada of Merchandise Entered for Consumption, from the British Empire and from Foreign Countries, Fiscal Years 1935-39—concluded.

Country.	1935.	1936.	1937.	1938.	1939.
Foreign Countries—concluded.	$	$	$	$	$
Roumania	5,396	144,413	177,909	86,993	39,366
Russia (U.S.S.R.)	265,039	279,441	128,721	627,419	412,339
Santo Domingo	1,314,939	126	Nil	32	441
Siam (Thailand)	52,040	158,272	158,240	53,987	10,394
Spain	1,374,755	1,428,984	1,151,253	861,707	722,477
Canary Islands	1,640	15,679	8,042	6,605	14,107
Sweden	1,704,892	1,757,668	1,836,415	2,475,966	2,003,146
Switzerland	2,335,297	2,573,076	2,701,255	3,801,766	3,000,703
Syria	4,559	4,093	2,804	12,574	7,878
Turkey	206,188	287,558	202,853	328,459	271,940
United States	303,639,972	319,479,594	393,720,662	487,279,507	412,479,787
Alaska	99,581	60,115	91,064	77,975	84,377
Hawaii	84,904	116,387	204,907	176,296	176,825
Philippines	496,105	592,465	787,617	662,255	321,759
Puerto Rico	1,296	22,791	24,484	5,692	5,730
Uruguay	166,975	206,663	63,377	176,427	166,093
Venezuela	834,848	1,270 437	1,006,627	2,603,604	1,278,098
Yugoslavia	93,817	87,966	90,172	50,965	60,924
Totals, Foreign Countries[1]	**366,244,682**	**384,997,753**	**473,709,724**	**565,864,502**	**477,520,809**
Grand Totals, Imports	**522,431,153**	**562,719,063**	**671,875,566**	**799,069,918**	**658,228,034**
Imports, by Continents.					
Europe—United Kingdom	111,682,490	117,874,822	129,507,885	145,008,771	115,633,047
Other Europe	37,026,683	38,183,295	41,420,040	45,762,372	38,400,100
North America	320,722,090	335,938,367	411,616,495	504,177,544	429,556,237
South America	15,207,035	19,465,458	28,772,737	23,764,215	21,660,928
Asia	20,610,821	28,456,913	35,446,077	43,566,205	32,557,827
Oceania	10,746,716	12,786,319	17,449,842	22,342,245	15,039,628
Africa	6,435,318	10,013,889	7,662,490	14,448,566	5,380,267

[1] Totals include other minor countries not specified.

19.—Values of Exports of Canadian Produce from Canada to the British Empire and to Foreign Countries, Fiscal Years 1935-39.

Country.	1935.	1936.	1937.	1938.	1939.
British Empire.	$	$	$	$	$
United Kingdom	290,885,237	321,556,798	407,996,698	409,411,682	325,465,011
Ireland (Eire)	4,120,524	3,039,231	3,799,710	5,153,371	3,543,432
Aden	40,879	119,667	77,396	134,927	89,500
Africa—British East	634,578	824,031	776,150	921,835	613,045
British South	12,127,704	13,502,138	15,573,639	16,168,871	15,912,759
British West	348,736	610,158	860,337	821,889	511,316
Southern Rhodesia	528,777	789,610	843,475	1,218,010	1,056,980
Bermuda	1,121,606	1,254,249	1,362,919	1,544,886	1,417,748
British East Indies—British India	4,118,175	3,133,869	3,221,062	4,348,171	3,319,470
Ceylon	237,085	223,086	136,558	237,788	201,531
Straits Settlements	1,493,894	1,314,927	1,938,514	2,941,655	2,118,823
British Guiana	927,198	1,098,866	1,264,852	1,465,880	1,370,925
British Honduras	209,759	252,938	226,793	286,946	278,190
British Sudan	1,662	70,045	90,559	324,530	33,527
British West Indies—Barbados	1,027,173	1,009,658	1,185,661	1,210,585	1,182,176
Jamaica	3,088,267	3,342,343	3,327,133	4,387,567	4,434,716
Trinidad and Tobago	2,206,914	2,313,583	3,053,985	3,806,179	3,786,931
Other	1,312,310	1,281,720	1,570,585	1,931,617	1,699,173
Gibraltar	15,375	7,311	15,215	5,811	7,566
Hong Kong	1,300,083	1,466,955	1,372,904	2,024,116	1,894,626
Malta	207,134	416,210	331,513	432,664	339,796
Newfoundland	6,468,918	6,902,882	7,728,211	9,388,860	8,039,197
Oceania—Australia	18,081,847	23,974,094	26,953,810	32,422,489	33,254,479
Fiji	197,946	288,571	363,656	517,790	405,851
New Zealand	7,344,785	10,221,205	11,187,118	16,031,100	17,027,785
Palestine	135,523	274,156	315,441	249,876	174,313
Totals, British Empire[1]	**358,199,478**	**399,311,479**	**495,598,105**	**517,439,020**	**428,233,398**

[1] Totals include other minor countries not specified.

19.—Values of Exports of Canadian Produce from Canada to the British Empire and to Foreign Countries, Fiscal Years 1935-39—concluded.

Country.	1935	1936	1937.	1938.	1939.
Foreign Countries.	$	$	$	$	$
Argentina	4,014,974	3,981,453	3,727,088	7,419,568	4,013,707
Austria	25,810	44,808	40,849	38,649	[1]
Belgium	11,780,088	11,061,409	23,435,884	14,563,648	9,952,357
Belgian Congo	50,355	44,681	76,638	128,665	108,206
Bolivia	192,595	95,471	113,075	122,931	123,586
Brazil	2,769,578	3,711,283	3,872,899	4,830,149	3,295,358
Chile	557,303	852,292	956,935	919,389	617,261
China	4,461,465	4,555,726	4,899,488	3,354,228	3,224,854
Colombia	797,370	919,192	1,148,365	1,430,601	1,452,002
Costa Rica	66,322	83,640	99,786	97,978	104,549
Cuba	1,203,854	1,177,131	1,455,352	1,728,403	1,403,396
Czechoslovakia	39,015	55,278	193,978	1,272,053	2,877,718
Denmark	2,012,197	1,375,236	1,673,355	896,617	1,673,497
Ecuador	140,461	159,550	112,211	65,809	54,080
Egypt	297,984	440,085	409,044	365,932	440,061
Finland	345,367	722,258	637,581	578,451	463,246
France	9,842,294	7,648,440	11,717,806	7,609,382	8,776,653
French Africa	97,114	123,567	80,852	149,368	820,623
French Guiana	69,085	86,588	63,992	11,891	4,504
French Oceania	38,857	57,676	95,524	105,241	66,765
French West Indies	94,496	159,164	185,155	195,587	149,844
St. Pierre and Miquelon	350,799	362,255	338,033	297,523	264,406
Germany	4,474,158	4,559,594	7,828,525	12,254,405	17,795,739
Greece	5,341	429,992	3,082,065	552,689	1,376,429
Guatemala	154,157	89,488	102,173	91,278	128,953
Haiti	175,033	103,756	186,015	134,508	137,811
Honduras	105,641	130,590	153,140	156,501	168,678
Iraq (Mesopotamia)	129,231	115,907	14,356	36,704	29,386
Italy	3,630,630	2,376,533	4,656,016	2,272,152	1,789,147
Japan	16,935,869	14,844,137	21,629,690	26,639,885	21,045,278
Latvia	8,550	40,647	107,028	175,953	351,457
Mexico	1,885,330	1,719,634	2,854,330	3,484,305	2,361,858
Morocco	65,774	82,968	1,942,079	1,358,768	88,576
Netherlands	10,071,978	9,445,227	10,915,611	13,268,989	9,903,458
Netherlands East Indies	564,273	660,472	690,009	709,010	980,668
Netherlands Guiana	56,908	51,108	59,244	45,690	40,435
Netherlands West Indies	124,743	141,727	176,941	198,811	194,314
Nicaragua	34,187	57,194	78,323	88,727	65,551
Norway	4,788,736	4,576,786	6,907,015	6,671,605	7,664,013
Panama	239,717	312,402	395,312	329,237	286,633
Persia	68,493	176,561	54,750	153,504	43,404
Peru	744,730	1,026,433	1,092,274	1,224,123	866,417
Poland and Danzig	402,067	511,929	557,196	738,804	1,077,652
Portugal	95,257	134,735	165,876	249,048	136,863
Portuguese Africa	1,372,743	1,715,147	1,769,576	1,982,850	1,191,791
Roumania	151,582	22,726	46,709	58,648	34,810
Russia (U.S.S.R.)	21,712	1,201	185,467	516,755	699,285
Salvador	59,090	60,195	111,060	41,069	50,230
Santo Domingo	261,275	131,304	166,716	298,506	111,328
Siam (Thailand)	6,853	7,294	15,576	27,154	24,152
Spain	2,626,984	1,540,740	178,399	22,205	84,270
Sweden	1,637,003	2,295,087	3,236,854	3,156,180	5,859,087
Switzerland	622,264	765,295	517,618	589,409	773,970
Syria	33,712	101,962	107,620	80,477	66,656
Turkey	8,657	488	1,687	437,101	1,498,408
United States	304,721,354	360,302,426	435,014,544	423,131,091	375,939,361
Alaska	146,564	148,249	215,670	162,249	110,188
Hawaii	600,193	626,510	1,529,419	964,000	1,517,554
Philippines	833,623	1,123,277	1,512,146	1,861,555	1,354,284
Puerto Rico	431,296	409,365	342,450	415,621	365,533
Uruguay	231,445	368,508	422,837	432,176	123,207
Venezuela	484,510	571,687	1,016,621	1,387,302	1,286,146
Yugoslavia	1,246	6,172	42,981	11,177	12,218
Totals, Foreign Countries[2]	**398,426,447**	**449,718,938**	**565,583,801**	**552,789,589**	**498,728,847**
Grand Totals, Canadian Exports	**756,625,925**	**849,030,417**	**1,061,181,906**	**1,070,228,609**	**926,962,245**
Exports, by Continents.					
Europe—United Kingdom	290,885,237	321,556,798	407,996,698	409,411,682	325,465,011
Other Europe	56,963,021	51,096,279	80,323,584	71,168,102	76,179,085
North America	325,520,323	381,792,744	460,382,596	453,439,560	402,720,034
South America	10,989,314	12,934,902	13,856,794	19,365,960	13,256,955
Asia	30,379,721	28,129,651	36,003,868	43,280,136	36,216,557
Oceania	26,279,369	35,190,081	40,150,715	50,083,453	52,321,876
Africa	15,608,940	18,329,962	22,467,651	23,479,716	20,802,727

[1] Included with Germany.

[2] Totals include other minor countries not specified.

20.—Values and Percentages of Canadian Imports and Exports, Passing through the United States, Fiscal Years 1938 and 1939.

Country.	Merchandise Imported through United States.				Merchandise Exported through United States.			
	1938.		1939.		1938.		1939.	
British Empire.	$	p.c.	$	p.c.	$	p.c.	$	p.c.
United Kingdom	99,601	0·1	13,120	0·0	24,948,771	6·1	6,732,343	2·1
Ireland (Eire)	Nil	–	Nil	–	38,879	0·8	73,236	2·1
Australia	7,739	0·1	2,177	0·0	8,187,795	24·3	6,718,292	20·2
Bermuda	8,640	12·0	1,356	2·0	62,942	4·1	89,098	6·3
British South Africa	19,112	0·2	2,957	0·2	2,974,352	18·4	2,082,140	13·1
British East Africa	20,410	0·6	109,706	6·1	613,471	66·6	461,703	75·3
British West Africa	Nil	–	Nil	–	576,570	70·2	358,307	70·1
British India	6,321	0·7	2,792	0·0	642,684	14·8	546,709	16·4
British Guiana	250	0·0	77,059	1·1	30,276	2·1	17,131	1·2
British West Indies	6,375	0·1	42,943	0·3	584,437[1]	5·2	416,106	3·7
Ceylon	15	0·0	4,340	0·1	62,010	26·1	47,390	23·5
Fiji	Nil	–	Nil	–	108,711	21·0	77,982	19·2
Hong Kong	22,939	3·0	18,568	2·4	425,442	21·0	772,580	40·8
Malta	Nil	–	Nil	–	262,247	60·6	202,524	59·6
Newfoundland	"		"	–	71,601	0·8	149,619	1·9
New Zealand	"	–	"	–	3,871,851	24·2	4,113,201	24·2
Palestine	3,926	3·4	13,369	22·9	158,413	63·4	154,198	88·5
Southern Rhodesia	Nil	–	Nil	–	457,587	37·6	328,720	31·0
Straits Settlements	6,036	0·0	2,840	0·0	2,230,208	75·8	1,163,975	54·9
Totals, British Empire[2]	**221,127**	**0·1**	**299,797**	**0·2**	**46,390,634**	**9·0**	**24,606,692**	**5·7**
Foreign Countries.								
Argentina	1,131,376	21·7	706,585	33·0	2,812,202	37·9	1,497,533	37·3
Austria	40,139	9·0	[3]	[3]	25,514	66·0	[3]	[3]
Belgium	280,910	3·8	149,973	2·4	366,481	2·5	245,962	2·5
Brazil	230,266	26·9	205,277	28·4	3,040,843	63·0	2,210,209	67·1
Chile	12,890	18·7	1,539	0·9	643,029	69·9	530,372	85·9
China	671,709	20·1	325,694	12·6	200,352	6·0	492,787	15·3
Colombia	295,643	6·4	305,099	4·0	1,055,371	73·7	1,150,303	79·2
Cuba	388,990	47·7	371,344	84·4	776,078	44·9	841,217	59·9
Egypt	63,304	11·7	15,418	2·7	149,231	40·8	291,950	66·3
France	74,733	1·2	139,710	2·3	980,338	12·9	657,086	7·5
Germany	211,553	1·9	114,332	1·1	1,358,878	11·1	1,068,938	6·0
Guatemala	32,079	51·5	33,026	36·4	76,900	84·2	120,274	93·3
Honduras	54,441	76·3	29,030	86·2	151,723	96·9	164,737	97·7
Italy	602,402	17·9	292,929	11·8	743,502	32·7	81,337	4·5
Japan	593,008	10·3	291,945	6·5	739,264	2·8	1,256,870	6·0
Mexico	169,261	26·7	310,317	54·3	2,744,131	78·8	2,311,287	97·9
Netherlands	102,876	2·9	53,612	1·5	2,053,585	15·5	1,239,447	12·5
Netherlands East Indies	192,075	27·4	58,607	6·6	388,168	54·8	575,313	58·7
Norway	2,227	0·3	55,419	7·6	535,900	8·0	456,614	6·0
Panama	75	1·7	1,370	8·3	227,279	69·0	206,778	72·1
Peru	2,589	0·1	106	0·0	731,549	59·7	576,142	66·5
Philippine Islands	121,056	18·3	165,082	51·3	356,715	19·2	459,647	33·9
Poland and Danzig	10,084	4·1	8,306	3·6	111,195	15·1	201,010	18·7
Portuguese Africa	2,358	19·6	Nil	-	703,628	35·5	271,121	22·7
Puerto Rico	1,852	32·5	"	-	213,935	51·5	277,200	75·8
Sweden	27,165	1·1	8,837	0·4	1,277,263	40·5	1,178,135	20·1
Switzerland	132,235	3·5	29,751	1·0	86,167	14·6	210,151	27·2
Turkey	115,161	35·0	167,042	61·4	19,048	4·4	487	0·0
Venezuela	6,919	0·3	1,597	0·1	1,363,602	98·2	1,249,613	97·2
Totals, Foreign Countries[2]	**6,072,637**	**7·7**	**4,302,266**	**6·6**	**27,145,227**	**20·9**	**21,688,477**	**17·7**
Grand Totals	**6,293,764**	**2·0**	**4,602,063**	**1·9**	**73,535,861**	**11·4**	**46,295,169**	**8·4**

[1] Revised since the publication of the 1939 Year Book.
[2] Totals include other countries not specified but are exclusive of trade with the United States.
[3] Included with Germany.

Subsection 10.—Comparison of the Volume of Imports and Exports.

The statistics of the external trade of Canada are analysed in this subsection to reveal changes in the physical volume of external trade as well as in the dollar value of that trade. Value figures alone may be somewhat misleading when used to show the physical growth of production and external trade. When, for example,

Table 1 of this chapter is examined, it seems to show stagnation in external trade between the early 70's and the middle 90's of last century and a very rapid growth thereafter. Yet we know that the apparent stagnation is due partly to the fall in general prices between the '70's and the middle '90's, while the rapid growth of the later figures is exaggerated by the rise of prices after 1897, especially in the war period, 1914 to 1921. Since 1929 another precipitate decline in prices has exaggerated the actual decrease of trade. Thus the figures as published give us no true measure of the volume of external trade, yet, of the commodities that satisfy human needs, it is the *volume* rather than the *value* with which the masses of the population are more intimately concerned. Volume is, from many points of view, a more important consideration than value, and it is desirable to secure a record of the fluctuations in the volume of the country's trade as distinguished from the value thereof. This objective is attempted with regard to world trade in Subsection 1 of this chapter in which the internationally familiar term 'quantum' has the same significance as 'volume' here. Table **21,** which follows, serves the same purpose with regard to Canadian external trade.

The method adopted for ascertaining the fluctuations in volume has been to take a base year—1936—and to revalue the quantities of each commodity imported or exported in any given year at the average import or export value of that commodity in the standard or base year. Where quantities are not available, the values of items are assumed to have moved in the same direction and in the same proportions as closely related commodities. For this reason the results must not be regarded as of great precision but, since the value of goods not returned by quantity and of those not comparable over a limited series of years is small in comparison with the total trade, the amount of error introduced on this account is inconsiderable. By this method it is comparatively easy to compare the volume of the trade in a particular year with that in a recent year and the margin of error is fairly small. When, however, a comparison of the volume of trade in a particular year with that of a more remote year is undertaken, the margin of error is very much greater. Certain new commodities have come into existence in the course of the period, while the qualities of others have been materially changed; further, various new items have been added to the customs classifications, and it is not always possible to say just what customs items at present correspond with those of a year as long past as 1914. For these reasons comparisons with the pre-war fiscal year ended 1914 were discontinued after 1929. This comparison for 1929 and certain previous years appears at pp. 581-583 of the 1930 Year Book. For similar reasons the retention of 1926 as the base year was tending to lessen the reliability of recent calculations, and, consequently, 1936 has been taken as a new base year. Comparisons with 1936 are carried back to 1932 at pp. 583-585 of the 1938 Year Book.

In Table **21** the values and volumes of imports and exports, respectively, for the years 1934 to 1939 are compared with 1936, for the main groups, as follows: the imports and exports are first shown at the values at which the trade was recorded; the same imports and exports are then shown at the value they would have had if the average price or unit value had been the same in each year as it was in 1936. In other words, the figures on the basis of 1936 average values enable a comparison to be made of the imports or exports for the given years on the basis of variations in quantity only, variations due to different prices having been eliminated. Index numbers of declared values, that is, the total declared values of the imports or exports in each year expressed as percentages of 1936, are then given. These are followed by the index numbers of average values, which show the prices at which

goods were imported or exported in each year expressed as percentages of the prices in 1936. Finally, the index numbers of physical volume show the relative quantity of merchandise imported or exported in each year expressed as a percentage of the quantity of the same merchandise in 1936.

The fiscal year 1939 shows decreases in the volume of imports under most of the main groups as compared with 1938 figures, although all were higher than in 1936. The greatest change since the low period of the depression represented by the fiscal year 1933 is the increase in the imports of non-ferrous metals.

In the latter half of Table **21**, dealing with exports, the index numbers of volume show a considerable drop from 1938 figures in the cases of the wood and paper, iron, non-metallic minerals, and animal products groups. The volume of agricultural and vegetable products increased from the low figure recorded in 1938 but the average values or the prices at which they sold in the world markets showed a substantial decrease. The volume of fibres and textiles exported continued to increase but prices were the lowest since 1933.

The index numbers of average values of total imports fell from 105·9 in 1938 to 96·3 in 1939, while the index of average values of total exports fell in the same period from 114·3 to 104·5. As prices of imports and exports fell by almost the same percentage, there was not much change in Canada's barter terms in world trade, which suffered so severely during the depression owing to the much greater decline in the prices of primary goods than in those of highly fabricated commodities. See also Subsection 1, pp. 501-508 regarding price disparities in world trade.

21.—Comparison of the Values and Volumes of the External Trade of Canada, by Main Groups, Fiscal Years 1934-39.

Group.	1934.	1935.	1936.	1937.	1938.	1939.[1]
Values as Declared.	IMPORTS FOR CONSUMPTION.					
	$'000	$'000	$'000	$'000	$'000	$'000
Agricultural and Vegetable Products	90,829	109,419	110,342	131,400	146,335	121,266
Animals and Their Products	19,842	19,957	24,314	27,863	30,400	24,399
Fibres and Textiles	79,372	81,798	89,814	104,811	108,932	84,984
Wood and Paper	19,358	21,200	23,272	28,928	34,221	31,942
Iron and Its Products	69,127	100,056	114,254	150,239	209,237	154,057
Non-Ferrous Metals	20,171	28,497	33,686	37,038	47,064	36,254
Non-Metallic Minerals	83,397	102,428	105,421	116,948	136,663	121,307
Chemicals and Allied Products	25,584	28,872	29,920	33,105	36,890	34,891
Miscellaneous	26,119	30,204	31,696	41,544	49,328	49,128
Totals, Declared Values	**433,799**	**522,431**	**562,719**	**671,876**	**799,070**	**658,228**
On the Basis of 1936 Average Values.						
Agricultural and Vegetable Products	93,225	105,583	110,342	126,983	135,376	133,521
Animals and Their Products	22,705	22,404	24,314	25,900	27,682	25,639
Fibres and Textiles	86,205	82,647	89,814	98,906	101,251	90,039
Wood and Paper	18,210	21,728	23,272	28,934	34,663	32,880
Iron and Its Products	74,398	103,237	114,254	148,360	193,411	146,347
Non-Ferrous Metals	22,712	28,781	33,686	41,584	52,451	55,167
Non-Metallic Minerals	93,520	94,819	105,421	113,610	126,761	115,891
Chemicals and Allied Products	25,600	28,629	29,920	32,851	37,446	35,198
Miscellaneous	28,760	30,328	31,696	40,670	45,477	48,773
Totals, at 1936 Average Values	**465,335**	**518,156**	**562,719**	**657,798**	**754,518**	**683,455**

[1] Subject to revision.

21.—Comparison of the Values and Volumes of the External Trade of Canada, by Main Groups, Fiscal Years 1934-39—continued.

Group.	1934.	1935.	1936.	1937.	1938.	1939.[1]
Index Numbers of Declared Values.	INDEX NUMBERS. (1936=100.)					
Agricultural and Vegetable Products	82·3	99·2	100·0	119·1	132·6	109·9
Animals and Their Products	81·6	82·1	100·0	114·6	125·0	100·3
Fibres and Textiles	88·4	91·1	100·0	116·7	121·3	94·6
Wood and Paper	83·2	91·1	100·0	124·3	147·0	137·3
Iron and Its Products	60·5	87·6	100·0	131·5	133·1	134·8
Non-Ferrous Metals	59·9	84·6	100·0	110·0	139·7	107·6
Non-Metallic Minerals	79·1	97·2	100·0	110·9	129·6	115·1
Chemicals and Allied Products	85·5	96·5	100·0	110·6	123·3	116·6
Miscellaneous	82·4	95·3	100·0	131·6	155·6	155·0
Total Indexes of Declared Values	**77·1**	**92·8**	**100·0**	**119·4**	**142·0**	**117·0**
Index Numbers of Average Values.						
Agricultural and Vegetable Products	97·4	103·6	100·0	103·5	108·1	90·8
Animals and Their Products	87·4	89·1	100·0	107·6	109·8	95·2
Fibres and Textiles	92·1	99·0	100·0	106·0	107·6	94·4
Wood and Paper	106·3	97·6	100·0	90·0	98·7	97·1
Iron and Its Products	92·9	96·9	100·0	101·3	108·2	105·3
Non-Ferrous Metals	84·4	99·0	100·0	89·1	89·7	65·7
Non-Metallic Minerals	89·2	108·0	100·0	102·9	107·8	104·7
Chemicals and Allied Products	99·9	100·8	100·0	100·8	98·5	99·1
Miscellaneous	90·8	99·6	100·0	102·1	108·5	100·7
Total Indexes of Average Values	**93·0**	**100·8**	**100·0**	**102·1**	**105·9**	**96·3**
Index Numbers of Physical Volume.						
Agricultural and Vegetable Products	84·5	95·7	100·0	115·1	122·7	121·0
Animals and Their Products	93·4	92·1	100·0	106·5	113·9	105·4
Fibres and Textiles	96·0	92·0	100·0	110·1	112·7	100·3
Wood and Paper	78·2	93·4	100·0	124·3	148·9	141·3
Iron and Its Products	65·1	90·4	100·0	129·9	169·3	128·1
Non-Ferrous Metals	67·4	85·4	100·0	123·4	155·7	163·8
Non-Metallic Minerals	88·7	89·9	100·0	107·8	120·2	109·9
Chemicals and Allied Products	85·6	95·7	100·0	109·8	125·2	117·6
Miscellaneous	90·7	95·7	100·0	128·3	143·5	153·9
Total Indexes of Physical Volume	**82·7**	**92·1**	**100·0**	**116·9**	**134·1**	**121·5**
Values as Declared.	EXPORTS OF CANADIAN PRODUCE.					
	$'000	$'000	$'000	$'000	$'000	$'000
Agricultural and Vegetable Products	205,805	226,234	242,862	346,451	235,324	182,875
Animals and Their Products	75,151	86,848	100,932	133,941	136,113	121,242
Fibres and Textiles	7,829	7,523	10,274	12,830	14,225	13,251
Wood and Paper	143,142	160,933	181,832	223,918	253,435	214,488
Iron and Its Products	26,641	40,736	52,368	53,173	69,744	58,682
Non-Ferrous Metals	168,375	191,345	212,547	230,152	292,453	272,633
Non-Metallic Minerals	14,809	15,654	19,084	26,081	29,343	24,579
Chemicals and Allied Products	13,844	15,270	16,018	19,238	20,926	20,584
Miscellaneous	10,358	12,083	13,113	15,398	18,666	18,628
Totals, Declared Values	**665,954**	**756,626**	**849,030**	**1,061,182**	**1,070,229**	**926,962**

[1] Subject to revision.

21.—Comparison of the Values and Volumes of the External Trade of Canada, by Main Groups, Fiscal Years 1934-39—concluded.

Group.	1934.	1935.	1936.	1937.	1938.	1939.[1]
	EXPORTS OF CANADIAN PRODUCE—concluded.					
On the Basis of 1936 Average Values.	$'000	$'000	$'000	$'000	$'000	$'000
Agricultural and Vegetable Products	238,053	227,209	242,862	306,908	183,292	201,974
Animals and Their Products	83,932	90,031	100,932	130,634	131,276	114,366
Fibres and Textiles	8,541	7,282	10,274	11,674	13,242	14,900
Wood and Paper	142,565	161,416	181,832	211,784	220,442	177,302
Iron and Its Products	26,187	41,423	52,368	50,902	62,446	52,024
Non-Ferrous Metals	196,725	231,099	212,547	219,611	258,503	266,790
Non-Metallic Minerals	15,758	16,677	19,084	25,726	28,363	22,205
Chemicals and Allied Products	14,420	15,120	16,018	19,771	20,179	19,689
Miscellaneous	12,363	13,528	13,113	14,813	18,645	18,110
Totals, at 1936 Average Values	**738,544**	**803,785**	**849,030**	**991,823**	**936,388**	**887,360**
	INDEX NUMBERS. (1936=100.)					
Index Numbers of Declared Values.						
Agricultural and Vegetable Products	84·7	93·2	100·0	142·7	96·9	75·3
Animals and Their Products	74·5	86·0	100·0	132·7	134·9	120·1
Fibres and Textiles	76·2	73·2	100·0	124·9	138·5	129·0
Wood and Paper	78·7	88·5	100·0	123·1	139·4	118·0
Iron and Its Products	50·9	77·8	100·0	101·5	133·2	112·1
Non-Ferrous Metals	79·2	90·0	100·0	108·3	137·6	128·3
Non-Metallic Minerals	77·6	82·0	100·0	136·7	153·7	128·8
Chemicals and Allied Products	86·4	95·3	100·0	120·1	130·6	128·5
Miscellaneous	79·0	92·1	100·0	117·4	142·3	142·1
Total Indexes of Declared Values	**78·4**	**89·1**	**100·0**	**125·0**	**126·1**	**109·2**
Index Numbers of Average Values.						
Agricultural and Vegetable Products	86·0	99·6	100·0	112·9	128·4	90·5
Animals and Their Products	89·5	96·5	100·0	102·5	103·7	106·0
Fibres and Textiles	91·7	103·3	100·0	109·9	107·4	88·9
Wood and Paper	100·4	99·7	100·0	105·7	115·0	121·0
Iron and Its Products	101·7	98·3	100·0	104·5	111·7	112·8
Non-Ferrous Metals	85·6	82·8	100·0	104·8	113·1	102·2
Non-Metallic Minerals	94·0	93·9	100·0	101·4	103·5	110·7
Chemicals and Allied Products	96·0	101·0	100·0	97·3	103·7	104·5
Miscellaneous	83·8	89·3	100·0	103·9	100·1	102·9
Total Indexes of Average Values	**90·2**	**94·1**	**100·0**	**107·0**	**114·3**	**104·5**
Index Numbers of Physical Volume.						
Agricultural and Vegetable Products	98·0	93·6	100·0	126·4	75·5	83·2
Animals and Their Products	83·2	89·1	100·0	129·4	130·1	113·3
Fibres and Textiles	83·1	70·9	100·0	113·6	128·9	145·0
Wood and Paper	78·4	88·8	100·0	116·5	121·2	97·5
Iron and Its Products	50·0	79·1	100·0	97·2	119·2	99·3
Non-Ferrous Metals	92·6	108·7	100·0	103·3	121·6	125·5
Non-Metallic Minerals	82·6	87·4	100·0	134·8	148·6	116·4
Chemicals and Allied Products	90·0	94·4	100·0	123·4	126·0	122·9
Miscellaneous	94·3	103·2	100·0	113·0	142·2	138·1
Total Indexes of Physical Volume	**87·0**	**94·7**	**100·0**	**116·8**	**110·3**	**104·5**

[1] Subject to revision.

Section 4.—The Tourist Trade of Canada.*

Tourist Expenditures in Canada.—In recent years the tourist trade has become an important source of revenue in certain sections of the Dominion, materially affecting the balance of trade. It represents the economic disposition of national assets in which Canada is particularly rich, namely: its picturesque scenery; its invigorating climate; its opportunities for hunting, fishing, and boating, as well as for winter sports—for the exploitation of which a considerable capital expenditure has been made on hotel accommodation, improved highways, and other attractions. Those entering from the United States in automobiles are by far the most important class of tourist. The business accruing to the Dominion in this manner represents some return for expenditures on highways which have been very large in the period since the War of 1914-18. In order to attract this traffic, highways have been built through regions of picturesque scenery, such as the Rocky Mountains, northern Ontario, and the Laurentians and Gaspe in Quebec. A further asset for Canada arises from the fact that these scenic regions with their invigorating climate are at their best in the summer holiday season when motorists are most ready to travel. The expenditure of travellers coming to Canada from other countries has the same effect, in so far as its influence on the balance of trade is concerned, as the export of additional commodities would have. Indeed, in so far as commodities are sold to tourists travelling in the Dominion, the exportable surplus of such commodities is reduced.

It is impossible to obtain a direct record of expenditures of this kind. Moreover, even a rough estimate of the total is extremely difficult to make, as visitors to Canada are of all classes, engaging in widely different activities or forms of recreation, remaining for varying periods, with expenditures undoubtedly ranging from very small to very large amounts.

Tourists who enter Canada may be divided into two broad classes: (1) those coming in via ocean ports; and (2) those entering from the United States. The latter may be subdivided into entries by (*a*) automobile, (*b*) rail or steamer, and (*c*) other modes of travel, as bus, aeroplane, ferry, etc. In 1939 these classes are estimated to have expended in Canada: (1) $12,000,000; and (2) $262,000,000, with entries under (*a*) $168,000,000, (*b*) $73,000,000, and (*c*) $21,000,000.

The Department of National Revenue records the number of tourists entering Canada in automobiles from the United States through each of the ports of entry along the Border. Estimates of the expenditures of tourists of this class in 1939, according to the Provinces by which they entered, are as follows: Maritime Provinces, $14,000,000; Quebec, $27,000,000; Ontario, $112,000,000; Manitoba, $3,000,000; Saskatchewan, $1,000,000; Alberta, $1,000,000; and British Columbia, $10,000,000.

Expenditures of Canadian Tourists Abroad.—Canadian tourists visiting other countries may be classified in the same way as tourists entering Canada. The total expenditures of such Canadian tourists to other countries were estimated in 1939 to be as follows: to overseas countries, $14,000,000; to the United States by automobile, $44,000,000; to the United States by rail or steamer, $30,000,000; and to the United States by other modes of travel, $21,000,000; a total of $109,000,000.

* Abridged from "The Tourist Trade in Canada, 1920-26", and reports for each year from 1927-39, inclusive, published by the Dominion Bureau of Statistics. These reports contain full explanations of the methods used in making the estimates.

22.—Estimated Tourist Expenditures in Canada and of Canadians Abroad, 1924-39.

Year.	By Tourists from Other Countries in Canada.					By Canadian Tourists in Other Countries.	Excess by Tourists from Other Countries in Canada.
	Via Ocean Ports.	Via Automobile from U.S.	Via Rail or Boat from U.S.	Via Bus, Aeroplane, etc. from U.S.	Total.		
	$	$	$	$	$	$	$
1924	17,012,000	76,662,000	79,328,000	[1]	173,002,000	84,973,000	88,029,000
1925	15,430,000	98,416,000	79,328,000	[1]	193,174,000	86,160,000	107,014,000
1926	12,235,000	109,604,000	79,328,000	[1]	201,167,000	98,747,000	102,420,000
1927	14,444,000	153,768,000	70,265,000	[1]	238,477,000	108,750,000	129,727,000
1928	13,735,000	188,974,000	72,521,000	[1]	275,230,000	107,522,000	167,708,000
1929	13,794,000	215,577,000	80,008,000	[1]	309,379,000	121,645,000	187,734,000
1930	12,955,000	202,409,000	63,874,000	[1]	279,238,000	100,389,000	178,849,000
1931	12,018,000	188,129,000	50,629,000	[1]	250,776,000	76,452,000	174,324,000
1932	10,543,000	159,838,000[2]	42,067,000[2]	[1]	212,448,000[2]	57,403,000	155,045,000
1933	7,763,000	77,250,000[2]	32,111,000[2]	[1]	117,124,000[2]	50,860,000	66,264,000
1934	9,455,000	86,259,000	34,260,000	16,000,000	145,974,000	63,658,000	82,316,000
1935	10,117,000	132,162,000	53,499,000	19,000,000	214,778,000	95,600,000	119,178,000
1936	12,946,000	153,509,000	64,844,000	20,000,000	251,299,000	110,400,000	140,899,000
1937	16,972,000	181,332,000	65,277,000	27,000,000	290,581,000	124,422,000	166 159 000
1938	14,683,000	177,890,000	69,277,000	20,000,000	281,850,000	121,958,000	159,892,000
1939	12,413,000	168,607,000[2]	72,751,000[2]	21,000,000[2]	294,771,000[2]	108,796,000	165,975,000

[1] Information not available on a comparable basis. [2] Converted into Canadian funds at average rates of exchange for the period.

Until the depression made itself felt in 1930, there was a steady increase in the amounts spent both by tourists from other countries in Canada and by Canadians in other countries. During the years 1930-32 the tourist trade, in spite of successive declines, exhibited a surprising vitality as compared with the generally depressed state of trade and industry. In each of these years the expenditures of tourists in Canada (and in the latter two the balance after deducting the corresponding expenditures of Canadians in foreign countries) constituted an 'invisible' export of greater value than any single commodity exported. A marked contraction in both volume of travel and tourist expenditures occurred in 1933 and conditions in 1934 were very little better. A pronounced improvement in tourist trade took place in 1935 and since then it has maintained a level approximating that existing before the depression.

The depressing effect of the outbreak of war in September, 1939, was particularly noticeable in the case of motor travel between the United States and Canada. Sixty-day permits issued to automobile tourists, which had increased by 2·5 p.c. to the end of August as compared with the corresponding period of 1938, declined by 5·2 p.c. in the last four months of the year as compared with the same months of 1938. Cars entering on 48-hour permits fell 2·8 p.c. to the end of August and 8·2 p.c. during the remainder of the year. Toward the end of the year, the declining tendency was checked somewhat. As compared with the corresponding months of 1938, entries of cars on 60-day permits declined 2·8 p.c. in September, and 14·0 p.c. in October but only 1·4 p.c. in December, while cars staying for 48 hours or less declined 5·5 p.c. in September, 17·2 p.c. in October, and 0·8 p.c. in December.

For the year as a whole, automobile travel to Canada declined by only 3·1 p.c. Moreover, this decline was accounted for wholly by a falling-off in the number of short-stay cars since those on 60-day permits increased by 4,342, and those on 6-month permits by 229. The number of tourists travelling by rail rose 3·0 p.c. and those travelling by boat also rose by 0·9 p.c.

Section 5.—Balance of International Payments.*

Statements of the Canadian balance of international payments provide an annual summary of the current transactions in merchandise, gold, and services, and the movements of capital between Canada and other countries. Thus, besides the visible balance of merchandise trade, account is taken of the less apparent exchanges of services and capital frequently termed the 'invisible' items. The statement is divided into two accounts, the current account and the capital account, in order to distinguish current income and disbursements from transactions on capital account.

Transactions on Current Account.—The current account includes all current transactions in goods, gold, and services. The total credits in the account show estimates of credits received by Canada each year from the sale of merchandise, gold, and services to other countries, while total debits include estimated payments to other countries by the Dominion for purchases of merchandise or services, including payments of interest and dividends on British and foreign investments in Canada. Therefore, the current account furnishes a measure of the total external income and disbursements of the nation. It also indicates the net movement of capital between Canada and other countries each year, for any difference between current income and disbursements abroad must, in theory, reflect a movement of capital. For example, when credits on current account exceed debits there is a credit balance reflecting an outflow of capital from Canada, as current income from abroad is greater than all disbursements of a current character abroad under such circumstances, the resulting surplus supply of foreign exchange being utilized either to increase Canadian capital assets abroad or to reduce capital liabilities abroad. Conversely, when disbursements abroad on current account exceed external income there is a debit balance reflecting an import of capital. In other words, to obtain foreign exchange under the latter circumstances to meet the excess of current disbursements over income, Canada either has borrowed capital abroad or disposed of or withdrawn Canadian assets abroad. Thus, while the balancing item of the current account reflects the net movement of capital, its accuracy is limited by the degree of completeness and precision attained in the estimates of the current account items. Furthermore, it is at best only a measure of the net movement of capital and therefore does not disclose the great diversity and large volume of movements of capital revealed by the direct analysis of capital movements in the capital account.

Capital Movements.—The capital account delineates the movements of capital between Canada and other countries. The broad distinction between transactions appearing in the current account and those appearing in the capital account lies in the fact that the former group represents payments for current purchases of goods or services, whereas the latter group are on capital account and usually reflect changes in either Canada's external assets or liabilities, although all changes of the latter type, it should be noted, do not give rise to movements of capital. Thus, the capital account performs a dual function. It indicates the general significance of capital movements in the foreign exchange market and accordingly, along with the current account, throws light upon the background of transactions upon which the foreign exchange value of the Canadian dollar is dependent. It also makes it possible to appraise the effects of the movements of capital, during any period, upon the Canadian balance of international indebtedness. The potential effects of capital movements upon the Canadian economy may be appreciated only by studying

* Revised under the direction of Herbert Marshall, B.A., F.S.S., Chief of the Internal Trade Branch of the Dominion Bureau of Statistics.

the volume and character of the various counter movements. Often, although the net movement of capital during a period may be relatively small, the significant effects that the gross movements have upon the composition of the foreign assets and liabilities of Canada may be considerable.

The Dominion Bureau of Statistics has recently completed a comprehensive study of the Canadian balance of international payments from 1926 to date and, consequently, it is now possible to draw up for this period revised statements of the balance of payments that incorporate new information that has become available.* Of special interest is the detailed analysis of capital movements between Canada and other countries that has been revealed in the capital account.

Gold Held under Earmark by the Bank of Canada.—Since February, 1936, the Bank of Canada has been holding gold under earmark for clients abroad. These holdings presumably may be of either domestic or foreign origin. The physical movement of gold into or out of Canada is recorded in the trade tables as explained on pp. 499-501. Changes in the gold held under earmark involve international financial transactions which are considered in estimating Canada's balance of international payments (see Table 25). A table on p. 563 of the 1939 Year Book gives this information by months, for the years 1937 and 1938. Since the outbreak of war in September, 1939, the Bank of Canada has not released information regarding the holdings of gold under earmark.

Subsection 1.—The Geographical Distribution of Transactions in the Canadian Balance of International Payments.

There are important counter movements within the Canadian balance of payments that are disclosed by an analysis of the geographical distribution of transactions. While this distribution of transactions is based upon less well-defined data than the totals for all countries, the analysis shown in Table 23 does reveal the main outlines of the commercial and financial relations between Canada and the United Kingdom, the United States, and other countries. It throws light upon the external sources of demand for Canadian goods and services and the origin outside of Canada of foreign goods and services purchased or received by Canadians. It also shows the direct source and destination of movements of capital although the beneficial ownership or ultimate destination of capital may not always be disclosed. Statistics of the balance of payments by countries, it should be noted, do not reveal the currencies in which transactions are executed. In general they represent the country of residence of the participants (of transactions) rather than currencies.

With few exceptions, the broad outlines of the transactions with each country have been consistent in the five years from 1934 to 1938. In each year there have been large balances of credits in the current accounts with the United Kingdom and with other overseas countries, while there were debit balances of varying importance in the current account with the United States, with the one exception of 1935, when debits and credits in current account dealings with the United States practically balanced. The predominant direction of the capital movements between Canada and each country was also generally consistent. The most pronounced movement was the large net outward movement of capital to the United States in each year varying from $226,200,000 in 1936 to $100,400,000 in 1938. There were also movements of capital on balance to the United Kingdom in four of the five years, although of more moderate proportions. The exceptional year was 1934 when

* "The Canadian Balance of International Payments—A Study of Methods and Results"; also annual reports on the Canadian Balance of International Payments; published by and obtainable from the Dominion Bureau of Statistics.

the net inflow of capital from the United Kingdom was almost $100,000,000. In three of the five years, 1935, 1937, and 1938, there were appreciable inflows of capital on balance from other countries.

In general, the distribution of commercial and financial dealings shown in the pattern described above discloses that surplus receipts from the United Kingdom and other countries have been used in recent years to settle the excess of payments to the United States on both current and capital account. In each year the main sources of net credits were in the current accounts with the United Kingdom and overseas countries. In some years credits on capital account with these countries also contributed to the available surplus. In most years the capital account with the United States gave rise to the largest balance of debits although net debits on current account with the United States were also heavy in some years. Outflows of capital to the United Kingdom in four of the years also added to the balance of debits.

With the advent of war, the outlines of the balance of payments may be expected to change considerably from those described above. Some of the developments that will undoubtedly alter the character of both the current and capital accounts are: greater concentration of activity in certain channels; the increased importance of public finance; the introduction of foreign exchange and other controls; realignments of foreign exchange rates; and the regulation of international capital movements.

23.—Canadian Balance of International Payments, 1934-39.

NOTE.—Net receipts or credits (+); net payments or debits (−).

Item.	1934.	1935.	1936.	1937.	1938.	1939.[1]
	TRANSACTIONS BETWEEN CANADA AND ALL COUNTRIES.					
CURRENT ACCOUNT OF GOODS, GOLD, AND SERVICES.	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000
Merchandise	+148·1	+192·7	+322·2	+213·3	+181·9	+202·0
Gold	+109·6	+116·7	+131·0	+145·0	+156·5	+184·4[2]
Tourist trade	+ 82·4	+119·2	+140·9	+170·3	+161·7	+165·0
Interest and dividends	−211·6	−208·6	−233·8	−246·2	−251·0	−260·8
Freight	− 27·9	− 14·1	− 17·8	− 25·5	− 25·4	− 40·8
Miscellaneous services	− 25·8	− 29·0	− 34·0	− 38·7	− 43·5	− 40·8
Net Receipts or Credits	**+74·8**	**+176·9**	**+308·5**	**+218·2**	**+180·2**	**+209·0**
CAPITAL ACCOUNT.						
New issues and retirements of securities	− 58·0	−154·4	−163·9	− 88·4	− 61·9	− 90·2
Other security transactions	+ 8·9	+ 51·0	+ 7·8	− 4·8	+ 28·9	+ 72·1
Other capital movements	− 66·7	− 70·1	− 97·6	−105·6	−102·0	−144·0
Net Outward Capital Movement	**−115·8**	**−173·5**	**−253·7**	**−198·8**	**−135·0**	**−162·1**
Residual item[3]	+ 41·0	+ 3·4	+ 54·8	+ 19·4	+ 45·2	+ 46·9
	TRANSACTIONS BETWEEN CANADA AND THE UNITED KINGDOM.					
CURRENT ACCOUNT OF GOODS, GOLD, AND SERVICES.	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000
Merchandise	+155·2	+187·2	+271·6	+253·1	+220·4	[4]
Gold	+ 27·0	+ 15·6	+ 58·8	+ 31·8	+ 79·9	[4]
Tourist trade	− 4·2	− 5·4	− 7·1	− 5·3	− 6·5	[4]
Interest and dividends	− 74·3	− 75·7	− 83·2	− 88·0	− 82·3	[4]
Freight receipts and payments	− 3·6	− 0·4	− 3·6	− 6·0	− 6·2	[4]
Miscellaneous services, etc.	− 6·9	− 7·4	− 7·8	− 8·8	− 9·0	[4]
Net Receipts or Credits	**+ 93·2**	**+113·9**	**+228·7**	**+176·8**	**+196·3**	[4]

For footnotes, see end of table, p. 587.

23.—Canadian Balance of International Payments, 1934-39—concluded.

Item.	1934.	1935.	1936.	1937.	1938.	1939.[1]
	TRANSACTIONS BETWEEN CANADA AND THE UNITED KINGDOM—concluded.					
CAPITAL ACCOUNT.	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000
New issues and retirements of Canadian securities	+ 9·9	− 24·3	− 32·3	− 25·7	− 21·3	[4]
Other security transactions	+ 78·3	− 13·1	+ 12·1	+ 20·1	− 12·2	[4]
Other capital movements	+ 10·7	− 6·7	− 8·6	− 18·7	− 19·7	[4]
Net Inward Capital Movement	**+ 98·9**	-	-	-	-	[4]
Net Outward Capital Movement	-	**− 44·1**	**− 28·8**	**− 24·3**	**− 53·2**	[4]
	TRANSACTIONS BETWEEN CANADA AND THE UNITED STATES.					
CURRENT ACCOUNT OF GOODS, GOLD, AND SERVICES.	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000
Merchandise	− 63·4	− 35·1	− 17·8	−107·3	−134·1	[4]
Gold	+ 82·6	+101·1	+ 72·2	+111·1	+ 64·2	[4]
Tourist trade	+ 87·2	+125·6	+149·3	+175·6	+167·0	[4]
Interest and dividends	−171·2	−170·6	−192·1	−200·2	−201·4	[4]
Freight receipts and payments	− 23·1	− 13·3	− 12·1	− 22·1	− 16·0	[4]
Miscellaneous services, etc.	− 5·6	− 7·4	− 10·2	− 12·4	− 13·1	[4]
Net Receipts or Credits	-	+ 0·3	-	-	-	[4]
Net Payments or Debits	**− 93·5**	-	**− 10·7**	**− 55·3**	**−133·4**	[4]
CAPITAL ACCOUNT.						
New issues and retirements of Canadian securities	− 66·0	−130·0	−131·0	− 62·4	− 40·0	[4]
Other security transactions	− 68·2	+ 67·6	− 8·5	− 36·3	+ 22·2	[4]
Other capital movements	− 78·8	− 77·5	− 86·7	− 86·2	− 82·6	[4]
Net Outward Capital Movement	**−213·0**	**−139·9**	**−226·2**	**−184·9**	**−100·4**	[4]
	TRANSACTIONS BETWEEN CANADA AND COUNTRIES OTHER THAN UNITED KINGDOM AND UNITED STATES.					
CURRENT ACCOUNT OF GOODS, GOLD, AND SERVICES.	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000
Merchandise	+ 56·3	+ 40·6	+ 68·4	+ 67·5	+ 95·6	[4]
Gold	-	-	-	+ 2·1	+ 12·4	[4]
Tourist trade	− 0·6	− 1·0	− 1·3	-	+ 1·2	[4]
Interest and dividends	+ 33·9	+ 37·7	+ 41·5	+ 42·0	+ 32·7	[4]
Freight receipts and payments	− 1·2	− 0·4	− 2·1	+ 2·6	− 3·2	[4]
Miscellaneous services, etc.	− 13·3	− 14·2	− 16·0	− 17·5	− 21·4	[4]
Net Receipts or Credits	**+ 75·1**	**+ 62·7**	**+ 90·5**	**+ 96·7**	**+117·3**	[4]
CAPITAL ACCOUNT.						
New issues and retirements of Canadian securities	− 1·9	− 0·1	− 0·6	− 0·3	− 0·6	[4]
Other security transactions	− 1·2	− 3·5	+ 4·2	+ 11·4	+ 18·9	[4]
Other capital movements	+ 1·4	+ 14·1	− 2·3	− 0·7	+ 0·3	[4]
Net Inward Capital Movement	-	**+ 10·5**	**+ 1·3**	**+ 10·4**	**+ 18·6**	[4]
Net Outward Capital Movement	**− 1·7**	..	-	-	..	[4]

[1] Preliminary figures.
[2] In 1939 this item represents "Net Exports of Non-monetary Gold", rather than "Net Credits".
[3] Difference between balancing items of current and capital accounts.
[4] Not available.

Subsection 2.—Balance of Payments in Recent Years.

The outstanding features of the Canadian balance of international payments in the five years 1934 to 1938 have been the credit balances on current account in each year reflecting substantial surpluses of current external income over and above all current disbursements abroad. Large credit balances from exports of merchandise and from the tourist trade and growing credits from the sale of gold were more than sufficient in each year to meet payments to other countries on account of interest and dividends, freight, and miscellaneous services.

The large outflow of capital indicated by the credit balances on current account is analysed in the capital account. In each year there have been large outward movements of capital for the retirement of Canadian securities owned abroad with accompanying reductions in the contractual liabilities abroad of Canadian debtors. Other security transactions arising from the international trade in outstanding securities have in each year, except 1937, resulted in inflows of capital indicating a sustained external demand for Canadian securities. Other capital movements during the period under review have been outward in large volume and have been connected with the activities of banks, insurance companies and other financial institutions, and international direct investments. The movements of capital during the period have had the effect of reducing materially the contractual liabilities abroad of Canadian borrowers, with accompanying declines in the interest payments on externally held Canadian bonds, as well as of increasing somewhat Canadian assets abroad.

Current external income in 1937 and 1938 was large. In both years there were very substantial balances of credits on current account, although these were smaller than in 1936. As total credits on current account were greater in 1937 than in 1936, the contraction in the credit balance is explained by the fact that a greater increase in total external disbursements on current account took place in 1936. While the credit balance on merchandise account was reduced in 1937, there were substantial increases in credits from gold and the tourist trade which offset in part the decline in merchandise credits and the increase in debits for interest and dividends, freight, and miscellaneous services. In 1938 the credit balance on current account was somewhat smaller than in 1937 as total debits declined less than total credits. The principal changes in 1938 are reflected in smaller credit balances from the merchandise and tourist trades and in larger receipts from gold, together with a slightly higher debit balance on account of interest and dividends.

The net outward movement of capital was heavy in both 1937 and 1938, although smaller than in 1936. The extraordinarily large outflows in 1935 and 1936 for the redemption of Canadian securities owned outside of Canada were considerably reduced in 1937 and 1938 as a result of the development of less favourable conditions for refinancing. The net movement of capital from the trade in outstanding securities was outward on balance in 1937, in contrast to inward movement in 1938 and other recent years. Other capital movements continued to be outward on balance and heavier in both 1937 and 1938 than in previous years. A smaller part of the total outflow of capital in 1937 and 1938 was employed for the reduction of Canadian liabilities abroad than in the two preceding years.

24.—Estimated Balance of International Payments, 1937 and 1938.

NOTE.—If the estimates of the current and capital items below were absolutely correct and all inclusive, the balancing item of the current account and the balancing item of the capital account would be equal. The difference between these two amounts in the statement represents either errors in the computations or the omission of transactions that could not be traced at the time the tables were prepared. Figures for both years are subject to revision. Corresponding figures for earlier years back to 1926 may be found in the report "The Canadian Balance of International Payments—A Study of Methods and Results", issued by the Dominion Bureau of Statistics.

Item.	1937.			1938.		
	Credits (Exports, Visible and Invisible).	Debits (Imports, Visible and Invisible).	Net Credits (+) or Debits (−).	Credits (Exports, Visible and Invisible).	Debits (Imports, Visible and Invisible).	Net Credits (+) or Debits (−).
Current Account of Goods, Services, and Gold.	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000
Commodity Trade—						
Recorded merchandise exports and imports	1,125·0	808·9		956·7	677·5	
Unrecorded imports of ships	-	2·3			1·7	
Deductions for settlers' effects and other non-commercial exports and imports	1,125·0	811·2		956·7	679·2	
	3·9	9·8		3·2	7·9	
Correction for over-valuation of imports	1,121·1	801·4		953·5	671·3	
	-	6·2		-	7·6	
Minus gold-bearing quartz and bullion from exports and plus silver and other coin on imports	1,121·1	795·2		953·5	663·7	
	111·4	1·2		106·4	1·5	
Corrected totals of commodity trade	1,009·7	796·4	+213·3	847·1	665·2	+181·9
Gold Exports and Imports—[1]						
Non-monetary	145·1	0·1				
Monetary	Nil	Nil		156·5[2]		+156·5
Totals, Gold	145·1	0·1	+145·0			
Freight receipts and payments, *n.o.p.*	111·7	137·2	− 25·5	79·6	105·0	− 25·4
Tourist expenditures	294·7	124·4	+170·3	282·7	121·0	+161·7
Interest and dividend receipts and payments	78·8	325·0	−246·2	66·0	317·0	−251·0
Immigrants' remittances	7·5	22·0	− 14·5			
Government receipts and expenditures	7·6	11·1	− 3·5			
Charitable and missionary contributions	0·9	2·0	− 1·1			
Advertising transactions	2·7	2·5	+ 0·2			
Motion picture remittances	Nil	4·5	− 4·5			
Capital of immigrants and emigrants	1·6	4·1	− 2·5	23·4	66·9	− 43·5
Earnings of Canadian residents employed in U.S.A. and U.S. residents employed in Canada	4·9	1·7	+ 3·2			
Net payments for entertainment services, royalties, etc., not included above		16·0	− 16·0			
Totals, Current Account	**1,665·2**	**1,447·0**	**+218·2**	**1,455·3**	**1,275·1**	**+180·2**
Capital Account.						
New issues of Canadian securities (par value)	93·0			92·9		
Commissions and discounts	3·5			4·3		
Net New Issues	89·5		+ 89·5	88·6		+ 88·6
Retirements of Canadian securities (including maturities and redemptions)		177·9	−177·9		150·5	−150·5
Purchases and sales of outstanding securities	506·6	511·4	− 4·8	369·2	340·3	+ 28·9
Net capital transactions of international branch plants, etc.[3]	-	82·6	− 82·6			
Insurance transactions, *n.o.p.*	24·0	34·0	− 10·0		102·0	102·0
Net change in estimated net assets of Canadian banks outside Canada		13·0	− 13·0			
Totals, Capital Account	**620·1**	**818·9**	**−198·8**[4]	**457·8**	**592·8**	**−135·0**[4]

[1] All gold coin and bullion exported and imported, including exports of gold-bearing quartz and earmarked gold. [2] Net credits. [3] Included in this item are the net movements of funds resulting from the operations of the branches, subsidiaries, etc., of British and foreign companies in Canada, subsidiaries, etc., of Canadian companies operating outside of Canada and the net movements of funds resulting from the international transactions of Canadian trust companies. Although the more important current transactions of these concerns, such as dividends, have been included in the current account, various small items of current transactions that are difficult to segregate, remain in this item. [4] Direct estimate of net outflow of capital.

CHAPTER XVII.—INTERNAL TRADE.

CONSPECTUS.

	Page.
Section 1. Interprovincial Trade	590
Section 2. The Grain Trade	592
Subsection 1. Governmental Agencies Regulating or Co-operating with the Grain Trade	592
Subsection 2. Movement of Canadian Wheat, Crop Year 1938-39	593
Subsection 3. Distribution, Storage, and Inspection of Principal Canadian Field Crops	595
Section 3. Marketing of Live Stock and Live-Stock Products	600
Section 4. Cold Storage	606
Section 5. Bounties	608
Section 6. Patents, Copyrights, and Trade Marks	608
Section 7. Weights and Measures	610
Section 8. Electricity and Gas Inspection	611
Section 9. Merchandising and Service Establishments	613
Subsection 1. Wholesale and Other Bulk or Non-Retail Merchandising	614
Subsection 2. Retail Trade and Service Establishments	617
Section 10. Control and Sale of Alcoholic Liquors and Beverages in Canada	626

Internal trade is broad and complicated: it encompasses all values added to commodities traded in provincially and interprovincially by agencies and services connected with the storage, distribution, and sale of goods, such as railways, steamships, warehouses, wholesale and retail stores, financial institutions, etc. It even embraces such services as those directed to the amusement of the people, such as theatres, sports, etc.

The diverse resources of the various parts of the country have led to a vast exchange of products and the task of providing goods and services where they are required for consumption or use by a population of 11,315,000 accounts for a greater expenditure of economic activity than that required for the prosecution of Canada's great volume of external trade, high though the Dominion ranks among the countries of the world in this field.

Section 1.—Interprovincial Trade.*

Canada may be divided into the following five economic regions, each deriving its specific character from the predominant occupations of its people:—

1. *The Eastern Fishing, Lumbering, and Mining Region,* comprising the River Valley and Gulf of the St. Lawrence, together with the Atlantic Coast; in other words, the greater part of the Maritime Provinces, the northern part of the Province of Quebec (excluding the former District of Ungava), and a portion of northern Ontario.

2. *The Eastern Agricultural and Industrial Region,* comprising the cultivated portions of the Maritime Provinces and of the Provinces of Quebec and Ontario. In the latter provinces the cultivated areas extend along the banks of the St. Lawrence and its tributaries.

3. *The Central Agricultural Region,* extending from the Red River Valley to the Rocky Mountains and from the International Boundary to about 56° N. lat.

4. *The Western Fishing, Mining, and Lumbering Region,* comprising the western portion of the Province of Alberta, the whole of British Columbia, and the southern portion of Yukon.

5. *The Northern Fishing, Mining, and Hunting Region,* extending from the regions of permanent settlement northwards, and from the boundary of Labrador to the Pacific and to the Alaskan boundary. This vast region is sparsely inhabited by indigenous nomadic tribes engaged in fishing and hunting for their own support or for exchange with the fur-trading companies, and with individual traders who visit the region. In recent years mining activity has been developing in this region, especially along its southern fringe and in the basin of the Mackenzie River. In the east, a well-equipped port is located at Churchill. The Hudson Bay Railway and

*Revised by G. S. Wrong, B.Sc., Chief of the Transportation and Public Utilities Branch, Dominion Bureau of Statistics.

this ocean terminal provide a short route to Europe for the products of the Prairie Provinces.

Great differences exist between the products of these various regions; even the fisheries and lumber products of the East are quite distinct from those of British Columbia. The needs of the people throughout the country are met to a great extent by the exchange of the products of one region for those of another.

Interprovincial trade in what is now Canada had its beginning, many years before Confederation, in the exchange of the furs and lumber products of Upper and Lower Canada for the fisheries and mineral products of the Maritimes. There is now a large trade of manufactured and raw materials between the economic regions of the Dominion, although large proportions of British Columbia's lumber, minerals, fish, and fruits; the Prairie Provinces' agricultural products; Ontario's minerals; Quebec's wood-pulp, paper, and asbestos; and the Maritime Provinces' lumber, potatoes, fruit, and fish are exported to foreign countries. The products thus exchanged are carried principally on the railways, and, to a lesser extent, on the St. Lawrence River and Great Lakes. In late years an increasing amount is being carried over the highways by motor-trucks.

Monthly and annual railway traffic reports, published by the Bureau of Statistics, show provincial and Dominion *revenue* freight traffic divided into 76 classes of commodities. The data also show the quantity of each class that originated and terminated in each province, and are of use in computing the net imports and exports of each province for each class of commodity. These statistics show rail traffic only, a limitation that should be borne in mind in connection with the trade of provinces having water transportation. The totals, however, give no indication of how the imports of manufactures are offset by the exports of grain, coal, etc., in particular provinces. Such analyses are possible only from the detailed data.

The revenue freight traffic movement on the steam railways of Canada fluctuates to a certain extent with the yield of the crops and with activity in the mining and construction industries involving heavy movements of low-grade freight. The general trend from 1921 to 1928 was upward, increasing from 83,814,436 tons of freight carried in 1921 to 119,227,758 tons in 1928. In 1929, however, a decrease to 114,600,778 tons was reported and, with the industrial depression, there were still greater decreases to 57,099,111 tons in 1933, but traffic began to improve during the last six months of 1933 and the total for 1934 was 18 p.c. greater than for 1933. The rate of increase was reduced somewhat during the first half of 1935 but continued to the end of 1937. In 1938 the figures were back at about the 1936 level, but for 1939 another advance was shown.

1.—Railway Revenue Freight Traffic Movement by Provinces, 1938 and 1939.

Province.	Originating in Canada or Specified Province.		Received from Foreign Connections.		Totals, Freight Originating.[1]	
	1938.	1939.	1938.	1939.	1938.	1939.
	tons.	tons.	tons.	tons.	tons.	tons
Prince Edward Island	115,878	146,150	212	252	116,090	146,402
Nova Scotia	6,189,425	6,895,499	115,446	97,229	6,304,871	6,992,728
New Brunswick	2,011,152	2,130,886	412,435	432,325	2,423,587	2,563,211
Quebec	7,823,779	8,761,871	3,346,158	4,038,587	11,169,937	12 800,458
Ontario	17,531,096	18,751,577	14,480,560	16,016,789	32,011,656	34,768,366
Manitoba	4,769,163	4,473,696	221,972	192,539	4,991,135	4,666,235
Saskatchewan	4,547,458	6,876,017	119,950	82,741	4,667,408	6,958,758
Alberta	8,267,940	8,590,823	65,735	51,023	8,333,675	8,641 846
British Columbia	5,328,044	6,164,073	433,952	477,744	5,761,996	6,641,817
Totals	**56,583,935**	**62,790,592**	**19,196,420**	**21,389,229**	**75,780,355**	**84,179,821**

For footnote, see end of table, p. 592.

1.—Railway Revenue Freight Traffic Movement by Provinces, 1938 and 1939—concluded.

Province.	Terminating in Canada or Specified Province.		Delivered to Foreign Connections.		Totals, Freight Terminating.[1]	
	1938.	1939.	1938.	1939.	1938.	1939.
	tons.	tons.	tons.	tons.	tons.	tons.
Prince Edward Island	206,569	224,230	4,508	11,328	211,077	235,558
Nova Scotia	5,173,643	5,949,645	601,328	729,263	5,774,971	6,678,908
New Brunswick	1,755,161	1,795,949	1,209,240	1,416,159	2,964,401	3,212,108
Quebec	7,711,665	8,524,859	4,432,898	4,552,713	12,144,563	13,077,572
Ontario	25,215,915	26,800,044	11,557,132	15,384,827	36,773,047	42,184,871
Manitoba	3,656,537	3,767,827	268,296	301,783	3,924,833	4,069,610
Saskatchewan	3,852,523	3,983,270	229,607	311,388	4,082,130	4,294,658
Alberta	2,634,983	2,501,941	353	243	2,635,336	2,502,184
British Columbia	4,201,597	4,743,565	2,274,471	2,420,306	6,476,068	7,163,871
Totals	**54,408,593**	**58,291,330**	**20,577,833**	**25,128,010**	**74,986,426**	**83,419,340**

[1] The freight originating and that terminating will not agree because that which originates within a certain year does not all terminate within the same year. On the other hand, some that terminated in 1939, for instance, originated within the previous year.

Section 2.—The Grain Trade.

Subsection 1.—Governmental Agencies Regulating or Co-operating with the Grain Trade.

The agencies exercising control of the grain trade in Canada are: the Board of Grain Commissioners, which administers the provisions of the Canada Grain Act, 1912; and the Canadian Wheat Board, which operates under the Canadian Wheat Board Act, 1935. An article on the Canadian Wheat Board and its operations down to February, 1939, was specially prepared for the 1939 Year Book by T. W. Grindley, Ph.D., Secretary of the Board, and appears at pp. 569-580 of that edition.

THE BOARD OF GRAIN COMMISSIONERS.

This Board was established in 1912 under the authority of the Canada Grain Act (c. 27, 1912). It assumed functions in regulation of the grain trade that were formerly carried out under the Manitoba Grain Act and the Inspection and Sale Act. The Board consists of a Chief Commissioner and not more than two other Commissioners, appointed by the Governor in Council for periods of ten years. The chief offices of the Board are located in Winnipeg.

The Board is responsible for the administration of the provisions of the Canada Grain Act and its functions relate to: the grading and weighing of grain; deductions from grain for dockage; shortages appearing upon the delivery of grain into or out of any elevator; the unfair or discriminatory operation of any elevator; the deterioration of grain during storage or treatment; and any other provisions of the Act, or regulations made or licences granted thereunder.

The Canada Grain Act.—The Canada Year Book, 1922-23, contains at pp. 581-583 a historical summary of the more important points respecting the shipment, inspection, and sale of Canadian grain under the Canada Grain Act, and an outline of the Canada Grain Act of 1925 appears at p. 1017 of the 1925 Year Book. The 1929 amendments are dealt with at pp. 1047-1048 of the 1930 Year Book, and the Canada Grain Act, 1930, at p. 1101 of the 1931 Year Book.

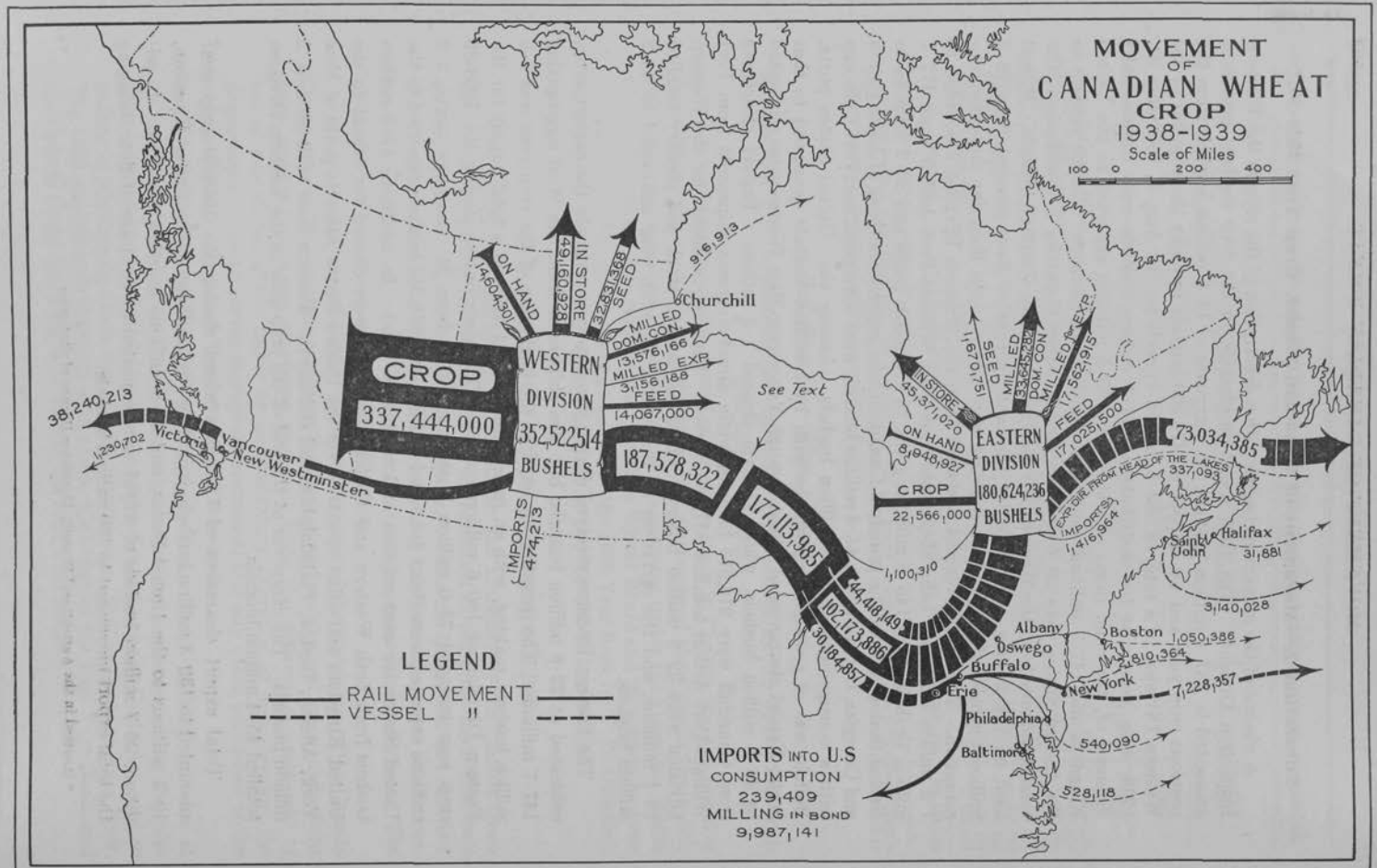
Subsection 2.—Movement of Canadian Wheat, Crop Year 1938-39.*

A résumé of the movement begins with a description of the crop in the Western Inspection Division. The 1938 wheat production in the four western provinces amounted to 337·4 million bushels. A carryover of 14·6 million bushels from the previous crop year and an import of 474,200 bushels brought the supplies of the Western Division to a total of 352·5 million bushels for the Aug. 1, 1938-July 31, 1939, crop year. As for distribution, 233·4 million bushels were commercially disposed of, the chief items of which were 30·5 millions exported to the United Kingdom and 147·7 millions shipped to the Eastern Division. Direct exports to the United States were 28·6 millions, and to other countries 9·9 millions. The total shipments from the Western Division were thus 216·7 million bushels. Wheat used by the milling companies for the manufacture of flour amounted to 16·7 million bushels, of which 13·6 millions were ground into flour for domestic consumption. The rail movement eastward from the Western Division amounted to 1·3 million bushels. Lake shipments from Fort William-Port Arthur were 177·1 million bushels, with 146·6 millions going to Canadian ports and 30·2 millions to United States ports. The principal Canadian lake ports were those of Lake Huron and Georgian Bay, to which 44·4 million bushels were consigned, and Port Colborne with a consignment of 34·8 million bushels. Among the United States ports, Buffalo was of principal importance with 19·1 million bushels consigned to that port. Export clearances of wheat through Vancouver-New Westminster amounted to 38·2 million bushels, while Victoria cleared 1·2 million. Export clearances from Churchill were 916,913 bushels, while direct overseas shipments from Fort William-Port Arthur totalled 337,093 bushels. Seed requirements for the Western Division were 32·8 million bushels; wheat fed to live stock and poultry totalled 14·1 millions; and the carryover at the end of the crop year amounted to 49·2 million bushels.

The Eastern Division received during the crop year not only the eastern crop, estimated at 22·6 million bushels, but also shipments from the West aggregating 147·7 millions. The quantity on hand at the beginning of the crop year was 8·9 million bushels, making, with an importation of 1·4 millions, a total supply for the Eastern Division of 180·6 million bushels. The distribution during the 1938-39 crop year included 73·0 million bushels exported from St. Lawrence ports, 3·2 millions exported from Saint John and Halifax, and 635,517 bushels exported to the United States for consumption and milling in bond. In addition, 12·2 million bushels from both Western and Eastern Divisions were cleared for export to the United Kingdom and other countries via the United States Atlantic ports of New York, Albany, Boston, Philadelphia, and Baltimore. Eastern flour mills used 51·2 million bushels. The carryover at the end of the crop year in the Eastern Division totalled 45·4 million bushels.

Total export clearances of Canadian wheat during the 1938-39 crop year amounted to 139·3 million bushels, including 76·2 millions to the United Kingdom, 10·2 millions to the United States, and 52·9 millions to other countries. In addition, 20·7 million bushels of wheat were exported in the form of flour bringing the total export movement to 160 million bushels.

* Revised in the Agricultural Branch, Dominion Bureau of Statistics.


MOVEMENT
OF
CANADIAN WHEAT
CROP
1938-1939
Scale of Miles
100 0 200 400
CROP
337,444,000
WESTERN
DIVISION
352,522,514
BUSHELS
ON HAND
14,604,901
IN STORE
419,160,928
SEED
32,331,168
MILLED
DOM. CON.
13,576,166
MILLED EXP.
3,156,188
FEED
14,067,000
916,913
Churchill
See Text
38,240,213
1,230,702
Victoria
Vancouver
New Westminster
IMPORTS
474,213
187,578,322
177,113,985
44,418,149
102,173,886
30,184,857
1,100,310
EASTERN
DIVISION
180,624,236
BUSHELS
CROP
22,566,000
ON HAND
8,948,927
IN STORE
45,371,020
SEED
1,670,751
MILLED
DOM. CON.
33,645,289
MILLED EXP.
17,562,915
FEED
17,025,500
EXP. DIR. FROM HEAD OF THE LAKES
337,093
IMPORTS
1,416,964
73,034,385
Saint John
Halifax
31,681
3,140,028
Albany
Oswego
Buffalo
Erie
Boston
1,050,386
810,364
New York
7,228,357
Philadelphia
Baltimore
540,090
528,118
LEGEND
RAIL MOVEMENT
VESSEL "
IMPORTS INTO U.S
CONSUMPTION
239,409
MILLING IN BOND
9,987,141

2.—Production, Imports, Exports, and Home Consumption of Wheat in Relation to Population in Canada, Crop Years Ended July 31, 1930-39.

NOTE.—Statistics from 1868 to 1928 appear at p. 583 of the 1939 Year Book.

Year.	Production.	Imports.			Exports.			Apparent Home Consumption.
		Wheat.	Wheat Flour.	Wheat and Flour.[1]	Wheat.	Wheat Flour.	Wheat and Flour.[1]	
	'000 bu.	bu.	bbl.	bu.	bu.	bbl.	bu.	'000 bu.
1929-30.....	304,520	1,003,998	82,384	1,374,726	155,766,106	6,778,023	186,267,210	111,943
1930-31.....	420,672	131,608	25,025	244,221	228,536,403	6,701,663	258,693,887	139,487
1931-32.....	321,325	123,524	20,623	216,328	182,803,382	5,383,594	207,029,555	117,560
1932-33.....	443,061	51,320	27,043	173,014	240,136,568	5,370,613	264,304,327	99,123
1933-34.....	281,892	10,676	89,442	413,165	170,234,013	5,454,636	194,779,875	104,518
1934-35.....	275,849	2,794	198,640	896,674	144,374,910	4,750,310	165,751,305	101,583
1935-36.....	281,935	15,111	61,422	291,510	232,019,649	4,978,917	254,424,775	121,702
1936-37.....	219,218	146,959	56,986	403,396	174,858,160	4,525,665	195,223,653	99,542
1937-38.....	180,210	5,743,998	87,738	6,138,819	76,713,595	3,609,656	92,957,047	103,562
1938-39.....	360,010	1,558,559	73,915	1,891,177	146,240,344	4,604,245	166,959,447	121,219

[1] Wheat flour has been converted into bushels of wheat at the average rate of 4⅘ bu. to the barrel of 196 lb. of flour.

Per Capita Consumption of Wheat Milled for Food in Canada.—The average annual per capita consumption of wheat ground for human food in Canada during the ten years 1929 to 1938 was 4·0 bushels. The range for the period was between 3·8 and 4·4 bushels. The per capita consumption in 1938 was estimated at 3·8 bushels. Details for the years 1919-27 are given at p. 241 of the 1929 Year Book. Annual estimates are published in the April number of the "Monthly Bulletin of Agricultural Statistics".

Subsection 3.—Distribution, Storage, and Inspection of Principal Canadian Field Crops.

Distribution of Wheat, Oat, Barley, Rye, and Flaxseed Crops.—In the following tables the available stocks of five important field crops and the disposition of these crops is calculated for the years 1938 and 1939. The carryover represents grain in the elevators, on farms, in transit, etc. A considerable quantity of grain is retained each year for seed. In the case of wheat, by far the larger part is exported or milled domestically for food. Large quantities of flaxseed are imported each year and most of the available stock is prepared in Canada for home consumption.

The bulk of the oat crop is consumed as feed for live stock and over half of the total stocks of barley and rye are disposed of in the same way. In addition to the balances for home consumption as grain, the amounts not in merchantable condition or lost in cleaning are used mainly for feed. Therefore, these two items should be added to the balances for home consumption as grain, in order to get the apparent consumption of grains by live stock. This, of course, does not take into account the feeds, such as bran, shorts, and gluten, obtained as by-products from milling processes.

3.—Distribution of the Canadian Wheat Crops, Crop Years Ended July 31, 1938 and 1939.

NOTE.—Flour is expressed as wheat on the basis of one barrel of flour, weighing 196 lb., being equal to 4½ bushels of wheat. Figures for earlier years will be found in previous editions of the Year Book.

Item.	1938.	1939.	Item.	1938.	1939.
	'000 bu.	'000 bu.		'000 bu.	'000 bu.
Carryovers, Aug. 1, 1937, and Aug. 1, 1938	32,938	23,553	Exports as grain	76,714	146,240
Gross production	180,210	360,010	Exports as flour	16,243	20,719
Loss in cleaning	3,100	6,500	Retained as seed	32,981	34,502
Grain not merchantable	1,658	3,373	Milled for food	42,841	47,778
Net production and carryovers	208,390	373,690	Carryovers, July 31, 1938, and July 31, 1939	23,553	94,632
Imports	6,139	1,891	Balances for home consumption as grain	22,196	31,710
Available for distribution	214,529	375,581			

4.—Distribution of the Canadian Oat Crops, Crop Years Ended July 31, 1938 and 1939.

Item.	1938.	1939.	Item.	1938.	1939.
	'000 bu.	'000 bu.		'000 bu.	'000 bu.
Carryovers, Aug. 1, 1937, and Aug. 1, 1938	18,266	19,499	Exports as grain	4,777	9,603
Gross production	268,442	371,382	Exports as meal, etc	3,796	4,618
Grain not merchantable	9,147	7,956	Retained as seed	32,524	31,975
Net production and carryovers	277,561	382,925	Milled for home consumption	8,029	8,726
Imports	11,818	3,347	Carryovers, July 31, 1938, and July 31, 1939	19,499	48,796
Available for distribution	289,379	386,272	Balances for home consumption as grain	220,754	282,554

5.—Distribution of the Canadian Barley Crops, Crop Years Ended July 31, 1938 and 1939.

Item.	1938.	1939.	Item.	1938.	1939.
	'000 bu.	'000 bu.		'000 bu.	'000 bu.
Carryovers, Aug. 1, 1937, and Aug. 1, 1938	4,315	6,631	Exports as grain	14,744	16,499
Gross production	83,124	102,242	Consumed in breweries	6,139	6,446
Loss in cleaning	253	185	Retained as seed	8,908	8,695
Grain not merchantable	1,118	1,375	Milled for home consumption	1,277	1,448
Net production and carryovers	86,068	107,313	Carryovers, July 31, 1938, and July 31, 1939	6,631	12,7c:
Imports	3	4	Balances for home consumption as grain	48,372	61,445
Available for distribution	86,071	107,317			

6.—Distribution of the Canadian Rye Crops, Crop Years Ended July 31, 1938 and 1939.

Item.	1938.	1939.	Item.	1938.	1939.
	'000 bu.	'000 bu.		'000 bu.	'000 bu.
Carryovers, Aug. 1, 1937, and Aug. 1, 1938	409	986	Exports as grain	648	1,758
Gross production	5,771	10,988	Exports as flour	2	1
Loss in cleaning	8	60	Retained as seed	1,112	1,653
Grain not merchantable	51	71	Milled for home consumption	82	112
Net production and carryovers	6,121	11,843	Carryovers, July 31, 1938, and July 31, 1939	986	1,976
Imports	64	12	Balances for home consumption as grain	3,355	6,355
Available for distribution	6,185	11,855			

7.—Distribution of the Canadian Flaxseed Crops, Crop Years Ended July 31, 1938 and 1939.

Item	1938.	1939.	Item.	1938.	1939.
	'000 bu.	'000 bu.		'000 bu.	'000 bu.
Carryovers, Aug. 1, 1937, and Aug. 1, 1938	465	219	Exports as grain	16	14
Gross production	775	1,259	Retained as seed	110	154
Loss in cleaning	27	64	Milled for home consumption	1,871	1,780
Grain not merchantable	5	10	Carryovers, July 31, 1938, and July 31, 1939	219	119
Net production and carryovers	1,208	1,404	Balances for home consumption as grain	108	215
Imports	1,116	878			
Available for distribution	2,324	2,282			

Storage and Inspection of Grain.—The growth of Canadian elevators in number and capacity has accompanied the expansion of grain acreage in the present century. Canadian elevators in 1901 numbered 426 with a capacity of 18,329,352 bushels; in 1911, 1,909 elevators and 105,462,700 bushels; and in 1921, 3,855 elevators and 231,213,620 bushels. There were, in 1939, 5,822 elevators with a capacity of 422,824,220 bushels.

8.—Numbers and Storage Capacities of Canadian Grain Elevators, Licence Years 1938 and 1939.

NOTE.—Detailed statistics of elevators for the years 1901 to 1918 are given in the 1921 Year Book, pp. 507-509, and the figures for later years will be found in successive Year Books.

Division, Elevator, and Province.	1938		1939.	
	Elevators.	Capacity.	Elevators.	Capacity.
Western Division.	No.	bu.	No.	bu.
Country Elevators—				
Ontario	2	45,000	3	67,000
Manitoba	697	22,214,950	700	22,731,650
Saskatchewan	3,216	100,723,850	3,198	100,470,450
Alberta	1,753	65,309,500	1,756	65,623,000
British Columbia	15	530,000	15	530,000
Totals, Country Elevators	5,683	188,823,300	5,672	189,422,100
Private Country Elevators—				
Manitoba	4	108,000	3	90,000
Saskatchewan	5	150,000	1	25,000
Alberta	3	170,000	3	170,000
Totals, Private Country Elevators	12	428,000	7	285,000
Mill Elevators—				
Ontario	2	190,000	2	190,000
Manitoba	4	152,500	4	152,500
Saskatchewan	11	222,000	9	168,000
Alberta	3	63,000	4	76,000
British Columbia	15	466,110	16	496,110
Totals, Mill Elevators	35	1,093,610	35	1,082,610
Private Terminal Elevators—				
Ontario	6	1,890,000	4	1,405,000
Manitoba	12	5,249,000	10	5,090,000
Saskatchewan	6	9,910,500	5	4,410,500
Alberta	15	4,610,000	14	4,600,000
British Columbia	4	780,000	3	750,000
Totals, Private Terminal Elevators	43	22,439,500	36	16,255,500

8.—Numbers and Storage Capacities of Canadian Grain Elevators, Licence Years 1938 and 1939—concluded.

Division, Elevator, and Province.	1938.		1939.	
	Elevators.	Capacity.	Elevators.	Capacity.
	No.	bu.	No.	bu.
Western Division—concluded.				
Public Terminal Elevators—				
Saskatchewan	1	5,500,000	2	11,000,000
Alberta	3	6,100,000	3	6,100,000
British Columbia	1	4,335,000	Nil	–
Totals, Public Terminal Elevators	5	15,935,000	5	17,100,000
Semi-Public Terminal Elevators—				
Ontario	27	92,567,210	27	92,567,210
Manitoba	1	2,500,000	1	2,500,000
Alberta	Nil	–	Nil	–
British Columbia	9	16,613,000	9	20,948,000
Totals, Semi-Public Terminal Elevators	37	111,680,210	37	116,015,210
Totals, Western Division	**5,815**	**340,399,620**	**5,792**	**340,160,420**
Eastern Division.				
Nova Scotia	1	2,200,000	1	2,200,000
New Brunswick	3	3,076,800	3	3,076,800
Quebec	9	25,537,000	9	25,537,000
Ontario	17	51,850,000	17	51,850,000
Totals, Eastern Division	**30**	**82,663,800**	**30**	**82,663,800**
Summary by Provinces.				
Nova Scotia	1	2,200,000	1	2,200,000
New Brunswick	3	3,076,800	3	3,076,800
Quebec	9	25,537,000	9	25,537,000
Ontario	54	146,542,210	53	146,079,210
Manitoba	718	30,224,450	1,780	76,569,000
Saskatchewan	3,239	116,506,350	3,215	116,073,950
Alberta	1,777	76,252,500	718	30,564,150
British Columbia	44	22,724,110	43	22,724,110
Grand Totals for Canada	**5,845**	**423,063,420**	**5,822**	**422,824,220**

9.—Quantities of Grain Inspected, Crop Years Ended July 31, 1938 and 1939.

Grain.	1938.			1939.		
	Western Division.	Eastern Division.	Total.	Western Division.	Eastern Division.	Total.
	bu.	bu.	bu.	bu.	bu.	bu.
Spring wheat	117,916,797	Nil	117,916,797	276,427,580	Nil	276,427,580
Winter wheat	203,203	982,429	1,185,632	632,420	1,695,005	2,327,425
Totals, Wheat	118,120,000	982,429	119,102,429	277,060,000	1,695,005	278,755,005
Oats	24,944,000	289,980	25,233,980	29,262,000	79,410	29,341,410
Barley	25,796,000	260,612	26,056,612	26,288,000	95,210	26,383,210
Flax	358,100	Nil	358,100	712,200	Nil	712,200
Rye	1,409,600	36,131	1,445,731	2,926,000	3,000	2,929,000
Corn	60,000	116,000	176,000	82,500	508,360	590,860
Buckwheat	Nil	276,643	276,643	1,000	247,619	248,619
Mixed grain	143,100	51,250	194,350	96,600	3,050	99,650
Totals, Grain	**170,830,800**	**2,013,045**	**172,843,845**	**336,428,300**	**2,631,651**	**339,059,954**

10.—Shipments of Grain by Vessels from Fort William and Port Arthur, Crop Years Ended July 31, 1938 and 1939.

Grain.	1938.			1939.		
	To Canadian Ports.	To U.S. Ports.	Total Shipments.	To Canadian Ports.	To U.S. Ports.	Total Shipments.
Wheat..... bu.	71,000,570[1]	12,666,792	83,667,362	146,592,035[2]	30,521,950	177,113,985
Oats..... "	5,106,412	Nil	5,106,412	14,109,846	731,254	14,841,100
Barley..... "	16,281,887	703,731	16,985,618	15,801,349	2,203,246	18,004,595
Flaxseed..... "	344,741	Nil	344,741	463,316	Nil	463,316
Rye..... "	814,985	20,000	834,985	722,073	1,758,576	2,480,649
Totals..... "	**93,548,595**	**13,390,523**	**106,939,118**	**177,688,619**	**35,215,026**	**212,903,645**
Screenings..... ton.	13,284	25,450	38,734	41,839	41,892	83,731
Mixed feed (oats groats) "	Nil	Nil	—	178	Nil	178
Barley malt..... lb.	19,415,240	"	19,415,240	22,766,620	"	22,766,620

[1] Includes 114,375 bushels of wheat exported direct to Europe. [2] Includes 337,093 bushels of wheat exported direct to Europe.

11.—Shipments of Grain by Lake and All-Rail Routes from Fort William and Port Arthur, Crop Years Ended July 31, 1938 and 1939.

Grain.	1938.			1939.		
	Lake.	Rail.	Total.	Lake.	Rail.	Total.
Wheat—	bu.	bu.	bu.	bu.	bu.	bu.
No. 1 Hard.....	313,280	4,529	317,809	1,756,662	5,327	1,761,989
No. 1 Northern.....	17,307,423	894,343	18,201,766	45,274,514	11,203	45,285,717
No. 2 Northern.....	13,473,489	709,734	14,183,223	57,208,374	22,600	57,230,974
No. 3 Northern.....	22,568,812	314,756	22,883,568	26,105,224	4,853	26,110 077
No. 4.....	7,547,213	90,130	7,637,343	10,158,913	14,560	10,173,473
Other grades.....	21,442,847	364,205	21,807,052	36,628,530	559,769	37,188,299
Totals, Wheat.....	**82,653,064**	**2,377,697**	**85,030,761**	**177,132,217**	**618,312**	**177,750,529**
Other Grain—						
Oats.....	5,015,323	2,487,422	7,502,745	14,900,775	2,947,257	17,848,032
Barley.....	16,958,563	265,066	17,223,629	17,972,738	567,471	18,540,209
Flaxseed.....	336,144	29,430	365,574	452,587	149,304	601,891
Rye.....	778,985	62,015	841,000	2,411,872	40,179	2,452,051
Mixed grain[1].....	754	27,033	27,787	4,756	51,134	55,890
Totals, Other Grain.	**23,089,769**	**2,870,966**	**25,960,735**	**35,742,728**	**3,755,345**	**39,498,073**

[1] In bushels of 50 lb.

12.—Canadian Grain Handled at Eastern Elevators, Crop Years Ended July 31, 1930-39.

NOTE.—Figures for the crop years 1922 to 1929 are shown at p. 626 of the 1931 edition of the Year Book.

Item and Year.	Wheat.	Oats.	Barley.	Flaxseed.	Rye.	Total Grain.
Receipts and Carryover—	bu.	bu.	bu.	bu.	bu.	bu.
1930.....	132,356,863	15,932,469	8,381,291	658,303	3,226,137	160,555,063
1931.....	178,120,479	20,874,442	37,555,371	1,710,059	6,226,473	244,486,824
1932.....	151,395,023	17,063,934	17,109,737	1,012,939	15,210,866	201,792,499
1933.....	233,419,639	17,367,890	7,797,343	1,116,223	3,921,887	263,622,982
1934[1].....	164,248,854	17,949,649	7,496,255	631,973	837,076	191,163,807
1935[1].....	116,415,429	10,851,457	10,045,694	485,990	933,244	138,731,814
1936[1].....	164,427,961	20,967,752	14,403,239	582,309	2,033,088	202,414,349
1937[1].....	161,828,565	12,273,485	6,247,592	586,734	2,444,583	183,380,959
1938[1].....	118,582,130	7,496,487	27,610,593	482,529	1,400,923	155,572,662
1939[1].....	224,541,409	16,024,099	24,845,946	547,082	891,751	266,850,287
Shipments—						
1930.....	111,077,966	13,372,999	6,734,676	657,101	1,654,237	133,496,979
1931.....	163,730,581	19,086,592	36,485,055	1,693,439	4,378,874	225,374,541
1932.....	133,610,498	15,706,287	16,807,097	974,649	13,738,895	180,837,426
1933.....	200,254,656	15,662,256	6,929,791	1,027,504	2,836,333	226,710,540
1934.....	166,952,408	16,824,993	6,325,712	720,692	1,204,467	192,028,272
1935.....	105,273,843	13,027,608	11,047,771	485,990	1,306,106	131,141,318
1936.....	184,120,242	19,563,798	14,652,637	582,309	2,103,700	221,022,686
1937.....	178,492,948	13,159,516	6,724,438	586,734	2,811,294	201,774,930
1938.....	119,884,101	7,358,685	27,090,701	482,529	1,180,127	155,996,143
1939.....	188,113,064	13,763,219	24,626,489	547,083	1,045,658	228,095,513

[1] Receipts only.

Flour Milling in 1938.—The flour- and feed-milling industry in Canada in 1938 showed a decrease of 6 in the number of mills of all classes from 1937; in capacity an increase of 99 barrels of flour a day over 1937 was shown. Capital investment was $50,111,006. The mills were distributed by provinces as shown in the statement appearing in the Manufactures chapter at p. 408. Statistics of the employees, value of products, etc., for both flour and feed mills, for the latest year available, will be found in Table 9 of the chapter on Manufactures, pp. 414-415.

Section 3.—Marketing of Live Stock and Live-Stock Products.*

The estimated value of animals sold for meat in Canada in 1938 was $136,846,000. In addition, the 1938 wool production was worth $1,565,000 and the farm value of poultry and eggs produced was $53,748,000. Live stock makes a very important contribution to farmers' income and also provides the basis for a large slaughtering and meat-packing industry in Canada. Since the War of 1914-18 the slaughtering and meat-packing industry has been one of the most important single manufacturing industries in Canada.

Live-Stock Marketings, 1938.—The numbers of all classes of live stock sold at stockyards showed decreases in 1938 as compared with 1937. Cattle sold numbered 785,636 in 1938 and 999,332 in 1937, calves 465,753 and 544,428, hogs 700,877 and 1,037,788, and sheep and lambs 369,247 and 395,957, respectively.

* Revised in the Agricultural Branch, Dominion Bureau of Statistics. For more detailed information on this subject, see: Canada Year Book, 1922-23, pp. 594-595; "Live Stock and Animal Products Statistics", published annually by the Dominion Bureau of Statistics; and the "Annual Market Review", published annually by the Live Stock Branch of the Dominion Department of Agriculture. Statistics of live stock and poultry are given at pp. 211-214 of this volume.

13.—Total Receipts of Live Stock and Disposition of Slaughter and Store Stock at Principal Markets in Canada, 1937 and 1938.

Market and Item.	1937.				1938.			
	Cattle.	Calves.	Hogs.	Sheep and Lambs.	Cattle.	Calves.	Hogs.	Sheep and Lambs.
Toronto—	No.	No.	No.	No.	No.	No.	No.	No.
Receipts (total)	341,512	143,610	242,110	170,414	314,103	118,093	239,620	158,695
Shipments—								
Slaughter stock to packers	192,498	45,512	238,273	132,664	207,094	48,128	229,503	123,602
Slaughter stock to butchers	30,275	33,790	4,121	31,181	34,713	35,169	12,433	29,454
Store stock to country points	104,253	16,817	Nil	Nil	49,979	5,543	Nil	Nil
Montreal (Pt. St. Charles)—								
Receipts (total)	62,784	130,722	245,634	101,352	77,523	147,023	187,719	101,214
Shipments—								
Slaughter stock to packers	40,518	79,077	143,726	74,890	47,306	89,926	116,252	72,982
Slaughter stock to butchers	21,843	49,896	104,331	29,475	29,760	56,581	101,638	28,326
Store stock to country points	1,070	13	Nil	Nil	843	3	Nil	Nil
Montreal (East End)—								
Receipts (total)	14,263	25,736	40,776	5,320	16,199	27,989	39,215	5,629
Shipments—								
Slaughter stock to packers	322	634	3,717	120	123	783	6,411	125
Slaughter stock to butchers	9,296	21,650	35,033	4,910	11,202	27,003	32,670	5,492
Store stock to country points	3,162	Nil	Nil	Nil	2,295	Nil	Nil	Nil
Winnipeg—								
Receipts (total)	359,182	161,543	248,342	59,225	216,158	112,006	111,598	54,150
Shipments—								
Slaughter stock to packers	181,816	97,426	191,191	49,441	112,756	76,689	75,832	44,353
Slaughter stock to butchers	34,339	33,718	5,513	3,214	31,505	24,671	9,413	3,348
Store stock to country points	56,457	3,383	Nil	Nil	33,627	1,892	Nil	Nil
Calgary—								
Receipts (total)	76,010	25,960	69,667	10,361	64,738	19,192	41,350	11,428
Shipments—								
Slaughter stock to packers	61,106	370	55,979	8,948	51,620	[1]	37,080	9,584
Slaughter stock to butchers	7,604	[1]	952	199	7,173	[1]	1,015	460
Store stock to country points	19,013	Nil	Nil	Nil	16,139	73	Nil	Nil
Edmonton—								
Receipts (total)	71,918	24,020	49,263	16,941	63,076	24,418	39,378	15,402
Shipments—								
Slaughter stock to packers	36,014	12,782	43,244	13,438	32,713	13,920	37,201	11,659
Slaughter stock to butchers	2,844	1,681	2,080	1,759	3,497	1,994	2,321	1,302
Store stock to country points	17,532	846	Nil	Nil	16,563	991	Nil	Nil

[1] Included with cattle.

13.—Total Receipts of Live Stock and Disposition of Slaughter and Store Stock at Principal Markets in Canada, 1937 and 1938—concluded.

Market and Item.	1937.				1938.			
	Cattle.	Calves.	Hogs.	Sheep and Lambs.	Cattle.	Calves.	Hogs.	Sheep and Lambs.
	No.	No.	No.	No.	No.	No.	No.	No.
Prince Albert—								
Receipts (total)	15,598	3,789	23,143	4,772	9,487	2,933	7,367	2,336
Shipments—								
Slaughter stock to packers	7,924	2,984	26,481	4,315	5,193	2,266	9,628	2,062
Slaughter stock to butchers	278	133	9	22	410	83	8	84
Store stock to country points	6,365	296	Nil	Nil	2,881	341	Nil	Nil
Moose Jaw—								
Receipts (total)	19,292	6,949	25,251	15,227	6,429	2,293	7,388	11,243
Shipments—								
Slaughter stock to packers	12,803	6,311	21,277	7,624	5,173	1,845	6,513	3,367
Slaughter stock to butchers	Nil	Nil	Nil	Nil	1	Nil	Nil	Nil
Store stock to country points	5,689	555	"	"	1,076	443	"	"
Saskatoon—								
Receipts (total)	22,304	11,914	58,206	8,250	10,297	6,731	15,228	6,296
Shipments—								
Slaughter stock to packers	12,118	10,368	50,371	7,495	5,840	5,507	14,159	5,430
Slaughter stock to butchers	2,710	1,404	1,894	435	2,594	1,407	663	370
Store stock to country points	4,622	117	Nil	Nil	1,274	62	Nil	Nil
Regina—								
Receipts (total)	16,469	10,185	35,396	4,095	7,626	5,075	12,014	2,854
Shipments—								
Slaughter stock to packers	10,590	6,350	27,673	3,237	5,461	3,730	9,648	2,514
Slaughter stock to butchers	2,083	2,320	1,584	756	1,569	1,245	1,146	373
Store stock to country points	1,467	252	Nil	Nil	559	40	Nil	Nil

The interprovincial and export movement of live stock in 1938 showed decreases in all classes. Total shipments in 1938 with comparative figures for 1937 in parentheses were as follows: cattle 458,601 (878,867); calves 242,599 (358,917); swine 517,715 (911,097); and sheep 245,902 (315,553).

14.—Live Stock from Several Provinces of Canada, Marketed through Stockyards, Packers, etc., 1938.

Live Stock.	Maritime Provinces.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	Total.
	No.	No.	No.	No.	No.	No.	No.
Cattle—							
Totals to stockyards	146	31,100	328,110	119,656	111,786	165,577	756,375
Direct to packers	3,101	11,054	102,247	44,526	21,054	76,546	258,528
Direct for export	5,333	4,170	21,509	1,545	3,873	22,382	58,812
Totals, Cattle	**8,580**	**46,324**	**451,866**	**165,727**	**136,713**	**264,505**	**1,073,715**
Calves—							
Totals to stockyards	6,525	97,238	177,354	60,518	62,942	50,496	455,073
Direct to packers	7,472	45,946	97,705	49,562	10,943	69,876	281,504
Direct for export	479	474	9,772	240	281	498	11,744
Totals, Calves	**14,476**	**143,658**	**284,831**	**110,320**	**74,166**	**120,870**	**748,321**
Hogs—							
Totals to stockyards	7,092	139,006	320,358	70,995	82,276	126,878	746,605
Direct to packers	68,249	144,080	1,311,004	179,060	134,840	655,960	2,493,193
Direct for export	5,570	1	111	Nil	36	19	5,737
Totals, Hogs	**80,911**	**283,087**	**1,631,473**	**250,055**	**217,152**	**782,857**	**3,245,535**
Sheep—							
Totals to stockyards	5,033	91,791	148,245	27,519	53,985	48,451	375,024
Direct to packers	13,099	37,213	99,552	61,504	19,005	151,029	381,402
Direct for export	539	23	1,469	Nil	5	125	2,161
Totals, Sheep	**18,671**	**129,027**	**249,266**	**89,023**	**72,995**	**199,605**	**758,587**
Store cattle purchased	300	1,666	81,413	13,673	5,479	27,555	130,086

In Table **15** are given the statistics of the grading of animals from several provinces marketed through the stockyards in 1938 and, in the case of hogs, those marketed direct to packers, since a majority of these animals are handled in this way. In recent years the practice is developing of grading an increasing proportion of hogs by the carcass after being dressed at the packing plant. Hogs graded by each method are shown separately.

15.—Grades of Live Stock from Several Provinces of Canada, Marketed at the Stockyards and Packing Plants, 1938.

Live Stock.	Maritime Provinces.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	Total.
	No.	No.	No.	No.	No.	No.	No.
Cattle—							
Steers up to 1,050 lb.—							
Choice	73	18	104	1,989	1,449	3,170	6,803
Good	737	573	24,503	7,844	4,552	11,862	50,071
Medium	321	1,825	40,674	8,348	6,403	12,175	69,746
Common	359	1,775	22,356	3,800	3,789	10,000	42,079
Steers over 1,050 lb.—							
Choice	16	81	13,737	1,619	850	3,272	19,575
Good	133	1,505	33,666	4,108	1,982	7,755	49,149
Medium	46	1,272	21,655	1,756	1,238	5,065	31,032
Common	14	336	6,611	357	437	1,473	9,228
Heifers—							
Choice	70	11	87	1,965	1,560	2,414	6,107
Good	339	411	24,444	8,686	8,216	15,203	57,299
Medium	143	779	34,806	9,573	11,079	19,497	75,877
Common	85	1,318	19,030	5,053	5,340	14,449	45,275
Fed Calves—							
Choice	Nil	10	9,705	3,298	1,641	2,817	17,471
Good	2	35	13,824	4,826	2,351	3,717	24,755
Medium	14	51	11,277	6,013	3,371	3,004	23,730
Cows—							
Good	79	1,619	22,098	10,903	11,225	26,737	72,661
Medium	106	4,735	24,451	17,004	14,154	21,558	82,008
Common	120	6,201	26,413	9,738	8,078	13,196	63,746
Canners and cutters	343	10,248	38,219	14,518	7,626	9,918	80,872
Bulls—							
Good	92	601	5,837	3,346	2,834	4,352	17,062
Common	154	7,183	13,138	3,090	2,706	4,170	30,441
Stocker and Feeder Steers—							
Good	Nil	62	4,272	13,194	12,502	20,273	50,303
Common	"	410	11,704	13,489	10,031	9,784	45,418
Stock Cows and Heifers—							
Good	1	Nil	32	3,627	3,460	4,465	11,585
Common	Nil	"	808	1,875	1,528	3,312	7,523
Milkers and springers	"	892	5,222	1,050	314	90	7,568
Unclassified	"	203	1,684	3,113	4,124	8,395	17,519
Totals, Cattle	**3,247**	**42,154**	**430,357**	**164,182**	**132,840**	**242,123**	**1,014,903**
Calves—							
Veal—							
Good and choice	351	6,460	79,375	45,089	25,741	46,772	203,788
Common and medium	1,288	88,721	186,550	64,157	45,244	72,964	458,924
Grass	12,358	48,003	9,134	834	2,900	636	73,865
Totals, Calves	**13,997**	**143,184**	**275,059**	**110,080**	**73,885**	**120,372**	**736,577**

15.—Grades of Live Stock from Several Provinces of Canada, Marketed at the Stock-yards and Packing Plants, 1938—concluded.

Live Stock.	Maritime Provinces.	Quebec.	Ontario.	Manitoba.	Saskat-chewan.	Alberta.	Total.
	No.	No.	No.	No.	No.	No.	No.
Hogs, Graded Alive—							
Select bacon	738	45,874	300,190	38,042	27,757	159,590	572,191
Bacon	2,581	87,097	448,350	81,895	44,652	198,072	862,647
Butchers	2,283	34,804	76,080	20,485	24,210	86,635	244,497
Heavies	326	6,451	15,914	7,158	6,522	13,533	49,904
Extra heavies	318	3,463	3,053	3,960	3,335	3,542	17,671
Lights and feeders	2,855	20,198	24,111	34,203	22,684	13,118	117,169
Sows No 1	221	1,017	3,120	5,692	5,142	4,920	20,112
Sows No. 2	668	3,287	23,728	4,183	2,384	8,425	42,675
Roughs	4	55	1,127	634	572	1,254	3,646
Stags	62	337	1,762	453	357	941	3,912
Totals, Hogs Graded Alive	**10,056**	**202,583**	**897,435**	**196,705**	**137,615**	**490,030**	**1,934,424**
Hog Carcasses—							
"A"	22,418	23,695	249,720	13,465	18,144	91,429	418,871
"B"	31,754	36,774	383,204	25,443	37,615	144,652	659,442
"C"	3,525	5,679	31,203	3,890	6,908	26,467	77,672
"D"	905	619	2,795	755	2,884	2,704	10,662
"E"	643	356	8,003	290	775	1,800	11,867
Heavies	1,037	2,435	22,876	4,463	3,719	12,609	47,139
Extra heavies	503	1,340	4,207	1,812	1,404	2,806	12,072
Lights	2,947	8,667	23,459	1,338	5,210	4,594	46,215
Sows	1,553	938	8,460	1,894	2,842	5,747	21,434
Totals, Hog Carcasses	**65,285**	**80,503**	**733,927**	**53,350**	**79,501**	**292,808**	**1,305,374**
Lambs and Sheep—							
Lambs—							
Good handyweights	12,223	65,682	177,546	60,774	36,683	143,558	496,466
Good heavies	1,341	2,106	7,117	2,844	9,522	8,941	31,871
Common, all weights	2,215	22,611	24,078	17,225	11,657	22,753	100,539
Bucks	921	23,876	8,561	1,096	751	807	36,012
Sheep—							
Good heavies	128	1,037	3,686	1,528	774	4,592	11,745
Good handyweights	618	7,197	16,409	2,425	2,710	9,778	39,137
Common	683	6,458	10,339	3,008	1,712	3,542	25,742
Unclassified	3	37	61	123	9,181	5,509	14,914
Totals, Lambs and Sheep	**18,132**	**129,004**	**247,797**	**89,023**	**72,990**	**199,480**	**756,426**

Slaughtering and Meat Packing.—This industry has become one of the most important branches of manufacturing in Canada. Its growth has been accompanied by a concentration of the major part of the production of the industry into a comparatively small number of large establishments, thereby facilitating the utilization of by-products and greater efficiency of operation. There has been a large increase in the number of establishments since 1930, only 76 firms having reported in that year, whereas in 1931 the number was 147, owing to the inclusion of wholesale butchers operating small plants engaged in slaughtering only. The inclusion of these small establishments did not affect materially the value of production of the industry, which increased from $3,799,552 in 1870 to $7,132,831 in 1890, and to $22,217,984 in 1900. In the next decade it more than doubled, attaining a value of $48,527,076 in 1910, and by 1920 a value of $240,544,618 (the highest on record) was recorded. In 1938 it was $175,767,382, as compared with $181,419,311 in 1937.

16.—Live Stock Slaughtered at Canadian Inspected Establishments, by Months, 1937 and 1938.

Month.	1937.				1938.			
	Cattle.	Calves.	Sheep.	Hogs.	Cattle.	Calves.	Sheep.	Hogs.
	No.	No.	No.	No.	No.	No.	No.	No.
January	71,473	28,576	47,823	351,365	70,174	30,293	59,026	324,355
February	58,136	32,089	38,752	334,408	57,803	33,933	44,996	276,255
March	68,202	55,138	46,813	357,883	68,854	61,144	35,501	299,814
April	67,429	81,553	33,779	356,419	62,951	80,645	24,698	275,898
May	61,544	87,971	23,259	328,014	71,049	95,666	26,845	251,804
June	66,526	82,443	44,054	293,541	63,522	77,450	47,994	207,972
July	67,090	69,642	67,364	243,160	65,170	61,331	62,832	172,244
August	80,703	68,823	85,177	213,761	71,754	60,263	83,654	194,316
September	102,731	66,387	117,307	237,492	81,272	52,028	113,255	242,198
October	113,765	55,061	135,918	321,879	87,967	50,476	154,001	297,440
November	100,561	45,724	120,253	388,973	94,020	43,976	100,286	314,507
December	65,801	28,998	61,259	375,246	64,724	29,374	48,591	280,400
Totals	**923,961**	**702,405**	**821,758**	**3,802,141**	**859,260**	**676,579**	**801,679**	**3,137,203**

Consumption of Animal Products.—The consumption of animal products such as meat, butter, and eggs is generally more pronounced in the case of people with a high standard of living. In Canada there is a relatively high per capita consumption of beef, pork, butter, and eggs but a relatively low per capita consumption of mutton and lamb, and cheese. During the depression years, the per capita consumption of these products was not affected as much as might have been expected. Changes in the per capita consumption of various animal products occur as a result of changes in price relationships. These, in turn, are related to cycles of over- and under-production particularly marked in the case of the meat products of hogs and cattle. Beef and pork interchange in leadership as regards the amount consumed, according to the price relationships between them.

17.—Production, Imports, Exports, and Total and Per Capita[1] Consumption of Meats and Live-Stock Products in Canada, 1933-38.

NOTE.—The statistics in this table have been extensively revised. Revised figures for meats for 1920-32 are given at pp. 80-81 of the "Monthly Bulletin of Agricultural Statistics" for February, 1940.

Item.		1933.	1934.	1935.	1936.	1937.	1938.[2]
Beef—							
Animals slaughtered in Canada	'000	997	1,136	1,158	1,272	1,307	1,165
Estimated dressed weight	'000 lb.	498,300	561,135	571,805	621,959	615,597	567,501
On hand, Jan. 1	"	8,940	14,896	22,858	21,976	23,947	25,302
Imports[3]	"	6,679	9,894	11,550	12,179	11,787	10,413
	"	513,919	585,925	606,213	656,114	651,331	603,216
Exports	"	10,009	15,092	12,513	12,416	17,265	5,692
	"	503,910	570,833	593,700	643,698	634,066	597,524
On hand, Dec. 31	"	14,896	22,858	21,976	23,947	25,302	19,337
Totals, consumption	"	489,014	547,975	571,724	619,751	608,764	578,187
Consumption per capita	"	45·8	50·6	52·3	56·2	54·7	51·6
Veal—							
Animals slaughtered in Canada	'000	910	995	1,060	1,116	1,267	1,213
Estimated dressed weight	'000 lb.	97,370	113,396	121,946	131,712	144,484	133,452
On hand, Jan. 1	"	882	1,231	2,538	2,860	4,505	3,206
Imports	"	[4]	[4]	[4]	[4]	[4]	[4]
	"	98,252	114,627	124,484	134,572	148,989	136,658
Exports	"	[4]	[4]	[4]	[4]	[4]	[4]
	"	98,252	114,627	124,484	134,572	148,989	136,658
On hand, Dec. 31	"	1,231	2,538	2,860	4,505	3,206	4,153
Totals, consumption	"	97,021	112,089	121,624	130,067	145,783	132,505
Consumption per capita	"	9·1	10·4	11·1	11·8	13·1	11·8

[1] For estimates of population upon which per capita figures are calculated, see p. 103. [2] Subject to revision. [3] Partly estimated. [4] None reported.

17.—Production, Imports, Exports, and Total and Per Capita Consumption of Meats and Live-Stock Products in Canada, 1933-38—continued.

Item.		1933.	1934.	1935.	1936.	1937.	1938.[1]
Pork—							
Animals slaughtered in Canada.	'000	4,694	4,625	4,531	5,214	5,517	4,920
Estimated dressed weight.....	'000 lb.	626,649	635,530	637,455	726,762	756,946	699,075
On hand, Jan. 1.....	"	29,552	24,759	28,117	30,335	49,604	37,261
Imports[2].....	"	3,774	4,148	430	2,877	2,069	5,564
	"	659,975	664,437	666,002	759,974	808,619	741,900
Exports.....	"	79,303	123,750	132,435	174,493	219,142	178,494
	"	580,672	540,687	533,567	585,481	589,477	563,406
On hand Dec. 31.....	"	24,759	28,117	30,335	49,604	37,261	27,139
Totals, consumption.....	"	555,913	512,570	503.232	535,877	552,216	536,267
Consumption per capita.....	"	52·0	47·4	46·0	48·6	50·0	47·8
Mutton and Lamb—							
Animals slaughtered in Canada.	'000	1,547	1,536	1,573	1,548	1,519	1,505
Estimated dressed weight.....	'000 lb.	63,431	66,044	66,083	66,543	63,802	64,711
On hand, Jan. 1.....	"	5,293	7,201	7,480	5,578	7,197	5,277
Imports.....	"	297	38	83	19	40	402
	"	69,021	73,283	73,646	72,140	71,039	70,390
Exports.....	"	407	379	316	232	284	203
	"	68,614	72,904	73,330	71,908	70,755	70,187
On hand, Dec. 31.....	"	7,201	7,480	5,578	7,197	5,277	5,420
Totals, consumption.....	"	61,413	65,424	67,752	64,711	65,478	64,767
Consumption per capita.....	"	5·7	6·0	6·2	5·9	5·9	5·8
Summary of Per Capita Consumption, All Meats—							
Beef.....	lb.	45·8	50·6	52·3	56·2	54·7	51·6
Veal.....	"	9·1	10·4	11·1	11·8	13·1	11·8
Pork.....	"	52·0	47·4	46·0	48·6	50·0	47·8
Mutton and lamb.....	"	5·7	6·0	6·2	5·9	5·9	5·8
Totals, Consumption of All Meats Per Capita.....	"	**112·6**	**114·4**	**115·6**	**122·5**	**123·7**	**117·0**
Butter—							
On hand, Jan. 1.....	'000 lb.	21,689	22,027	32,423	32,611[3]	36,672	28,495
Production—Creamery.....	"	219,233	234,853	240,919	250,932	247,055	266,886
Home-made.....	"	105,518	109,716	109,162	109,026	108,084	105,076
Imports.....	"	1,377	2,873	148	117	66	5,232
	"	347,817	369,469	382,652	392,686	391,877	405,689
Exports.....	"	4,438	428	7,697	5,129	4,096	3,893
	"	343,379	369,041	374,955	387,557	387,782	401,796
On hand, Dec. 31.....	"	22,027	32,423	32,611[3]	36,672	28,495	44,999
Totals, consumption.....	"	321,352	336,618	342,344	350,885	359,286	356,797
Consumption per capita.....	"	30·1	31·1	31·3	31·8	32·3	31·8
Cheese—							
On hand, Jan. 1.....	'000 lb.	13,280	15,974	17,196	24,562	24,026	28,559
Production—Factory.....	"	111,146	99,347	100,428	119,124	130,626	121,315
Home-made.....	"	1,067	1,128	1,232	1,229	1,232	1,101
Imports.....	"	968	946	1,274	1,240	1,410	1,387
	"	126,461	117,395	120,130	146,155	157,294	152,362
Exports.....	"	74,169	61,168	55,719	81,890	88,955	80,989
	"	52,292	56,227	64,411	64,265	68,339	71,373
On hand, Dec. 31.....	"	15,974	17,196	24,562	24,026	28,559	30,817
Totals, consumption.....	"	36,318	39,031	39,849	40,239	39,780	40,556
Consumption per capita.....	"	3·4	3·6	3·6	3·7	3·6	3·6
Eggs—							
On hand, Jan. 1.....	'000 doz.	4,065	2,876	5,097	3,359[3]	4,749	4,742
Production—Farm.....	"	222,254	223,272	223,540	219,494	219,443	213,399
Other.....	"	20,500	20,500	20,500	20,500	20,500	20,500
Imports.....	"	261	1,154	365	870	594	505
	"	247,080	247,802	249,502	244,223	245,286	239,146
Exports.....	"	1,988	2,001	1,301	1,204	1,602	1,843
	"	245,092	245,801	248,201	243,019	243,684	237,303
On hand, Dec. 31.....	"	2,876	5,097	3,359[3]	4,749	4,742	3,832
Totals, consumption.....	"	242,216	240,704	244,842	238,270	238,942	233,471
Consumption per capita.....	"	22·7	22·2	22·4	21·6	21·5	20·8

[1] Subject to revision. [2] Excluding lard. [3] Includes carloads in transit.

17.—Production, Imports, Exports, and Total and Per Capita Consumption of Meats and Live-Stock Products in Canada, 1933-38—concluded.

Item.		1933.	1934.	1935.	1936.	1937.	1938.[1]
Poultry—[2]							
On farms	'000	59,324	59,799	56,769	59,339	57,510	57,237
Elsewhere	"	5,675	5,675	5,675	5,675	5,675	5,675
Totals	"	64,999	65,474	62,444	65,014	63,185	62,912
Marketings	"	27,596	33,864	38,125	39,642	38,538	38,359
Estimated dressed weight	'000 lb.	154,627	186,142	205,629	212,824	207,132	206,170
On hand Jan. 1	"	6,970	10,729	11,229	11,436	16,195	10,407
	"	161,597	196,871	216,858	224,260	223,327	216,577
Estimated exports	"	1,352	2,586	2,991	4,919	11,104	3,513
	"	160,245	194,285	213,867	219,341	212,223	213,064
On hand, Dec. 31	"	10,729	11,229	11,436	16,195	10,407	12,225
Totals, consumption	"	149,516	183,056	202,431	203,146	201,816	200,839
Consumption per capita	"	14·0	16·9	18·5	18·4	18·1	17·9

[1] Subject to revision. [2] Fowl, turkeys, ducks, and geese.

Export and Import Trade in Live Stock and Live-Stock Products.—The exports of live stock and live-stock products from the Dominion to the United Kingdom, the United States, and all countries, are shown for the four fiscal years 1936-39, in Table **12** of the chapter on External Trade, at pp. 536-547, and imports in Table **13** at pp. 548-567. Exports and imports by calendar years 1934-38, may be found at pp. 71, 75, and 76 of the report on "Live Stock and Animal Products Statistics, 1938". At pp. 60-88 of the "Quarterly Report on the Trade of Canada for December, 1939" figures are given of exports of animals and animal products for 1938 and 1939 and imports of this class for the same calendar years will be found at pp. 236-261 of the same report.

Section 4.—Cold Storage.

Cold Storage Warehouses.—Under the Cold Storage Act, 1907 (6-7 Edw. VII, c. 6), now consolidated as c. 25, R.S.C., 1927, subsidies have been granted by the Dominion Government to encourage the construction and equipment of cold storage warehouses open to the public, the Act and regulations made thereunder being administered by the Department of Agriculture.

18.—Cold Storage Warehouses in Canada, by Provinces, 1939.

NOTE.—The figures in this table, which do not include creameries with mechanical refrigeration, were supplied by J. F. Singleton, Associate Director of Marketing Services, Dairy Products and Cold Storage, Dominion Department of Agriculture.

Province.	Subsidized Public Warehouses.				All Warehouses.	
	Number.	Refrigerated Space.	Cost.	Total Subsidy.	Number.	Refrigerated Space.
		cu. ft.	$	$		cu. ft.
Prince Edward Island	5	261,246	130,673	38,746	9	321,342
Nova Scotia	12	2,424,740	2,803,995	831,918	21	3,113,383
New Brunswick	4	1,032,495	374,648	112,396	24	1,290,401
Quebec	9	401,105	366,287	109,886	65	11,399,691
Ontario	32	4,591,633	2,267,800	674,316	127	17,326,534
Manitoba	1	27,500	32,000	9,600	36	5,386,703
Saskatchewan	4	441,868	268,707	80,612	21	1,883,563
Alberta	2	315,339	242,000	72,600	16	4,128,574
British Columbia	31	7,867,560	2,815,930	844,779	86	13,053,443
Yukon	Nil	–	–	–	1	44,900
Totals	**100**	**17,363,486**	**9,302,040**	**2,774,853**	**406**	**57,948,534**

Cold Storage Stocks.—Statistics of the stocks of food in cold storage and wholesale warehouses and in dairy factories of Canada are collected and published monthly by the Agricultural Branch of the Dominion Bureau of Statistics. A summary of cold storage reports is published annually giving final figures of the holdings, with some statistical measurements and charts. Foods reported are: (1) dairy and poultry products; (2) meat and lard; (3) fish; and (4) fruit and vegetables. The data in (1) and (2) are also included in the report on "Live Stock and Animal Products Statistics", published annually.

19.—Stocks of Canadian Food on Hand in Cold Storage Warehouses in Other Warehouses, and in Dairy Factories, 1938 and 1939.

NOTE.—The statistics of monthly stocks of eggs in 1938, published at p. 597 of the 1939 Year Book, have been revised materially. The corrected figures are shown at pp. 43-45 of "Live Stock and Animal Products Statistics, 1938".

Year and Commodity.		As at January 1.	Minimum During Year.	Date at Which Minimum Occurred.	Maximum During Year.	Date at Which Maximum Occurred.	Average, 12 Months.
1938.							
Butter (creamery and dairy)	'000 lb.	27,907	4,479	Apr. 1	65,091	Oct. 1	34,084
Cheese (factory)	"	28,559	17,787	May 1	47,228	Oct. 1	31,693
Evaporated whole milk	"	10,534	7,454	Mar. 1	22,846	Sept. 1	14,706
Skim milk powder	"	1,186	1,036	Apr. 1	6,902	Nov. 1	3,669
Eggs—							
Shell	'000 doz.	1,801	563	Mar. 1	9,601	Sept. 1	5,094
Frozen	'000 lb.	3,431	2,240	Apr. 1	4,989	Aug. 1	3,669
Poultry (dressed)	"	10,740	2,909	Sept. 1	10,740	Jan. 1	5,553
Pork—							
Fresh	"	3,589	2,788	Sept. 1	4,532	Feb. 1	3,675
Frozen	"	16,359	3,347	Oct. 1	23,217	May 1	13,808
Cured or in cure	"	17,313	12,197	Sept. 1	17,873	Feb. 1	15,394
Lard	"	2,301	1,703	Dec. 1	3,924	July 1	2,719
Beef—							
Fresh	"	5,503	5,503	Jan. 1	8,761	Nov. 1	6,742
Frozen	"	19,357	4,408	Sept. 1	19,357	Jan. 1	9,610
Cured or in Cure	"	442	237	Nov. 1	536	May 1	387
Veal	"	3,206	1,231	Apr. 1	5,122	Dec. 1	3,186
Mutton and lamb	"	5,277	703	July 1	5,498	Dec. 1	2,769
Fruit—							
Apples (fresh)	'000 bu.	3,717	8	Aug. 1	8,210	Nov. 1	2,014
Frozen fruit	'000 lb.	6,035	3,631	June 1	9,595	Sept. 1	6,275
In sulphur dioxide	"	3,792	2,551	June 1	6,196	Oct. 1	4,406
1939.							
Butter (creamery and dairy)	'000 lb.	44,248	9,754	May 1	57,247	Oct. 1	36,312
Cheese (factory)	"	31,453	26,102	Apr. 1	53,298	Sept. 1	35,640
Evaporated whole milk	"	15,079	5,497	Aug. 1	15,079	Jan. 1	8,609
Skim milk powder	"	6,294	3,373	Dec. 1	6,294	Jan. 1	4,862
Eggs—							
Shell	'000 doz.	1,257	579	Apr. 1	8,683	Aug. 1	4,500
Frozen	'000 lb.	2,955	2,090	Apr. 1	6,411	Aug. 1	4,154
Poultry (dressed)	"	12,564	3,088	Sept. 1	12,564	Jan. 1	6,238
Pork—							
Fresh	"	2,335	2,335	Jan. 1	6,150	Dec. 1	4,255
Frozen	"	11,517	6,492	Sept. 1	16,874	Dec. 1	12,327
Cured or in cure	"	13,288	13,288	Jan. 1	24,346	Dec. 1	16,707
Lard	"	2,609	1,626	Oct. 1	4,076	Aug. 1	2,862
Beef—							
Fresh	"	5,366	5,163	May 1	8,412	Nov. 1	6,833
Frozen	"	13,571	4,878	Sept. 1	20,491	Dec. 1	9,779
Cured or in cure	"	400	370	Mar 1	696	Sept. 1	456
Veal	"	4,153	1,744	Apr. 1	5,001	Nov. 1	3,638
Mutton and lamb	"	5,420	898	Aug. 1	6,504	Dec. 1	2,995
Fish—							
Frozen fresh	"	31,537	16,449	May 1	34,815	Nov. 1	26,906
Frozen smoked	"	3,382	1,721	Apr. 1	3,382	Jan. 1	2,341
Fruit—							
Apples (fresh)	'000 bu.	3,976	5	July 1	11,176	Nov. 1	2,332
Frozen fruit	'000 lb.	6,498	3,424	June 1	8,996	Sept. 1	6,389
In sulphur dioxide	"	5,937	2,833	June 1	6,921	Sept. 1	5,309
Potatoes	ton	250,840	963	Sept. 1	389,629	Dec. 1	126,747

Section 5.—Bounties.*

In cases where it is considered advisable for the Government to encourage the production of a particular commodity, bounties paid by the Government are recognized substitutes for protective duties. In the past they have been made use of by Canada to a considerable degree, but the only bounties that involved payments in the past few years were those on copper bars and rods, hemp, and bituminous coal mined in Canada and used in the manufacture of iron or steel. The bounty on bituminous coal was the outcome of a recommendation of the Royal Commission on Maritime Claims relating to the use of Canadian coal in the manufacture of iron and steel and the payments have been as follows:—

Paid in the fiscal year—		
1930-31	273,148 net tons at 49½c.	$ 135,209·23
1931-32	126,356 net tons at 49½c.	62,546·18
1932-33	118,783 net tons at 49½c.	58,797·54
1933-34	213,841 net tons at 49½c.	105,851·25
1934-35	336,849 net tons at 49½c.	166,740·02
1935-36	390,168 net tons at 49½c.	193,133·12
1936-37	564,695 net tons at 49½c.	279,523·96
1937-38	583,817 net tons at 49½c.	288,989·41
1938-39	369,434 net tons at 49½c.	182,869·80
1939-40 to Oct. 31, 1939	267,019 net tons at 49½c.	132,174·39
Totals	3,244,110	1,605,834·90

Bounties have been paid at various times in the past on iron and steel, lead, crude petroleum, manila fibre, zinc, and linen yarns, but the bounties on iron and steel ceased in 1911, on lead in 1918, on zinc in 1921, on linen yarns in 1923, and on crude petroleum in 1927. The total amounts paid in bounties on these commodities between 1896 and the date of expiration were: iron and steel, and manufactures of (1896-1912), $16,785,827; lead (1899-1918), $1,979,216 for 1,187,169,878 lb.; zinc† (1919-21), $400,000; linen yarns (1921-23), $17,523; manila fibre (1903-13), $367,962; crude petroleum† (1905-27), $3,457,173 on 233,135,217 gallons. Total payments for expired bounties between 1896 and 1932, including the $611,763 paid on copper bars and rods‡ and the $26,847 for hemp,‡ aggregated $23,646,311, which, with the $1,122,384 paid for coal, makes a total of $24,768,694 to Oct. 31, 1937. The Year Book of 1915, pp. 459-461, gives a description of the bounties that had been payable since 1883, as well as tables showing, for each commodity, the quantities on which bounties were annually paid and the amounts of such bounties for the years 1896 to 1915, inclusive.

Section 6.—Patents, Copyrights, and Trade Marks.§

Patents.—Letters patent, which in England have been in the gift of the Crown from the time of the Statute of Monopolies (1624) and earlier, are a statutory grant in Canada and have always been so. An Act was passed in Lower Canada in 1824 wherein provision was made for the granting of patent rights to inventors who were British subjects and inhabitants of the Province. Upper Canada passed its Act in 1826, and Nova Scotia and New Brunswick passed theirs at later dates. In 1849, after the Union, a consolidating Act was passed applying to both Upper and Lower Canada, and the B.N.A. Act assigned the granting of patents exclus-

* Revised by L. T. Lett, Department of Trade and Commerce.

† For details of bounties on zinc and crude petroleum, see p. 635 of the 1927-28 Year Book.

‡ A statement of the bounties paid under the Copper Bounty Act, which expired on June 30, 1931, and the Hemp Bounty Act, which expired on Dec. 31, 1932, is given on p. 662 of the 1934-35 Year Book.

§ The material relating to patents and copyrights has been revised by J. T. Mitchell, Commissioner of Patents, and that relating to Trade Marks by D. D. Ryan, Registrar of Trade Marks.

ively to the Parliament of Canada. The Dominion Patent Act of 1869 repealed the provincial Acts and has formed the basis of all succeeding legislation.

Letters patent are now issued subject to the provisions of c. 150, R.S.C., 1927, as consolidated in c. 32, 1935, and application for protection relating to patents should be addressed to the Commissioner of Patents, Ottawa, Canada.

The growth of Canadian inventions* is shown by the fact that the number of applications and total fees increased each year without a break from the beginning of the present century until the fiscal year 1913, when 8,681 applications were received and the total fees amounted to $218,125. Since then progress has not been so rapid. Of the 7,578 patents granted in 1939, 5,220 or 69 p.c. were issued to United States inventors, 620 to Canadians, and 625 to residents of Great Britain and Ireland, while Germany with 449, Holland with 133, France with 124, Sweden with 75, and Switzerland with 73 followed in the number of inventors to whom patents were issued.

There were few outstanding developments in the fiscal year 1939, but continued activity and steady progress were indicated in all fields of invention, particularly in those of chemistry and metallurgy. One of the most important discoveries was the production of synthetic organic textile fibres from raw materials of the mineral kingdom, viz., coal, air, and water. Improvement of motor fuels was given considerable attention. Advances were made in the development of plastics and coating materials as well as of various synthetic materials.

In metallurgy the reduction of magnesium and the production of magnesium and aluminium alloys have been very active. The addition of lead to steel has produced alloys that facilitate machining operations at increased speed.

In the electrical field, television continues to be given much attention, as do air-conditioning and refrigeration.

20.—Patents Applied for, Granted, etc., in Canada, Fiscal Years 1934-39.

Item.		1934.	1935.	1936.	1937.	1938.	1939.
Applications for patents	No.	9,267	9,404	12,580	10,668	10,950	10,899
Patents granted	"	9,124	8,713	7,791	8,177	7,720	7,578
Granted to Canadians	"	982	885	792	703	647	620
Certificates for renewal fees	"	10	12	2	Nil	1	Nil
Caveats granted	"	466	445	394	423	399	475
Assignments	"	6,577	6,840	8,145	7,723	8,249	8,245
Fees received, net	$	362,146	353,460	386,542	377,453	367,127	365,672

Copyrights.—Registration of copyright is governed by c. 32, R.S.C., 1927, and applications for protection relating to copyrights should be addressed to the Commissioner of Patents, Ottawa.

The Copyright Act of 1921 (consolidated in c. 32, R.S.C., 1927) sets out in Sect. 4 the qualifications for a copyright, and in Sect. 5 its duration: "Copyrights shall subsist in Canada . . . in every original literary, dramatic, musical and artistic work, if the author was, at the date of the making of the work, a British subject, a citizen or subject of a foreign country which has adhered to the (Berne) Convention and the additional Protocol . . . or resident within His Majesty's Dominions. The term for which the copyright shall subsist shall, except as otherwise expressly provided by this Act, be the life of the author and a period of fifty years after his death."

* 'Invention' means any new and useful art, process, machine, manufacture, or composition of matter or any new and useful improvement in any art, process, machine, manufacture, or composition of matter.

Copyright protection is extended to records, perforated rolls, cinematographic films, and other contrivances by means of which a work may be mechanically performed. The intention of the Act is to enable Canadian authors to obtain full copyright protection throughout all parts of His Majesty's Dominions, foreign countries of the Copyright Union, and the United States of America, as well as in Canada.

Trade Marks.—The Trade Marks Office is charged with the administration of the Unfair Competition Act, 1932, which repealed all previous Acts governing trade marks, and the Shop Cards Registration Act that came into force on Sept. 1, 1938. Applications for trade mark protection should be addressed to the Registrar of Trade Marks, Ottawa, Canada.

A Register of Trade Marks is kept, in which, subject to the provisions of the Act, any person may cause to be recorded any trade mark he has adopted, and notification of any assignments, transmissions, disclaimers, and judgments relating to such trade mark. In order that the public may be kept informed in the matter of trade mark registrations, a list of marks registered each week appears in the Patent Office Record issued weekly. Holders of trade marks registered before the present Act came into force are protected by certain provisions. Registrations under the new Act must be renewed every fifteen years whereas under previous regulations renewals were made every twenty-five years.

The Shop Cards Registration Act is designed to afford a measure of protection to organizations, such as trade unions, that formerly were able to register their particular designations as Union Labels under the Trade Mark and Design Act. During the period Sept. 1, 1938, to Mar. 31, 1939, there were only two registrations of this kind.

21.—Copyrights, Trade Marks, etc., Registered in Canada, Fiscal Years, 1934-39.

Item.	1934.	1935.	1936.	1937.	1938.	1939.
Copyrights registered.....No.	2,537	3,060	3,403	3,249	3,241	3,146
Trade marks registered..... "	2,066	1,686	1,574	2,068	2,169	[1]
Industrial designs registered..... "	331	430	363	336	544	356
Timber marks registered..... "	6	4	3	10	7	16
Assignments registered..... "	1,143	1,090	1,394	2,093	1,688	632[1]
Fees received, net..... $	67,196	72,217	68,220	86,396	85,023	13,381[1]

[1] Since Apr. 1, 1938, the Trade Marks Office has been functioning as an entity separate from the Patent Office with which it had been associated previously. For the fiscal year 1939, trade marks registered numbered 2,181, assignments registered numbered 1,022, and net fees received amounted to $62,711.

Section 7.—Weights and Measures.*

The object of weights and measures administration is to maintain uniformity and accuracy in the use of the legal standards of the country in industry and commerce.

What might be termed the principal Weights and Measures Act of Canada was passed in the session of 1872-73; its provisions closely followed English weights and measures law, but the system of weights and measures was greatly simplified. This Act established as the primary legal standards for Canada the imperial pound (but the short ton of 2,000 lbs.), the gallon, and the yard. The only exception to this was the continued use of the old French land measure, the arpent, in Quebec. The troy ounce of 480 grains and its decimal sub-multiples are the legal weights for the weighing of gold and precious metals. The metric system is legal for all transactions.

* Revised by E. O. Way, Director of Weights and Measures, Department of Trade and Commerce.

Many changes, deletions, and additions have been made to the Act of 1873 by later legislation, but its principles remain unchanged. The latest legislation is the Weights and Measures Act (c. 212, R.S.C., 1927), as amended by c. 48, 1935.

Since 1918 the Service has been administered by the Department of Trade and Commerce. For purposes of administration, the Dominion is divided into 19 districts, each in charge of a district inspector. The chief rules of administration are as follows:—

(1) Every new type of weighing and measuring device must be submitted to the Department at Ottawa for approval before being placed on the market.
(2) Every new machine must be inspected and stamped by an inspector before being sold or taken into use.
(3) Imported machines are held by the customs until release is approved by the nearest inspector.
(4) All inspections take place on the traders' premises, except where devices are brought to the inspection offices.

The total revenue collected by the Service in the fiscal years 1938 and 1939 amounted to $395,465 and $418,015, respectively, while the expenses, including salaries, amounted to $385,207 and $424,161, respectively.

22.—Inspections by the Weights and Measures Service, Fiscal Years 1938 and 1939.

Article.	1938.				1939.			
	Submitted.	Verified.	Rejected.	P.C. Rejected.	Submitted.	Verified.	Rejected.	P.C. Rejected.
	No.	No.	No.	p.c.	No.	No.	No.	p.c.
Weights (Dominion)	123,720	112,516	11,204	9·05	124,453	118,054	6,399	5·14
Weights (metric)	1,033	997	36	3·50	1,273	1,202	71	5·58
Measures of capacity	58,248	57,758	490	0·84	59,881	59,361	520	0·87
Measures of length	9,038	9,014	24	0·27	7,919	7,877	42	0·53
Milk-cans	81,475	81,229	246	0·30	74,105	73,962	143	0·19
Ice-cream containers	47,017	47,017	Nil	-	33,805	33,802	3	-
Measuring devices (gas pumps)	54,785	45,212	9,573	17·47	58,802	49,672	9,130	15·53
Tank wagons	738	712	26	3·52	1,021	998	23	2·25
Babcock glassware	40,021	39,925	96	0·24	41,730	41,601	129	0·31
Weighing machines	195,823	167,575	28,248	14·43	207,391	181,503	25,888	12·48
Weighing machines (metric)	722	696	26	3·60	731	693	38	5·20
Domestic scales	14,870	14,582	288	1·94	16,302	16,143	159	0·98
Miscellaneous	11,892	11,843	49	0·41	2,383	2,337	46	1·93
Totals	**639,382**	**589,076**	**50,306**	**7·87**	**629,796**	**587,205**	**42,591**	**6·76**

Section 8.—Electricity and Gas Inspection.*

The Electricity and Gas Inspection Branch of the Department of Trade and Commerce administers three Acts: the Electricity Inspection Act (c. 22, 1928), the Gas Inspection Act (c. 82, R.S.C., 1927), and the Electricity and Fluid Exportation Act (c. 54, R.S.C., 1927).

The Gas Inspection Service was inaugurated on July 1, 1875, and the Electricity Inspection Service in 1894, at which time these two Services were merged to form

* Revised by J. L. Stiver, Director, Electricity and Gas Inspection Service, Department of Trade and Commerce.

the Electricity and Gas Inspection Services and constituted as a Branch of the Department of Inland Revenue.

For the purpose of administration, Canada is divided into 3 divisions and 20 districts: the total staff is 108. The nature of the work performed by these Services is entirely technical and comprises the control of all types of electricity meters and gas meters used throughout Canada, and the testing and stamping of every meter used for billing purposes; the object being to ensure the correct measurement of electricity and gas sold. Manufactured gas is also tested to determine its heating value wherever sold in Canada.

The latest report of the Branch shows 539,363 electricity and gas meters tested in the fiscal year 1939, as compared with 518,385 in the preceding year. The total revenue derived from electricity and gas inspection was $360,378 as compared with an expenditure of $254,710. The Branch also collected $450,736 as export duty and licence fees under the provisions of the Electricity and Fluid Exportation Act; the cost of collecting this revenue was only $216.

The administration of the Electricity and Fluid Exportation Act involves the receiving and consideration of applications to export electrical energy, natural gas, crude oil, etc., the issuing of licences therefor, the inspection and testing of meters to measure the commodity exported, and the collection of the export tax imposed. Other related statistics collected in the administration of the last-named Act will be found in the Power chapter of this volume, pp. 384-385.

23.—Electricity Meters in Use, Fiscal Years 1915-39.

Year.	Number.	Year.	Number.	Year.	Number.
1915	505,597	1924	1,094,639	1933	1,722,697
1916	517,629	1925	1,165,664	1934	1,720,997
1917	594,737	1926	1,240,752	1935	1,760,262
1918	661,403	1927	1,314,428	1936	1,788,522
1919	717,776	1928	1,412,521	1937	1,839,420
1920	743,468	1929	1,499,872	1938	1,905,692
1921	860,379	1930	1,582,505	1939	1,964,729
1922	945,599	1931	1,653,922		
1923	1,046,831	1932	1,704,197		

24.—Gas Meters in Use, by Kinds of Gas Consumed, Fiscal Years 1916-39.

Year.	Manufactured Gas	Natural Gas.	Acetylene Gas.	Butane.	Total.	Year.	Manufactured Gas.	Natural Gas.	Acetylene Gas.	Butane.	Total.
1916	199,514	67,940		–	267,454	1928	482,076	98,915	357	–	581,348
1917	314,915	55,697	–	–	370,612	1929	504,500	107,504	116	–	612,120
1918	325,244	88,795	–	–	414,039	1930	520,788	118,390	117	–	639,295
1919	336,388	91,056	–	–	427,444	1931	530,909	125,550	67	205[1]	656,731
1920	350,777	85,004	513[1]	–	436,294	1932	540,277	128,194	66	230	568,767
1921	361,479	98,494	577		460,550	1933	532,139	128,282	80	285	660,786
1922	366,840	101,785	430		469,055	1934	522,484	134,710	49	369	657,612
1923	379,459	102,007	438	–	481,904	1935	517,948	139,763	14	638	658,363
1924	390,548	105,804	425	–	496,777	1936	505,946	158,827	14	1,108	665,895
1925	405,471	106,861	404	–	512,736	1937	506,075	169,132	3	1,035	676,245
1926	443,067	85,752	425	–	529,244	1938	510,261	174,356	3	1,268	685,888
1927	462,496	90,302	358	–	553,156	1939	512,373	179,988	3	1,224	693,588

[1] First year reported.

25.—Quantity of Each Kind of Gas Sold in Canada, Fiscal Years 1920-39.

Year.	Carburetted Water Gas.	Coal Gas.	Coke Oven Gas.	Natural Gas.	Acetylene Gas.	Butane.	Total
	M cu. ft.	M cu. ft.	M cu. ft.	M cu. ft.	M cu. ft.	M cu ft.	M cu. ft.
1920	4,487,512	6,787,370		17,117,100	1,670		28,393,652
1921	5,331,442	7,096,222		[1]	[1]	–	12,427,664[2]
1922	4,668,392	8,433,861	–	11,289,592	1,005		24,392,850
1923	6,632,962	7,637,114	132[2]	12,238,837	1,165		26,510,210
1924	5,214,843	8,042,882	3,189	14,866,619	1,194		28,128,727
1925	5,254,803	7,824,193	91,628	10,525,604	1,266		23,697,494
1926	4,835,613	8,149,894	1,449,795	13,004,470	1,211		27,440,983
1927	5,804,504	8,405,556	1,049,978	17,863,366	1,247		33,124,651
1928	6,883,635	7,488,965	1,680,237	20,365,049	1,325		36,419,211
1929	4,550,829	6,273,275	6,097,920	25,491,446	647		42,414,117
1930	4,456,997	5,802,653	8,153,473	31,880,845	847	–	50,294,815
1931	4,214,554	6,249,190	7,792,047	28,534,604	875	9,137[3]	46,800,407
1932	4,267,074	6,385,622	7,235,463	27,244,803	790	6,600	45,140,352
1933	3,821,680	7,491,005	5,908,231	27,342,696	4,982	11,930	44,580,524
1934	3,349,893	7,652,344	5,331,047	26,423,633	4,737	13,268	42,774,922
1935	2,256,568	8,378,714	6,267,577	25,051,664	5,729	12,576	41,972,828
1936	1,972,511	7,876,353	6,637,103	29,334,639	6,774	16,976	45,844,356
1937	1,969,493	6,894,858	7,685,207	30,291,438	8,066	19,781	46,868,843
1938	2,301,030	6,945,789	7,229,881	31,370,930	9,889	21,301	47,878,820
1939	2,229,700	6,267,914	7,589,430	31,928,682	10,300	20,141	48,046,167

[1] Not reported. [2] Not including natural gas and acetylene gas which were not reported for this year. [3] First year reported.

Section 9.—Merchandising and Service Establishments.*

A comprehensive census of business carried on by trading and service establishments was undertaken for the first time in 1931 in connection with the Seventh Decennial Census. A partial survey of trading establishments had been made in 1924, but the results of this initial survey, while indicative of the extent of domestic trade, suffered from the incompleteness of the canvass made. The Census of Merchandising and Service Establishments, 1931, covered not only the operations of retail and wholesale merchandising establishments in 1930 but also those of service establishments, including hotels. In addition, information was collected to show the initial channels (manufacturers' wholesale branches, other wholesalers, retailers, industrial consumers, export sales, etc.) through which goods manufactured in Canada were distributed and the proportion of the total value of production sold through each channel. The results have been published in several series of reports and in Volumes X and XI of the Census of 1931.

Annual Statistics.—An outgrowth of the Census of Merchandising and Service Establishments, 1931, has been an annual survey of wholesale and retail trade based on reports from large concerns in the respective fields. In the case of wholesale trade, the annual survey is confined to wholesalers proper and reports are secured from firms that had a volume of sales of $100,000 or more in 1930 together with firms of a similar size that have commenced business since 1930. The survey of retail trade is based on the reports of all chain stores and of independent stores with a turnover of $20,000 or more in 1930. Reports are also secured from newly established independent stores. While the annual figures for merchandising are not based on such a comprehensive survey as that made in connection with the

* Prepared by Herbert Marshall, B.A., F.S.S., Chief, Internal Trade Branch, Dominion Bureau of Statistics. For a list of publications of this Branch, see Chapter XXIX, Section 1, under "Internal Trade".

decennial census, they provide the most reliable indicators available of recent trends in merchandise trade as they cover more than two-thirds of the dollar volume of business.

Monthly Statistics.—Monthly indexes of retail sales, based on returns from department stores, chain stores, and a representative sample of independent firms, are now available for the period commencing January, 1929. A description of these indexes appears in Subsection 2 of this section. Monthly indexes of wholesale trade are also available, although for the shorter period beginning January, 1938.

Subsection 1.—Wholesale and Other Bulk or Non-Retail Merchandising.

Under this heading there appears at pp. 670-672 of the 1934-35 Year Book a summary of trade in the wholesale field, as derived from the Census of Merchandising and Service Establishments, and tables showing, for 1930, bulk merchandising statistics by provinces, and by type of distributor. This is the latest material available on that basis.

Wholesale Trade in Canada, 1930.—Included in the figures for all wholesale establishments, shown by provinces in Table **26**, are data for regular wholesale houses and also for agents, brokers, manufacturers' sales branches, and other specialized wholesale agencies. Wholesalers proper embrace only regular wholesale houses such as wholesale merchants, importers, and exporters. Approximately one-third of the annual business of all wholesale establishments in Canada is transacted by wholesalers proper. The proportion for Manitoba is much below the Dominion average. Concentration of the grain trade in the City of Winnipeg results in an exceptionally high figure for agents and brokers in that Province.

26.—Bulk Merchandising (Wholesale and Other Non-Retail), by Provinces, 1930.

Province.	Population, 1931.	All Wholesale Establishments.					Wholesalers Proper.	
		Establishments.	Employees.	Salaries and Wages.	Net Sales (1930).	Stocks on Hand, End of Year (at Cost).	Establishments.	Net Sales (1930).
	No.	No.	No.	$	$	$	No.	$
Prince Edward Is.	88,038	61	313	354,600	13,533,300	1,108,700	28	5,455,000
Nova Scotia	512,846	420	2,522	3,503,800	71,616,200	7,298,900	217	39,498,500
New Brunswick	408,219	388	2,825	3,989,300	72,839,900	8,194,200	165	30,156,900
Quebec	2,874,255	2,932	26,171	41,958,100	904,795,500	82,285,800	1,479	355,618,100
Ontario	3,431,683	3,938	31,155	51,094,700	1,013,767,400	94,487,200	2,004	387,550,300
Manitoba	700,139	1,307	9,362	15,490,600	669,076,000	28,561,500	349	79,393,100
Saskatchewan	921,785	1,659	5,441	8,393,300	137,112,000	24,209,300	178	52,114,100
Alberta	731,605	1,306	5,756	9,738,200	189,569,900	23,560,400	248	64,091,200
British Columbia	694,263	1,129	7,019	11,824,000	252,900,100	27,515,100	440	97,442,000
Totals	**10,362,833**	**13,140**	**90,564**	**146,346,600**	**3,325,210,300**	**297,221,100**	**5,108**	**1,111,319,200**

Wholesale Trade by Cities.—Figures of wholesale trade in cities of 20,000 or over are given at pp. 604-605 of the 1939 Year Book.

Annual Wholesale Statistics.—In constructing an annual index of wholesale sales, the chief objective has been to obtain the most representative measure of wholesale trade and particularly of the pre-retail business. This annual index is confined to wholesalers proper, who are for the most part wholesale merchants, importers, exporters, and supply and machinery distributors. From this group are excluded such distributors as agents and brokers, manufacturers' sales branches, and

other types of specialized distributors. However, in order to attain the above-mentioned objective of a representative measure of wholesale trade, it was later found to be necessary to make certain alterations in the classifications used in presenting the results of the Census of Merchandising and Service Establishments, 1931. These alterations are referred to at p. 612 of the 1937 Year Book.

The 1930 figures shown in Table 27 are those of the census, while those for the other years are estimates based on the results of fairly extensive annual surveys. Wholesale trade during 1938 fell off slightly from the preceding year, increases in the three Prairie Provinces being more than offset by declines in all other regions. Total sales for 1938 were down 4·2 p.c. from the 1937 figure but still almost 10 p.c. above the level of 1936. Almost all individual trades reported decreases, dealers in food, dry goods, hardware, lumber and building materials, metals and metal work, and waste materials suffering the greatest declines.

27.—Total Sales and Indexes of Sales Made by Wholesalers Proper, by Provinces and Kinds of Business, 1930, 1933, 1937, and 1938.

Province or Kind of Business.	Total Net Sales.				P.C. Change in Net Sales, 1937-38.	Indexes of Sales. (1930=100.)			
	1930.	1933.	1937.	1938.		1930.	1933.	1937.	1938.
PROVINCE.	$'000	$'000	$'000	$'000					
Prince Edward Island	7,518	4,662	6,308	5,614	−11·0	100·0	62·0	83·9	74·7
Nova Scotia	46,464	32,812	47,516	45,010	− 5·3	100·0	70·6	102·3	96·9
New Brunswick	38,320	25,192	37,805	36,067	− 4·6	100·0	65·7	98·7	94·1
Quebec	386,229	254,696	386,953	359,637	− 7·1	100·0	65·9	100·2	93·1
Ontario	471,618	324,828	495,682	468,781	− 5·4	100·0	68·9	105·1	99·4
Manitoba	98,960	64,461	100,367	101,729	+ 1·4	100·0	65·1	101·4	102·8
Saskatchewan	90,210	48,555	63,838	67,459	+ 5·7	100·0	53·8	70·8	74·8
Alberta	99,333	61,872	86,023	88,433	+ 2·8	100·0	62·3	86·6	89·0
British Columbia	131,414	83,418	127,720	123,239	− 3·5	100·0	63·5	97·2	93·8
Totals	**1,370,066**	**900,496**	**1,352,212**	**1,295,969**	**− 4·2**	**100·0**	**65·7**	**98·7**	**94·6**
KIND OF BUSINESS.									
Amusement, photographic, and sporting goods	4,278	2,464	3,865	4,251	+10·0	100·0	57·6	90·3	99·4
Automotive	20,990	13,473	21,256	22,426	+ 5·5	100·0	64·2	101·3	106·8
Chemicals and paints	8,387	7,743	11,695	10,554	− 9·8	100·0	92·3	139·4	125·8
Coal and coke	50,252	42,881	59,836	54,449	− 9·0	100·0	85·3	119·1	108·4
Drugs and drug sundries	27,973	22,139	29,554	29,645	+ 0·3	100·0	79·1	105·7	106·0
Dry goods and apparel	102,358	64,396	86,822	77,793	−10·4	100·0	62·9	84·8	76·0
Electrical	22,982	9,973	25,775	25,001	− 3·0	100·0	43·4	112·2	108·8
Farm supplies	16,037	8,719	14,955	13,207	−11·7	100·0	54·4	93·3	82·4
Foods	540,820	377,670	533,948	515,146	− 3·5	100·0	69·8	98·7	95·3
Dairy and poultry products	*48,771*	*32,185*	*48,658*	*43,928*	− 9·7	100·0	66·0	99·8	90·1
Fruits and vegetables	*99,102*	*63,176*	*91,916*	*87,723*	− 4·6	*100·0*	*63·7*	*92·7*	*88·5*
Groceries	*223,838*	*184,488*	*235,515*	*230,748*	− 2·0	100·0	82·4	105·2	103·1
Meats and fish	*169,109*	*97,873*	*157,859*	*152,747*	− 3·2	100·0	57 9	93·3	90·3
Furniture and house furnishings	13,632	7,293	12,255	11,319	− 7·6	100·0	53·5	89·9	83·0
General merchandise	13,478	8,668	15,023	14,801	− 1·5	100·0	64·3	111·5	109·8
Hardware	65,943	38,025	66,118	61,852	− 6·5	100·0	57·7	100·3	93·8
Jewellery and optical goods	10,858	6,935	13,561	12,782	− 5·7	100·0	63·9	124·9	117·7
Leather and leather goods	7,377	5,325	7,956	6,620	−16·8	100·0	72·2	107·8	89·7
Lumber and building materials	51,872	18,912	41,982	36,114	−14·0	100·0	36·5	80·9	69·6
Machinery, equipment, and supplies	59,321	21,789	54,101	51,678	− 4·5	100·0	36·7	91·2	87·1
Metals and metal work	14,059	6,817	17,861	13,728	−23·1	100·0	48·5	127·0	97·6
Paper and paper products	22,462	17,263	24,103	23,715	− 1·6	100·0	76·9	107·3	105·6
Petroleum products	230,169	163,315	218,419	223,711	+ 2·4	100·0	71·0	94·9	97·2
Plumbing and heating equipment and supplies	14,512	5,508	11,704	10,638	− 9·1	100·0	38·0	80·7	73·3
Tobacco and confectionery	45,870	32,165	47,167	49,247	+ 4·4	100·0	70·1	102·8	107·4
Waste materials	10,118	6,335	14,936	8,758	−41·4	100·0	62·6	147·6	86·6
All other	16,318	12,688	19,320	18,534	− 4·1	100·0	77·8	118·4	113·6

Monthly Indexes of Wholesale Sales.—Commencing with January, 1935, the Dominion Bureau of Statistics has published monthly indexes of wholesale sales* based on returns submitted by approximately 200 wholesale firms comprising a representative sample of nine different lines of business. The base on which these indexes were first computed was that of average monthly sales in 1935 equalling 100; the results of the annual surveys of wholesale trade were then utilized in reducing the monthly indexes to the 1930 base in order that they should conform with other series. Since the monthly indexes are based upon a smaller coverage of sales than that secured for the annual census, these results cannot be expected to have the accuracy of the more exhaustive survey. The monthly indexes do, however, give a fair indication of current trends in wholesale trade.

* See "Monthly Indexes of Wholesale Sales" published at the end of each month and obtainable on application to the Dominion Statistician, price $1 per year or 10 cents per copy.

28.—Total Sales 1930, 1933, 1937, and 1938 and Indexes of Sales of Retail

No.	Province or Group and Kind of Business.	Total Sales.			
		1930.	1933.	1937.	1938.
		$'000	$'000	$'000	$'000
1	Prince Edward Island	13,774	8,905	11,748	11,122
2	Nova Scotia	99,520	68,839	99,336	95,819
3	New Brunswick	84,372	52,375	76,656	71,637
4	Quebec	651,138	422,297	565,921	561,192
5	Ontario	1,099,990	741,630	1,022,068	988,696
6	Manitoba	189,244	122,045	161,253	160,690
7	Saskatchewan	189,181	103,091	129,166	129,309
8	Alberta	176,537	109,074	152,408	161,491
9	British Columbia	248,598	155,747	232,740	222,386
10	Yukon and Northwest Territories	3,216	1,765	2,419	2,414
	Canada	**2,755,570**	**1,785,768**	**2,453,715**	**2,404,756**
	Food Group.				
11	Bakery product stores (manufacturing bakeries not included)	11,028	7,727	9,967	9,759
12	Candy and confectionery stores	54,176	33,010	39,598	38,863
13	Dairy product dealers (other than manufacturing dairies)	37,174	26,451	35,844	37,062
14	Fruit and vegetable stores	16,293	12,394	14,983	14,690
15	Grocery and combination stores	405,403	297,307	347,752	346,397
16	Meat markets (including sea foods)	83,026	50,090	64,865	65,895
17	Other food stores	8,376	5,039	6,345	6,227
	Totals, Food Group	**615,476**	**432,018**	**519,354**	**518,893**
18	**Country General Stores**	**228,804**	**151,233**	**198,480**	**195,866**
	General Merchandise Group.				
19	Department stores	355,259	241,850	288,096	278,539
20	Dry goods stores	31,706	21,000	26,627	25,928
21	General merchandise stores	20,366	13,217	18,263	16,930
22	Variety stores	44,212	37,256	51,585	52,556
	Totals, General Merchandise Group	**451,543**	**313,323**	**384,571**	**373,953**
	Automotive Group.				
23	Motor vehicle dealers	253,608	129,889	332,742	311,026
24	Accessories, tires, and batteries	10,956	7,200	9,332	9,785
25	Filling stations	66,449	58,428	77,132	80,310
26	Garages	47,560	30,230	36,908	37,807
27	Other automotive establishments (including motorcycles, bicycles, and supplies)	3,386	1,899	2,825	3,049
	Totals, Automotive Group	**381,959**	**227,646**	**458,939**	**441,977**

[1] Revised since the publication of the 1939 Year Book.

Dollar sales for those lines of business included in the monthly survey averaged 7·4 p.c. higher in 1939 than in 1938, heavy inventory buying on the part of the retail trades during the first two months of the War largely being responsible for this increase. Sales for the first eight months of 1939 were only 1·3 p.c. above the corresponding period in the preceding year. All regions and all kinds of business for which figures are available shared in the increase. Gains were greatest in the clothing and footwear trades, increases of 9·9 p.c. for dry goods, 10·7 p.c. for clothing, and 18·9 p.c. for footwear being reported.

Subsection 2.—Retail Trade and Service Establishments.*

As complete a review of the retail merchandising and service statistics as will appear in the Year Book from the Census of Merchandising and Service Establishments, 1931, is given at pp. 673-690, inclusive, of the 1934-35 Year Book. This

* A review of retail trade for the period 1923-30 is given at pp. 637-639 of the 1936 Year Book. This was summarized from a special study report "A Decade of Retail Trade" published in bulletin form in 1935 by the Internal Trade Branch of the Dominion Bureau of Statistics.

Merchandise Trade, 1930-38, by Provinces and Kinds of Business.

P.C. Change, 1937-38.	Indexes of Retail Sales. (1930=100.)									No.
	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	
− 5·3	100·0	83·8	67·4	64·7	70·3	71·9	82·4	85·3	80·7	1
− 3·5	100·0	90·3	75·1	69·2	77·2	81·6	88·7	99·8	96·3	2
− 6·5	100·0	85·0	67·6	62·1	69·1	73·1	79·4	90·9	84·9	3
− 0·8	100·0	86·4	71·5	64·9	69·0	71·3	76·5	86·9	86·2	4
− 3·3	100·0	86·6	71·8	67·4	74·9	78·0	83·0	92·9	89·9	5
− 0·3	100·0	81·3	69·6	64·5	69·4	73·4	78·5	85·2	84·9	6
+ 0·1	100·0	70·8	59·2	54·5	59·4	63·2	69·7	68·3	68·4	7
+ 6·0	100·0	76·1	65·6	61·8	69·0	73·3	78·7	86·3	91·5	8
− 4·4	100·0	83·7	65·9	62·6	69·6	74·0	84·0	93·6	89·5	9
− 0·2	100·0	90·5	68·3	54·9	64·9	68·3	61·2	75·2	75·1	10
− 2·0	**100·0**	**84·2**	**69·8**	**64·8**	**71·1**	**74·6**	**80·1**	**89·0**	**87·3**	
− 2·1	100·0	87·9	72·6	70·1	75·7	80·6	83·6	90·4	88·5	11
− 1·9	100·0	81·1	67·7	60·9	62·5	65·0	67·8	73·1	71·7	12
+ 3·4	100·0	89·4	76·2	71·2	77·0	83·5	88·5	96·4	99·7	13
− 2·0	100·0	89·7	81·9	76·1	80·3	82·0	88·1	92·0	90·2	14
− 0·4	100·0	89·0	77·9	73·3	75·8	77·0	80·2	85·8	85·4	15
+ 1·6	100·0	79·5	64·6	60·3	66·9	70·7	73·0	78·1	79·4	16
− 1·9	100·0	80·2	65·4	60·2	62·5	66·6	71·1	75·8	74·3	17
− 0·1	**100·0**	**86·9**	**74·9**	**70·2**	**73·5**	**75·5**	**78·8**	**84·4**	**84·3**	
− 1·3	**100·0**	**81·0**	**69·3**	**66·1**	**73·1**	**75·4**	**79·9**	**86·7**	**85·6**	18
− 3·3	100·0	88·0	71·4	68·1	71·5	72·8	76·9	81·1	78·4	19
− 2·6	100·0	86·9	72·5	66·2	72·6	73·7	77·7	84·0	81·8	20
− 7·3	100·0	83·8	69·1	64·9	72·3	75·8	81·3	89·7	83·1	21
+ 1·9	100·0	98·5	89·6	84·3	90·6	95·9	104·7	116·7	118·9	22
− 2·8	**100·0**	**88·8**	**73·2**	**69·4**	**73·5**	**75·3**	**79·9**	**85·2**	**82·8**	
− 6·5	100·0	73·7	53·8	51·2	70·6	85·8	101·4	131·2	122·6	23
+ 4·9	100·0	81·4	70·6	65·7	64·5	63·7	73·6	85·2	89·3	24
+ 4·1	100·0	92·7	93·0	87·9	98·3	100·6	101·0	116·1	120·9	25
+ 2·4	100·0	81·9	71·9	63·6	66·5	66·8	70·9	77·6	79·5	26
+ 7·9	100·0	76·9	59·6	56·1	63·2	70·3	75·2	83·4	90·0	27
− 3·7	**100·0**	**78·3**	**63·4**	**59·6**	**74·7**	**85·2**	**96·5**	**120·2**	**115·7**	

28.—Total Sales 1930, 1933, 1937, and 1938 and Indexes of Sales of Retail

No.	Group and Kind of Business.	Total Sales.			
		1930.	1933.	1937.	1938.
		$'000	$'000	$'000	$'000
	Apparel Group.				
28	Men's and boys' clothing and furnishings (includes custom tailors)	72,111	44,435	61,289	56,543
29	Family clothing stores	42,144	31,582	43,452	40,559
30	Women's apparel and accessory stores	69,806	44,699	52,318	50,572
31	Shoe stores	35,908	25,989	30,253	29,288
	Totals, Apparel Group	**219,969**	**146,705**	**187,312**	**176,962**
	Building Materials Group.				
32	Hardware stores	70,891	42,732	59,741	59,978
33	Lumber and building materials	66,201	29,331	46,399	45,321
34	Other building materials (including roofing materials)	9,597	3,417	6,360	6,647
35	Electrical shops (without radio) Heating and plumbing shops Paint and glass stores	15,548	7,765	11,615	11,626
	Totals, Building Materials Group	**162,237**	**83,245**	**124,115**	**123,572**
	Furniture and Household Group.				
36	Furniture stores	41,017	23,073	37,824	35,656
37	Household appliance stores	17,798	9,208	15,752	15,164
38	Other home furnishings (including floor coverings, curtains, etc.)	8,957	5,006	7,650	7,065
39	Radio and music stores	33,894	13,440	21,961	20,328
	Totals, Furniture and Household Group	**101,666**	**50,727**	**83,187**	**78,213**
40	**Restaurants, Cafeterias, and Eating Places**	**75,977**	**41,667**	**51,940**	**50,176**
	Other Retail Stores.				
41	Farmers' supplies	45,760	29,160	45,320	43,024
42	Book stores	8,837	5,405	7,035	7,031
43	Coal and wood yards	86,047	70,384	78,840	77,060
44	Drug stores	76,849	57,253	68,724	68,164
45	Florists	9,265	5,570	7,114	6,950
46	Jewellery stores	26,663	15,044	21,943	21,382
47	Office, school, and store supplies, and equipment	19,830	10,003	18,599	17,953
48	Tobacco stores and stands	30,703	21,586	26,605	26,640
49	Government liquor stores	100,694	54,869	74,305	77,298
50	Unclassified kinds of business	113,291	69,930	97,332	99,642
	Totals, Other Retail Stores	**517,939**	**339,204**	**445,817**	**445,144**

[1] Revised since the publication of the 1939 Year Book.

review gives detailed analyses of such trade, annual net sales, and employees engaged, by provinces, business groups and kinds of business, and by manner of operation (i.e., independents, two-store multiples, three-store multiples, voluntary and other types of chains, etc.). Since these statistics will stand until the next census is taken, it has been considered unnecessary to reprint them in this edition of the Year Book. In this edition, therefore, the only table of the 1931 Census reprinted, and this merely in part, is that showing the retail trade by provinces, which appears now as Table 29.

Annual Retail Statistics.—As in the case of wholesale merchandising, annual statistics of retail sales are based on the complete census covering 1930, supplemented

Merchandise Trade, 1930-38, by Provinces and Kinds of Business—concluded.

P.C. Change, 1937-38.	Indexes of Retail Sales. (1930=100.)									No.
	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	
− 7·7	100·0	81·4	64·9	61·6	69·2	73·7	78·9	85·0	78·4	28
− 6·7	100·0	87·8	75·5	74·9	84·4	89·5	95·4	103·1	96·2	29
− 3·3	100·0	87·7	70·8	64·0	68·0	68·1	71·2	74·9	72·4	30
− 3·2	100·0	89·1	76·4	72·4	75·2	76·4	79·6	84·3	81·6	31
− 5·5	**100·0**	**85·9**	**70·7**	**66·7**	**72·7**	**75·4**	**79·7**	**85·2**	**80·4**	
+ 0·4	100·0	83·7	66·8	60·3	67·6	70·6	76·1	84·3	84·6	32
− 2·3	100·0	73·0	52·6	44·3	51·8	55·7	63·9	70·1	68·5	33
+ 4·5	100·0	88·1	50·8	35·6	42·2	46·8	57·5	66·3	69·3	34
+ 0·1	100·0	83·2	59·3	49·9	55·7	58·7	65·6	74·7	74·8	35
− 0·4	**100·0**	**79·5**	**59·3**	**51·3**	**58·5**	**62·0**	**69·0**	**76·5**	**76·2**	
− 5·7	100·0	85·2	63·2	56·3	65·3	71·3	78·6	92·2	86·9	36
− 3·7	100·0	80·0	61·1	51·7	60·4	70·0	75·4	88·5	85·2	37
− 7·6	100·0	76·6	57·6	55·9	64·7	65·6	75·7	85·4	78·9	38
− 7·4	100·0	77·3	49·9	39·7	45·8	51·7	57·8	64·8	60·0	39
− 6·0	**100·0**	**80·9**	**57·9**	**49·9**	**57·9**	**64·0**	**70·8**	**81·8**	**76·9**	
− 3·4	**100·0**	**81·7**	**62·7**	**54·8**	**58·0**	**60·3**	**64·2**	**68·4**	**66·0**	**40**
− 5·1	100·0	78·3	66·5	63·7	74·8	77·2	83·7	99·0	94·0	41
− 0·1	100·0	84·0	68·7	61·2	63·6	66·7	71·1	79·6	79·6	42
− 2·3	100·0	88·7	82·1	81·8	83·3	84·2	88·3	91·6	89·6	43
− 0·8	100·0	91·9	83·3	74·5	77·4	79·8	83·4	89·4	88·7	44
− 2·3	100·0	83·1	69·1	60·1	63·7	65·8	69·6	76·8	75·0	45
− 2·6	100·0	78·6	61·5	56·4	63·1	68·4	74·5	82·3	80·2	46
− 3·5	100·0	77·5	57·8	50·4	61·9	69·3	79·0	93·8	90·5	47
++ 0·1	100·0	88·5	77·8	70·3	73·4	75·3	79·8	86·7	86·8	48
++ 4·0	100·0	85·8	66·6	54·5	55·8	56·4	65·5	73·8	76·8	49
+ 2·4	100·0	79·9	66·1	61·7	70·3	72·1	75·8	85·9[1]	88·0	50
− 0·2	**100·0**	**84·6**	**71·7**	**65·5**	**70·4**	**72·4**	**77·8**	**86·1**	**85·9**	

by an annual survey of all the more important retail establishments, such establishments having accounted for over two-thirds of the total value of sales in 1930. In Table 28, therefore, the figures for 1930 are the results of the comprehensive census, while the figures for later years are estimates calculated from the annual surveys.

It is impossible to measure accurately the effect of the general decline in prices as a factor in the decrease in the total sales from 1930 to 1933. It was probably the principal factor in the food and apparel groups. On the other hand, the prices of more durable goods have not declined so much as food prices, so that the greater reduction in sales of groups handling durable goods, is, no doubt, due much more to reduced volume.

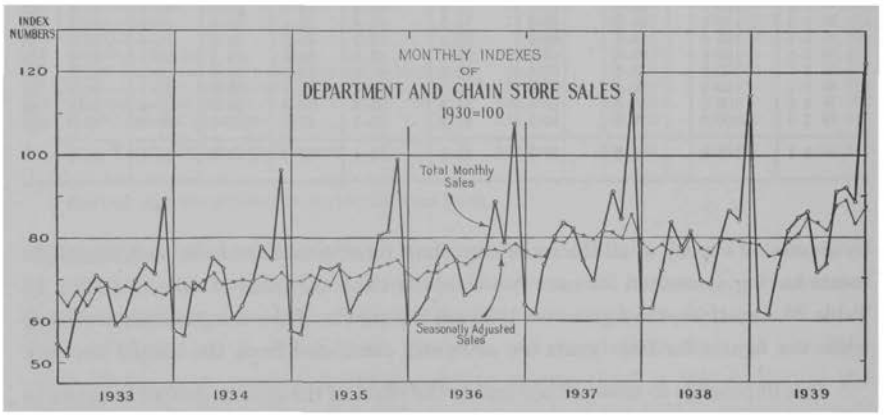
Retail trade was relatively well maintained in 1938, dollar volume of business for the year standing only 2 p.c. below the 1937 level. Sales in Manitoba and Saskatchewan were practically unchanged in 1938 from the preceding year; Alberta sales increased by 6 p.c. while all other provinces reported decreases ranging from 0·8 p.c. in Quebec to 6·5 p.c. in New Brunswick.

29.—Retail Merchandise Trade, by Provinces, 1930.

Province.	Population, 1931.	Establishments.	Full-Time Employees.			Net Sales.	Stocks on Hand, End of Year (at Cost).
			Male.	Female.	Salaries and Wages.		
	No.	No.	No.	No.	$	$	$
Prince Edward Island..	88,038	851	732	395	874,400	13,773,700	3,359,400
Nova Scotia.....	512,846	6,464	5,415	2,811	7,006,300	99,519,900	18,506,700
New Brunswick.....	408,219	4,434	4,516	2,338	6,224,300	84,371,900	14,806,700
Quebec.....	2,874,255	34,286	45,085	17,815	59,778,200	651,138,500	119,843,700
Ontario.....	3,431,683	43,045	64,127	30,057	101,636,800	1,099,990,200	177,112,500
Manitoba	700,139	6,859	11,440	6,366	18,945,300	189,243,900	28,253,700
Saskatchewan.....	921,785	10,841	10,158	2,939	14,170,600	189,181,100	43,153,400
Alberta.....	731,605	8,592	9,638	3,439	14,947,000	176,537,100	35,800,500
British Columbia.....	694,263	9,501	14,675	6,513	23,465,100	248,597,500	41,055,300
Yukon and N.W.T.....	13,953	130	215	9	322,500	3,216,100	1,735,600
Canada.....	**10,376,786**	**125,003**	**166,001**	**72,682**	**247,370,500**	**2,755,569,900**	**483,627,500**

Retail Merchandise Trade by Cities.—Data similar to those given in Table 29 for provinces are published for cities of 20,000 population or over at p. 609 of the 1939 Year Book.

Chain Stores.—During the past decade the chain store has come to occupy an important place in the field of distribution. The Dominion Bureau of Statistics classifies as chains all retail organizations (with the exception of departmental



concerns) operating four or more branches. The number of chains reported in any year thus depends not only on the appearance or disappearance of firms but also on the number of units operated. As a minimum of four stores is required before a firm is classified as a chain, the reduction in branches below this number automatically removes a firm from the chain store group.

Figures covering the operations of retail chains are available for all years since 1930. In that year chain store companies transacted 17·7 p.c. of the total retail trade of the country. The proportion of the total business transacted by chains has varied only slightly since that date; in 1938 the percentage was 17·2.

The variety store of to-day is a typical chain store development, approximately 90 p.c. of all variety store sales being made by chains. Chains also play an important part in the distribution of groceries, meats, shoes, clothing, and drugs.

A significant development in chain store operation in the food retailing field during recent years is the shift towards larger stores, the proportion of total food chain business transacted by stores with annual sales of $100,000 or more almost doubling since 1934. In that year there were 152 chain units with annual sales of $100,000 or more and these transacted 21·7 p.c. of the annual food chain business. In 1935 there were 164 stores in this category and these transacted 23·9 p.c. of the total chain business; in 1936 there were 180 large stores with 26·3 p.c. of the sales; in 1937 there were 225 stores with 32·7 p.c. of the total business, while 1938 witnessed a continuation of the same trend. In the last named year there were 263 stores each with annual sales of $100,000 or more; these accounted for 39·1 p.c. of the total food chain business. This transition has naturally been accompanied by a reduction in the proportion of the total business transacted by the smaller stores. Stores with annual sales of between $20,000 and $100,000 transacted 71·3 p.c. of the total food chain business in 1934; in 1938 the proportion for the same range had declined to 56·3 p.c. Nevertheless, a considerable number of relatively small chain units are still in operation. There were 445 chain units, with annual sales of less than $20,000, in operation in 1938. However, included in this were a considerable number of stores that were opened in the year under review and that had less than a twelve-month period on which to report.

30.—Sales of Retail Chains for Selected Kinds of Business Compared with Total Sales, 1930, 1933, 1937, and 1938.

Kind of Business.		1930.	1933.	1937.	1938.
All Stores—					
Chains	No.	518	461	447	457
Stores[1]	"	8,504	8,230	7,815	7,692
Chain Sales	$	487,336,000	328,902,600	414,133,300	414,448,300
Total Sales (all stores)	$	2,755,569,900	1,785,768,000	2,453,715,000	2,404,756,000
P.C. of Chain Sales to Total		17·7	18·4	16·9	17·2
Grocery and Combination Stores—					
Chains	No.	66	75	75	77
Stores[1]	"	2,127	2,221	2,125	2,054
Chain sales	$	119,498,600	98,862,100	116,389,700	116,849,800
Total sales (all stores)	$	405,403,400	297,307,000	347,752,000	346,397,000
P.C. of chain sales to total		29·5	33·3	33·5	33·7
Variety Stores—					
Chains	No.	15	14	14	16
Stores[1]	"	327	356	437	468
Chain sales	$	39,383,600	33,348,600	46,323,400	47,256,700
Total sales (all stores)	$	44,212,200	37,256,000	51,585,000	52,556,000
P.C. of chain sales to total		89·1	89·5	89·8	89·9

[1] Maximum in operation during the year.

30.—Sales of Retail Chains for Selected Kinds of Business Compared with Total Sales, 1930, 1933, 1937, and 1938—concluded.

Kind of Business.		1930.	1933.	1937.	1938.
Men's and Boys' Clothing and Furnishings Stores (including custom tailors)—					
Chains	No.	22	14	16	17
Stores[1]	"	191	135	158	164
Chain sales	$	9,866,800	5,405,200	7,272,500	6,961,400
Total sales (all stores)	$	72,110,500	44,435,000	61,289,000	56,543,000
P.C. of chain sales to total		13·7	12·2	11·9	12·3
Women's Apparel and Accessory Stores—					
Chains	No.	28	15	19	20
Stores[1]	"	203	148	194	213
Chain sales	$	8,584,800	4,029,400	6,216,600	6,198,700
Total sales (all stores)	$	69,806,000	44,699,000	52,318,000	50,572,000
P.C. of chain sales to total		12·3	9·0	11·9	12·3
Shoe Stores—					
Chains	No.	17	22	25	25
Stores[1]	"	203	274	355	368
Chain sales	$	7,702,700	7,114,800	10,093,000	10,017,000
Total sales (all stores)	$	35,908,000	25,989,000	30,253,000	29,288,000
P.C. of chain sales to total		21·5	27·4	33·4	34·2
Drug Stores—					
Chains	No.	31	29	31	33
Stores[1]	"	292	301	332	347
Chain sales	$	13,971,300	11,001,300	14,163,300	14,127,100
Total sales (all stores)	$	76,848,900	57,253,000	68,724,000	68,164,000
P.C. of chain sales to total		18·2	19·2	20·6	20·7

[1] Maximum in operation during the year.

Retail Sales of New Motor Vehicles in Canada.*—Statistics on new motor vehicle sales in Canada are collected monthly from Canadian manufacturers and assemblers, and from manufacturers in the United States of vehicles made for sale in this country. The number of units sold and the retail value of sales are both reported. The retail value is the price paid by an individual purchaser at the Canadian point of manufacture and includes sales and excise taxes, charges for standard accessories, dealers' commissions, etc. Freight charges from factory to place of purchase are excluded. Duty is included in the retail value of sales of imported cars.

The decline in the automotive trade that commenced in 1938 continued throughout the spring and summer months of 1939, sales for the first 8 months of the year standing 11 p.c. below the corresponding period of 1938. Favourable comparisons in the last four months of the year served to offset part of the losses previously recorded with the result that the total number of new vehicles sold in 1939 was only 5·3 p.c. below the 1938 figure. Improved economic conditions in Saskatchewan are reflected in an increase of 56 p.c. in new motor vehicle sales in 1939 compared with 1938. Sales in British Columbia were unchanged while other provinces reported declines.

* For statistics of numbers of motor vehicles registered in Canada and apparent consumption of motor vehicles, see pp. 665-666

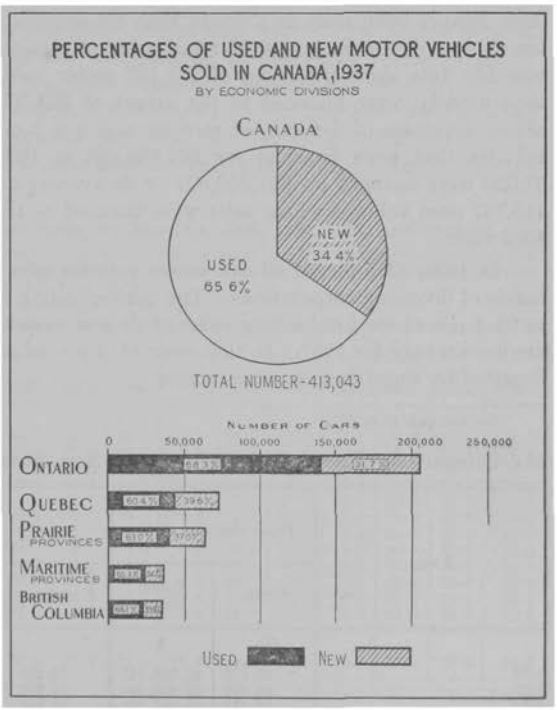
31.—Retail Sales of New Motor Vehicles in Canada, 1932-39, with Total Value for 1930.

NOTE.—The first year for which details are available is 1932. The total value for 1930 was secured in connection with the Census of Merchandising and Service Establishments.

Year.	Passenger Cars.		Trucks and Buses.		Totals.	
	No.	$	No.	$	No.	$
1930	[1]	[1]	[1]	[1]	[1]	122,165,000
1932	38,621	38,919,015	7,249	6,341,727	45,870	45,260,742
1933	39,568	39,692,630	5,764	5,757,600	45,332	45,450,230
1934	61,503	63,566,402	11,855	12,219,059	73,358	75,785,461
1935	83,242	83,429,114	18,219	18,313,335	101,461	101,742,449
1936	92,287	95,403,199	21,027	22,179,597	113,314	117,582,796
1937	114,275	116,886,334	30,166	32,284,193	144,441	149,170,527
1938	95,751	105,006,462	25,414	30,005,446	121,165	135,011,908
1939	90,054	97,131,128	24,693	28,836,393	114,747	125,967,521

[1] Not available.

Retail Sales of Used Motor Vehicles in Canada.*—That the sale of a new motor vehicle in Canada means the sale by distributors of two used models is the opinion generally recognized in the automotive trade. The accuracy of this ratio is confirmed by the results of a special survey of the retail automotive trade for 1937 for which reports were secured direct from 3,426 retail distributors of motor vehicles in the country. Dealers and distributors reported a total of 413,043 motor vehicles sold for $245,277,623 in 1937 of which 141,881† were new models which sold for $157,671,890† or an average of $1,111 each and 271,162 were used vehicles which retailed for $87,605,733 or an average of $323 each. The total number of vehicles sold is thus divided in the proportions 34·4 p.c. new and 65·6 p.c. used or, on the average, there were 1·91 used vehicles sold for every new model.



* See footnote to p. 622.

† These figures are made up from returns from individual dealers for this special survey and do not agree with those given in Tables 31 and 32 obtained from manufacturers and assemblers.

The ratio of used to new vehicles sold varies considerably for different regions of the country, usually being higher in those sections in which the concentration of motor vehicles in proportion to population is greatest and lower in those sections in which there are fewer used vehicles available to be traded in as part payment for new models. The ratio of used to new models sold ranged from 1·53 in Quebec Province where the population per motor vehicle registration is highest to 2·16 in Ontario where the population per motor vehicle registration is lowest. A table showing sales of new and used motor vehicles in the different provinces for 1937 appears at p. 616 of the 1939 Year Book. Comparable figures for later years are not available.

Financing of Motor Vehicle Sales in Canada.*—Financing corporations play an important part in the retail distribution of both new and used motor vehicles in Canada. They extend credit facilities to customers who could not enter the market if required to pay with cash and to others who, though in a position to pay cash, find it more convenient to budget their expenditures on the instalment basis. They also provide a service to the motor dealers by assuming the risks and inconveniences connected with instalment sales, thus permitting the dealers to operate on a smaller capital outlay than would otherwise be necessary.

Statistics on financing are compiled monthly from returns secured from all large finance companies in Canada that are engaged in purchasing accounts, contracts, or notes arising out of retail sales of motor vehicles. Aggregates of the monthly data show that sales of 153,107 motor vehicles (including both new and used models) were financed to the extent of $62,768,746 in 1939. These figures reveal decreases of 5·9 p.c. in number and 9·9 p.c. in amount from the 162,703 vehicles that were financed for $69,685,853 in 1938. New vehicles numbering 37,320 were financed for $27,852,627 or an average of $746 each. There were also 115,787 used vehicles whose sales were financed to the extent of $34,916,119 or for $302 each.

In 1939, 32·5 p.c. of all new motor vehicles sales in Canada passed through the hands of financing corporations. The corresponding amount of financing amounted to 22·1 p.c. of the total selling value of all new models. Total sales of used vehicles are known only for 1937. In that year 44·9 p.c. of all used vehicle purchases were financed by these finance corporations.

* See footnote to p. 622.

32.—Comparison of Sales and Financing of New Motor Vehicles in Canada, 1932-39.

Year.	New Vehicles Sold.		New Vehicles Financed			
			Units.		Financing.	
	Units.	Retail Value.	Number.	P.C. of Total Sold.	Amount.	P.C. of Total Sales.
	No.	$			$	
1932	45,870	45,260,742	21,293	46·4	12,741,179	28·2
1933	45,332	45,450,230	15,880	35·0	10,030,368	22·1
1934	73,358	75,785,461	23,264	31·7	16,364,735	21·6
1935	101,461	101,742,449	31,950	31·5	22,410,656	22·0
1936	113,314	117,582,796	42,863	37·8	29,887,861	25·4
1937	144,441	149,170,527	56,247	38·9	40,664,675	27·3
1938	121,165	135,011,908	45,267	37·4	33,701,624	25·0
1939	114,747	125,967,521	37,320[1]	32·5[1]	27,852,627[1]	22·1[1]

[1] Subject to revision.

Monthly Indexes of Retail Sales.—In recent years the Dominion Bureau of Statistics has published monthly indexes of the dollar value of retail sales based upon reports received from department stores, from chain organizations, and from a number of independent firms operating in twelve lines of business. While these reports cover only a part of the field and relate mainly to the business of department and chain stores, they embrace a sufficiently large number of stores to provide a fairly accurate indication of the current movements in retail sales for the kinds of business that are included.

In the second set of figures shown at the right of Table 33, corrections are incorporated to allow for the variations in number of business days and for seasonal influences. This general index of retail sales shows that the low point in retail trade was reached in the early part of 1933. Following this there was a gradual improvement in the dollar volume of sales until December, 1937, when an exceptionally heavy Christmas business brought the seasonally adjusted index to the highest level recorded since the summer of 1931. Retail trade in Canada for the year 1938 was maintained at a level only slightly below that of 1937.

A downward trend in the first few months of 1939 was offset by increases in the spring and summer months, dollar sales for the first eight months of the year equalling the amount recorded for the corresponding period of 1938. A sudden increase in consumer purchasing on the outbreak of war is reflected in statistics for September when sales increased 24 p.c. from August and were 12 p.c. higher than in September, 1938. Increased demand was greatest for food and textile products. Grocery and meat stores did 15 p.c. more business in September, 1939, than in the same month of 1938; men's clothing store sales were up 17 p.c., and women's clothing stores, 15 p.c. Substantial gains over 1938 were also recorded in the last quarter of the year with the result that annual sales for 1939 stood 3·2 p.c. above the preceding twelve-month period.

33.—Index Numbers of Retail Sales, by Months, 1929, 1930, 1933, and 1936-39.

NOTE.—The general indexes are composite figures secured by weighting the indexes of sales for twelve kinds of business in proportion to their relative position in the total trade. The figures in this table have been revised since the publication of the 1939 Year Book.

(Average for 1930=100.)

Month.	Unadjusted Indexes.							Adjusted Indexes.						
	1929.	1930.	1933.	1936.	1937.	1938.	1939.[1]	1929.	1930.	1933.	1936.	1937.	1938.	1939.[1]
Jan.	95·4	93·1	54·8	61·0	65·8	64·7	62·3	112·7	109·3	67·1	73·5	79·0	81·2	78·2
Feb.	92·5	86·5	52·1	62·3	63·4	63·9	61·5	113·5	106·2	63·8	71·1	77·8	78·4	75·5
Mar.	110·0	94·6	61·6	66·9	75·5	73·3	72·9	110·7	102·5	66·5	73·8	77·7	79·9	76·2
Apr.	109·4	107·6	67·4	75·5	82·6	86·1	81·7	109·9	102·3	63·4	72·8	81·8	78·1	79·0
May	115·6	109·8	71·0	80·4	87·0	80·1	84·8	109·3	103·0	67·7	75·1	81·9	78·5	80·9
June	111·2	97·3	70·2	76·9	84·9	83·3	86·6	109·2	99·6	68·8	76·5	84·2	82·2	85·0
July	104·2	91·3	60·2	68·6	77·6	71·7	71·5	115·5	100·7	70·3	76·9	84·1	80·3	83·6
Aug.	108·5	91·2	61·6	69·9	71·7	70·1	73·4	115·7	100·2	68·6	77·6	82·7	78·5	81·8
Sept.	110·7	96·9	69·4	77·8	84·1	81·1	91·1	115·1	97·9	66·7	78·3	84·3	80·8	87·6
Oct.	127·0	107·4	72·0	90·3	93·4	87·0	92·1	114·8	96·3	67·5	78·3	83·4	80·5	88·6
Nov.	119·9	98·8	70·9	80·3	85·8	83·8	88·6	108·4	92·6	66·6	78·3	81·3	79·1	83·3
Dec.	138·5	125·5	88·4	108·3	115·6	112·6	122·2	107·4	94·6	63·2	79·1	86·5	78·0	87·5
Annual Averages.	**111·9**	**100 0**	**66·6**	**76·5**	**82·3**	**79·8**	**82·4**	**111·9**	**100·4**	**66·7**	**75·9**	**82·1**	**79·6**	**82·3**

[1] Subject to revision.

Motion Picture Statistics.—The motion picture has become the most popular form of public entertainment and the business of satisfying the demand for such amusement has assumed a corresponding importance. In 1930 the expenditure

on motion picture entertainment (exclusive of amusement taxes) was $3·77 per capita. By 1933, owing to reduced patronage and lower prices of tickets, the per capita expenditure had dropped to $2·33, while for 1935 the figure rose slightly to $2·50. Figures for later years are $2·70 for 1936, $2·93 for 1937, and $3·02 for 1938.

Statistics for motion picture theatres in Canada were secured for the first time in connection with the Census of Merchandising and Service Establishments, 1931. According to the results of this Census, there were 910 motion picture theatres in operation in 1930. During the depression a number of theatres were closed so that in 1933 only 765 were reported. Since 1933 the situation has more than recovered itself, 797 theatres being reported in operation in 1934, 862 in 1935, 959 in 1936, 1,047 in 1937, and 1,133 in 1938. Principal statistics by leading cities for 1936 and 1937 are given at p. 621 of the 1939 Year Book.

34.—Motion Picture Theatres, Employees, Salaries and Wages, and Total Receipts, by Provinces, 1930, 1937, and 1938.

NOTE.—Figures for intervening years will be found in the corresponding table of previous editions of the Year Book.

Year and Province.	Theatres.	Employees.		Salaries and Wages.	Total Receipts.[1]
		Male.	Female.		
1930.	No.	No.	No.	$	$
Prince Edward Island	5	16	21	28,200	188,300
Nova Scotia	56	198	69	204,400	1,814,500
New Brunswick	39	129	77	160,700	1,093,400
Quebec	148	1,126	299	1,593,600	8,301,800
Ontario	324	1,881	556	2,826,200	15,900,900
Manitoba	73	322	143	536,900	2,712,800
Saskatchewan	104	223	80	340,400	1,977,300
Alberta	85	307	72	428,700	2,323,700
British Columbia[2]	76	439	185	827,600	4,166,800
Canada, 1930	**910**	**4,641**	**1,502**	**6,946,700**	**38,479,500**
1937.					
Prince Edward Island	4	14	11	13,300	110,300
Nova Scotia	54	219	98	199,400	1,298,600
New Brunswick	34	135	65	122,600	821,300
Quebec	166	1,078	323	961,100	6,749,700
Ontario	349	2,261	562	2,520,900	14,457,000
Manitoba	90	396	191	386,100	2,196,400
Saskatchewan	123	292	81	242,700	1,351,000
Alberta	127	374	82	393,600	1,880,000
British Columbia[2]	100	525	243	787,600	3,635,000
Canada, 1937	**1,047**	**5,294**	**1,656**	**5,627,300**	**32,499,300**
1938.					
Prince Edward Island	5	15	10	12,784	108,946
Nova Scotia	60	238	109	200,887	1,341,902
New Brunswick	38	139	77	127,390	861,792
Quebec	172	1,119	314	949,898	6,897,986
Ontario	363	2,291	609	2,557,272	15,202,597
Manitoba	102	392	222	383,222	2,278,996
Saskatchewan	129	282	89	230,461	1,318,435
Alberta	148	397	88	402,576	1,959,134
British Columbia[2]	116	549	308	801,559	3,665,264
Canada, 1938	**1,133**	**5,422**	**1,826**	**5,666,049**	**33,635,052**

[1] Does not include amusement taxes. [2] Includes Yukon and Northwest Territories.

Section 10.—Control and Sale of Alcoholic Liquors and Beverages in Canada.*

During the years 1916 and 1917, as a war policy, legislation prohibiting the sale of alcoholic liquors, except for medicinal and scientific purposes, was passed in all the provinces except Quebec, where similar legislation was passed in 1919. The

* Abridged from the report "The Control and Sale of Liquor in Canada", by Miss L. J. Beehler, M.A., published by the Dominion Bureau of Statistics.

prohibition extended to the sale of beer and wine except in Quebec. Native wine, however, could be sold in Ontario.

In aid of provincial legislation prohibiting or restricting the sale of intoxicating liquors, the Dominion Government, in 1916, passed a law making it an offence to send intoxicating liquors into any province to be dealt in contrary to the law of that province. In 1919 this Act was changed to read that "on the request of the Legislative Assembly of a province a vote would be taken on the question that the importation and the bringing of intoxicating liquors into such province be forbidden"

During 1921 Quebec and British Columbia discarded the existing prohibition laws and adopted the policy of liquor sale under government control. The same course was followed by Manitoba in 1923, Alberta in 1924, Saskatchewan in 1925, Ontario and New Brunswick in 1927, and Nova Scotia in 1930. Thus Prince Edward Island is the only province still adhering to a policy of prohibition.

The provincial Liquor Control Acts have been framed to establish provincial monopolies of the retail sale of alcoholic beverages, with the practical elimination of private profit therefrom. Partial exception is made in the retail sale of malt liquor by brewers, which certain provinces permit while reserving regulative rights and taxing such sales heavily. In all the provinces, however, spirits may be bought only at government liquor stores. The provincial monopoly extends only to the retail sale of alcoholic beverages, the manufacture being still in private hands but under the supervision of the Liquor Boards or Commissions. The original Liquor Control Acts have been modified from time to time as deemed advisable. Brief summaries of the legislation are given in the Bureau's annual report on the Control and Sale of Liquor.

Sales by Liquor Control Boards.—In connection with the figures on gross sales shown in Table 35 it is essential to note that for Quebec, Manitoba, and Alberta (prior to Apr. 1, 1936), the sales of beer made directly by the brewers to the licensees are not included. The proceeds from such sales do not pass through the Boards, but the purchasers must pay through the brewers to the Boards a tax equal to 5 p.c. of the purchases in the case of Quebec, and 12½ cents per gallon in Manitoba. In Alberta purchasers from the brewers paid a tax of 12½ cents per gallon prior to Apr. 1, 1932, and 15½ cents per gallon thereafter to Apr. 1, 1936.*

It should be noted that the values, as given, do not represent the sales values to the final consumers as, in most provinces, the sale of beer by the glass is permissible. Further, all the liquor sold in any province is not consumed by the residents of that province. The tourist traffic is an important factor in this connection.

All the revenue resulting from the Liquor Control Acts is not paid to the Liquor Boards. In certain provinces, permit fees are paid directly to the Governments and do not pass through the Boards.

The reports of the Boards do not in all cases show the quantities of liquors sold; in comparing values for a series of years or between provinces it should be borne in mind that price variations may be an important factor.

Apparent Consumption of Liquor in Canada.—It is not possible to obtain accurate figures on Canadian consumption of liquor. Except in Nova Scotia, Quebec, Ontario, and Alberta, the Liquor Boards do not publish figures to show sales on a gallonage basis, and even were such data on quantity sales available for all provinces they would not necessarily represent total consumption. For example,

* An amendment to the Alberta Liquor Control Act passed at the 1936 session of the Legislature provides that "brewers who manufacture beer in Alberta may sell only to the Liquor Board". All sales, both to beer licensees and to permit holders, are now made only through the Board. Under the new arrangement the gallonage tax is no longer levied.

the quantities consumed by tourists reach a considerable amount. Further, there is no definite information regarding the illegal traffic in liquor, though inquiry has revealed that such illicit business has at times reached fairly large proportions.

Obviously, figures of consumption are subject to error for the reasons mentioned above, and also because no consideration has been given to increases or decreases in the quantities held in stock by the Boards or by licensees.

Spirits.—Practically the total production of spirits is placed in bonded warehouses whence it is released for various purposes. The quantities shown as "entered for consumption" are released from warehouse, duty paid, presumably for consumption for beverage purposes in Canada. However, part of these may be exported.

Malt Liquors.—Only a small part of the output of malt liquors is placed in warehouses. The available supply is, therefore, made up of (1) production; (2) changes in warehouse stock; and (3) imports.

Wines.—The apparent consumption of native wines is obtained by dividing the rates of excise tax into the total tax collections. This is believed to furnish a better measure of consumption than the method formerly used (i.e., subtracting exports from production) since part of the product is not consumed in the year of production but is placed in storage for maturing.

35.—Gross Sales and Net Profits of Liquor Control Boards, Additional Revenues Paid Direct to Governments, and Total Net Revenue from Liquor Control, 1936-38.

Province.	Year.	Receipts by Liquor Control Boards or Commissions.			Additional Amounts for Permits, etc., Paid Direct to Provincial Governments.	Total Net Revenue from Liquor Control.
		Gross Sales.	Other Revenue.	Net Profits.		
		$	$	$	$	$
Nova Scotia—						
Year ended Nov. 30	1936	3,831,691	9,314	970,693	25,394	996,087
	1937	4,648,423	48,916	1,285,909	28,085	1,313,994
	1938	4,684,901	58,959	1,337,458	28,356	1,365,814
New Brunswick—						
Year ended Oct. 31	1936	2,695,859	19,823	782,742	Nil	782,742
	1937	3,535,101[1]	19,957	1,104,717	"	1,104,717
	1938	3,525,215	24,933	1,153,763	"	1,153,763
Quebec—						
Year ended Apr. 30	1936	12,698,163[2]	1,764,770	4,868,400	Nil	4,868,400
	1937	14,693,171[2]	1,796,414	5,487,018	"	5,487,018
	1938	17,027,104[2]	1,949,063	6,221,813	"	6,221,813
Ontario—						
Nov. 1—Mar. 31	1936	18,530,658[3]	2,942,605	7,862,719	327,097	8,189,816
Year ended Mar. 31	1937	20,733,368[3]	3,100,231	8,960,601	495,066	9,455,667
	1938	22,830,002[3]	3,381,789	9,893,587	556,579	10,450,166
Manitoba—[4]						
Year ended Apr. 30	1936	4,539,694[2]	494,108	1,293,288	Nil	1,293,288[4]
	1937	5,191,393[2]	543,082	1,512,201	"	1,512,201[4]
	1938	5,889,689[2]	597,579	1,753,363	"	1,753,363[4]
Saskatchewan—						
Year ended Mar. 31	1936	5,735,355	88,662	1,278,731	1,614	1,280,345
	1937	6,718,218	56,364	1,451,275	1,600	1,452,875
	1938	6,042,165	54,488	1,245,518	1,673	1,247,191
Alberta—[4]						
Year ended Mar. 31	1936	3,726,056[2]	612,027	1,802,206	52,522	1,854,728[4]
	1937	7,660,709[2, 5]	167,368	2,331,869	58,944	2,390,813
	1938	8,194,271[2, 6]	171,711	2,532,751	61,203	2,593,954
British Columbia—						
Year ended Mar. 31	1936	11,169,437	140,544	3,015,904	45,925	3,061,829
	1937	12,746,783	145,073	3,555,429	51,904	3,607,333
	1938	14,110,159	150,023	4,042,627	52,538	4,095,165

[1] Revised since the publication of the 1939 Year Book. [2] For Quebec, Manitoba, and Alberta gross sales do not include beer sold by the brewers direct to the licensees. Separate figures on beer are published by the Quebec Liquor Commission, as follows:—

Footnotes continued at foot of p. 629.

36.—Apparent Consumption of Spirits in Canada, Fiscal Years 1924-39.

Year.	Entered for Consumption.[1]	Add Exports in Bond.	Add Imports.	Deduct Re-exports of Imported Spirits.[1]	Deduct Total Domestic Exports.[1]	Apparent Consumption.
	pf. gal.	pf. gal.	pf. gal.	pf. gal.	pf. gal.	pf. gal.
1924	899,291	875,699	1,261,541	29,329	991,563	2,015,639
1925	910,316	803,535	1,161,169	10,978	1,008,583	1,855,459
1926	1,082,785	499,007	1,410,637	15,958	1,087,553	1,888,918
1927	1,404,111	571,792	1,587,475	107,282	1,266,692	2,189,404
1928	1,896,357	579,420	2,374,885	185,630	1,460,871	3,204,161
1929	2,016,802	1,143,276	2,604,769	183,889	1,911,634	3,669,324
1930	1,926,063	1,810,197	2,446,800	128,612	2,379,858	3,674,590
1931	1,180,536	2,558,327	1,990,574	19,694	2,630,805	3,078,938
1932	781,612	2,276,137	1,421,214	83	2,016,886	2,461,994
1933	769,527	1,991,994	732,306	45	1,996,113	1,497,669
1934	933,946	2,478,975	718,016	1,238	2,551,030	1,578,669
1935	1,063,928	2,215,332	713,346	45	2,205,249	1,787,312
1936	1,621,286	3,006,544	976,563	54	2,995,181	2,609,158
1937	1,900,714	5,280,885	1,126,440	462	5,289,344	3,018,233
1938	2,302,210	4,620,950	1,297,925[2]	141	4,734,678	3,486,266[2]
1939	2,299,474	1,956,358	1,265,909	121	2,087,956	3,433,664

[1] Prior to 1933 export figures as given in the trade returns were in imperial gallons. These were converted to proof gallons as follows: Canadian manufacture at 20 under proof; foreign origin at 25 under proof.
[2] Revised since the publication of the 1939 Year Book.

Footnotes concluded from foot of p. 628.

Fiscal Year.	Beer Manufactured and Sold within the Province.		Beer Imported from Ontario.		Beer Exported from the Province.		Tax of 5 p.c. on Gross Sales Paid to Liquor Commission.
	gal.	$	gal.	$	gal.	$	$
1936	18,184,161	13,447,882	1,199,265	1,055,081	4,158,107	3,841,168	917,206
1937	18,741,258	14,002,742	1,385,972	1,242,130	4,570,054	3,934,054	958,946
1938	21,291,283	16,019,116	1,721,032	1,578,668	5,228,668	4,458,086	1,102,793

[3] In addition, sales of beer from breweries and brewers' warehouses totalled $29,396,420 in 1936, $31,621,194 in 1937, and $26,289,136 in 1938. Sales of native wines made direct to customers from licensed native wine sales offices and, when permitted, from the winery premises, amounted to $1,407,933 in 1936, $1,660,637 in 1937, and $1,886,530 in 1938. [4] The beer taxes paid to the Boards in Manitoba and Alberta are tabulated below. Boards also pay the beer tax on their purchases from the brewers but the beer sales of the Boards are included in the total gross sales shown above.

Fiscal Year.	Manitoba. Tax.	Manitoba. Accrued Tax.	Alberta. Tax.
	$	$	$
1936	280,173	43,239	459,035
1937	308,515	49,231	See footnote 5.
1938	352,081	61,214	

[5] Since Apr. 1, 1936, all beer sales in Alberta have been made through the Liquor Control Board.

37.—Apparent Consumption of Malt Liquors, Fiscal Years 1924-39.

Year.	Production.	Add Quantities Entered for Consumption from Warehouses.	Add Imports.	Deduct Quantities Placed in Warehouses.	Deduct Exports (Domestic).	Deduct Re-exports of Imported Goods.	Apparent Consumption.
	gal.	gal.	gal.	gal.	gal.	gal.	gal.
1924	44,080,490	9,789	96,647	172,674	3,192,491	4,326	40,817,435
1925	48,389,995	209,398	91,928	363,548	3,142,048	Nil	45,185,725
1926	52,448,853	344,641	152,255	394,989	3,786,164	"	48,764,596
1927	51,755,840	1,291,954	153,105	1,292,087	4,252,583	12	47,656,217
1928	58,397,913	1,343,986	234,701	1,325,630	3,825,003	388	54,825,579
1929	65,837,410	1,712,615	242,100	1,812,444	4,110,698	634	61,868,349
1930	63,450,516	1,738,663	259,003	1,864,625	1,481,215	2,117	62,100,225
1931	59,073,685	1,831,625	230,995	1,832,803	270,102	4,366	59,029,034
1932	52,297,431	1,977,892	195,664	2,020,540	25,458	Nil	52,424,989
1933	40,664,625	1,491,735	106,587	1,412,309	35,667	"	40,814,971
1934	40,920,623	974,161	93,602	1,324,494	404,939	12	40,258,941
1935	52,078,590	11,176,838	97,572	11,242,518	69,994	302	52,040,186
1936	57,154,948	875,759	88,851	974,329	51,887	Nil	57,093,342
1937	60,308,148	912,436	97,725	1,011,964	112,902	"	60,193,443
1938	67,361,250	765,187	104,778	913,994	156,053	"	67,161,168
1939	63,331,620	675,909	97,374	776,260	123,726	"	63,204,917

38.—Apparent Consumption of Wines in Canada, Fiscal Years 1924-39.

Year.	Native.	Imported.			Apparent Consumption, Native and Imported.
	Apparent Consumption (Estimated from Excise Tax Collections).	Imports.	Less Re-exports.	Apparent Consumption.	
	gal.	gal.	gal.	gal.	gal.
1924	922,715	598,125	540	597,585	1,520,300
1925	806,846	706,717	753	705,964	1,512,810
1926	1,182,775	736,311	1,962	734,349	1,917,124
1927	1,482,686	901,857	19,321	882,536	2,365,222
1928	2,171,887	1,263,438	132,748	1,130,690	3,302,577
1929	2,770,117	1,334,792	195,227	1,139,565	3,909,682
1930	3,920,261	1,365,321	150,056	1,215,265	5,135,526
1931	3,408,973	1,089,897	18,573	1,071,324	4,480,297
1932	3,337,556	900,317	76	900,241	4,237,797
1933	2,478,387	684,082	45	684,037	3,162,424
1934	2,679,619	523,866	5,783	518,083	3,197,702
1935	3,187,504	542,019	1,970	540,049	3,727,553
1936	2,605,602	506,707	61	506,646	3,112,248
1937	2,693,456	472,884	173	472,711	3,166,167
1938	3,120,381	507,669	107	507,562	3,627,943
1939	3,010,981	450,953	67	450,886	3,461,867

CHAPTER XVIII.—TRANSPORTATION AND COMMUNICATIONS.

CONSPECTUS.

	PAGE.
Part I.—Governmental Control Over Agencies of Transportation and Communication	632
Part II.—Railways	635
SECTION 1. STEAM RAILWAYS	635
Subsection 1. Mileage and Equipment	638
Subsection 2. Finances of Steam Railways	640
Subsection 3. Steam Railway Traffic	651
SECTION 2. ELECTRIC RAILWAYS	657
Subsection 1. Equipment of Electric Railways	658
Subsection 2. Finances of Electric Railways	658
Subsection 3. Traffic of Electric Railways	659
SECTION 3. EXPRESS COMPANIES	660
Part III.—Road Transportation	662
SECTION 1. PROVINCIAL MOTOR VEHICLE AND TRAFFIC REGULATIONS	662
SECTION 2. ROADS AND VEHICLES	664
Subsection 1. Roads and Highways	664
Subsection 2. Motor Vehicles	665
SECTION 3. FINANCES OF ROAD TRANSPORTATION	667
SECTION 4. ROAD TRAFFIC	670
Part IV.—Waterways	673
SECTION 1. EQUIPMENT AND FACILITIES	674
Subsection 1. Shipping	674
Subsection 2. Aids to Navigation and Miscellaneous Works	675
Subsection 3. Canals	677
Subsection 4. Harbours	678
Subsection 5. Marine Services and Operations of the Dominion Government	682
SECTION 2. FINANCIAL STATISTICS OF WATERWAYS	686
SECTION 3. WATER TRAFFIC AND SERVICES	691
Subsection 1. Shipping	691
Subsection 2. Canal Traffic	696
Subsection 3. Harbour Traffic	700
Part V.—Air Navigation	703
SECTION 1. HISTORY AND ADMINISTRATION	703
Subsection 1. Development of Aviation in Canada	703
Subsection 2. Administration	707
SECTION 2. AIRPORTS AND AIRCRAFT	708
Subsection 1. Summary Statistics of Civil Aviation	708
Subsection 2. Ground Facilities	709
Subsection 3. Aircraft	711
SECTION 3. FINANCES AND EMPLOYEES	711
SECTION 4. TRAFFIC	712
Part VI.—Wire Communications	715
SECTION 1. TELEGRAPHS	715
SECTION 2. TELEPHONES	717
Subsection 1. Systems and Equipment	717
Subsection 2. Telephone Finances	718
Subsection 3. Telephone Calls	719
Part VII.—Radio Communications	719
SECTION 1. ADMINISTRATION	720
Subsection 1. Technical Control and Licensing	720
Subsection 2. Investigation and Suppression of Inductive Interference	722
SECTION 2. OPERATION OF RADIO COMMUNICATIONS	723
Subsection 1. Dominion Government Radio Stations	723
Subsection 2. Provincial Government Radio Stations	726
Subsection 3. Privately Owned Commercial Stations	726
SECTION 3. PROGRAM BROADCASTING AND REGULATION UNDER THE CANADIAN BROADCASTING CORPORATION	727
Subsection 1. Administration	727
Subsection 2. Operations	728
Subsection 3. Finances	731
Part VIII.—The Post Office	732
Part IX.—The Press	739
SECTION 1. STATISTICS OF THE PRESS	740

Canada is a country of continental dimensions, nearly 4,000 miles in length from east to west, with its relatively small population of 11,315,000 (estimated population as at June 1, 1939), in the main thinly distributed along the southern strip of its vast area. Different parts of the country are shut off from each other by areas of rough, rocky, forest terrain, such as the region lying between New Brunswick and Quebec, the areas north of Lakes Huron and Superior, dividing the industrial region of Ontario and Quebec from the agricultural areas of the prairies, and the barriers interposed by the mountains of British Columbia. To such a country with a population so distributed and producing mainly for export, as do western agriculturists or, like manufacturers, largely for consumption in distant

portions of the country itself, cheap transportation is a necessity of life. Before 1850, when the water routes were the chief avenues of transportation and were closed by ice for several months each year, the business of the central portions of the country was reduced to a state of relative inactivity during the winter. The steam railway was required, therefore, for the adequate economic development of Canada, more particularly for linking up with the commercial and industrial world the vast productive areas of the Canadian West, and thus promoting their development. The construction of the Canadian Pacific Railway gave to Canada, as an economic unit, length; the building of the newer transcontinental railways has given the country breadth.

Railway transportation, though essential in a country such as Canada, is nevertheless expensive for bulky and weighty commodities, and also for short distances where the cost of repeated handling amounts to more than actual transportation. For bulky freight, new enterprises have been either undertaken or are under consideration for improving water communication, such as the new and deeper Welland Canal, the deepening of the St. Lawrence canals and of the channel between Montreal and Quebec, and the development of the Hudson Bay route. For freight movement over moderate distances the motor truck, operating over the growing network of improved highways, is providing an increasing proportion of the service. For inaccessible areas remote from the railways, the aeroplane has established itself commercially and is a valuable addition to other transportation facilities.

In order to appraise the value of each of these agencies of transportation from this viewpoint, this chapter of the Year Book, after treating of government control over agencies of transportation and communication in Part I, deals with the four main agencies, namely, carriers by rail, road, water, and air, in Parts II, III, IV, and V, respectively. In each Part the arrangement is intended to show: (1) the plant, equipment, and facilities available; (2) the cost to the Canadian people; and (3) the traffic carried or services performed, in so far as statistics are available for each agency. Unfortunately this arrangement brings out some rather serious gaps in the information at present available; these are pointed out in the respective Parts.

Scarcely less important, from the social and economic viewpoints, is the development of communications in a country so vast and with population centres so scatt red. The Post Office has been a great though litt le-recognized factor in promoting solidarity among the people of different parts of the Dominion, and this same desirable object is now being further aided by the radio, while telegraphs and telephones have done much to annihilate distance—the rural telephone, in particular, having been of great social and economic benefit in country districts. The press, again, assisted by cheap telegraph and cable rates and by low second-class mail rates to all parts of the coun ry, has been helpful in developing national sentiment. These means of communication are dealt with in Parts VI, VII, VIII, and IX.

PART I.—GOVERNMENTAL CONTROL OVER AGENCIES OF TRANSPORTATION AND COMMUNICATION.

Problems of transportation, because they are of such vital importance in he economic life of Canada, occupy a large part of the time and thought of our Parliaments and public men. With the modern development of new forms, it is becoming increasingly important to realize that the several agencies of transportation—carriers by rail, road, water, and air—are, or should be, inter-related parts of an integral

whole. Each agency has its place in the efficient provision of necessary transportation in Canada. The problem, therefore, is to adjust the conditions under which each of these agencies operates so that the resulting movement of passengers and freight may be accomplished with the maximum of economic efficiency, that is, at the least possible cost commensurate with desired convenience. The recognition of this growing necessity for viewing the problems of transportation and related communications as parts of a co-ordinated whole is indicated by the organization of the Dominion Department of Transport. This Department was organized on Nov. 2, 1936, under authority of c. 34, 1936, unifying in one Department the control and supervision of railways, canals, harbours, marine and shipping, civil aviation, and radio. The Meteorological Service is also under the Department of Transport.

Private enterprises engaged in the transportation and communications business in Canada, have, in the past 50 years, shown the same tendency toward consolidation and amalgamation that has been evident elsewhere throughout the civilized world. The basic reason for such consolidation and amalgamation has been the fact that the business of transportation and communications is, generally speaking, a 'natural monopoly', i.e., a type of enterprise in which service can be more efficiently and economically rendered to the public where one or a few concerns control a particular type of service throughout the country. The outstanding example of these consolidations in Canada in our time is the concentration of control of the railways of the country in the hands of the Canadian Pacific Railway Company and the Canadian National Railways.

However, since such control brings with it elements of monopoly and possible overcharge that are distasteful to the public, it has been deemed advisable in Canada, as in other countries, to set up authorities controlling the rates to be charged and the other conditions on which services to the public are to be rendered by common carriers. This control eventually, so far as the railways within the jurisdiction of the Dominion Government were concerned, was placed in the hands of the Board of Railway Commissioners, now the Board of Transport Commissioners. From time to time the regulatory authority of the Commission was extended to a limited extent to other utilities. A brief summary of the history and functions of this body follows.

Besides the Board of Transport Commissioners, dealing with the larger public utilities coming under the jurisdiction of the Dominion Government, there exist, in several of the provinces, bodies that undertake among their duties the supervision and control of local public utilities operating under the jurisdiction of the provinces, and the regulation of their rates for service. Among these are the Ontario Department of Municipal Affairs (formerly the Railway and Municipal Board of Ontario, established in 1906), the Quebec Commission of Public Utilities established in 1909, the Nova Scotia Board of Commissioners of Public Utilities, and the Public Utilities Commission of Manitoba. In the three westernmost provinces these same duties are performed by provincial Departments of Railways.

The Board of Transport Commissioners for Canada.*

In the early days of railway building in Canada, the provinces were more concerned with rapid development than with rate regulation. Under the Railway Clauses Consolidation Act of 1851, rates were fixed by the directors of the railway, subject to the approval of the Governor in Council. Beyond this, competition was

* Revised by P. F. Baillargeon, Secretary, Board of Transport Commissioners for Canada.

relied upon to bring rates to a reasonable level. As time went on, however, those who believed in the efficacy of competition as a regulator were disillusioned. For example, complaints were made that the Grand Trunk gave low through-transit rates, say from Chicago to New York, through Canada, and recouped itself by high non-competitive rates in Upper Canada. In 1888, the supervision of rates was assigned to the Railway Committee of the Privy Council, sitting at Ottawa.

At the turn of the century, two reports were prepared for the Department of Railways and Canals by Prof. S. J. McLean, the first setting down the experience of railway commissions in England and the United States, and the second discussing Canadian rate grievances, with a recommendation that regulation by commission be adopted in Canada. The second report found that non-competitive rates were exorbitant as compared with competitive rates and that the railways had exercised their right to vary rates without notice, to the great distress of shippers. Among the weaknesses of the Railway Committee as a rate-regulating body was its fixed station at Ottawa, which made the cost of appearing before it practically prohibitive. Besides, Members of Parliament had no necessary aptitude for dealing with railway rates, and of their two functions—legislative and administrative—the legislative was to them the more important.

The Board of Railway Commissioners for Canada, as provided for by the amended Railway Act of 1903, was organized on Feb. 1, 1904. In the beginning, its membership consisted of a Chief Commissioner, a Deputy Chief, and one Commissioner. In 1908 the membership was increased by the inclusion of an Assistant Chief Commissioner and two other Commissioners. According to the Act, the Board might be divided into two sections of three members but, since any two constituted a quorum, two Commissioners usually heard all but the more important cases, and, agreeing, gave the decision of the Board. By the Transport Act (c. 53, 1938) the name of the Board was changed to the Board of Transport Commissioners for Canada and its powers were extended to cover transport by water and by air, as well as by rail. The new Board has the same number of members and form of organization as outlined above for the former Board.

With regard to transport by rail, the powers of the Board, in brief, cover matters relating to the location, construction, and operation of railways. The most important of these powers has to do with rate regulation. Passenger rates are divided into standard and special, freight rates into standard, special, and competitive. Standard rates are maximum rates and the only ones that must be approved by the Board before they are applied. Special and competitive rates, being less than maximum rates, may be applied by railways without the Board's approval, provided that a change of rates has been advertised. But important rate adjustments usually come to the notice of the Commission, for the changed rate alters the extent of the territory in which a shipper can compete and on this account he is apt to appeal the case to the Commission. It is a knotty problem to mark the boundaries of competitive areas—to decide whether Nova Scotian manufacturers should be given rates that would allow them to compete west of Montreal, or again, whether high construction and operation costs in British Columbia should enforce a rate that would prevent her goods from moving far into the prairies. By an amendment to the Railway Act, the regulation of telephone, telegraph, and express rates was given to the Commission, but with narrower powers than were given to it in dealing with railways. By the Transport Act, the Board now has the power also to issue licences to persons or concerns entitled to engage in transport by air on the air routes declared to be under its jurisdiction by the Governor in Council. Since Jan. 15,

1939, and following a proclamation of the Governor in Council to that effect, the Board has also the power to issue licences to ships engaged in the transportation of passengers or goods on the Great Lakes, as defined in Sect. 2, subsection 1 (f), of the Transport Act, 1938.

The procedure of the Board is informal, as suits the nature of its work, for experience has shown that hearings in strict legal form lead the parties to the argument to take uncompromising attitudes. If possible, matters are settled by recommendations to the carrier or the shipper; thus, during 1938, 97·41 p.c. of the applications to the Board were settled without formal hearing. The Railway Committee had kept its station at Ottawa, giving only formal hearings, and so the grievances of those who could not afford to appear in person or pay counsel went unredressed. The itineraries of the Transport Commission are arranged so that evidence may be taken at the least expense to those giving it.

The Chief or Assistant Chief Commissioner, depending upon which one is presiding, gives final judgment on points of law when, in the opinion of the Commissioners, the question is one of law. On questions of fact the findings of the Board are final and are not qualified by previous judgments of any other court. Questions of law and jurisdiction are differentiated. In the first case, the Board may, if it wishes, allow an appeal to the Supreme Court; in the second, the applicant needs no permission to present his appeal.

The Railway Committee of the Privy Council, being a Committee of the Cabinet, was responsible to Parliament. When the powers of the Committee were made over to the Railway Commission (now the Board of Transport Commissioners) the responsibility was retained, but necessarily by a different means. There is now provision for an appeal from any decision to the Governor General in Council, who may also of his own motion rescind or vary the action of the Board, but the power to rescind or vary usually consists in referring to the Board for reconsideration. From its inception until Dec. 31, 1938, the Board gave formal hearing to 10,545 cases. Its decision was appealed in 121 cases, and 6 cases were referred for the opinion of the Supreme Court of Canada, 78 of these, including the above references, being to the Supreme Court of Canada and 49 to the Governor General in Council. Of the appeals, 13 of those carried to the Supreme Court and 3 of those to the Governor General in Council were allowed.

PART II.—RAILWAYS.

The treatment of rail transportation is divided into three sections dealing, respectively, with steam railways, electric railways, and express companies.

Section 1.—Steam Railways.*

The steam railway is still the most important transportation agency from the standpoint of investment and of traffic handled. Fortunately, the statistical field is more completely covered for this form of transportation than for any other, since there are fairly complete figures dealing with steam railway mileage, equipment, finances, and traffic.

Historical Sketch.—Construction was begun on the first Canadian railway in 1835. This was a line only 16 miles long between Laprairie and St. Johns, Que., intended to expedite the journey between Montreal and New York. It was officially opened July 21, 1836, the motive power being the steam locomotive "Dorchester",

* Revised and checked by G. S. Wrong, B.Sc., Chief of the Transportation and Public Utilities Branch of the Dominion Bureau of Statistics. This Branch publishes an "Annual Report on Steam Railways", as well as numerous other reports, a list of which is given in Chapter XXIX of this volume. Certain of the financial statistics of steam railways are compiled with the co-operation of officers of the Department of Transport.

built by Stephenson of Liverpool. About the same time, a line 6 miles long was built in Nova Scotia from Stellarton to a loading point on Pictou Harbour to haul coal from the mines to vessels. On this line the motive power was at first provided by horses, but in the spring of 1839 the "Samson", a locomotive built in England, brought over in a sailing vessel and still preserved in Halifax, was put into operation. A railway from Montreal to Lachine was opened in 1847 and another line to St. Hyacinthe in 1848. In 1850, however, there were only 66 miles of railway in Canada.

Commencement of the Railway Era—The Grand Trunk.—The railway era in Canada may be said to have begun in 1851, when charters were granted providing for the construction of a main line of railway between the two Canadas. These charters were repealed when the Grand Trunk charter was granted in 1852. The result was the completion of the Grand Trunk Railway between Montreal and Toronto in 1856, its extension westward to Sarnia in 1859, and eastward to Rivière du Loup in 1860. The Atlantic and St. Lawrence Railway, to Portland, Maine, was leased in 1853 and in 1859, on the completion of the Victoria Bridge across the St. Lawrence at Montreal, the Grand Trunk had a through route 800 miles long from Portland to Sarnia. Within the next thirty years many important railways of Ontario, including the Great Western, were acquired and the Grand Trunk lines were extended to Chicago.

Construction of the Intercolonial.—An intercolonial railway linking Nova Scotia and New Brunswick with Upper and Lower Canada had been proposed as early as the 1830's. In 1844 the Imperial Government made a survey for a military road, and in 1851 agreed to recommend to Parliament either a guarantee of interest or an advance of the sum required to build a railroad. Differences of opinion as to the route resulted in the project being dropped, but in 1853 Nova Scotia undertook to construct, by 1862, a trunk line from Halifax to the New Brunswick frontier, with branch lines to Pictou and Victoria Beach. In both Nova Scotia and New Brunswick, however, the scheme of an intercolonial railway broke down for lack of funds, and in 1867 there were only 374 miles of railway in the Maritimes. These, under the B.N.A. Act, passed to the Dominion Government. The latter undertook the completion of the railway, and in 1876 the line was opened to Rivière du Loup. Later on, by acquisition of, lease of, or running rights over other lines, the Intercolonial was extended to Montreal.

The First Transcontinental Railway—The C.P.R.—As early as 1849 a pamphlet published by Major Carmichael-Smyth advocated the construction of a railway to the Pacific along a route approximating that later taken by the Canadian Pacific Railway. In 1851 a Parliamentary Committee reported against the enterprise at that time. In 1871 the terms under which British Columbia entered Confederation bound the Dominion to commence the Pacific railway within two years and complete it within ten years. The building of the railway as a public work actually commenced in 1874, but was not very rapidly pushed forward. In 1880 the Government entered into a contract with the Canadian Pacific Railway syndicate, granting to the syndicate all portions of the line completed or under construction, a cash subsidy of $25,000,000, a land grant of 25,000,000 acres, free admission of materials for construction, and protection for 20 years against competing lines. The Company on its side agreed to complete the railway to a fixed standard by May 1, 1891, and thereafter to maintain it efficiently: the last spike on the main line was driven on Nov. 7, 1885. Like the Grand Trunk, the Canadian Pacific Railway began to acquire branch lines as feeders in the settled parts of the country along its route.

The Second Transcontinental—The Grand Trunk Pacific.—About the end of the century the Grand Trunk, which already had a line as far west as Chicago,

submitted to the Canadian Government a proposal whereby it might participate in the settlement and development of the West. Lines were to be leased from Chicago via Minneapolis to Winnipeg, and thence a new line, subsidized by the Government, would be built to the Pacific Coast. The Government raised objections to so much of the line lying in the United States and a second proposal was made for a connecting line with larger subsidies from North Bay to Winnipeg. The Government submitted, in 1903, a counter proposal that the line, instead of terminating at North Bay, should be continued east to Moncton, New Brunswick, the eastern section from Moncton to Winnipeg to be constructed by the Government and leased to the Grand Trunk Pacific for a 50-year period, the railway paying no rent for the first seven years and 3 p.c. on the cost of the railway for the remaining 43 years. The western half of the railway from Winnipeg to Prince Rupert was to be built by the Grand Trunk Pacific, the Government guaranteeing interest on bonds to 75 p.c. of the cost of construction, not exceeding $13,000 per mile on the prairie section and $30,000 per mile on the mountain section. The Grand Trunk reluctantly accepted this proposition and construction of the National Transcontinental and Grand Trunk Pacific commenced.

The Third Transcontinental—The Canadian Northern Railway.—The third transcontinental railway, the Canadian Northern, was begun in 1896 with the completion by Mackenzie and Mann of the 125-mile line of the Lake Manitoba Railway and Canal Co., chartered in 1889. The charters of the Winnipeg and Hudson Bay; the Manitoba and Southeastern; the Ontario and Rainy River; and the Port Arthur, Duluth, and Western were next acquired. Assisted by the Manitoba Government, which desired to establish competition with the Canadian Pacific Railway, the Canadian Northern then secured the Manitoba lines of the Northern Pacific and in 1902 completed its line from Winnipeg to Port Arthur. During the following decade, the agricultural west was filling up very rapidly and, with the public of Canada under the influence of this boom, the Canadian Northern Railway was able to secure guarantees of bonds from the Dominion and Provincial Governments to enable it to extend its lines both westward to Vancouver and eastward to Montreal and so complete the great scheme of a transcontinental road.

Effect of the War of 1914-18 on Railways—The Drayton-Acworth Report.—With two new transcontinental main lines, with branches, under construction, Canadian railway mileage was doubled between 1900 and 1915, increasing from 17,657 miles in the former year to 34,882 miles in the latter. The builders of the new lines, as well as the Canadian Government and people, had expected that immigration of capital and labour from Europe would rapidly settle the areas tributary to the new railroads and furnish abundant and lucrative traffic, as had been the case with the C.P.R. Instead, when war broke out in 1914, European labour and capital were conscripted for the struggle; immigration fell off and the anticipated traffic did not develop. On the other hand, the interest on the bonds had to be met, and in 1915 the Government felt it necessary to give assistance to the railways. In 1916, after loans had again been made to the Grand Trunk Pacific Railway and the Canadian Northern Railway Co., a Royal Commission was appointed by Order in Council of July 13, 1916, to investigate: (1) the general problem of transportation; (2) the status of each of the three transcontinental systems; (3) the reorganization of any of the said systems, or their acquisition by the State; and (4) other matters considered by the Commission to be relevant to the general scope of the inquiry. The majority report of the Commission, signed by Sir Henry Drayton and Mr. Acworth, has formed the basis of the subsequent railway policy of Canada. Their recommendation was that the public should take control of the Canadian Northern, of the Grand Trunk

Pacific, and the Grand Trunk proper, and that they should be administered on purely business principles by a board of trustees, such compensation as seemed proper to be decided by arbitration and given to the shareholders of the Canadian Northern and the Grand Trunk.

The process of the acquisition of these railways and the financial results of their operation down to the end of 1938 are described in the latter part of Subsection 2, pp. 645-651.

The Royal Commission of 1931.—During 1930 and 1931 both freight and passenger traffic declined until new low records were being established each succeeding month. Freight and passenger revenues consequently decreased at alarming rates and with increased capital expenditures and fixed charges, the financial condition of Canadian railways demanded readjustment. To study the situation and, if possible, to remedy it, the Government appointed a Royal Commission which, on Sept. 13, 1932, submitted its report, summarized at pp. 648-650 of the 1933 Year Book. During the following session of the Dominion Parliament, legislation known as the Canadian National-Canadian Pacific Act (c. 33, 1933) was passed. A summary of this legislation is given at p. 655 of the 1936 Year Book.

Subsection 1.—Mileage and Equipment.

The first great period of construction (as shown in Table 1) was in the 1850's, when the mileage grew from 66 to 2,065. A lull in the 1860's, was followed by the second in the 1870's and 1880's; the third great period of construction was between 1900 and 1917.

1.—Record of Steam Railway Mileage, 1835-1938.

Year.	Miles in Operation.	Year.	Miles in Operation.	Year.	Miles in Operation.	Year.	Miles in Operation.	Year.	Miles in Operation.	Year.	Miles in Operation.
	No.		No.		No.		No.		No.		No.
1835.....	[1]	1863...	2,189	1879...	6,858	1895...	15,977	1911...	25,400	1925...	40,350
1836-46..	22	1864...	2,189	1880...	7,194	1896...	16,270	1912...	26,840	1926...	40,350
1847-49..	54	1865...	2,240	1881...	7,331	1897...	16,550	1913...	29,304	1927...	40,570
1850.....	66	1866...	2,278	1882...	8,697	1898...	16,870	1914...	30,795	1928...	41,022
1851.....	159	1867...	2,278	1883...	9,577	1899...	17,250	1915...	34,882	1929...	41,380
1852.....	205	1868...	2,270	1884...	10,273	1900...	17,657	1916...	36,985	1930...	42,047
1853.....	506	1869...	2,524	1885...	10,773	1901...	18,140	1917...	38,369	1931...	42,280
1854.....	764	1870...	2,617	1886...	11,793	1902...	18,714	1918...	38,252	1932...	42,409
1855.....	877	1871...	2,695	1887...	12,184	1903...	18,988	1919[2]...	38,329	1933...	42,336
1856.....	1,414	1872...	2,899	1888...	12,163	1904...	19,431				
1857.....	1,444	1873...	3,832	1889...	12,628	1905...	20,487	1919[3]...	38,495	1934...	42,270
1858.....	1,863	1874...	4,331	1890...	13,151	1906...	21,423	1920...	38,805	1935...	42,916
1859.....	1,994	1875...	4,804	1891...	13,838	1907...	22,446	1921...	39,191	1936...	42,552
1860.....	2,065	1876...	5,218	1892...	14,564	1908...	22,966	1922...	39,358	1937...	42,727
1861.....	2,146	1877...	5,782	1893...	15,005	1909...	24,104	1923...	39,654	1938...	42,742
1862.....	2,189	1878...	6,226	1894...	15,627	1910...	24,731	1924...	40,059		

[1] First railway construction begun but line not open for traffic until 1836. [2] As at June 30 for this and previous years. [3] As at Dec. 31 for this and later years.

In total railway mileage Canada now ranks fourth with 42,742 miles, the United States, Soviet Russia, and British India being the only countries with greater total mileages. In miles per capita only Australia has a greater average, the figure for Canada being one mile of line for each 267 persons (exclusive of 339 miles, chiefly main lines, of Canadian railways crossing over United States territory).

Construction has been most active in Manitoba, Saskatchewan, and Alberta during the period 1929-38, while there has been a tendency for mileages to decline slightly in the other provinces, because of the abandonment of unprofitable lines.

2.—Operated Steam Railway Mileage, by Provinces, as at Dec. 31, 1929-38.

Type of Track and Province.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
	miles.	miles.	miles.	miles.	miles.	miles.	miles.	miles.	miles.	miles.
Single Track—										
Prince Edward Island	276	286	286	286	286	286	286	286	286	286
Nova Scotia	1,420	1,418	1,418	1,410	1,410	1,406	1,397	1,397	1,397	1,397
New Brunswick	1,934	1,934	1,934	1,934	1,934	1,930	1,929	1,871	1,871	1,873
Quebec	4,891	4,891	4,926	4,879	4,863	4,858	4,858	4,777	4,814	4,853
Ontario	10,872	10,938	10,905	10,908	10,880	10,842	10,821	10,746	10,692	10,657
Manitoba	4,294	4,420	4,419	4,420	4,433	4,459	4,970	4,860	4,860	4,860
Saskatchewan	7,761	8,166	8,268	8,438	8,438	8,368	8,556	8,624	8,776	8,777
Alberta	5,516	5,581	5,630	5,652	5,654	5,696	5,760	5,687	5,751	5,751
British Columbia	4,024	4,021	4,097	4,085	4,041	4,028	3,942	3,907	3,883	3,891
Yukon	58	58	58	58	58	58	58	58	58	58
In United States	334	334	339	339	339	339	339	339	339	339
Totals, Single Track	41,380	42,047	42,280	42,409	42,336	42,270	42,916	42,552	42,727	42,742
Second track	2,658	2,688	2,688	2,682	2,531	2,525	2,507	2,500	2,500	2,498
Industrial track	1,607	1,623	1,606	1,578	1,534	1,495	1,453	1,401	1,390	1,361
Yard track and sidings	10,168	10,227	10,277	10,335	10,278	10,229	10,295	10,239	10,218	10,159
Grand Totals	**55,813**	**56,585**	**56,851**	**57,004**	**56,679**	**56,519**	**57,171**	**56,692**	**56,835**	**56,760**

Rolling-Stock.—The figures in Table 3 below, may be supplemented by the statement that between 1920 and 1938 the average capacity of box cars increased from 34·779 tons to 41·059 tons, of flat cars from 33·459 to 40·907 tons, of coal cars from 43·404 tons to 52·620 tons, and of all freight cars from 35·141 tons to 41·837 tons. The average tractive power of the locomotives in use in 1920 was 31,112 lb. and in 1938, 39,462. lb.

3.—Rolling-Stock of Steam Railways, as at Dec. 31, 1932-38.

Type of Rolling-Stock.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
Locomotives.	No.	No.	No.	No.	No.	No.	No.
Passenger	1,353	1,333	1,291	1,200	1,191	1,209	1,214
Freight	3,123	3,073	3,035	2,876	2,862	2,805	2,715
Switching	751	742	727	685	660	618	593
Electric	39	39	34	34	34	35	35
Totals, Locomotives	**5,266**	**5,187**	**5,087**	**4,795**	**4,747**	**4,667**	**4,557**
Passenger Cars.							
First class	1,933	1,924	1,907	1,745	1,754	1,850	1,890
Second class	355	355	350	295	276	256	255
Combination	469	463	461	362	372	370	373
Immigrant	643	634	628	566	419	374	337
Dining	264	261	260	257	256	251	220
Parlour	306	303	302	290	278	259	250
Sleeping[1]	1,198	1,175	1,163	1,138	1,085	1,037	1,003
Baggage, express, and postal	1,660	1,635	1,629	1,462	1,454	1,447	1,508
Motor-cars	105	97	96	99	92	88	89
Other	526	507	490	455	457	463[2]	456[2]
Totals, Passenger Cars[1]	**7,459**	**7,354**	**7,286**	**6,669**	**6,443**	**6,395**	**6,381**
Freight Cars.							
Box	150,979	146,207	141,768	128,816	124,448	125,421	121,954
Flat	16,370	15,837	15,124	13,501	12,991	12,548	12,462
Stock	9,048	8,522	8,744	7,467	7,219	7,077	6,436
Coal	22,722	22,472	18,115	17,566	17,463	18,066	18,115
Tank	480	476	468	425	432	421	405
Refrigerator	8,341	8,160	7,904	6,682	7,331	7,164	7,005
Other	3,056	2,988	2,929	2,303	2,124	2,076[3]	1,952[3]
Totals, Freight Cars	**210,996**	**204,662**	**195,052**	**176,760**	**172,008**	**172,773**	**168,329**

[1] Includes Pullman Co. cars in Canadian service. [2] Includes 3 auto-railers. [3] Includes 1 auto-railer.

Subsection 2.—Finances of Steam Railways.

The tables in this subsection deal with the capital liability, capital invested, earnings, operating expenses, employees and their earnings, and governmental aid to steam railways. However, the presentation of the financial statistics of railways in Canada would not be complete without some detailed consideration of the finances of the Government-owned railways. This is given in the latter part of the subsection. Some further statistics of revenue are included in Table **19**, where they are shown in relation to traffic.

Capital Liability.—The great increase after 1922 in the capital liability of the steam railways of Canada is due to the inclusion of all Government loans to railways and investment in road and equipment of Government railways as part of the capital liability of the railways. The reduction in 1937, due to the Canadian National Capital Revision Act (c. 22, 1937), is explained at p. 644 of the 1939 Year Book.

4.—Capital Liability of Steam Railways, 1901-38.

NOTE.—Corresponding figures for each year from 1876 to 1900, inclusive, are given at p. 649 of the 1927-28 Year Book.

Year.	Stocks.	Funded Debt.	Total.	Year.	Stocks.	Funded Debt.	Total.
	$	$	$		$	$	$
1901...	424,414,314	391,696,523	816,110,837	1920...	1,323,705,962	846,324,166	2,170,030,128
1902...	460,401,863	404,806,847	865,208,710	1921...	1,372,545,165	792,142,471	2,164,687,636
1903...	483,770,312	424,100,762	907,871,074	1922...	1,415,623,322	743,653,809	2,159,277,131
1904...	492,752,530	449,114,035	941,866,565				
1905...	526,353,951	465,543,967	991,897,918	1923[3]...	1,385,080,426	1,879,593,612	3,264,674,038
1906...	561,655,395	504,226,234	1,065,881,629	1924...	1,401,263,285	2,012,602,328	3,413,865,613
1907...	588,568,591	583,369,217	1,171,937,808	1925...	1,378,706,860	2,092,374,049	3,471,080,909
1908...	607,891,349	631,869,664	1,239,761,013				
1909...	647,534,647	660,946,769	1,308,481,416	1926[4]...	1,361,758,426	2,144,999,621	3,506,758,047
1910...	687,557,387	722,740,300	1,410,297,687	1927...	1,330,215,248	2,252,256,367	3,582,471,615
				1928...	1,357,017,703	2,306,554,996	3,663,572,699
1911...	749,207,687	779,481,514	1,528,689,201				
1912...	770,459,351	818,478,175	1,588,937,526	1929...	1,405,622,070	2,497,054,907	3,902,676,977
1913...	918,573,740	613,256,952	1,531,830,692	1930...	1,431,324,003	2,595,145,308	4,026,469,311
1914...	1,026,418,123	782,402,638	1,808,820,761	1931...	1,438,050,759	2,793,971,329	4,232,022,088
1915...	1,024,085,983	851,724,905	1,875,810,888	1932...	1,437,489,430	2,934,182,332	4,371,671,762
				1933...	1,438,834,552	2,951,690,468	4,390,525,020
1916...	1,024,264,325	868,861,449	1,893,125,774				
1917...	1,089,114,875	896,005,116	1,985,119,991	1934...	1,437,334,152	2,966,505,594	4,403,839,746
1918...	1,093,885,495	905,994,999	1,999,880,494	1935...	1,433,849,530	3,026,414,779	4,460,264,309
1919[1]...	1,100,301,195	914,823,515	2,015,124,710	1936...	1,425,193,791	3,062,411,719	4,487,605,510
				1937...	1,839,619,361	1,534,450,789	3,374,070,150
1919[2]...	1,104,409,122	931,756,484	2,036,165,606	1938...	1,836,882,650	1,568,269,672	3,405,152,322

[1] As at June 30 for this and previous years. [2] As at Dec. 31 for this and later years. [3] Includes all Government loans to railways and investments in road and equipment of Dominion and provincial railways in 1923 and later years. [4] Does not include Canadian railway capital owned by Canadian railways in 1926 and later years.

5.—Mileage, Capital Liability, Earnings, and Operating Expenses of Individual Steam Railways, 1938.

Railway.	Single-Track Mileage.	Capital Liability.	Gross Earnings from Operation.	Operating Expenses.
	miles.	$	$	$
Algoma Central Terminals, Ltd.	[1]	3,095,628	[1]	[1]
Algoma Central and Hudson Bay	323·26	15,048,050	1,701,403	1,509,656
Alma and Jonquière	10·60	629,800	95,361	68,849
British Yukon	90·32	4,978,879	236,276	167,830
Canada and Gulf Terminal	38·10	1,740,000	82,130	69,427
Canada Southern (Lessor)	380·94	44,365,000	11,462,353	6,209,316
Canadian National	21,990·07[2]	2,007,618,160[3]	156,585,255	152,087,431
Canadian Pacific	17,187·00[2]	1,218,508,002[3]	143,198,532	117,065,946
Central Vermont Railway, Inc.	25·33	[1]	153,691	228,827
Cumberland Railway and Coal Co.	31·29	1,352,508	148,331	119,118
Detroit River Terminal Co.	[4]	4,050,884	[4]	[4]
Essex Terminal	21·31	976,000	222,262	162,840
Greater Winnipeg Water District	92·00	1,843,286	112,227	103,774
Hudson Bay	510·06	33,535,818	353,362	529,412
International Bridge and Terminal Co.	1·06	300,000	104,543	44,528
Maine Central	5·10	102,388	10,705	13,977
Maritime Coal Railway and Power Co.	12·20	687,618	92,839	48,614
Midland Railway of Manitoba	75·49	4,800,000	281,312	346,501
Morrissey, Fernie, and Michel	5·37	1,263,000	28,453	28,450
Napierville Junction	41·74	1,200,000	398,222	333,764
Nelson and Fort Sheppard	60·87	2,846,800	89,776	94,501
Nipissing Central[5]	59·74	4,208,612	497,962	466,469
Northern Alberta	927·62	30,095,000	2,027,013	1,702,960
Ottawa and New York (Lessor)	58·74	2,100,000	101,360	171,476
Pacific Great Eastern	347·80	94,193,270	612,152	575,754
Père Marquette (including L.E.D.R.)	319·02	8,122,025	3,716,587	2,206,944
Quebec Railway Light and Power Co.	25·37	6,269,974	322,832	346,198
Roberval and Saguenay	29·04	3,330,000	591,570	190,488
St. Lawrence and Adirondack (Lessor)	60·68	2,152,685	351,200	503,917
Sydney and Louisburg	70·29	5,287,202	1,374,607	1,045,755
Témiscouata	113·00	3,856,336	176,256	178,250
Temiskaming and Northern Ontario[5]	514·69	40,107,935	5,064,139	3,601,111
Thousand Islands	4·51	60,000	34,298	32,346
Toronto, Hamilton, and Buffalo	111·03	10,440,000	1,586,534	1,212,607
Toronto Terminals	3·19	24,224,800	292,219	569,191
Van Buren Bridge Co.	0·28	250,000	4,814	2,295
Vancouver, Victoria, and Eastern	86·85	23,500,000	416,311	303,525
Wabash (in Canada)	245·40	[1]	4,415,870	3,410,414
Totals (Including Trackage Rights Duplications)	**43,879·36**	**3,607,139,660**[6]	**336,942,757**	**295,752,461**
Canadian National (Can. and U.S.)	23,789·82	2,007,618,160[3]	182,241,723	176,175,312

[1] Not reported. [2] Includes 26·18 miles of joint track. Canadian lines only for Canadian National, but Canadian and U.S. lines for Canadian Pacific. [3] Capital of lines in Canada and U.S. including capital of leased lines. [4] Included with Canada Southern Rly. [5] Constructed and operated by Ontario Government Railway Commission. [6] Includes $201,987,338 Canadian railway capital owned by Canadian railways.

Capital Investment.—The capital structure of the Canadian National Railways, changed by the Capital Revision Act, 1937, was reduced by $262,770,972. This Act is explained at p. 644 of the 1939 Year Book. The excess of capital liability as shown in Table 4 over the investments shown in Table 6 is accounted for by loans and advances from the Government to cover deficits of the Canadian National Railways and by the fact that some railway stock issues represented little actual investment in physical property. The investment account in recent years has been affected by write-offs for lines abandoned, transfers of property to other Government departments, etc.

Earnings and Expenses.—The operating ratio, or ratio of expenses to revenues, of Canadian railways increased from around 70 p.c. to above 90 p.c., between 1918-20, and remained high thereafter. The United States Government took over the operation of the United States railways and increased the rates of pay of the railway employees, when that country entered the War of 1914-18. The Canadian

railways were also obliged to make corresponding increases and these have been the chief factor in increased operating ratio. Declining revenues without corresponding reductions in expenses during the past five years have also maintained the high ratio.

6.—Capital Invested in Road and Equipment of Steam Railways, 1933-38.

Investment.	1933.	1934.	1935.	1936.	1937.	1938.
	$	$	$	$	$	$
New Lines—						
Road	195,729	10,901	89,713	119,295	2,997,932	1,946,830
Equipment	12,322	Nil	Nil	Nil	Nil	Nil
General	620	86	Cr. 56	756	54,712	118,316
Totals	208,671	10,987	89,657	120,051	3,052,644	2,065,146
Additions and Betterments—						
Road	3,927,865	Cr. 5,354,703	2,656,051	6,263,284	5,380,865[1]	6,522,746
Equipment	Cr. 3,930,692	Cr. 3,494,711	Cr. 6,519,191	4,376,334	28,355,161	17,310,743
General	17,921	Cr. 2,811	5,641	Cr. 78,387	Cr. 6,158	63,095
Undistributed	92,590	Cr. 163,872	53,862	1,608	3,436	Cr. 32,075
Totals	107,684	Cr. 9,016,097	Cr. 3,803,637	10,562,839	33,733,304[1]	23,864,509
Undistributed[2]	Cr. 21,017,200	22,774,651	Cr. 67,902,913	Cr. 17,266,420[1]	Cr. 265,358,397	Cr. 3,685,804
Totals, Investments as at Dec. 31	**3,365,464,255**	**3,379,233,796**	**3,307,616,903**	**3,301,033,373[1]**	**3,072,460,924[1]**	**3,094,704,775**

[1] Revised since the publication of 1939 Year Book. [2] Details of this item are given in the "Annual Report on Steam Railway Statistics" issued by the Transportation and Public Utilities Branch of the Bureau of Statistics. The large credit in 1937 was due principally to the Canadian National Capital Revision Act.

7.—Earnings and Operating Expenses of Steam Railways per Mile of Line and per Train Mile, 1915-38.

Year.	Gross Earnings.	Operating Expenses.	Ratio of Expenses to Receipts.	Per Mile of Line.			Per Revenue Train Mile.	
				Gross Earnings.	Operating Expenses.	Net Earnings.	Gross Earnings.	Operating Expenses.
	$	$	p.c.	$	$	$	$	$
1915	199,843,072	147,731,099	73·92	5,616	4,152	1,464	2·144	1·585
1916	261,888,654	180,542,259	68·94	6,943	4,823	2,120	2·358	1·623
1917	310,771,479	222,890,637	71·72	8,051	5,774	2,277	2·683	1·925
1918	330,220,150	273,955,436	82·96	8,581	7,119	1,462	3·006	2·494
1919[1]	382,976,901	341,866,509	89·27	9,947	8,879	1,068	3·683	3·292
1919[2]	408,598,361	376,789,093	92·26	10,568	9,745	823	3·817	3·520
1920	492,101,104	478,248,154	97·18	12,626	12,270	356	4·192	4·074
1921	458,008,891	422,581,205	92·25	11,636	10,735	901	4·376	4·038
1922	440,687,128	393,927,406	89·39	11,196	10,008	1,188	4·072	3·640
1923	478,338,047	413,862,818	86·52	12,098	10,434	1,664	4·180	3·616
1924	445,923,877	328,483,908	85·77	11,233	9,548	1,685	4·119	3·533
1925	455,297,288	372,149,656	81·70	11,383	9,222	2,161	4·132	3·378
1926	493,599,754	389,503,452	78·91	12,278	9,653	2,625	4·298	3·391
1927	499,064,207	407,646,280	81·68	12,350	10,047	2,303	4·221	3·448
1928	563,732,260	442,701,270	78·53	13,840	10,791	3,049	4·461	3·503
1929	534,106,045	433,077,113	81·08	13,068	10,596	2,472	4·492	3·643
1930	454,231,650	380,723,411	83·86	10,897	9,133	1,764	4·150	3·538
1931	358,549,382	321,025,588	89·53	8,502	7,612	890	3·747	3·435
1932	293,390,415	256,668,375	87·48	6,922	6,055	867	3·507	3·157
1933	270,278,276	233,133,108	86·26	6,365	5,490	875	3·528	3·153
1934	300,837,816	251,999,667	83·77	7,111	5,956	1,155	3·738	3·128
1935	310,107,155	263,942,899	85·11	7,250	6,170	1,080	3·778[3]	3·193
1936	334,768,557	283,345,968	84·64	7,839	6,635	1,204	3·897[3]	3·298[3]
1937	355,103,271	300,652,548	84·67	8,316	7,041	1,275	3·975[3]	3·366[3]
1938	336,833,400	295,705,638	87·79	7,888	6,925	963	3·795	3·331

[1] Years ended June 30 for this and previous years. [2] Years ended Dec. 31 for this and later years. [3] Revised since the publication of the 1939 Year Book.

8.—Distribution of Operating Expenses of Steam Railways, 1935-38.

Item.	1935.		1936.		1937.		1938.	
	$	p.c.	$	p.c.	$	p.c.	$	p.c.
Way and structures	55,250,291	20·93	60,378,275	21·31	58,309,150	19·39	55,217,352	18·67
Equipment	57,424,660	21·76	63,755,028	22·50	73,166,522	24·34	69,235,176	23·41
Traffic expenses	11,807,234	4·47	12,059,438	4·26	12,287,021	4·09	12,588,923	4·26
Transportation	124,359,790	47·12	130,780,123	46·16	139,108,818	46·27	140,347,953	47·46
General and misc. expenses	15,100,924	5·72	16,373,104	5·77	17,781,037	5·91	18,318,234	6·20
Totals	**263,942,899**	**100·00**	**283,345,968**	**100·00**	**300,652,548**	**100·00**	**295,705,638**	**100·00**

Railway Salaries and Wages.—The Canadian National Railways brought into their accounts in 1928 the wages and salaries of commercial telegraph employees; these are added for 1926 and 1927 in Table 9 to make the data comparable. Because of inability of the railways to supply strictly comparable data for previous years, the numbers of employees and wages have been omitted for such, but index numbers have been computed for 1912-38 on as nearly comparable bases as possible, using 1926 data as equal to 100. The number of employees fluctuates with the volume of traffic, but not to the same extent. Salaries and wages are affected by the number of employees, rates of pay, and by the time worked. The rapid increase in the average wage in 1918 and 1919 was due to large increases in rates of pay corresponding to the "McAdoo Award" in the United States, and the fluctuations in 1932-38 were the results of reductions and restorations in basic rates of pay.

9.—Steam Railway Employees, Totals and Averages of Salaries and Wages, and Ratio of Salaries and Wages to Operating Revenues and Expenses, 1912-38.

Year.	Employees.		Salaries and Wages.		Average of Salaries and Wages.		Ratio of Salaries and Wages to—	
	Number.	Adjusted Index Number.	Amount.	Adjusted Index Number.	Amount.	Adjusted Index Number.	Gross Earnings.	Operating Expenses.[1]
			$		$		p.c.	p.c.
1912	[3]	92·2	[3]	38·2	604	41·7	43·0	62·5
1913		105·7		46·9	648	44·8	45·1	63·6
1914		94·1		45·3	702	48·5	46·0	62·5
1915		81·6		38·6	690	47·7	47·7	64·5
1916		92·0		44·0	699	48·3	41·5	60·2
1917		86·4		52·5	887	61·3	41·7	58·2
1918		84·9		61·7	1,061	73·3	46·1	55·6
1919[2]		93·9		84·6	1,316	90·8	54·6	61·1
1919[4]		102·7		94·5	1,343	92·7	57·1	61·9
1920		109·5		117·7	1,569	108·4	59·0	60·7
1921		99·1		100·3	1,478	102·1	54·1	58·6
1922		98·0		94·5	1,408	97·2	52·9	59·2
1923		103·0		100·9	1,430	98·8	52·8	61·1
1924		98·1		95·2	1,416	97·8	53·5	62·5
1925		95·8		94·3	1,438	99·3	52·0	63·6
1926	179,800	100·0	260,350,390	100·0	1,448	100·0	45·7	58·0
1927	182,143	101·3	273,932,396	105·2	1,504	103·9	48·1	58·9
1928	187,710	104·4	287,775,316	110·5	1,533	105·9	47·0	59·8
1929	187,846	104·5	290,732,500	111·7	1,548	106·9	48·9	60·2
1930	174,485	97·0	268,347,374	103·1	1,538	106·2	55·4	66·1
1931	154,569	86·0	229,499,505	88·2	1,485	102·6	58·5	65·4
1932	132,678	73·8	181,113,588	69·6	1,365	94·3	56·4	64·5
1933	121,923	67·8	158,326,445	60·8	1,299	89·7	53·9	62·5
1934	127,326	70·8	163,336,635	62·7	1,283	88·6	54·3	64·8
1935	127,526	70·9	172,956,218	66·4	1,356	93·6	51·2	60·1
1936	132,781	73·9	182,638,365	70·2	1,375	95·0	49·9	59·0
1937[5]	133,753	74·4	193,557,663	74·3	1,447	99·9	49·8	58·8
1938	127,824	71·1	195,108,351	74·9	1,526	105·4	52·8	60·2

[1] Ratio of salaries and wages chargeable partly to capital prior to 1926 but to operating expenses only for 1926 and subsequent years. [2] Years ended June 30 for this and previous years. [3] Owing to the inability of the railways to supply strictly comparable data for the years prior to 1926, statistics of employees and wages, which are given at p. 664 of the 1936 Year Book, have been omitted here; the adjusted index numbers express the relation with later years as closely as it can be approximated. [4] Years ended Dec. 31 for this and later years. [5] Revised since the publication of the 1939 Year Book.

Government Aid to Railways.—In order that the private railways of Canada might be constructed in advance of settlement, as colonization roads, or through thinly settled districts where little traffic was available, it was necessary for Dominion and Provincial Governments and even the municipalities to extend some form of assistance. The form of aid was generally a bonus of a fixed amount per mile of railway constructed and, in the early days, grants of land other than for right-of-way were also made.

10.—Areas of Land Granted to Steam Railways by the Dominion and Provincial Governments to Dec. 31, 1938, by Type of Grant.

Government.	Bonus Grants.	Grants for Right-of-Way, Station Grounds, and Townsite Purposes.	Total.
	acres.	acres.	acres.
Dominion	31,783,655	97,988	31,881,643
Nova Scotia	160,000	Nil	160,000
New Brunswick	1,788,392	"	1,788,392
Quebec	2,085,710	"	2,085,710
Ontario	3,241,207	229,502	3,470,709
Manitoba	Nil	2,572	2,572
Saskatchewan	"	4,931	4,931
Alberta	"	330	330
British Columbia	8,233,410	12,275	8,245,685[1]
Totals	**47,292,374**	**347,598**	**47,639,972**

[1] Includes 4,065,076 acres repurchased from B.C. Southern, and Columbia and Western Railways.

11.—Areas of Land Granted to Steam Railways by the Dominion and Provincial Governments to Dec. 31, 1938, by Railways.

Railway and Item.	Granted by—		Total.
	Dominion.	Provinces.	
	acres.	acres.	acres.
Canadian National Railways	5,763,741	1,841,077	7,604,818
Canadian Pacific and branch lines	19,861,357	6,845	19,868,202
Acquired lines	3,320,446	8,182,588	11,503,034
Leased lines—lease based on—			
Interest on bonds or dividends on stock	2,927,185	2,657,881	5,585,066
Gross earnings	55	Nil	55
Totals, Canadian Pacific System	26,109,043	10,847,314	36,956,357
Other railways	8,859	3,069,938	3,078,797
Totals, All Railways	**31,881,643**	**15,758,329**	**47,639,972**

As the country developed, the objections to the land-grant method became more apparent, and aid was more frequently given in the form of a cash subsidy per mile of line, a loan, or a subscription to the shares of the railway. Guarantees of debenture issues were given in a later period and, since the formation of the Canadian National Railways, all debenture issues of that system, except those for rolling-stock, have been guaranteed by the Dominion Government.

12.—Cash Subsidies Granted to Railways to Dec. 31, 1938, by Railways.

Railway and Item.	Granted by—			Total.
	Dominion.	Provinces.	Municipalities.	
	$	$	$	$
Canadian National Railways	64,403,853[1]	16,677,208	7,393,866	88,474,927
Canadian Pacific Railway	25,000,000	937,657	464,761	26,402,418
Branch lines	5,089,509	Nil	Nil	5,089,509
Lines turned over to C.P.—cost to Government	36,234,310	"	"	36,234,310
North Shore Railway (Dominion subsidy)	1,500,000	"	"	1,500,000
Paid to Quebec Province for North Shore	2,394,000	"	"	2,394,000
Loan repaid by return of land grants (6,793,014 acres)	10,189,521	"	"	10,189,521
Acquired lines	11,091,608	9,054,945	2,527,150	22,673,703
Leased lines—lease based on—				
Interest on bonds or dividends on stock	7,488,367	4,224,388	1,545,246	13,258,001
Fixed rental	20,224	24,102	Nil	44,326
Gross earnings	853,445	346,500	73,000	1,272,945
Totals, Canadian Pacific Railway System	99,860,984	14,587,592	4,610,157	119,058,733
Other railways	7,935,386	2,126,869	1,297,668	11,359,923
Totals, All Railways	**172,200,223**	**33,391,669**	**13,301,691**	**218,893,583**

[1] *Includes $15,143,633 loan to Grand Trunk.*

13.—Railway Bonds Guaranteed by Dominion and Provincial Governments, as at Dec. 31, 1938.

Government.	Canadian National.	Canadian Pacific.	Other Railways.	Total.
Provincial Governments—	$	$	$	$
New Brunswick	2,727,977	620,000	297,000	3,644,977
Ontario	Nil	Nil	Nil	-
Manitoba	3,000,000	"	"	3,000,000
Saskatchewan	17,904,062	"	"	17,904,062
Alberta	18,394,428	"	"	18,394,428
British Columbia	25,026,001	"	20,160,000	45,186,001
Totals, Provincial Governments	67,052,468	620,000	20,457,000	88,129,468
Dominion Government	788,658,616[1]	Nil	Nil	788,658,616[1]
Grand Totals	**855,711,084[1]**	**620,000**	**20,457,000**	**876,788,084[1]**

[1] Does not include $216,207,142 perpetual debenture stock and guaranteed stock of the former Grand Trunk Railway, now part of the Canadian National System, on which interest and dividends are guaranteed by the Dominion Government.

FINANCIAL STATISTICS OF GOVERNMENT-OWNED RAILWAYS.

Canadian Government Railways.—The Intercolonial Railway, built as a condition of Confederation and completed in 1876, and the Prince Edward Island Railway, opened in April, 1875, have, since their construction, been owned and operated by the Dominion Government. In 1903 the Dominion Government undertook the construction of the National Transcontinental railway line from Moncton, N.B., to Winnipeg, Man., to be leased to the Grand Trunk Pacific Railway Co. for a period of 50 years. However, during the War of 1914-18 the company was unable to take over the operation of the road when completed in 1915. The Government itself undertook its operation and was also obliged to lease the Lake Superior branch of the Grand Trunk Pacific Railway, which was isolated from the main line. A number of eastern branch lines have been acquired in recent years. The Hudson Bay Railway is a direct liability of the Dominion Government and has been operated by the Canadian National for the Government since Apr. 1, 1935, but is not included in the data for Canadian National Railways. To Mar. 31, 1939, the total cost of this railway was $34,673,654,* exclusive of the expenditure of $6,274,150 on the terminal

* Includes deficits from operations during construction.

at Nelson. The terminals at Churchill were transferred in 1937 to the National Harbours Board. The investment to Dec. 31, 1939, was $13,198,491* and the operating deficit for 1939 was $46,407.

The major portion of Dominion Government investments in railways was construction costs of the Intercolonial system, the National Transcontinental Railway, and the Hudson Bay Railway, and the purchase price of small railways in the eastern provinces. The terminals at Churchill consisting of a grain elevator, warehouse, and docks have been transferred to the National Harbours Board and the investment removed from the railway account. Loans and advances to the Canadian National Railways for payment of operating deficits were charged to the Consolidated Revenue Account of the Dominion and also cleared from the railway account and other adjustments were made under the Canadian National Railways Capital Revision Act, 1937.

In addition to these expenditures the Dominion Government has made loans to the Canadian National and Canadian Pacific Railway companies for capital purposes, for special works programs, and for equipment leased to the railways; the amounts outstanding on Mar. 31, 1939, were: Canadian National Railways, $24,765,053; Canadian Pacific Railway, $6,251,282; total, $31,016,335.

* Includes deficits from operations during construction.

14.—Assets of the Canadian National Railways System, as at Dec. 31, 1922 and 1938.

Account.	Dec. 31, 1922.	Dec. 31, 1938.	Increase (+) or Decrease (−).
INVESTMENTS—	$	$	$
Road and equipment	1,765,323,644	1,856,468,592	+91,144,948
Improvements on leased railway property	1,492,123	4,300,970	+2,808,847
Sinking funds	4,629,855	576,580	−4,053,275
Deposits in lieu of mortgaged property sold	6,171,808	5,453,905	−717,903
Miscellaneous physical property	34,767,914	61,614,511	+26,846,597
Affiliated companies	24,253,323	36,139,090	+11,885,767
Other investments	5,789,464	1,120,247	−4,669,217
TOTALS, INVESTMENTS	1,842,428,131	1,965,673,895	+123,245,764
CURRENT ASSETS—			
Cash	14,651,422	8,078,076	−6,573,346
Special deposits	6,139,435	6,773,190	+633,755
Loans and bills receivable	11,600	100,000	+88,400
Traffic and car service balances receivable	2,528,622	1,089,933	−1,438,689
Net balances receivable from agents and conductors	5,386,673	3,868,286	−1,518,387
Miscellaneous accounts receivable	16,857,420	4,365,534	−12,491,886
Dominion Government—balance due on deficit contributions	Nil	11,117,018	+11,117,018
Materials and supplies	41,408,999	27,856,015	−13,552,984
Interest and dividends receivable	377,003	227,829	−149,174
Rents receivable	112,269	53,124	−59,145
Other current assets	106,775	745,689	+638,914
TOTALS, CURRENT ASSETS	87,580,218	64,274,694	−23,305,524
DEFERRED ASSETS—			
Working fund advances	166,847	237,469	+70,622
Insurance and other funds	352,488	11,983,074	+11,630,586
Other deferred assets	11,805,962	6,033,878	−5,772,084
TOTALS, DEFERRED ASSETS	12,325,297	18,254,421	+5,929,124
UNADJUSTED DEBITS—			
Rents and insurance premiums paid in advance	322,059	247,306	−74,753
Discount on capital stock	634,960	189,500	−445,460
Discount on funded debt	1,919,635	12,090,984	+10,171,349
Other unadjusted debits	12,820,903	2,900,799	−9,920,104
TOTALS, UNADJUSTED DEBITS	15,697,557	15,428,589	−268,968
Grand Totals	**1,958,031,203**	**2,063,631,599**	**+105,600,396**

The Consolidation and Organization of the Canadian National System.*—In pursuance of an Act of 1917 (7-8 Geo. V, c. 24), the Government acquired the capital stock of the Canadian Northern Railways with a mileage of 9,566·5. The insolvency of the Grand Trunk Pacific led to the appointment of the Minister of Railways as receiver on Mar. 9, 1919, and in October, 1920, the road was transferred to the Canadian National Railways. The Grand Trunk Railway was acquired under c. 13 of the Statutes of the second session of 1919, providing for arbitration of the consideration to be given to its shareholders. This arbitration finally disposed of, steps were taken to consolidate the various railways under government operation and control. In October, 1922, the Grand Trunk Board and the Canadian Northern Board gave place to a single Canadian National Board, to which the former Canadian Government Railways were turned over for management and operation. The unification of the Grand Trunk and Canadian National Railways was provided for by Order in Council of Jan. 30, 1923, which also brought into effect the Act to incorporate the Canadian National Railway Co. and respecting Canadian National Railways (c. 13, 1919).

Operating Finances of the Canadian National Railways.†—Gross revenues, operating expenses, and net revenues include only those from steam railway and commercial telegraph operations, but the deficits are for the entire system, including the operating results of the Niagara, St. Catharines and Toronto Railway (electric) and other railways operated separately, hotels, commercial telegraphs, coastal steamships and all other outside operations.

Under the Canadian National Railways Capital Revision Act (c. 22, 1937), interest on Dominion Government loans, amounting to $530,832,598, and Government claims for interest, amounting to $43,949,039, were cancelled as liabilities of the Railway and these have been eliminated from Table **15.**

*For further details of the acquisition of the Canadian Northern, Grand Trunk Pacific, and Grand Trunk Railways by the Dominion Government, see pp. 602-603 of the 1926 Year Book.

† For detailed statistics of the operation and finances of the Canadian National Railways during 1938, see "Steam Railway Statistics, 1938", and "Canadian National Railways, 1923-38", published by the Dominion Bureau of Statistics, also the "Annual Report of the Canadian National Railways".

15.—Gross Revenues, Operating Expenses, Net Revenues, Fixed Charges, and Deficits of the Canadian National Railways,[1] 1923-38.

NOTE.—Appropriations, etc., for the Hudson Bay Railway were not included with the 1926 and later data as, although the railway was returned to the Government while under construction, it is not now a part of the Canadian National Railways.

Year.	Gross Operating Revenues.	Operating Expenses.	Net Operating Revenues.			Income Available for Fixed Charges.
			Canadian Lines.[2]	United States Lines.[3]	Total.	
	$	$	$	$	$	$
1923	256,961,590	235,838,046	12,543,443	8,580,101	21,123,544	15,248,264
1924	239,596,670	221,622,049	12,494,459	5,480,162	17,974,621	16,919,824
1925	249,411,884	216,290,434	24,702,755	8,418,695	33,121,450	32,343,023
1926	270,982,223	223,561,262	36,312,349	11,108,612	47,420,961	43,505,500
1927	274,879,118	233,305,267	30,959,378	10,614,473	41,573,851	38,389,220
1928	304,591,268	249,731,696	42,638,750	12,220,822	54,859,572	48,289,321
1929	290,496,980	248,632,275	30,998,589	10,866,116	41,864,705	36,604,368
1930	250,368,998	228,288,023	16,944,523	5,136,452	22,080,975	19,971,106
1931	200,505,162	199,312,995	2,313	1,189,854	1,192,167	Dr. 1,738,089
1932	161,103,594	155,208,161	5,647,334	248,099	5,895,433	Dr. 1,316,739
1933	148,519,742	142,812,559	4,128,998	1,578,185	5,707,183	Dr. 1,111,028
1934	164,902,502	151,936,079	10,527,798	2,438,625	12,966,423	8,715,785
1935	173,184,502	158,926,249	9,502,437	4,755,816	14,258,253	8,014,635
1936	186,610,489	171,477,690	9,096,990	6,035,809	15,132,799	8,975,091
1937	198,396,609	180,788,858	11,370,576	6,237,175	17,607,751	11,241,763
1938	182,241,723	176,175,312	4,497,824	1,568,587	6,066,411	1,019,255

For footnotes, see end of table, p. 648.

15.—Gross Revenues, Operating Expenses, Net Revenues, Fixed Charges, and Deficits of the Canadian National Railways,[1] 1923-38—concluded.

Year.	Fixed Charges.			Net Income Deficit.[4]	Profit and Loss Net Debt.	Capital Losses, etc. Not Required in Cash.	Cash Deficit.
	Rent for Leased Road and Equipment.	Discount on Funded Debt, Interest, etc.	Total Fixed Charges.				
	$	$	$	$	$	$	$
1923...	1,387,906	35,400,088	36,787,994	21,539,730	2,936,648	1,476,185	23,000,193
1924...	1,452,709	39,056,491	40,509,200	23,589,376	Cr. 385,872	3,029,278	20,174,226
1925...	1,276,120	41,061,285	42,337,405	9,994,382	206,505	395,711	9,805,176
1926...	1,284,639	39,831,853	41,116,492	Cr. 2,389,008	Cr. 6,502,004	Cr. 7,318,391	Cr. 1,572,621
1927...	1,274,017	41,315,881	42,589,898	4,200,678	820,988	602,365	4,419,301
1928...	1,299,813	44,350,608	45,650,421	Cr. 2,638,900	3,446,392	4,271,244	Cr. 3,463,752
1929...	1,213,641	48,799,433	50,013,074	13,408,706	511,067	1,658,142	12,261,631
1930...	1,292,014	54,264,987	55,557,001	35,585,895	5,453,922	5,362,720	35,677,097
1931...	1,328,622	57,803,084	59,131,706	60,869,795	5,762,261	5,663,618	60,968,438
1932...	1,350,197	58,339,983	59,690,180	61,006,919	4,802,615	4,967,807	60,841,727
1933...	1,351,788	57,554,897	58,906,685	60,017,713	1,600,102	2,662,427	58,955,388
1934...	1,372,037	56,850,443	58,222,480	49,506,695	4,161,080	5,259,874	48,407,901
1935...	1,372,713	55,520,104	56,892,817	48,878,182	30,453,831	31,910,548	47,421,465
1936...	1,372,229	50,800,208	52,172,437	43,197,346	12,684,818	12,578,770	43,303,394
1937...	1,505,689	51,764,728	53,270,417	42,028,654	1,028,946	711,732[5]	42,345,868[6]
1938...	1,474,676	51,977,066	53,451,742	54,470,997	2,556,036	2,712,837[5]	54,314,196[6]

[1] Includes the Central Vermont Railway, Inc., from Feb. 1, 1930. [2] Include Canadian Northern system, the Grand Trunk Railway of Canada, the Grand Trunk Pacific, and the Canadian Government Railways. [3] Include the New England Line, the Grand Trunk Western, the Duluth, Winnipeg and Pacific, and, from Feb. 1, 1930, the Central Vermont. [4] Net income deficit includes appropriations for insurance fund of $9,840,672 and excludes interest on Government loans eliminated by Capital Revision Act, 1937. [5] Charged to "Proprietor's Equity". [6] Contributed by Dominion Government.

Capital Revision of the Canadian National Railways.—The Canadian National Railways Capital Revision Act, c. 22 of the Statutes of 1937, is dealt with at p. 644 of the 1939 Year Book. In the same edition, a table at pp. 644-645 shows a condensed consolidated balance sheet as at Dec. 31, 1936, adjustments authorized by the Capital Revision Act, and the revised balance sheet as at Jan. 1, 1937.

Capital Structure and Debt of Canadian National Railways.—The Capital Revision Act eliminated the profit and loss balance as at Jan. 1, 1937, and profit and loss balances for 1937 and future years will also be eliminated by charging to "Dominion Government—Proprietor's Equity" the losses due to abandonment of lines and other such items that do not involve the payment of cash at the time the items are written down, and by the Government contributing cash for the cash deficits. These cash deficits, shown in the last column of Table **15**, have been met by loans by the Government, by direct payment from July 1, 1927, and by reduction of working capital.

The share capital on Dec. 31, 1922, consisted of $165,627,739 stock of the Grand Trunk Railway held by the Dominion Government and $100,000,600 of the Canadian Northern Railway stock also held by the Dominion Government. There was also outstanding $4,591,975 stock of constituent lines held by the public, of which $8,175 has been retired. Table **16** shows the adjustments of the capital liabilities of the system made effective Jan. 1, 1937, under the Capital Revision Act.

80187—42

16.—Capital Structure and Debt of the Canadian National Railways, as at Dec. 31, 1922-38.

Year.	Shareholders' Capital.			Funded Debt Held by Public.			Government Loans and Advances.		Appropriations for Canadian Government Railways.	Grand Total.
	Capital Stock Held by Government.	Dominion Government—Proprietor's Equity.	Capital Stock Held by Public.	Guaranteed by—Dominion Government.	Guaranteed by—Provincial Governments.	Unguaranteed.	Non-active Assets in Public Accounts.	Active Assets in Public Accounts.		
	$	$	$	$	$	$	$	$	$	$
[1]	265,628,339	—	4,591,975	331,309,904	93,412,807	385,198,150	115,607,457	Nil	404,272,030 [2]	1,600,020,662
1922	265,628,339	—	4,591,975	447,872,904	93,574,380	263,055,860	506,945,969	"	442,062,571	2,023,731,998
1923	265,628,339	—	4,591,975	470,372,904	93,574,380	259,151,772	567,870,480	"	447,643,526	2,108,833,376
1924	265,628,339	—	4,601,500	558,872,904	93,574,380	261,465,799	574,657,394	— 14,259,436	451,712,485	2,196,253,365
1925	265,628,339	—	4,600,075	581,372,904	93,574,380	256,382,019	572,685,535	Nil	453,935,303	2,228,178,555
1926	265,628,339	—	4,596,410 [3]	579,872,891	93,574,380	252,032,973 [3]	594,200,367	100,000	437,412,033 [4]	2,227,417,393
1927	265,628,339	—	4,594,410	657,181,330	93,574,380	230,626,027	595,458,349	80,000	436,416,387	2,283,559,222
1928	265,628,339	—	4,617,610	681,000,655	93,574,380	203,313,998	601,406,082	13,506,139	417,279,953	2,280,327,156
1929	265,628,339	—	4,594,910	807,048,434	94,654,505	220,856,554	601,406,082	32,641,600 [5]	417,150,141	2,443,980,565
1930	265,628,339	—	4,592,785	854,431,995	74,912,466	239,221,402	604,406,239	46,660,542 [5]	403,443,935	2,493,297,703
1931	265,628,339	—	4,592,625	970,562,289	74,912,466	230,982,452	604,406,239	35,008,251	405,209,240	2,591,301,901
1932	265,628,339	—	4,585,225	965,831,382	74,912,466	223,773,319	645,527,456	50,195,751	405,170,073	2,635,624,011
1933	265,628,339	—	4,585,225	962,992,576	74,912,466	217,397,113	645,527,456	16,305,439 [5]	404,378,682	2,591,727,296
1934	265,628,339	—	4,584,825	963,906,119	74,912,466	207,511,854	645,527,456	27,053,487	404,279,909	2,593,404,455
1935	265,628,339	—	4,584,225	889,741,774	74,912,466	190,124,761	645,527,456	109,073,454	405,062,275	2,584,654,750
1936	265,628,339	—	4,584,100	937,620,214	73,777,953	173,214,082	643,860,558	77,223,467	405,062,244	2,580,970,957
1937 [6]	[7]	676,327,701	4,584,100	937,620,214	73,777,953	173,214,082	—	77,223,467	16,771,981 [7]	1,959,519,498
1937	[7]	675,530,028	4,583,800	970,697,190	73,777,953	177,522,256	—	62,480,567	16,771,981 [7]	1,981,363,775
1938	[7]	672,688,591	4,583,800	1,004,865,758	67,052,468	178,078,197	—	48,144,805	16,771,981 [7]	1,992,185,600
Increases or decreases, 1922-38	—265,628,339	672,688,591	— 8,175	556,992,854	—26,521,912	—84,977,663	—506,945,969	48,144,805	—425,290,590	—31,546,398
Adjustments under the Capital Revision Act of 1937	—265,628,339	676,327,701	Nil	Nil	Nil	Nil	—643,860,558	Nil	—388,290,263 [8]	—621,451,459
Transfers of Canadian Government railway property to other Government Departments	Nil	— 214,541	"	"	"	"	Nil	"	— 42,760,459	—42,975,000
Capital losses since Jan. 1, 1938	"	— 3,424,569	"	"	"	"	"	"	Nil	— 3,424,569
Capital receipts, 1923-38 (see Table 17)	"	Nil	—8,175	556,992,854	—26,521,912	—84,977,663	136,914,589	48,144,805	5,760,132	636,304,630

[1] Dates constituent lines were taken over: Canadian Northern, Sept. 30, 1917; Grand Trunk Pacific, Mar. 9, 1919; Grand Trunk, May 21, 1920; Canadian Government Railways, Mar. 31, 1919 (actual date of transfer, Nov. 20, 1918). [2] Exclusive of $14,529,707 for Hudson Bay Railway on Mar. 31, 1919. Appropriation to Dec. 31, 1922, included in total for 1922. [3] Annual report includes Central Vermont funded debt amounting to $9,902,865 and capital stock of $807,600, which are excluded here. [4] Deduction for Hudson Bay Railway $15,245,889. [5] Includes current liabilities—"Loans and Bills Payable—Minister of Finance". [6] Jan. 1. [7] Working capital. [8] Included in "Dominion Government—Proprietor's Equity."

17.—Funds Received and Expended by Canadian National Railways, 1923-38.

Year.	FUNDS RECEIVED.					
	From the Public.	From the Government.[1]	Appropriations for Canadian Government Railways.[2]	Dominion Government Contributions for Deficits.[3]	Change in Working Capital, Sinking Fund and Other Balance Sheet Accounts.	Total.
	$	$	$	$	$	$
1923	18,120,937	60,924,511	5,180,620	Nil	+ 4,445,561	79,780,507
1924	87,562,089	−7,472,522	3,594,214	"	+19,221,933	64,461,848
1925	16,621,220	12,287,577	1,886,314	"	− 4,231,167	35,026,278
1926	− 5,849,059	21,614,832	−1,507,605	"	−10,289,976	24,548,144
1927	53,392,813	1,237,982	−1,194,264	2,117,936	+909,613	54,644,854
1928	− 5,033,243	19,373,872	−5,782,490	4,200,356	−40,838,477	53,596,972
1929	140,607,324	19,135,461	113,000	4,762,217	+69,991,581	94,626,421
1930	43,816,912	17,019,099	1,674,204	6,476,667	−45,316,592	114,303,474
1931	103,665,314	−11,652,291	1,765,306	8,712,762	+ 5,864,446	96,626,645
1932	−11,940,040	56,308,717	−39,167	6,635,845[3]	−11,626,267	62,591,622
1933	− 9,215,012	−33,890,312	Nil	112,378,050[4]	+ 6,530,346	62,742,380
1934	− 9,227,966	10,748,048	70,000	48,407,901	+ 2,932,076	47,065,907
1935	−92,472,938	82,019,967	Nil	47,421,465	−11,170,848	48,139,342
1936	27,934,498	−33,516,885	"	43,303,394	−12,580,298	50,301,305
1937	36,743,488	−14,742,900	"	42,345,868	+231,486	64,114,970
1938	26,507,904	−14,335,762	"	54,314,196	− 2,228,865	68,715,203
Totals	**421,234,241**	**185,059,394**	**5,760,132**	**381,076,657**	**−28,155,448**	**1,021,285,872**

Year.	FUNDS EXPENDED.						
	Investments.					Cash Deficits.[5]	Total Expenditures.
	Railway Rolling-Stock, Inland Steamships, Communications, and Miscellaneous Properties.	Hotels.	Coastal Steamships.	Affiliated Companies.	Total.		
	$	$	$	$	$	$	$
1923	54,268,938	695,736	Nil	1,815,640	56,780,314	23,000,193	79,780,507
1924	41,208,257	606,211	"	2,473,154	44,287,622	20,174,226	64,461,848
1925	18,290,616	391,724	267,185	6,271,577	25,221,102	9,805,176	35,026,278
1926	23,187,739	1,263,024	11,774	1,658,228	26,120,765	Cr. 1,572,621	24,548,144
1927	45,002,322	1,090,905	3,707	4,128,619	50,225,553	4,419,301	54,644,854
1928	40,157,334	3,871,239	5,580	13,026,571	57,060,724	Cr. 3,463,752	53,596,972
1929	81,425,585	3,832,827	3,241,495	−6,135,117	82,364,790	12,261,631	94,626,421
1930	58,175,568	4,928,702	3,456,085	12,066,022	78,626,377	35,677,097	114,303,474
1931	28,822,800	5,473,456	−9,189	1,371,140	35,658,207	60,968,438	96,626,645
1932	−1,384,143	2,194,468	−11,166	950,736	1,749,895	60,841,727	62,591,622
1933	341,819	610,968	207	2,833,998	3,786,992	58,955,388	62,742,380
1934	−1,274,840	258,841	112	−326,107	−1,341,994	48,407,901	47,065,907
1935	153,834	535,679	−2,425	30,789	717,877	47,421,465	48,139,342
1936	6,656,687	267,947	14,947	58,330	6,997,911	43,303,394	50,301,305
1937	20,970,509	69,871	−165,716	894,438	21,769,102	42,345,868	64,114,970
1938	10,260,451	1,020,099	−481,758	3,602,215	14,401,007	54,314,196	68,715,203
Totals	**426,263,476**	**27,111,697**	**6,330,839**	**44,720,233**	**504,426,244**	**516,859,628**	**1,021,285,872**

[1] Include temporary Government loans shown in annual reports as "Loans and Bills Payable—Minister of Finance". Other loans and bills payable are included in column "Change in Working Capital, ...". [2] Exclude credits for property transferred to other Government departments—$42,846,400. [3] Include deficits for Eastern Lines from July 1, 1927, and for entire system from Jan. 1, 1932. [4] System (less Eastern Lines) deficit for 1932 of $53,422,662 was paid in 1933, the remaining $783,220 being secured from working capital. [5] See last column of Table 15.

Table 18 has been compiled to reconcile the investments in and loans to the Canadian National Railways (including Canadian Government Railways) as shown in the Public Accounts for the fiscal year ended Mar. 31, 1939, with the debt to the Dominion Government shown in the Railways' balance sheet at Dec. 31, 1938, which is covered by the columns "Dominion Government—Proprietor's Equity", "Active Assets in Public Accounts", and "Appropriations for Canadian Government Railways" in Table 16.

18.—Reconciliation between Public Accounts, Mar. 31, 1939, and Canadian National Railways' Balance Sheet, Dec. 31, 1938, with Respect to the Railways' Obligations to the Dominion Government.

Item.	Public Accounts Mar. 31, 1939.	Canadian National Balance Sheet Dec. 31, 1938.
	$	$
Canadian Government Railways—		
Capital expenditures	388,077,250	388,075,722
Working capital	16,771,981	16,771,981
Canadian National Railways—		
Dominion Government equity	284,612,868	284,612,868
Temporary loans	24,765,053	48,144,805
Miscellaneous investments and other accounts	121,740	Nil
Totals	**714,348,892**	**737,605,376**
Loans repaid between Dec. 31, 1938 and Mar. 31, 1939	Nil	—40,656,113
Additional advances between Dec. 31, 1938, and Mar. 31, 1939	"	17,276,361
Expenditures by Dominion not in C.N.R. balance sheet	"	123,268
Totals	**714,348,892**	**714,348,892**

Subsection 3.—Steam Railway Traffic.

In addition to an analysis of passenger and freight traffic statistics for all steam railways, a separate analysis is given of the operations and traffic of the Canadian National Railways, since, being controlled by the Dominion Government, the information is considered of special interest.

Passenger and Freight Traffic.—The greatest volume of passenger traffic, indicated by the number of passengers carried one mile, was reached in 1919 and the greatest volume of freight traffic in 1928. In recent years both freight and passenger traffic, especially the latter, have been affected by the increase in the use of motor vehicles and this traffic decrease was much aggravated by the general decline in commercial activity after 1929, but improvements took place in 1934, 1935, 1936, and 1937. In 1938 there was a slight decrease from 1937 figures.

The average haul for freight, as shown in Table 19, is for all railways, which eliminates the effects of consolidations of railways and of interchanging freight between Canadian railways. The average revenue per passenger increased in 1918 and 1919 with increases in rates, but the increases between 1924 and 1930 were due largely to decreases in the short-haul traffic. The increases in freight-train loading and train revenues have been due to the use of larger and more powerful locomotives.

19.—Summary Analysis of Statistics of Passenger and Freight Services and Receipts, 1929-38.

NOTE.—Corresponding figures for 1910-15 are given at pp. 628-629 of the 1922-23 Year Book, and for the years 1916-28 at pp. 652-653 of the 1937 Year Book.

Year.	PASSENGERS.				
	Revenue Passenger-Train Miles.[1]	Passenger-Train Car Miles.[1]	Passengers Carried.[2]	Passengers Carried One Mile.	Passengers Carried One Mile per Mile of Line.
	No.	No.	No.	No.	No.
1929	49,076,458	379,458,005	39,070,893	2,897,214,817	70,883
1930	47,915,171	350,905,667	34,698,767	2,422,874,877	58,123
1931	41,984,843	301,350,517	26,396,812	1,748,210,593	41,452
1932	34,995,135	259,396,089	21,099,582	1,435,959,501	33,877
1933	31,942,329	235,680,077	19,172,193	1,393,041,245	32,804
1934	31,665,689	243,236,816	20,530,718	1,530,610,962	36,179
1935	31,997,918	248,061,414	20,031,839	1,584,524,044	37,042
1936	33,221,771	242,618,884	20,497,616	1,726,058,974	40,415
1937	34,543,063	258,353,039	22,038,709	1,929,442,930	45,184
1938	36,274,204	253,814,658	20,911,196	1,783,177,557	41,760

Year.	Average Receipts per Passenger Mile.	Average Receipts per Passenger.	Average Passenger Journey.	Average Passengers per Train.	Passenger-Train Revenue per Passenger-Train Mile.
	cts.	$	miles.	No.	$
1929	2·77	2·06	74	56	2·33
1930	2·76	1·92	70	48	2·02
1931	2·72	1·79	66	39	1·68
1932	2·54	1·73	68	37	1·57
1933	2·29	1·66	73	39	1·50
1934	2·24	1·67	75	43	1·61
1935	2·18	1·72	79	44	1·61
1936	2·08	1·75	84	49	1·68
1937	2·02	1·76	88	53	1·73
1938	2·07	1·77	85	46	1·55

Year.	FREIGHT.				
	Revenue Freight-Train Miles.	Revenue Freight-Train Car Miles.[3]	Freight Carried.[4]	Freight Carried One Mile.	Freight Carried One Mile per Mile of Line.
	No.	No.	tons.	tons.	tons.
1929	61,271,673	2,422,571,513	115,187,028	35,025,895,433	856,945
1930	52,537,500	2,077,487,173	96,194,017	29,604,545,125	710,197
1931	44,341,022	1,786,711,340	74,129,694	25,707,373,092	609,555
1932	38,763,206	1,553,486,651	60,807,482	23,136,666,295	545,843
1933	34,647,975	1,456,244,715	57,364,025	21,092,594,200	496,705
1934	38,754,761	1,628,727,881	68,036,505	23,320,451,031	551,220
1935	39,912,286	1,666,893,664	69,141,100	24,235,167,157	566,560
1936	50,219,782[5]	1,795,275,640	75,846,566	26,414,113,720	618,482
1937	52,349,342[5]	1,881,712,546	82,220,374	26,926,054,021	630,557
1938	49,432,589[5]	1,769,787,848	76,175,305	26,834,696,695	628,433

Year.	Freight Receipts per Ton per Mile.	Receipts per Ton Hauled.	Average Length of Freight Haul.	Average Train Load, Revenue Tons.	Average Load per Loaded Car Mile.	Revenue per Freight-Train Mile.
	cts.	$	miles.	tons.	tons.	$
1929	1·099	3·34	304	523	24·52	5·74
1930	1·090	3·36	308	509	24·34	5·55
1931	1·013	3·51	347	514	24·68	5·20
1932	0·937	3·56	380	517	23·57	4·84
1933	0·955	3·51	368	521	24·92	4·98
1934	0·975	3·34	343	522	24·69	5·09
1935	0·972	3·41	351	528	24·60	5·13
1936	0·969	3·38	348	526	24·73	5·10
1937	1·005	3·29	327	514	23·90	5·17
1938	0·954	3·36	352	543	25·59	5·18

[1] Includes express, baggage, mail, etc., cars. [2] Duplications included. [3] Includes caboose miles. [4] Duplication eliminated, see Table 21 for details of freight carried. [5] Revised classification includes mileage previously classed as "mixed".

Mileage and Traffic of the Canadian National Railways.—At Dec. 31, 1938, steam mileage of the Canadian National (including lines in the U.S.A. but exclusive of the Northern Alberta Railways and Toronto Terminals Railway, which are controlled jointly by the Canadian National and the Canadian Pacific Railways) was 23,789. Including the Thousand Islands Railway, 4·51 miles, and the Muskegon Railway and Navigation Co., 5·25 miles, controlled but separately operated, the total steam mileage was 23,799. Including 120·43 miles of electric lines, the grand total was 23,919.

The Maritime Freight Rates Act (17 Geo. V, c. 44).—This Act, effective July 1, 1927, ordered that the accounts of the Canadian National lines east of Lévis and Diamond Junction, Quebec, be separated from the remainder of the Canadian National system. These lines were designated the "Eastern Lines" of the Canadian National Railways. The Act ordered that specified freight rates on the Eastern Lines be reduced by 20 p.c. Other railways were allowed to make similar reductions in their freight rates in that territory and to bill on the Board of Railway Commissioners of Canada for the difference in freight receipts due to such reductions. The differences between the reduced rates and the normal rates are treated as revenues by the Canadian National Railways and paid by the Dominion Government. The totals paid to all railways under the Act were: $1,353,464, $2,758,893, $3,092,677, $3,615,218, $2,554,673, $1,922,073, $1,989,130, $2,529,394, $2,348,399, $2,505,823, $3,182,458, and $2,582,897, respectively, for the fiscal years 1927-38, a total of $30,435,101.

The Quebec Bridge across the St. Lawrence above Quebec City, with a main span of 1,800 ft., carrying a single-track railway and accommodation for motor and pedestrian traffic, forms a connecting link in the Canadian National Railways system and is operated as a part of it.

20.—Canadian National Railways (Canadian and U.S. Lines) Train Traffic Statistics, 1937 and 1938.[1]

Item.		1937.	1938.
Train Mileage—			
Passenger trains	No.	19,285,259	18,722,893
Freight trains	"	29,858,278	27,852,951
Totals, Train Miles[2]	"	**49,143,537**	**46,575,844**
Passenger-Train Car Mileage—			
Coaches and combination	No.	54,171,955	52,100,287
Parlour, sleeping, and dining cars	"	42,885,604	40,930,000
Baggage, mail, express, etc	"	54,248,154	55,115,941
Totals, Passenger-Train Car Miles[2]	"	**151,305,713**	**148,146,228**
Freight-Train Car Mileage—			
Loaded freight-car miles	No.	730,084,873	656,686,592
Empty freight-car miles	"	321,414,454	316,154,057
Caboose miles	"	28,558,249	26,435,560
Totals, Freight-Train Car Miles[2]	"	**1,080,057,576**	**999,276,209**
Passenger Traffic—			
Passengers carried (earning revenue)	No.	10,888,476	10,289,000
Passengers carried (earning revenue) one mile	"	953,460,137	891,594,706
Passenger-train miles per mile of road	"	813	791
Average passenger journey	miles	87·57	86·66
Average amount received per passenger	$	1·740	1·759
Average amount received per passenger mile	$	0·0199	0·0203
Average passengers per train mile	No.	49·44	47·62
Average passengers per car mile	"	10·09	9·84
Total passenger-train earnings per train mile	$	1·75	1·72
Total passenger-train revenue per mile of road	$	1,420·65	1,359·18

[1] Excludes electric lines. [2] Work service excluded.

20.—Canadian National Railways (Canadian and U.S. Lines) Train Traffic Statistics, 1937 and 1938[1]—concluded.

Item.		1937.	1938.
Freight Traffic—			
Revenue freight carried	tons	47,037,720	40,577,656
Revenue freight carried one mile	"	15,165,051,267	14,505,234,204
Non-revenue freight carried one mile	"	1,827,673,971	1,559,452,939
Total (all classes) freight carried one mile	"	16,992,725,238	16,064,687,143
Revenue freight carried one mile per mile of road	"	636,718	609,720
Total (all classes) freight carried one mile per mile of road	"	716,776	678,299
Average tons revenue freight per train mile	No.	507·90	520·78
Average tons (all classes) freight per train mile	"	569·11	576·77
Average tons (all classes) freight per loaded car mile	"	23·25	24·43
Average hauls revenue freight	miles	322·40	357·50
Freight revenues per train mile	$	5·15	5·02
Freight revenues per mile of road	$	6,487·33	5,901·50
Freight revenues per ton	$	3·26964	3·44450
Freight revenues per ton mile	$	0·01014	0·00964

[1] Excludes electric lines.

Commodities Hauled.—The peak year in freight handled was 1928, when 118,652,969 tons were hauled, including agricultural products to the amount of 30,176,695 tons.

21.—Commodities Hauled as Freight on Steam Railways, 1934-38.

NOTE.—In this table duplications are eliminated, i.e., the same freight handled by two or more railways is counted only once.

Group and Product.	1934.	1935.	1936.	1937.	1938.
	tons.	tons.	tons.	tons.	tons.
Agricultural Products.					
Wheat	8,454,195	8,367,973	8,489,009	5,144,261	8,555,203
Corn	435,111	296,711	486,471	488,124	785,372
Oats	1,073,495	858,724	879,304	906,651	950,702
Barley	635,696	455,496	911,444	713,484	793,778
Rye	40,901	55,001	89,506	69,858	71,271
Flaxseed	20,814	28,762	54,352	42,822	33,369
Other grain	46,022	34,746	31,717	36,356	38,996
Flour	1,481,241	1,368,244	1,490,529	1,374,435	1,399,357
Other mill products	1,460,786	1,464,264	1,694,477	1,615,134	1,750,322
Hay and straw	495,307	415,787	300,175	670,618	496,347
Cotton	124,504	115,676	130,102	127,217	107,051
Apples (fresh)	322,730	288,999	249,381	272,577	291,587
Other fruit (fresh)	365,286	394,769	425,155	422,207	479,855
Potatoes	504,210	407,969	455,178	550,738	403,653
Other fresh vegetables	261,652	234,297	275,803	293,227	278,819
Other agricultural products	907,976	928,702	1,033,223	1,005,017	1,097,143
Totals, Agricultural Products	**16,629,926**	**15,716,120**	**16,995,826**	**13,732,726**	**17,532,825**
Animal Products.					
Horses	63,382	53,707	71,436	88,170	59,958
Cattle and calves	475,712	500,044	590,311	637,898	445,553
Sheep	52,619	48,589	48,488	45,972	38,383
Hogs	230,313	200,177	242,567	231,676	198,075
Dressed meats (fresh)	525,446	469,815	487,812	450,145	423,414
Dressed meats (cured, salted, canned)	188,326	146,528	155,325	165,993	158,773
Other packing-house products (edible)	204,647	120,536	139,412	146,072	150,160
Poultry	107,673	80,663	91,962	81,094	74,231
Eggs	128,168	99,443	92,217	89,797	93,803
Butter	157,321	135,052	135,123	136,229	138,835
Cheese	62,834	63,301	72,167	70,055	73,826
Wool	38,985	47,783	48,765	43,774	39,479
Hides and leather	119,110	139,447	134,013	128,879	114,438
Other animal products (non-edible)	91,167	106,112	121,647	124,995	116,050
Totals, Animal Products	**2,445,703**	**2,211,197**	**2,431,245**	**2,440,749**	**2,124,978**

21.—Commodities Hauled as Freight on Steam Railways, 1934-38—concluded.

Group and Product.	1934.	1935.	1936.	1937.	1938.
Mineral Products.	tons.	tons.	tons.	tons.	tons.
Coal, anthracite	2,786,704	2,629,229	2,749,701	2,876,804	2,704,433
Coal, bituminous	9,585,322	9,174,105	9,957,019	10,720,545	8,990,920
Coal, lignite	2,467,519	2,574,087	2,749,419	2,564,100	2,302,734
Coke	1,328,019	1,242,068	1,351,663	1,286,666	1,120,465
Iron ore	12,052	15,089	11,474	15,529	14,294
Copper ore and concentrates	20,109	12,534	11,114	502,609	1,389,456
Other ores and concentrates	2,001,416	2,078,721	2,687,307	4,151,023	4,451,921
Base bullion, matte, pig and ingot (non-ferrous metals)	709,803	864,727	975,969	1,091,003	1,030,232
Sand and gravel	1,054,855	1,179,721	1,286,601	2,123,789	1,309,487
Stone (crushed, ground, broken)	785,336	576,911	1,069,223	1,805,278	1,151,035
Slate, dimension or block stone	84,449	139,709	106,824	121,607	115,196
Petroleum, crude	463,488	460,559	510,701	435,085	522,580
Asphalt (natural, by-product petroleum)	126,693	181,940	185,177	298,307	275,327
Salt	289,290	286,459	289,890	298,439	306,620
Other mineral products	1,945,133	2,676,793	2,840,608	2,920,534	2,550,550
Totals, Mineral Products	**23,660,188**	**24,092,652**	**26,782,690**	**31,211,318**	**28,235,250**
Forest Products.					
Logs, posts, poles, piling	949,184	1,156,773	1,060,497	1,251,082	1,115,316
Cordwood and other firewood	1,568,669	1,421,851	1,367,039	1,199,772	1,082,598
Ties	43,043	56,495	57,317	82,310	53,342
Pulpwood	2,023,577	2,146,535	1,973,201	2,619,607	2,821,765
Lumber, timber, box, crate, and cooperage material	2,866,283	3,058,689	3,441,123	4,015,125	3,041,305
Other forest products	440,364	422,024	401,875	496,983	381,180
Totals, Forest Products	**7,891,120**	**8,262,367**	**8,301,052**	**9,664,879**	**8,495,506**
Manufactures and Miscellaneous.					
Gasoline	1,233,554	1,200,347	1,222,559	1,409,851	1,481,588
Petroleum oils and other petroleum products (except asphalt and gasoline)	742,067	746,311	766,283	803,385	784,835
Sugar	306,764	310,590	332,455	447,684	337,630
Iron, pig and bloom	178,652	176,539	225,977	297,577	167,123
Rails and fastenings	78,268	76,057	87,876	96,226	116,879
Iron and steel (bar, sheet, structural, pipe)	703,674	944,279	1,208,435	1,654,574	999,199
Castings, machinery, and boilers	162,083	181,658	237,314	307,525	237,228
Cement	485,313	432,694	534,028	769,026	590,192
Brick and artificial stone	195,755	207,344	264,392	341,214	250,547
Lime and plaster	193,794	204,078	232,018	267,465	268,335
Sewer pipe and drain tile	19,750	26,237	28,759	30,981	31,095
Agricultural implements and vehicles other than automobiles	104,484	150,466	168,299	249,405	212,193
Automobiles, trucks, and parts	1,427,551	1,772,595	1,815,404	2,110,205	1,233,823
Household goods and settlers' effects	68,660	42,311	40,760	68,115	29,777
Furniture	40,672	45,260	54,601	61,445	49,604
Liquor, beverages	236,608	253,426	295,859	355,349	320,660
Fertilizers, all kinds	525,347	569,208	667,585	772,435	752,596
Newsprint paper	1,939,326	1,968,278	2,366,404	2,748,810	1,916,349
Other paper	342,280	368,683	416,019	558,601	383,923
Paper board, pulpboard and wall board (paper)	205,281	228,075	253,222	286,691	236,377
Wood-pulp	802,486	884,013	994,833	1,098,013	746,209
Fish (fresh, frozen, cured, etc.)	67,501	74,294	80,703	88,868	83,882
Canned goods (all canned food products except meats)	396,081	420,439	480,440	489,708	483,980
Other manufactures and miscellaneous	4,723,238	5,426,354	6,298,783	7,390,637	5,859,398
Merchandise (all L.C.L. freight)	2,230,379	2,149,228	2,262,745	2,466,912	2,213,324
Totals, Manufactures and Misc.	**17,409,568**	**18,858,764**	**21,335,753**	**25,170,702**	**19,786,746**
Grand Totals	**68,036,505**	**69,141,100**	**75,846,566**	**82,220,374**	**76,175,305**

Railway Accidents.—All injuries to passengers are included in Tables **22** and **23**, but, for employees, only injuries that keep the employee from his work for at least three days during the ten days following the accident are recorded. Other persons include trespassers walking along tracks, stealing rides, etc., also persons crossing tracks at level crossings.

22.—Passengers, Employees, and Others Killed or Injured on Steam Railways, 1929-38.

NOTE.—For the years ended June 30, 1888 to 1900, see Canada Year Book, 1910, p. 378; for the years 1901-19, the 1922-23 edition, p. 635; and for 1920-28, the 1938 edition, p. 662.

Year.	Passengers.		Employees.		Others.		Totals.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
	No.	No.	No.	No.	No.	No.	No.	No.
1929	20	551	118	12,483	293	809	431	13,843
1930	15	548	103	9,678	345	837	463	11,063
1931	3	399	55	5,966	202	830	260	7,195
1932	7	342	77	4,631	242	598	326	5,571
1933	8	319	53	4,409	219	645	280	5,373
1934	16	432	57	5,179	242	589	315	6,200
1935	10	440	70	5,221	271	625	351	6,286
1936	6	691	93	6,338	282	703	381	7,732
1937	5[1]	426[1]	77	5,774	265	729	347[1]	6,929[1]
1938	4	351	54	4,961	237	568	295	5,880

[1] Revised since the publication of the 1939 Year Book.

These accidents include all accidents in which railway trains were involved and accidents on railway property. The classification of accidents used in the Bureau's vital statistics treats collisions between motor vehicles and trains as motor-vehicle accidents; also provincial statistics of motor-vehicle accidents class them as motor-vehicle accidents and consequently adjustments should be made when compiling total accidental deaths of all kinds or comparing results of accidents of different kinds, such as train and motor vehicle.

23.—Persons Killed or Injured on Steam Railways, 1936-38.

Item.	In Accidents Resulting from Movement of Trains, Locomotives, or Cars.					
	1936.		1937.		1938.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Class of Person—						
Passengers	6	657	5[1]	378[1]	4	314
Employees	83	1,293	59	1,082	45	898
Trespassers	150	186	148	272	149	206
Non-trespassers	122	358	114	339	86	296
Postal clerks, expressmen, etc.	1	78	1	48	Nil	27
Totals	**362**	**2,572**	**327[1]**	**2,119[1]**	**284**	**1,741**
Description of Accidents (Employees and Passengers only)—						
Coupling and uncoupling	3	68	1	70	5	58
Collisions	27	265	6	41	3	28
Derailments	6	76	12	63	7	73
Parting of trains	Nil	Nil	Nil	2	Nil	2
Locomotives or cars breaking down	"	"	"	3	"	2
Falling from trains or cars	7	137	6	142	11	120
Getting on or off trains	5	285	Nil	Nil	Nil	Nil
Struck by trains, etc.	23	56	26	39	17	29
Overhead obstruction	Nil	2	Nil	2	Nil	3
Other causes	18	1,061	13[1]	1,098[1]	6	897
Totals	**89**	**1,950**	**64[1]**	**1,460[1]**	**49**	**1,212**

[1] Revised since the publication of the 1939 Year Book.

23.—Persons Killed or Injured on Steam Railways, 1936-38—concluded.

Class of Person.	In Accidents Other Than Those Resulting from Movement of Trains, Locomotives, or Cars.					
	1936.		1937.		1938.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
	No.	No.	No.	No.	No.	No.
Stationmen	2	592	2	692	1	569
Shopmen	1	1,518	3	1,584	4	1,336
Trainmen and trackmen	6	2,706	12	2,164	2	1,807
Other employees	1	229	1	252	2	351
Passengers	Nil	34	Nil	48	Nil	37
Others	9	81	2	70	2	39
Totals	**19**	**5,160**	**20**	**4,810**	**11**	**4,139**

Section 2.—Electric Railways.*

The cheap and reasonably rapid conveyance of human beings is a necessity of modern urban life. One important means by which this necessity is supplied throughout Canada is the electric street railway, operated by hydro-electric energy in the majority of cases.

Historical.—Replacing the horse-car systems, used in Montreal and Toronto as early as 1861, electric street railways were first seen in operation in Canada in 1885, when a successful experimental railway was constructed and operated at the Toronto Exhibition Grounds. Before many years their safety and convenience resulted in the discarding of the older systems. The first electric railway line in Canada and probably the first in North America, which ran between Windsor and Walkerville, was established early in June, 1886 (it is recorded that it was in active operation before June 11). An electric system 7 miles in length was opened at St. Catharines in 1887, using the double overhead trolley. The third electric railway in the Dominion was established in Victoria on Feb. 23, 1890, and the fourth commenced operation in Vancouver in June, 1890. These were followed by the completion of the Ottawa Electric Railway in 1891 and the electrification of the Montreal and Toronto systems in 1892. The street railways of other eastern cities were generally electrified during the 1890's, while in the newer western cities electricity was used from the commencement. In the cities of Eastern Canada, electric street railways are generally operated by private companies under city franchises, while in a considerable number of cities in Ontario and the West the street railways are owned and operated by the municipalities.

Many difficulties are met in operating the cars during the winter season, owing to the heavy falls of snow. This, however, has been overcome by the use of sweepers, scrapers, and ploughs. The single overhead trolley system has been found the most suitable and is in general use. During the past few years an increasing number of motor buses have been used; in 1924 only 48 were operated, but by 1938 the number had increased to 760. In 1936 the Montreal system secured 7 trackless trolley buses. These cars have pneumatic tires, require no track but use a second trolley wire instead of the steel rail for the return of the electric current.

In addition to street railways in the cities there are several systems serving suburban areas and also doing an inter-urban business, but this latter class of service is fast being supplanted by bus service. Indeed the development of motor vehicles,

* Revised and checked by G. S. Wrong, B.Sc., Chief of the Transportation and Public Utilities Branch of the Dominion Bureau of Statistics. This Branch publishes an annual report on "Electric Railways in Canada".

while providing competition for all forms of rail transportation, has affected electric railways more seriously than steam railways. The dependence of the former upon short-distance passenger traffic renders them particularly susceptible to the competition of motor vehicles. Since the War of 1914-18, a number of electric railways have been abandoned, first main track mileage has declined 33 p.c. since 1925, and even in the larger cities electric railways generally have been obliged to increase their tariffs owing to the slow growth or actual decline of traffic.

Subsection 1.—Equipment of Electric Railways.

Track mileage of electric railways has been gradually decreasing in recent years. Very little new construction has taken place; on the other hand, systems or parts of systems are being abandoned.

24.—Mileage and Equipment of Electric Railways, 1935-38.

Item.	1935.	1936.	1937.	1938.	Item.	1935.	1936.	1937.	1938.
Track Mileage—	miles.	miles.	miles.	miles.	Passenger Cars—	No.	No.	No.	No.
Length of first main track	1,268	1,247	1,222	1,154	Closed	3,395	3,329	3,303	3,358
Length of second main track	558	553	549	539	Open	21	17	13	13
Totals, Main Track	1,826	1,800	1,771	1,693	Combination passenger and baggage	11	9	13	10
Length of sidings and turnouts	270	272	267	264	Without electrical equipment	280	250	249	184
Totals, Computed as Single Track	2,096	2,072	2,038	1,957	Totals, Passenger Cars	3,707	3,605	3,578	3,565
Baggage, express, and mail cars	No. 23	No. 23	No. 24	No. 23	Snow ploughs	69	72	71	74
Buses	552	605	653	760	Sweepers	162	162	161	170
Freight cars	270	206	203	201	Trackless trolley cars	Nil	7	7	13
Locomotives	46	46	46	47	Trucks	[1]	21	3	109
					Miscellaneous	340	348	344	237

[1] None reported.

Subsection 2.—Finances of Electric Railways.

The funded debt of electric railways has been reduced very little since 1930, although capital stock has been reduced almost one-third. Between 1930 and 1938 gross earnings were reduced 22 p.c., but operating expenses were cut 25 p.c. The operating ratio has been below 70 p.c. since 1934.

25.—Financial Statistics of Electric Railways, 1929-38.

NOTE.—Available figures for the years 1901-07 are given at pp. 608 and 609 of the 1926 Year Book; for the years 1908-18 at pp. 681 and 682 of the 1936 Year Book; and for 1919-28 at p. 665 of the 1938 Year Book.

Year.	Capital Liability.			Investment in Road and Equipment.	Gross Earnings.	Operating Expenses.	Ratio of Expenses to Receipts.	Employees.	Salaries and Wages.
	Stocks.	Funded Debt.	Total.						
	$	$	$	$	$	$	p.c.	No.	$
1929	54,453,321	167,969,494	222,422,815	240,110,655	58,268,980	40,085,140	68·79	18,801	26,984,061
1930	53,048,929	171,040,610	224,089,539	240,293,974	54,719,259	39,125,515	71·50	18,340	26,954,994
1931	45,155,649	170,662,447	215,818,096	234,384,558	49,088,310	35,367,068	72·05	17,135	24,647,391
1932	40,101,930	163,210,624	203,312,554	225,747,251	43,339,381	31,516,943	72·72	15,961	21,534,419
1933	39,851,230	160,247,640	200,098,870	223,704,367	39,383,965	27,917,265	72·73	14,883	18,692,236
1934	39,851,230	158,276,141	198,127,371	224,398,598	40,048,136	28,036,754	70·01	14,544	18,546,750
1935	36,827,740	170,363,299	207,191,039	215,007,166	40,442,320	28,009,013	69·26	14,381	18,649,517
1936	36,727,740	168,334,613	205,062,353	214,820,798	41,391,927	28,807,311	69·60	14,280	18,958,831
1937	36,727,740	169,045,069	205,772,809	208,938,656	42,991,444	29,545,641	68·72	14,347	19,778,118
1938	36,727,740	167,878,751	204,606,491	212,643,544	42,537,767	29,683,131	69·78	14,323	20,100,533

26.—Mileage, Capital, Earnings, Operating Expenses, Passengers, Employees, and Salaries and Wages of Electric Railways, 1938.

Name of Railway.	Mileage Operated (Total Main Track).	Capital Liability.	Gross Earnings.	Operating Expenses.	Fare Passengers Carried.	Employees.	Salaries and Wages.
	miles.	$	$	$	No.	No.	$
Brantford Municipal[1]	14·81	836,891	110,926	96,703	2,297,275	54	61,990
British Columbia	284·93	23,697,048[2]	5,169,072	4,281,285	71,161,991	2,081	3,204,707
Calgary Municipal[1]	77·02	2,605,644	637,723	527,686	10,197,519	204	315,760
Canadian Pacific	75·36	4,368,500[3]	381,784	403,331	747,522	201	266,780
Cape Breton Tramways	21·30	5,400	77,193	75,854	1,030,942	37	49,377
Cornwall St. Rly., Light and Power Co.	5·50	330,000	130,158	80,862	1,403,561	50	61,316
Edmonton Radial[1]	52·50	960,685	698,535	527,617	14,233,543	266	389,698
Fort William Street[1]	25·49	812,000	131,375	132,489	2,118,247	67	80,916
Guelph Radial [1,4,5]	4·91	320,333	64,930	60,088	993,123	21	31,875
Hamilton Street [4,6]	40·17	3,205,000	1,054,465	745,868	15,734,055	339	428,009
Hull Electric	26·06	292,000	195,806	154,703	2,787,915	84	83,954
International Transit	6·14	150,000	43,821	39,880	865,928	18	28,304
Kitchener Public Utilities —St. Rly. Dept.[1]	9·41	80,752	102,080	77,890	2,292,302	36	51,360
Lethbridge Municipal[1]	11·25	455,167	34,217	38,257	650,723	17	26,443
Levis Tramways Co	11·50	1,115,000	122,327	108,224	1,996,576	67	73,682
London and Port Stanley (Lessees)	26·70	4,063,694[7]	267,256	205,319	424,350	77	106,679
London Street	9·46	1,027,480	494,000	417,619	8,890,368	189	235,060
Montreal Tramways	270·91	54,990,200	13,037,039	7,992,202	208,261,207	3,947	5,437,518
Montreal and Southern Counties	54·09	2,668,280	278,761	375,572	2,393,071	175	216,428
Nelson Municipal[1]	3·38	[8]	15,942	25,996	373,730	17	17,544
New Brunswick Power Co.	20·63	2,781,488[2]	303,681	280,861	6,250,885	125	137,129
Niagara, St. Catharines, and Toronto	59·20	925,000[9]	598,794	604,550	3,481,956	287	381,360
North Yonge Railways[1,10]	10·25	107,549[2]	71,890	70,123	861,951	[10]	[10]
Nova Scotia Light and Power Co.	24·91	2,442,680[2]	538,012	409,005	9,141,788	180	290,293
Oshawa	9·23	40,000[9]	210,384	155,501	574,085	81	112,598
Ottawa	51·74	3,757,899	1,298,280	797,194	20,781,630	420	532,106
Port Arthur Civic[1]	19·53	396,634	140,263	115,083	2,229,989	55	74,863
Quebec Railway, Light, and Power Co. [11]	33·30	[11]	929,370	866,507	16,098,788	433	490,709
Regina Municipal[1]	28·62	1,984,018	296,625	233,268	5,494,707	114	161,649
Sandwich, Windsor, and Amherstburg[1]	16·13	6,816,205	580,871	522,325	8,398,946	194	325,081
Saskatoon Municipal[1]	19·08	1,261,366	213,063	163,864	3,459,150	80	105,885
Shawinigan Falls Terminal	3·39	300,000	68,759	56,494	[8]	18	34,517
Suburban Rapid Transit Co.	9·53	600,000[12]	121,399	90,949	2,085,580	[13]	[13]
Sudbury, Copper Cliff Suburban	7·90	212,771	78,249	62,366	1,066,530	22	31,916
Toronto Transportation Commission[1]	214·75	23,370,000	10,851,866	6,445,762	155,322,324	3,227	4,824,813
Township of York and Town of Weston [1,10]	14·06	996,534	212,761	152,426	4,287,510	[10]	[10]
Winnipeg	96·89	55,700,273[12]	2,874,299	2,209,932	40,590,585	1,121	1,407,669
Winnipeg, Selkirk, and Lake Winnipeg	23·13	900,000[12]	101,791	79,476	798,386	19	22,545
Totals	**1,693·16**	**204,606,491**	**42,537,767**	**29,683,131**	**629,778,738**	**14,323**	**20,100,533**

[1] Municipally owned. [2] Investment in road and equipment. [3] $4,264,725 held by Canadian Pacific Railway. [4] Operated by the Hydro-Electric Power Commission of Ontario. [5] Switching and bus service. [6] Provincially owned. [7] Debentures of the London Rly. Commission. [8] Not reported. [9] Held by C.N.R. [10] Operated by Toronto Transportation Commission. [11] Citadel division operations only. Total capital and operations of the Montmorency division are included in steam railways. [12] Represents all divisions of the company. [13] Operated by Winnipeg Electric Railway.

Subsection 3.—Traffic of Electric Railways.

Statistics for electric railways reflect a steady building up of passenger and freight traffic since the depression years although mileage in operation has been reduced; accidents to passengers and employees show definite improvement in each class.

27.—Statistics of Electric Railway Operations, 1929-38.

NOTE.—Figures will be found at p. 676 of the 1933 Year Book for the years 1901-10; at p. 681 of the 1936 Year Book for the years 1911-18; and at p. 667 of the 1938 Year Book for 1919-28.

Year.	Mileage in Operation.		Car Mileage.			Passengers.	Freight.
	First Main Track.	Second Main Track.	Passenger.	Other.	Total.		
	miles.	miles.	miles.	miles.	miles.	No.	tons.
1929.....	1,629·12	565·27	134,666,564	4,533,070	139,199,634	833,496,866	3,653,411
1930.....	1,500·52	571·37	136,240,958	3,773,642	140,014,600	792,701,493	2,872,929
1931.....	1,379·03	572·69	131,200,894	2,682,595	133,883,489	720,468,361	1,977,441
1932.....	1,306·30	560·02	123,672,220	2,213,081	125,885,301	642,831,002	1,509,561
1933.....	1,297·63	559·57	117,100,127	2,062,669	119,162,796	585,385,094	1,547,202
1934.....	1,286·16	557·14	117,678,030	2,357,595	120,035,625	595,143,903	1,939,833
1935.....	1,268·31	557·83	118,263,764	2,552,585	120,816,349	600,728,313	2,057,897
1936.....	1,247·09	552·77	119,779,505	2,465,384	122,244,889	614,890,897	2,265,023
1937.....	1,221·88	548·90	122,750,869	2,559,953	125,310,822	631,894,662	2,612,928
1938.....	1,154·50	538·66	123,201,830	2,221,392	125,423,222	629,778,738	2,151,309

28.—Passengers, Employees, and Others Killed or Injured on Electric Railways, 1929-38, with Totals from 1894 to June 30, 1929.

NOTE.—Details for years ended June 30, 1900-19, are given at p. 611 of the 1926 Year Book, and for the years ended 1920-28 at p. 667 of the 1938 Year Book.

Year.	Passengers.		Employees.		Others.		Totals.	
	Killed.	Injured	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
	No.	No.	No.	No.	No.	No.	No.	No.
Totals, 1894 to June 30, 1929....	**304**	**45,118**	**264**	**17,014**	**1,391**	**20,549**	**1,959**	**82,681**
1929.....	5	2,808	5	1,200	93	1,372	103	5,380
1930.....	8	2,790	6	1,003	50	1,269	64	5,062
1931.....	1	2,245	3	758	61	1,144	65	4,147
1932.....	3	2,098	2	565	74	879	79	3,542
1933.....	Nil	1,385	1	333	32	1,184	33	2,902
1934.....	4	1,666	2	279	49	734	55	2,679
1935.....	1	1,517	2	388	61	652	64	2,557
1936.....	Nil	1,503	2	280	41	651	43	2,434
1937.....	"	1,566	2	364	43	679	45	2,609
1938.....	1	1,712	1	314	34	605	36	2,631

Section 3.—Express Companies.*

"Express service is an expedited freight service on passenger trains"; but express companies do not own the means of performing their services; they use railway facilities by virtue of contracts with the railway companies. Express companies in Canada have had close relations with the railways practically from the beginning. A brief history of the various express companies will be found at pp. 611-612 of the 1926 Year Book.

Goods are sent by express for quick transit, so that express rates do not compete with freight rates. Thus in its first tariff the Dominion Express Co., in pursuance of its contract with the Canadian Pacific Railway, gave a rate of 2½ times the maximum first-class railway freight rate for the same goods carried the same distance. The majority of the contracts between express and railway companies for carrying express freight are on the basis of a percentage of the gross express revenue. The rates are subject to the approval of the Board of Transport Commissioners.

Express Company Operations.—During 1938, three Canadian and one American express organizations operated in Canada. The Canadian Pacific Express Co., formerly the Dominion Express Co., is a subsidiary of the Canadian Pacific Railway and handles the express business on the railways and the inland and ocean

* Revised and checked by G. S. Wrong, B.Sc., Chief of the Transportation and Public Utilities Branch of the Dominion Bureau of Statistics. This Branch issues an annual report on "Express Statistics"

steamship lines of the parent company. The express business of the Canadian National system and Northern Alberta Railway is handled by departments of the respective railways. The Railway Express Agency, Inc., operates over the Canadian sections of United States railways and over the route from Skagway to points in Yukon. These companies are all organized under powers conferred by Acts of the Dominion Parliament and their business consists in the expeditious shipment of valuable live stock, and such perishable commodities as fresh fish, fruit, etc., the forwarding of parcels and baggage, and the issue of money orders, travellers cheques, letters of credit, and other forms of financial paper. No statistics are available regarding the volume of traffic carried by express. Much of the traffic, of course, consists of parcels and small lots which would make statistical classification and measurement very difficult. However, there is also an important movement in car lots of live stock, fresh fish, fruit, vegetables, and other perishable commodities.

In the following tables the amounts paid by express companies to the carriers, i.e., railways, steamship lines, etc., for transporting the express matter, are shown under the heading "Express Privileges". Of the total of 65,024 miles operated in 1938, 42,048 were over steam railways, 275 over electric railways, 16,712 on ocean steamship services (mainly by the Canadian Pacific lines), 4,712 miles on inland or coastal steamboat routes, 435 by aircraft, and 842 miles over highways by motor trucks.

29.—Revenues and Expenses of Express Companies, 1929-38.

NOTE.—Corresponding figures for the years ended June 30, 1911-18, are given at p. 673 of the 1927-28 Year Book, and for the years 1919-28 at p. 669 of the 1938 edition.

Year.	Gross Earnings.	Operating Expenses.	Express Privileges.	Net Operating Revenues.
	$	$	$	$
1929	27,758,385	13,480,028	13,598,575	679,782
1930	24,352,181	12,759,439	12,380,060	−787,318
1931	20,115,285	11,292,957	10,909,184	−2,086,856
1932	16,870,806	9,479,802	7,307,980[1]	83,024
1933	15,226,015	8,497,892	6,605,225	122,898
1934	16,206,171	8,473,601	7,268,616	463,954
1935	16,592,746	8,960,675	7,352,913	279,158
1936	17,169,315	9,414,746	7,478,874	275,695
1937	17,937,567	9,878,443	7,749,711	309,413
1938	17,674,477	10,325,329	7,417,127	−67,979

[1] Decrease due in part to revision of basis of payment by Canadian Pacific Express Co.

30.—Revenues, Expenses, and Operating Mileage of Express Companies, by Companies, 1937 and 1938.

Year and Company.	Gross Earnings.	Operating Expenses.	Express Privileges.	Net Operating Revenues.	Mileage Operated.
1937.	$	$	$	$	miles.
Canadian National Railways	9,069,258	4,893,525	4,036,020	139,712	24,141
Canadian Pacific Express	8,256,260	4,704,899	3,412,607	138,754	33,211
Northern Alberta Railways	134,046	43,081	73,300	17,665	928
Railway Express Agency	478,003	236,937	227,784	13,282	4,354
Totals, 1937	**17,937,567**	**9,878,442**	**7,749,711**	**309,413**	**62,634**
1938.					
Canadian National Railways	8,642,605	5,053,354	3,829,366	−240,115	24,132
Canadian Pacific Express	8,433,444	4,972,612	3,311,802	149,030	35,638
Northern Alberta Railways	116,639	43,460	62,812	10,367	928
Railway Express Agency	481,789	255,903	213,147	12,739	4,326
Totals, 1938	**17,674,477**	**10,325,329**	**7,417,127**	**−67,979**	**65,024**

31.—Business Transacted by Express Companies in Financial Paper, 1934-38.

Description.	1934.	1935.	1936.	1937.	1938.
	$	$	$	$	$
Money orders, domestic	40,115,447	44,560,510	52,581,553	56,083,053	58,052,764
Money orders, foreign	431,533	502,438	577,720	734,558	
Travellers cheques, domestic	3,352,438	2,997,849	3,150,798	3,400,957	4,292,133
Travellers cheques, foreign	952,267	1,186,495	1,593,840	1,518,306	
"C.O.D." cheques	4,649,004	4,839,649	5,007,286	5,182,043	5,222,586
Telegraphic transfers	252,457	249,173	212,860	206,838	251,406
Other forms	481,750	492,967	424,863	397,527	357,703
Totals	**50,234,896**	**54,829,081**	**63,548,920**	**67,523,282**	**68,176,592**

PART III.—ROAD TRANSPORTATION.*

Since the recent development of highways in Canada has been almost exclusively for the purpose of providing roadbed for motor-vehicle traffic, highways and motor vehicles are treated as related features of transportation, After an introductory section, which briefly summarizes provincial regulations regarding motor vehicles and motor traffic, the whole subject of road transportation is dealt with under the headings of facilities, finances, and traffic, similar to the treatment of other forms of transportation.

Section 1.—Provincial Motor Vehicle and Traffic Regulations.†

NOTE.—In this Section, it is obviously impossible to include the great mass of detailed regulations in force in each province. The purpose in view is to provide only the more important general information. The sources of information for detailed regulations for specific provinces are given at pp. 663-664. See also "The Highway and Motor Vehicle in Canada", an annual bulletin published by the Dominion Bureau of Statistics and obtainable from the Dominion Statistician, price 25 cents.

General.—The licensing of motor vehicles and the regulation of motor-vehicle traffic lies within the legislative jurisdiction of the Provincial Governments in Canada. Regulations that apply in all the provinces may be summarized as follows:—

Operators Licences.—The operator of a motor vehicle must be over a specified age (usually 16 years) and must carry a licence, obtainable only after prescribed qualification tests and renewable annually. Special licences are required for chauffeurs.

Motor-Vehicle Regulations.—In general, all motor vehicles and trailers must be registered annually, with the payment of specified fees, and must carry two registration plates, one on the front and one on the back of the vehicle (one only, for the back, in the case of trailers). A change in ownership of the vehicle must be recorded with the registration authority. However, exception from registration is granted for a specified period (usually at least 90 days) in any year to visiting private vehicles registered in another province or a State that grants reciprocal

* Except as otherwise indicated, the material in this Part has been revised by G. S. Wrong, B.Sc., Chief of the Transportation and Public Utilities Branch of the Dominion Bureau of Statistics.

† The information in this Section has been revised from material provided by the officials in charge of the administration of Motor Vehicle and Traffic Acts and Regulations in the individual provinces.

treatment. Further regulations require a safe standard of efficiency in the mechanism of the vehicle and in its brakes, and provide for its equipment with non-glare headlights and a proper rear light, with a satisfactory locking device, a muffler, a windshield wiper, and a rear-vision mirror.

Traffic Regulations.—In all the provinces, vehicles keep to the right-hand side of the road. Everywhere motorists are required to observe traffic signs, lights, etc., placed at strategic points on highways and roads. While permissible speeds vary in different provinces, slower speeds are always required in cities, towns, and villages, in passing schools and public playgrounds, at road intersections, railway crossings, or at other places or times where the view of the highway for a safe distance ahead is in any way obscured. Motor vehicles must not pass a street car that has stopped to take on or discharge passengers except where safety zones are provided. Accidents resulting in personal injury or property damage must be reported to a provincial or municipal police officer and any driver involved must not leave the scene of accident until he has rendered all possible aid.

Penalties.—These ascend in scale from small fines for minor infractions of any of the regulations to a suspension of the operator's driving permit, impounding of the car or imprisonment for serious infractions, recklessness, driving without an operators licence, and especially for attempting, while intoxicated, to operate a motor vehicle.

There is such wide variation in the different provinces regarding the basis of licences and fees, the regulation of public commercial vehicles, details of traffic rules, speed, and the use of motor vehicles, that it is impossible even to outline them satisfactorily in the space available here. The most important features are summarized in the annual bulletin referred to in the headnote to this Section, p. 662. The authorities responsible for the administration of motor vehicles and the legislation governing vehicles and traffic are given below for each province.

Prince Edward Island.—*Administration.*—The Provincial Secretary, Charlottetown. *Legislation.*—The Highway Traffic Act (c. 2, 1936) and amendments.

Nova Scotia.—*Administration.*—Motor Vehicle Branch, Department of Highways and Public Works, Halifax. *Legislation.*—The Motor Vehicle Act (c. 6, 1932) and amendments and the Motor Carrier Act (c. 78, R.S.N.S. 1923) as amended by c. 29, 1937.

New Brunswick.—*Administration.*—Motor Vehicle Division, Department of Public Works, Fredericton. *Legislation.*—The Motor Vehicle Act (c. 20, 1934).

Quebec.—*Administration.*—Motor Vehicle Bureau, Provincial Revenue Offices, Treasury Department, Quebec. *Legislation.*—The Motor Vehicle Act (c. 35, R.S.Q. 1925) and amendments.

Ontario.—*Administration.*—Motor Vehicles Branch, Department of Highways, Toronto. *Legislation.*—The Highway Traffic Act. (c. 288, R.S.O. 1937) and amendments.

Manitoba.—*Enforcement.*—Attorney General. *Registrations.*—Treasurer, Revenue Office, Winnipeg. *Legislation.*—The Highway Traffic Act (c. 19, 1930) and amendments.

Saskatchewan.—*Administration.*—Provincial Tax Commission, Highway Traffic Board, Revenue Building, Regina. *Legislation.*—The Vehicles Act (c. 83 1939).

Alberta.—*Administration.*—Motor Vehicle Branch, Department of the Provincial Secretary, Edmonton, and Alberta Highway Traffic Board, Edmonton. *Legislation.*—The Vehicles and Highway Traffic Act (c. 31, 1924) and amendments, and Public Service Vehicles Act (c. 91, 1936).

British Columbia.—*Legislation.*—The Motor Vehicle Act (c. 195, R.S.B.C. 1935), and the Highway Act (c. 116, R.S.B.C. 1935) and amendments thereto, as well as the Motor Carrier Act (c. 36, R.S.B.C. 1939). Administration and enforcement of the Motor Vehicle Act and enforcement of the Highway Act and Motor Carrier Act is vested in the Commissioner of Provincial Police, Victoria, B.C., while the Highway Act is administered by the Minister of Public Works, Victoria, B.C., and the Motor Carrier Act by the Public Utilities Commission, Victoria, B.C.

Yukon.—*Administration.*—Territorial Secretary, Dawson, Yukon. Information regarding regulations may also be obtained from the Lands, Parks, and Forests Branch, Department of Mines and Resources, Ottawa. *Legislation.*—The Motor Vehicle Ordinance, No. 14, 1914, and amendments.

Section 2.—Roads and Vehicles.

The facilities for road transportation are dealt with in two subsections devoted, respectively, to roads and highways and to motor vehicles.

Subsection 1.—Roads and Highways.

Historical.—A brief description of the early colonization roads in Canada is given at p. 733 of the 1934-35 Year Book.

Recent Highway Development.—With the rapid increase in the percentage of motor-car owners to population (see pp. 665-666) the demand for improved roads has become more and more insistent since the War of 1914-18. Furthermore, the advantages to be gained by attracting touring motorists have been a powerful incentive to governing bodies to improve trunk roads and scenic highways within their jurisdictions. One sphere where the motor-car has been of special economic advantage has been in rural areas, where its speed and economy are a great improvement over the old horse-drawn vehicle. As a result, in the Census of 1931 every second farm reported a farm-owned motor vehicle (1·96 farms per farm-owned motor vehicle). This widespread rural ownership of automobiles has, in turn, brought about an improvement of secondary rural roads.

The table of road mileages, p. 665, includes all roads under provincial jurisdiction and local roads in the Maritime Provinces and Ontario and estimates of local roads in the four western provinces. There are great stretches of country in the northern portions of Quebec, Ontario, the Prairie Provinces, and British Columbia with very few people and very few roads, but the southern portions are well supplied. The Trans-Canada Highway is now under construction, running from the Atlantic to the Pacific Oceans entirely in Canadian territory.

Statistics of urban streets have been collected since 1935 from cities and principal towns; the small municipalities omitted would increase the totals very little. For 1938 the total number of miles of street reported was 12,877, composed of: 2,304 miles of sheet asphalt; 900 miles of portland cement concrete; 1,444 miles of bituminous macadam, concrete, and other bituminous surfaces; 567 miles of water-bound macadam; 2,617 miles of gravel and crushed stone; and 807 miles of other surfaces; making a total of 8,639 miles of surfaced streets and 4,238 miles of earth roads. These figures for urban streets or roads are not included in the table of highway mileage.

1.—Classification of Highway Mileage, by Provinces.

NOTE.—The date for which the mileage was reported is indicated for each province. The figures for Canada are the sums of the mileages so reported. Urban streets are not included in the figures.

Classification.	P.E.I. Dec. 31, 1937.	N.S. Nov. 30, 1938.	N.B. Oct. 31, 1938.	Que. June 30, 1938.	Ont. [1]	Man. Apr. 30, 1939.	Sask. Mar. 31, 1939.	Alta. Mar. 31, 1939.	B.C. Mar. 31, 1938.	Total.
	miles.	miles.	miles.	miles.	miles.	miles.	miles.	miles.	miles.	miles.
SURFACED ROAD.										
Sheet asphalt	[2]	[2]	[2]	[2]	4	6	[2]	[2]	[2]	10[3]
Portland cement concrete	4	[2]	[2]	192	1,997	7	[2]	[2]	43	2,243[3]
Bituminous concrete	63	709	797	1,167	816	335	[2]	67	68	4,022[3]
Bituminous macadam	[2]	60	[2]	196	1,757	[2]	[2]	5	47	2,065[3]
Bituminous mulch	[2]	25	[2]	[2]	35	[2]	151	18	470	699[3]
Bituminous spraycoat	[2]	[2]	[2]	892	353	49	5	392	628	2,319[3]
Retread	[2]	9	[2]	[2]	311	[2]	[2]	[2]	[2]	320[3]
Water-bound macadam	[2]	[2]	[2]	1,246	[2]	[2]	[2]	[2]	[2]	1,246[3]
Gravel, crushed stone	205	4,974	6,868	14,825	49,196	7,701	3,468	2,899	6,527[4]	96,663
Sand clay, stabilized gravel	[2]	[2]	[2]	[2]	910	10	[2]	86	[2]	1,006[3]
Wood or granite block, brick	5	[2]	[2]	[2]	[2]	[2]	[2]	[2]	39	44[3]
TOTALS, SURFACED ROAD	277[3]	5,777[3]	7,665[3]	18,518[3]	55,379[3]	8,108[3]	3,624[3]	3,467[3]	7,822[3]	110,637[3]
EARTH ROAD.										
Improved earth	2,215	3,675	2,565	16,609	16,527	8,268	148,054	87,742	9,988	295,643
Unimproved earth	1,158	5,549	1,792	[2]	668	15,000[4]	61,285	1,402	2,604	89,458[3]
TOTALS, EARTH ROAD	3,373	9,224	4,357	16,609[3]	17,195	23,268	209,339	89,144	12,592	385,101[3]
Grand Totals	**3,650[3]**	**15,001[3]**	**12,022[3]**	**35,127[3]**	**72,574[3]**	**31,376[3]**	**212,963[3]**	**92,611[3]**	**20,414[3]**	**495,738[3]**

[1] Provincial, Mar. 31, 1939; municipal, Dec. 31, 1938. [2] None reported. [3] Incomplete, see footnote 2. [4] Includes some water-bound macadam.

Subsection 2.—Motor Vehicles.

Registration.—The average population per vehicle registered was 8·1 in 1938. Canada ranked fourth in this respect, the United States being first with 4·4. On the basis of the total registration of 1,394,853, only four countries had larger numbers in 1938, viz., United States, United Kingdom, France, and Germany.

2.—Motor Vehicles Registered in Canada, by Provinces, 1929-38.

NOTE.—Registrations given here include passenger cars, trucks, buses, motorcycles, service cars, etc., but not trailers or dealer licences. Figures for the years 1904-28 are given at p. 668 of the 1937 Year Book.

Year.	P.E. Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Total.[1]
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1929	6,116	39,972	31,736	169,105	540,207	77,259	128,426	98,720	95,571	1,187,331
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	91,275	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	89,369	92,021	1,129,532
1935	8,231	43,952	31,217	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

[1] Includes registration in Yukon.

3.—Types of Motor Vehicles Registered in Canada, by Provinces, 1937 and 1938.

Province.	Passenger Cars.[1]	Commercial Cars or Trucks.[2]	Motor Buses.	Motor-cycles.	Total.
1937.	No.	No.	No.	No.	No.
Prince Edward Island	6,993	992	5	21	8,011
Nova Scotia	39,900	9,773	72	303	50,048
New Brunswick	29,937	6,577	92	174	36,780
Quebec	161,317	33,429	645	2,526	197,917
Ontario	541,802	76,714	820	4,582	623,918
Manitoba	65,747	14,300	173	640	80,860
Saskatchewan	83,905	20,597	75	487	105,064
Alberta	81,713	18,080	94	547	100,434
British Columbia	91,549	22,639	340	1,813	116,341
Yukon	149	167	4	9	329
Totals, 1937	**1,103,012**	**203,268**	**2,320**	**11,102**	**1,319,702**
1938.					
Prince Edward Island	6,840	1,125	5	22	7,992
Nova Scotia	40,876	9,978	88	272	51,214
New Brunswick	30,257	6,557	100	196	37,110
Quebec	166,447	35,641	708	2,667	205,463
Ontario	580,364	82,634	884	5,206	669,088
Manitoba	71,450	16,055	[3]	714	88,219
Saskatchewan	83,635	24,795	74	510	109,014
Alberta	85,244	21,221	121	605	107,191
British Columbia	94,346	23,005	[4]	1,869	119,220
Yukon	145	180	5	12	342
Totals, 1938	**1,159,604**	**221,191**	**1,985**	**12,073**	**1,394,853**

[1] Includes taxicabs. [2] Includes tractors, road machines, flushers, municipal fire engines, etc.
[3] Included with passenger cars. [4] Included with commercial cars or trucks.

Apparent Consumption of Automobiles in Canada.—The apparent consumption of automobiles in Canada in any year may be computed by deducting the number exported from the sum of the production and imports.

4.—Apparent Consumption of Automobiles in Canada, 1926-38.

NOTE.—Figures for the years 1917-25 will be found at p. 673 of the 1938 Year Book.

Year.	Production.	Imports.	Total Supply.	Exports.	Re-Exports.	Total Exports.	Apparent Consumption.
	No.	No.	No.	No.	No.	No.	No.
1926	204,727	28,544	233,271	74,324	370	74,694	158,577
1927	179,054	36,630	215,684	57,414	438	57,852	157,832
1928	242,054	47,408	289,462	79,388	467	79,855	209,607
1929	262,625	44,724	307,349	101,711	671	102,382	204,967
1930	153,372	23,233	176,605	44,553	818	45,371	131,234
1931	82,559	8,738	91,297	13,813	726	14,539	76,758
1932	60,789	1,449	62,238	12,534	488	13,022	49,216
1933	65,852	1,781	67,633	20,403	497	20,900	46,733
1934	116,852	2,905	119,757	43,368	399	43,767	75,990
1935	172,877	4,111	176,988	64,330	291	64,621	112,367
1936	162,159	9,903	172,062	55,570	267	55,837	116,225
1937	207,463	20,069	227,532	65,867	276	66,143	161,389
1938	166,086	15,154	181,240	57,767	142	57,909	123,331

Prior to 1925 the figures do not show a pronounced trend but between 1925 and 1929 they increased substantially. From 1929 to 1932 the decrease was rapid and continuous but was practically halted in 1933, in which year production showed some improvement but mainly on account of the export demand. In 1938 the apparent consumption showed a decrease of 38,058 from the figure for 1937. Statistics regarding retail sales and sales financing of motor vehicles in Canada appear at pp. 622-624 of this volume.

Section 3.—Finances of Road Transportation.

The cost of road transportation to the people of Canada might be summarized under the following headings: expenditures on roads and highways; expenditures of individuals and corporations on owned motor vehicles; and expenditures for freight and passenger services rendered by motor-vehicle public carriers such as taxi, bus, and motor transport companies. Since expenditures on roads and highways are made almost entirely by governmental bodies, fairly complete statistics are available regarding them, but, owing to the tremendous number of individuals and organizations that would have to be canvassed and the difficulties involved, complete statistics are not available under the other two headings.

At p. 665 of the 1939 Year Book an estimate is given of the value of motor vehicles in use in Canada in the year 1937. The expenditure for the purchase of new motor vehicles is given in this volume in the chapter on Internal Trade at p. 623, and sales of gasoline are given at p. 671.

Since no statistics are available regarding the earnings of motor transport and bus companies, it is impossible to make an estimate of the annual expenditure for the services provided by these public carriers.

Expenditures on Roads and Highways.—Roads in Canada, except in the Territories and the National Parks, are under the jurisdiction of provincial and municipal authorities. The Dominion Bureau of Statistics has completed a compilation of expenditures on highways, bridges, ferries, and foot-paths, for the period 1919-37. This compilation includes expenditures by the Dominion on roads, bridges, etc., in the National Parks, and by the provinces and by rural municipalities in Ontario on unemployment road projects. It also covers the bulk of the expenditures on rural roads and on bridges and ferries, which are links in the road systems. The present extensive provincial highway systems have been developed almost entirely since the War of 1914-18 to meet the requirements of motor traffic. However, old gravel and water-bound macadam roads formed foundations in many places for new concrete and bituminous surfaces.

The total expenditures during these nineteen years were: for construction $780,571,155, and for maintenance $326,401,275, expenditures for plant and general items being divided between construction and maintenance on a *pro rata* basis, where not allocated by the authorities. A table at p. 666 of the 1939 Year Book summarizes these expenditures on roads for the whole period 1919-37; Table 5, p. 668, shows such expenditures during recent individual years.

5.—Capital, Maintenance, and General Expenditures on Rural Highways in Canada, by Provinces, 1934-38.

NOTE.—Provincial expenditures are for their respective fiscal years ended on the dates indicated in Table 1, p. 665.

Province.	1934.	1935.	1936.	1937.	1938.
	CAPITAL EXPENDITURES.				
	$	$	$	$	$
Prince Edward Island	226,863	998,067	[1]	399,643	1,231,596
Nova Scotia	1,293,410	5,133,188	6,587,411	7,852,858	4,904,250
New Brunswick	1,226,990	3,780,587	5,732,915	10,142,464	9,481,055
Quebec	6,555,148	6,466,134	8,033,000	5,906,126	14,951,864
Ontario	34,339,626	20,769,357	8,965,720	36,582,390	35,861,572
Manitoba	215,965	150,724	2,991	94,723	1,942,532
Saskatchewan	1,054,220	468,623	1,506,231	2,275,589	2,464,988
Alberta	1,106,891	2,052,858	1,399,544	1,638,236	1,980,768
British Columbia	125,182	2,619,022	2,739,104[2]	4,573,125	3,901,943
Totals	**46,144,295**	**42,438,560**	**34,966,916**[3]	**69,465,154**	**76,720,568**
	MAINTENANCE EXPENDITURES.				
	$	$	$	$	$
Prince Edward Island	315,476	443,542	[1]	289,088	253,679
Nova Scotia	1,804,066	1,734,352	1,893,637	1,839,592	1,983,145
New Brunswick	925,082	1,390,057	714,445	1,131,365	1,169,406
Quebec	3,571,805	3,921,273	5,022,914	4,700,740	5,482,535
Ontario	7,901,232	7,565,839	5,836,251	9,503,604	9,639,509
Manitoba	483,806	452,040	420,551	520,629	668,171
Saskatchewan	1,556,862	1,208,051	1,079,306	830,749	890,623
Alberta	798,586	1,164,032	1,154,391	1,314,907	1,417,803
British Columbia	1,657,673	3,837,524	4,013,475[2]	2,299,532	2,460,106
Totals	**19,014,588**	**21,716,770**	**20,134,970**[3]	**22,430,206**	**23,964,977**
	PLANT AND GENERAL EXPENDITURES.				
	$	$	$	$	$
Prince Edward Island	18,851	31,095	[1]	36,884	113,488
Nova Scotia	50,699	Nil	5,000	160,106	198,140
New Brunswick	100,238	"	Nil	72,643	77,509
Quebec	675,383	1,401,587	1,679,603	920,795	1,290,000
Ontario	706,441	866,459	360,529	1,487,196	1,050,868
Manitoba	21,914	88,130	88,130	107,357	125,311
Saskatchewan	138,108	135,056	77,234	98,298	187,999
Alberta	17,500	40,938	26,747	33,441	29,982
British Columbia	138,243	184,393	192,849[2]	208,732	104,949
Totals	**1,867,377**	**2,747,658**	**2,430,092**[3]	**3,125,452**	**3,178,246**
	DOMINION-PROVINCIAL DISTRIBUTION OF ALL EXPENDITURES.				
	$	$	$	$	$
Dominion—net expenditures and subsidies	9,824,691	10,092,310	5,229,410	5,055,445	5,984,728
Provincial—net expenditures and subsidies	43,556,087	51,066,944	48,877,721	85,127,756	92,824,563
Municipal—net expenditures and subsidies	11,778,105	5,743,734	3,424,847	4,837,611	5,054,500

[1] No report. [2] Total expenditures divided between capital, maintenance, and general on 1935 basis. [3] Does not include Prince Edward Island.

Provincial Funded Debt Incurred for Highways.—By far the greater portion of the highway expenditures has been made by the provinces and consequently must be paid out of provincial taxes. Payment for much of the construction costs has been deferred and this has accounted for part of the rapid increase in provincial funded debt since 1919. In 1919 the net funded debt of all the provinces was $290,748,592; by 1938 it had increased to $1,626,251,367 (see Table 32, p. 869) and the portion chargeable to highways was $639,658,405 or more than double the net debt for all purposes in 1919. As already explained at p. 667, the provincial systems of modern motor roads have been developed almost entirely since 1919 and prior to that time the provincial expenditures on highways were relatively small.

6.—Provincial Government Funded Highway Debt and Annual Charges Thereon, 1936-38.

NOTE.—Provincial Governments report for their respective fiscal years ended on the dates indicated in Table 1, p. 665.

Province.	Highway Debt Outstanding.			Annual Interest, Sinking Fund, and Capital Payments.					
				1936.	1937.	1938.			
	1936.	1937.	1938.	Total.	Total.	Interest.	Sinking Fund.	Total Interest and Sinking Fund	Payment of Capital.
	$	$	$	$	$	$	$	$	$
P.E.I.	1,004,774[1]	767,636	[2]	86,000[1]	231,825	[2]	[2]	[2]	Nil
N.S.	33,980,000	49,674,625	59,129,853	1,348,625	1,939,333	2,067,199	203,249	2,270,448	"
N.B.	47,612,809	49,979,092	62,627,812	1,782,787	2,433,981	2,542,916	242,211	2,785,127	369,280
Que.	70,811,283	80,736,741	94,826,232	4,514,084	4,490,550	3,653,150	3,529,025	7,182,175	Nil
Ont.	224,639,350	258,770,555	291,647,936	13,630,543	12,938,528	14,582,397	[2]	14,582,397	"
Man.	17,794,182	17,794,182	18,050,417	884,795	938,255	840,896	[2]	840,896	"
Sask.	33,799,488	33,673,494	33,818,920	1,600,936	1,630,610	1,542,932	3,186	1,546,118	"
Alta.	37,025,514	37,025,514	39,701,159	1,150,514	1,062,155	1,100,890	[2]	1,100,890	"
B.C.	41,297,772	41,297,772	39,856,076	3,378,548	3,378,548	1,803,814	45,360	1,849,174	203,336
Totals	**507,965,172**	**569,719,611**	**639,658,405**	**28,376,832**	**29,043,785[3]**	**28,134,194**	**4,023,031[4]**	**32,157,225**	**572,616**

[1] 1934 data. [2] Not reported. [3] Less sinking fund payments in Ontario and Alberta. [4] Less Ontario, Manitoba, and Alberta; see footnote 2.

Provincial Government Revenue.—The taxation of motor vehicles, garages, chauffeurs, etc., is becoming an important source of Provincial Government income. In every province the following licences or permits, duly issued by the provincial authorities, are required: motor vehicles of all kinds, trailers (in all provinces except Alberta), operators or drivers, paid chauffeurs, dealers, garages, and gasoline and service stations. A sales tax on gasoline is also levied by each province. The more important sources from which provincial revenues from motor vehicles are derived are shown in Table 7. Dominion Government revenues from import duties, excise, and sales taxes are not included.

7.—Provincial Revenues from the Taxation of the Distribution and Operation of Motor Vehicles, 1937 and 1938.

NOTE.—See the headnote to Table 6.

Province.	Passenger Cars.	Trucks.	Motor-cycles.	Dealer Licences.	Operators and Chauffeurs.	Mileage Tax on Motor Buses and Trucks.	Gasoline Tax.	Total, Including Miscellaneous Revenue.
	$	$	$	$	$	$	$	$
1937.								
P.E. Island	101,352	34,589	116	620	4,443	529	269,232	414,122
Nova Scotia	776,029	425,243	1,789	7,511	112,406	370	2,006,489	3,419,530
New Brunswick	525,554	391,297	[1]	3,843	105,804	5,294	1,439,096	2,515,366
Quebec	3,189,079	1,750,040	9,600	31,186	1,124,140	110,713	7,078,230	13,673,199
Ontario	4,293,833	2,640,876	9,744	26,231	949,251	423,553	17,644,164	26,687,702
Manitoba	632,390	184,440	2,680	[1]	111,700	111,977	2,270,660	3,383,797
Saskatchewan	1,103,440	258,140	[1]	19,034	70,638	114,515	1,937,553	3,605,107
Alberta	1,304,092	440,939	2,739	24,417	150,718	204,619	2,610,211	4,799,366
British Columbia	1,819,669	629,881	10,053	16,445	200,953	1,599	3,118,312	5,866,275
Yukon	1,589	1,373	36	[2]	[2]	[2]	[2]	3,388
Totals, 1937	**13,747,027**	**6,756,818**	**36,757**[3]	**129.287**[3]	**2,830,053**	**973,169**	**38,373,947**	**64,367,852**
1938.								
P.E. Island	99,015	48,193	117	665	4,410	450	285,163	440,403
Nova Scotia	731,944	487,127	1,527	7,720	117,001	5,744	2,424,355	3,873,535
New Brunswick	545,959	421,100	1,126	22,072	105,546	8,684	1,807,493	2,962,953
Quebec	3,439,206	1,973,679	12,001	33,603	1,243,615	106,893	7,637,151	14,886,691
Ontario	3,790,332	2,405,903	4,790	23,411	952,304	407,369	18,503,789	26,694,330
Manitoba	684,164	230,461	2,883	11,082	118,745	58,537	2,529,088	3,688,218
Saskatchewan	1,022,250	211,959	[1]	17,933	78,877	146,200	1,822,689	3,518,079
Alberta	1,280,709	438,083	3,076	24,076	153,231	315,649	2,953,128	5,217,876
British Columbia	1,829,911	637,477	10,044	15,628	228,180	116,881	3,284,490	6,189,490
Yukon	1,565	1,455	48	[2]	[2]	[2]	[2]	3,470
Totals, 1938	**13,425,055**	**6,855,437**	**35,612**[3]	**156,190**	**3,001,909**	**1,166,407**	**41,247,346**	**67,475,045**

[1] Included with "Miscellaneous" [2] Tax not applicable. [3] Incomplete, see footnote 1.

Section 4.—Road Traffic.

Up to the present the motor vehicle has affected passenger traffic more than freight traffic of the steam and electric railways. This diversion of passenger traffic has been effected largely by the private automobile, although the motor bus is rapidly becoming more important and now operates between all large centres. The motor truck also carries a considerable amount of freight, although no statistics showing the tonnage handled are as yet available. The difficulties of collecting statistics from the very large number of unorganized operators concerned are obvious.

Widely differing opinions are held regarding the extent to which the motor vehicle has cut into railway traffic.* A definite conclusion cannot be reached until reliable statistics regarding motor-vehicle traffic are available. While undoubtedly the passenger motor vehicle now carries a certain amount of passenger traffic that would otherwise be carried by steam or electric railways, the error should be avoided

* Counsel for the railways before the Transport Committee of the Senate of Canada in 1938 presented arguments showing a serious loss of revenue by the railways from motor-vehicle competition. On the other hand, in *Automobile Facts and Figures, 1936*, published by the Automobile Manufacturers' Association, estimates of railway and motor traffic are given which, in the field of freight movement, rather minimize the seriousness of the motor-truck competition, if conditions of motor traffic in Canada may be assumed to be similar to those of the United States.

of considering all the passenger movement by motor vehicles as a loss to the railways. Much of that movement is due to the convenience and cheapness of motor-vehicle travel and would not take place at all under less favourable circumstances.

Similar considerations apply, to some extent, to freight moved by motor trucks. Part of the short-haul truck traffic has displaced the horse-drawn vehicle rather than the railway. Furthermore, traffic diverted from the railways to motor vehicles has been offset to some extent by new traffic for the railways created by the automobile industry, consisting of raw and finished products of manufacture, motor fuel and oil, and materials for construction and maintenance of roads suitable for motor travel.

On the other hand a phase of this new competition with railway transportation has been its effect on freight rates. The railway rate structure took into consideration the value of the goods handled, i.e., bulk and low-value commodities were carried at relatively low rates, while manufactured and high-class commodities were at higher rates, the difference in rates having little relation to the difference in costs of transportation. Such a structure allowed raw materials to be moved cheaply and the railways were compensated by higher rates on the finished commodities. The motor truck is changing this; the motor-truck operator carries these high-class commodities at rates closer to actual costs and does not attempt to carry raw materials except in special cases. His costs are reduced by a right-of-way being supplied for which he pays only a part of the cost and, if his rates are much above the actual cost, the manufacturer can quite easily supply his own transportation. Some branch lines of the railways are practically deserted except for a short time each year when snow interferes with motor-vehicle operation. Consequently, railway losses include both losses from freight diverted and also from reductions in rates for high-class freight in attempts to retain such traffic without compensating increases in low-class freight rates.

Gasoline Consumption.—All provinces require retail sales of gasoline to be reported and a tax is imposed on all gasoline consumed by motor vehicles using the highways and streets and also on that used for an increasing number of other purposes. However, the taxable gasoline is still largely consumed by motor vehicles and indicates in a general way the increase or decrease in the use of motor vehicles. Net sales are the differences between the total or gross sales reported and the quantities on which the tax is refunded in whole or in part, or on which the tax is not imposed at the time of sale.

8.—Sales of Gasoline in Canada, by Provinces, 1934-38.

Province.	1934.	1935.	1936.	1937.	1938.
	gal.	gal.	gal.	gal.	gal.
Prince Edward Island	2,639,856	2,832,750	3,088,910	3,420,163	3,631,360
Nova Scotia	20,016,109	22,274,254	25,247,957	29,159,361	29,632,787
New Brunswick	13,640,325	15,185,003	17,477,029	21,947,202	21,998,728
Quebec	93,511,483	102,177,506	109,835,482	128,394,645	135,026,866
Ontario	252,976,407	272,680,687	282,827,724	324,858,959	337,880,996
Manitoba	27,678,221[1]	28,448,689[1]	30,561,665[1]	34,635,432	38,596,582
Saskatchewan	36,784,519	39,166,282	45,966,233	46,278,251	65,090,674
Alberta	45,194,297	47,442,890	60,387,814	75,166,087	73,724,520
British Columbia	42,337,785	43,410,411	48,723,037[1]	54,567,327[1]	57,157,813
Totals, Gross Sales	**534,779,002[1]**	**573,618,272[1]**	**624,115,851[1]**	**718,427,427[1]**	**762,740,326**
Refunds	57,868,513	73,214,746	91,260,543	115,022,668[1]	130,722,877
Totals, Net Sales	**476,910,489[1]**	**500,403,526[1]**	**532,855,308[1]**	**603,404,759**	**632,017,449**

[1] Revised since the publication of the 1939 Year Book.

Motor-Vehicle Accidents.—Motorists are required to report accidents but comprehensive statistics are not available for all provinces. The Vital Statistics Branch of the Bureau of Statistics compiles statistics on all deaths from motor-vehicle accidents and these are shown in Table 9. A direct comparison of such statistics between the provinces is of little value due to differences in size, population, motor-vehicle density, etc., but, to put them on somewhat the same basis, the average number of deaths per 10,000 registered motor vehicles has also been tabulated. These data still give no weight to differences in use of motor vehicles, differences in climate, roads, tourist cars, etc., all of which are factors in accidents.

Table 10 shows the numbers of persons killed or injured in automobile accidents as reported by the motor-vehicle branches of the Provincial Governments. It is quite possible that the latter reported some persons as injured who subsequently died from the injuries and these would be included in the fatalities of the vital statistics shown in Table 9; also accidents that occurred late in December and resulted in deaths would be charged to December by the provincial authorities but to January of the next year in the vital statistics. Consequently, these data do not agree.

9.—Deaths Resulting from Motor-Vehicle Accidents in Canada, by Provinces, 1926-38.

NOTE.—Statistics in this table are compiled by the Vital Statistics Branch, Dominion Bureau of Statistics.

Year.	P.E. Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Total.
	DEATHS.									
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1926	1	28	11	183	242	27	21	33	60	606
1927	2	31	25	252	387	32	24	35	77	865
1928	2	40	31	279	437	53	74	75	91	1,082
1929	1	61	47	323	556	68	56	71	117	1,300
1930	10	54	72	338	517	60	51	77	111	1,290
1931	5	49	45	355	574	60	50	67	111	1,316
1932	1	51	49	311	497	42	35	49	85	1,120
1933	2	47	22	256	416	38	32	64	78	955
1934	5	41	52	275	528	41	30	61	82	1,115
1935	2	57	40	314	571	53	40	45	102	1,224
1936	7	60	41	371	564	53	47	72	101	1,316
1937	7	97[1]	67	405	774	66	47	55	124	1,642[1]
1938	6	75	58	413	677	80	49	77	110	1,545
	DEATHS PER 10,000 REGISTERED MOTOR VEHICLES.									
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1926	2·89	10·82	5·11	16·89	6·23	4·67	2·16	5·03	8·82	7·23
1927	4·56	10·31	10·19	19·62	8·87	5·01	2·25	4·74	9·92	9·15
1928	3·68	11·39	11·00	18·79	8·90	7·45	6·08	8·40	10·25	10·05
1929	1·63	15·30	14·76	19·05	10·12	8·74	4·30	7·12	11·23	10·82
1930	13·51	12·54	20·67	18·89	9·16	7·57	3·93	7·50	11·22	10·40
1931	6·46	11·20	13·38	19·77	10·21	7·94	4·61	7·00	11·33	10·96
1932	1·43	12·39	17·47	18·77	9·35	5·87	3·83	5·64	9·34	10·05
1933	2·88	11·62	8·20	16·00	8·00	5·53	3·78	7·43	8·81	8·82
1934	6·94	9·78	17·87	16·62	9·74	5·82	3·28	6·83	8·91	9·82
1935	2·43	12·97	12·81	18·40	10·12	7·50	4·21	4·79	10·47	10·42
1936	9·17	12·99	12·27	20·43	9·56	7·07	4·60	7·39	9·52	10·61
1937	8·73	19·38[1]	18·22	20·46	12·41	8·16	4·47	5·48	10·66	12·44[1]
1938	7·51	14·64	15·63	20·10	10·12	9·07	4·49	7·18	9·23	11·08

[1] Revised since the publication of the 1939 Year Book.

10.—Persons Killed or Injured in Motor-Vehicle Accidents, Showing Status of Person, 1938.

NOTE.—Statistics in this table are as reported by Provincial motor-vehicle authorities for the calendar year.

Item.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total.
Accidents.										
Fatal—										
Resulting in death of one or more persons	6	[1]	[1]	357	580	78	33	[1]	89	1,143[2]
Non-fatal—										
Resulting in injury to one or more persons	314	[1]	[1]	4,413	8,547	1,657	486	[1]	1,844	17,261[2]
Resulting in property damage only	[1]	[1]	[1]	4,798	4,588	1,507	631	[1]	3,140	14,664[2]
Totals, Accidents	**320**	**2,206**	**1,040**	**9,568**	**13,715**	**3,242**	**1,150**	**4,620**	**5,073**	**40,934[2]**
Persons Killed.										
Pedestrians	3	21	[1]	205	259	43	5	[1]	43	579[2]
Motorcyclists (drivers and passengers)	[1]	[1]	[1]	7	12	[1]	[1]	[1]	3	22[2]
Drivers of other motor vehicles	[1]	[1]	[1]	152	120	12	10	[1]	21	572[2]
Passengers and attendants of other motor vehicles	1	[1]	[1]		203		26	[1]	27	
Occupants of horse-drawn vehicles	2	[1]	[1]	11	3	1	[1]	[1]	2	19[2]
Pedal cyclists	[1]	3	[1]	27	43	8	[1]	[1]	6	87[2]
Others	[1]	2	[1]	[1]	[1]	6	2	[1]	[1]	10[2]
Totals, Persons Killed	**6**	**77[3]**	**55**	**402**	**640**	**70**	**43**	**52**	**102**	**1,447[2]**
Persons Injured.										
Pedestrians	[1]	281[2]	184	2,331	3,361	619	74	[1]	616	7,466[2]
Motorcyclists (drivers and passengers)	[1]	[1]	[1]	146	233	37	7	[1]	103	526[2]
Drivers of other motor vehicles	[1]	[1]	[1]	2,547	2,250	383	214	[1]	450	12,121[2]
Passengers and attendants of other motor vehicles	[1]	[1]	394		4,403		491	[1]	989	
Occupants of horse-drawn vehicles	[1]	[1]	55	189	138	29	20	[1]	13	2,941[2]
Pedal cyclists	[1]	33[2]		551	1,298	294	30	[1]	291	
Others	[1]	[1]	[1]	[1]	[1]	27	11	[1]	2	40[2]
Totals, Persons Injured	**[1]**	**1,088**	**633**	**5,764**	**11,683**	**1,389**	**847**	**717**	**2,464**	**24,585[2]**

[1] Not reported. [2] Incomplete, see footnote 1. [3] Includes two fatalities resulting from non-highway accidents.

PART IV.—WATERWAYS.*

Under this heading the statistics relating to shipping, aids to navigation, canals, and harbours are brought together because they are all essential and integral parts of the facilities for water-borne traffic; these facilities work together to promote the expeditious handling of the same freight without reference to transhipment which

* Information and statistics dealing with this subject have been supplied as follows: aids to navigation, harbours, administrative services, and Government merchant marine, by the Department of Transport and the National Harbours Board; graving docks and part of the financial statistics, by the Department of Public Works; Panama Canal, by the Governor of the Panama Canal Zone; other canal traffic, and statistics of shipping, by the Transportation and Public Utilities Branch, Dominion Bureau of Statistics.

may or may not be necessary to overcome intervening obstacles. Under this form of treatment all the facilities for water-borne traffic are first presented, then the cost or other available financial statistics and, finally, figures that give some indication of the traffic handled. The general aim is to present a balanced picture of water transportation so far as the data permit.

The Canada Shipping Act.—Legislation regarding all phases of shipping was consolidated under the Canada Shipping Act (c. 44, 1934). The Act was a sequel to the passage of the Statute of Westminster in 1931, under which the Parliament of Canada accepted full responsibility for the regulation of Canadian shipping. The Canada Shipping Act was a comprehensive piece of legislation and constituted, in fact, the incorporation in the shipping law of Canada of features of international agreements and of British and previous Canadian legislation. A brief summary of the Act is given at pp. 681-683 of the 1938 Year Book.

Section 1.—Equipment and Facilities.

The developments and equipment to facilitate water traffic are classified under the sub-headings of shipping, aids to navigation and miscellaneous works, canals, and harbours. A subsection is added giving figures of administrative activities regarding the pilotage service, steamship inspection, personnel, and accidents to shipping.

Subsection 1.—Shipping.

Although a large part of the water-borne traffic, especially inland and coastwise, is carried in ships of Canadian registry, the commerce of the Dominion is by no means entirely dependent upon Canadian shipping since all waterways, including canals, and inland lakes and rivers, are open upon equal terms, except in the case of the coasting trade, to the shipping of all countries of the world.

Canadian Registry.—Under Part I of the Canada Shipping Act, every ship that falls under the definition of "British ship" given in Sect. 6 of the Act and is controlled as to management and use in Canada, must, unless registered elsewhere in the Empire, be registered in Canada. An exception is made in the case of ships not exceeding 10 tons register and engaged solely in coastal or inland navigation. A ship (whatever her qualification for British registry) that is not registered in any part of His Majesty's dominions, is not entitled to the privileges accorded to British ships. Vessels about to be built *may* be recorded, and vessels being built or equipped *must* be recorded, by a registrar of British ships under the Act. The procedure for the registration in Canada of British ships and the issuance of certificates is covered in Sects. 9-36. Sects. 64-70 govern the registry of alterations (or the registering anew if such be required) and lay down penalties for non-compliance with the requirements. The conditions governing transfer of registry are also laid down.

For a record of the number and tonnage of ships engaged in the carrying trade of Canada, see the tables under Section 3 (pp. 692-695) of this Part of the chapter. The tables are included there under traffic statistics because they relate more directly to traffic and services than merely to the shipping available. For an account of the shipping services operated by the Dominion Government, see pp. 682-686.

1.—Numbers and Net Tonnages of Vessels on the Registry of Shipping of Canada, by Provinces, as at Dec. 31, 1934-38, Together with Details of Tonnage Statistics, 1938.

NET REGISTERED TONNAGES, 1934-38.

Province.	1934.		1935.		1936.		1937.		1938.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
P.E. Island	140	11,060	140	11,077	143	11,248	102	9,891	91	8,991
Nova Scotia	1,391	99,860	1,434	99,115	1,513	94,654	1,616	89,921	1,570	79,341
New Brunswick	1,061	43,911	1,025	42,530	1,003	44,447	1,078	44,960	891	38,465
Quebec	1,291	463,591	1,312	460,313	1,393	457,229	1,255	445,031	1,146	427,591
Ontario	1,772	418,167	1,777	421,203	1,773	420,211	1,588	401,463	1,328	389,101
Manitoba	114	11,943	87	8,157	131	8,169	83	7,726	87	8,416
Saskatchewan	5	397	5	397	5	397	3	240	2	201
British Columbia	3,086	341,650	3,096	241,372	3,394	325,537	3,165	324,177	3,068	319,545
Yukon	17	5,074	18	5,179	18	5,179	19	5,317	18	5,025
Totals	**8,877**	**1,395,653**	**8,894**	**1,389,343**	**9,373**	**1,367,071**	**8,909**	**1,338,726**	**8,201**	**1,276,676**

TONNAGE STATISTICS, 1938.

Item.	No.	Tonnage.	Item.	No.	Tonnage.	Item.	No.	Tonnage.
Vessels on Canadian Register—			Vessels Added to Register during Year—			Vessels Removed from Register during Year—		
Steam and motor	6,008	849,097	Transferred from other countries.	31	11,757	Transferred to other countries	41	15,769
Sail and unrigged	2,193	427,579	Of Canadian construction	581	21,746	Wrecked, destroyed, or removed for other causes	1,279	71,980
			Alterations	–	5,734	Alterations	–	3,538
Totals	**8,201**	**1,276,676**	**Totals**	**612**	**39,237**	**Totals**	**1,320**	**91,287**

Subsection 2.—Aids to Navigation and Miscellaneous Works.

Included under this heading are the lighthouses and the whole system of marine danger signals on the east and west coasts of Canada, on Hudson Bay and Strait, the St. Lawrence River and Gulf, the inland rivers and lakes, and at the entrances to harbours—a very extensive system designed to provide safe navigation in all Canadian waters. In addition, a pilotage service is maintained in waters where navigation is difficult; this service is described under marine services at p. 683. As a further aid to safe navigation, there are chains of radio signal and direction-finding stations which are described under radiotelegraphy, at pp. 723-724.

2.—Marine Danger Signals Maintained in Canada, Fiscal Years 1928-39.

NOTE.—In addition to the aids to navigation listed, approximately 9,268 unlighted buoys, balises, dolphins, and beacons are maintained. The figures are supplied by the Department of Transport.

Description.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Lights	1,771	1,815	1,855	1,912	1,923	1,922	1,924	1,920	1,938	1,959	1,983	2,012
Lightships	11	11	11	11	11	11	11	12	12	11	10	11
Light-keepers	1,179	1,192	1,207	1,227	1,230	1,230	1,226	1,223	1,223	1,227	1,233	1,236
Fog whistles	6	8	8	8	8	8	8	8	8	8	8	8
Sirens	2	2	2	2	2	2	2	2	2	2	2	3
Diaphones	153	158	162	165	170	171	171	170	169	168	168	169
Fog bells	36	38	38	38	38	38	38	38	38	37	38	38
Hand fog horns	151	147	151	152	153	154	154	155	158	158	158	156
Hand fog bells	4	4	4	4	4	4	4	4	4	4	4	4
Gas, and combination gas, whistling, and bell buoys	401	411	425	429	436	444	440	438	441	445	460	456
Whistling buoys	38	40	40	40	42	42	41	41	41	41	39	41
Bell buoys	104	111	119	119	119	122	122	122	124	126	127	124
Submarine bells	6	4	4	4	3	2	2	2	2	2	2	2
Fog guns and bombs	6	5	5	5	5	5	5	4	6	9	12	13
Fog alarm stations only	13	13	13	13	13	13	13	13	13	13	13	13

A great deal has been done to improve navigable waters by dredging in channels and harbours, by the removal of obstructions, and by the building of remedial works to maintain or control water levels. Probably the largest task of this nature has been the St. Lawrence River Ship Channel. An extensive floating plant is in service to maintain and improve the deep-water channel from Montreal to the sea for ocean-going shipping. Incidental to these developments of navigable waters are works to guard shorelines and prevent erosion, and also the control of roads and bridges that cross navigable channels. In order to prolong the season of navigation in important waters that freeze over in winter, ice-breaking operations are carried on at both the beginning and end of winter. This is particularly the case in connection with sea-going shipping from Montreal.

3.—Duration of the Season of Open Navigation in the St. Lawrence Ship Channel, 1911-39.

NOTE.—For the years 1882-1910, see Canada Year Book 1934-35, p. 756.

Year.	Channel Open, Quebec to Montreal.[1]	First Arrival from Sea, Montreal Harbour.	Last Departure for Sea, Montreal Harbour.	Year.	Channel Open, Quebec to Montreal.[1]	First Arrival from Sea, Montreal Harbour.	Last Departure for Sea, Montreal Harbour.
1911	Apr. 25	Apr. 26	Dec. 3	1926	May 1	May 3	Dec. 6
1912	" 29	" 30	" 3	1927	Apr. 11	Apr. 12	" 6
1913	" 14	" 19	Nov. 29	1928	" 26	" 26	" 9
1914	" 25	" 29	Dec. 4	1929	" 10	" 20	" 7
1915	" 14	" 30	" 11	1930	" 12	" 21	" 12
1916	" 22	May 1	" 3	1931	Mar. 19	" 15	" 11
1917	" 22	" 1	" 7	1932	" 27	" 14	" 8
1918	" 22	" 7	" 14	1933	" 23	" 14	" 6
1919	" 16	Apr. 22	" 10	1934	" 28	" 26	" 8
1920	" 18	" 25	" 7	1935	" 30	" 15	" 9
1921	Mar. 29	" 21	" 8	1936	" 28	" 13	" 11
1922	Apr. 13	" 24	" 2	1937	Apr. 9	" 19	" 8
1923	" 29	May 3	" 2	1938	" 12	" 18	" 4
1924	" 17	Apr. 24	" 3	1939	" 29	" 29	" 12
1925	" 10	" 22	" 9				

[1] "Channel Open" means it can be navigated although there may be floating ice still in the river.

Subsection 3.—Canals.

Before the period of extensive railway construction, which commenced for Canada in the 1850's, the water routes, more especially the St. Lawrence, the Great Lakes, and the Ottawa, were the chief avenues of transportation. These routes were interrupted at certain points, necessitating portages, and to eliminate the toil of unloading, transporting, and reloading at the portages the canals of Canada were constructed.

4.—Canals of Canada Under the Control of the Department of Transport, Length and Lock Dimensions, 1940.

Name.	Location.	Length of Canal.	Locks.			
			No.	Minimum Dimensions.		
				Length.	Width.	Depth.
		miles.		ft.	ft.	ft.
St. Lawrence—						
Lachine	Montreal to Lachine	8·74	5	270	45	14[1]
Soulanges	Cascades Point to Coteau Landing	14·67	5	280	46	15[1]
Cornwall	Cornwall to Dickinson's Landing	11·00	6	270	43·67	14[1]
Farran's Point	Farran's Point Rapids	1·28	1	800	50	16[1]
Rapide Plat	Morrisburg	3·89	2	270	45	14[1]
Galops	Iroquois to Cardinal	7·36	3	270	45	14[1]
Welland Ship	Port Weller, Lake Ontario, to Port Colborne, Lake Erie	27·60	8	859	80	30[2]
Sault Ste. Marie	Sault Ste. Marie, Ont.	1·38	1	900	60	18·25
Richelieu River—						
St. Ours	St. Ours, Que.	0·12	1	339	45	12
Chambly	Chambly to St. Johns, Que.	11·78	9	120·5	23·25	6·5
Ottawa River—						
Ste. Anne	Junction of St. Lawrence and Ottawa Rivers	0·12	1	200	45	9
Carillon	Carillon Rapids, Ottawa River	0·94	2	200	45	9
Grenville	Long Sault Rapids, Ottawa River	5·94	5	200	45	9·5
Miscellaneous—						
Rideau	Ottawa to Kingston	126·25	47	134	33	5
	Rideau Lake to Perth (Tay Branch)	6·50	2	134	33	5
Trent	Trenton to Peterborough Lock, Peterborough	88·74	18	175	33	6[3]
	Peterborough Lock to Swift Rapids	135·71	24	134	33	6
	Swift Rapids to Port Severn	16·00[4]	(marine railways)			[4]
	Port Severn Lock	–	1	100	25	6
	Sturgeon Lake to Lindsay (Scugog Branch)	8·35	1	142	33	6
	Lindsay to Port Perry (Scugog Branch)	26·65	Nil			
Murray	Isthmus of Murray—Bay of Quinte	5·15[5]	"			
St. Peters	St. Peters Bay to Bras d'Or Lakes, Cape Breton, N.S.	0·50	1	300	48	18[6]

[1] Navigable depths are occasionally less at times of extremely low water. [2] Minimum depth between locks 25 ft. [3] This depth may be increased to 8 ft. 4 ins., on reasonable notice being given for the accommodation of larger commercial vessels. [4] Minimum depth of navigable channels is 4·5 ft. [5] Minimum depth of canal with Lake Ontario at elevation 244 ft. above sea-level is 11 ft. [6] The depth of canal prism is 17 ft.

The earliest mention of canals in Canada is in connection with the Lachine Canal, begun by early French settlers in 1700. Only after the conquest of Canada by the British, however, were improvements of the main water routes made. In the early part of the 19th century increased internal and foreign trade and the introduction of steam navigation resulted in more attention being given to this work. Although some of the early canals were constructed primarily for military purposes, they soon became essential to the commercial life of the country. However, since

the development of railways in Canada, and even more since the growth of motor-vehicle traffic, the canals, with the exception of those on the Great Lakes-St. Lawrence River route, are playing a minor part in the transportation activities of the country.

The principal canals of Canada are under the jurisdiction of the Dominion Department of Transport and each is accessible from the Atlantic Ocean. They serve six routes: (1) Montreal to Port Arthur and Fort William, via the St. Lawrence River and Great Lakes; (2) Montreal to the International Boundary near Lake Champlain, via the Richelieu River; (3) Montreal to Ottawa, via the Ottawa River; (4) Ottawa to Perth and Kingston, via the Rideau and Cataraqui Rivers; (5) Trenton, at the mouth of the Trent River on Lake Ontario, to the mouth of the Severn River on Lake Huron; and (6) St. Peters, Nova Scotia, on the Atlantic Ocean, to the Bras d'Or Lakes. The aggregate length of these six routes is 1,890 miles, the total of actual canal being 509 miles. A detailed description of the individual canals is given at pp. 626-629 of the 1926 Year Book.

Under the jurisdiction of the Dominion Department of Public Works are St. Andrews Lock (length, width, and draft, respectively, 215, 45, and 17 feet) at Selkirk on the Red River, Man., and two or three smaller and widely separated locks in other provinces. There are also a few small isolated locks, each controlled under the authority of the province in which it is situated.

Subsection 4.—Harbours.

Water transportation cannot be studied with any degree of completeness without taking into consideration the co-ordination of land and water transportation at many of the ports. Equipment designed to facilitate interchange movements includes the necessary docks and wharves, some for passenger traffic but most of them for freight, warehouses for the handling of general cargo, and special equipment for such bulk freight as lumber, coal, oil, grain, etc. Equipment may include cold storage, harbour railway and switching connections, grain elevators, coal bunkers, oil storage tanks, and, in the main harbours, dry-dock accommodation.

Eight of the principal harbours of Canada are administered by the National Harbours Board; seven others by commissions which include municipal as well as Dominion Government appointees; and the remainder by harbour masters directly under the authority of the Department of Transport.

At most ports, in addition to the harbour facilities owned by the National Harbours Board or other operating commission, there are dock and handling facilities owned by private companies such as railways, pulp and paper, oil, and sugar industries, etc. At a number of ports there are also graving docks which are dealt with separately.

5.—Facilities of Six of the Principal Harbours of Canada, as at Dec. 31, 1939.

Item.		Halifax.	Saint John.	Quebec.	Three Rivers.	Montreal.	Vancouver.
Minimum depth of approach channel.	ft.	50	30	35	30	32·5	35
Harbour railway	miles	31	57	32	5	57·6	35
Piers, wharves, jetties, etc.	No.	46[1]	17	36	3	116	27
Length of berthing	ft.	32,716	14,383	32,505	7,400	52,111	28,600
Transit shed floor space	sq. ft.	1,236,804	824,000	743,642	192,000	2,039,000	1,310,000
Cold storage warehouse capacity	cu. ft.	1,000,000	880,000	500,000	Nil	4,628,000	1,277,000
Grain Elevators—							
Capacity	bu.	2,200,000	3,000,000	4,000,000	2,000,000	15,162,000	18,641,500
Loading rate	bu. per hr.	75,000	150,000	90,000	32,000	400,000	312,000
Floating crane capacity	tons	75	[2]	50	Nil	75	50
Coal dock storage capacity	"	63,000	34,000	215,000	300,000	2,000,000	Nil
Oil tank storage capacity	gal.	75,307,610	9,818,000	26,280,000	Nil	4,200,000	79,854,000

[1] Excluding Government piers. [2] Not [illegible]

National Harbours Board.*—Prior to 1935 the administration of each of Canada's national harbours was under a local harbour commission, appointed by the Dominion Government and operating under special Dominion statutes. These harbour commissions were financed by the revenues of their respective ports, by the use of their limited borrowing power, and, to a great degree, by loans from the Dominion Government. With the object of bringing these national harbours under unified governmental control, the National Harbours Board Act was introduced and passed at the 1936 session of Parliament, and went into effect on Oct. 1 of that year. The Act was based mainly on recommendations made by Sir Alexander Gibb, noted British engineer with a wide experience in port construction and operation, who was engaged by the Dominion Government in 1931 to undertake a survey of the national port situation in Canada. Prior to the passing of this Act, the Dominion Government had, in 1935, put into effect some of the principal recommendations resulting from this survey. This was effected by the appointment of three senior Government officials at Ottawa to act as Harbour Commissioners of the seven national ports that it was intended to bring under centralized control. This form of administration continued to function until the National Harbours Board Act was passed and the permanent Board was appointed.

The National Harbours Board Act provides for the creation of a Board consisting of three members under the direction of, and responsible to, the Minister of Transport. In legal parlance, the Board is a statutory corporation created as an agency of the Crown and charged with the administration, management, and control of the harbours and properties placed under its jurisdiction. By the provisions of the Act, the powers, rights, and obligations of the former local harbour commissions were vested in the new Board, thus insuring continuity in respect to outstanding rights and obligations.

At the outset, the National Harbours Board was entrusted with the administration of the ports of Halifax, Saint John, Quebec, Three Rivers, Montreal, Chicoutimi, and Vancouver. Since 1936, the port of Churchill on Hudson Bay, the grain elevator at Prescott on the St. Lawrence, and the grain elevator at Port Colborne on Lake Erie, were placed under the Board, pursuant to a provision in the Act that permits the Governor in Council to transfer any harbour or property of the Dominion to the Board for administrative purposes.

The Act gives the Board wide and general powers of management and control. Certain powers are reserved to the Governor in Council, the chief of which is the making of rates and tolls on vessels and goods moving into or out of the harbours under the Board's jurisdiction. Such tariffs of rates and tolls are prepared by the Board after careful study. Recommendations respecting them are made by the Minister of Transport and submitted by him to the Governor in Council; the tariff becomes effective upon publication in the *Canada Gazette*.

The Board operates on an annual budget submitted each year to the Minister of Transport, as required by the Act. The funds of each port must be kept separate and there must be no intermingling or transfer of funds from one port to another. The Minister of Finance is empowered to make advances for working capital not exceeding $1,000,000 at any given time, such advances being repayable annually. The accounts of each port and the staff handling these accounts are under the direction and control of the Department of Finance, and all revenues received and expenditures made by the Board are subject to audit by the Auditor General of Canada.

* Contributed by R. O. Campney, K.C., Chairman, National Harbours Board, Ottawa.

The Board is required to obtain by parliamentary vote funds necessary to meet deficits on account of operation and maintenance, interest due to the public on bonds outstanding, and new capital expenditures. As outstanding bond issues mature, they are retired by moneys voted by Parliament, and the moneys thus voted become capital obligations of the Board to the Government.

Local and maintenance engineering is carried on by the local port staffs. New capital works, where they have been approved by Parliament and funds for the construction thereof have been voted, are planned and supervised by the Board's staff of engineers permanently located at Ottawa. Where such works to be executed involve an expenditure of $10,000 or more, public tenders must be called.

Local management of each of the harbours under the Board's jurisdiction devolves upon the Board's chief official at the port—the Port Manager. He is entrusted with the actual operation and maintenance of the port and is in charge of the local staff. In addition to his administrative duties, the Port Manager is charged with the responsibility of developing and maintaining close contact with port users, local authorities, and business organizations.

The National Harbours Board at present administers assets representing a capital investment of approximately $225,000,000, comprising, in the aggregate, wharves and piers providing 25 miles of berthing space capable of accommodating 212 modern passenger and cargo vessels at one time; 84 transit sheds with floor space of 5,500,000 square feet; 14 grain elevators with a total capacity of 43,000,000 bushels; 3 cold-storage terminals with a combined storage capacity of 6,000,000 cubic feet; 3 terminal railway systems with a total trackage in excess of 120 miles; 2 bridges; and a multitude of smaller diversified facilities. In addition, the Board has large areas of land under lease as industrial sites.

The ports and properties administered by the National Harbours Board are as follows:—

The ports of Halifax, N.S., and Saint John, N.B., on the Atlantic Coast, are all year around ports, but have their busiest season in the winter months when the St. Lawrence River is closed to navigation. In both these ports the Board controls and operates practically all the facilities.

At Halifax, 7 large piers with approximately 2½ miles of berthing, and equipped with 13 transit sheds; a grain elevator with a capacity of 2,200,000 bushels; and a cold-storage terminal with modern freezing facilities and 1,000,000 cubic feet of storage are operated by the Board.

At Saint John, the harbour facilities administered by the Board include 7 piers with between 2 and 2½ miles of berthing and 15 transit sheds. The Board also administers a grain elevator at this port, with a capacity of 1,500,000 bushels and served by over 2 miles of grain galleries, which is operated by the Canadian Pacific Railway under agreement with the Board.

On the St. Lawrence River, the Board operates the Harbours of Quebec, Three Rivers, and Montreal, and the port of Chicoutimi, situated 75 miles up the Saguenay River, a tributary of the St. Lawrence. These ports are closed to navigation during the winter months.

At Quebec, the Board operates 4 main piers with over 3½ miles of berthing and 9 transit sheds. Grain elevator space with a capacity of 4,000,000 bushels, a cold-storage warehouse with a capacity of 500,000 cubic feet, a fish-freezing and storage warehouse with a capacity of 1,000,000 pounds, and 32 miles of terminal railway also come under the jurisdiction of the Board.

At Three Rivers, the Board operates 3 large wharves with 1½ miles of berthing and 8 transit sheds.

At Montreal, the Board operates all the port facilities, including 28 piers and wharves, with 27 transit sheds and over 10 miles of berthing; 4 grain elevators with a total capacity of 15,000,000 bushels, served by 3½ miles of grain galleries; a cold-storage terminal with a capacity of over 4,500,000 cubic feet; and over 60 miles of terminal railway. The Board also operates the Jacques Cartier Bridge over the St. Lawrence which was completed some years ago at a cost of $19,000,000.

At Chicoutimi, the Board operates 2,600 linear feet of wharf, 2 transit sheds, and 8,500 feet of railway tracks.

At the port of Vancouver on the Pacific Coast, the Board operates 2 piers and 2 jetties, with 1¾ miles of berthing and 6 transit sheds. The Board also administers 4 grain elevators with a capacity of nearly 9,000,000 bushels, which are operated under leases by private parties. It operates 30 miles of terminal railway and maintains storage for almost 500,000 gallons of vegetable and fish oil, and operates a fish dock and ice plant as well as other smaller facilities. The Board also has under its jurisdiction the Second Narrows Bridge.

At the Port of Churchill on Hudson Bay, the Board operates a large pier and transit shed and a grain elevator with a capacity of 2,500,000 bushels.

At Prescott, Ont., on the upper St. Lawrence River, the Board operates the large terminal grain elevator which has a capacity of 5,500,000 bushels.

At Port Colborne, Ont., at the Lake Erie entrance to the Welland Ship Canal, the Board operates a grain elevator with a capacity of 3,000,000 bushels.

Operating revenues and expenditures of each of these harbours and elevators are given for the years 1935-39 in Table **15**, p. 690.

Since the entry of Canada into the War, the importance of the national harbours, as a link between Canada's extensive railway systems and inland waterways and the great ocean trade routes of the world, has greatly increased. Expeditious handling of supplies destined for overseas is of vital importance to the success of Canada's war effort. The increased harbour facilities under governmental control in 1938 as compared with the year preceding the War of 1914-18 is an important factor in the solution of the shipping problems of the Government during the present conflict. Canadian ports are in a much better position for the smooth and expeditious handling of traffic than at the outbreak of war in 1914.

5A.—Facilities Operated and Controlled by the National Harbours Board in the Six Principal Harbours, 1938, Compared with Government-Operated Facilities in 1913.

Port.	Berthage Space.		Transit Shed Space.		Elevator Capacity.		Cold Storage Space.	
	1913.	1938.	1913.	1938.	1913.	1938.	1913.	1938.
	ft.	ft.	sq. ft.	sq. ft.	bu.	bu.	cu. ft.	cu. ft.
Halifax	4,030	13,600	109,768	1,273,000	Nil	2,200,000	Nil	1,000,000
Saint John	7,795	11,800	394,000	745,700	"	1,500,000	"	Nil
Quebec	11,600	19,000	362,600	721,260	250,000	4,000,000	"	500,000
Three Rivers	4,052	7,400	47,925	192,000	Nil	Nil	"	Nil
Montreal	37,488	54,384	1,500,000	2,015,000	5,750,000	15,000,000	"	4,628,000
Vancouver	Nil	9,500	Nil	567,000	Nil	8,610,000	"	Nil
Totals	64,965	115,684	2,414,293	5,513,960	6,000,000	31,310,000	Nil	6,128,000

Public Harbours and Harbour Masters.—In other ports, the Governor in Council as formerly, may create public harbours by proclamation, as provided

by Part X of the Canada Shipping Act (c. 44, 1934), and the Minister of Transport may, from time to time, appoint harbour masters for these ports, who will administer them under rules and regulations approved by the Governor in Council. Remuneration of these harbour masters will be from fees levied on vessels under the terms of the Act.

Graving Docks.—The Department of Public Works of the Dominion Government has constructed five dry docks, dimensions of which are shown in Table 6. The dock at Kingston, Ont., is under lease to the Kingston Shipbuilding Company, while the old Esquimalt Dry Dock was temporarily transferred to the Department of National Defence on Nov. 1, 1934. This transfer is to be effective until such time as the dock is commercially required, when it will be returned to the control of the Department of Public Works. The large dry docks at Lauzon, Que., and Esquimalt, B.C., can be divided into two parts and were built at a cost of approximately $3,850,000 each. Under the Dry Dock Subsidies Act, 1910 (9-10 Edw. VII, c. 17), several docks have been subsidized by payments of 3 to 4 p.c. per annum on the original cost for a given number of years, as shown in Table 7.

6.—Dimensions of Graving Docks Owned by the Dominion Government.

Location.	Length.	Width at—			Depth of Water on Sill.	Rise of Tide.	
		Coping.	Bottom.	Entrance.		Spring.	Neap.
	ft.	ft.	ft.	ft.	ft.	ft.	ft.
Lauzon, Que., *Champlain*	1,150	144	105	120	40·0 H.W.	18	13·3
Lauzon, Que., *Lorne*	600·3	100	59·5	62	25·8 H.W.	18	13·3
Esquimalt, B.C. (old dock)[1]	450·7	90	41	65	29·0 H.W.	7 to 10	3 to 8
Esquimalt, B.C.	1,173	149	126	135	40·0 H.W.	7 to 10	3 to 8
Kingston, Ont.	353·5	79	47	55	14·7 L.W.	–	–

[1] Not in use.

7.—Dimensions and Cost of Graving Docks Subsidized under the Dry Docks Subsidies Act, 1910.

Location.	Length.	Width.	Depth over Sill.	Total Cost.	Subsidy.
	ft.	ft.	ft.	$	
Collingwood No. 1, Ont.[1]	515·8	59·8	14·0	500,000	3 p.c. for 20 years.
Collingwood No. 2, Ont.[1]	413·2	95	14·0	306,965	3 p.c. for 20 years.
Port Arthur, Ont.[1]	708·3	77·6	16·2	1,258,050	3 p.c. for 20 years.
Montreal, Que. (floating dock), *Duke of Connaught*	601	100	31·5	3,000,000	3½ p.c. for 35 years.
Prince Rupert, B.C. (floating dock)	600	100	32[2]	2,199,168	3½ p.c. for 35 years.
Saint John, N.B.	1,164·5	133	40	5,500,000	4½ p.c. for 35 years.
North Vancouver, B.C. (floating dock)	556·5	98	28[3]	2,500,000	4½ p.c. for 35 years.

[1] Subsidy payments have been completed. [2] 28 ft. over blocks. [3] Over blocks.

Subsection 5.—Marine Services and Operations of the Dominion Government.

The services covered by this subsection are those dealing with the pilotage service, steamship inspection, sea-faring personnel, and accidents to shipping,

and the operations are those of the Canadian Government Merchant Marine, and the Canadian National (West Indies) Steamships.

Pilotage.—This service functions under the provisions set forth in Part VI of the Canada Shipping Act (c. 44, 1934). Qualified pilots may offer their services to the stranger in local and confined waters. At the same time, pilotage might also be considered as a method of insurance—the fewer accidents, the cheaper insurance rates will be.

There are 40 pilotage districts in Canada, eight of which, namely, Sydney, Halifax, Saint John, Quebec, Montreal, St. Lawrence-Kingston-Ottawa, British Columbia, and Churchill, are under the Minister of Transport as Pilotage Authority. The Pilotage District of New Westminster, B.C., is under a local authority. The other districts function under local Pilotage Authorities appointed by the Governor in Council under the provisions of the Canada Shipping Act.

Table 8 shows the number and aggregate tonnage of ships using pilots for the major Canadian ports during the two latest fiscal years. Corresponding statistics are not available for the St. Lawrence-Kingston-Ottawa District.

8.—Details of Pilotage, by Districts, Fiscal Years 1938 and 1939.

District.	1938.			1939.		
	Pilots.	Ships Piloted In and Out.	Net Tonnage.	Pilots.	Ships Piloted In and Out.	Net Tonnage.
	No.	No.	tons.	No.	No.	tons.
Sydney	19	2,332	2,758,292	19	2,130	4,614,437
Halifax	20	2,190	7,757,549	20	2,057	7,545,185
Saint John	12	958	2,887,054	12	980	3,003,537
Quebec	60	3,621	13,620,553	61	3,882	15,124,634
Montreal	78	5,863	14,645,178	78	6,518	15,825,177
Churchill	1	7	17,157	1	8	20,598
British Columbia	34	3,514	14,141,137	35	3,675	14,572,084
New Westminster	7	966	3,457,444	7	1,034	3,638,646

Steamship Inspection.—The Steamship Inspection Service provided for under Part VII of the Canada Shipping Act, 1934, consists of a headquarters staff, at Ottawa, and staffs of inspectors at the principal ocean and inland ports. The Act provides for a Board, known as the Board of Steamship Inspection, which decides on questions arising out of the administration of the Act. The Steamship Inspection Service is responsible for the administration and carrying out of the provisions of Part VII of the Act respecting the periodic inspection of power-driven ships and the issue of inspection certificates, the assignment of load lines, the conditions under which dangerous goods may be carried in ships, and the protection against accident of workers employed in loading or unloading ships. The Steamship Inspection Service is also responsible for the administration and carrying out of the provisions of Part II of the Act relating to the certification and employment of marine engineers.

9.—Steamship Inspection, by Inspection Divisions, Fiscal Years 1938 and 1939.

Year and Division.	Vessels Inspected.				Vessels Not Inspected.	
	Registered or Owned in the Dominion.		Registered or Owned Elsewhere.			
	No.	gross tonnage.	No.	gross tonnage.	No.	gross tonnage.
1938.						
Halifax	94	150,705	21	107,037	Nil	–
Saint John	51	52,256	2	6,221	45	34,755
Quebec	83	49,174	Nil	–	13	3,933
Sorel	78	45,137	"	–	54	37,965
Montreal	125	187,787	5	52,661	59	53,473
Kingston	71	78,562	16	885	21	28,748
Toronto	212	360,486	34	37,706	8	6,814
Collingwood	3	105	Nil	–	Nil	–
Midland	99	39,322	3	7,565	31	12,115
Port Arthur	77	91,134	Nil	–	63	4,419
Vancouver	212	97,252	14	77,910	69	13,563
Victoria	74	90,821	4	3,747	26	18,236
Totals, 1938	**1,179**	**1,242,741**	**99**	**294,632**	**389**	**214,021**
1939.						
Halifax	120	120,055	17	50,754	Nil	–
Saint John	49	59,064	3	10,122	46	18,340
Quebec	80	45,702	Nil	–	10	2,538
Sorel	68	50,093	"	–	62	37,778
Montreal	119	120,836	3	48,913	63	93,707
Kingston	77	99,860	18	947	Nil	–
Toronto	185	356,692	23	32,123	14	6,199
Midland	93	76,952	3	7,605	22	5,652
Collingwood	62	47,255	2	3,895	4	132
Port Arthur	65	41,674	Nil	–	59	6,762
Vancouver	229	99,617	9	28,078	49	7,814
Victoria	72	87,379	3	3,368	27	22,949
Totals, 1939	**1,219**	**1,206,179**	**81**	**185,805**	**356**	**201,871**

	Vessels Subject to Inspection When in Commission.		Vessels Added to the Dominion.		Vessels Lost, Broken Up, or Destroyed.	
	No.	gross tonnage.	No.	gross tonnage.	No.	gross tonnage.
1938.						
Halifax	115	258,642	2	469	Nil	–
Saint John	98	93,232	4	1,059	"	–
Quebec	96	53,167	6	1,036	2	1,119
Sorel	132	83,102	5	772	5	3,437
Montreal	189	293,921	Nil	–	Nil	–
Kingston	108	108,195	7	7,777	3	1,380
Toronto	254	405,006	3	338	5	204
Collingwood	Nil	–	Nil		Nil	–
Midland	133	59,002	"	–	6	12,333
Port Arthur	140	95,553	8	611	10	1,931
Vancouver	295	188,725	9	4,811	10	3,714
Victoria	104	112,804	3	2,567	1	679
Totals, 1938	**1,664**	**1,751,349**	**47**	**19,440**	**42**	**24,797**
1939.						
Halifax	137	170,809	4	748	1	113
Saint John	98	87,526	2	144	Nil	–
Quebec	90	49,240	8	2,766	3	1,203
Sorel	130	87,871	3	2,220	Nil	–
Montreal	185	263,456	2	784	4	2,832
Kingston	95	100,807	Nil	–	Nil	–
Toronto	222	395,014	1	57	6	7,647
Midland	118	90,209	13	3,830	8	367
Collingwood	68	51,282	3	1,563	2	282
Port Arthur	124	48,436	8	3,870	Nil	–
Vancouver	287	135,509	6	314	11	4,053
Victoria	102	113,696	2	3,016	1	64
Totals, 1939	**1,656**	**1,593,855**	**52**	**19,312**	**36**	**16,561**

Seamen Shipped and Discharged.—Table **10** shows, for each year from 1918 to 1938, the numbers of seamen shipped and discharged at Canadian ports under the provisions of the Canada Shipping Act (R.S.C., 1927, c. 186 and c. 44, 1934).

10.—Seamen Shipped and Discharged at Canadian Ports, 1918-38.

NOTE.—Figures for 1908-17 will be found at p. 690 of the 1938 Year Book.

Year.	Seamen Shipped.	Seamen Discharged.	Year.	Seamen Shipped.	Seamen Discharged.
	No.	No.		No.	No.
1918	16,516	12,930	1929	31,374	29,483
1919	18,208	13,649	1930	26,983	25,670
1920	22,569	19,719	1931	24,891	24,289
1921	18,444	17,103	1932	25,313	23,472
1922	25,689	24,558	1933	27,038	23,148
1923	31,407	30,195	1934	27,234	23,858
1924	30,687	29,018	1935	26,527	23,924
1925	31,772	28,472	1936	29,052	30,269
1926	31,869	27,413	1937	27,924	25,491
1927	28,137	25,863	1938	28,847	26,421
1928	28,748	25,763			

Wrecks and Casualties.—The figures of Table **11**, supplied by the Department of Transport, apply to vessels of every nationality in respect of wrecks and casualties in Canadian waters, and to Canadian vessels in respect of wrecks and casualties in other waters. The returns in some years cover wrecks and casualties of previous years.

11.—Canadian Wrecks and Casualties, 1918-38.

NOTE.—For figures for the years 1870-1910, see Canada Year Book, 1911, p. 381; and for 1911-17, p. 691 of the 1938 edition.

Year.	Casualties.	Net Tonnage.	Lives Lost.	Stated Damages.	Year.	Casualties.	Net Tonnage.	Lives Lost.	Stated Damages.
	No.	tons.	No.	$		No.	tons.	No.	$
1918	226	312,928	402[1]	1,818,895	1929	451	459,394	12	4,740,620
1919	240	205,720	100	1,808,690	1930	551	447,169	66	3,077,009
1920	227	222,928	28	1,643,825	1931	477	404,157	7	2,696,019
1921	260	588,503	38	1,809,328	1932	452	406,194	40	3,478,575
1922	277	604,423	27	451,312	1933	445	372,545	19	1,292,618
1923	376	480,713	50	3,184,749	1934	484	400,714	39	1,716,294
1924	224	215,470	54	4,355,217	1935	467	496,109	19	2,842,402
1925	298	305,798	53	3,317,020	1936	545	512,582	34	3,108,671
1926	300	293,310	91	4,630,267	1937	495	445,602	31	1,571,387
1927	434	566,011	128	6,879,825	1938	540	486,779	9	1,795,176
1928	504	558,251	64	5,418,236					

[1] Includes 328 lives lost in the *Princess Sophia* disaster.

Canadian Government Merchant Marine.—The circumstances under which the Canadian Government became possessed of and responsible for the operations of a merchant marine are explained at p. 776 of the 1934-35 Year Book.

This merchant fleet reached its greatest development in 1924 and at Dec. 31 of that year numbered 57 vessels of a total deadweight tonnage of 353,450, representing an original capital investment of $79,661,921. On June 8, 1936, the 10 remaining vessels were disposed of for a consideration of $389,444. A table showing the operating results from 1919 to 1936 appears at p. 689 of the 1937 Year Book.

Canadian National (West Indies) Steamships.—In conformity with the Canada-West Indies Trade Agreement Act of 1926 (16-17 Geo. V, c. 16), the Dominion Government has provided direct steamship services to the West Indies through

the medium of Canadian National (West Indies) Steamships, Ltd. The service is provided by a fleet of eleven vessels of a total deadweight tonnage of 62,761. Five of these craft, known as the 'Lady' ships, were specially constructed for passenger service on this route, while the remaining six vessels previously formed part of the Canadian Government Merchant Marine fleet, and were taken over by the Canadian National (West Indies) Steamships, Ltd., for operating purposes, under entrusting agreements with the respective companies that owned the ships. The investment in vessels at Dec. 31, 1938, amounted to $10,960,958, mainly made up of the construction cost of the 'Lady' ships and the present-day valuation of the other six ships, together with the cost of conversion for use in the West Indies service of three of the latter. The financial results of the operations of the Canadian National (West Indies) Steamships, Ltd., have been as follows:—

Calendar Year.	Operating Revenues.	Operating Expenses.	Operating Net.	Depreciation.	Interest.	Book Loss.
	$	$	$	$	$	$
1929	3,332,683	3,780,524	−447,841	227,315	442,739	1,117,895
1930	3,792,694	4,315,831	−523,137	288,999	550,519	1,362,655
1931	3,648,986	4,095,555	−446,569	294,141	604,651	1,345,361
1932	3,323,077	3,606,793	−283,716	321,261	688,037	1,293,014
1933	2,956,974	3,454,972	−497,998	319,967	726,108	1,544,073
1934	3,509,738	3,606,416	− 96,678	319,967	762,033	1,178,678
1935	3,816,246	3,616,215	+200,031	325,513	788,814	917,390
1936	4,322,593	3,765,194	+557,399	328,235	800,282	574,213
1937	4,676,684	4,018,146	+658,538	328,287	808,432	481,275
1938	4,915,355	4,169,116	+746,239	328,641	818,613	404,109

Section 2.—Financial Statistics of Waterways.

The principal statistics available to aid in making an appraisal of the cost of water-borne traffic consist of the record of public expenditures on waterways. Such expenditures are classified as investments, expenditures for maintenance and operation, and revenues from operation. Undoubtedly, in so far as capital expenditures for the permanent improvement of waterways are concerned, those of the Dominion Government cover the major part. There has been some expenditure by municipalities on local harbour facilities, while private capital expenditure is also confined almost entirely to terminal or dockage facilities. The investment in shipping, however, with the exception of the Canadian National (West Indies) Steamships, as shown above, has come almost entirely from private sources such as railway companies, steamship companies, industrial corporations, and private individuals. No figures are available regarding private investments in shipping except those appearing in the reports of the operating companies which cover only a portion of the field. Neither are there statistics showing the revenues of ship operators from passenger and freight traffic. In the case of railways, statistics show fairly completely: (1) the investment in plant, roadbed, etc.; (2) the revenues of the railways or the annual payment by the people of Canada for the passenger and freight transportation; and (3) the annual deficits which are also indirectly paid by the public whether as investors or taxpayers. No such picture can be given for water-borne traffic.

Owing to the fact that all the items comprising waterways and harbours cannot be put on a comparable basis, it is not possible to show cumulative figures of capital

expenditures to date, with any degree of accuracy. Table **12**, therefore, shows only capital expenditures for the fiscal year 1939.

For those ports and harbours not under the control of the National Harbours Board, Dominion Government capital expenditures, made by the Department of Public Works, are included in the classification "Other harbours, rivers, construction". The classification as between capital and operations expenditure is very difficult to make with respect to certain of the items. This difficulty applies particularly in the case of dredging, where the distinction between the removal of accumulating silt and the deepening of a channel is largely one of opinion. For this reason, the dredging account of the Department of Public Works is not included in the investments of Table **12**, although a large part of the work is undoubtedly of the nature of permanent improvements.

12.—Capital Expenditures of the Dominion Government on Waterways and Harbours, Fiscal Year 1939.

NOTE.—The dredging expenditures of the Department of Public Works cannot be divided accurately between capital and maintenance expenditures and therefore the amounts spent for dredging that should be charged to capital account are not shown in this table.

Item and Department.	Capital Expenditures.	Item and Department.	Capital Expenditures.
	$		$
AIDS TO NAVIGATION AND MISCELLANEOUS WORKS.		CANALS—concluded.	
Department of Transport—		Ottawa and Rideau Rivers—	
Lighthouses, construction, improvements, and apparatus	127,364	Ste. Anne Lock	Nil
Radiotelegraph stations, construction	10,000	Carillon and Grenville	6,486
St. Lawrence Ship Channel (below Montreal)	2,896,742	Rideau (including Tay)	35,481
Dominion steamers	720	Richelieu River—	
Other (Department of Transport)	Nil	St. Ours Lock	3,359
		Chambly	11,929
National Harbours Board—		Welland Canals	202,617
Jacques Cartier Bridge	Nil	Sault Ste. Marie	Nil
Second Narrows Bridge	"	Trent	45,528
		Murray	556
Department of Public Works—		St. Peters	Nil
Dredging plant	87,160	Culbute Lock and Dam	"
Slides and booms	Nil	Baie Verte	"
Roads and bridges	166,818	Hungry Bay Dykes	"
Other (Department of Public Works)	Nil	General	"
TOTALS, AIDS TO NAVIGATION AND MISCELLANEOUS WORKS	3,288,804	TOTALS, CANALS	368,042
CANALS.[1]		HARBOURS.	
Department of Transport—		National Harbours Board—	
St. Lawrence River—		Halifax	138,156[2]
Lachine	9,575	Saint John	46,566[2]
Lake St. Louis	Nil	Chicoutimi	134[2]
Soulanges	12,998	Quebec	454,047[2]
Beauharnois, old	Nil	Three Rivers	2,771[2]
Beauharnois, new	224	Montreal	837,509[2]
Lake St. Francis	Nil	Churchill	Nil
Cornwall	35,145	Vancouver	98,971[2]
Williamsburg	4,114	Prescott Elevator	Nil
Farran's Point	Nil	Port Colborne Elevator	"
Galops	"		
Rapide Plat	"	Department of Transport—	
North Channel, river reaches, and Galops Channel	"	Port Nelson Terminal	Nil
St. Lawrence Ship	30	Department of Public Works—	
		Other harbours, rivers, construction	4,243,581
		TOTALS, HARBOURS	5,821,735
		Grand Totals	**9,478,581**

[1] Includes "Income expenditure" for buildings and permanent improvements to canals. [2] Year ended Dec. 31, 1939.

13.—Expenditures of the Dominion Government for Maintenance and Operation of Aids to Navigation, Canals, and Harbours, Fiscal Years 1936-39.

Item and Department.	1936.	1937.	1938.	1939.
AIDS TO NAVIGATION AND MISCELLANEOUS SERVICES.	$	$	$	$
Department of Transport—				
Lighthouses and Coast Service—				
Agencies, rents, and contingencies	195,889	196,854	229,095	233,573
Maintenance	777,059	1,557,108	1,688,347	1,750,026
Salaries of light-keepers	692,511			
Repairs to wharves	5,657	7,136	5,861	4,265
Ice-breaking (Thunder Bay)	40,500	30,000	29,500	30,000
North Atlantic ice patrol	5,332	4,566	5,967	7,257
Radiotelegraph service	543,415	552,950	660,800	600,253
Dominion steamers	1,314,705	1,423,612	1,323,369	1,303,840
St. Lawrence Ship Channel, operation and maintenance	–	–	394,488[1]	221,558
Steamship inspection	125,791	126,065	167,279	173,273
Miscellaneous services relating to navigation	–	–	50,202[1]	40,670
Life saving	50,439	45,793	45,730	46,329
Marine signal service	99,885	99,482	89,332	88,828
Administration of pilotage	103,518	90,281	124,064	118,319
Removal of obstructions	3,680	52,568	41,313	14,998
Subsidy to wrecking plants	43,750	45,000	45,000	45,000
Department of Mines and Resources—				
Hydrographic Service	408,697	407,645	396,860	412,811
Department of Public Works—				
Dredging plant	70,163	66,641	54,982	51,874
Roads and bridges	48,213	61,925	84,726	61,364
Miscellaneous (D.P.W.)	93,003	33,663	11,276	Nil
TOTALS, AIDS TO NAVIGATION AND MISCELLANEOUS SERVICES	4,622,207[2]	4,801,289[2]	5,448,191[2]	5,204,238
CANALS.				
Department of Transport—				
St. Lawrence River—				
Soulanges	141,237	134,873	134,356	127,070
Lachine	352,771	329,181	307,506	318,033
Cornwall	143,833	125,898	159,450	154,634
Williamsburg	94,029	90,528	86,511	88,963
Head offices	78,364	73,366	102,177[3]	110,032
Dredge vessels	20,439	34,744	40,200	39,292
Hungry Bay and St. Barbe Dykes	5,692	5,287	5,165	3,118
Welland Canals	651,188	667,013	712,259	712,127
Sault Ste. Marie	52,635	48,281	46,915	48,889
Richelieu River—				
St. Ours Lock	9,321	9,876	8,544	7,071
Chambly	87,525	71,851	66,458	70,765
Ottawa and Rideau Rivers—				
Ste. Anne Lock	9,426	11,342	11,091	10,710
Carillon and Grenville	81,866	88,454	58,005	64,611
Rideau (including Tay)	152,113	150,189	155,875	158,690
Trent	187,806	199,135	200,781	221,925
Murray	17,924	10,482	11,305	11,391
St. Peters	9,679	10,251	9,880	9,921
General	Nil	1,329	Nil	Nil
TOTALS, CANALS	2,095,848	2,062,080	2,116,478	2,157,242
HARBOURS, ELEVATORS, RIVERS, ETC.				
National Harbours Board—				
Port Colborne Elevator	89,481	85,512	[4]	[4]
Prescott Elevator	97,220	78,572	[4]	[4]
Churchill Elevator	117,392	98,072	[4]	[4]
Port of Churchill	71,916	68,104	[4]	[4]
Department of Public Works—				
Other Harbours and Rivers—				
Prince Edward Island	86,224	82,404	36,714	80,991
Nova Scotia	497,934	291,699	160,217	413,582
New Brunswick	432,337	383,883	381,739	585,141
Quebec	438,660	523,945	446,782	688,397
Ontario	218,304	130,923	97,215	290,872
Manitoba	38,643	30,992	33,935	87,810
Saskatchewan, Alberta, and N.W.T.	2,637	2,406	25,449	24,870
British Columbia	319,813	384,478	396,507	566,895
Yukon	14,571	8,641	5,000	4,927
General	453,597	373,998	405,834	29,024
TOTALS, HARBOURS, ELEVATORS, RIVERS, ETC.	2,878,729	2,543,629	1,989,392	2,772,509
Grand Totals	**9,596,784**[2]	**9,406,998**[2]	**9,554,061**[2]	**10,133,989**

For footnotes see end of table, p. 689.

13.—Expenditures of the Dominion Government for Maintenance and Operation of Aids to Navigation, Canals, and Harbours, Fiscal Years 1936-39—concluded.

Department.	1936.	1937.	1938.	1939.
EXPENDITURES BY DEPARTMENTS.	$	$	$	$
Railways and Canals	2,471,857	[5]	[5]	[5]
Marine	4,410,828[2]	[5]	[5]	[5]
Transport	[5]	7,031,400[2]	7,016,825[2]	6,835,431
Public Works	2,714,099	2,375,598	2,140,376	2,885,747
Mines and Resources	[6]	[6]	396,860	412,811

[1] Reported in this form for the first time in 1938. [2] Revised since the publication of the 1939 Year Book to include "North Atlantic ice patrol". [3] Includes Ottawa administration for the first time in 1938. [4] Transferred to the National Harbours Board and shown for latest calendar years in Table 15. [5] The Department of Transport in 1937, 1938, and 1939 included the former Departments of Marine and of Railways and Canals. [6] The Hydrographic Service was administered by the Department of Marine until 1936, by the Department of Transport in 1937, and since that time by the Department of Mines and Resources.

14.—Revenues of the Dominion Government from the Operation of Aids to Navigation, Canals, and Harbours, Fiscal Years 1936-39.

Item and Department.	1936.	1937.	1938.	1939.
AIDS TO NAVIGATION AND MISCELLANEOUS SERVICES.	$	$	$	$
Department of Transport—				
Steamship inspection	107,677	119,140	112,289	119,950
Radio revenue—traffic	56,714	59,840	63,784	61,004
Dominion steamers	2,759	793	3,050	550
Sundries and miscellaneous	46,084	61,650	38,581	29,604
Department of Public Works—				
Earnings of dredges and plant	5,114	8,170	2,388	3,389
TOTALS, AIDS TO NAVIGATION AND MISCELLANEOUS SERVICES	218,348	249,593	220,092	214,497
CANALS.[1]				
Department of Transport—				
St. Lawrence River—				
Lachine	166,746	187,093	205,157	215,877
Beauharnois	59,526	59,619	59,660	60,880
Soulanges	4,057	4,175	4,144	4,168
Cornwall	38,660	32,306	66,389	38,448
Williamsburg	3,018	3,230	3,819	4,225
Welland Canals	191,287	208,691	1,085,611	302,618
Sault Ste. Marie	217	217	217	227
Richelieu River—				
Chambly	1,150	1,157	1,477	1,671
St. Ours Lock	[2]	60	55	10
Ottawa and Rideau Rivers—				
Ste. Anne Lock	189	241	242	305
Carillon and Grenville	1,559	1,567	1,744	1,678
Chats Falls	1	1	1	2
Rideau (including Tay)	10,189	10,375	10,993	10,873
Trent	6,448	6,512	426,315	81,809
Murray	351	311	304	290
St. Peters	157	169	154	153
Sundries	2	3	4	Nil
TOTALS, CANALS	483,557	515,727	1,866,286	723,234
HARBOURS.				
National Harbours Board—				
Port of Churchill	3,264	2,365	[3]	[3]
Prescott Elevator	175,052	161,815	[3]	[3]
Port Colborne Elevator	143,004	206,767	[3]	[3]
Churchill Elevator	84,888	117,091	[3]	[3]
Department of Transport—				
Piers and wharves	111,189	139,849	175,066	201,036
Harbour dues	2,800	4,272	48,808	56,264
Department of Public Works—				
Earnings of dry docks	62,500	80,330	87,806	93,618
Rent, Kingston graving dock	12,100	Nil	12,100	6,050
Ferry privileges	3,022	2,847	2,511	2,460
TOTALS, HARBOURS	597,819	715,336	326,291	359,428
Grand Totals	**1,299,724**	**1,480,656**	**2,412,669**	**1,297,159**

[1] No tolls are charged for the use of Canadian canals. The revenue arises from property leases, water rights, etc. [2] Included with Chambly Canal. [3] Transferred to National Harbours Board, and shown for latest calendar years in Table 15.

15.—Operating Revenues and Expenditures of Harbours, Elevators, and Bridges under the National Harbours Board, 1935-39.

NOTE.—Locally controlled commissions for the harbours shown below were abolished Nov. 1, 1935.

Item.	Operating Revenues.	Operating Expenses.	Operating Income.	Item.	Operating Revenues.	Operating Expenses.	Operating Income.
Halifax—	$	$	$	**Vancouver—**	$	$	$
1935	500,936	504,851	− 3,915	1935	1,537,044	736,554	800,490
1936	510,179	433,040	77,139	1936	1,792,980	718,997	1,073,983
1937	581,740	429,472	152,268	1937	1,636,648	708,830	927,818
1938	599,856	420,765	179,091	1938	1,453,905	566,397	887,508
1939	744,470	420,841	323,629	1939	1,578,037	590,743	987,293
Saint John—							
1935	322,954	272,860	50,094				
1936	367,448	256,380	111,068	**Churchill—**			
1937	435,952	240,302	195,650	1937	6,418	148,331	−141,913
1938	445,726	242,544	203,182	1938	83,867	136,491	− 52,624
1939	466,004	237,882	228,122	1939	108,264	154,671	− 46,407
Chicoutimi—				**Port Colborne Elevator—**			
1935	13,328	20,401	−7,073	1937	126,457	99,546	26,911
1936	21,307	18,639	2,668	1938	249,622	133,319	116,303
1937	21,750	14,361	7,389	1939	255,659	119,207	136,452
1938	21,254	13,374	7,880				
1939	20,414	14,078	6,336	**Prescott Elevator—**			
				1937	57,257	81,888	− 24,631
Quebec—				1938	68,989	75,204	− 6,215
1935	466,474	781,758	−315,284	1939	242,741	74,778	167,963
1936	482,542	673,838	−191,295				
1937	447,780	572,334	−124,554	**Jacques Cartier Bridge (Montreal)**			
1938	488,013	537,316	− 49,303	1935	347,698	145,439	202,259
1939	469,424	492,203	− 22,779	1936	354,867	91,861	263,006
Three Rivers—				1937	423,785	84,550	339,235
1935	93,076	47,837	45,239	1938	445,945	91,785	354,160
1936	122,347	32,191	90,156	1939	463,124	91,266	371,858
1937	172,309	18,023	154,286				
1938	191,881	33,242	158,639				
1939	165,682	18,147	147,535	**Second Narrows Bridge (Vancouver)—**			
Montreal—				1935	113,168	71,083	42,085
1935	4,032,770	2,394,967	1,637,803	1936	140,089	60,586	79,502
1936	4,238,836	2,209,179	2,029,657	1937	164,899	62,611	102,288
1937	4,377,350	2,136,800	2,240,550	1938	178,039	62,630	115,409
1938	4,917,837	2,095,656	2,822,181	1939	110,225	57,074	53,151
1939	4,469,097	1,987,928	2,481,169				

Shipping Subsidies.*—The figures given in Table **16** represent the amounts paid in connection with contracts made under statutory authority by the Department of Trade and Commerce for trade services, including the conveyance of mails.

*Supplied by F. E. Bawden, Director of Steamship Subsidies, Department of Trade and Commerce.

16.—Mail Subsidies and Steamship Subventions, Fiscal Years 1937-39.

Service.	1937.	1938.	1939.
Atlantic Ocean—	$	$	$
Canada and the United Kingdom	250,000	250,000	250,000
Canada and South Africa	112,500	112,500	104,167
Prince Edward Island and Boston	20,000	Nil	Nil
Pacific Ocean—			
British Columbia, Australia, and/or China	136,650	64,350	77,292
Canada, China, and Japan	600,000	600,000	600,000
Canada and New Zealand	292,308	300,000	300,000
Prince Rupert, B.C., and the Queen Charlotte Islands	12,000	12,000	12,000
Vancouver and the British West Indies	30,000	30,000	25,000
Vancouver and northern ports of British Columbia	18,000	18,000	15,000
Victoria, Vancouver, way ports, and Skagway	12,000	12,000	10,000
Victoria and west coast Vancouver Island	10,000	10,000	10,000
British Columbia and South Africa	84,000	77,000	53,333
Local Services—			
Baddeck and Iona	8,000	8,000	8,000
Charlottetown and Pictou	30,000	30,000	30,000
Chester and Tancook Island (winter)	1,600	1,600	1,600
Grand Manan and the mainland	33,000	33,000	33,000

16.—Mail Subsidies and Steamship Subventions, Fiscal Years 1937-39—concluded.

Service.	1937.	1938.	1939.
Local Services—concluded.	$	$	$
Halifax and Bay St. Lawrence	2,000	[1]	[1]
Halifax, Canso, and Guysborough	6,750	6,750	6,750
Halifax, LaHave, and LaHave River ports	1,981	2,000	1,565
Halifax and Sherbrooke	882	2,900	2,900
Halifax, south Cape Breton, and Bras d'Or Lake ports	3,500	5,500	3,000
Halifax, Spry Bay, and Cape Breton ports	4,000	[2]	[2]
Halifax and west coast of Cape Breton	3,923	3,367	Nil
Ile aux Coudres and Les Eboulements	1,100	1,100	1,900
Mulgrave, Arichat, and Canso	33,750	37,000	37,000
Mulgrave and Guysborough, calling at intermediate ports	9,317	9,500	9,500
Murray Bay and north shore (winter service)	40,000	40,000	40,000
Parrsboro, Kingsport, and Wolfville	1,500	2,500	2,500
Pelee Island and the mainland	8,250	7,000	7,000
Pictou, Mulgrave, and Cheticamp	11,000	11,500	11,500
Pictou, Souris, and the Magdalen Islands	37,500	37,500	37,500
Quebec, Natashquan, and Harrington, and other ports on the north shore of the Gulf of St. Lawrence	85,000	85,000	85,000
Quebec or Montreal and Gaspe, and other ports on the south shore of the Gulf of St. Lawrence	60,000	60,000	60,000
Rimouski, Matane, and the north shore of the Lower St. Lawrence	50,000	50,000	50,000
Rivière du Loup and Tadoussac, and other north shore ports	10,000	10,000	10,000
St. Catherine's Bay and Tadoussac	3,500	3,500	1,312
Saint John and Bridgetown	800	800	800
Saint John, Bear River, Annapolis, and Granville	1,500	1,500	1,500
Saint John and Margaretville, and other ports on the Bay of Fundy	2,500	2,500	2,500
Saint John and Minas Basin ports	5,000	5,000	5,000
Saint John and St. Andrews, calling at intermediate ports	3,000	3,000	3,000
Saint John, Westport, and Yarmouth, and other way ports	13,000	13,000	10,000
Saint John and Weymouth	1,000	1,000	1,000
Summerville, Burlington, and Windsor, N.S.	750	750	Nil
Sydney and Bay St. Lawrence, calling at way ports	25,000	25,000	22,500
Sydney and Bras d'Or Lake ports, and ports on the west coast of Cape Breton and Prince Edward Island	22,500	22,500	22,500
Sydney and Whycocomagh	16,000	16,000	16,000
Inspection of subsidized steamship services	4,853	4,593	Nil
Totals	**2,119,914**	**2,029,210**	**1,981,619**

[1] Combined with Halifax and south Cape Breton. [2] Combined with Halifax and Sherbrooke.

Section 3.—Water Traffic and Services.

Complete statistics, comparable to those given for the railways, showing all the freight carried by water, are not available. Indeed it would be very difficult to obtain a record of the traffic handled by small independent coasting vessels. However, there is a record of the number and tonnage of ships calling at all ports at which there are customs collectors and of all the cargoes that pass through the canals.

Subsection 1.—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 is the term used to cover shipping between Canadian and United States ports on the Great Lakes and international rivers, and on lakes and rivers accessible to shipping from United States ports such as the Ottawa, Rideau, Trent, etc. (Ferriage is, however, excluded from this and other classes of shipping.) Coastwise shipping or the coasting trade covers shipping between one Canadian port and another on the Atlantic Coast, on the Pacific Coast, and on the inland international lakes and rivers or lakes and rivers accessible to them. It does not, however, include shipping on isolated Canadian waterways, such as the Mackenzie River, Lake Winnipeg, Lake St. John, etc.

Ocean Shipping.—Canadian ocean shipping dates back to the days of early European fishermen who frequented the shores of Newfoundland and the Maritime Provinces. Shipyards established at Quebec and other points along the St. Lawrence, with later establishments in the Maritime Provinces and on the western coast, have formed the principal bases of Canadian shipping.

Canadian shipping attained some prominence in the days of fast wooden sailing vessels, and also at a later date when steam power first came into use. In 1833, the *Royal William*, a Canadian ship built to ply between Quebec and Halifax, crossed the Atlantic from Pictou to London, and was the first vessel to navigate the Atlantic entirely under steam power. At the present time, in addition to other lines, the Canadian Pacific Railway operates fleets on the Atlantic and Pacific Oceans, and the Dominion Government operates a fleet in the West Indies trade.

The following table has been compiled from the Shipping Reports of the Department of National Revenue for the individual fiscal years 1929-37, and from the Shipping Reports issued by the Transportation Branch of the Dominion Bureau of Statistics for the fiscal years 1938 and 1939.

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

NOTE.—For the years 1868-1910, see Canada Year Book, 1911, p. 379; for 1911-28 see the 1938 Year Book, p. 698.

Year.	British, Entered and Cleared.			Canadian, Entered and Cleared.			Foreign, Entered and Cleared.		
	No.	Tons Register.	Freight Tons.[1]	No.	Tons Register.	Freight Tons.[1]	No.	Tons Register.	Freight Tons.[1]
1929....	6,400	21,625,660	10,448,795	18,005	9,235,036	3,433,603	21,021	23,547,831	11,317,358
1930....	5,634	20,171,383	8,206,656	18,145	9,673,948	3,171,136	19,689	23,146,901	9,386,904
1931....	5,826	20,008,005	7,430,148	17,865	11,707,129	2,441,542	17,906	22,885,015	8,783,961
1932....	5,754	19,025,391	6,751,209	15,919	11,808,667	2,570,564	16,604	21,506,183	8,198,158
1933....	6,323	20,865,151	9,129,496	13,864	9,041,203	1,929,213	15,741	19,860,478	7,314,492
1934....	6,831	22,480,487	8,746,708	17,110	9,391,625	2,474,602	15,464	23,573,742	7,663,478
1935....	7,678	23,676,256	9,392,527	18,788	11,450,147	2,567,636	16,737	21,933,445	8,375,350
1936....	8,095	24,593,603	10,377,917	21,663	13,104,753	3,030,463	16,405	20,354,271	8,914,230
1937....	9,581	27,299,731	12,775,530	23,905	13,334,472	3,085,518	17,998	22,313,808	11,072,578
1938....	9,027	25,710,374	12,134,908	27,243	15,502,958	3,250,695	17,496	21,610,486	11,195,306
1939....	9,958	26,563,472	11,493,839	28,159	15,220,507	3,181,963	18,119	21,614,134	13,014,529

	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]
1929....	22,531	27,464,158	7,155,130	22,895	26,944,369	18,044,626	45,426	54,408,527	25,199,756
1930....	21,583	27,155,766	8,471,107	21,885	25,836,466	12,293,589	43,468	52,992,232	20,764,696
1931....	20,737	28,064,762	7,814,115	20,860	26,535,387	10,841,536	41,597	54,600,149	18,655,651
1932....	19,175	27,003,210	6,820,915	19,102	25,337,031	10,699,016	38,277	52,340,241	17,519,931
1933....	17,778	25,044,389	6,570,607	18,150	24,722,443	11,802,594	35,928	49,766,832	18,373,201
1934....	19,501	28,209,947	7,667,915	19,904	27,235,907	11,216,873	39,405	55,445,854	18,884,788
1935....	21,419	28,512,257	9,099,787	21,784	28,547,591	11,235,726	43,203	57,059,848	20,335,513
1936....	22,835	28,895,751	10,025,922	23,328	29,156,876	12,296,688	46,163	58,052,627	22,322,610
1937....	25,348	31,145,065	11,142,357	26,136	31,802,946	15,791,269	51,484	62,948,011	26,933,626
1938....	26,407	31,421,775	12,698,849	27,359	31,402,043	13,882,060	53,766	62,823,818	26,580,909
1939....	27,500	31,353,871	10,422,537	28,736	32,044,242	17,267,794	56,236	63,398,113	27,690,331

[1] Includes freight in both tons weight and tons measurement.

Inland Shipping.—Inland shipping is associated in its beginnings with the birch-bark canoe of the American Indian. After the migration of the U.E. Loyalists, the *bateau* and Durham boat came into common use. In the absence at that time of any roads to make land travel possible, the St. Lawrence River and the Great Lakes formed the main highway to the interior. The route from Montreal to the Upper Lakes was broken at three places—from Montreal to Kingston transportation was by *bateau* or Durham boat; from Kingston to Queenston schooners

were used; then, after the portage road from Queenston to Chippawa, the schooner was again taken to the destination.

In 1809, the *Accommodation*, the first Canadian steamship, was built for the Hon. John Molson, to run between Montreal and Quebec. The *Frontenac* was used on Lake Ontario from 1817 on a weekly service between York and Prescott and, following this beginning, there was a period of great activity in lake and river shipping. In 1845, the *Gore* reached Lake Huron by way of the Welland Canal to carry on transport trade on the Upper Lakes, where previously there had not been enough traffic to support a large ship. Shipping on the Upper Lakes became brisker now, for there were settlers to be carried from Buffalo to the western United States and grain to be brought back. In this period Canadian shipping made its profit by carrying United States goods, for there was little traffic originating in the Canadian near-West.

Water-borne traffic did not decrease upon the advent of steam railways, but, on the contrary, increased, and at present the greater part of the western grain is shipped via the Great Lakes route to eastern ports. The iron ore and coal traffic between Lake Superior and Lake Erie is chiefly United States traffic and sometimes exceeds 80 million short tons in a year; the total traffic on these Upper Lakes alone is greater than that carried by all Canadian railways and about one-twelfth of that carried by all United States railways.

Coasting Trade.—This form of water-borne traffic has assumed great importance in Canada owing to the long coast lines on the Atlantic and Pacific Oceans and along the Great Lakes and St. Lawrence River system. The movement of grain from Fort William and Port Arthur to Canadian ports on the Lower Lakes and to Montreal is one important factor in coastwise shipping.

Shipping by Ports.—In the fiscal year ended Mar. 31, 1939, the tonnage of sea-going vessels arriving at and departing from Vancouver exceeded that of any other port in Canada; Victoria was next, followed by Montreal and Halifax, but in respect to sea-going cargoes loaded and unloaded, Montreal led by a wide margin, followed by Vancouver, Sydney, Saint John, and Halifax. Arrivals only for all shipping are given because, especially in the case of small ports, and owing to the necessity for customs examination, they are more completely reported than departures.

18.—Sea-Going Vessels Entered and Cleared and All Vessels (Exclusive of Ferriage) Entered at each Principal Canadian Port, Fiscal Year 1939.

NOTE.—For details of coastwise and inland international shipping at these ports and at all other ports of Canada, see the Shipping Report of the Dominion Bureau of Statistics for 1939.

Province and Port.	Sea-Going Vessels.						Total Shipping.	
	Arrived.			Departed.			Arrived.	
	No.	Tons Register.	Cargo Tonnage.	No.	Tons Register.	Cargo Tonnage.	No.	Tons Register.
Prince Edward Island—								
Charlottetown	30	26,783	21,050	44	36,272	11,494	404	181,764
Totals, P.E.I.[1]	**64**	**39,956**	**39,749**	**86**	**56,668**	**30,094**	**613**	**243,571**
Nova Scotia—								
Baddeck	33	33,530	[2]	34	33,907	71,912	663	86,095
Canso	90	12,097	5,776	100	13,613	16,703	1,245	144,423
Digby	44	48,423	211	46	51,110	21,385	558	676,168
Halifax	1,262	3,035,314	957,776	1,531	3,315,106	493,267	2,840	3,981,693
Liverpool	121	93,457	21,178	116	91,517	111,650	231	164,205
Louisburg	131	127,431	147,919	148	157,302	284,871	468	270,603
Lunenburg	414	37,037	29,739	450	36,275	5,938	584	51,123
North Sydney	998	248,294	5,888	1,061	258,209	131,171	2,014	536,172
Pictou	22	16,217	3,792	41	51,579	61,137	512	219,899
Sydney	276	564,126	980,488	431	888,246	1,057,433	1,521	2,152,295
Yarmouth	582	486,936	24,102	598	481,669	25,501	955	614,110
Totals, Nova Scotia[1]	**5,707**	**5,180,474**	**2,238,433**	**6,642**	**5,957,334**	**3,467,254**	**17,827**	**9,926,281**

[1] Totals include other smaller ports. [2] None reported.

18.—Sea-Going Vessels Entered and Cleared and All Vessels (Exclusive of Ferriage) Entered at each Principal Canadian Port, Fiscal Year 1939—concluded.

Province and Port.	Sea-Going Vessels.						Total Shipping.	
	Arrived.			Departed.			Arrived.	
	No.	Tons Register.	Cargo Tonnage.	No.	Tons Register.	Cargo Tonnage.	No.	Tons Register.
New Brunswick—								
Campobello	954	90,203	31	992	107,938	206	1,187	186,849
Dalhousie	22	64,200	16,570	35	92,300	130,355	40	98,998
St. Andrews	648	75,759	3,811	642	75,937	1,981	949	104,306
Saint John	660	1,540,707	375,452	669	1,575,872	1,226,471	2,099	2,440,941
Totals, New Brunswick[1]	**5,936**	**2,158,149**	**446,048**	**6,051**	**2,292,648**	**1,925,853**	**9,480**	**3,505,956**
Quebec—								
Gaspe	14	40,044	[2]	31	69,650	[2]	213	165,657
Hull	[2]	–	–	[2]	–	–	311	54,064
Lévis	7	9,141	19,351	4	5,320	[2]	125	153,590
Montreal	1,184	4,404,710	5,260,092	1,099	4,168,946	3,773,971	5,889	9,081,398
Port Alfred	81	186,158	353,260	83	217,133	128,245	420	704,032
Quebec	356	1,944,387	186,914	358	1,680,121	317,683	2,852	4,080,273
Rimouski	7	11,476	1,800	22	36,004	82,766	579	161,136
Sorel	125	352,001	192,208	167	440,547	1,055,218	1,164	2,002,532
Three Rivers	190	548,361	62,106	190	548,361	989,322	2,413	2,112,378
Totals, Quebec[1]	**2,054**	**7,630,288**	**6,094,752**	**2,045**	**7,278,785**	**6,460,565**	**16,622**	**19,339,095**
Ontario—								
Amherstburg							597	701,828
Brockville							975	428,263
Cobourg							414	1,259,289
Cornwall							361	383,196
Fort William							1,017	2,281,864
Hamilton							797	1,456,484
Kingston							3,423	2,071,091
Midland	[2]	–	–	[2]	–	–	250	472,333
Niagara Falls							25	1,433
Port Arthur							1,119	2,559,623
Port Colborne							1,167	2,037,325
Port McNicoll							180	439,261
Prescott							991	1,132,315
St. Catharines							275	372,962
Sarnia							1,090	1,722,292
Sault Ste. Marie							989	1,691,782
Thorold	[2]	–	–	9	7,108	3,911	499	696,160
Toronto	37	27,690	13,126	31	23,427	3,252	2,940	3,407,010
Welland	[2]	–	–	[2]	–	–	186	245,618
Windsor	[2]		–	[2]	–	–	1,021	1,647,068
Totals, Ontario[1]	**37**	**27,690**	**13,126**	**40**	**30,535**	**7,163**	**27,446**	**28,221,014**
Manitoba—								
Totals, Manitoba	**9**	**10,756**	[2]	**9**	**10,756**	**24,560**	**15**	**12,712**
British Columbia—								
Alert Bay	113	27,226	13	119	23,753	27,488	1,360	596,749
Britannia Beach	123	115,773	3,426	155	136,295	118,734	1,113	373,051
Nanaimo	740	336,224	16	739	336,138	94,843	3,333	1,468,546
New Westminster	605	1,833,264	24,754	586	1,833,285	883,400	2,393	2,277,148
Ocean Falls	35	24,342	1,815	62	123,586	39,215	856	655,615
Port Alberni	345	851,509	[2]	369	878,299	935,151	766	1,048,380
Powell River	166	154,712	3,275	220	159,854	110,817	1,941	1,013,402
Prince Rupert	2,230	231,140	14,781	2,258	238,897	9,450	3,613	833,742
Sidney	833	135,292	6,905	771	126,599	4,451	1,207	297,831
Union Bay	134	386,739	[2]	161	398,014	11,998	866	689,236
Vancouver	2,967	6,636,616	1,487,897	2,865	6,578,781	2,233,099	17,381	11,130,541
Victoria	2,848	4,624,960	42,518	2,878	4,621,982	354,724	5,621	6,913,567
Totals, British Columbia[1]	**13,693**	**16,366,558**	**1,590,429**	**13,863**	**16,417,516**	**5,352,305**	**44,835**	**28,808,681**
Yukon—								
Totals, Yukon	[2]		–	[2]	–	–	149	104,263
Grand Totals	**27,500**	**31,353,871**	**10,422,537**	**28,736**	**32,044,242**	**17,267,794**	**116,987**	**90,161,573**

[1] Totals include other smaller ports. [2] None reported.

Grand Total Shipping Trade.—Both sea-going and coastwise shipping have shown marked expansion since 1923, although the effect of the depression is evident here also. It is noteworthy that the volume of coastwise shipping is the greatest, while sea-going is next in tonnage. Inland international shipping has varied considerably and showed a more definite decrease during the depression. The ferry between Sarnia, Ontario, and Port Huron, Michigan, making 19,167 round trips with a cumulative registered tonnage of 2,148,656 tons in and the same out, was excluded for the first time in 1938. This ferry was displaced by a bridge in 1938-39.

19.—All Vessels (Exclusive of Ferriage) Entered and Cleared at Canadian Ports, 1929-39, With Details by Provinces for the Fiscal Year 1939.

NOTE.—Totals for the years 1923-28 will be found at p. 702 of the 1938 Year Book.

Year and Province.	Sea-Going.				Coastwise.			
	Arrived.		Departed.		Arrived.		Departed.	
	No.	Tons Register.	No.	Tons Register.	No.	Tons Register.	No.	Tons Register.
Totals, 1929	22,531	27,464,158	22,895	26,944,369	95,047	49,046,588	93,905	48,007,097
Totals, 1930	21,583	27,155,766	21,885	25,836,466	82,205	43,666,866	82,197	44,067,907
Totals, 1931	20,737	28,064,762	20,860	26,535,387	77,507	47,134,652	77,354	47,540,555
Totals, 1932	19,175	27,003,210	19,102	25,337,031	69,875	44,912,972	70,112	45,311,899
Totals, 1933	17,778	25,044,389	18,150	24,722,443	64,875	41,975,393	64,688	41,100,788
Totals, 1934	19,501	28,209,947	19,904	27,235,907	66,915	41,923,543	66,895	41,843,250
Totals, 1935	21,419	28,512,257	21,784	28,547,591	68,441	43,146,037	68,545	42,827,149
Totals, 1936	22,835	28,895,751	23,328	29,156,876	69,809	42,979,361	69,633	41,815,616
Totals, 1937	25,348	31,145,065	26,136	31,802,946	73,033	45,973,830	72,739	45,447,342
Totals, 1938	26,407	31,421,775	27,359	31,402,043	75,537	44,471,834	75,761	44,259,779
1939.								
Prince Edward Island	64	39,956	86	56,668	549	203,615	543	196,891
Nova Scotia	5,707	5,180,474	6,642	5,957,334	12,120	4,745,807	11,699	4,041,121
New Brunswick	5,936	2,158,149	6,051	2,292,648	3,544	1,347,807	3,540	1,263,201
Quebec	2,054	7,630,288	2,045	7,278,785	13,047	10,614,495	12,962	10,637,578
Ontario	37	27,690	40	30,535	12,856	15,872,869	12,130	14,553,032
Manitoba	9	10,756	9	10,756	6	1,956	6	1,956
British Columbia	13,693	16,306,558	13,863	16,417,516	31,139	12,502,033	31,277	12,392,414
Yukon	Nil	–	Nil	–	125	97,875	122	97,459
Totals, 1939	27,500	31,353,871	28,736	32,044,242	73,386	45,386,457	72,279	43,183,652

Year and Province.	Inland International.				Total Shipping.			
	Arrived.		Departed.		Arrived.		Departed.	
	No.	Tons Register.	No.	Tons Register.	No.	Tons Register.	No.	Tons Register.
Totals, 1929[1]	37,320	18,987,751	38,437	20,338,949	154,898	95,498,497	155,237	95,290,415
Totals, 1930[1]	54,742	17,550,585	55,600	18,895,972	158,530	88,373,217	159,682	88,800,345
Totals, 1931[1]	40,663	17,769,690	40,826	18,542,037	138,907	92,969,104	139,040	92,617,979
Totals, 1932[1]	35,264	15,216,213	35,768	15,879,943	124,314	87,132,395	124,982	86,528,873
Totals, 1933[1]	31,551	12,714,054	31,957	13,791,599	114,204	79,733,836	114,795	79,614,830
Totals, 1934[1]	28,328	12,718,566	28,660	14,460,952	114,744	82,852,056	115,459	83,540,109
Totals, 1935[1]	26,943	14,772,884	26,874	14,602,087	116,803	86,431,178	117,203	85,976,827
Totals, 1936[1]	29,548	14,472,022	29,425	14,998,858	122,192	86,347,134	122,386	85,971,350
Totals, 1937[1]	31,624	15,564,121	31,759	16,074,614	130,005	92,683,016	130,634	93,324,902
Totals, 1938[2]	16,175	14,181,280	15,958	14,364,168	118,119	90,074,889	119,078	90,025,990
1939.								
Prince Edward Island	Nil	–	Nil	–	613	243,571	629	253,559
Nova Scotia	"	–	"	–	17,827	9,926,281	18,341	9,998,455
New Brunswick	"	–	"	–	9,480	3,505,956	9,591	3,555,849
Quebec	1,521	1,094,312	1,758	1,459,868	16,622	19,339,095	16,765	19,376,231
Ontario[2]	14,553	12,320,455	14,991	13,541,781	27,446	28,221,014	27,161	28,125,348
Manitoba	Nil	–	Nil	–	15	12,712	15	12,712
British Columbia	3	90	3	90	44,835	28,808,681	45,143	28,810,020
Yukon	24	6,388	25	6,390	149	104,263	147	103,849
Totals, 1939	16,101	13,421,245	16,777	15,008,129	116,987	90,161,573	117,792	90,236,023

[1] The Ontario figures and the totals for "Inland International" and "Total Shipping" are inclusive of ferriage at Sarnia amounting in each case of "Arrived" and "Departed" to: 13,180 vessels and 1,415,612 tons for 1934; 13,444 vessels and 1,433,031 tons for 1935; 14,583 vessels and 1,620,820 tons for 1936; and 15,217 vessels and 1,678,272 tons for 1937. Corresponding deductions for earlier years are not available. [2] Ferry at Sarnia was discontinued in 1938. See footnote 1.

Subsection 2.—Canal Traffic.

Since the canals of Canada are open to the vessels and traffic of all nations upon equal terms, United States traffic constitutes an important part of the total carried through certain canals, especially the Welland Ship Canal. This is shown in Tables **20** and **23**. More complete details of the traffic through canals may be found in the annual report "Canal Statistics" published by the Dominion Bureau of Statistics.

20.—Traffic Through Canadian Canals, by Nationality of Vessels and Origin of Freight, Navigation Seasons 1929-39.

NOTE.—Figures include duplications where cargoes use two or more canals. For Canadian canal traffic from 1886-99, see the 1902 Year Book, p. 398; for the figures of 1900-10, the 1933 Year Book, p. 697; and for 1911-28, p. 703 of the 1938 edition.

Navigation Season.	Traffic.				Origin of Freight Carried.				
	Canadian Vessels.		United States Vessels.[1]		Canada.		United States.[1]		Total.
	No.	Registered Tonnage.	No.	Registered Tonnage.	Tons.	P.C. of Total.	Tons.	P.C. of Total.	Tons.
1929..	25,917	13,741,071	2,400	2,323,351	9,689,718	70·7	4,009,929	29·3	13,699,647
1930 .	24,100	14,489,045	2,063	1,684,576	10,955,113	74·0	3,848,221	26·0	14,803,334
1931..	25,830	15,869,553	1,821	1,749,231	11,433,737	70·6	4,755,337	29·4	16,189,074
1932..	19,854	15,255,970	2,061	2,681,078	13,242,773	73·7	4,717,877	26·3	17,960,650
1933..	21,364	15,225,022	2,200	3,045,876	12,724,925	67·8	6,055,564	32·2	18,780,489
1934..	22,217	14,766,837	2,044	2,969,981	10,813,922	59·8	7,255,330	40·2	18,069,252
1935..	23,822	15,290,797	2,035	2,578,091	11,187,082	61·5	7,018,907	38·5	18,205,989
1936..	25,251	17,085,749	2,708	3,208,829	13,465,460	62·7	8,003,356	37·3	21,468,816
1937..	24,669	17,904,774	2,869	3,526,939	11,911,241	51·0	11,439,759	49·0	23,351,000
1938..	25,365	19,803,447	2,373	2,932,799	12,988,349[2]	52·7	11,648,113[2]	47·3	24,636,462[2]
1939..	24,768	18,240,632	2,757	3,095,648	14,150,305	60·5	9,240,772	39·5	23,391,077

[1] Figures include a small percentage of vessels of other foreign countries. [2] Revised since the publication of the 1939 Year Book.

21.—Tonnage of Canal Traffic, by Canals and Classes of Products, Navigation Seasons 1938 and 1939.

NOTE.—Figures include duplications where cargoes use two or more canals.

Year and Canal.	Agricultural Products.	Animal Pronucts.	Manufactures and Miscellaneous.	Forest Products.	Mineral Products.	Total.
1938.	tons.	tons.	tons.	tons.	tons.	tons.
Sault Ste. Marie	1,452,727	281	519,531	132,504	163,313	2,268,356
Welland Ship	5,985,892[1]	Nil	2,248,290	432,621	3,962,251	12,629,054[1]
St. Lawrence River	4,734,585	2,706	2,221,608	616,475	1,660,944	9,236,318
Richelieu River	381	143	47,659	6,222	40,292	94,697
St. Peters	5,996	1,395	11,731	24,584	17,768	61,474
Murray	Nil	Nil	40	Nil	2,307	2,347
Ottawa River	"	"	106,507	633	192,553	299,693
Rideau	"	"	129	989	505	1,623
Trent	79	27	6,598	3,774	11,755	22,233
St. Andrews	Nil	1,589	6,535	12,088	455	20,667
Totals, 1938	**12,179,660[1]**	**6,141**	**5,168,628[1]**	**1,229,890**	**6,052,143[1]**	**24,636,462[1]**

[1] Revised since the publication of the 1939 Year Book.

21.—Tonnage of Canal Traffic, by Canals and Classes of Products, Navigation Seasons 1938 and 1939—concluded.

Year and Canal.	Agricultural Products.	Animal Products.	Manufactures and Miscellaneous.	Forest Products.	Mineral Products.	Total.
1939.	tons.	tons.	tons.	tons.	tons.	tons.
Sault Ste. Marie	1,683,943	215	642,721	210,152	238,738	2,775,769
Welland Ship	3,848,643	1,914	2,742,840	448,716	4,685,440	11,727,553
St. Lawrence River	3,104,168	4,496	2,205,787	580,317	2,445,397	8,340,165
Richelieu River	719	50	78,923	5,483	26,502	111,677
St. Peters	5,672	1,246	7,178	48,521	16,398	79,015
Murray	75	64	865	650	2,053	3,707
Ottawa River	Nil	Nil	104,059	6,527	191,085	301,671
Rideau	"	"	168	1,486	355	2,009
Trent	96	22	1,231	6,698	20,938	28,985
St. Andrews	80	1,575	6,340	12,256	275	20,526
Totals, 1939	**8,643,396**	**9,582**	**5,790,112**	**1,320,806**	**7,627,181**	**23,391,077**

22.—Principal Commodities Carried Through Canadian Canals, Navigation Seasons 1935-39.

NOTE.—Figures include duplications where cargoes use two or more canals.

Commodity.	1935.	1936.	1937.	1938.	1939.	Increase(+) or Decrease(−) in 1939.
	tons.	tons.	tons.	tons.	tons.	tons.
Barley	396,659	494,500	755,081	1,308,679[1]	690,097	−618,582
Corn	346,094	381,248	1,823,211	3,900,997[1]	501,758	−3,399,239
Oats	315,340	317,507	258,269	343,740	329,232	−14,508
Rye	179,326	112,487	245,119	179,995	112,445	−67,550
Flaxseed	67,013	110,056	222,791	80,720	89,999	+9,279
Wheat	4,089,058	5,444,009	4,119,942	5,474,382	5,662,574	+188,192
Other grains	88,470	114,954	73,106	122,883	314,294	+191,411
Flour	716,602	773,152	597,823	671,940	774,438	+102,498
Hay	2,950	4,724	3,225	1,521	3,100	+1,579
Other milled products	129,549	78,328	54,196	80,747	145,191	+64,444
Fruits and vegetables	5,930	3,902	5,441	9,086	15,105	+6,019
Potatoes	6,934	2,871	5,263	4,970	5,163	+193
Poultry, game, and fish	4,276	5,024	6,105	3,106	4,625	+1,519
Dressed meats	376	2,105	97	65	440	+375
Other packing-house products	1,694	1,906	2,908	454	435	−19
All other animal products	7,995	4,820	4,429	2,516	4,082	+1,566
Agricultural implements	19,212	8,763	12,660	17,643	15,293	−2,350
Cement, bricks, and lime	39,592	41,939	29,578	23,327	39,843	+16,516
Iron, pig and bloom	31,074	14,631	142,213	31,313[1]	106,934	+75,621
Iron and steel, all other	222,404	291,913	338,843	227,653	416,377	+188,724
Gasoline	966,766	1,088,885	1,138,041	1,190,050	1,181,078	−8,972
Petroleum and other oils	755,432	849,458	970,788	964,382	1,256,990	+292,608
Sugar	322,167	308,308	256,485	304,345	252,983	−51,362
Salt	78,040	74,127	102,767	124,379[1]	108,705	−15,674
Wines, liquors, and beer	19,941	16,161	15,447	14,125[1]	13,861	−264
Paper	387,400	406,828	515,668	378,551[1]	459,754	+81,203
Wood-pulp	780,090	799,192	606,836	445,549	372,933	−72,616
Automobiles and parts	68,861	59,033	81,731	54,885[1]	64,561	+9,676
Pulpwood	1,124,916	1,388,154	1,331,699	1,154,710	1,236,842	+82,132
Logs, posts, poles, piling	25,727	32,992	6,963	4,269	16,526	+12,257
Firewood	16,273	6,685	5,810	16,062	9,487	−6,575
Lumber mill and cooperage stock	47,432	60,707	55,779	51,801	56,501	+4,700
Other forest products	5,898	7,245	1,693	3,048	1,450	−1,598
Hard coal	446,367	380,910	266,193	357,301	288,283	−69,018
Soft coal	3,714,568	4,339,090	5,617,723	4,200,872	5,672,094	+1,471,222
Coke	295,329	406,142	336,733	232,882	287,990	+55,108
Copper ore	8,693	12,559	5,061	11,511	22,517	+11,006
Iron ore	657,995	863,632	1,077,709	642,253	699,951	+57,698
Other ore	98,452	214,876	215,227	131,898	174,846	+42,948
Sand, etc	426,952	388,444	453,970	475,426[1]	481,500	+6,074
All other freight	1,288,142	1,556,549	1,588,377	1,392,426	1,500,800	+108,374
Totals	**18,205,989**	**21,468,816**	**23,351,000**	**24,636,462[1]**	**23,391,077**	**− 1,245,385**

[1] Revised since the publication of the 1939 Year Book.

23.—Canal Traffic, by Direction and Origin, Navigation Seasons 1938 and 1939.

NOTE.—Figures include duplications where cargoes use two or more canals.

Year and Canal.	From Canadian to Canadian Ports.		From Canadian to United States Ports.[1]		From United States to United States Ports.[1]		From United States to Canadian Ports.[1]	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.
1938.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
Sault Ste. Marie	376,632	1,262,737	26,926	246,637	28,162	36,639	155,840	134,783
Welland Ship	832,996[2]	4,219,581[2]	709,929	135,818[2]	386,341	1,043,965	24,828	5,275,596[2]
St. Lawrence River	2,422,181	4,585,672	750,588	36,547	69,453	73,604	26,299	1,271,974
Richelieu River	30,960	1,650	35,949	Nil	Nil	Nil	Nil	26,138
St. Peters	16,741	44,733	Nil	"	"	"	"	Nil
Murray	Nil	40	"	"	"	"	"	2,307
Ottawa River	135,341	148,365	"	15,987	"	"	"	Nil
Rideau	1,261	362	"	Nil	"	"	"	"
Trent	3,807	18,426	"	"	"	"	"	"
St. Andrews	13,947	6,720	"	"	"	"	"	"
Totals, 1938	**3,833,866[2]**	**10,288,286[2]**	**1,523,392**	**434,989[2]**	**483,956**	**1,154,208**	**206,967**	**6,710,798[2]**
1939.								
Sault Ste. Marie	478,439	1,557,359	18,520	369,480	31,153	66,403	197,941	56,474
Welland Ship	1,206,991	3,645,411	587,184	366,508	426,889	618,953	31,040	4,844,577
St. Lawrence River	2,744,541	3,223,880	559,269	52,558	156,849	114,722	32,429	1,455,917
Richelieu River	39,747	1,842	42,384	Nil	Nil	Nil	Nil	27,704
St. Peters	15,204	63,811	Nil	"	"	"	"	Nil
Murray	2,943	764	"	"	"	"	"	"
Ottawa River	129,459	152,145	"	20,067	"	"	"	"
Rideau	1,512	497	"	Nil	"	"	"	"
Trent	7,061	21,924	"	"	"	"	"	"
St. Andrews	14,339	6,187	"	"	"	"	"	"
Totals, 1939	**4,640,236**	**8,673,820**	**1,207,357**	**808,613**	**614,891**	**800,078**	**261,410**	**6,384,672**

Year and Canal.	Traffic by Direction.		Origins of Cargo.		Total Cargo.	Increase(+) or Decrease (−) on Previous Year.
	Up.	Down.	Canada.	United States.[1]		
1938.	tons.	tons.	tons.	tons.	tons.	tons.
Sault Ste. Marie	587,560	1,680,796	1,890,467	377,889	2,268,356	+448,427
Welland Ship	1,954,094[2]	10,674,960[2]	4,928,067[2]	7,700,987[2]	12,629,054[2]	+881,104[2]
St. Lawrence River	3,268,521	5,967,797	5,697,806	3,538,512	9,236,318	+40,879
Richelieu River	66,909	27,788	68,559	26,138	94,697	−29,047
St. Peters	16,741	44,733	61,394	80	61,474	−18,478
Murray	Nil	2,347	40	2,307	2,347	−18
Ottawa River	135,341	164,352	297,493	2,200	299,693	−49,385
Rideau	1,261	362	1,623	Nil	1,623	−14,858
Trent	3,807	18,426	22,233	"	22,233	+19,885
St. Andrews	13,947	6,720	20,667	"	20,667	+6,953
Totals, 1938	**6,048,181[2]**	**18,588,281[2]**	**12,988,349[2]**	**11,648,113[2]**	**24,636,462[2]**	**+1,285,462[2]**
1939.						
Sault Ste. Marie	726,053	2,049,716	2,403,388	372,381	2,775,769	+507,413
Welland Ship	2,252,104	9,475,449	5,419,825	6,307,728	11,727,553	−901,501
St. Lawrence River	3,493,088	4,847,077	5,808,933	2,531,232	8,340,165	−896,153
Richelieu River	82,131	29,546	83,973	27,704	111,677	+16,980
St. Peters	15,204	63,811	79,015	Nil	79,015	+17,541
Murray	2,943	764	3,707	"	3,707	+1,360
Ottawa River	129,459	172,212	299,944	1,727	301,671	+1,978
Rideau	1,512	497	2,009	Nil	2,009	+386
Trent	7,061	21,924	28,985	"	28,985	+6,752
St. Andrews	14,339	6,187	20,526	"	20,526	−141
Totals, 1939	**6,723,894**	**16,667,183**	**14,150,305**	**9,240,772**	**23,391,077**	**−1,245,385**

[1] Figures include a small percentage of ports of other foreign countries. [2] Revised since the publication of the 1939 Year Book.

The figures in Tables **20-23** include duplications where the same freight passes through two or more canals, but in Table **24** duplications in the traffic passing through the St. Lawrence and Welland Ship Canals and the Canadian Lock at Sault Ste. Marie, which amounted to 5,494,242 tons, have been eliminated.

Grain transhipped at Georgian Bay, Lake Erie, or other ports above Montreal is treated as new cargo and as most of this grain has passed through either the Canadian or United States lock at Sault Ste. Marie there are still duplications in the data because of this treatment. These duplications cannot be avoided when net totals for the Canadian canals are computed because it is impossible to ascertain which lock at Sault Ste. Marie was used by the grain reloaded at Port Colborne or other transhipping port.

24.—St. Lawrence-Great Lakes Traffic Using St. Lawrence, Welland Ship, and Sault Ste. Marie Canals, 1939.

Canals Used.	Up-Bound Freight.	Down-Bound Freight.	Total.
Traffic Using Canadian Canals.	tons.	tons.	tons.
St. Lawrence only	1,959,513	2,033,446	3,992,959
St. Lawrence and Welland Ship	1,321,449	2,076,861	3,398,310
St. Lawrence, Welland Ship, and Sault Ste. Marie	212,126	736,770	948,896
Welland Ship only	606,255	4,342,921	4,949,176
Welland Ship and Sault Ste. Marie	112,274	2,318,897	2,431,171
Sault Ste. Marie only	481,299	1,147,434	1,628,733
Totals, Traffic Using Canadian Canals	**4,692,916**	**12,656,329**	**17,349,245**
Traffic Using United States Canals.			
Traffic through United States locks at Sault Ste. Marie that used Welland Ship and St. Lawrence Canals	79,646	2,153,385	2,233,031
United States locks at Sault Ste. Marie only	10,561,776	54,278,728	64,840,504
Totals, United States Locks at Sault Ste. Marie	**10,641,422**	**56,432,113**	**67,073,535**

The Panama Canal.*—The Panama Canal, which was opened to commercial traffic on Aug. 15, 1914, is a waterway of great importance to British Columbian ports, from which vessels leave direct for British and European ports throughout the year. As an alternative route to that of the transcontinental railway lines, such a passage by water is of vital importance in the solution of the larger transportation problems of the continent, and while its influence is perhaps more potential than actual, such a check on transcontinental rail rates is a valuable one. During the War of 1914-18 the great expectations based upon the opening of the Canal were not realized, owing to the scarcity of shipping, but, with the post-war decline in ocean freight rates, an increase in traffic between Canada's Pacific ports and Europe has taken place, and, while the proportion carried in vessels of Canadian registry is comparatively small, the cargo tonnage has nevertheless assumed considerable proportions.

The greater importance of the route as one from Pacific to Atlantic ports is illustrated by the much larger volume of freight originating at western ports than at eastern ports, and the larger volume destined for eastern than for western Canadian ports. Strictly inter-coastal Canadian cargo during the latest year aggregated 103,291 long tons as compared with 82,798 long tons in 1938.

* Revised and figures supplied by courtesy of the Governor of the Panama Canal Zone.

With respect to total traffic through the Canal by nationality of vessel and cargo carried, vessels of United States registration carried 9,909,380 tons, or 35·6 p.c. of the total cargo of 27,866,627 tons locked through in the year ended June 30, 1939. British vessels carried 6,801,556 tons, or 24·4 p.c.; Norwegian vessels 3,408,078 tons, or 12·2 p.c.; Japanese vessels 1,710,303 tons, or 6·1 p.c.; and German vessels 1,468,996 tons, or 5·3 p.c.

25.—Traffic to and from the East and West Coasts of Canada via the Panama Canal, Years Ended June 30, 1929-39.

NOTE.—Figures for the years 1921-28 are given at p. 707 of the 1938 Year Book.

Year.	Originating on—		Destined for—	
	West Coast.	East Coast.	West Coast.	East Coast.
	long tons.	long tons.	long tons.	long tons.
1929	2,650,646	221,128	266,433	539,767
1930	1,968,966	185,776	267,282	556,562
1931	2,307,257	137,756	271,621	492,532
1932	2,383,211	89,443	167,855	529,317
1933	2,896,162	121,875	134,511	328,038
1934	2,201,180	196,204	189,227	498,706
1935	2,490,203	248,658	176,698	547,974
1936	2,705,567	298,884	223,174	506,673
1937	2,780,243	379,783	240,221	589,011
1938	1,962,220	391,906	213,781	398,710
1939	2,873,452	348,410	163,526	296,881

26.—Commercial Traffic through the Panama Canal, Years Ended June 30, 1929-39.

NOTE.—Figures for the years 1915-28 are given at p. 708 of the 1938 Year Book.

Year.	Atlantic to Pacific.		Pacific to Atlantic.		Totals.	
	Vessels.	Cargo Tonnage.	Vessels.	Cargo Tonnage.	Vessels.	Cargo Tonnage.
	No.	long tons.	No.	long tons.	No.	long tons.
1929	3,279	9,873,529	3,010	20,774,239	6,289	30,647,768
1930	3,051	9,472,061	2,976	20,546,368	6,027	30,018,429
1931	2,717	6,670,718	2,653	18,394,565	5,370	25,065,283
1932	2,273	5,631,717	2,089	14,167,269	4,362	19,798,986
1933	2,184	4,507,070	1,978	13,654,095	4,162	18,161,165
1934	2,753	6,162,649	2,481	18,541,360	5,234	24,704,009
1935	2,676	7,529,721	2,504	17,779,806	5,180	25,309,527
1936	2,770	8,249,899	2,612	18,256,044	5,382	26,505,943
1937	2,865	9,895,632	2,522	18,212,743	5,387	28,108,375
1938	2,946	9,688,560	2,578	17,697,364	5,524	27,385,924
1939	3,146	9,011,267	2,757	18,855,360	5,903	27,866,627

Subsection 3.—Harbour Traffic.

The freight movement through a large port takes a number of different forms The overseas movement, i.e., the freight loaded into or unloaded from sea-going vessels, frequently constitutes a surprisingly small part of the total. Usually the volume coming in and going out by coastwise vessels is larger. Then there is the 'in transit' movement in vessels that pass through the harbour without loading or unloading. Finally there is the movement from one point to another within the harbour, which in many ports amounts to a large volume. It is not possible to obtain statistics of the total freight handled in all the ports and harbours of Canada, as many of them are small, and without the staff necessary to obtain a detailed record of freight handled. However, the cargo of sea-going vessels loaded and unloaded is shown for the principal ports, for the provinces, and for Canada, in

Table 18. Similar statistics of cargo carried by vessels in coastwise and inland international shipping are not available. The National Harbours Board now reports annually the water-borne cargo loaded and unloaded at the eight ports under its control. Six of these are among the principal ports of Canada and the cargo handled in each is shown in Table 27. The classification is the same as for railway freight (Table 21, pp. 654-655) and canal traffic (Table 22, p. 697). The figures include freight carried by coastwise and inland international, as well as by sea-going shipping. The total of sea-going cargo is shown for these same ports in Table 18, and the difference would be largely coastwise for these particular ports. The figures for each port include all cargo loaded or unloaded whether by facilities under the Board or at private docks and terminals in these ports. Cross-harbour movements and bunkering are excluded.

27.—Principal Commodities in Water-Borne Cargo Landed from and Loaded to Vessels at Each of Six Principal Ports in Canada, 1939, compared with 1938.

Port and Commodity.	Inward, 1939.	Outward, 1939.	Total, 1939.	Total, 1938.
Montreal.	tons.	tons.	tons.	tons.
Grain	1,712,448	1,454,346	3,166,794	5,002,755
Coal, bituminous	2,489,320	435,604	2,924,924	2,114,141
Petroleum, crude	2,360,352	Nil	2,360,352	2,624,206
Coal, anthracite	1,149,856	201,134	1,350,990	1,681,826
Petroleum products (except gasoline)	86,987	722,113	809,100	673,564
Gasoline	176,742	614,835	791,577	1,018,593
Sugar	279,906	42,657	322,563	355,588
Flour	40,763	266,508	307,271	234,120
Wood-pulp	121,894	140,479	262,373	378,520
Base bullion, matte, pig and ingot (non-ferrous metals)	4,820	193,563	198,383	209,767
Cement	528	122,232	122,760	107,692
Canned goods (except meats)	28,460	89,669	118,129	103,130
Lumber, timber, box, crate, and cooperage material	31,330	86,108	117,438	134,248
Iron and steel (bar, sheet, structural, pipe)	44,109	54,698	98,807	96,939
Automobiles, auto trucks, and auto parts	5,686	72,438	78,124	82,005
Molasses	59,807	14,466	74,273	52,138
Dressed meats	2,091	71,519	73,610	74,485
Ores and concentrates (except iron)	30,347	34,396	64,743	31,855
Sulphur	46,106	15,557	61,663	35,173
Newsprint	6,503	53,234	59,737	49,056
Mill products (except flour)	2,831	54,747	57,578	121,514
Totals (21 Commodities)	**8,680,886**	**4,740,303**	**13,421,189**	**15,181,315**
Grand Totals, All Commodities	**9,396,119**	**5,389,906**	**14,786,025**	**16,193,805**
Vancouver.				
Logs, posts, poles, piling	1,271,607	385,826	1,657,433	1,449,702
Petroleum, crude	1,014,724	155,071	1,169,795	1,086,872
Lumber, timber, box, crate, and cooperage material	406,969	524,281	931,250	824,113
Grain	16,043	893,818	909,861	678,246
Coal, bituminous	248,441	1,380	249,821	273,610
Sand and gravel	229,480	16,751	246,231	305,763
Gasoline	60,936	155,071	216,007	170,935
Fish	60,582	75,644	136,226	121,110
Cordwood and other firewood	2,354	98,359	100,713	100,345
Sugar	80,358	52	80,410	90,021
Newsprint	45,795	22,372	68,167	49,723
Paper (except newsprint)	46,689	18,967	65,656	49,640
Ores and concentrates, copper	5	63,695	63,700	53,580
Iron and steel (bar, sheet, structural, pipe)	33,767	23,434	57,201	79,272
Totals (14 Commodities)	**3,517,750**	**2,434,721**	**5,952,471**	**5,332,932**
Grand Totals, All Commodities	**4,016,615**	**2,968,331**	**6,984,946**	**6,007,154**

27.—Principal Commodities in Water-Borne Cargo Landed from and Loaded to Vessels at Each of Six Principal Ports in Canada, 1939, Compared with 1938—concluded.

Port and Commodity.	Inward, 1939.	Outward, 1939.	Total, 1939.	Total, 1938.
Halifax.	tons.	tons.	tons.	tons.
Petroleum, crude	693,813	17,429	711,242	606,995
Gasoline	27,090	219,534	246,624	260,084
Coal, bituminous	121,978	368	122,346	82,949
Lumber, timber, box, crate, and cooperage material	1,654	105,464	107,118	83,413
Flour	6,838	89,547	96,385	65,879
Fish	52,215	40,193	92,408	95,358
Grain	9,406	77,550	86,956	31,001
Sugar	59,208	7,935	67,143	76,961
Petroleum products (except gasoline)	4,381	56,617	60,998	5,905
Base bullion, matte, pig and ingot (non-ferrous metals)	1,726	54,412	56,138	49,516
Coal, anthracite	53,945	80	54,025	71,575
Apples, fresh	2,096	51,686	53,782	99,493
Totals (12 Commodities)	**1,034,350**	**720,815**	**1,755,165**	**1,529,129**
Grand Totals, All Commodities	**1,266,656**	**997,532**	**2,264,188**	**1,839,812**
Saint John.				
Grain	4,242	244,459	248,701	242,096
Lumber, timber, box, crate, and cooperage material	18,288	137,869	156,157	128,080
Coal, bituminous	141,843	9,739	151,582	121,125
Pulpwood	Nil	127,888	127,888	189,193
Sugar	100,233	13,963	114,196	107,613
Flour	544	102,960	103,504	59,432
Gasoline	82,053	12,316	94,369	82,077
Automobiles, auto trucks, and auto parts	940	80,185	81,125	91,229
Coal, anthracite	77,201	Nil	77,201	70,795
Newsprint	Nil	62,046	62,046	94,935
Base bullion, matte, pig and ingot (non-ferrous metals)	7,904	44,879	52,783	61,046
Totals (11 Commodities)	**433,248**	**836,304**	**1,269,552**	**1,247,621**
Grand Totals All Commodities	**749,412**	**1,199,912**	**1,949,324**	**1,551,278**
Three Rivers.				
Grain	306,749	328,302	635,051	1,567,046
Coal, bituminous	330,842	149,887	480,729	272,922
Pulpwood	427,839	Nil	427,839	700,862
Newsprint	Nil	121,728	121,728	158,736
Petroleum products (except gasoline)	61,556	Nil	61,556	30,238
Coal, anthracite	17,321	"	17,321	18,349
Coke	17,270	"	17,270	20,784
Gasoline	16,592	"	16,592	16,196
Sulphur	9,042	"	9,042	7,690
China clay	6,857	"	6,857	3,220
Fertilizers	5,137	"	5,137	5,400
Totals (11 Commodities)	**1,199,205**	**559,917**	**1,799,122**	**2,801,443**
Grand Totals, All Commodities	**1,231,942**	**616,472**	**1,848,414**	**2,816,290**
Quebec.				
Coal, bituminous	566,873	7,370	574,243	533,655
Pulpwood	53,202	120,930	174,132	178,967
Grain	120,019	51,546	171,565	233,703
Coal, anthracite	138,585	1,060	139,645	146,290
Petroleum, crude	109,993	3,026	113,019	143,795
Newsprint	Nil	99,895	99,895	87,561
Gasoline	80,578	139	80,717	66,724
Asbestos	Nil	59,985	59,985	66,863
Cement	42,675	202	42,877	41,697
Ores and concentrates (except iron)	592	35,328	35,920	10,257
Lumber, timber, box, crate, and cooperage material	16,425	11,052	27,477	43,570
Sulphur	25,329	Nil	25,329	11,127
Totals (12 Commodities)	**1,154,271**	**390,533**	**1,544,804**	**1,564,209**
Grand Totals, All Commodities	**1,271,954**	**459,446**	**1,731,400**	**1,639,538**

PART V.—AIR NAVIGATION.*

The treatment of air navigation in this Part of the Year Book is confined to civil aviation; the military activities and organizations fall more properly under the subject of National Defence (see "Air Service" in the Index).

Aircraft furnish a rapid and convenient means of transportation for passengers and goods particularly in remote and unsettled areas where transportation otherwise is slow and very costly. Similarly, aircraft have provided a relatively cheap and feasible means of obtaining information for the development and conservation of natural resources in many parts of Canada where the cost by other means would be prohibitive. Air-mail and air-transportation lines and commercial services are increasing steadily in number and in the scope of their operations and usefulness.

Section 1.—History and Administration.

Subsection 1.—Development of Aviation in Canada.

Historical Sketch.—A brief historical outline of the development of aviation in Canada appears at pp. 710-712 of the 1938 Year Book.

THE TRANS-CANADA AIRWAY.

Modern Airway Facilities.—The term 'airway' may be defined as the path of flight between two terminal airports on which have been installed permanent aids to air navigation. In North America a standard system of aids to air navigation has gradually been evolved. This has been closely adhered to in the construction and equipment of the Trans-Canada Airway, and some of the most important characteristics should be mentioned. Efficient weather and radio services are essential features. Terminal airports, where regular stops are made, should be all-way and all-weather fields, with three or more hard-surfaced runways, at least 3,000 feet in length; they should be fully lighted with electric airway beacons, floodlights, boundary lighting systems to define the runways, range and approach lights to indicate the path of flight to the paved landing strips, and obstruction lights to define obstacles that might interfere with the clear approach to the airport. At a distance of about three miles there should be a radio-beam station, by means of which the pilot is guided along the airway and brought directly over the airport at the proper altitude for landing.

A meteorological service is essential to every main airport. By means of two-way radio, aeroplanes in flight are given, every thirty minutes, the latest information on the weather, are controlled during their flight, given full information as to other aeroplanes flying in their vicinity, and advised when to land.

Present practice requires radio-beam and two-way communication stations along the airway at intervals of about 100 miles between the terminal airports. Adjacent to these and directly in the path of flight secondary aerodromes are constructed. These are not necessarily stopping points but they afford safe landing in case of need. The number of additional intermediate aerodromes considered necessary for safety varies with the type of country. In open, settled, farm lands, where there are no mountains and where the weather is normally fine, they may be dispensed with altogether or spaced at intervals of about 100 miles between the

* Descriptive and administrative information has been prepared from material supplied by J. A. Wilson, Controller of Civil Aviation, Department of Transport, while statistics have been compiled by G. S. Wrong, B.Sc., Chief of the Transportation and Public Utilities Branch of the Dominion Bureau of Statistics.

major airports. Owing to the nature of the climate and the difficult physical character of the terrain in the Rocky Mountain region and in northern Ontario, where there are absolutely no alternative emergency landing places, the spacing is somewhat closer. All important communities in Canada not on the line of the Trans-Canada Airway are being connected with it by branches and arrangements for exchange of international traffic with the airway system of the United States at cities near the border are being perfected.

Construction and Operations.—Natural conditions divide the Trans-Canada Airway into four distinct regions—the Mountain Region, from the Pacific Coast to the foothills in Alberta; the Prairie Region, stretching from the foothills to the Ontario boundary; the Laurentian Area, extending through western Ontario as far as the Ottawa Valley; and the Atlantic Section, which takes in the settled areas in the Basin of the Great Lakes, the Eastern Townships of Quebec, and the Maritimes.

The Prairie Region obviously presented the simplest construction and operating problems. There, precipitation is light, visibility normally good, contour changes are gradual, and aerodrome sites requiring little development were obtainable everywhere. Airway surveys commenced on the prairie section in the summer of 1928, and aerodrome construction and lighting installation followed. By the end of 1929, a chain of lighted aerodromes from Winnipeg to Edmonton via Regina and Calgary had been prepared and a contract for the carriage of mails had been let to Canadian Airways by the Post Office Department. Actual flying operations started on Mar. 1, 1930, with the operation of a nightly service each way. Five radio-beam stations, constructed in 1931, increased the efficiency of the airway materially. This service continued in regular operation with satisfactory results until Mar. 31, 1932, when, for reasons of economy in all services, it was temporarily suspended. Although the operation of the trans-prairie service was stopped, the airway surveys then in hand in the mountains and in northern Ontario, Quebec, and the Maritime Provinces were continued with a view to the eventual completion of the system from coast to coast.

The necessity for finding useful employment for many single homeless men in all parts of the country led to the establishment of aerodrome construction camps in the Rocky Mountain section, and in northern Ontario, Quebec, and the Maritime Provinces. These resulted in much valuable work being performed, and the system was continued to June 30, 1936, when all labour camps were shut down and the construction work was continued either by contract or by day labour.

An Act creating a national operating company—Trans-Canada Air Lines—for the operation of the trans-Canada system was passed by Parliament in 1937, and in July and August of that year a joint survey was made by the staff of the operating company and the Department of Transport to decide on the air navigation facilities required to complete the airway. The increase in landing speed and the introduction of night and all-weather flying necessitated larger airports with longer clear approaches and improved surfaces. Facilities that had been adequate five years before no longer sufficed. The construction and installation of the necessary radio-range stations, the enlargement of the airports, and installation of the airway lighting system was put in hand in September, 1937, and has been prosecuted with energy since that date. Work was further advanced in the Western section; activities were concentrated there to bring it into operation as soon as possible. In the meantime, the Trans-Canada Air Lines were organizing and training their flying and ground crews, obtaining the necessary aircraft, and building hangars and workshops essential to the operation of the airway.

On Jan. 1, 1938, all this work was far enough advanced to permit commencement of experimental flying on a daylight schedule between Vancouver and Winnipeg. The results of these experimental flights proved so satisfactory that, on Mar. 4, a beginning was made in carrying mails experimentally between Vancouver and Winnipeg. By Oct. 1 the erection of the remaining radio stations and the installation of teletype, two-way wireless service, meteorological service, the improvement of the airports, and lighting of the route for night operations were completed and a regular air-mail service was formally inaugurated on that date over this portion of the route. The northern connection to Edmonton from Lethbridge was also opened at the same time, though until the new and larger airport at Calgary is finished no stop can be made there.

The erection of the wireless stations between Winnipeg and Montreal was, in the meantime, proceeding rapidly. The completion of the airports and the installation of the lighting was commenced in northern Ontario as soon as weather conditions permitted. Delivery of the ten "Lockheed 14" aircraft purchased for the operation of the main line was completed during September, and the construction work was so well advanced that regular daily flights on schedule were inaugurated for the training of personnel, both flying and ground, on this section of the route on Sept. 10. An express service between Montreal, Toronto, and Vancouver was inaugurated on Oct. 17. By Dec. 1, the construction and equipment of the airway was sufficiently advanced to justify the inauguration of a daily air-mail service between Montreal and Vancouver and this commenced on that date.

During 1939, the work of construction of the last section of the airway from Montreal to the Atlantic Coast was completed. The main airports in this eastern section are located at Megantic, Que., Blissville, N.B., and the eastern terminal at Moncton, N.B., with intermediate aerodromes at Havelock, N.B., and Windsor Mills, Que. Facilities for connecting lines from Halifax and Saint John to Moncton have been provided by enlarging and improving the municipal airports of these cities, and a new airport has been constructed at Charlottetown, P.E.I. Radio range stations are being installed at Halifax and Charlottetown.

The Trans-Canada Air Lines commenced a mail service between Montreal and Moncton on Nov. 1, 1939, and, three months later, passenger, mail, and express services were in full operation, thus adding the last link to the transcontinental service.

The Department of Transport has provided for assistance to municipalities desiring to construct or improve existing airports. Thirty-two cities have taken advantage of this offer, including most of the larger centres of population. Sixty-five commercial air-transport companies providing services to districts in northern Canada have played a large part in the transportation system. New discoveries in northern Saskatchewan and the Northwest Territories have resulted in increased activities in these areas in the carriage of mail, passengers, and freight.

Clubs and schools have been active in instituting training courses in flying and many young Canadians are entering this field as pilots, air engineers, and radio operators. To meet the need for specialized education called for by modern flying, the University of Toronto has instituted a two-year diploma course in air navigation whereby students may gain the theoretical knowledge necessary to equip them for a career in aviation.

TRANSATLANTIC AIR SERVICE.

The past decade has witnessed the creation of a world-wide system of communications by air. European air lines cover that continent with a network connecting

all the principal centres and stretching out to the farthest confines of Africa, Asia, and Australasia. In North America, the United States airway system provides a similar network and has been extended to give rapid means of transportation to all points in Central and South America. The Pacific Ocean has been spanned and South America linked with Europe. The only major trade route not yet regularly served by aircraft is the North Atlantic. This trade route is perhaps the most important in the world. It joins the greatest centres of population and industry of the Old and New Worlds. It is served by the most efficient transport and communication systems in the world and here, if anywhere, is to be found traffic of sufficient value and quantity to justify the establishment of a commercial air service. The great circle track, or shortest route joining these two great industrial districts, passes down the Rhine Valley, through northern France and Belgium, London, Northern Ireland, the Straits of Belle Isle, Montreal, the Valley of the St. Lawrence, and thence to the Mississippi basin. The eastern and western terminals of the direct transatlantic airway lie in the British Commonwealth and from the earliest days of aviation Canadian Governments have watched its development with growing interest. The length of the ocean crossing and the climatic difficulties have delayed the establishment of any regular service by this route, but, with the advance of aeronautical and radio science and meteorological services, these are being conquered.

At the invitation of the Government of Newfoundland, representatives of the Canadian and United Kingdom Governments visited St. John's, Newfoundland, in July, 1933, for a conference on transatlantic flying. This conference was also attended by representatives of Imperial Airways and Pan American Airways. The result of this conference was close co-operation between the three Governments in certain preliminary surveys and meteorological studies.

An agreement for co-operation in the establishment of the transatlantic air service by the Governments of Canada, the United Kingdom, Ireland (Eire) and Newfoundland was reached by representatives of these Governments in Ottawa in December, 1935. Since the friendly co-operation of United States interests, rather than the institution of a rival service, was highly desirable, the representatives of the Commonwealth Governments then proceeded to Washington and an agreement was reached with representatives of the United States Government for their co-operation in the institution of a regular transatlantic air-mail, passenger, and express service. The practical results of these two conferences were the trial flights made by aircraft of Imperial Airways and Pan American Airways during the summer of 1937. Flying boats were used by both companies. Imperial Airways operated two of the new 'Empire' type, high-wing monoplane boats, while Pan American Airways used the 'Clipper' flying boat, a type that had been successfully flown on their transpacific service.

In 1938 there was little activity on the transatlantic air service owing to the necessity of building new flying boats embodying the lessons learned during the 1937 operations. The only transatlantic flight made by the northern route during the year was made by the *Mercury*, the upper component of the interesting Short-Mayo composite aircraft. This seaplane, carrying 1,000 lb. of express matter, was launched by her mother ship the *Maia* near Foynes at 20:00 hrs. (B.S.T.) July 21 and proceeded non-stop to Montreal landing at 16:20 hrs. (B.S.T.) July 22, refuelling there and going on to New York. The *Mercury* made the return flight by easy stages via Montreal, Botwood, the Azores, and Lisbon to Southampton.

During the year 1939, experimental flights were continued. A weekly service was inaugurated by Imperial Airways, Limited, between Southampton and New

York on Aug. 5, and continued until the end of September. Eight successful round trips were completed.

Soon after the outbreak of war, the Pan American Airways discontinued their transatlantic service on the northern and southern routes, to Shannon and Lisbon, respectively. The last east-bound journey by Pan American Airways was made when the *Yankee Clipper* reached Shannon on Oct. 5.

The transatlantic services were operated in co-operation with the Governments of the United Kingdom, the Dominion of Canada, Ireland (Eire), and Newfoundland. In this way, the necessary provisions were made for communication and meteorological services and for the equipping of airports and the general facilities necessary in the carrying out of experiments and the conducting of these services.

Subsection 2.—Administration.

Civil aviation, previously administered by the Department of National Defence, is now a function of the Department of Transport, created in November, 1936.

In 1938, Parliament passed the Transport Act (c. 53 of the Statutes) enlarging the jurisdiction of the former Board of Railway Commissioners to include the regulation of air transport and certain classes of water transport. The Board of Transport Commissioners is co-operating with the Civil Aviation Branch in the regulation of air services so as to stabilize the industry by preventing destructive competition, and to ensure a higher standard of safety and efficiency in the operation of all regular air services in the Dominion. Licences for air routes are under the control of the Board and they also have the power to pass on the tariffs charged for the carriage of passengers or goods by aircraft.

The administrative duties under the Controller of Civil Aviation include the inspection and registration of aircraft and air harbours, the licensing of commercial and private air pilots, air engineers, and air navigators. In addition to these duties, the location and construction of air routes and any matters connected with airship services are administered by this Branch.

The Dominion Government since 1928 has encouraged flying training through the Light Aeroplane Clubs. These Clubs have been subsidized by the loan of aircraft and by the paying of cash grants to the Clubs for students who succeed in passing the standard examinations and tests set by the Department of Transport.

There are 22 clubs, viz., Halifax, Cape Breton, Saint John, Montreal, Brant-Norfolk, Fort William, Hamilton, Kingston, London, Ottawa, St. Catharines, Toronto, Border Cities, Kitchener, Brandon, Winnipeg, Moose Jaw, Regina, Saskatoon, Calgary, Edmonton, and Vancouver. Details of membership, aircraft, hangars, flights, etc., of flying clubs are shown separately in the tables.

Since the outbreak of war the Light Aeroplane Clubs have been co-operating with the R.C.A.F. in the carrying out of elementary flying training for those who wish to enter the R.C.A.F. as pilots.

Royal Canadian Mounted Police.—Since the Royal Canadian Mounted Police took over the duties of the Preventive Service in 1932, aircraft have been utilized in the work on a wide scale. Most of the patrol work by aeroplane took place on the Atlantic seaboard and the Gulf of St. Lawrence. Upon the outbreak of war in September, 1939, the aeroplanes and personnel of the Aviation Section of the Royal Canadian Mounted Police were placed at the disposal of the Royal Canadian Air Force for the duration of hostilities.

Provincial Government Operations.—The Ontario Provincial Air Service owns 26 aircraft, which are operated by the Province in the work of forest fire protection, transportation, and air photography in northern Ontario. In 1939, the Manitoba Government Air Service operated 4 aircraft on forest protection in the Province for the Forestry Branch. The Department of Lands and Mines of New Brunswick also operated one aircraft during 1939. Work requiring the use of aircraft was carried out in other provinces by commercial operators on contract with the Provincial Governments concerned.

Commercial Aviation.—During 1939 the principal activity of commercial aircraft operators in Canada was the carriage by air of passengers, freight, and mails to mining fields in the more remote parts of the Dominion. Their work also included forest fire patrols, timber cruising, air photography, flying instruction, advertising, short passenger flights, etc., in various parts of the country.

Air-Mail Services.—Regular air-mail services were established in December, 1927. Statistics of the air-mail services, showing routes operated, mileage flown, and mail carried during the fiscal year ended Mar. 31, 1939, will be found in Table 6, p. 739, under the Part of this chapter dealing with the Post Office.

Section 2.—Airports and Aircraft.

Subsection 1.—Summary Statistics of Civil Aviation.

The collection and compilation of statistics of civil aviation was transferred from the Branch of the Controller of Civil Aviation to the Bureau of Statistics in 1936. To preserve continuity with aviation statistics published in previous Year Books, a statistical summary of civil aviation for the years 1933 to 1938 is given below in Table 1. The statistics collected since 1936 have been somewhat enlarged and consequently no comparisons with similar data for previous years can be made for items appearing in other tables of this Part.

1.—Summary Statistics of Civil Aviation in Canada, 1933-38.

NOTE.—Figures for 1921-23 may be found at p. 616 of the 1924 edition of the Year Book, for 1924-29 at p. 661 of the 1930 edition, and for 1930-32 at p. 698 of the 1936 Year Book.

Item.	1933.	1934.	1935.	1936.	1937.	1938.
General Analysis.						
Firms manufacturing aircraft.....No.	7	6	10	7	7[1]	8
Firms chiefly operating aircraft..... "	87	125	123	116	162	131
Firms using aircraft as auxiliary service..... "	3	3	7	12	10	11
Aircraft flights made..... "	106,252	128,031	153,211	160,014	190,403	207,788
Aircraft hours flown..... "	53,299	75,871	88,451	101,953	126,896	133,168
Total aircraft mileage flown..... "	4,538,315	6,497,637	7,522,102	7,803,942	10,755,524	12,294,088
Average flight duration.....min.	30	36	34	38	40	38
Pilots carried.....No.	106,252	128,031	153,211	160,014	190,403	207,788
Passengers and crew carried..... "	85,006	105,306	177,472	127,937	168,652	195,430
Total personnel carried..... "	191,258	233,337	330,683	287,951	359,055	403,218
Pilots carried one mile (pilot miles).. "	4,538,315	6,497,637	7,522,102	7,803,942	10,755,524	12,294,088
Passengers and crew carried one mile (passenger miles)..... "	3,816,862	6,266,475	7,936,950	12,055,684	17,695,591	18,876,160
Total personnel carried one mile (personnel miles)..... "	8,355,177	12,764,112	15,459,052	19,859,626	28,451,115	31,170,248
Total freight or express carried.....lb.	4,205,901	14,441,179	17,615,910	25,387,719	26,279,156	21,704,587
Total mail carried (postal contracts). "	539,358	625,040	1,126,084	1,161,069	1,450,473[2]	1,901,711[2]

For footnotes, see end of table, p. 709.

1.—Summary Statistics of Civil Aviation in Canada, 1933-38—concluded.

Item.	1933.	1934.	1935.	1936.	1937.	1938.
Licensed Civil Air Harbours.						
Airports (all types)..... No.	90	101	96	155	158	123
Licensed Civil Aircraft.[3]						
Total Aircraft (all types)—						
Gross weight—						
Up to 2,000 lb..... No.	331	[4]	[4]	[4]	316	222
2,001- 4,000 lb..... "	1	[4]	[4]	[4]	132	113
4,001-10,000 lb..... "	[4]	[4]	[4]	[4]	147	119
Over 10,000 lb..... "	[4]	[4]	[4]	5	9	17
Type—						
Sea boats..... No.	331	[4]	[4]	[4]	32	23
Amphibians..... "	12	[4]	[4]	[4]	1	3
Land planes..... "	1	[4]	[4]	[4]	322	244
Convertibles..... "	345	368	380	450	249	201
Licensed Civil Air Personnel.						
Commercial pilots..... No.	474	405	414	380	320	226
Limited commercial pilots..... "	[5]	[5]	[5]	65	129	165
Transport pilots..... "	[5]	[5]	[5]	42	73	130
Private pilots..... "	405	429	496	559	635[1]	734
Air engineers..... "	403	461	472	533	595	643

[1] Revised since publication of the 1939 Year Book. [2] Under Canadian postal contract 1,323,584 lb. for 1937 and 1,771,153 lb. for 1938. [3] Details of licensed aircraft for 1938 are given in Table 3. [4] No information reported. [5] This class did not exist prior to 1936.

Subsection 2.—Ground Facilities.

The nucleus of the chain of aerodromes and ground facilities mentioned below, which will constitute the trans-Canada airway, consists of municipal or flying-club airports adjacent to the larger urban centres. There are also numerous terminals from which commercial flying services operate, chiefly into the northerly mining regions.

A large air terminal has been built at St. Hubert, seven miles south of Montreal. Immigration, customs, and postal facilities are available. An aerodrome has also been constructed at Rimouski to expedite the dispatch and reception of trans-atlantic mails.

2.—Airports in Canada, 1939.

NOTE.—Dashes in this table indicate that no information is available under those heads.

MUNICIPAL AIRPORTS.

Location.	Name of Operator Using Airport.	Landing Surface.	Capacity of Hangar.	Investment.[1]
			sq. ft.	$
Prince Edward Island—				
Summerside	[2]	Land and water		15,995
Nova Scotia—				
Halifax	Halifax Aero Club[2]	Land	2,400	200,942
New Brunswick—				
Moncton (Leger Corner)	[2]	Land	4,800	23,830
Saint John (Millidgeville)	Saint John Flying Club[2]	Land and water	5,200	314,698
Quebec—				
Cap de la Madeleine	[2]	Land	1,200	

[1] Not included in investments shown in Table 4. [2] Commercial operators.

2.—Airports in Canada, 1939—concluded.

MUNICIPAL AIRPORTS—concluded.

Location.	Name of Operator Using Airport.	Landing Surface.	Capacity of Hangar.	Investment.[1]
			sq. ft.	$
Ontario—				
Brantford	Brant-Norfolk Aero Club	Land	1,800	7,253
Fort William	[2]	Land	13,000	32,830
Hamilton	Hamilton Aero Club	Land	5,712	–
Kingston	Flying Club of Kingston	Land	2,400	3,000
Little Current	(none)	Land and water	–	75
Port Arthur	[2]	Water		3,200
Stratford	(none)	Land	–	13,022
Toronto Islands	[2]	Land and water	19,200	1,904,012
Waterloo	Kitchener-Waterloo Flying Club	Land	4,000	12,500
Manitoba—				
Virden	(none)	Land		1,000
Winnipeg	Winnipeg Flying Club[2]	Land		4,452
Saskatchewan—				
Regina	Regina Flying Club[2]	Land	13,600	517,873
Saskatoon	Saskatoon Flying Club	Land	1,830	61,936
Weyburn	(none)	Land	–	2,000
Yorkton	(none)	Land	560	625
Alberta—				
Calgary	Calgary Aero Club[2]	Land	10,000	86,496
Cooking Lake	(none)	Land and water	–	20,208
Edmonton	Edmonton and Northern Alberta Aero Club[2]	Land	28,000	554,767
Grand Prairie	[2]	Land	1,080	1,280
Lethbridge (Kenyon Field)	[2]	Land	12,200	22,547
Medicine Hat	[2]	Land	–	12,600
Peace River	[2]	Land		8,700
British Columbia—				
Cranbrook	[2]	Land	3,850	21,058
Fernie	(none)	Land	3,000	10,000
Grand Forks	(none)	Land	–	2,900
Kamloops	Kamloops Aero Club[2]	Land	1,950	14,581
Prince George	[2]	Land	–	11,000
Tadanac	[2]	Land		–
Vancouver (Sea Island)	Aero Club of British Columbia[2]	Land and water	34,066	962,760
Vernon	[2]	Land	3,000	5,000

OTHER AIRPORTS.

Kind.	Landing Surfaces.			
	Land Only.	Water Only.	Land and Water.	Total.
	No.	No.	No.	No.
Public	12	10	Nil	22
Public-auxiliary	2	Nil	"	2
Public-temporary	17	6	1	24
Dominion Government	7	4	Nil	11
Intermediate	1	Nil	"	1
Provincial	Nil	6	"	6
Private	11	24	"	35
Totals, Other Airports	**50**	**50**	**1**	**101**
Totals, Municipal Airports	**28**	**1**	**6**	**35**
Grand Totals	**78**	**51**	**7**	**136**

[1] Not included in investments shown in Table 4. [2] Commercial operators.

Subsection 3.—Aircraft.

The Manufacture of Aircraft.—The construction in Canada of aircraft and equipment required for aviation is essential to the development of flying. Canadian Vickers was the pioneer firm. Several manufacturers are now producing original types especially suited to operation in Canada, and a number of manufacturers from England and the United States have formed branches in Canada for the assembly and servicing of their products. There are also a number of plants for the manufacture of landing gear, especially skis and pontoons, designed to meet the particular requirements of Canadian conditions.

The principal statistics of the aircraft industry, i.e., those establishments for which aircraft or parts are the chief product, are shown for the latest available year in the Manufactures chapter (Table 9, p. 416). There are also firms principally engaged in the manufacture of other goods that produce aircraft as well. The total aircraft produced in Canada in recent years was as follows: 18 valued at $117,689 in 1934; 58 at $479,614 in 1935; 109 at $1,210,910 in 1936; 110 at $1,461,626 in 1937; and 160 valued at $3,336,689 in 1938. During 1938, 48 aircraft valued at $2,883,059, and 296 aeroplane engines valued at $1,602,840 were imported, almost entirely from the United Kingdom and the United States.

3.—Licensed Civil Aircraft in Canada, as at Dec. 31, 1938.

Aircraft.	Dominion and Provincial.	Private.	Flying Clubs.	Commercial.[1]	Total.
Gross Weight.[2]	No.	No.	No.	No.	No.
Up to 2,000 lb.	31	49	44	98	222
2,001 to 4,000 lb.	13	13	1	86	113
4,001 to 10,000 lb.	21	4	Nil	94	119
Over 10,000 lb.	Nil	Nil	"	17	17
Totals	**65**	**66**	**45**	**295**	**471**
Type.					
Sea boats	15	2	1	5	23
Amphibians	1	2	Nil	Nil	3
Land planes	30	53	36	125	244
Convertibles[3]	19	9	8	165	201

[1] Includes aircraft of international companies licensed in Canada. [2] Total weight of aircraft with supplies and full load. [3] May be equipped with wheels, floats, or skis as conditions demand.

Section 3.—Finances and Employees.

Investments.—The development of aviation requires a considerable outlay of capital not only for the provision and replacement of aircraft but also for the provision of landing fields or harbours, buildings, service shops, etc.

4.—Investment of Provincial Governments, Flying Clubs, and Commercial Organizations for Civil Aviation in Canada, 1938.

NOTE.—International companies not included.

Item.	Provincial Government.	Light Aeroplane Clubs.	Commercial, Canadian.[1]	Total.
	$	$	$	$
Land and buildings	7,000	31,942	1,097,483	1,136,425
Aircraft	84,267	91,896	5,091,308	5,267,471
Tools and equipment	4,750	11,188	759,141	775,079
Furniture and office appliances	Nil	3,918	66,789	70,707
Organization expenditures	"	2,196	1,054,986	1,057,182
Totals	**96,017**	**141,140**	**8,069,707**	**8,306,864**

[1] Includes Trans-Canada Air Lines.

Revenues and Expenses.—No statistics are available regarding expenditures on flying operations by the Dominion and Provincial Governments or by private individuals. Table 5 shows the total revenues and expenditures of Provincial Governments, flying clubs, and commercial flying organizations.

5.—Revenues and Expenditures of Provincial Governments, Flying Clubs, and Commercial Organizations for Civil Aviation in Canada, 1938.

NOTE.—International companies not included.

Item.	Provincial Government.	Light Aeroplane Clubs.	Commercial, Canadian.[1]	Total.
	$	$	$	$
Total operating revenues	12,209	227,932	3,451,083	3,691,224
Total operating expenditures	346,444	224,638	4,832,480	5,403,562
Net operating revenues	Dr. 334,235	3,294	Dr. 1,381,397	Dr. 1,712,338

[1] Includes Trans-Canada Air Lines.

Personnel and Employees.—The numbers of pilots and engineers holding licences under the Controller of Civil Aviation at Mar. 31, 1939, were as follows: private air pilots 723; commercial air pilots 216; limited commercial pilots 174; transport pilots 135; and air engineers 649.

6.—Employees and Salaries and Wages in Civil Aviation in Canada, 1938.

NOTE.—International companies not included.

Item.	Provincial Government.	Light Aeroplane Clubs.	Commercial, Canadian.[1]	Total.
Employees.....No.	92	87	868	1,047
Salaries and wages.....$	172,108	97,939	1,452,602	1,722,649

[1] Includes Trans-Canada Air Lines.

Section 4.—Traffic.

The freight carried by aircraft consists largely of machinery, supplies, etc., for mines in the northern part of Quebec, Ontario, the western provinces, and the Northwest Territories. Many of these mines are accessible only by canoe in the summer and dog team in the winter or by aircraft, and aircraft transportation will probably be the cheapest and most effective method of transportation during the life of a large number of them. The amount of freight and express carried by aircraft has grown steadily and rapidly, increasing from 2,372,467 pounds in 1931 to 21,704,587 pounds in 1938. This is considerably more than was carried in any other country, with the possible exception of Russia; the United States reported 7,336,000 pounds for 1938. The activity in mining, particularly in gold mining due to the increased price of gold, has been a large factor in this rapid growth of air transportation of freight and express. Much mail, not included in the mail carried under contract, is also carried into the mines by aircraft. Further information regarding air-mail services appears under Part VIII of this chapter dealing with the Post Office at p. 738.

7.—Commercial Air Traffic in Canada, by Provinces, 1938.

NOTE.—International companies included.

Origin.	Passengers Taken On.	Freight Loaded.	Mail Loaded.
	No.	lb.	lb.
Prince Edward Island	172	768	29,419
Nova Scotia	2,257	3,266	127,602
New Brunswick	2,864	3,607	127,602
Quebec	29,407	2,679,249	200,673
Ontario	59,170	10,407,964	271,130
Manitoba	16,146	3,090,949	402,458
Saskatchewan	11,972	1,931,194	143,984
Alberta	9,773	1,335,469	186,441
British Columbia	10,250	341,567	178,795
Yukon and Northwest Territories	10,402	1,890,384	75,315
Foreign countries	6,896	20,170	158,292
Totals	**159,309**	**21,704,587**	**1,901,711**[1]

[1] Mail carried under Canadian postal contract amounted to 1,771,153 lb.

8.—Operations of Civil Aircraft in Canada, 1938, with Totals for 1937.

NOTE.—Dashes indicate that the information does not apply or that no information is available.

Item.		1937 Total.	Details, 1938.				1938 Total.
			Dominion and Provincial Governments.	Light Aeroplane Clubs.	Commercial.		
					Canadian.	International.[1]	
Clubs	No.	22		22			22
Members—							
Flying	"	1,195		1,212			1,212
Other	"	1,200	–	1,174	–	–	1,174
Flights of aircraft	"	190,403	12,754	54,782	132,076	8,176	207,788
Hours flown	"	126,896	12,100	20,806	82,506	17,756	133,168
Miles flown	"	10,755,524	1,063,061	24,177[2]	8,457,178	2,749,672	12,294,088
Average duration of flight	min.	40	57	23	37	130	38
Gasoline consumed	gal.	2,222,733	157,631	117,317	1,727,307	855,592	2,857,847
Lubricating oil consumed	"	64,371	4,215	3,022	43,278	12,741	63,256
Personnel Carried—							
Crew carried	No.	199,226	13,838	54,782	160,161	15,128	243,909
Paying passengers carried	"	110,864		1,999	88,677	13,441	104,117
Non-paying passengers carried	"	48,965	8,699	27,171[3]	16,558	2,764	55,192
Totals, Personnel Carried	"	359,055	22,537	83,952	265,396	31,333	403,218
Personnel Carried One Mile—							
Crew	"	13,939,185	1,399,746	24,177[2]	10,436,273	4,423,334	16,283,530
Paying passengers	"	12,658,264	–	20,427[2]	8,602,299	2,290,683	10,913,409
Non-paying passengers	"	1,853,666	1,355,972		1,527,910	1,089,427	3,973,309
Totals, Personnel Carried One Mile	"	28,451,115	2,755,718	44,604[2]	20,566,482	7,803,444	31,170,248
Pupils given instruction	"	1,673	5	1,134	2,218	33	3,390
Freight and express carried	lb.	26,279,156	2,081,454		19,593,581	29,552	21,704,587
Mail—postal contracts	"	1,450,473[4]	–		1,305,063	596,648	1,901,711[4]
Ton Miles—							
Freight and express	No.	1,874,723	77,902		953,710	7,126	1,038,738
Mail	"	112,558	–		139,437	142,230	281,667
Totals, Ton Miles	"	1,987,281	77,902		1,093,147	149,356	1,320,405
Square miles sketched from aircraft	"	14,474			13,000		13,000
Square miles photographed—vertical	"	11,127[5]	41,750[6]		17,207		58,957[6]
Square miles photographed—oblique	"	3,870[7]	28,450[6]		15,000		43,450[6]
Forest fires detected from the air and reported	"	565	253		111	4	368

[1] Flights between Canada and the United States. [2] From point to point only. [3] Includes student passengers. [4] Carried under Canadian postal contracts, 1937—1,323,584 lb., 1938—1,771,153 lb. [5] Exclusive of 23,500 square miles by National Defence aircraft. [6] Includes surveys by National Defence aircraft. [7] Exclusive of 56,500 square miles by National Defence aircraft.

Some countries include in their statistics traffic between two foreign stations of companies incorporated in the reporting country. In Table 8 statistics of companies operating regular routes between points in Canada and the United States are shown separately. These statistics include only those of traffic between the two countries. The company operating between Montreal, Albany, and New York reported only the flights, passengers, and freight, etc., from and to Montreal. Consequently, it would be quite proper to add this international traffic to the strictly Canadian traffic.

The Northern Airways Company has a postal contract for mail in the northwest to be carried by any means feasible and on this contract 50,731 pounds not included in the official air-mail contracts were carried by aeroplane in 1938.

9.—Civil Aviation Accidents in Canada, 1938.

Class of Flight.	Accidents—			Persons Killed.			Persons Injured.		
	involving Death or Injury.	to Aircraft Only.	Total	Pilots.	Passengers.	Total.	Pilots.	Passengers.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Scheduled routes...	6	28	34	6	5	11	1	2	3
Non-scheduled routes.....	6	28	34	2	2	4	3	4	7
Training.....	3	18	21	2	Nil	2	1	2	3
Totals.....	**15**	**74**	**89**	**10**	**7**	**17**	**5**	**8**	**13**

Item.	Estimated Damage to Aircraft.	Other Damage and Expenses.
	$	$
Commercial services.....	199,238	3,156
Light Aeroplane Clubs.....	10,208	Nil
International aircraft.....	128,726	"
State aircraft.....	5,000	"
Totals.....	**343,172**	**3,156**

10.—Operation and Accident Averages in Commercial Aviation in Canada, 1938.

Item.	Operation Averages.	Item.	Accident Averages.
Duration of flight..... hours	0·641	Accidents per 1,000 aircraft flights.... No.	0·428
Length of flight..... miles	59·2	Accidents per 1,000,000 aircraft miles. "	7·239
Paying passengers per flight..... No.	0·5	Fatalities per 1,000 aircraft flights.... "	0·0818
Length of passenger journey..... miles	104·8	Fatalities per 1,000,000 aircraft miles. "	1·383
Aircraft miles per gallon of fuel..... No.	4·3	Passengers killed per 1,000,000 passenger miles..... "	0·470
Aircraft miles per gallon of lubricating oil..... "	194·0	Passengers injured per 1,000,000 passenger miles..... "	0·537
		Crew killed per 1,000,000 crew miles. "	0·614
		Crew injured per 1,000,000 crew miles. "	0·307

PART VI.—WIRE COMMUNICATIONS.*

The statistics regarding communication by wire are classified under two sections, viz., telegraphs and telephones.

Section 1.—Telegraphs.

The early history of telegraphic communication in Canada is given at p. 778 of the 1934-35 Year Book.

Dominion Government Telegraph Service.—This service is operated by the Telegraph Branch of the Department of Public Works. Its general object has been to furnish wire communications for outlying and sparsely settled districts where the amount of business is so small that commercial companies will not enter the field but where the public interests require that there should be communication. Thus these facilities include: telegraph and telephone services to scattered settlements around the coast of Cape Breton Island; cable services to Campobello, Grand Manan, and other islands in the Bay of Fundy, to Prince Edward Island, Magdalen Islands, and Anticosti Island in the Gulf of St. Lawrence; telegraph or telephone services along the north shore of the Gulf of St. Lawrence from Quebec to the Straits of Belle Isle; cable connections with Pelee and Manitoulin Islands in Ontario; some lines to northern outlying districts in Saskatchewan; lines from Edmonton to the Athabaska and Peace River country in Alberta; telegraph or telephone communications around the coast of Vancouver Island and to fishing, lumbering, and mining settlements along the coast of the mainland of British Columbia, as well as to isolated mining centres in the interior; and finally the overland telegraph line to Dawson and other settlements in Yukon.

Telegraph Systems.—The Canadian telegraph systems are composed of lines owned by the Dominion Government and by chartered railway and telegraph companies. The Canadian facilities, in proportion to population, are among the most extensive in the world, and are operated under great climatic and geographical disadvantages. In the operation of railways and in the receipt and dispatch of market and press reports, the service to the nation is invaluable.

* Revised by G. S. Wrong, B.Sc., Chief of the Transportation and Public Utilities Branch of the Dominion Bureau of Statistics. This Branch issues annual reports dealing with telegraph and telephone statistics.

1.—Statistics of All Canadian Telegraphs, 1929-38.

NOTE.—Figures for the years 1920-28 will be found at p. 722 of the 1938 Year Book.

Year.	Gross Revenue.	Operating Expenses.	Net Operating Revenue.	Pole Line Mileage.	Wire Mileage.	Employees.[1]	Offices.	Messages, Land.	Cablegrams.[2]	Money Transferred.
	$	$	$	miles.	miles.	No.	No.	No.	No.	$
1929..	16,256,441	12,590,364	3,666,077	52,835	360,883	8,056	4,766	18,029,973	2,086,549	11,295,857
1930..	14,264,997	11,791,291	2,473,706	52,824	371,747	7,331	4,661	15,558,224	2,053,059	10,213,475
1931..	11,641,729	10,720,949	920,780	53,228	368,583	6,637	4,474	13,200,198	1,784,787	7,475,928
1932..	9,381,075	9,020,052	361,023	52,362	366,142	5,788	4,248	10,519,433	1,514,321	4,698,660
1933..	9,267,715	8,122,964	1,144,751	52,112	365,489	5,263	4,115	10,095,061	1,597,044	3,632,910
1934..	9,972,627	8,436,144	1,536,483	52,406	366,706	5,624	4,171	10,526,496	1,691,477	3,950,854
1935..	9,741,394	8,416,329	1,325,065	53,034	365,518	5,903	4,103	11,138,835	1,297,454	3,834,458
1936..	10,378,873	8,710,349	1,668,524	52,907	363,180	6,064	4,121	12,735,186	1,391,903	4,296,738
1937..	11,410,333	9,467,398	1,942,935	53,001	369,411	6,401	4,761	13,456,330	1,488,767	4,550,731
1938..	10,611,207	9,399,631	1,211,576	52,708	373,283	6,347	4,900	12,845,224	1,404,244	4,103,690

[1] Excluding commission operators.

[2] Excluding messages relayed to the United States.

2.—Statistics of Telegraph Companies, 1934-38.

NOTE.—Statistics of the Halifax and Bermudas Cable Co., the Canadian Marconi Wireless Telegraph Co., and the Pacific Cable Board are not included.

Company.	Year.	Line.	Wire.	Messages.[1]	Offices.[2]
		miles.	miles.	No.	No.
Canadian National Telegraph Co.	1934	23,980	164,831	5,603,761	1,909
	1935	24,938	162,110	5,807,170	1,708
	1936	24,698	162,922	7,215,653	1,705
	1937	24,716	163,527	7,642,860	2,346[3]
	1938	24,683	164,667	7,193,498	2,375[3]
Canadian Pacific Railway Co.	1934	17,439	177,800	4,439,425	1,474
	1935	17,471	176,430	4,803,265	1,582
	1936	17,604	173,341	4,946,247	1,613
	1937	17,645	178,504	5,120,016	1,612
	1938	17,478	181,196	4,976,619	1,712
Western Union	1934	1,185	9,390	[4]	[4]
	1935	1,098	9,387	[4]	1
	1936	1,086	9,362	[4]	1
	1937	1,084	9,454	[4]	1
	1938	1,081	9,696	[4]	1
Temiskaming and Northern Ontario Railway Commission	1934	593	3,122	112,965	35
	1935	575	3,557	94,436	35
	1936	575	3,485	103,707	35
	1937	575	3,430	117,317	35
	1938	575	3,441	114,281	35
North American Telegraph Co., Ltd.	1934	345[5]	445	57,030	15
	1935	345[5]	445	57,541	15
	1936	345[5]	445	60,686	15
	1937	345[5]	445	65,980	15
	1938	345[5]	445	63,655	15
Northern Alberta Railway	1935	926	2,262	16,569	40
	1936	926	2,262	42,612	40
	1937	926	2,262	46,210	41
	1938	926	2,262	42,148	41
Dominion Government Telegraph Service.	1934	8,864	11,108	299,869	705
	1935	8,884	11,327	324,721	688
	1936	8,893	11,363	328,866	679
	1937	8,929	11,789	425,094	678
	1938	9,049	11,576	413,207	689

[1] Cablegrams not included. [2] The figures for Table 1 include offices of wireless and cable companies and to that extent are larger than the sums of the items given here for corresponding years. [3] Includes sub-offices. [4] Included with Canadian National. Western Union handles only through business. [5] Leased telephone line.

Submarine Cables.—Sixteen *transoceanic* cables have *termini* in Canada—fourteen of them on the Atlantic Coast and two on the Pacific. In addition, there are eight cables between Atlantic coastal stations in Canada and the United States. The year in which the cable was first demonstrated to be of commercial value was 1866, and up to the present its use has greatly increased. The Atlantic cables are controlled by English and United States interests. The Pacific cable, from Canada to Australia and New Zealand, has been in operation since 1902, and was owned by a partnership of the Governments of Great Britain, New Zealand, Australia, and Canada. As a result of the recommendation of the Imperial Wireless and Cable Conference of 1928, in view of increased wireless competition, it was decided to dispose of the Pacific and West Indian Islands cable systems to the Imperial and International Communication Co., a company formed to take over all Empire-owned cables and lease the Empire-owned beam wireless systems. The necessary legislation was passed by the United Kingdom in February, 1929, and by Canada in June, 1929.

Section 2.—Telephones.

A brief historical account of the early development of telephones in Canada appears at p. 781 of the 1934-35 Year Book.

Subsection 1.—Systems and Equipment.

Telephone Systems.—The 3,203 telephone systems existing in 1938 included the three large Provincial systems in Manitoba, Saskatchewan, and Alberta, and a smaller governmental system in Ontario, together with the system operated by the National Parks of Canada, Department of Mines and Resources. There were also 143 municipal systems, the largest operated by the Cities of Edmonton, Fort William, and Port Arthur. Out of the 2,259 co-operative telephone companies, no fewer than 1,151 were in Saskatchewan alone, 774 in Alberta, and 211 in Nova Scotia. The largest among the 551 stock companies operating telephone systems in 1938 were the Bell Telephone Co., and the British Columbia Telephone Co. Over 58 p.c. of the total telephone investment in Canada belongs to the Bell Telephone Co., and their telephones in Quebec and Ontario constitute 56 p.c. of the total for Canada.

Telephone Equipment.—In telephones per hundred population Canada is second only to the United States, the figures being 15·09 telephones per 100 population in the United States in 1938 and 12·13 in Canada. This is a favourable showing in view of the low density of population in Canada as a whole and the fact that 46 p.c. (46·30 p.c. in 1931) of the population is rural.

There were 617,727 telephones out of a total of 891,707 in 51 leading cities of Canada operated from automatic switchboards; the remainder, or 273,980, were operated from manual switchboards. Automatic switchboards have completely displaced manual switchboards in the principal cities of the Prairie Provinces and are displacing them in the other provinces.

3.—Mileages of Pole Line and Wire, and Telephones in Use Classified by Business, Residential, Rural, and Public Pay, as at Dec. 31, 1929-38.

NOTE.—Figures for the years 1911-28 will be found at p. 724 of the 1938 Year Book.

Year.	Systems.	Pole-Line Mileage.	Mileage of Wire.	Telephones in Use.					
				Business.	Residential.	Rural.[1]	Public Pay.	Total.	Per 100 Population.
	No.	miles.	miles.	No.	No.	No.	No.	No.	No.
1929....	2,415	220,525	4,486,213	366,418	724,001	269,487	22,916	1,382,822	14·1
1930....	2,414	222,113	4,790,224	373,387	740,050	264,681	24,743	1,402,861	14·1
1931....	2,399	222,196	4,985,076	369,281	723,868	245,485	25,566	1,364,200	13·1
1932....	2,414	220,459	5,089,261	351,509	663,815	220,680	25,241	1,261,245	12·0
1933....	2,403	219,753	5,134,871	341,063	617,532	209,611	24,124	1,192,330	11·2
1934....	2,388	208,131	5,133,521	349,892	605,206	217,182	24,749	1,197,029	11·1
1935....	2,833	207,916	5,120,610	351,427	615,052	218,818	23,518	1,208,815	11·1
1936....	3,063	210,926	5,197,042	371,401	641,229	229,940	23,658	1,266,228	11·5
1937....	3,191	209,767	5,307,884	386,669	676,001	235,763	24,361	1,322,794	11·9
1938....	3,203	211,895	5,397,244	396,975	695,961	240,204	26,277	1,359,417	12·1

[1] Includes telephones on rural exchange lines and urban exchange lines that have more than four parties.

The density of telephones in the different provinces is naturally influenced by the urbanization of the population because the number of telephones used for business purposes is much greater in cities and towns than in rural areas.

4.—Telephones in Use, by Provinces, as at Dec. 31, 1938.

Province.	On Individual Lines.		On 2- and 4-Party Lines.		On Rural Lines.		Private Branch Exchange and Extensions.		Public Pay Station.	Total.	Telephones per 100 Population.
	Business.	Residence.	Business.	Residence.	Business.	Residence.	Business.	Residence.			
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
P.E.I.	760	1,091	129	651	170	2,035	453	116	68	5,473	5·8
N.S.	6,291	12,710	637	8,748	804	9,821	5,628	2,190	1,003	47,832	8·7
N.B.	4,250	7,209	824	7,761	935	5,577	4,452	1,284	751	33,043	7·4
Que.	41,517	78,220	3,730	70,560	4,983	24,665	56,199	12,084	8,183	300,141	9·5
Ont.	73,165	134,072	7,457	171,533	4,463	100,013	88,304	26,622	11,428	617,057	16·5
Man.	9,812	26,170	58	5,805	1,063	12,693	11,807	1,593	2,121	71,122	9·9
Sask.	11,532	17,862	341	70	9	44,461	5,066	610	342	80,293	8·5
Alta.	12,983	28,165	38	542	1,025	14,990	9,711	17	987	68,458	8·7
B.C.	18,771	10,154	444	65,570	862	11,524	22,565	4,549	1,388	135,827	17·8
Yukon	31	3	20	Nil	36	75	Nil	Nil	6	171	4·3
Totals	**179,112**	**315,656**	**13,678**	**331,240**	**14,350**	**225,854**	**204,185**	**49,065**	**26,277**	**1,359,417**	**12·1**

Subsection 2.—Telephone Finances.

The importance of the telephone industry in Canada is shown by the statistics of Table 5. After experiencing a setback during the depression, the industry has shown continued growth during recent years and in 1938 the total property account amounted to almost $350,000,000, and the payroll to over $26,000,000.

5.—Financial Statistics of Telephones in Canada, 1929-38.

NOTE.—For figures for the years 1911-28, see p. 725 of the 1938 Year Book.

Year.	Capitalization.		Cost of Property.	Gross Revenue.	Operating Expenses.	Net Operating Revenue.	Salaries and Wages.[1,2]	Employees.[2]
	Capital Stock.	Funded Debt.						
	$	$	$	$	$	$	$	No.
1929	93,737,979	141,205,328	291,589,148	65,240,610	56,559,517	8,681,093	31,672,277	27,459
1930	102,777,267	155,411,716	319,101,191	69,420,459	61,886,340	7,534,119	32,085,948	26,575
1931	105,765,685	168,224,084	333,055,119	66,806,580	60,067,016	6,739,564	28,493,252	23,825
1932	106,161,477	172,158,977	333,169,486	60,684,992	55,344,023	5,340,969	24,115,545	21,354
1933	106,336,079	165,229,197	330,490,878	56,062,970	50,423,641	5,639,329	21,276,406	18,796
1934	108,638,326	162,660,037	331,187,227	57,380,171	50,989,088	6,391,083	21,167,834	17,291
1935	109,776,507	159,785,965	327,754,026	57,029,918	50,889,780	6,140,138	22,283,362	17,414
1936	111,239,775	160,331,601	330,048,263	59,770,591	51,938,102	7,832,489	23,365,977	17,775
1937	127,289,481	160,558,719	335,810,564	63,288,855	54,512,191	8,776,664	25,579,850	18,413
1938	128,802,946	163,398,749	342,227,172	64,749,255	55,231,173	9,518,082	26,020,463	17,925

[1] Includes salaries and wages chargeable to capital account.

[2] Excludes rural lines in Saskatchewan.

6.—Financial Statistics of Telephones in Canada, by Provinces, 1938.

Province.	Capital Liability.	Cost of Property.	Gross Revenues.	Expenses.	Net Income.	Salaries and Wages.[1]	Employees.
	$	$	$	$	$	$	No.
P.E. Island	1,019,277	1,039,207	199,920	183,376	16,544	68,758	88
Nova Scotia	8,998,636	11,053,932	2,059,507	1,678,050	381,457	735,857	748
New Brunswick	5.851,603	7,655,558	1,455,840	1,165,243	290,597	590,241	575
Quebec	160,255,934[2]	74,512,544	42,556,969[2]	36,035,772[2]	6,521,197[2]	7,114,185	4,181
Ontario	7,333,056	143,494,806	2,537,894	2,114,115	423,779	11,254,186	7,101
Manitoba	21,250,577	23,174,613	3,268,383	3,091,232	177,151	1,466,893	1,090
Saskatchewan	33,892,034	33,314,269	3,026,222	2,978,761	47,461	847,292[3]	627[3]
Alberta	29,672,871	18,074,710	3,465,278	2,675,865	789,413	1,120,693	1,070
British Columbia	23,840,830	29,851,639	6,159,882	5,292,969	866,913	2,811,909	2,439
Yukon	86,877	55,894	19,360	15,790	3,570	10,449	6
Totals	**292,201,695**	**342,227,172**	**64,749,255**	**55,231,173**	**9,518,082**	**26,020,463**	**17,925**

[1] Includes salaries and wages chargeable to capital account. [2] Includes Bell Telephone Company data. [3] Excludes rural lines.

Subsection 3.—Telephone Calls.

Systems operating almost 90 p.c. of all telephones in Canada made estimates by actual count on days of normal business, and, after adjusting for uncompleted calls, holidays, Sundays, etc., the average was multiplied by 365. The long-distance calls in practically all cases were the actual long-distance calls put through or completed. The averages were 1,907 local and 22·3 long-distance calls per telephone and 234 telephone conversations per capita. The estimated per capita average for the United States in 1937 was 220.

7.—Local and Long-Distance Calls and Averages per Telephone and per Capita, 1929-38.

Year.	Local Calls.	Long-Distance Calls.	Total Calls.	Averages per Telephone.			Total Calls per Capita.[1]
				Local.	Long-Distance.	Total.	
	No.	No.	No.	No.	No.	No.	No.
1929	2,425,019,000	37,852,000	2,462,871,000	1,754	27·4	1,781	246
1930	2,475,323,000	37,497,000	2,512,820,000	1,764	26·7	1,791	246
1931	2,421,081,000	33,198,000	2,454,279,000	1,775	24·3	1,799	236
1932	2,319,354,000	27,219,000	2,346,573,000	1,839	21·6	1,861	223
1933	2,247,144,000	24,437,000	2,271,581,000	1,885	20·5	1,905	213
1934	2,278,864,000	25,396,000	2,304,260,000	1,904	21·2	1,925	213
1935	2,294,580,000	26,019,000	2,320,599,000	1,898	21·5	1,920	212
1936	2,444,517,000	27,990,000	2,472,507,000	1,931	22·1	1,953	224
1937	2,582,984,000	30,823,000	2,613,807,000	1,953	23·3	1,976	235
1938	2,592,803,000	30,289,000	2,623,092,000	1,907	22·3	1,929	234

[1] Per capita figures are based on official estimates of population given on p. 103.

PART VII.—RADIO COMMUNICATIONS.

Prior to July 1, 1938, radio in Canada, and in ships registered in Canada, was administered under the provisions of the Radiotelegraph Act passed in 1913, and the Regulations issued thereunder from time to time. This Act, owing to the rapid development of radio during the intervening years, was repealed and replaced by the Radio Act, 1938, which became effective on July 1, 1938.

In the interim, however, the Canada Shipping Act had already been revised (see 1936 Year Book, pp. 1107-1108), and those sections of the former Radiotelegraph Act pertaining to radio equipment in ships had been deleted and embodied in the revised Canada Shipping Act, 1934.

In 1932, the Canadian Radio Broadcasting Act was passed and under its terms control of all radio broadcasting was vested in the Canadian Radio Broadcasting Commission. This Act was subsequently repealed and replaced by the Canadian Broadcasting Act, 1936. Under the new Act, the technical control of all broadcasting stations reverted to the Department of Transport, while the regulation of programs was placed in the hands of the Canadian Broadcasting Corporation; the Minister of Transport is also empowered to make regulations for the control of any equipment liable to cause interference with radio reception.

Accordingly, authority for the administration of all radio within the jurisdiction of Canada is vested in the Minister of Transport under the following legislation: The Radio Act, 1938; The Canada Shipping Act, 1934; and The Canadian Broadcasting Act, 1936.

Section 1.—Administration.

Subsection 1.—Technical Control and Licensing.

All radio stations within the Dominion of Canada are required to be licensed, whether used for transmission or reception, or both. The issuance of all classes of licences, the assignment of call signs and frequencies, and the inspection and monitoring of radio stations in Canada is carried out by the personnel of the Radio Division. This Division and the Civil Aviation and Meteorological Divisions form the Air Services Branch of the Department of Transport.

In addition to being subject to the provisions of the Radio Act, 1938, and the regulations issued thereunder, the operation of radio, including broadcasting, in Canada is subject to the International Telecommunication Convention (Madrid, 1932) and the Radiocommunication Regulations annexed thereto (Revision of Cairo, 1938), as well as to those of the Inter-American Radio Convention, Havana, 1937.

The Radio Regulations for ship stations issued under the Canada Shipping Act, 1934, lay down the specifications of radio equipment to be carried on certain classes of vessels, and also designate the qualifications of the operators required to be carried thereon.

To ensure the safety of life at sea, certain passenger steamers and cargo vessels, by international regulation, must carry radio equipment manned by competent operators holding certificates of proficiency in radio. The Department maintains a complete radio inspection service to enforce this regulation. Inspectors, located at major ports throughout the Dominion, are responsible for checking the efficiency of the radio equipment on ships calling at Canadian ports, regardless of their nationality, and for seeing that only competent operators are carried. Under the Safety of Life at Sea and Load Line Conventions Act, 1931, ships of foreign and Canadian registry, while in Canadian ports, are surveyed with a view to the issuance of safety certificates. There were 94,113 radio stations of all classes inspected by departmental radio inspectors during the year.

Examinations for certificates of proficiency in radio are also conducted by the inspection staff of the Radio Division. Certificates of all classes to the number of 8,783 were issued up to Mar. 31, 1939.

1.—Radio Stations in Operation in Canada, by Class, as at Mar. 31, 1935-39.

Class of Station.	1935.	1936.	1937.	1938.	1939.
	No.	No.	No.	No.	No.
Coast (Government)	32	31	31	31	31
Direction-finding (Government)[1]	13	13	13	13	13
Aeronautical direction-finding (Government)	Nil	Nil	Nil	2	2
Ship (Government)	55	56	58	59	61
Ship (commercial)	217	212	261	313	340
Radio beacon (Government)[1]	21	24	26	26	26
Radiophone (Government)	9	9	10	10	10
Weather-reporting (Government)	Nil	Nil	Nil	1	1
Land	1	1	1	1	1
Limited coast	4	5	5	7	10
Public commercial	26	36	41	58	81
Private commercial	210	275	315	399	489
Private commercial broadcasting	74	78	80	88	94
Experimental	99	82	126	147	182
Amateur experimental	2,012	2,380	2,821	3,222	3,678
Amateur broadcasting	2	Nil[2]	Nil	Nil	Nil
Experimental short-wave broadcasting	9	10	8	8	Nil[3]
Private receiving[4]	812,335	862,109	1,038,500	1,104,207	1,223,502
Radio training school	4	6	5	6	7
Licensed aircraft	1	4	7	91	129
Aeronautical radio range (Government)	Nil	Nil	Nil	13	31[5]
Commercial receiving	"	"	"	5	64
Fan marker (Government)	"	"	"	Nil	1
Totals	**815,124**	**865,331**	**1,042,308**	**1,108,707**	**1,228,753[5]**

[1] One combined direction-finding and radio beacon station included in total of direction-finding stations, and one combined coast and radio beacon station shown in total of coast stations. [2] This class of station discontinued Apr. 1, 1935. [3] This class of station discontinued Apr. 1, 1938. [4] Figures include licences issued free, numbering 4,557 in 1938-39, 3,155 in 1937-38, 2,758 in 1936-37, 2,314 in 1935-36, and 1,931 in 1934-35. [5] Not including 2 stations under construction.

Prior to Apr. 1, 1939, the licence fee for private commercial broadcasting stations was $50. Since that date, however, the fee has been determined by the power of the station and the density of population within its service radius and varies from $50 per annum in the case of low-power, short-wave, and non-commercial university stations to $10,000 per annum in the case of 50 kw. commercial stations.

2.—Private Receiving-Station Licences Issued in Canada, by Provinces, Fiscal Years 1933-39.

Province.	1933.	1934.	1935.	1936.	1937.	1938.	1939.
	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island	1,484	1,758	1,945	2,159	3,282	4,198	5,209
Nova Scotia	26,824	25,039	28,989	31,905	40,938	43,321	51,622
New Brunswick	16,908	17,206	20,194	22,347	27,253	29,956	35,050
Quebec	195,389	201,154	204,096	221,702	240,105	268,650	295,920
Ontario	340,347	288,357	342,394	342,056	424,126	445,867	497,858
Manitoba	47,980	44,420	52,928	56,986	69,861	73,099	79,295
Saskatchewan	32,367	32,951	41,573	49,059	68,193	62,636	63,625
Alberta	38,380	40,455	49,107	55,318	72,458	75,843	88,357
British Columbia	61,368	55,978	70,759	80,205	91,978	100,251	106,169
Yukon and N.W.T.	241	307	350	372	306	386	397
Canada[1]	**761,288**	**707,625**	**812,335**	**862,109**	**1,038,500**	**1,104,207**	**1,223,502**

[1] Includes licences issued free; see footnote 4, Table 1.

There are two classes of private receiving-station licences, one for battery operated receivers (fee $2 per annum), and the other for electrically operated receivers (fee $2·50 per annum). Free licences are issued for crystal sets and to blind persons, schools, hospitals, and charitable institutions.

Exact figures of revenue received from private receiving sets are not available by provinces. This is due to the fact that there are two kinds of licence, as stated above, and also because commissions paid for the issuance of licences vary according to the classification of the issuer, that is, post offices, radio dealers, house-to-house vendors, etc. In Table 3, therefore, total revenue received from the sale of private receiving-set licences is prorated according to the number of licences issued in each province.

3.—Revenue from Private Receiving-Station Licences Issued in Canada, by Provinces, Fiscal Years 1933-39.

NOTE.—The figures in this table are approximations only: see text above.

Province.	1933.	1934.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$	$	$
Prince Edward Island	2,731	3,217	3,559	3,951	6,006	7,682	11,929
Nova Scotia	49,356	45,821	53,050	58,386	74,917	79,277	118,214
New Brunswick	31,111	31,487	36,955	40,895	49,873	54,819	80,265
Quebec	359,516	368,112	373,496	405,715	439,392	491,630	677,657
Ontario	626,238	527,693	626,581	625,962	776,151	815,937	1,140,095
Manitoba	88,283	81,289	96,858	104,284	127,846	133,771	181,586
Saskatchewan	59,555	60,300	76,079	89,778	124,793	114,624	145,701
Alberta	70,619	74,033	89,866	101,232	132,598	138,793	202,338
British Columbia	112,917	102,440	129,489	146,775	168,320	183,459	243,127
Yukon and N.W.T.	443	562	641	681	560	706	909

This revenue is collected by the Department of Transport and is turned over to the Canadian Broadcasting Corporation in accordance with the provisions of Sect. 14 of the Canadian Broadcasting Act, 1938, which provides as follows: "The Minister of Finance shall deposit from time to time in the Bank of Canada or in a chartered bank to be designated by him to the credit of the Corporation the moneys received from licence fees in respect of private receiving licences and private station broadcasting licences, after deducting from the gross receipts the cost of collection and administration, such costs being determined by the Minister from time to time".

Subsection 2.—Investigation and Suppression of Inductive Interference.

Thirty-eight cars are equipped with sensitive apparatus for the investigation of interference to radio reception, and operate from permanent inspection offices located in 22 cities across the Dominion. The inspectors in charge of these cars interview broadcast listeners who have reported interference, and determine the actual source. Tests are then made to ascertain whether or not the interference can be suppressed effectively and economically. The owners of the interfering apparatus are advised of the results of the tests carried out and are given full information regarding the most effective means of suppressing or eliminating the interference. Thirty-two part-time inspectors located in other cities and towns are supplied with portable receivers and a limited amount of equipment for the investigation of interference in their districts.

INVESTIGATIONS OF INDUCTIVE INTERFERENCE, FISCAL YEARS 1935-39.

Item.	1935.	1936.	1937.	1938.	1939.
INVESTIGATED.	No.	No.	No.	No.	No.
Electrical distribution systems and power lines	8,050	9,278	8,979	8,259	6,939
Domestic and commercial electrical appliances	3,278	3,803	4,718	5,743	5,374
Defective receivers and radio apparatus	1,541	1,832	1,845	2,026	1,952
TOTALS	12,869	14,913	15,542	16,628	14,265
ACTION TAKEN.					
Sources definitely reported cured	11,039	12,908	12,989	13,764	12,197
Sources not yet reported cured	1,674	1,839	2,378	2,047	1,847
Sources at present incurable	156	166	175	217	221

Section 2.—Operation of Radio Communications.

Subsection 1.—Dominion Government Radio Stations.

Radio communication facilities of several different types are essential for the safe and accurate navigation of ships and aircraft, and, in order to meet the requirements of Canadian as well as foreign ships plying Canadian waters and aircraft flying over Canadian territory, the Department of Transport has established networks of direction-finding, marine radio beacon, aviation radio range, radiotelegraph, and radiotelephone stations.

Department of Transport, Marine Service.—Four distinct networks of stations provide a complete radio aids-to-navigation service for ships. These networks serve the following areas: Great Lakes; Gulf of St. Lawrence and Atlantic Coast; Hudson Bay, Strait, and sub-Arctic; and Pacific Coast. The first three networks are interlocking. There is, however, no direct radio connection between the Pacific Coast network and the networks in Eastern Canada and the sub-Arctic, although contact is maintained between a short-wave station operated by the Department of Transport at Ottawa and the Pacific Coast and Hudson Bay and Strait systems.

During the fiscal year 1938-39, Government radiotelegraph stations on the East Coast, West Coast, the Great Lakes, and Hudson Bay and Strait handled 419,912 messages or 8,643,173 words, compared with 393,911 messages or 8,101,848 words handled during 1937-38. For 1938-39 the cost of maintenance was $530,017 compared with $503,025 in the previous year.

4.—Type of Service Performed and Areas Served By Marine Radio Stations of the Department of Transport, as at Mar. 31, 1939.

Service Performed.	Areas Served.				No. of Stations.
	Great Lakes.	Gulf of St. Lawrence and East Coast.	Hudson Bay, Strait, and Sub-Arctic.	Pacific Coast.	
Radiotelegraph.	Tobermory, Ont.	Clarke City, Que. Ellis Bay, Anticosti. Fame Point, Que.[1] Father Point, Que.[1] Halifax, N.S. Montreal, Que.[1] North Sydney, N.S.[1] Point Amour, Nfld.[1] Quebec, Que.[1] Shediac, N.B.	Coppermine, N.W.T.	Bull Harbour, B.C. Estevan, B.C. Vancouver, B.C. (VAB). Victoria, B.C.	16

[1] Operated by the Canadian Marconi Company under contract.

4.—Type of Service Performed and Areas Served By Marine Radio Stations of the Department of Transport, as at Mar. 31, 1939—concluded.

Service Performed.	Areas Served.				No. of Stations.
	Great Lakes.	Gulf of St. Lawrence and East Coast.	Hudson Bay, Strait, and Sub-Arctic.	Pacific Coast.	
Radiotelephone.		Bird Rock, Que. Gannet Rock, N.B. Halifax, N.S. Little Wood Island, N.B.		Banfield, B.C. Cape Beale, B.C. Carmanah, B.C. Lennard Island, B.C. Merry Island, B.C. Tofino, B.C.	10
Radiotelegraph and Radiotelephone.	Kingston, Ont. Midland, Ont. Point Edward, Ont. Port Arthur, Ont. Port Burwell, Ont. Sault Ste. Marie, Ont. Toronto, Ont.	Grindstone Island, Que.[1]	Port Harrison, Que.[2]	Alert Bay, B.C. Cape Lazo, B.C. Prince Rupert, B.C. Vancouver, B.C. (VAI).	13
Radio Beacon.	Cove Island, Ont. Long Point, Ont. Main Duck Island, Ont. Michipicoten Island, Ont. Port Weller, Ont. South East Shoal, Ont. Slate Island, Ont,	Cape Bauld, Nfld. Cape Ray, Nfld. Cape Whittle, Que. East Point, P.E.I. Heath Point, Anticosti. Natashquan Point, Que. Perroquet Island, Que. Point des Monts, Que. Sable Island, N.S. Seal Island, N.S. Western Head, N.S. West Point, Anticosti.		Langara Island, B.C. Point Atkinson, B.C. Quatsino (Kains Island), B.C. Race Rocks, B.C. Triple Island, B.C.	24
Radio Beacon and Radiotelegraph.		Lurcher Lightship.		Dead Tree Point, B.C.	2
Radio Beacon, Radiotelegraph, and Radiotelephone.		Sambro Lightship.			1
Direction-finding and Radio Beacon.		St. Paul Island, N.S.			1
Direction-finding and Radiotelegraph.		Belle Isle, Nfld. Camperdown, N.S. Canso, N.S. Cape Race, Nfld. Saint John, N.B. Yarmouth, N.S.	Cape Hopes Advance, Que. Chesterfield Inlet, N.W.T. Port Churchill, Man. Resolution Island, N.W.T.		10
Direction-finding, Radiotelegraph, and Radiotelephone.			Nottingham Island, N.W.T.	Pachena, B.C.	2
Totals, Stations Serving Specified Areas	**15**	**36**	**7**	**21**	**79**
Grand Total					**79**

[1] Operated by Canadian Marconi Company under contract. [2] Primarily a meteorological reporting station (see Table 5).

Department of Transport, Aeronautical Service.—The radio services provided for aviation may be divided into two categories: first, those furnished on behalf of aircraft flying trans-Canada routes; and secondly, those intended for aircraft flying transatlantic routes. This phase of radio in Canada is being rapidly developed and it is expected that within a very short time aircraft pilots will be provided with as complete a service as is, at the present time, supplied to marine navigators. This service will include the completion of a chain of radio range stations extending from coast to coast along the trans-Canada airway and on important connecting routes. These stations are located at airports approximately every 100 miles and transmit signals that enable pilots to navigate entirely by instruments. Routine weather reports are also broadcast hourly.

5.—Type of Service Performed and Routes Served by Aeronautical Radio Stations of the Department of Transport, as at Mar. 31, 1939.

Service Performed.	Routes Served.			No. of Stations.
	Trans-Canada.[1]	Transatlantic.	Trans-Canada and Transatlantic.	
Radio Range and Radiotelephone.	Broadview, Sask. Calgary, Alta. Carmi, B.C. Cowley, Alta. Cranbrook, B.C. Crescent Valley, B.C. Earlton Jct., Ont. Edmonton, Alta. Grand Forks, B.C. Kapuskasing, Ont. Kenora, Ont. Killaloe, Ont. Lethbridge, Alta. Malton, Ont. Medicine Hat, Alta. Muskoka, Ont. Nakina, Ont. North Bay, Ont. Ottawa, Ont. Pagwa, Ont. Porquis Jct., Ont. Princeton, B.C. Red Deer, Alta. Regina, Sask. Rivers, Man. Sioux Lookout, Ont. Swift Current, Sask. Vancouver, B.C. Wagaming, Ont. Winnipeg, Man.			30
Radio Range, Radiotelegraph, and Radiotelephone.			St. Hubert, Que.	1
Direction-finding.		Longueuil, Que.		1
Direction-finding, Radiotelegraph, and Radiotelephone.			Shediac, N.B.	1
Fan Marker.	Maple Ridge, B.C.			1
Totals, Stations Serving Specified Routes	**31**[1]	**1**	**2**	**34**
Auxiliary meteorological reporting station, Port Harrison, Que.				1
Grand Total				**35**

[1] Two additional stations on this route are under construction in New Brunswick, located at Blissville and Moncton.

Department of National Defence.—The Royal Canadian Corps of Signals operates, in addition to stations established for military purposes, 17 permanent stations and 2 summer stations situated along the Mackenzie River and in Yukon on behalf of the Bureau of Northwest Territories and Yukon Affairs, Department of Mines and Resources.

Department of Public Works.—Eleven stations are operated to provide emergency communication between the mainland and certain islands, and 9 stations to provide emergency links in existing landline circuits.

Department of Mines and Resources.—This Department operates 1 private commercial station at the Dominion Observatory for the transmission of time signals, 2 private commercial and 2 experimental stations in the National Parks of Canada, together with 6 other portable experimental stations.

Subsection 2.—Provincial Government Radio Stations.

British Columbia.—The Department of Lands operates 10 ship stations, 57 private commercial stations, and 1 experimental station in connection with forest fire protection services. Under the Attorney General's Department the provincial police operate 4 ship stations and 25 private commercial stations, and the Game Commission operates 3 ship stations and 1 private commercial station.

Alberta.—The Forest Service, of the Department of Lands and Mines, operates 5 private commercial stations in connection with forest fire protection.

Saskatchewan.—The Department of Natural Resources operates 22 private commercial stations and 3 experimental stations in connection with forest fire protection services; the Saskatchewan Power Commission operates 2 private commercial stations and 12 commercial receiving stations (in service trucks, etc.) to provide emergency radio communication during power-line failures, etc.

Manitoba.—The Department of Mines and Natural Resources operates 2 private commercial stations and 1 aircraft station in connection with survey parties.

Ontario.—In northwestern Ontario, the Forestry Service operates 5 public commercial stations furnishing a point-to-point radiotelephone service, 4 public commercial stations furnishing a point-to-point radiotelegraph service, and 12 public commercial stations furnishing a ground-to-plane radiotelephone service to aviation companies operating in that area. In connection with forest fire protection services there are also 28 private commercial stations, 38 experimental stations, and 6 aircraft stations.

Subsection 3.—Privately Owned Commercial Stations.

From Table 1 it will be noted that there were 10 limited coast stations, 81 public commercial stations, and 489 private commercial stations in operation in the Dominion at Mar. 31, 1939. A public commercial station situated at Drummondville, Que., provides transoceanic radiotelegraph and radiotelephone services to Great Britain and Australia, and a radiotelephone service to Newfoundland. These stations are similar in one respect, in that they are owned and operated by private individuals or companies incorporated under the laws of the Dominion, or of one of the provinces.

The limited coast stations are, as a rule, privately owned and provide a ship-to-shore communication service with ships owned or operated by the licensees only. Two of such stations are, however, owned and operated by the Canadian

Marconi Company, one situated at Louisburg, N.S., providing a long-range radiotelegraph service to ships at sea and the other situated at Drummondville, Que., providing a long-range radiotelephone service to ships at sea. The facilities of these two stations are open to the general public. The services performed by commercial stations, both public and private, are many and varied. Generally speaking, these stations are located in areas not served by telephone, telegraph, or other means of telecommunication. The majority of these stations perform a point-to-point radiotelegraph or radiotelephone service, although an increasing number are being utilized for ground-to-plane communication. These stations provide an invaluable means of contact with mining camps, lumber mills, exploration and survey parties, trading posts, and many points that would otherwise be cut off from the more settled parts of the Dominion.

Private commercial stations may be used only for the handling of messages relative to the private business of the licensee, whereas public commercial stations may be used for the handling of messages for the general public.

Section 3.—Program Broadcasting and Regulation under the Canadian Broadcasting Corporation.

Subsection 1.—Administration of the Canadian Broadcasting Corporation.

The Canadian Broadcasting Corporation succeeded the Canadian Radio Broadcasting Commission on Nov. 2, 1936. This—the first nationally owned and controlled radio corporation in North America—has done much to further its aim of providing as complete a service as possible to residents of every part of Canada. The Corporation operates under the Canadian Broadcasting Act, 1936, which provides that the Corporation shall consist of a Board of nine Governors chosen to give representation to the principal geographical divisions. In practice, the Board of Governors determines and supervises policy, while actual administration and operations are under the direction of the General Manager.

The administrative organization of the CBC consists of the following divisions: Executive, Secretariat, Finance, Engineering, Program, Press and Information, Commercial, and Station Relations. The by-laws of the Corporation approved by the Governor in Council provide a formula for general administration and reflect the policy of the Board.

As provided for in the Act, the regulation of all Canadian programs is in the hands of the Canadian Broadcasting Corporation. The CBC is empowered to issue regulations of a general character applicable to all broadcasting in Canada, but it does not otherwise interfere with the freedom of choice in programs of privately controlled stations suitable for covering local areas. Coverage of wider regions is dependent almost entirely upon the CBC networks. New regulations, within the scope of the Act, were made necessary by the events of 1939. The CBC uses its powers to control all programs broadcast in Canada, to eliminate abuses, and to maintain a desirable standard and quality in all Canadian programs. The Corporation neither exercises, nor authorizes any private station to exercise, any restrictions on matter broadcast, other than those specifically set out in the printed regulations issued by the Corporation in its capacity as the authority over all broadcasting in Canada.

Conduct of the CBC During War Time.—The personnel of the Censorship Board of the Dominion Government in 1939 included a senior officer of the Corporation to look after the interests of radio broadcasting. Immediately after the

outbreak of war, CBC transmitters and the short-wave receiving station were placed under guard by the R.C.M.P. to prevent sabotage.

The aim of the Censorship Co-ordination Committee is to interfere as little as possible with the ordinary avocations of life and the enjoyment of property. All stations are required to supply in advance of broadcast full particulars as to all talks scheduled, including title and nature of the talk and the speaker. Stations are requested to submit their manuscripts in advance and secure permission to broadcast. All foreign language broadcasts are prohibited. All stations are required to submit their news copy to the Censorship Board. Broadcasting from public meetings is prohibited. A progressive retraction of activities of the CBC that are justifiable under normal conditions, but not demonstrably necessary in war time, has been put into effect, and the money thus saved allocated for use in strengthening programs and for necessary reserves.

Broadcasting of News Since the Outbreak of War.—The ordinary regulations state that there should be no restriction upon broadcasting of news by any persons, provided that the CBC has the right, if news services are found to be subversive of the interests of Canada in times of stress, to stop them. By previous agreement with the Canadian Press, news bulletins are secured from that organization. Local news is secured under arrangements between each station and its local papers. Broadcast of news from sources other than the above is not permitted during war time without permission in writing from the Corporation. The CBC may use 'actuality' broadcasts or recordings of events in its news bulletins. Should private stations use CP-CBC news broadcasts, they do so on a sustaining and strictly non-sponsored basis.

For a period following the outbreak of war, news bulletins were inserted in programs. After a short time, flashes and special bulletins were curtailed and set news periods substituted. Normal program arrangements were resumed, particular care being taken in choosing commentators.

Subsection 2.—Operations.

Broadcasting Facilities.—The extension of broadcasting facilities embraces two considerations, the first depends on facilities of the CBC, and the second on the reservation that licences for high-power transmitters, on both long- and short-wave bands, are for use by the public service system. Under Sect. 24 of the Act, the CBC is required to review all applications for licences for new stations, as well as applications for increases in power and change in frequency or change in location. It is the policy of the Board to serve community interests by giving every practical encouragement and assistance to local stations.

During 1939 the CBC completed construction of its fourth 50,000-watt transmitter, CBK at Watrous, Sask. The others are: CBL, Toronto; CBF, Montreal; and CBA, Sackville, N.B. With the inauguration of CBK, the power of CBC-owned stations increased to 212,000 watts, or three-quarters of the power of all stations in Canada. At the beginning of 1937 the power of all stations in Canada was 79,000 watts. At the end of 1939 the CBC National Network, including the four 50,000-watt stations, was made up of 10 stations owned or leased by the Corporation, 26 privately owned affiliated stations, and 23 privately owned supplementary stations. In the achievement of this coverage, designed to be as effective to the entire Dominion as possible, the needs of the rural population were considered as well as those of urban areas. Quebec Province is equipped with both French and English outlets.

Private stations, formerly free to arrange commercial hookups, subject to the approval of the Corporation, were brought more closely under control of the CBC during 1939, prior to the advent of war. All commercial hookups are now approved by the Corporation through its Commercial Department, which arranges contracts with each station.

Interference from foreign stations continued to be a serious problem to the CBC, but ratification by Mexico of the agreement reached at the Inter-American Wavelength Conference held at Havana in November, 1937, improved the situation to a considerable extent.

During 1939 the construction of a high-powered short-wave station was again considered, but no action was taken because of the expense involved.

6.—Broadcasting Stations of the CBC National Network, Showing Time Zones, Identification Letters, Locations, and Frequencies, as at Mar. 31, 1940.

NOTE.—Owned or leased stations are marked with a dagger (†) and affiliated stations, on which certain hours are reserved for CBC programs, by an asterisk (*). For the remaining stations the use of CBC programs is optional.

Time Zone.	Identification Letters.	Location.	Frequency.	Time Zone.	Identification Letters.	Location.	Frequency.
			kc.				kc.
A.S.T.	CJCB*	Sydney, N.S.	1240	E.S.T.	CJKL*	Kirkland Lake, Ont.	560
"	CHNS*	Halifax, N.S.	930	"	CKGB*	Timmins, Ont	1440
"	CJLS	Yarmouth, N.S.	1310	"	CKSO*	Sudbury, Ont.	780
"	CFCY*	Charlottetown, P.E.I.	630	"	CJIC	Sault Ste. Marie, Ont.	1500
"	CHGS	Summerside, P.E.I.	1450	"	CKPR*	Fort William, Ont.	580
"	CBA†	Sackville, N.B.	1050	C.S.T.	CKCA	Kenora, Ont.	1420
"	CKCW*	Moncton, N.B	1370	"	CKY*	Winnipeg, Man.	910
"	CHSJ*	Saint John, N.B.	1120	"	CJRC	Winnipeg, Man.	630
"	CFNB*	Fredericton, N.B.	550	"	CKX*	Brandon, Man.	1120
"	CHNC*	New Carlisle, Que.	610	"	CJGX	Yorkton, Sask.	1430
E.S.T.	CJBR*	Rimouski, Que.	1030	"	CBK†	Watrous, Sask.	1540
"	CBJ†	Chicoutimi, Que.	1120	M.S.T.	CKCK*	Regina, Sask.	1010
"	CBV†	Quebec, Que.	950	"	CJRM	Regina, Sask.	950
"	CHLT	Sherbrooke, Que.	1210	"	CHAB*	Moose Jaw, Sask.	1200
"	CBF†	Montreal, Que.	910	"	CFQC*	Saskatoon, Sask.	600
"	CBM†	Montreal, Que.	960	"	CKBI*	Prince Albert, Sask.	1210
"	CKRN	Rouyn, Que.	1370	"	CFAC*	Calgary, Alta.	930
"	CKCH	Hull, Que.	1210	"	CJCJ	Calgary, Alta.	690
"	CBO†	Ottawa, Ont.	880	"	CFCN	Calgary, Alta.	1030
"	CKCO	Ottawa, Ont.	1010	"	CJCA*	Edmonton, Alta.	730
"	CFRC*	Kingston, Ont.	1510	"	CFRN	Edmonton, Alta.	960
"	CBL†	Toronto, Ont.	840	"	CKUA	Edmonton, Alta.	580
"	CBY†	Toronto, Ont.	1420	"	CJOC*	Lethbridge, Alta.	1370
"	CKOC	Hamilton, Ont.	1120	P.S.T.	CKLN	Nelson, B.C.	1420
"	CHML	Hamilton, Ont.	1010	"	CJAT*	Trail, B.C.	910
"	CKTB	St. Catherines, Ont.	1200	"	CKOV*	Kelowna, B.C.	630
"	CFPL	London, Ont.	730	"	CFJC*	Kamloops, B.C.	880
"	CFCO	Chatham, Ont.	630	"	CHWK	Chilliwack, B.C.	780
"	CKLW	Windsor, Ont.	1030	"	CBR†	Vancouver, B.C.	1100
"	CFCH*	North Bay, Ont.	930				

Program Service and Development.—In November, 1936, the CBC served less than 50 p.c. of the population; at the beginning of 1940, service had been extended to 84 p.c.

In a typical month of the past year, 2,000 programs covering 663 hours of broadcasting were produced; this was in addition to the French network programs numbering 890.

Music continues to be the backbone of program work. In serious music the Corporation has continued its policy of assisting existing orchestras and musical organizations in various Canadian centres. The presentation of original Canadian

compositions has been expanded in such programs as that presented by the Vogt Society and a weekly program reviewing the Canadian scene in snapshot form and presenting works of new Canadian composers. The Metropolitan Opera, the NBC Symphony Orchestra, and the New York Philharmonic-Symphony Orchestra were again heard in Canada, over the CBC network.

In the field of drama, 456 plays have been purchased and produced, including the winners of the previous year's play-writing contest. Regional drama production from Vancouver and Winnipeg, as well as from Toronto and Montreal, has steadily improved. A new and interesting development is the local drama workshop, presenting Canadian material and providing junior talent and junior writers with an opportunity of advancing their own technique. Through the activities of the different auditioning boards at key production points, and through the personal contact and observation of the Drama Department the constant presentation and development of new material is facilitated.

Almost 1,000 different speakers have taken part in CBC talks since the inauguration of this type of program. The advent of war brought a large increase in news commentary and specialized background analysis of international affairs. In addition, regular features on science, literature, the arts, health, travel, sports, and adventure are given. More and more attention is being directed to the selection of suitable microphone material and proper studio production.

The latest development is the Features Broadcasts Department. The work of this Department is peculiarly Canadian in character; it creates programs from actuality recordings, special music, and written dialogue to give a sound picture of some particular aspect of the Canadian scene and its relation to the general social pattern of the country. Not only has it been successfully used in the re-telling of the life of the active service forces of Canada, but also in the great contribution to the war effort by Canadians on the home front.

Actuality broadcasts and special events retain a prominent place in national program service. The 'highlighting' of national and international events and the increasing use of the facilities of this Department for servicing other types of programs are notable features. In addition to its regular programs, the CBC broadcasted the visit to Canada of Their Majesties, King George VI and Queen Elizabeth, an unprecedented task, the successful accomplishment of which was commented upon favourably in all parts of the world. A quarterly review of the year's happenings is regularly presented, composed in large part of excerpts from actualities made at the time. Scrapbook programs presented weekly also make extensive use of actuality pictures of the Canadian scene. Experiments with a weekly program from the Canadian troops at Aldershot have now made this into a regular CBC feature. This program is produced and presented by a special CBC program unit with the Canadian forces.

The Farm Broadcast Department acts as a clearing house for information most needed by the farmer from day to day, week to week, and season to season; it is responsible for a daily broadcast each weekday noon-hour throughout the year in the various regions. The response to these broadcasts has been most gratifying, particularly in the Maritimes and in the Prairie Provinces. In the summer of 1940 this regional farm service was extended to British Columbia, thereby completing CBC's national service to farmers across the country.

The year 1939 was marked by the inauguration and gradual development of children's programs. The present pattern provides a weekly story-telling period

for younger children and a children's scrapbook half-hour for older children. The scrapbook is devoted to good music, entertainment, nature lore, specially written dramatized serial stories with a Canadian locale, and actual microphone visits to various Canadian scenes with particular appeal to children.

In the field of school broadcasting, the Corporation co-operates regionally with any province desiring to present and use a clearly formulated program of broadcasts to schools. This co-operation is at present most highly developed with the British Columbia Department of Education.

All religious broadcasts are supervised by the National Religious Advisory Council comprising representatives of the principal religious denominations in Canada. This Council co-operates in arranging two Sunday half-hour network broadcasts and through local councils arranges morning devotional periods each weekday in the various regions.

7.—Classification of CBC Programs, Showing Percentage Distribution, Fiscal Year 1939.

Class of Program.	Programs.	Hours.	Percentage of Hours.	Class of Program.	Programs.	Hours.	Percentage of Hours.
	No.	No.			No.	No.	
Band music	211	112:45	1·2	Recitals—			
Chamber music	403	160:00	1·7	Instrumental	956	279:35	3·0
Children's programs	434	113:30	1·2	Vocal	1,463	362:45	3·9
Choral music	398	143:30	1·5	Recordings	3,300	1,273:55	13·7
Dance music	2,919	1,124:35	12·1	Religion	171	94:00	1·0
Drama	646	261:20	2·8	Rural and farm broadcasts[2]	296	119:05	1·3
Grand opera	22	61:15	0·7	Sacred music	141	56:00	0·6
Light Orchestral and Vocal—				Special events	400	220:55	2·4
Standard	1,291	552:35	5·9	Sport broadcasts[2]	151	36:10	0·4
Popular	2,355	869:15	9·3	Stock quotations	854	213:00	2·3
News bulletins	4,193	989:20	10·6	Symphony	401	325:15	3·5
News commentaries	202	55:30	0·6	Talks—			
Northern messenger[1]	18	16:30	0·2	Informative	2,008	507:40	5·4
Old time music	204	79:05	0·9	Educational	309	111:45	1·2
Organ music	566	226:35	2·4	Variety	1,511	789:05	8·5
Poetry reading	119	35:25	0·4	Women's programs	218	82:00	0·9
Public service	63	13:50	0·1	Royal visit re-broadcasts[1]	49	24:45	0·3
				Totals	**26,272**	**9,306:15**	**100·0**

[1] Seasonal or of a special nature, and not carried throughout the year. [2] These figures are not for a complete year, as these classifications were not tabulated separately before July, 1939.

Subsection 3.—Finances.

The administration of the finances of the Corporation continues to be conducted conservatively by keeping the cost of operations within the range of current revenues, with a safe margin of revenue to spare. Vigilant control of expenditures is exercised by the Board of Governors in determining the amounts to be available for principal objects, although actual supervision of the details of expenditures is under the direction of the Chief Executives. Fixed assets were increased by $346,561 during the year ended Mar. 31, 1939, owing mainly to the construction of two large new transmitters, one in the Maritimes and the other in Saskatchewan. The fixed assets of the Corporation as at Mar. 31, 1939, amounted to $1,452,210, book value, against which a reserve for depreciation has been provided amounting to $377,211, leaving a net value of $1,074,999. The Corporation received a loan of $500,000 from the Dominion Government for construction of capital works. This loan bears interest

at 3½ p.c. and is repayable in annual instalments of $50,000. The first instalment was paid off in 1939.

Radio receiving set licence fees are collected by the Department of Transport and the money turned over to the CBC in the manner described at p. 722. As supported by the figures of the table on that page, the collection of revenue, by areas, is in approximately the following ratios: Ontario, 40 p.c.; Quebec, 24 p.c.; Prairie Provinces, 19 p.c.; British Columbia, Yukon and N.W.T., 9 p.c.; Maritime Provinces, 8 p.c.

8.—Income and Expenditures of the Canadian Broadcasting Corporation, November, 1936, to March, 1937, and Fiscal Years 1938 and 1939.

Item.	1937. (5 months).		1938.		1939.	
Income.	$	p.c.	$	p.c.	$	p.c.
Licence fees	741,667	88·61	1,896,813	82·14	2,652,186	80·10
Commercial	95,333	11·39	411,346	17·82	584,612	17·65
Subsidiary hookups	Nil	–	Nil	–	57,069	1·72
Miscellaneous	"	–	1,003	0·04	17,574	0·53
Totals, Net Income	**837,000**	**100·00**	**2,309,162**	**100·00**	**3,311,441**	**100·00**
Expenditures.						
Programs	252,959	32·42	1,060,184	47·38	1,393,018	46·95
Station network	186,181	23·86	477,902	21·36	571,496	19·26
Leases of time on private stations	60,492	7·75	58,494	2·61	16,810	0·57
Engineering	137,943	17·68	303,968	13·58	481,123	16·22
General and administration	70,605	9·05	146,686	6·56	139,827	4·71
Press and information	Nil	–	28,236	1·26	67,087	2·26
Interest on loans	"		Nil	–	16,907	0·57
Commercial	"	–	55,426	2·48	77,909	2·63
Depreciation	72,096	9·24	106,846	4·77	202,814	6·83
	780,276	100·00	2,237,742	100·00	2,966,991	100·00
Less inventories	Nil	–	17,206	–	13,005	–
Totals, Expenditures	**780,276**		**2,220,536**		**2,953,986**	
Operating surpluses	56,724		88,626		357,455	–

PART VIII.—THE POST OFFICE.*

Historical.—A brief account of the pre-Confederation development of postal services in Canada is given at pp. 789-790 of the 1934-35 Year Book.

At Confederation the provincial systems were transferred to the Dominion. The Post Office Act of 1867 established a service throughout Canada. The domestic rate on letters was reduced from 5 to 3 cents per half-ounce, and in 1870 the rates to the United States and the United Kingdom were reduced from 10 to 6 cents and from 12½ to 6 cents, respectively, per half-ounce. In 1875 a convention between Canada and the United States reduced postal rates between the countries to the domestic level. In 1878, on the admission of Canada to the Postal Union, letter postage to the countries of the Postal Union was reduced to 5 cents per half-ounce.

* Revised by H. Beaulieu, Director, Administrative Services, Post Office Department.

After a conference in 1897 Imperial penny postage (2 cents per half-ounce) was established on Dec. 25, 1898, while the domestic rate was reduced from 3 to 2 cents per ounce. These rates were maintained until 1915, when, with the rising costs of the war period, rates were increased. Penny postage again became effective for Canada, to the United States, Newfoundland, and other countries of North America on July 1, 1926, and to the United Kingdom and all other places within the British Empire on Dec. 25, 1928, with later extensions to France and South America. On July 1, 1931, a special revenue tax came into effect on letters addressed to places in Canada, throughout the Empire, to France, to Spain, and to North and South America generally, making the rate in these cases 3 cents for the first ounce and 2 cents for each additional ounce.

The Post Office Department is administered by the Postmaster General. Besides the several administrative branches at Ottawa, the Dominion is divided into 15 districts, each in charge of a District Director or Superintendent of Postal Service. The Canadian system embraces a territory more extensive than that served by any other system, excepting those of United States and Russia, and the relatively small population compared with the great distance to be covered makes inevitable a particularly difficult and relatively expensive service.

Rural Mail Delivery.—A system of rural mail delivery was inaugurated in Canada on Oct. 10, 1908, limited at that time to existing stage routes. The service was greatly extended by new regulations that took effect on Apr. 1, 1912. The result has been an increase in the number of rural routes from approximately 900 in 1912 to 4,775 in 1939, having 270,000 mail boxes as against approximately 25,000 in 1912.

Mail Transportation.—The conveyance of mail by land, water, and air entailed a total expenditure of $14,782,705 during the fiscal year ended 1939. Railway carriage cost $6,944,209, land transportation $6,244,054, conveyance by steamship $281,152, and conveyance by air $1,313,290. These amounts were paid solely for services rendered as carriers. For details regarding air-mail services, see p. 738. Special subsidies are granted to assure the maintenance of certain steamship services. Since these subsidized services provide transportation for passengers and freight as well as mail, the subsidies are included with other expenditures on water transportation at pp. 690-691.

1.—Post Offices in Operation, by Provinces, as at Mar. 31, 1934-39.

Province.	1934.	1935.	1936.	1937.	1938.	1939.
	No.	No.	No.	No.	No.	No.
Prince Edward Island	115	114	114	114	115	115
Nova Scotia	1,600	1,571	1,565	1,551	1,543	1,540
New Brunswick	1,004	1,000	1,002	1,009	1,023	1,026
Quebec	2,450	2,466	2,494	2,542	2,592	2,625
Ontario	2,523	2,540	2,559	2,589	2,623	2,640
Manitoba	778	788	788	794	798	806
Saskatchewan	1,426	1,433	1,460	1,482	1,501	1,515
Alberta	1,213	1,228	1,243	1,246	1,259	1,266
British Columbia	889	892	895	908	929	940
Yukon	18	18	18	18	18	18
Northwest Territories	19	19	18	19	20	23
Canada	**12,035**	**12,069**	**12,156**	**12,272**	**12,421**	**12,514**

2.—Gross Postal Revenues of Offices Collecting $10,000 and Upwards, Fiscal Years 1938 and 1939.

Province and Post Office.	1938.	1939.
	$	$
P.E. Island.		
Charlottetown	83,619	84,350
Summerside	25,524	25,324
Totals, P.E. Island	**178,334**	**179,863**
Nova Scotia.		
Amherst	36,591	38,427
Antigonish	17,896	19,433
Bridgetown	10,735	10,329
Bridgewater	19,739	19,859
Digby	12,048	12,372
Glace Bay	19,496	19,839
Halifax	578,441	577,776
Kentville	24,047	24,772
Liverpool	16,536	16,300
Lunenburg	14,193	14,009
New Glasgow	41,041	39,447
New Waterford	10,287	10,697
North Sydney	17,045	16,585
Pictou	14,331	14,216
Springhill	13,055	12,794
Stellarton	10,791	10,960
Sydney	83,026	84,289
Truro	59,731	61,348
Windsor	19,828	19,683
Wolfville	15,059	15,382
Yarmouth	30,873	30,183
Totals, Nova Scotia	**1,529,655**	**1,523,437**
New Brunswick.		
Bathurst	15,860	15,740
Campbellton	26,241	24,657
Chatham	11,912	11,583
Edmundston	18,319	18,742
Fredericton	87,900	89,390
Moncton	493,630	451,994
Newcastle	14,497	14,497
Saint John	291,055	292,932
St. Stephen	19,395	20,558
Sackville	21,832	21,560
Sussex	16,683	16,705
Woodstock	19,948	20,041
Totals, New Brunswick	**1,367,917**	**1,322,780**
Quebec.		
Amos	22,240	19,289
Buckingham	10,026	10,492
Chicoutimi	36,873	39,865
Coaticook	12,596	13,126
Cowansville	10,192	10,562
Drummondville	36,779	39,249
Farnham	16,492	15,098
Gardenvale	11,331	20,081
Granby	31,630	32,974
Grand'Mère	14,640	14,880
Hull	41,271	40,482
Joliette	24,882	26,544
Jonquière	12,210	12,538
Lachute	11,077	11,338
Lac Mégantic	10,112	10,521
La Tuque	14,989	16,258
Lennoxville	10,790	11,189
Lévis	27,886	32,056
Magog	13,892	14,405
Matane	11,561	13,891
Montmagny	12,642	12,287
Montreal	5,020,376	5,058,726
Noranda	24,848	27,234
Quebec	812,545	806,281
Richmond	10,490	10,881
Rimouski	24,074	25,401
Roberval	9,567	10,642
Rock Island	13,904	14,109
Rouyn	29,551	31,276
Ste. Agathe des Monts	12,332	13,550
Ste. Anne de Beaupré	14,576	15,857
St. Hyacinthe	49,007	50,952
St. Jean	35,930	38,838
St. Jérôme	20,379	21,126
Shawinigan Falls	30,312	30,743
Sherbrooke	135,642	138,841
Sorel	21,032	23,015
Thetford Mines	22,147	22,133
Three Rivers	90,188	90,163
Val D'Or	15,957	19,108
Valleyfield	19,408	19,783
Victoriaville	24,950	25,891
Totals, Quebec	**8,457,558**	**8,534,151**
Ontario.		
Amherstburg	11,155	11,376
Arnprior	14,678	14,451
Aurora	13,736	13,584
Aylmer West	11,974	12,957
Barrie	34,488	35,319
Belleville	75,289	74,639
Blenheim	10,151	11,296
Bowmanville	16,274	16,247
Bracebridge	16,710	16,630
Brampton	30,325	32,783
Brantford	144,160	146,271
Brockville	58,538	58,393
Burlington	13,052	13,426
Campbellford	10,846	10,715
Carleton Place	16,556	16,626
Chatham	84,844	86,648
Clinton	10,040	10,326
Cobalt	13,571	13,330
Cobourg	30,143	26,253
Cochrane	18,634	17,476
Collingwood	16,819	17,556
Copper Cliff	12,835	13,232
Cornwall	56,915	58,571
Dundas	17,819	19,293
Dunnville	24,759	21,817
Fergus	22,316	20,031
Fort Erie North	22,266	22,510
Fort Frances	23,829	23,075
Fort William	95,945	95,939
Galt	71,083	69,215
Gananoque	19,622	20,751
Georgetown	22,849	21,852
Geraldton	11,460	13,321
Goderich	18,528	19,258
Gravenhurst	13,811	12,953
Grimsby	12,673	12,783
Guelph	112,906	113,233
Haileybury	13,884	13,394
Hamilton	678,085	677,504
Hanover	16,395	16,486
Hawkesbury	11,241	11,177
Hespeler	11,233	10,879
Huntsville	18,427	18,749
Ingersoll	24,883	24,344

2.—Gross Postal Revenues of Offices Collecting $10,000 and Upwards, Fiscal Years 1938 and 1939—continued.

Province and Post Office.	1938.	1939.
Ontario—continued.	$	$
Kapuskasing	12,986	12,201
Kenora	32,948	32,590
Kincardine	18,705	18,597
Kingston	135,607	135,177
Kingsville	11,192	11,653
Kirkland Lake	67,547	71,559
Kitchener	151,301	153,376
Leamington	23,447	23,217
Lindsay	37,805	37,548
Listowel	12,753	13,015
London	544,477	547,638
Meaford	11,930	11,754
Midland	22,135	22,924
Napanee	22,198	21,547
New Liskeard	27,486	29,520
Newmarket	19,967	20,607
Niagara Falls	136,252	127,189
North Bay	76,034	75,435
Oakville	23,564	24,086
Orangeville	13,936	13,825
Orillia	45,599	46,831
Oshawa	112,992	116,116
Ottawa	733,832	749,878
Owen Sound	54,395	55,124
Paris	22,333	22,098
Parry Sound	18,804	18,675
Pembroke	34,931	31,697
Perth	29,318	29,084
Peterborough	137,036	138,359
Petrolia	12,186	11,959
Picton	20,591	22,255
Port Arthur	76,463	75,522
Port Colborne	21,658	22,108
Port Credit	11,336	11,615
Port Hope	24,059	24,212
Prescott	13,705	14,060
Preston	27,461	27,422
Renfrew	26,679	27,513
St. Catharines	126,653	125,581
St. Marys	16,746	16,382
St. Thomas	65,868	63,769
Sarnia	69,467	69,708
Sault Ste. Marie	78,067	75,471
Schumacher	10,205	10,926
Seaforth	10,373	10,555
Simcoe	44,606	45,939
Sioux Lookout	13,032	13,085
Smiths Falls	26,810	27,303
South Porcupine	14,801	16,503
Stratford	67,238	68,673
Strathroy	14,168	13,576
Sudbury	106,216	108,850
Thorold	13,868	13,874
Tilsonburg	20,309	22,242
Timmins	68,094	73,187
Toronto	7,795,964	7,751,216
Trenton	26,634	26,990
Walkerton	11,692	12,471
Wallaceburg	15,016	15,414
Waterloo	56,555	57,969
Welland	46,992	45,746
Weston	23,793	24,404
Whitby	14,210	16,472
Windsor	437,974	431,530
Wingham	11,929	12,291
Woodstock	62,633	63,187
Totals, Ontario	**16,203,509**	**16,203,859**
Manitoba.	$	$
Brandon	84,113	83,096
Dauphin	24,575	25,123
Flintlon	19,316	19,546
Neepawa	12,141	12,341
Norwood Grove	11,412	11,925
Portage la Prairie	30,962	31,256
St. Boniface	25,923	24,562
Selkirk	10,501	10,502
Swan River	9,785	10,433
The Pas	17,171	16,592
Wawanesa	11,830	12,608
Winnipeg	3,021,180	2,939,056
Totals, Manitoba	**3,820,497**	**3,734,618**
Saskatchewan.		
Assiniboia	9,806	10,420
Estevan	15,852	16,315
Humboldt	13,322	12,799
Lloydminster	13,894	14,265
Melfort	16,384	16,599
Melville	14,608	14,660
Moose Jaw	98,504	103,489
North Battleford	34,807	35,808
Prince Albert	56,458	59,191
Regina	842,430	862,465
Rosetown	10,366	11,273
Saskatoon	314,624	331,396
Shaunavon	10,508	10,592
Swift Current	31,270	34,892
Tisdale	11,822	12,071
Weyburn	22,565	23,485
Yorkton	38,214	39,899
Totals, Saskatchewan	**2,651,482**	**2,748,039**
Alberta.		
Banff	20,756	20,820
Calgary	620,125	649,602
Camrose	17,365	17,837
Drumheller	22,114	22,796
Edmonton	641,665	663,450
Grand Prairie	13,377	13,373
Innisfail	10,363	10,235
Lacombe	11,982	12,308
Lethbridge	81,206	86,899
Medicine Hat	42,445	45,549
Olds	10,975	11,207
Ponoka	10,955	11,142
Red Deer	23,425	25,003
Stettler	9,395	11,157
Vegreville	11,734	11,979
Vermilion	10,365	10,782
Wetaskiwin	16,274	16,583
Totals, Alberta	**2,405,014**	**2,501,100**
British Columbia.		
Chilliwack	23,738	24,203
Courtenay	13,542	14,113
Cranbrook	21,675	21,860
Duncan	27,106	26,687
Fernie	11,207	11,050

2.—Gross Postal Revenues of Offices Collecting $10,000 and Upwards, Fiscal Years 1938 and 1939—concluded.

Province and Post Office.	1938.	1939.	Province and Post Office.	1938.	1939.
British Columbia—conc.	$	$	**Yukon.**	$	$
Kamloops	40,933	40,909			
Kelowna	34,237	38,570	Dawson	8,208	13,202
Kimberley	11,627	12,031			
Mission City	11,762	12,035	**Totals, Yukon**	**17,437**	**23,662**
Nanaimo	34,905	35,451			
Nelson	53,546	53,658			
New Westminster	109,145	114,576			
Penticton	32,856	33,020			
Port Alberni	20,072	21,697	**Summary.**		
Powell River	13,936	12,796			
Prince George	13,134	13,630	Prince Edward Island	178,334	179,863
Prince Rupert	31,830	32,897	Nova Scotia	1,529,655	1,523,437
Revelstoke	15,169	14,870	New Brunswick	1,367,917	1,322,780
Rossland	11,534	13,892	Quebec	8,457,558	8,534,151
Salmon Arm	11,356	11,381	Ontario	16,203,509	16,203,859
Trail	47,817	50,694	Manitoba	3,820,497	3,734,618
Vancouver	1,718,432	1,743,989	Saskatchewan	2,651,482	2,748,039
Vernon	37,613	37,947	Alberta	2,405,014	2,510,057
Victoria	361,636	374,363	British Columbia	3,373,149	3,447,049
Wells	7,545	10,178	Yukon	17,437	23,662
Totals, Br. Columbia	**3,373,149**	**3,447,049**	**Totals, Canada**	**40,004,552**	**40,227,515**

3.—Revenues and Expenditures of the Post Office Department, Quinquennial Fiscal Years 1890-1910, and Each Fiscal Year 1911-39.

NOTE.—For all other years since Confederation, see 1911 Year Book, p. 288.

Year.	Net Revenue.[1]	Expenditure.	Surplus (+) Deficit (−).	Year.	Net Revenue.[1]	Expenditure.	Surplus (+) Deficit (−).
	$	$	$		$	$	$
1890	2,357,389	3,074,470	−717,081	1923	29,262,233	27,794,502	+1,467,731
1895	2,792,790	3,593,647	−800,857	1924	29,100,492	28,305,937	+794,555
1900	3,183,984	3,645,646	−461,662	1925	28,581,993	29,873,802	−1,291,809
1905	5,125,373	4,634,528	+490,845	1926	31,024,464	30,499,686	+524,778
1910	7,958,547	7,215,337	+743,210	1927	29,378,697	31,007,698	−1,629,001
1911	9,146,952	7,954,223	+1,192,729	1928	30,529,155	32,379,196	−1,850,041
1912	10,482,255	9,172,035	+1,310,220	1929	31,170,904	33,483,058	−2,312,154
1913	12,060,476	10,882,805	+1,177,671	1930	32,969,293	35,036,629	−2,067,336
1914	12,956,216	12,822,058	+134,158	1931	30,416,107	36,292,604	−5,876,497
1915	13,046,650	15,961,191	−2,914,541	1932	32,476,604	34,448,986	−1,972,382
1916	18,858,410	16,009,139	+2,849,271	1933	30,825,155	30,167,827	+657,328
1917	20,902,384	16,300,579	+4,601,805	1934	30,367,465	29,202,730	+1,164,735
1918	21,345,394	18,046,558	+3,298,836	1935	31,248,324	28,974,316	+2,274,008
1919	21,602,713	19,273,584	+2,329,129	1936	32,507,888	30,100,102	+2,407,786
1920	24,449,917	20,774,385	+3,675,532	1937	34,274,552	30,538,575	+3,735,977
1921	26,331,119	24,661,262	+1,669,857	1938	35,546,161	32,296,805	+3,249,356
1922	26,554,538	28,121,425	−1,566,887	1939	35,288,220	35,456,181	−167,961

[1] Exclusive of commissions and allowances to postmasters and some other smaller items. The gross revenue in the fiscal year 1937 was $41,181,566, in 1938, $42,998,349, and in 1939, $42,896,178.

Postage.—The net revenue receipts shown in Table 3 are received mainly in the form of postage as is indicated by the following gross figures.

The gross value of the postage stamps, post cards, etc., sold during each of the latest eight fiscal years, was: $27,242,715 in 1932, $25,999,159 in 1933, $25,541,129 in 1934, $26,303,451 in 1935, $27,341,608 in 1936, $28,179,323 in 1937, $28,808,513 in 1938, and $28,836,457 in 1939. Receipts from postage paid in cash were as follows: $9,078,136 in 1932, $8,173,950 in 1933, $8,129,387 in 1934, $8,619,712 in 1935, $9,277,072 in 1936, $10,203,389 in 1937, $10,865,895 in 1938, and $11,065,527 in 1939.

Auxiliary Services.—The auxiliary postal services—the issuing of money orders (including postal notes) and the facilities offered by the Post Office Savings Bank—have expanded enormously since Confederation. In 1868, there were 515

money-order offices in operation, issuing orders to an amount of $3,342,574: the following tables show the magnitude of operations in recent years. Statistical tables showing deposits with the Government savings banks since Confederation and the business of the Post Office Savings Bank, 1934-39, are included in the chapter on Currency and Banking (Chapter XXII).

4.—Operations of the Money-Order System in Canada, Fiscal Years 1921-39.

NOTE.—For 1868 to 1900, see Canada Year Book, 1911, p. 289; for 1901-20, see 1932 Year Book, p. 622.

Year.	Money-Order Offices in Canada.	Orders Issued in Canada.	Value of Orders Issued in Canada.	Value Payable in—		Value of Orders Issued in Other Countries, Payable in Canada.
				Canada.	Other Countries.	
	No.	No.	$	$	$	$
1921	5,197	11,013,167	173,523,322	155,916,232	17,607,090	6,680,971
1922	5,266	10,031,198	139,914,186	124,316,726	15,597,460	5,515,069
1923	5,337	11,098,222	143,055,120	126,617,350	16,437,770	8,986,041
1924	5,472	12,561,490	159,855,115	141,620,372	18,234,743	13,508,396
1925	5,578	13,435,448	163,519,320	145,769,761	17,749,559	13,957,613
1926	5,706	14,784,230	177,840,231	158,844,831	18,995,400	15,600,917
1927	5,797	15,760,994	188,219,777	167,206,859	21,012,918	15,532,673
1928	5,923	17,505,563	200,773,403	177,880,036	22,893,367	15,398,181
1929	6,066	17,210,316	203,129,237	179,833,100	23,296,138	14,096,027
1930	6,209	17,525,979	197,699,353	174,285,024	23,414,329	14,016,240
1931	6,401	16,313,134	167,749,651	149,012,359	18,737,292	12,906,487
1932	6,414	14,324,715	132,625,260	121,391,212	11,234,048	9,097,086
1933	6,467	12,659,379	107,767,394	102,009,862	5,757,532	5,079,234
1934	6,464	12,633,710	107,471,321	101,926,369	5,544,952	5,401,118
1935	6,531	12,673,794	114,832,665	107,981,978	6,850,687	5,932,762
1936	6,627	13,133,354	121,810,839	114,761,204	7,049,635	6,559,564
1937	6,737	13,746,743	133,155,222	124,479,322	8,675,900	7,280,169
1938	6,840	14,554,010	144,445,972	134,262,900	10,183,072	7,590,616
1939	6,976	14,522,060	145,204,787	135,417,731	9,787,056	6,948,186

5.—Money-Order Statistics, by Provinces, and Total Postal Notes, Fiscal Years 1935-39.

Province.	1935.	1936.	1937.	1938.	1939.
	No.	No.	No.	No.	No.
Money-Order Offices in—					
Prince Edward Island	73	73	72	72	71
Nova Scotia	428	429	441	443	457
New Brunswick	310	315	317	325	332
Quebec	1,380	1,400	1,427	1,465	1,497
Ontario	1,690	1,725	1,736	1,745	1,770
Manitoba	471	476	481	493	503
Saskatchewan	948	960	993	1,001	1,020
Alberta	691	708	723	735	753
British Columbia	534	535	541	554	566
Yukon	6	6	6	7	7
Canada	**6,531**	**6,627**	**6,737**	**6,840**	**6,976**
Money Orders Issued in—					
Prince Edward Island	109,122	114,868	118,827	115,345	114,991
Nova Scotia	891,104	911,153	927,924	990,727	935,303
New Brunswick	488,075	496,936	523,288	581,189	549,557

5.—Money-Order Statistics, by Provinces, and Total Postal Notes, Fiscal Years 1935-39—concluded.

Province.	1935.	1936.	1937.	1938.	1939.
	No.	No.	No.	No.	No.
Money Orders Issued in—concluded.					
Quebec	1,874,251	1,979,591	2,127,105	2,486,055	2,499,506
Ontario	3,426,862	3,465,843	3,648,744	4,008,397	3,948,811
Manitoba	909,860	925,054	990,123	1,076,394	1,040,625
Saskatchewan	2,146,163	2,318,370	2,348,036	2,066,129	2,155,594
Alberta	1,643,725	1,673,634	1,725,801	1,772,232	1,806,459
British Columbia	1,174,553	1,236,914	1,324,818	1,444,711	1,457,368
Yukon	10,079	10,991	12,077	12,831	13,846
Canada	**12,673,794**	**13,133,354**	**13,746,743**	**14,554,010**	**14,522,060**
	$	$	$	$	$
Value of Money Orders Issued in—					
Prince Edward Island	969,870	1,014,092	1,099,648	1,065,014	1,072,137
Nova Scotia	7,805,723	8,130,794	8,512,734	9,433,039	8,843,013
New Brunswick	4,341,140	4,509,609	4,837,795	5,575,619	5,133,558
Quebec	16,308,934	17,554,015	19,738,187	24,334,638	24,277,202
Ontario	30,868,605	32,039,755	35,379,028	40,738,666	39,990,726
Manitoba	8,238,040	8,211,359	9,441,609	10,980,301	10,579,685
Saskatchewan	19,654,449	22,384,564	23,851,266	19,106,520	21,510,849
Alberta	15,876,608	16,392,097	17,424,010	18,654,558	19,461,483
British Columbia	10,626,810	11,415,066	12,695,912	14,369,887	14,122,281
Yukon	142,486	159,488	175,033	187,730	213,853
Canada	**114,832,665**	**121,810,839**	**133,155,222**	**144,445,972**	**145,204,787**
	No.	No.	No.	No.	No.
Money Orders Paid in—					
Prince Edward Island	41,686	42,386	44,378	46,608	46,511
Nova Scotia	562,941	557,860	563,167	614,436	611,273
New Brunswick	777,627	792,991	817,643	880,207	798,361
Quebec	1,563,062	1,657,924	1,784,960	2,005,105	2,027,700
Ontario	3,922,944	3,957,563	4,152,562	4,563,271	4,542,091
Manitoba	2,604,349	2,706,591	2,732,859	2,671,919	2,588,107
Saskatchewan	1,459,678	1,477,281	1,511,159	1,442,129	1,496,141
Alberta	656,848	679,123	740,803	777,826	794,942
British Columbia	638,887	677,186	732,245	828,426	846,370
Yukon	761	790	780	868	1,632
Canada	**12,228,783**	**12,549,695**	**13,080,556**	**13,830,795**	**13,753,128**
	$	$	$	$	$
Value of Money Orders Paid in—					
Prince Edward Island	538,204	545,660	588,953	615,494	613,024
Nova Scotia	5,530,006	5,741,560	6,096,036	6,737,362	6,659,742
New Brunswick	6,553,543	6,755,746	7,104,652	7,982,825	7,090,500
Quebec	15,152,171	16,185,467	18,180,150	21,596,168	21,887,208
Ontario	34,734,816	36,288,177	39,787,824	45,423,340	44,867,266
Manitoba	22,091,686	23,313,484	24,396,689	23,862,224	23,196,279
Saskatchewan	12,860,754	14,298,781	15,553,218	13,849,133	15,391,562
Alberta	8,984,483	9,428,761	10,391,350	11,544,441	12,183,123
British Columbia	7,594,163	8,151,767	9,144,277	10,522,072	10,489,815
Yukon	14,776	16,349	14,289	17,015	17,856
Canada	**114,054,602**	**120,725,752**	**131,257,438**	**142,150,074**	**142,396,375**
Postal Notes—					
Total notes paid.....No.	5,772,119	6,730,361	7,077,540	7,295,649	7,233,265
Total value, including postal note stamps affixed..... $	10,246,800	11,374,903	12,020,467	12,486,657	12,349,642

Air-Mail Services.—The total weight of mail carried by air throughout Canada during the year ended Mar. 31, 1939, was 1,822,399 lb., while the mileage flown was 3,711,987.

A noteworthy achievement was the inauguration of a through air-mail service via Trans-Canada Air Lines from Montreal to Vancouver on Dec. 1, 1938, with stops at Ottawa, Toronto, North Bay, Winnipeg, Regina, and Lethbridge. Connections to and from Calgary, Edmonton, and northern Saskatchewan cities are provided by feeder lines.

6.—Mileage Flown and Weight of Mail Carried by Air, Fiscal Year 1939.

Service.	Distance.	Trips Performed (Single).	Mileage Travelled.	Weight of Mail Carried.
	miles.	No.	miles.	lb.
Atlin-Telegraph Creek	146	20	2,920	3,758
Charlottetown-Magdalen Islands	106	68	7,208	23,504
Edmonton-Fort St. John	443	103	45,498	18,823
Edmonton-White Horse	947	99	93,427	9,556
Fort St. John-Fort Nelson	190	39	7,410	5,304
Fort Nelson-Fort Liard	120	8	950	664
Ile à la Crosse-La Loche	96	58	4,191	4,185
Kenora-Red Lake	96	540	53,874	83,183
Kenora-Whitefish Bay[1]	60	8	480	235
Leamington-Pelee Island	22	190	4,180	28,013
Lethbridge-Edmonton[2]	288	401	112,863	23,229
Mackenzie River District	2,449	1,105	388,813	164,066
Moncton-Charlottetown	100	621	62,050	250,491
Montreal-Albany-New York	334	201 455	41,674 151,702	72,338
Montreal-Burlington-Boston	73	580	42,340	4,823
Montreal-Rimouski	309·5	54	16,101	31,965
North Shore—				
Rimouski-Sept Iles	180	194	34,968	70,922
Sept Iles-Natashquan	205	70	14,350	18,050
Natashquan-Harrington Harbour	112	18	2,016	5,618
Havre St. Pierre-Port Menier	45·5	18	819	6,580
Rimouski-Baie Comeau[1]	67·6	5	338	814
Special flights	Varied.	32	8,257	13,214
Peace River-Ft. Vermilion-Ft. Smith	190	74	13,885	27,446
Prince Albert-Goldfields	446	219	100,296	35,705
Stony Rapids	95			
Prince Albert-Ile à la Crosse	177	140	24,703	25,182
Lac la Ronge	133			
Prince George-Takla Landing	389	94	18,336	21,740
Prince George-Ware	275	20	5,500	4,377
Regina-North Battleford[3]	366	444	155,109	34,802
Sioux Lookout-Narrow Lake	92	278	25,572	16,071
Sioux Lookout-Pickle Crow	129	530	67,478	79,077
Sioux Lookout-Red Lake	127	449	61,175	32,044
(Goldpines-Uchi Lake)	40			
The Pas-Cumberland House	69	80	4,974	5,169
The Pas-Herb Lake	88	296	17,458	28,896
Trans-Canada	2,785	743[4] 305[5]	724,766[4] 640,276[5]	345,525
Vancouver-Fort St. John[6]	597	58	32,152	6,816
Vancouver-Seattle	122	1,222	149,084	65,612
Vancouver-Victoria[7]	53	61	3,233	2,476
Vancouver-Zeballos[8]	181	96	15,881	1,030
White Horse-Dawson	309	197	54,081	10,487
Winnipeg-Central Manitoba	148	1,001	74,670	66,676
Winnipeg-Fargo	210	1,399	290,295	69,277
Winnipeg-Gods Lake area—				
Winnipeg-Gods Lake	434	365	81,378	79,232
Ilford-Gods Lake	120			
Ilford-Norway House-Cross Lake	177			
Ilford-Sachigo River	110			
Winnipeg-Red Lake	170	506	55,256	25,424
Totals		**13,364**	**3,711,987**	**1,822,399**

[1] Discontinued in April, 1938. [2] Inaugurated Oct. 1, 1938. [3] Inaugurated July 27, 1938.
[4] Winnipeg to Vancouver until Dec. 1, 1938. [5] Winnipeg to Montreal, Dec. 1, 1938, to Mar. 31, 1939.
[6] Inaugurated Aug. 4, 1938. [7] From Mar. 1, 1939. [8] Inaugurated Nov. 28, 1938.

PART IX.—THE PRESS.

An article on the development of the press in Canada appears at pp. 737-758 of the 1939 Year Book.

Section 1.—Statistics of the Press.

The Dominion Bureau of Statistics does not collect statistics regarding the circulation of newspapers and periodicals in Canada and the following tables have been compiled from data taken from *McKim's Directory of Canadian Publications.*

The publications enumerated in Table **1** include a number for which no estimate of circulation is given. Such publications are therefore omitted from the compilation of circulations in Tables **2** and **3**. This accounts for the difference in the number of daily, semi-weekly, and weekly publications shown in Tables **1** and **2**. Comparison of the figures of Table **3** showing publications in cities of 20,000 population or over, with those for the same year of Table **2**, showing publications for the whole of Canada, indicates that the daily newspapers are confined almost entirely to these larger urban communities, but that, in the field of weekly publications, while the greater part of the circulation is accounted for by the publications of these cities, by far the greatest number of weeklies are issued in smaller communities. The weekly seems to be the standard medium for local news in small towns and villages.

The French weekly press in particular is of course a strong influence in Quebec. The urban section is centered in Montreal. The rural weekly press in this Province stands close comparison with that of the rest of the country; its evolution has been parallel to that of the English rural press, with the difference that its field has been more limited. Most of the French rural weeklies, if small as measured by circulation, are old institutions, many of them having passed the half-century mark. As in the case of the English weekly press, the development of local job printing, especially commercial advertising, has been a strong influence in the survival of many of the smaller rural weeklies.

1.—Publications in Canada, by Frequency of Issue, 1921-39.

NOTE.—Compiled from *McKim's Directory of Canadian Publications.* Figures do not include Newfoundland.

Year.	Daily.	Tri-Weekly.	Semi-Weekly.	Weekly.	Bi-Weekly and Semi-Monthly.	Monthly.	Bi-Monthly and Quarterly.	Miscellaneous.	Total.
1921....	121	9	36	990	48	297	20	4	1,525
1922....	117	10	34	1,012	43	295	22	2	1,535
1923....	110	8	30	966	48	299	20	Nil	1,481
1924....	108	9	30	968	44	328	29	9	1,525
1925....	116	6	32	940	44	353	36	11	1,538
1926....	113	7	28	929	46	365	38	10	1,536
1927....	113	6	23	935	48	385	37	9	1,556
1928....	113	7	21	950	56	390	38	15	1,590
1929....	114	5	21	958	56	384	37	19	1,594
1930....	113	4	20	994	47	402	35	18	1,633
1931....	112	8	18	965	53	425	36	24	1,641
1932....	110	7	20	975	50	415	47	27	1,651
1933....	110	6	19	960	51	426	60	38	1,670
1934....	113	6	25	986	55	454	56	38	1,733
1935....	115	8	22	1,000	58	449	66	50	1,768
1936....	115	9	24	996	56	450	77	52	1,779
1937....	114	9	25	1,000	56	450	73	60	1,787
1938....	112	9	26	995	61	463	79	59	1,804
1939....	113	8	23	998	71	459	86	66	1,824

2.—Circulations[1] of Daily, Semi-Weekly, and Weekly Publications in Canada, 1921-38, with Details by Provinces, 1938.

NOTE.—Figures for circulation are given to the nearest thousand as some publications are not exactly reported. Compiled from *McKim's Directory of Canadian Publications*; only those papers for which circulation figures are there given are included.

Year.	Daily.[2]		Semi-Weekly.[3]		Weekly.[4]	
	No.	Circulation.	No.	Circulation.	No.	Circulation.
1921	111	1,716,000	39	155,000	831	2,316,000
1922	107	1,744,000	41	154,000	841	2,370,000
1923	103	1,732,000	35	102,000	850	2,277,000
1924	106	1,821,000	35	104,000	796	2,488,000
1925	109	1,783,000	30	176,000	670	2,328,000
1926	112	1,943,000	26	93,000	822	2,729,000
1927	112	2,001,000	26	93,000	821	3,008,000
1928	112	2,087,000	25	89,000	816	3,081,000
1929	116	2,197,000	24	84,000	825	3,264,000
1930	113	2,212,000	26	106,000	858	3,318,000
1931	111	2,233,000	26	102,000	867	3,445,000
1932	103	2,115,000	25	102,000	883	3,726,000
1933	106	2,052,000	24	91,000	860	3,349,000
1934	107	2,147,000	30	127,000	867	3,663,000
1935	109	2,230,000	28	113,000	884	3,929,000
1936	109	2,276,000	32	139,000	875	4,065,000
1937	110	2,357,000	34	127,000	898	3,916,000
1938.						
Prince Edward Island	2	10,000	Nil	–	4	15,000
Nova Scotia	7[5]	117,000	3	7,000	38	76,000
New Brunswick	5	58,000[5]	3	5,000[5]	20	46,000
Quebec	16[5]	547,000[5]	Nil	–	131[5]	1,450,000[5]
Ontario	40	959,000[5]	13	74,000	315[5]	1,597,000[5]
Manitoba	7	117,000	5	28,000	87[5]	481,000[5]
Saskatchewan	5[5]	63,000[5]	3	13,000	146[5]	256,000[5]
Alberta	6	94,000	1	2,000	90	131,000
British Columbia[6]	15[5]	231,000[5]	7	11,000	78	182,000
Totals, 1938	**103**[5]	**2,196,000**[5]	**35**	**140,000**[5]	**909**	**4,234,000**

[1] For newspapers—average for 12 months ended Sept. 30; for periodicals—average for 6 months ended Dec 31. [2] Includes the sum of morning and evening editions of the same newspaper. Also includes papers issued five times a week. [3] Includes papers published two, three, or four times a week. [4] Includes special Saturday and Sunday editions of daily papers. [5] Revised since the publication of the 1939 Year Book. [6] Includes figures for Yukon.

3.—Circulations[1] of Daily, Semi-Weekly, and Weekly Publications, in Cities of 20,000 Population or Over, 1938.

NOTE.—See headnote to Table 2.

City.	Census of 1931.		Daily.[2]		Semi-Weekly.[3]		Weekly.[4]	
	Population.	Households.	No.	Circulation.	No.	Circulation.	No.	Circulation.
Montreal	818,577	170,811	10	389,000	Nil	–	40	1,174,000
Toronto	631,207	149,538	9	558,000	2	16,000	48	1,051,000
Vancouver	246,593	60,530	6	183,000	3	5,000	13	64,000
Winnipeg	218,785	48,294	4	109,000	4	25,000	24	422,000
Hamilton	155,547	37,217	1	55,000	Nil	–	3	33,000
Quebec	130,594	23,043	3	130,000	"	–	9	72,000
Ottawa	126,872	27,658	3	82,000	1	14,000	1	18,000
Calgary	83,761	20,371	2	40,000	Nil	–	2	34,000
Edmonton	79,197	18,868	2	46,000	1	2,000	7	29,000
London	71,148	17,549	1	501,000	Nil	–	4	57,000
Windsor	63,108	14,900	1	44,000	"		Nil	–
Verdun	60,745	13,914	Nil	–	"		2	32,000
Halifax	59,275	12,147	2	91,000	"		3	4,000
Regina	53,209	12,017	2	38,000	"		2	9,000
Saint John	47,514	10,890	1	34,000	"	–	1	4,000
Saskatoon	43,291	9,698	1	18,000	2	11,000	3	133,000
Victoria	39,082	10,431	3	28,000	Nil	–	2	30,000
Three Rivers	35,450	6,191	1	11,000	"		2	10,000
Kitchener	30,793	7,189	1	12,000	"		Nil	–
Brantford	30,107	7,487	1	12,000	"		"	–
Hull	29,433	5,394	Nil	–	"		3	13,000
Sherbrooke	28,933	5,666	2	17,000	"		2	24,000
Outremont	28,641	6,086	Nil	–	"		Nil	–
Fort William	26,277	5,576	1	7,000	"	–	"	
St. Catharines	24,753	6,115	1	11,000	"		1	[5]

For footnotes, see end of table, p. 742.

3.—Circulations[1] of Daily, Semi-Weekly, and Weekly Publications, in Cities of 20,000 Population or Over, 1938—concluded.

City.	Census of 1931.		Daily.[2]		Semi-Weekly.[3]		Weekly.[4]	
	Population.	Households.	No.	Circulation.	No.	Circulation.	No.	Circulation.
Westmount	24,235	5,454	Nil	–	Nil	–	1	7,000
Kingston	23,439	5,514	1	11,000	1	2,000	1	8,000
Oshawa	23,439	5,605	1	3,000	Nil	–	2	12,000
Sydney	23,089	4,494	1	13,000	"		Nil	–
Sault Ste. Marie	23,082	4,989	1	7,000	"		"	–
Peterborough	22,327	5,295	1	8,000	"		1	7,000
Moose Jaw	21,299	5,176	1	4,000	"		2	8,000
Guelph	21,075	5,096	1	7,000	"	–	Nil	–
Glace Bay	20,706	3,819	1	8,000	"		"	–
Moncton	20,689	4,201	2	13,000	"		2	8,000
Totals	**3,386,272**	**757,223**	**68**	**2,039,000**	**14**	**75,000**	**181**	**3,263,000**

[1] For newspapers—averages for 12 months ended Sept. 30; for periodicals—averages for 6 months ended Dec. 31. [2] Includes the sum of morning and evening editions of the same newspaper. Also includes papers issued five times a week. [3] Includes papers published two, three, or four times a week. [4] Includes special Saturday and Sunday editions of daily papers. [5] Commenced operations in 1938 and, therefore, no circulation figure is given.

Publications in the French Language.—Such publications include a comparatively large proportion of periodicals dealing with literature, music, religion, and similar cultural subjects, and the circulations of many of these periodicals are not reported in *McKim's Directory of Canadian Publications*. Publications for which the circulations are not reported are not included in either the number or circulations given in Table 4. Since the majority of such unreported publications are likely to have fairly small circulations, the figures of the table represent a larger proportion of total circulation than of the total number of publications. Among daily newspapers, there is only one small publication unreported in each year.

4.—Circulations of French Language Publications in Canada, by Provinces, 1937 and 1938.

NOTE.—Figures of circulation are given to the nearest thousand as some publications are not exactly reported. Compiled from *McKim's Directory of Canadian Publications*.

Year and Province.	Daily.		Weekly.		Semi-Monthly and Monthly.		Other.[1]	
	No.	Circulation.	No.	Circulation.	No.	Circulation.	No.	Circulation.
1937.								
New Brunswick	Nil	–	2	7,000	1	3,000	Nil	–
Quebec	11	395,000[2]	92[3]	607,000[3]	76[3]	849,000[3]	11[3]	242,000[3]
Ontario	1	16,000	3[3]	5,000[3]	5	23,000	Nil	–
Manitoba	Nil	–	1	7,000	2	5,000	1	1,000
Saskatchewan	"	–	3[3]	10,000[3]	Nil	–	Nil	–
Alberta	"	–	1	2,000	"		"	
Totals, 1937	**12**	**411,000[2]**	**102[3]**	**638,000[3]**	**84[3]**	**880,000[3]**	**12[3]**	**243,000[3]**
1938.								
Nova Scotia	Nil		1[3]	1,000[3]	Nil	–	Nil	–
New Brunswick	"	–	3	10,000	1	3,000	"	–
Quebec	9	349,000[2]	98	967,000[2,3]	80[3]	837,000[3]	11	231,000
Ontario	1	17,000	3	22,000	5	23,000[3]	1	2,000
Manitoba	1	7,000	Nil	–	2	5,000	1	1,000
Saskatchewan	Nil	–	3[3]	11,000[3]	Nil	–	Nil	–
Alberta	"		1	3,000	1	11,000	"	
Totals, 1938	**11**	**373,000[2]**	**109[3]**	**1,014,000[2,3]**	**89[3]**	**879,000[3]**	**13**	**234,500**

[1] Bi-monthly, quarterly, and annual. [2] Includes special editions for United States circulation averaging: in 1937, 11,000 daily; in 1938, 10,000 daily and 10,000 weekly. [3] Includes bilingual publications.

CHAPTER XIX.—LABOUR AND WAGES.*

CONSPECTUS.

	Page.
Section 1. The Government in Relation to Labour	743
Subsection 1. The Dominion Department of Labour	743
Subsection 2. Provincial Labour Departments and Bureaus	746
Subsection 3. Provincial Labour Legislation, 1939	747
Section 2. Occupations of the Wage-Earning Population	750
Section 3. Employment and Unemployment	750
Subsection 1. Employment and Unemployment Statistics of the Census	750
Subsection 2. Employment as Reported by Employers	751
Subsection 3. Operations of the Employment Service of Canada	757
Subsection 4. Unemployment as Reported by Trade Unions	759
Section 4. Measures for the Relief and Training of the Unemployed	760
Subsection 1. National Registration of Persons on Material Aid	760
Subsection 2. Unemployment Relief	763
Section 5. Organized Labour in Canada	769
Section 6. Industrial Accidents and Workmen's Compensation	775
Subsection 1. Fatal Industrial Accidents	775
Subsection 2. Workmen's Compensation in Canada	776
Section 7. Strikes and Lockouts	781
Section 8. Wage Rates and Earnings	784
Subsection 1. Wage Rates and Hours of Various Classes of Labour in Canada	784
Subsection 2. Earnings in the Census Year, 1931	787
Section 9. The Regulation of Minimum Wage Rates in Canada	788
Subsection 1. Minimum Wages for Females	788
Subsection 2. Minimum Wages for Males	789
Subsection 3. Collective Agreements	793
Section 10. Proceedings Under the Combines Investigation Act	794
Section 11. The Co-operative Movement in Canada	795
Subsection 1. Consumer's Co-operation	796
Subsection 2. Co-operative Credit in Quebec	797
Subsection 3. Agricultural Co-operation in Canada	797
Section 12. Old Age Pensions and Pensions for Blind Persons	801
Section 13. Mothers' Allowances	803

Section 1.—The Government in Relation to Labour.

Subsection 1.—The Dominion Department of Labour.

The Department of Labour of the Dominion Government was established in 1900 under the authority of the Conciliation Act. At the outset its chief duties comprised the administration of certain provisions of this statute that were designed to aid in the prevention and settlement of labour disputes, the administration of the Government's fair wages policy for the protection of workmen employed on Dominion Government contracts and on works aided by grants of public funds, the collection and classification of statistical and other information relative to conditions of labour, and the publication of a monthly periodical known as the *Labour Gazette*. From 1900 to 1909 the Department was administered by the Postmaster General, who was also Minister of Labour. It was constituted a separate Department under the Labour Department Act, 1909.

The work of the Department was greatly increased in 1907 by the passing of the Industrial Disputes Investigation Act. At present the Department is also charged with the administration of the Government Annuities Act of 1908, the White Phosphorous Matches Act of 1914, the Employment Offices Co-ordination Act of 1918, the Technical Education Act of 1919, the Combines Investigation Act of 1923 as amended in 1935 and 1937, the Fair Wages and Hours of Labour Act of 1935, the Dominion relief legislation and the Youth Training Act, 1939, and with the work arising out of Canada's relations with the International Labour Organization. In addition, there has been a considerable extension of departmental activity in the collection and publication of information concerning labour organizations, wages and hours of labour, prices and the cost of living, strikes and lockouts, industrial

* Except as otherwise indicated, the material in this chapter has been prepared or revised under the direction of W. M. Dickson, Deputy Minister, Department of Labour, Ottawa.

agreements, industrial accidents, labour legislation, and related subjects. For information regarding government annuities and technical education, see the chapters on Insurance and Education, respectively.

Industrial Disputes Investigation Act.—The Industrial Disputes Investigation Act (R.S.C., 1927, c. 112) has attracted considerable favourable attention from legislators and publicists throughout the world. As enacted in 1907, it forbids strikes and lockouts in mines and certain public utility industries until the matters in dispute have been dealt with by a board of conciliation and investigation consisting of three members, two appointed by the Minister of Labour on the recommendation of the respective parties to the dispute, the third on the recommendation of the first two, or, if they fail to agree, by the Minister himself. Should either of the parties fail to nominate a board member, the Minister may appoint a fit person on its behalf. After such a board has made its report, either of the parties to the dispute may reject its findings and declare a strike or a lockout, a course that has been adopted, however, only in a small percentage of cases. With the consent of the parties concerned, the machinery of the Act may be utilized in connection with disputes in other industries.

In January, 1925, a judgment was rendered by the Judicial Committee of the Privy Council declaring that the Act as it stood was not within the competence of the Dominion Parliament.* At the ensuing session of Parliament amendments were made to the statute with the object of limiting its operation to matters not within exclusive provincial jurisdiction except when a province has passed legislation permitting the Dominion legislation to apply. The legislatures of all provinces except Prince Edward Island have taken advantage of this provision and enacted such enabling legislation. In December, 1937, however, a statute entitled the Industrial Conciliation and Arbitration Act was passed by the British Columbia Legislature providing provincial machinery for dealing with industrial disputes within the legislative jurisdiction of the Province and repealing the Industrial Disputes Investigation (British Columbia) Act.

Under the provisions of the War Measures Act, an Order in Council was passed on Nov. 7, 1939, extending the scope of the Industrial Disputes Investigation Act to cover disputes between employers and employees engaged in war work. This work is defined as including the construction, execution, production, repair, manufacture, transportation, storage, or delivery of munitions of war or supplies, and also the construction, remodelling, repair, or demolition of defence projects.

A review of the proceedings under the Industrial Disputes Investigation Act from its enactment in March, 1907, to Mar. 31, 1940, shows that, during the 33 years, 978 applications were received for the establishment of boards of conciliation and investigation, as a result of which 594 boards were established. In all but 41 cases, strikes or lockouts were averted or ended.

Fair Wages Policy.—The Fair Wages Branch of the Department of Labour is charged with the preparation and enforcement of the labour conditions and schedules of minimum wage rates that are inserted in Dominion Government contracts for works of construction, remodelling, repair, or demolition. The number of fair wages schedules prepared, from the time the Fair Wages Policy was adopted by the Dominion Government in 1900 up to the end of the fiscal year 1938-39, was 8,895. The number of fair wages schedules furnished during the fiscal year 1938-39 was 675.

* See p. 241 of the *Labour Gazette* for February, 1925, for text of judgment of the Judicial Committee of the Privy Council in regard to the validity of this statute.

The Department of Labour also co-operates closely with other departments of the Government in ensuring the observance of the fair wages conditions inserted in contracts for the manufacture of various classes of equipment and supplies for Government use, and is frequently consulted by other departments regarding the prevailing rates of wages to be observed on works carried out by day labour.

The Fair Wages Policy of the Government of Canada was originally based on a resolution adopted by the House of Commons in 1900. The policy was later expressed and developed in various Orders in Council, in the Fair Wages and Eight Hour Day Act, 1930, and in the Fair Wages and Hours of Labour Act, 1935. The provisions of these are set out in some detail at pp. 780 and 781 of the 1939 edition of the Canada Year Book.

Owing to the large and increasing number of defence contracts that are being placed by the Dominion Government for the manufacture and overhaul of aircraft, for the manufacture of ordnance, and for the construction and repair of boats of various types, it is now the policy of the Government to insert in such contracts schedules that have been drawn up in consultation between the Department of Labour and the other Government departments concerned, setting forth the minimum rates of wages and the maximum hours to be observed in the execution of the respective undertakings throughout the country. The Department of Labour co-operates closely with the Government departments concerned in ensuring that the contract conditions are strictly enforced.

Labour Gazette.*—Since the establishment of the Department of Labour in 1900, a monthly publication known as the *Labour Gazette* has been issued. From its inception the *Labour Gazette* has maintained a continuous record of industrial, social, and economic conditions in Canada, as reflected in legislation, employment and unemployment, price trends, labour disputes, conventions and recommendations of labour organizations, and industrial relations programs. One of the particular functions of the Department is the promotion of industrial harmony, and prominence is therefore given in the *Labour Gazette* to proceedings under the Industrial Disputes Investigation Act and the Conciliation and Labour Act. Complete information is also given with respect to proceedings under other measures administered by the Department, including the Employment Offices Co-ordination Act, the Combines Investigation Act, the Technical Education Act, the Government Annuities Act, the unemployment relief legislation, the Fair Wages and Hours of Labour Act, and the Youth Training Act.

Since the outbreak of war in September, 1939, a monthly record has been maintained in the *Labour Gazette* of the activities of the War-Time Prices and Trade Board, and also of the effect of the War on labour standards and social legislation in the various belligerent countries.

In particular the September, 1939, issue contains a chronological record of Canada's entry into the War, including: a review of preliminary war measures in Canada; a reference to the emergency parliamentary session convened on Sept. 7, and the war measures adopted; and the establishment of the War-Time Prices and Trade Board, together with a detailed account of the action taken to check any undue increase in prices and to prevent hoarding.

Included in the statistical information published in the *Labour Gazette* is a monthly analysis of prices (wholesale and retail) in Canada, indicating trends in the

* A charge of 20 cents per annum is made for this publication to subscribers in Canada, the United States of America, and Mexico, and of $1 per annum to subscribers in all other countries.

cost of living and showing the prices of staple articles, together with index numbers of price movements over a series of years. Financial and statistical summaries of pensions for the aged and the blind in Canada are also published at regular intervals. A special section records the work of the International Labour Organization (League of Nations), the draft conventions and recommendations adopted by that body being published in full.

The *Labour Gazette* is widely distributed throughout Canada, and the statistical and other information contained therein is constantly used in connection with the discussion of wages and other issues between employers and workers.

Labour Legislation.—Considerable attention is given by the Department to labour legislation both in Canada and in other countries. At the close of the sessions of the Dominion Parliament and the legislatures of the several provinces, the labour laws enacted are summarized in the *Labour Gazette*. Statutory regulations are also noted in the *Labour Gazette* and a résumé of the more important judgments involving labour questions is published.

Beginning with 1915 the Department has published a series of annual reports on "Labour Legislation in Canada" * The first report was a consolidation of all labour legislation on the statute books of the Dominion and the provinces at the end of 1915, and similar consolidations were issued for 1920, 1928, and 1937. Reports for the intervening years set out the text or a summary of the laws passed in those respective years and each contains an introduction giving a summary of the principal measures.

In addition, special branches of labour legislation in Canada or abroad are dealt with from time to time in articles in the *Labour Gazette* or in printed or mimeographed bulletins. Information concerning legislation providing for minimum wages and the regulation of hours of labour in Canada is given in a report entitled "Wages and Hours of Labour in Canada", issued as a supplement to the *Labour Gazette*. Each year, in July, a mimeographed memorandum is issued on workmen's compensation laws in Canada. A summary of Dominion legislation affecting labour, passed during 1939, will be found in Chapter XXX of this volume.

Subsection 2.—Provincial Labour Departments and Bureaus.

Labour legislation in Canada is, for the most part, a matter for the provincial legislatures. In all the provinces but Alberta and Prince Edward Island, there is a special department or bureau charged with the administration of labour laws. In Prince Edward Island there is little labour legislation and in Alberta the Department of Trade and Industry administers most labour legislation, the Board of Industrial Relations having charge of statutes regulating wages and hours. Legislation for the protection of miners is administered in all provinces by the department dealing with mines. Factory legislation in eight provinces and shops legislation in several provinces prohibit child labour, regulate the hours of women and young persons, and provide for safety and health. Minimum wage legislation for both male

* Obtainable from the King's Printer, Ottawa, price 25 cents per copy.

and female workers in all the provinces except Nova Scotia and Prince Edward Island is administered by special boards which, in most cases, form part of the labour department. Other legislation administered by the provincial departments include the laws in all provinces providing for public employment offices and for the licensing of certain classes of workmen, the Industrial Standards Acts in Alberta, Saskatchewan, Ontario, and Nova Scotia enabling the wages and hours of work agreed upon by representatives of employers and employees to be made legal throughout the industry concerned and the Collective Labour Agreements Act in Quebec permitting collective agreements between employers and trade unions to be made binding on all in the industry. Workmen's compensation laws in all the provinces except Prince Edward Island are administered by independent boards.

For up-to-date information regarding individual provincial Departments of Labour reference should be made to the annual reports of the Departments concerned, or to the Deputy Ministers of the Provincial Governments.

Subsection 3.—Provincial Labour Legislation, 1939.

The *Labour Gazette* summarizes the 1939 pro gram of provincial legislation affecting labour. "Labour Legislation in Canada, 1939",* published by the Dominion Department of Labour, summarizes both Dominion and Provincial legislation by subjects, and gives the text of the new Acts and of the amendments to existing legislation.

Prince Edward Island.—Amendments were made to the Interpretation Act (Labour Day was added to the list of public holidays), and to the Forest Fire Act. The Judgment and Execution Act consolidates previous legislation on this subject.

Nova Scotia.—Amendments were made to the Apprenticeship Act, the Industrial Standards Act, the Motor Carrier Act, the Nova Scotia Housing Commission Act, the Credit Union Societies Act, and the Sydney Charter (imposing a tax upon non-residents commencing employment in the City). The Nova Scotia Labour Act was continued in force until May 1, 1940, and the Agriculture and Marketing Act consolidates and repeals a number of statutes. New legislation includes the Trade Schools Regulations Act and the Municipal Loan Guarantee Act. The former Act is generally similar to statutes enacted in Ontario and the western provinces and provides for the registration of trade schools and the filing of contracts, etc., with the Director of Technical Education, who may also require copies of text-books and home-study courses and other particulars relating to the staff and equipment of the school. No person under 16 may be admitted to a trade school. The Act does not apply to universities or schools chartered by the Legislature. The Municipal Loan Guarantee Act enables municipalities to take advantage of the Dominion Municipal Improvements Assistance Act.

* Obtainable from the King's Printer, Ottawa, price 25 cents per copy.

New Brunswick.—Amendments were made to the Labour and Industrial Relations Act, the Mining Act, the Factories Act, the Health Act, and the New Brunswick Co-operative Associations Act. The Industrial Standards Act is generally similar to like Acts of other provinces, but applies only to the construction industry. The Early Closing Act repeals a similar Act of 1917 and contains a number of new provisions. The Municipal Improvements Assistance Enabling Act empowers municipalities to take advantage of the Dominion Act of the same title.

Quebec.—Amendments were made to the Collective Labour Agreements Act, the Fair Wage Act, the Workmen's Compensation Act, the Quebec Mining Act, the Electricians' and Electrical Installation Act, the Youth Aid Act, the Needy Mothers' Assistance Act, the Blind Persons Aid Act, and to those sections of the Code of Civil Procedure relating to exemption from seizure of certain salaries and wages. New legislation includes an Act respecting the Arbitrating of Disputes Between Certain Charitable Institutions and their Employees, an Act to Promote Unemployment Insurance, an Act to Establish a Board of Economic Reconstruction, an Act to Increase the Powers of Municipal Corporations with Respect to the Building of Sanitary Houses, an Act to aid Co-operative Agricultural Associations, and an Act to Promote the Organizing of Fish Co-operative Federations. Another statute provides that expenditure for works to relieve unemployment is to constitute capital expenditure.

The Act to Promote Unemployment Insurance is contingent upon the establishment of such a system by the Dominion and Provincial Governments and authorizes the Lieutenant-Governor in Council to enter into an agreement with the Dominion, in conformity with the constitutional rights of the Province.

The Act respecting labour disputes in charitable institutions is designed to prevent the interruption of service in institutions providing medical or other treatment for the indigent and makes it illegal for the staff or employees of any such institution to strike and provides for the establishment of an arbitration council to adjust any disputes respecting emoluments, salaries or wages, or hours of work.

The Act respecting the Board of Economic Reconstruction names the Provincial Treasurer and the Ministers of Roads, Public Works, and Labour as a Board to administer unemployment relief and funds for relief works. The objects of the remaining Acts are fairly well described by their titles.

Ontario.—Amendments were made to the Factory, Shop, and Office Building Act, the Mines Act, the Workmen's Compensation Act, the Industrial Standards Act, the Apprenticeship Act, the Unemployment Relief Act, the Mechanics' Lien Act, the Municipal Act, (respecting the licensing of electrical workers and the establishment of pension funds for civic employees), the Old Age Pension Act, the Companies Act (with respect to employees' pension schemes and empowering insurance companies to make loans under the National Housing Act). The Co-operative Credit Societies Act was amended to change its title to Credit Unions Act and to bring its provisions into accord with present practice. A new Act, the Unemployment Insurance Act, enables the Lieutenant-Governor in Council to enter into arrangements with the Governor General in Council to carry out, within Ontario, the provisions of any Dominion Act providing for a general scheme of unemployment insurance.

Manitoba.—Amendments were made to the Strikes and Lockouts Prevention Act, the Minimum Wage Act, the Shops Regulation Act, Government

Liquor Control Act (respecting the hours of sale), the Fair Wage Act, the Mines Act, the Factories Act, the Old Age and Blind Persons Act, and the Employment Bureau Act. The Unemployment Relief Loan Act was extended for another year; new legislation included the institution of a pension scheme for Provincial Government employees, and Acts to implement the Municipal Improvements Assistance Act and the National Housing Act of the Dominion Parliament.

Saskatchewan.—Amendments were made to the Industrial Standards Act, the Attachment of Debts Act, the Mechanics' Lien Act, the Fire Departments Two-Platoon Act, the Town Act and the Village Act (respecting early closing), the Direct Relief Act, the Municipalities Relief and Agricultural Aid Act, 1937, the Local Improvement Districts Relief Act, 1936, the Child Welfare Act (relating to mothers' allowances), the Old Age Pension Act, the City Act and the Town Act (with respect to the establishment of superannuation or benefit funds), the Co-operative Associations Act, the Co-operative Marketing Associations Act, 1938, and the Credit Union Act. The Vehicles Act, 1939, is a consolidation of the Vehicles Act and the Public Service Vehicles Act. New legislation covered the regulation of trade schools, the provision of municipal medical and hospital services, the establishment of an Industrial Development Board, and Acts implementing the Municipal Improvements Assistance Act and the National Housing Act of the Dominion Parliament. The Trade Schools Regulation Act is similar in scope to the Nova Scotia Act described above, and the Municipal Medical and Hospital Services Act authorizes the municipalities to submit by-laws to the voters regarding provision of such services. Municipalities may combine for the provision of medical services and the total tax per family may not exceed $50 per annum. The Industrial Development Board Act provides for the appointment of a Board to encourage industrial development by assisting the establishment of new industries and the development of those already established, especially those based on the natural resources of the Province. Aid to employment by the encouragement of industrial art schools, afforestation, and mineral prospecting are also named as objects of the Board, and it is to co-operate with manufacturers in vocational training.

Alberta.—Amendments were made to the Male Minimum Wage Act, 1936, the Hours of Work Act, 1936, the Fire Departments Two-Platoon Act, the Early Closing Act, the Industrial Standards Act, and the Credit Union Act. The Mines Act repeals the Coal Mines Regulation Act, 1930, and brings all mines within its purview. The Act contains a number of new safety provisions. The Bureau of Public Welfare Act is a revision of the Bureau of Relief and Public Welfare Act, 1936. New Acts include one to implement the Municipal Improvement Assistance Act of the Dominion Parliament and the Maternal Welfare Act, which provides for a grant of $15 to any needy expectant mother and also empowers the Minister of Health to appoint district nurses in areas where the existing nursing facilities are inadequate.

British Columbia.—Amendments were made to the Workmen's Compensation Act, the Weekly Half-Holiday Act, the Fire Marshal Act (relating to the employment of projectionists in motion picture theatres), the Motor Vehicle Act, and the Credit Unions Act. The Semi-Monthly Payment of Wages Act was revised and its scope extended; a new Act, the Motor Carrier Act, was passed which requires operators of motor vehicles for the transportation of passengers or freight to be licensed by the Public Utilities Commission. School buses and urban-taxicabs are exempted.

Yukon.—Amendments were made to the Workmen's Compensation Ordinance of 1937 and the Miners' Protection Ordinance.

Northwest Territories.—The Local Administrative District Ordinance provides for the establishment of such districts and stipulates that the Local Trustee Boards may pass by-laws for the enforcement of closing hours in trading establishments. Similar provision was made in an Ordinance of 1894 which is revised by the present Ordinance.

Section 2.—Occupations of the Wage-Earning Population.

The total population in gainful occupations is recorded at the census. In Section 15 of Chapter IV, pp. 128-146 of the 1937 Year Book, the gainfully occupied in 1931 are dealt with rather extensively under the heading "Occupations of the Canadian People" Statistics of the numerical and percentage distribution of the wage-earning section of the gainfully occupied, by industrial and occupational groups, are given at pp. 741-742 of the 1938 edition of the Year Book, and a table at p. 732 of the 1937 edition shows the numerical and percentage distribution of wage-earners, by age groups, as at the Census of 1931.

Section 3.—Employment and Unemployment.

Subsection 1.—Employment and Unemployment Statistics of the Census.

In the 1933 edition of the Year Book, pp. 775-780 are devoted to an examination of the preliminary figures of unemployment as reported at June 1, 1931, for that date and for the preceding twelve months. The final results of this inquiry are available in Vol. VI of the Census Publications, which may be obtained from the King's Printer, Ottawa, at a price of 75 cents for the paper-bound volume.

Tables 24 and 25, at p. 836 of the 1934-35 Year Book, summarize, by industries, the statistics of those actually unemployed at the date of the Census, and of time lost during the twelve months preceding that date.

Estimates of Employment of the Wage-Earning Population.*—The term 'unemployment' is, unfortunately, variously interpreted but it is of the utmost importance that it should be strictly defined; an explanation of the sense in which it is used in the censuses of Canada and in estimates of employment and unemployment made by the Bureau of Statistics is given at pp. 809-812 of the 1939 Year Book.†

Briefly, a percentage employed from month to month is calculated on: (1) the Department of Labour's figures of unions, corrected for sample qualities; (2) employment figures, collected by the Bureau of Statistics, in relation to the total population normally gainfully occupied, this latter making allowance for the changing population content. The percentage is then applied to the census number employed to calculate the number of wage-earners in any month. The difference between the wage-earners and the number employed is obviously the unemployed.‡ Another condition is exacted, viz., the maintenance of a high correlation between factors (1) and (2) and, in order to ensure this, checking at frequent intervals is resorted to to guard against any new element entering undetected into the equation used.

* Prepared by M. C. MacLean, M.A., F.S.S., Chief of Social Analysis, Dominion Bureau of Statistics.
† See also subsections 2 and 4 pp. 751 and 759 for other estimates.
‡ The chart on p. 759, plotted from the data of Table 1, illustrates this relationship.

1.—Estimated Wage-Earners and Numbers and Proportions Actually Employed, 1921-39, and by Months 1938, 1939, and to March, 1940.

Year and Month.	Total Wage-Earners.	Number Employed.	Per Cent Employed.	Year and Month.	Total Wage-Earners.	Number Employed.	Per Cent Employed.
	'000	'000			'000	'000	
1921	1,971	1,795	91·1	1931	2,637	2,095	82·6
1922	1,967	1,830	93·0	1932	2,459	1,820	74·0
1923	2,059	1,958	95·1	1933	2,434	1,788	73·5
1924	2,042	1,897	92·9	1934	2,530	2,009	79·4
1925	2,063	1,920	93·1	1935	2,539	2,056	81·0
1926	2,140	2,041	95·4	1936	2,572	2,142	83·3
1927	2,209	2,147	97·2	1937	2,706	2,369	87·5
1928	2,359	2,299	97·5	1938	2,704	2,297	84·9
1929	2,551	2,444	95·8	1939	2,744	2,358	85·9
1930	2,654	2,313	87·2				
1938.				1939—concl.			
January	2,703	2,300	85·1	March	2,655	2,161	81·4
February	2,661	2,225	83·6	April	2,659	2,186	82·2
March	2,619	2,163	82·6	May	2,724	2,329	85·5
April	2,649	2,212	83·5	June	2,754	2,385	86·6
May	2,704	2,304	85·2	July	2,771	3,419	87·3
June	2,725	2,338	85·8	August	2,793	2,461	88·1
July	2,715	2,306	85·0	September	2,806	2,506	89·3
August	2,746	2,378	86·6	October	2,828	2,545	90·0
September	2,748	2,402	87·4	November	2,821	2,525	89·5
October	2,737	2,359	86·2	December	2,757	2,393	86·8
November	2,744	2,346	85·5				
December	2,697	2,225	82·5	1940.			
1939.				January	2,732	2,355	86·2
January	2,678	2,193	81·9	February	2,725	2,338	85·8
February	2,684	2,193	81·7	March	2,695	2,304	85·5

Subsection 2.—Employment as Reported by Employers.*

The Dominion Bureau of Statistics has for many years tabulated monthly reports of the numbers employed by firms having 15 or more persons on their staffs in the following main industrial groups: manufacturing, logging, mining, transportation, communications, construction and maintenance, services (i.e., hotels and restaurants and laundering and dry-cleaning), and trade; information has also been received from financial institutions since 1938, but, for the present, their returns are not included in the general index, for which the record extends from 1920. Monthly statistics are not collected from the agricultural industry, domestic and personal services, governmental, educational, and other professional services.

During 1939, about 11,650 employers, in the eight industries first-named, reported an average staff of 1,105,700 persons, varying from 1,015,600 at April 1, to 1,206,200 at the beginning of November. At the latter date, the reporting establishments employed 1,066 men and women in each 10,000 of the total population, while the 1939 average represented 980 per 10,000. This coverage of industrial workers may be compared with the data obtained from the latest Decennial Census, which showed that, at June 1, 1931, 1,320 per 10,000 of the total population were at work in the industries represented in the general index of employment. The current surveys of employment, therefore, represent conditions among a very large proportion of the total industrial population.

* Revised by Miss M. E. K. Roughsedge, Official in charge of Employment Statistics, Dominion Bureau of Statistics.

These employment statistics have been shown in a special study,* which correlates the distribution of workers covered in 1931 with the distribution of workers enumerated at the 1931 Census, to be representative, so far as several major industrial groupings are concerned, of the census classification.

The census of occupations showed 2,570,097 wage-earners in the Dominion, of whom 2,100,139 or 81·7 p.c. were at work on the census date (June 1, 1931). Obviously it is with those at work that the monthly employment figures for the same date must be compared. The 7,865 firms making returns for June 1, 1931, reported 940,875 employees, being 36·6 p.c. of the total number of persons reporting themselves as actual or potential wage-earners, and 44·8 p.c. of those at work in all industries at the census date. When the classes of workers not covered in the employment surveys are deducted from the census figures, there remains a total of 1,318,954 persons at work at the census date in the industries sampled in the monthly record, or a total of 1,369,351 if a due proportion of the unspecified workers is included. The employment survey for June 1, 1931, constituted 71·3 p.c. of this adjusted figure, i.e., of the census total for the comparable industries without the unspecified workers, and 68·7 p.c. if a proportion of the unspecified workers is regarded as belonging in the census statistics adjusted industrially for this comparison. This sample may be considered quite adequate, but it would be rather larger if comparison could be made with a similar census taken at the present time, since the number of co-operating firms is constantly growing, having risen from 7,965 at June 1, 1931, to 11,718 at June 1, 1939; the June 1 comparison is used so that the seasonal factor may not enter into the case. The increase in the co-operating employers is accompanied by a growth in the ratio of wage-earners sampled, though the latter increase is not in proportion to the gain in the number of reports tabulated, owing to the fact that the firms now being added to the mailing list tend to employ staffs below the average in number.

Representation in "Manufacturing" when correlated, is shown to have been 82·8 p.c. of the workers enumerated at the Census in the same industrial group; in mining it was 96·9 p.c.; in communications 80·4 p.c.; and in transportation 64·2 p.c. It follows that the figures of employment collected monthly may be used as a good index of the movement of the wage-earning population in intercensal years. (See also pp. 750-751).

Employment in 1939 was influenced by a number of factors that, differing in origin and effect, combined to produce fluctuations frequently at variance with those indicated as normal in the 19 years of the employment record. Among the adverse factors may be mentioned a generally late spring and the widespread uncertainty in business as a result of the political situation in Europe. The impetus to business provided by the Royal Visit and the harvesting of the largest wheat crop in eleven years were among the beneficial influences, while the revival of industrial activity in the United States also had a favourable reaction in the Dominion. The outbreak of hostilities in September had an immediate effect on Canadian business. Responding to these various factors at different times of the year, employment in the first months of 1939 declined to a level lower than at the same date in either 1937 or 1938, but from May 1 rose uninterruptedly until Nov. 1. There was an unusually

* See the report "Comparison of the Geographical and the Industrial Distribution of the Workers Included in the Monthly Employment Surveys, with the Geographical and Industrial Distribution of the Workers Enumerated at the Census of 1931", by Miss M. E. K. Roughsedge, obtainable from the Dominion Statistician, Ottawa.

small seasonal loss shown at Dec. 1, but the index was then higher than at the same date in any other year of the record. The 1939 index averaged 113·9; it was slightly higher than the 1938 mean of 111·8, but was fractionally lower than that of 114·1 in 1937. With the exceptions of 1937 and 1929, however, the 1939 figure was higher than in any other year of the record.

Employment by Economic Areas.—Employment in all provinces except New Brunswick was generally brisker in 1939 than in 1938, although in the first few months comparison with the same period in 1938 was unfavourable; also in most of the provinces the rate of expansion was accelerated towards the close of the year. Manufacturing in each of the economic areas, on the whole, afforded more employment than in 1938; trade also showed improvement in all parts of the Dominion. In the other industries there was less uniformity in the trends, but mining, transportation, and services generally reported greater activity than in the preceding year. Construction in Quebec and the Prairie Provinces, and logging in British Columbia showed increases over 1938, but elsewhere the comparisons for these industries were unfavourable.

2.—Index Numbers of Employment as Reported by Employers in Economic Areas, as at the First of Each Month, January, 1938, to December, 1939, with Yearly Averages Since 1928.

NOTE.—These indexes are calculated upon the average for the calendar year 1926 as 100. The relative weight shows the proportion of employees reported in the indicated economic area to the total reported by all employers making returns in Canada at Dec. 1, 1939. Averages for 1921-27, inclusive, are given at p. 770 of the 1938 Year Book.

Year.	Maritime Provinces.	Quebec.	Ontario.	Prairie Provinces.	British Columbia.	Canada.
Averages, 1928	106·6	108·3	113·8	117·9	106·4	111·6
Averages, 1929	114·8	113·4	123·1	126·3	111·5	119·0
Averages, 1930	118·3	110·3	114·6	117·1	107·9	113·4
Averages, 1931	108·1	100·9	101·2	111·5	95·5	102·5
Averages, 1932	92·2	85·5	88·7	90·0	80·5	87·5
Averages, 1933	85·3	82·0	84·2	86·2	78·0	83·4
Averages, 1934	101·0	91·7	101·3	90·0	90·4	96·0
Averages, 1935	103·7	95·4	103·3	95·2	97·7	99·4
Averages, 1936	109·4	100·7	106·7	99·3	101·1	103·7
Averages, 1937	121·0	115·4	118·3	99·3	106·8	114·1

2.—Index Numbers of Employment as Reported by Employers in Economic Areas, as at the First of Each Month, January, 1938, to December, 1939, with Yearly Averages Since 1928—concluded.

Year and Month.	Maritime Provinces.	Quebec.	Ontario.	Prairie Provinces.	British Columbia.	Canada.
1938.						
January 1	115·8	119·7	117·5	96·2	97·8	113·4
February 1	112·3	114·5	116·2	91·7	96·4	110·4
March 1	108·3	110·1	113·7	92·2	96·2	107·8
April 1	103·6	107·4	109·6	89·4	100·2	105·0
May 1	107·3	112·6	109·9	91·5	102·8	107·4
June 1	110·9	120·4	112·5	97·0	105·1	111·9
July 1	116·7	119·9	114·0	99·8	108·0	113·5
August 1	112·6	117·8	111·2	104·9	107·1	112·1
September 1	113·2	118·1	115·0	112·2	112·0	115·1
October 1	114·5	121·6	115·8	113·2	111·3	116·7
November 1	112·6	119·7	115·0	108·1	107·5	114·6
December 1	109·8	121·7	114·4	103·5	105·8	114·0
Averages, 1938	**111·5**	**117·0**	**113·7**	**100·0**	**104·2**	**111·8**
1939.						
January 1	109·2	114·9	108·8	97·1	98·0	108·1
February 1	100·5	113·0	109·2	93·9	96 2	106·5
March 1	101·2	112·8	109·1	94·3	96·7	106·5
April 1	99·7	109·4	108·0	91·7	100·5	104·9
May 1	100·2	111·6	107·9	94·5	103·3	106·2
June 1	108·4	121·0	113·6	101·0	106·6	113·1
July 1	115·9	124·0	114·7	104·0	111·0	115·8
August 1	115·6	126·4	114·2	109·4	117·0	117·5
September 1	116·4	128·5	116·2	114·0	116·6	119·6
October 1	117·9	126·4	121·4	116·4	118·7	121·7
November 1	117·9	131·5	124·4	112·7	115·5	123·6
December 1	123·0	130·3	124·5	108·9	110·0	122·7
Averages, 1939	**110·5**	**120·8**	**114·3**	**103·2**	**107·5**	**113·9**
Relative weights of employment in economic areas, as at Dec. 1, 1939	7·6	31·1	41·3	11·9	8·1	100·0

Employment by Cities.—Employment in Montreal, Quebec City, Toronto, Ottawa, Winnipeg, and Vancouver was generally better in 1939 than in the preceding year. These centres showed gains ranging from just under 1 p.c. in Winnipeg to 11·3 p.c. in Quebec City; in all but Winnipeg, the increases slightly exceeded the percentage advance in the Dominion as a whole. In Hamilton and Windsor, on the other hand, activity was generally rather lower than in 1938; but the index calculated for the eight cities as a whole showed a 2 p.c. increase, compared with an increase of 1·9 p.c. in the general index for Canada.

Employment in manufacturing, communications, trade, services, and construction in the larger cities in 1939, as in immediately preceding years, did not reach a level equal to that in other parts of Canada. The most outstanding difference in this comparison was again in construction, in which the index for the cities averaged 82·7 during 1939, compared with the Canada figure of 113·0; in the building division, the indexes were 51·7 and 62·1, respectively. On the other hand, the cities employment index for transportation in recent years has been above the Canada figure, standing in 1939 at 91·1, compared with 85·6 throughout the Dominion.

3.—Index Numbers of Employment as Reported by Employers in Leading Cities, as at the First of Each Month, January, 1938, to December, 1939, with Yearly Averages Since 1928.

NOTE.—These indexes are calculated upon the average for the calendar year 1926 as 100. The relative weight shows the proportion of employees reported in the indicated city to the total reported by all employers making returns in Canada at Dec. 1, 1939. Averages for 1922-27, inclusive, are given at p. 772 of the 1938 Year Book.

Year and Month.	Montreal.	Quebec.	Toronto.	Ottawa.	Hamilton.	Windsor.	Winnipeg.	Vancouver.
Averages, 1928	**108·2**	**119·9**	**112·1**	**115·8**	**108·2**	**137·3**	**110·1**	**104·3**
Averages, 1929	**115·3**	**124·2**	**121·3**	**120·7**	**128·4**	**153·2**	**112·3**	**109·2**
Averages, 1930	**111·8**	**125·3**	**116·3**	**123·1**	**113·9**	**128·6**	**107·6**	**109·8**
Averages, 1931	**102·5**	**122·2**	**107·7**	**119·5**	**101·3**	**88·3**	**97·1**	**104·5**
Averages, 1932	**88·1**	**101·8**	**95·2**	**99·3**	**83·7**	**78·4**	**86·6**	**88·5**
Averages, 1933	**81·0**	**95·1**	**87·5**	**90·2**	**74·6**	**75·9**	**80·2**	**83·0**
Averages, 1934	**84·5**	**95·1**	**93·5**	**99·5**	**84·1**	**93·1**	**82·9**	**87·4**
Averages, 1935	**87·3**	**96·9**	**97·5**	**102·2**	**92·6**	**115·0**	**87·8**	**96·6**
Averages, 1936	**92·1**	**95·2**	**101·5**	**106·3**	**98·3**	**121·3**	**92·3**	**103·7**
Averages, 1937	**101·2**	**100·3**	**107·9**	**107·9**	**112·1**	**146·4**	**95·1**	**110·7**
1938.								
January 1	99·0	100·0	108·4	104·9	109·8	147·8	92·0	108·4
February 1	97·5	97·9	106·1	101·4	107·9	154·3	89·3	105·3
March 1	98·5	99·7	105·6	99·7	106·1	153·1	89·6	104·2
April 1	100·6	100·4	106·0	101·7	106·4	148·9	89·6	104·6
May 1	104·5	103·8	106·3	103·0	107·2	148·9	91·6	105·9
June 1	107·3	103·8	106·7	106·3	106·6	146·0	92·8	106·4
July 1	106·4	109·1	107·4	106·8	109·9	128·8	95·2	111·0
August 1	104·7	109·6	105·6	107·7	108·3	105·2	95·2	112·2
September 1	106·6	110·2	108·1	109·0	109·2	121·1	96·5	114·9
October 1	108·2	117·1	109·4	108·3	104·1	126·7	96·3	114·7
November 1	107·1	119·1	109·6	106·1	103·8	130·6	94·7	110·4
December 1	106·2	119·2	108·8	105·6	102·4	148·2	94·6	110·6
Averages, 1938	**103·9**	**107·5**	**107·3**	**105·0**	**106·8**	**138·3**	**93·1**	**109·1**
1939.								
January 1	100·4	119·7	107·3	104·3	97·9	150·2	90·6	106·8
February 1	102·6	117·0	105·7	103·1	96·9	140·5	89·1	106·7
March 1	101·4	117·9	105·3	105·3	97·4	139·1	88·5	106·4
April 1	102·2	118·1	106·1	107·3	99·1	139·1	88·3	107·4
May 1	104·5	122·8	107·6	106·4	102·3	140·8	90·0	110·3
June 1	108·7	124·2	109·2	109·8	104·6	136·4	92·4	109·9
July 1	108·3	127·4	109·4	111·8	105·7	114·7	94·3	112·6
August 1	107·6	126·9	108·6	110·2	102·1	112·1	96·5	115·1
September 1	109·3	127·8	110·5	108·6	101·8	115·2	98·2	117·2
October 1	110·2	111·5	114·1	111·1	108·2	124·8	98·8	115·8
November 1	110·7	111·6	117·4	113·1	112·8	140·4	99·3	114·8
December 1	112·7	110·6	117·7	109·5	116·1	147·9	100·6	113·7
Averages, 1939	**106·6**	**119·6**	**109·9**	**108·4**	**103·7**	**133·4**	**93·9**	**111·4**
Relative weights, by cities, as at Dec. 1, 1939	14·6	1·3	12·6	1·2	3·2	1·7	3·7	3·2

Employment by Industries.—Manufacturing as a whole afforded rather more employment during the year; the curve rose from a level several points below that of 1938 in the first months of 1939, to an all-time high at Nov. 1 and Dec. 1, but the average index was only slightly higher than in 1938, and was two points lower than in 1937. The moderate improvement in 1939 over 1938 took place in the group of non-durable manufactured products, while the durable goods division showed, on the average, a falling-off despite the activity prevailing in the heavy industries towards the close of 1939.

Among the non-manufacturing divisions, logging reported reduced employment, owing to the widespread slackness in bush-work in the winter of 1938-39; in the

second half of the year under review, however, the situation was generally better than in the same months of 1938. There was a fractional decline in the average index for communications, while mining, transportation, construction and maintenance, services, and trade afforded more employment, on the average.

4.—Index Numbers of Employment as Reported by Employers, by Industrial Groups, as at the First of Each Month, January, 1938, to December, 1939, with Yearly Averages Since 1928.

NOTE.—These indexes are calculated upon the average for the calendar year 1926 as 100. The relative weight shows the proportion of the employees reported in the indicated industry to the total reported by all employers making returns in Canada at Dec. 1, 1939. Averages for 1921-27, inclusive, are given at p. 773 of the 1938 Year Book.

Year and Month.	Manufacturing.	Logging.	Mining.	Communications.	Transportation.	Construction and Maintenance.	Services.	Trade.	All Industries.[1]
Averages, 1928	**110·1**	**114·5**	**114·4**	**108·2**	**105·9**	**118·8**	**118·1**	**116·1**	**111·6**
Averages, 1929	**117·1**	**125·8**	**120·1**	**120·6**	**109·7**	**120·7**	**130·3**	**126·2**	**119·0**
Averages, 1930	**109·0**	**108·0**	**117·8**	**119·8**	**104·6**	**129·8**	**131·6**	**127·7**	**113·4**
Averages, 1931	**95·3**	**60·1**	**107·7**	**104·7**	**95·8**	**131·4**	**124·7**	**123·6**	**102·5**
Averages, 1932	**84·4**	**42·6**	**99·2**	**93·5**	**84·7**	**86·0**	**113·6**	**116·1**	**87·5**
Averages, 1933	**80·9**	**66·5**	**97·5**	**83·9**	**79·0**	**74·6**	**106·7**	**112·1**	**83·4**
Averages, 1934	**90·2**	**124·7**	**110·8**	**79·1**	**80·3**	**109·3**	**115·1**	**117·9**	**96·0**
Averages, 1935	**97·1**	**126·9**	**123·3**	**79·8**	**81·2**	**97·8**	**118·2**	**122·1**	**99·4**
Averages, 1936	**103·4**	**138·7**	**136·5**	**81·0**	**84·1**	**88·2**	**124·5**	**127·5**	**103·7**
Averages, 1937	**114·4**	**189·3**	**153·2**	**85·4**	**85·2**	**99·5**	**130·2**	**132·1**	**114·1**
1938.									
January 1	108·6	323·6	155·2	85·1	82·0	81·9	132·5	141·7	113·4
February 1	110·3	290·7	154·3	82·9	79·6	71·6	128·4	127·9	110·4
March 1	110·5	212·7	153·9	82·2	79·0	71·4	127·1	126·0	107·8
April 1	110·8	115·0	151·3	82·5	78·5	71·6	129·8	127·1	105·0
May 1	110·6	97·5	149·7	82·5	83·9	88·2	131·9	131·3	107·4
June 1	112·3	93·6	153·3	84·7	84·9	114·5	135·3	131·5	111·9
July 1	111·8	86·1	154·5	87·2	86·3	124·9	146·1	133·3	113·5
August 1	110·0	59·6	153·6	88·2	86·9	128·0	143·5	132·1	112·1
September 1	113·8	58·6	157·4	88·3	88·7	133·8	146·7	131·0	115·1
October 1	112·5	78·8	160·8	87·2	90·1	143·5	136·1	134·5	116·7
November 1	110·9	130·8	163·4	85·5	87·9	122·5	132·8	135·6	114·6
December 1	110·1	166·4	163·3	84·0	85·0	112·8	131·7	139·7	114·0
Averages, 1938	**111·0**	**142·8**	**155·9**	**85·0**	**84·4**	**105·4**	**135·2**	**132·6**	**111·8**
1939.									
January 1	104·3	150·6	160·4	83·3	79·9	96·4	131·7	144·8	108·1
February 1	106·0	143·0	160·5	81·2	79·4	89·4	129·5	131·0	106·5
March 1	107·0	108·8	160·9	80·8	80·3	94·3	128·5	128·9	106·5
April 1	107·1	64·0	157·4	81·2	79·3	91·6	131·4	131·1	104·9
May 1	108·4	51·0	155·8	82·0	81·4	94·2	133·2	135·1	106·2
June 1	111·4	97·1	160·5	83·8	86·5	115·3	141·8	136·6	113·1
July 1	111·3	95·3	164·1	86·0	87·6	133·1	147·6	137·4	115·8
August 1	112·8	73·5	165·6	87·5	87·5	146·3	149·8	135·5	117·5
September 1	115·3	60·3	168·0	87·3	90·0	152·2	151·7	134·9	119·6
October 1	119·7	115·6	170·3	87·5	94·8	131·5	136·1	138·6	121·7
November 1	122·1	206·4	171·0	86·7	90·6	117·6	135·2	140·2	123·6
December 1	122·2	263·6	171·3	85·5	89·7	93·8	132·9	144·7	122·7
Averages, 1939	**112·3**	**119·1**	**163·8**	**84·4**	**85·6**	**113·0**	**137·4**	**136·6**	**113·9**
Relative weights, by industries, as at Dec. 1, 1939	52·3	6·5	6·6	1·9	9·1	9·5	2·5	11·6	100·0

[1] Except agriculture (see p. 751).

Subsection 3.—Operations of the Employment Service of Canada.

Employment Service of Canada.—Under Sect. 3 of the Employment Offices Co-ordination Act (c. 57, R.S.C., 1927), an Act passed by the Dominion Parliament in May, 1918, the Minister of Labour is empowered:—

(1) to aid and encourage the organization and co-ordination of employment offices and to promote uniformity of methods among them;
(2) to establish one or more clearing houses for the interchange of information between employment offices concerning the transfer of labour and other matters;
(3) to compile and distribute information received from employment offices and from other sources regarding prevailing conditions of employment.

The Act further provides that certain sums of money are to be appropriated annually and paid to the provinces on a basis proportionate to the amount that each expends on the maintenance of employment offices.

The desired uniformity and co-ordination of employment-office activities throughout the various provinces are obtained by having the Dominion's payments contingent upon an agreement ensuring that the provinces, in the conduct of their employment offices, shall endeavour to fill situations in all trades and occupations for both men and women, and that no charge shall be made to employers or employees for this service. Each province agrees to maintain a provincial clearance system in co-operation with the interprovincial clearance system established by the Dominion Government, in order to secure the necessary mobility of labour as between localities in the same province or in different provinces. For the fiscal year 1939-40, agreements were concluded with all of the provinces except Prince Edward Island. Thus a chain of employment offices reaching from Halifax to Vancouver, administered intra-provincially by the Provincial Governments but co-ordinated inter-provincially by the Dominion Government, constitutes the Employment Service of Canada. At the time the Act came into force only 12 provincial employment offices were operated in Canada. This number was steadily increased until, at the close of 1919, owing to the impetus given by the requirements of the demobilization period, offices were functioning at 84 different centres. Subsequent contractions have reduced the Service to offices permanently located at 76 centres (on Dec. 31, 1939), distributed by provinces as follows: Nova Scotia, 4; New Brunswick, 3; Quebec, 11; Ontario, 32; Manitoba, 4; Saskatchewan, 9; Alberta, 5; and British Columbia, 8.

Operations of Employment Offices.—Statistics covering the work of the local offices are collected and tabulated by the Employment Service Branch of the Department of Labour. During 1939 there were 787,972 applications for employment, 402,393 vacancies, and 384,882 placements recorded, as compared with 782,664 applications, 401,241 vacancies, and 382,295 placements in 1938. About 37 p.c. of the total placements were of a casual nature, many of these being the result of work given on a rotation basis by municipalities and Provincial Governments on various relief schemes throughout the year to persons who otherwise would have been unemployed.

Reduced Railway Fares.—In order to facilitate the movement of labour in cases where there are not enough workers in any one locality to fill the available vacancies, the Employment Service, by special arrangement with nearly all the members of the Canadian Passenger Association, has been granted the privilege of issuing certificates that entitle the bearers to purchase railway tickets at the reduced rate of 2·5 cents per mile. This rate is for second-class accommodation and is

applicable only to fares of not less than $4. During 1939, 7,203 certificates were issued, 6,407 to persons proceeding to points within the same province as the dispatching office and 796 to workers going to points in other provinces. During 1938, 6,167 certificates for special rates were granted, 5,631 to persons travelling to employment within the same province as the dispatching office and 536 to persons for whom employment had been secured in other provinces.

5.—Applications for Employment, Positions Offered, and Placements Effected by the Employment Service of Canada, 1931-39, and by Provinces, 1938 and 1939.

NOTE.—For figures by provinces from 1920 to 1937, see corresponding table of previous Year Books, commencing with the 1926 edition. Totals for the years 1920-30 are given at p. 766 of the 1938 edition.

Year and Province.	Applications Registered.		Vacancies Notified.		Placements Effected.	
	Men.	Women.	Men.	Women.	Men.	Women.
	No.	No.	No.	No	No.	No.
Totals, 1931	**685,460**	**140,693**	**391,857**	**94,527**	**389,231**	**82,277**
Totals, 1932	**512,695**	**139,733**	**282,643**	**83,385**	**278,975**	**73,239**
Totals, 1933	**531,041**	**143,180**	**282,120**	**87,565**	**278,589**	**73,508**
Totals, 1934	**569,301**	**155,064**	**327,907**	**99,885**	**324,900**	**81,191**
Totals, 1935	**498,466**	**157,955**	**268,300**	**108,274**	**265,212**	**88,590**
Totals, 1936	**515,930**	**164,123**	**241,098**	**114,278**	**237,476**	**93,974**
Totals, 1937	**543,343**	**168,880**	**290,790**	**127,598**	**286,618**	**102,918**
Totals, 1938	**584,727**	**197,937**	**276,851**	**124,390**	**275,338**	**106,957**
Totals, 1939	**579,645**	**208,327**	**271,654**	**130,739**	**270,020**	**114,862**
Nova Scotia 1938	9,869	7,301	8,358	5,816	8,329	5,452
1939	9,925	7,943	7,893	6,843	7,876	6,512
New Brunswick 1938	6,855	5,765	6,238	5,697	6,229	5,697
1939	8,387	6,546	8,006	5,923	8,006	5,910
Quebec 1938	127,745	53,617	59,649	42,060	59,713	29,587
1939	131,891	61,225	43,586	46,162	43,166	34,608
Ontario 1938	222,446	74,972	80,596	35,438	79,456	33,254
1939	239,613	82,585	104,158	38,207	102,600	36,592
Manitoba 1938	54,670	15,692	31,653	10,644	31,948	10,276
1939	51,806	12,915	30,658	10,183	31,494	9,947
Saskatchewan 1938	37,380	14,309	26,442	11,340	25,954	10,442
1939	24,026	9,552	20,459	8,225	20,062	7,405
Alberta 1938	47,220	11,359	21,807	6,992	21,647	5,869
1939	40,177	12,054	18,659	7,236	18,636	5,957
British Columbia 1938	78,542	14,922	42,108	6,403	42,062	6,380
1939	73,820	15,507	38,235	7,960	38,180	7,931

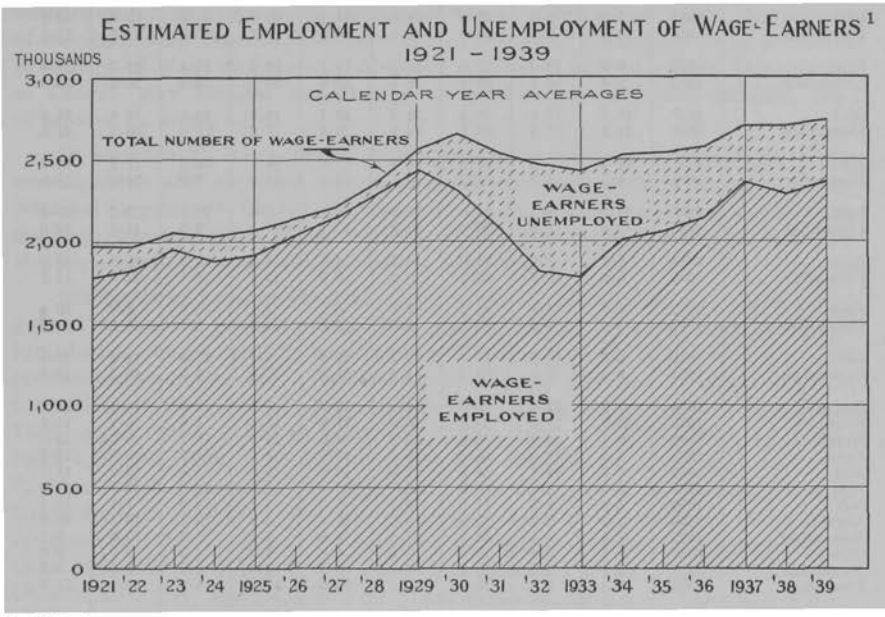
Registration of Workers for War-Time Industrial Employment.—A conference of Dominion and provincial officials was convened in October, 1939, on the invitation of the Dominion Minister of Labour for the purpose of determining the policy to be pursued by the Employment Service of Canada in ensuring the maintenance of an adequate supply of skilled and semi-skilled workers for war-time industrial requirements. It was decided at this meeting that a nation-wide survey should be instituted to determine the availability of such labour.

For this purpose the Employment Service of Canada, in all provinces, carried out a voluntary registration of skilled and semi-skilled workers whose training and experience qualify them for employment in industries engaged in the production of war materials. Reports received to Feb. 29, 1940, show that 24,502 such workers have registered, 1,060 of this total being women.

At the request of the Department of National Defence, the Employment Service of Canada also compiled a registration of former members of the Royal Naval Air Service, the Royal Flying Corps, the Royal Air Force, and the Royal

Canadian Air Force who are willing to re-engage with the Royal Canadian Air Force as tradesmen. The number of ex-members of the Air Forces who had registered for this employment to Feb. 29, 1940, was 1,085.

As a matter of policy, the Department of National Defence has instructed its officers responsible for projects involving civilian personnel on construction and building maintenance to secure the necessary labour from the Employment Service of Canada. Already some requests of this character have been filled by the Employment Service.



[1] For figures on which this chart is based, see Table 1, p. 751.

Subsection 4.—Unemployment as Reported by Trade Unions.

Monthly statistics on unemployment are compiled and published by the Employment Service Branch of the Dominion Department of Labour, based on returns received from about 1,900 local trade unions, having an aggregate membership of approximately 250,000 workers. "Unemployment" as here used means involuntary idleness due to economic causes. Persons engaged in work other than their own trades, or idle because of illness, are not considered as unemployed, while unions involved in industrial disputes are excluded from the tabulations. As the number of unions making returns varies from month to month, with consequent variation in the membership upon which the percentages of unemployment are based, it should be understood that the figures for each month have reference only to the reporting organizations. The maximum of unemployment in 1939 was in February, when the percentage stood at 16·4; the 1939 low was 9·0 p.c. recorded in October. In 1938 the December figure of 16·2 p.c. constituted the maximum, and the minimum of 10·4 p.c. was reached in September. Employment among organized workers was greater on the average in 1939 than in 1938, the average of the monthly figures of unemployment for 1939 being 12·2 p.c., while for 1938 the corresponding figure was 13·1 p.c.

6.—Percentages of Unemployment in Trade Unions, by Provinces, Half-Yearly, 1931-38, and by Months, 1939.

NOTE.—For percentages of unemployment at June 30 and Dec. 31 from December, 1915, to December, 1930, see p. 827 of the 1934-35 edition of the Year Book. For data by months from 1921, see successive issues of the Year Book commencing with the 1922-23 edition

Month.	Year.	Nova Scotia and P.E.I.	New Brunswick.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Total.
June	1931	7·2	6·5	20·0	16·2	14·1	13·5	21·7	15·6	16·3
December	1931	13·8	9·6	29·0	20·3	16·5	19·5	16·9	21·2	21·1
June	1932	9·6	12·0	27·1	23·4	18·1	14·4	23·4	22·3	21·9
December	1932	8·4	16·5	30·9	28·5	20·9	20·8	22·8	26·0	25·5
June	1933	13·8	13·0	26·2	23·3	19·4	14·9	24·5	18·6	21·8
December	1933	11·2	11·5	23·2	24·9	20·3	17·2	17·6	19·8	21·0
June	1934	11·4	7·3	22·9	15·9	17·0	12·1	24·8	17·2	18·0
December	1934	4·7	7·2	24·5	18·7	16·1	13·1	9·0	24·6	18·0
June	1935	12·2	8·1	21·9	12·0	13·7	9·4	20·1	13·2	15·4
December	1935	7·8	7·5	20·6	13·4	13·1	11·6	9·6	15·9	14·6
June	1936	6·7	7·8	19·0	13·3	8·4	6·4	17·2	10·5	13·9
December	1936	6·8	6·2	20·9	13·8	10·9	12·8	6·4	12·7	14·3
June	1937	5·9	4·7	15·3	7·6	5·7	7·2	16·6	8·0	10·4
December	1937	3·3	4·6	16·5	12·9	16·8	10·6	6·7	15·8	13·0
June	1938	3·6	14·8	17·1	12·4	12·5	9·7	17·8	14·3	13·5
December	1938	8·4	9·8	21·2	14·5	21·4	11·8	9·5	17·3	16·2
January	1939	9·2	12·8	19·9	14·4	16·0	13·2	11·9	18·1	15·9
February	1939	10·7	11·0	20·3	15·9	11·9	13·3	15·6	16·7	16·4
March	1939	9·1	10·6	18·6	15·8	12·9	13·1	16·7	15·3	15·7
April	1939	8·2	12·0	15·6	13·7	12·3	13·0	17·9	12·9	13·9
May	1939	6·3	14·1	13·5	11·0	10·0	7·5	18·3	10·0	11·7
June	1939	6·3	8·9	15·0	9·7	10·2	6·6	18·2	9·7	11·6
July	1939	5·4	8·5	15·0	10·1	5·6	5·7	16·9	8·6	11·1
August	1939	4·2	8·2	15·2	10·0	4·2	4·2	13·1	10·5	10·9
September	1939	7·4	6·1	13·2	7·6	4·0	3·2	6·2	10·0	9·1
October	1939	8·5	6·4	13·8	6·6	4·4	7·2	4·3	9·9	9·0
November	1939	4·4	3·6	15·1	7·3	10·9	9·6	4·6	9·3	9·7
December	1939	5·3	4·3	16·1	9·7	12·0	10·2	4·9	12·4	11·4

Section 4.—Measures for the Relief and Training of the Unemployed.

Subsection 1.—National Registration of Persons on Material Aid.

The National Employment Commission Act, 1936, under which the National Employment Commission* was established in May, 1936, required the Commission to undertake a national registration and classification of persons on aid throughout Canada [Sect. 6 (*a*)]. To meet this obligation there was set up the Registration Branch of the Commission, which, in co-operation with the governments of the provinces and municipalities, took a first national registration of persons on aid, where the Dominion contributed financially to such aid, in September, 1936. In order to secure current figures, comparable with those available for September, 1936, the provinces and municipalities were required to provide follow-up returns each month commencing with October, 1936. In September, 1937, a second registration was taken, based upon the experience of the previous registration, and this, too, was subsequently kept up to date month by month.

In Section III of its final report, the National Employment Commission recommended that the work of the registration be carried forward under the Minister of

* See the 1937 Year Book, pp. 1052-1053, and the 1938 Year Book, pp. 778-779.

Labour, after the termination of the work of the Commission itself. Consequently, when the Commission ceased to exist at Feb. 1, 1938, the work of the registration was placed under the Department of Labour as the National Registration Branch, where it has been carried forward on the same basis; third and fourth national registrations, comparable with those of the two preceding years, were taken in September, 1938 and 1939.

From the commencement of the national registration, the number of local authorities throughout Canada issuing aid has averaged about 2,000; the success of the registration depends upon receiving complete and reasonably prompt returns from each of these authorities. Monthly reports, published by the Department of Labour, give detailed statistics as to numbers, classes, employability, etc., of persons on direct relief.

In addition to the registration of persons on material aid* throughout the municipalities and provinces, special registrations have been maintained by the National Registration Branch of pensioners on aid, and of Indians on aid, through the Department of Pensions and National Health and the Indian Affairs Branch of the Department of Mines and Resources, respectively.

Statistics of Persons on Aid.—Prior to the inception of national registration, general statistics of persons in receipt of material aid were secured through reports furnished to the Dominion Commissioner of Unemployment Relief by the several provinces distributing aid. The Dominion monthly averages so reported up to the initiation of the national registration and the registration figures from September, 1936, are as follows: 1932 (8 months), 833,989; 1933, 1,227,558; 1934, 1,135,901; 1935, 1,162,563; 1936, 1,148,083; 1937, 965,907. Persons on urban aid constituted 72·8 p.c., while persons on agricultural aid were 27·2 p.c. of the monthly average Dominion total for 1939. The monthly average total of all persons on direct relief (as given in Table 7) showed the following percentage distribution by provinces in 1939: Prince Edward Island, 0·3 p.c.; Nova Scotia, 1·2 p.c.; Quebec, 19·7 p.c.; Ontario, 29·2 p.c.; Manitoba, 6·3 p.c.; Saskatchewan, 29·9 p.c.; Alberta, 5·7 p.c.; and British Columbia, 7·7 p.c.

Subsequent to Apr. 1, 1937, the Province of New Brunswick substituted a works program for material aid and consequently that Province does not contribute to the registration totals on material aid as shown in Tables 7 and 8, for the months after the date mentioned. Moreover, in the case of all provinces the present figures include only persons receiving aid to which the Dominion Government contributed financially.

An analysis of the status of the 629,246 persons receiving aid in December, 1939, reveals that 132,696, or 21·1 p.c., were heads of families,† 450,234, or 71·5 p.c., their dependants, while the remaining 46,316, or 7·4 p.c., were classified as 'individual persons'.† Of the 556,676 persons receiving urban aid, 119,202 were

* Material aid refers only to direct relief, so that in the sense here used the term does not include persons being provided with work on relief projects paid for in wages, even though such work was undertaken to alleviate unemployment. Material aid is divided into urban aid and agricultural aid. Agricultural aid refers to assistance given to resident farm operators and their dependants for human subsistence, where such farmers would normally derive their livelihood from the land they occupy. Urban aid refers to all persons other than farm operators and their dependants, and thus includes the unemployed and unemployable persons.

† 'Head of family' is used to designate a person who is socially responsible for the support of one or more dependants. An 'individual person' is one who is neither a dependant of a head of family nor has anyone dependent upon himself. The term 'wife' refers to the member of a family unit who performs the housekeeping duties and 'wives' are a subclassification of dependants. 'Dependants' are all who look to the head of a family for their support and thus 'dependants' include some adult employable persons still living under the parental roof.

heads of families, of whom 93,720 were fully employable, 13,490 partially employable, and 11,992 were unemployable. Of the 44,704 recipients classified as individual persons, 21 666 were returned as fully employable, 11,318 as partially so, and 11,720 as unemployable. Of the dependants of heads of families, totalling 392,770 receiving urban aid, 10,403 had been previously gainfully employed, 21,077 had never been employed, 544 were only partially employable, and the remainder were classified as 'non-worker type dependants', including wives, children under 16 years, and other dependants of non-worker type over 16 years of age.

7.—Persons on Urban and Agricultural Aid, by Months, 1938 and 1939.

Month.	1938.			1939.		
	Urban Aid.	Agricultural Aid.	Total, Material Aid.	Urban Aid.	Agricultural Aid.	Total, Material Aid.
	No.	No.	No.	No	No.	No.
January	631,974	383,191	1,015,165	668,196	308,332	976,528
February	654,529	389,419	1,043,948	697,896	320,771	1,018,667
March	652,690	392,036	1,044,726	704,694	322,842	1,027,536
April	632,294	391,928	1,024,222	686,033	318,823	1,004,856
May	575,960	380,492	956,452	626,274	297,147	923,421
June	520,880	363,687	884,567	557,408	281,918	839,326
July	497,127	339,429	836,556	534,720	270,934	805,654
August	471,099	286,536	757,635	544,817	257,835	802,652
September	444,732	108,872	553,604	488,984	50,029	539,013
October	473,262	167,795	641,057	484,309	59,574	543,883
November	534,893	251,936	786,829	507,893	77,803	585,696
December	604,666	291,811	896,477	556,676	72,570	629,246
Monthly Averages	**557,842**	**312,261**	**870,103**	**588,158**	**219,882**	**808,040**

In considering the question of unemployment, public attention is usually focussed on the fully employable worker who is receiving urban aid. For the first ten months of 1939, unemployment among persons of this class was greater in each month than in the corresponding month of 1938. The seasonal increase in unemployment in autumn invariably results in an increase in the number receiving aid in November and December. The percentage increase in the number receiving aid in these months in 1939 was considerably less than for the same months of 1938 and 1937. The existing state of war and the consequent acceleration of industrial production for war purposes no doubt was largely responsible for the improved situation at the close of 1939.

8.—Fully Employable Persons on Urban Aid, by Months and Sex, 1938 and 1939.

Month.	1938.			1939.		
	Male.	Female.	Total.	Male.	Female.	Total.
	No.	No.	No.	No.	No.	No.
January	136,533	31,955	168,488	149,189	32,209	181,398
February	142,218	32,714	174,932	157,141	33,375	190,516
March	142,097	32,452	174,549	158,761	33,446	192,207
April	137,234	31,443	168,677	153,744	32,836	186,580
May	124,456	29,557	154,013	137,876	30,947	168,823
June	110,489	27,689	138,178	119,880	28,665	148,545
July	105,717	26,557	132,274	112,683	27,982	140,665
August	98,788	25,537	124,325	113,728	28,570	142,298
September	89,481	25,137	114,618	98,825	26,582	125,407
October	97,880	26,006	123,886	98,167	26,980	125,147
November	115,339	27,852	143,191	105,206	27,697	132,903
December	132,060	30,271	162,331	117,864	29,002	146,866
Monthly Averages	**119,358**	**28,931**	**148,289**	**126,922**	**29,858**	**156,780**

Subsection 2.—Unemployment Relief.

The assistance rendered by the Dominion Government under relief legislation enacted during the years 1930-38, inclusive, is set out in previous issues of the Canada Year Book. The following is a summary of the new legislation enacted in 1939 and the assistance rendered under these Acts to Mar. 31, 1940.

THE UNEMPLOYMENT AND AGRICULTURAL ASSISTANCE ACT, 1939.

This statute, the administration of which is vested in the Minister of Labour, contains provisions similar to those provided by its predecessor, the Unemployment and Agricultural Assistance Act, 1938. A résumé of this Act is given in Chapter XXX, under Dominion Legislation. The Act expired on Mar. 31, 1940, but provision is made therein that any obligation or liability incurred under its authority may be paid and discharged notwithstanding the expiration of the Act.

Material Aid.—Under the provisions of the above Act, agreements were entered into with all provinces providing for a Dominion contribution towards the cost of material aid (food, fuel, clothing, and shelter, or cash in lieu thereof) on a dollar for dollar basis with the provinces up to a maximum Dominion contribution of 40 p.c., the remainder to be contributed by the municipalities. The agreements further provided for a Dominion contribution of 50 p.c. of the provinces' expenditures for material aid supplied to individuals who were in necessitous circumstances and had not established provincial residence, and also to individuals in necessitous circumstances who had provincial residence in one province but at the time of need resided in another province.

An Order in Council dated Oct. 21, 1939, authorized Dominion expenditures for food, fuel, clothing, shelter, and health services supplied to any residents in Canada who were necessitous dependants of enemy aliens interned in Canada, if such services were supplied during a term or terms of internment falling within the Dominion fiscal year 1939-40 and were on a scale not exceeding that given by governmental or municipal agencies to necessitous persons in the locality where said dependants resided. Arrangements were made with the provinces whereby, in cases where the municipality or, in any district where no municipal organization existed, the province distributed assistance to such persons, the Dominion is to reimburse the province and/or the municipality through the province for expenditures incurred.

Municipal Improvement Projects.—The agreements entered into with all the provinces respecting material aid, with the exception of that entered into with the Province of Ontario, contained an alternative to material aid by providing for a Dominion contribution of 50 p.c. of the direct labour costs incurred in the carrying out of approved municipal improvement projects during the fiscal year 1939-40, it being provided that the provinces would also contribute 50 p.c. of the direct labour costs, the muncipalities bearing the costs of materials and supervision. Projects must be undertaken primarily to relieve unemployment.

The agreements provided that the Dominion contribution should apply only to wages paid to unemployed persons in necessitous circumstances, and that such persons should, as a condition precedent to their employment on authorized projects,

be certified as unemployed and in necessitous circumstances by a committee consisting of a representative of the Dominion, a representative of the province, and the municipal official charged with the administration of relief. In municipalities of less than 5,000 persons provision was made for a substitute for the committee when jointly approved in writing by the province and the Dominion.

Under the terms of the agreements all persons employed on municipal improvement projects must be paid fair wages. The maximum number of hours per day to be worked by any individual is restricted to eight, which number, in certain circumstances, may be exceeded provided that in no instance may any employee be required to work more than 48 hours per week over a period of 3 consecutive calendar weeks.

National Forestry Program.—To supplement the work carried on under the Youth Training Program, referred to later in this summary, the Dominion Government provided a special vote of $1,000,000 for the National Forestry Program. Part of this money was allotted to the provinces for forestry projects to be carried on in co-operation between the Dominion and the provinces. The balance of the money was made available to the Dominion Department of Mines and Resources for work to be carried on in National Parks and Forest Experiment Stations under the direction of the Dominion Forest Service.

All provinces participated in this program and employment was afforded to over 4,600 unemployed young men between the ages of 18 and 25. The first camps were opened about the beginning of June and, with a few exceptions, were closed by the end of November. While the rate of training allowance was not the same in each province, the usual rate was $1 per day worked, with board, lodging, and medical services provided free. All trainees were medically examined before admission to the project.

Provision was made for classes not only in technical instruction in forestry subjects, care and use of tools and mechanical equipment, but also in a variety of other subjects including first aid, health, citizenship, organized recreation, and sport.

In addition to work done in forest protection and development, and the development of tourist facilities, instruction was given in the conservation of wild life.

Transportation Facilities into Mining Areas and Development of Tourist Highways.—The Department of Mines and Resources entered into agreements with all the provinces (under the provisions of the Unemployment and Agricultural Assistance Act, 1939) to provide for a Dominion contribution towards the costs of certain works projects submitted by the provinces as suitable for relieving the unemployment situation and which would, as well, provide for (1) transportation facilities into mining areas; and (2) the development of tourist highways.

Mining transportation programs submitted resulted in arrangements for such works projects being entered into with all the provinces except Prince Edward Island and New Brunswick. Where any province has undertaken to give financial aid to projects for the improvement of transportation facilities into mining areas, the Dominion Government has agreed to reimburse the province to the extent of two-thirds of the provincial expenditure on the approved project.

Agreements entered into provided for Dominion assistance in developing tourist highways, along the lines of programs submitted by all the provinces except Quebec. The Dominion assistance granted for tourist road projects was 50 p.c. of the costs of construction of approved projects, except in Manitoba and Saskatchewan. In these two provinces the Provincial Governments desired to undertake

larger programs than could be carried out under the 50 p.c. ratio, and arrangements were made whereby the Dominion would contribute 20 p.c. of the costs of construction of the approved projects in Saskatchewan and 33⅓ p.c. of the costs of the accepted projects in Manitoba.

Provision was made in the agreements that, except in such instances as the Minister of Mines and Resources, or his Deputy, decided it was impracticable or inconsistent with reasonable efficiency and economy to do so, the provincial authorities would enforce a stipulation that "at least 50 p.c. of those employed shall, if possible, be men who are relief recipients or those who, but for such employment, would otherwise be in receipt of relief" A further stipulation required that first consideration be given to those most in need in localities where works were to be performed, preference in employment being given to unemployed ex-service men and unemployed married and single men with dependants. Special provision was made in the agreement with British Columbia for the employment of a percentage of 'single unemployed' in connection with the work on tourist highways in that Province.

Aid in the Drought Areas.—The agreements under which the Dominion, through the Department of Agriculture, met the cost of material aid and feed and fodder relief in the drought areas of Saskatchewan and Alberta for the year 1938-39, terminated as at Mar. 31, 1939. With the coming of spring the need for feed and fodder relief was reduced but assistance was required by the Province of Saskatchewan for seeding operations. The Dominion agreed to contribute $200,000 and to loan an additional $1,300,000 for seed and seeding supplies. Seeding supplies included tractor fuel, feed and fodder, and repairs to implements and harness. Material aid was also required in parts of Saskatchewan until the returns from the 1939 crop were within reach, and the agreement relating to it was, therefore, renewed for the period Apr. 1 to June 30 and was later extended to the end of August. An amount of $1,404,263 was expended under the agreement for the five-month period. As direct Dominion assistance to such parts of the Prairie Provinces as might experience adverse crop conditions was to take the form of acreage payments under the Prairie Farm Assistance Act as from Dec. 1, 1939, drought area relief, as such, ceased at Aug. 31 and the "drought areas" were dealt with, like other rural relief areas, under the material aid agreements with the provinces. Payments under the Prairie Farm Assistance Act were intended to eliminate the need for material aid after Dec. 1 in the townships of low wheat yields where the Act became applicable.

In addition to the material aid and seeding assistance, carried out under the Act, the Dominion Government purchased and distributed a quantity of apples, at a cost of approximately $87,500, to supplement the food purchases of those affected by adverse crop conditions. This helped to reduce a surplus of apples that has resulted from the loss of normal markets through the outbreak of war.

Single Unemployed Persons.—Owing to the lateness of the spring season, the agreements respecting the Farm Employment Plan entered into with the western provinces under the Unemployment and Agricultural Assistance Act, 1938, were, at the request of the provinces, extended under the Unemployment and Agricultural Assistance Act, 1939, to cover the period Apr. 1 to May 31, 1939. No payment was made to the farmer for these months and the allowance to the worker was $7·50.

The agreements entered into under the 1938 Act with the Provinces of British Columbia and New Brunswick, respecting works undertaken as a supplementary means of providing employment for those single unemployed persons deemed unsuitable for farm work, were also, at the request of the provinces, extended under the 1939 Act.

In order to meet the problem of the single and transient unemployed, the Farm Employment Plan, the cost of which is shared jointly between the Dominion and the Provincial Governments, was again placed in operation in British Columbia, Alberta, and Manitoba from Oct. 1, 1939, to Mar. 31, 1940.

The arrangements covered by the agreements provided for the payment to the farmer of $5 per month in Alberta and British Columbia but no payment was made to the farmer in Manitoba, while those accepting employment under the plan in the three provinces received $5 per month with an additional bonus of $2·50 per month where continuous employment was maintained up to Mar. 31, 1940, plus free transportation, and a clothing allowance, where necessary, not exceeding $3.

In addition to the Farm Employment Plan, and in order to meet the peculiar needs of British Columbia, where agriculture does not lend itself to the absorption of large numbers of men, the agreement of Nov. 8, 1938, was renewed and provision made for a Dominion contribution of 50 p.c. towards the cost of forestry and other works undertaken by the Province as a supplementary means of providing employment. The agreement covered the period from Apr. 1, 1939, to Mar. 31, 1940. To ensure that the men, on completion of the work, would not be without funds, a system of deferred payment was placed in operation, wages were payable at specified post offices, the amount of money standing to the credit of any man on the completion of the work being paid in weekly instalments of $4.

Rehabilitation of Older Unemployed.—At the 1939 session of Parliament, funds were appropriated for the purpose of restoring the skill, physique, and morale of those who, through continuous unemployment, experienced difficulty in establishing themselves. The Dominion offered to contribute 50 p.c. of the cost of such rehabilitation plans. Agreements have been signed and various plans have been undertaken in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, and Nova Scotia.

Re-Establishment of Settlers.—Another activity administered by the Department of Agriculture under the Unemployment and Agricultural Assistance Act, 1939, was the re-establishment of settlers in the Provinces of New Brunswick, Saskatchewan, Alberta, and British Columbia. This was a continuation of the policy of previous years, the agreements with the four provinces, arrived at under the 1937 Act, being extended with slight modifications in one or two instances. The program is designed to assist settlers in pioneer areas to become self-sustaining and expenditures under the agreements are made chiefly for the breaking and clearing of land and the purchase of building materials, farm implements, and live stock. The amounts made available under the agreements for the year 1939-40 were: New Brunswick, $30,000; Saskatchewan, $250,000; Alberta, $75,000; and British Columbia, $15,000.

Relief Settlement.—The Dominion continued to assist the Provinces of Quebec, Manitoba, and Alberta in placing selected families that would otherwise be in receipt of material aid on the land under the Relief Settlement Plan outlined on p. 762 of the 1937 Canada Year Book.

9.—Settler Families and Individuals Approved and Settled Under the Relief Settlement Agreements, 1932, to Mar. 31, 1940.

Province.	Settler Families.	Total Individuals.
	No.	No.
Nova Scotia	343	2,154
New Brunswick	Nil	-
Quebec	4,501	26,188
Ontario	606	2,990
Manitoba	1,647	8,235
Saskatchewan	939	4,604
Alberta	1,026	4,806
British Columbia	52	285
Totals	**9,114**	**49,262**

THE YOUTH TRAINING ACT, 1939.

The operation of the Dominion-Provincial Youth Training Program during its third year, was facilitated by the passing of the Youth Training Act, 1939. By this Act provision was made for a Dominion contribution for youth training of $1,500,000 a year for a period of three years, with the provision that any money unexpended in one fiscal year could be carried over and made available for the next fiscal year.

Those eligible to participate in youth-training projects under the Act were young people aged 16 to 30 who were not gainfully employed and whose families were not in a position to pay for the cost of training.

As in past years, the program was carried out under agreements between the Dominion and the Provincial Governments that provided for a Dominion contribution of 50 p.c. of the expenditures incurred for projects submitted by the provinces and approved by the Dominion; each government bears its own administrative costs.

Agreements were signed with all the provinces providing for the undertaking of the following main types of projects: forestry and woodlot cultivation; mining and prospecting; industrial apprenticeship and learnership; training of urban young men and women for work in industrial and commercial establishments; home service training for women; handicraft and homecraft classes for rural young women; general and specialized courses in agriculture for rural young men and women; air mechanics; physical recreation and training; farm apprenticeship; and student aid.

The agricultural and rural classes and the physical recreational projects were not designed to train young people for wage-earning employment, and consequently, no placements in wage-earning employment were made from these trainees.

To assist in placing the trainees from the other projects, special placement officers and project supervisors were engaged, not only to advise young people concerning their choice of training, but also to place them in employment upon completion of training. The placements so made were about 50 p.c. in excess of those made in the previous year, and approximately 5,500 were placed between Apr. 1, 1939, and Jan. 1, 1940. In addition to these, a great many of the trainees (the number of whom is not known) found employment through their own efforts.

Among the new projects for the year were classes for air mechanics and the introduction of student aid. The former were started in June of 1939, and were

originally designed to train young men either as ground craftsmen in the R.C.A.F., and civil aviation, or for aircraft manufacturing. After the outbreak of war the enrolment was confined to young men who planned to enlist in the R.C.A.F. The course of training followed in each of the ground trades is that prescribed by the R.C.A.F., and all trainees underwent the prescribed medical examination. This project is in operation in six provinces.

Student aid was suggested to the provinces by the Dominion in April, 1939, and was accepted by the four western provinces and Prince Edward Island. Equal contributions are made by the Dominion and the provinces to assist students of proven academic merit but who are in financial need, to enter upon, or to continue with, a course of study leading to a degree in a recognized university or affiliated college. The maximum amount of assistance per individual must not exceed $200 in the academic year and the average amount in each province must not exceed $150. No form of work is required from the student in return for this assistance. Students to benefit are selected by a committee appointed by the university concerned.

The physical recreation and training project was greatly extended during the year and is now operating in the four western provinces and in New Brunswick, over 450 centres for men and women having been established.

Following the outbreak of the war, certain changes were effected in some of the projects and an effort was made to give special emphasis to training young people for skilled occupations as machinists and fitters, motor mechanics, and sheet-metal workers and welders, all of which are important in industries producing war materials. Classes were also carried on in radio servicing, wireless operating, and wood working. Assistance was continued in training apprentices or learners for industry by any of the three following methods: (1) the establishment of trade classes; (2) the provision of technical instruction in subjects related to the apprenticeship trades; and (3) the refunding to the employer of a certain percentage of the wage paid by him to a learner who entered his employment under an agreement providing for definite instruction in the occupation chosen and retention in employment as long as work was available and his or her services were satisfactory.

Only a limited number of learners were allowed to each employer, who agreed that the engagement of the learners would not displace any of the existing staff.

In addition to eighteen home service training schools, classes for young women were carried on as follows: commercial refresher; waitresses; retail selling; home and convalescent aid; dressmaking; power sewing machine operating; handicrafts, such as knitting and weaving; and other specialized forms of work in connection with the home.

A wide range of classes was held for rural young people. The curricula of the general agricultural classes were modified from time to time to fit in with the policies of the various Departments of Agriculture concerning war production work. These classes varied from periods of 2 weeks to 5 months. Specialized agricultural classes were held covering egg and poultry grading, poultry raising, bee-keeping, fur farming, dairying, and farm mechanics.

Technical and practical instruction in mining and prospecting was given in Nova Scotia, New Brunswick, Quebec, Manitoba, and British Columbia. In Nova Scotia and Quebec the training was given through the actual operation of a gold mine by groups of apprentices under the direction of skilled miners and supervisors.

Claims received from the provinces and paid under the Youth Training Act, 1939, as at Mar. 31, 1940, aggregated $476,025.

The amount of $374,629,000 has been spent by the Dominion Government under Relief Legislation from 1930 to Mar. 31, 1940, including disbursements under the Youth Training Act, 1939.

10.—Disbursements to Mar. 31, 1940, by the Dominion for Assistance Provided Under Relief Legislation, 1930-39.

Item.	1930 Act.	1931 Act.	1932 Act.	1933 Act.	1934 Act.	1935 Act.	1936 Act.	1937 Act.	1938 Act.	1939 Act.	Total.
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Disbursements to Provinces—											
P.E. Island	95	129	25	99	147	287	291	125	81	20	1,299
Nova Scotia	792	1,070	580	1,261	574	1,295	1,110	589	341	304	7,916
New Brunswick	504	763	220	593	425	1,060	910	510	352	385	5,722
Quebec	3,292	5,437	4,253	8,297	6,346	7,503	11,425	6,920	4,960	2,113	60,546
Ontario	4,692	11,101	7,987	12,914	11,045	16,209	13,983	7,186	7,284	5,638	98,039
Manitoba	1,600	3,324	1,740	2,372	2,118	3,563	4,529	3,074	2,015	1,913	26,248
Saskatchewan	1,689	8,225	5,612	2,715	7,717	8,738	9,245	6,216	2,885	2,328	55,370
Alberta	1,281	3,038	1,299	1,566	1,466	1,781	2,619	2,325	1,450	826	17,651
British Columbia	1,376	3,940	3,228	3,448	2,301	2,283	3,500	2,679	1,950	2,300	27,005
Yukon and North-west Territories	20	10	3	5	Nil	10	Nil	Nil	Nil	Nil	48
Disbursements through Dominion Government Departments	57	4,596	978	7,643	8,398	8,252	608	23,521	11,272	4,598	69,923
Other Disbursements—											
Board of Railway Commissioners	500	500	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	1,000
C.P.R.	863	209	"	"	"	"	"	"	"	"	1,072
C.N.R.	924	Nil	"	"	"	"	"	"	"	"	924
Administration expenses	43	85	68	87	89	140	179	225	176	262	1,354
Miscellaneous	Nil	Nil	Nil	Nil	Nil	21	1	Nil	Nil	14	36
Totals	**17,728**	**42,427**	**25,993**	**41,000**	**40,626**	**51,142**	**48,400**	**53,370**	**32,766**	**20,701**	**374,153**

Section 5.—Organized Labour in Canada.

The Dominion Department of Labour publishes annually a report on labour organization in Canada. This report outlines the composition and development of the various organizations of wage-earners in the Dominion and gives statistical and other information respecting membership, benefits, registration of trade unions, etc.

Total Reported Membership of Organized Labour in Canada.—The numerical strength of organized labour in Canada at the close of 1938 is given by the Department of Labour as follows: international organizations, 2,086 local branches, with an aggregate membership of 230,547; Canadian central labour bodies, 878 branches and 91,764 members; independent units, 62 branches and 12,540 members; National Catholic unions, 292 branches and 50,188 members; grand total, 3,318 local branches and 385,039 members. As compared with 1937, this represents an increase of 60 branches and 420 members.

11.—Membership of Trade Unions in Canada, 1911-38.

Year.	Members.	Year.	Members.	Year.	Members.
	No.		No.		No.
1911	133,132	1921	313,320	1931	310,544
1912	160,120	1922	276,621	1932	283,576
1913	175,799	1923	278,092	1933	286,220
1914	166,163	1924	260,643	1934	281,774
1915	143,343	1925	271,064	1935	280,704
1916	160,407	1926	274,604	1936	322,473
1917	204,630	1927	290,282	1937	384,619
1918	248,887	1928	300,602	1938	385,039
1919	378,047	1929	319,476		
1920	373,842	1930	322,429		

Main Labour Groups.—The following paragraphs outline the main groups into which Canadian labour organizations now fall.

Trades and Labour Congress of Canada.—The Trades and Labour Congress is representative of the international trade union movement in the Dominion, the bulk of its membership being drawn from the international organizations that have local branches in Canada. An affiliated membership of 159,087 was reported for the Trades and Labour Congress of Canada. Of the 1,764 local unions reported to be in affiliation with the Congress, 1,614 made returns, showing a combined membership of 157,667. An audit was made of the membership of the Congress and revealed a paid-up membership of 141,875 as at Dec. 31, 1938.

All-Canadian Congress of Labour.—The All-Canadian Congress of Labour was organized in Montreal, Mar. 16, 1927, by representatives of national and independent organizations. As at Dec. 31, 1937, the Congress reported an affiliated membership of 30,855. Of the 287 local unions reported to be in affiliation with the Congress, 269 made returns, showing a combined membership of 26,131. The audit of the membership figures revealed a paid-up membership of 22,269.

Canadian Federation of Labour.—This organization was brought into being at a conference held in Winnipeg, Man., on Oct. 24, 1936. The central organizations in affiliation with the Federation reported 59 local branch unions. All of these locals were circularized by the Department but only 38 made returns, showing a combined membership of 8,500. The audit of the membership revealed a paid-up membership of 51,600.

Confederation of Catholic Workers of Canada.—In 1918 a conference of National Catholic Unions, which were first established in 1901, was held in Quebec City, followed by other meetings in Three Rivers in 1919 and in Chicoutimi in 1920. The delegates at the last-named conference, numbering 225 and representing 120 unions, decided to establish a permanent central body to co-ordinate the work of the scattered units. Accordingly, at the 1921 conference held in Hull, at which approximately 200 delegates representing 89 unions were present, a constitution to govern the new body was approved. The name selected was "Confederation of Catholic Workers of Canada", and permanent officers were elected, the constitution and by-laws becoming effective on Jan. 1, 1922. For 1938, the Confederation reported an affiliated membership of 49,401. Of the 292 local unions reported to be directly or indirectly affiliated with the Confederation, 205 made returns showing a combined membership of 42,869. The audit of the membership figures revealed a paid-up membership of 15,923.

International Trade Unions Operating in Canada.—Table 12 gives the names of the 98 international labour organizations that now carry on operations in Canada and also shows the number of branches in existence in the Dominion at the close of 1938 and the reported total membership in Canada of each organization. Details regarding affiliations are given in the "Twenty-Eighth Annual Report on Labour Organization", compiled and published by the Dominion Department of Labour, which may be obtained from the King's Printer, Ottawa, at a price of 50 cents per copy.

12.—International Trade Unions Operating in Canada, Showing Individual Numbers of Branches and Memberships, as at Dec. 31, 1938.

International Organization.	Branches.	Membership Reported.
	No.	No.
Actors, American Federation of	[1]	1
American Federation of Labor	16	445
Asbestos Workers, International Association of Heat and Frost Insulators and	1	5
Automobile Workers of America, International Union of United	5	9,568
Bakery and Confectionery Workers' International Union of America	12	857
Barbers' International Union of America, Journeymen	24	724
Bill Posters and Billers of America, International Alliance of	1	10
Blacksmiths, Drop Forgers and Helpers, International Brotherhood of	18	900
Boilermakers, Iron Shipbuilders, and Helpers of America, International Brotherhood of	37	2,085
Bookbinders, International Brotherhood of	10	431
Boot and Shoe Workers' Union	5	1,500
Brewery, Flour, Cereal and Soft Drink Workers, International Union of United	18[2]	900
Brick and Clay Workers of America, United	1	100
Bricklayers', Masons' and Plasterers' International Union of America	41	1,085
Bridge, Structural and Ornamental Iron Workers, International Association of	5	203
Carpenters and Joiners of America, United Brotherhood of	83	8,172
Carvers' Association of North America, International Wood	1	12
Cigar Makers' International Union of America	2	208
Clothing Workers of America, Amalgamated	20	11,155
Commercial Telegraphers' Union	5	1,493
Congress of Industrial Organizations	9	622
Conductors, Order of Sleeping Car	1	21
Coopers' International Union of North America	[1]	1
Electrical, Radio and Machine Workers of America, United	4	875
Electrical Workers, International Brotherhood of	49	2,606
Elevator Constructors, Operators and Starters, International Union of	9	345
Engineers, International Union of Operating	23	1,041
Fire Fighters, International Association of	47	2,400
Firemen and Oilers, International Brotherhood of	39	741
Foundry Employees, International Brotherhood of	1	400
Fur Workers' Union, International	10	3,000
Garment Workers of America, United	8	1,750
Garment Workers' Union, International Ladies'	16	8,307
Glass Bottle Blowers' Association of the United States and Canada	3	53
Glass Workers' Union of North America, American Flint	2	65
Glove Workers' Union of America, International	2	75
Government Employees, American Federation of	1	5
Granite Cutters' International Association of America	2	25
Handbag, Pocket Book, and Novelty Workers' Union, International Ladies'	2	1,000
Hatters, Cap and Millinery Workers' International Union, United	8	1,948
Hod Carriers', Building and Common Labourers' Union of America, International	8	327
Hotel and Restaurant Employees' International Alliance and Bartenders' International League of America	32	4,521
Industrial Workers of the World	3	468
Inland Boatmen's Union of the Pacific	1	500
Iron, Steel and Tin Workers of America, Amalgamated Association of	[3]	[3]
Jewellery Workers' Union, International	2	132
Lathers, International Union of Wood, Wire and Metal	5	100
Laundry Workers' International Union	1	7
Lithographers of America, Amalgamated	7	607
Locomotive Engineers, Brotherhood of	96	5,000
Locomotive Firemen and Enginemen, Brotherhood of	96	5,350
Longshoremen and Warehousemen's Union, International	3	62
Longshoremen's Association, International	29	5,000
Machinists, International Association of	82	6,751

[1] No branches reported in Canada. [2] Includes 1 sub-branch. [3] See Steel Workers' Organizing Committee.

12.—International Trade Unions Operating in Canada, Showing Individual Numbers of Branches and Memberships, as at Dec. 31, 1938—concluded.

International Organization.	Branches.	Membership Reported.
	No.	No.
Maintenance-of-Way Employees, Brotherhood of	198	13,500
Marble, Stone and Slate Polishers, Rubbers and Sawyers, Tile and Marble Setters' Helpers and Terrazzo Workers' Helpers, International Association of	4	85
Metal Polishers', Buffers', Platers' and Helpers' International Union	3	500
Metal Workers' International Association, Sheet	14	753
Mine, Mill and Smelter Workers, International Union of	12	4,000
Mine Workers of America, United	73	22,424
Moulders' Union of North America, International	30	1,960
Musicians, American Federation of	31	5,000
Newspaper Guild, American	2	450
Painters, Decorators and Paperhangers of America, Brotherhood of	31	1,316
Paper Makers, International Brotherhood of	35	2,195
Pattern Makers' League of North America	6	236
Paving Cutters' Union of the United States and Canada	5	100
Photo-Engravers' Union of North America, International	5	517
Plasterers' and Cement Finishers' International Association of the United States and Canada, Operative	15	444
Plumbers and Steamfitters of the United States and Canada, United Association of Journeymen	35	2,400
Porters, Brotherhood of Sleeping Car	2	68
Printers', Die Stampers' and Engravers' Union of North America, International Plate	2	57
Printing Pressmens' and Assistants' Union of North America, International	19	1,541
Pulp, Sulphite and Paper Mill Workers, International Brotherhood of	45	10,600
Quarry Workers' International Union of North America	2	123
Railroad Signalmen of America, Brotherhood of	10	240
Railroad Telegraphers, Order of	13	5,000
Railroad Trainmen, Brotherhood of	92	11,229
Railway and Steamship Clerks, Freight Handlers, Express and Station Employees, Brotherhood of	97	7,525
Railway and Motor Coach Employees of America, Amalgamated Association of Street, Electric	25	7,057
Railway Carmen of America, Brotherhood of	112	11,825
Railway Conductors of America, Order of	67	2,344
Retail Clerks' International Protective Association	5	748
Retail and Wholesale Employees of America, United	1	50
Rubber Workers of America, International United	7	1,663
Seamen's Union of America, International	1	135
Shoe Workers of America, United	2	200
Siderographers, International Association of	1	8
Stage Employees and Moving Picture Machine Operators of the United States and Canada, International Alliance of Theatrical	34	800
Steel Workers' Organizing Committee	13	6,849
Stereotypers' and Electrotypers' Union, International	10	362
Stonecutters' Union of North America, Journeymen	12	220
Switchmen's Union of North America	6	42
Teachers, American Federation of	1	28
Teamsters, Chauffeurs, Stablemen and Helpers, International Brotherhood of	29	2,155
Train Despatchers' Association, American	[1]	5
Typographical Union, International	50	4,334
Upholsterers', Furniture, Carpet, Linoleum and Awning Workers' International Union of North America	7	3,500
Woodworkers of America, International	16	2,000
Totals	**2,086**	**230,547**

[1] No branches reported in Canada.

Table **13** shows the numbers of branches and the reported total membership of Canadian central labour bodies operating in Canada at the close of 1938. At the foot of the table are shown the statistics of the National Catholic and independent unions, thus giving a grand total of all Canadian unions that have no affiliation with the international movement. When these figures are added to the totals of internationally affiliated unions shown in Table **12**, the result corresponds to the total labour union membership in Canada as shown at p. 770.

13.—Canadian Central Labour Bodies Operating in Canada, Showing Individual Numbers of Branches and Memberships, as at Dec. 31, 1938.

Organization.	Branches or Affiliates.	Membership Reported.
	No.	No.
Trades and Labour Congress of Canada	117[1]	14,634
All-Canadian Congress of Labour	103[1]	10,969
Canadian Federation of Labour	5[1]	291
Beet Workers' Union, Alberta	10	812
Building Workers of Canada, Amalgamated[2]	15	1,420
Carpet Weavers' Beneficial Association, Canadian Brussels	7	180
Civil Servants of Canada, Amalgamated	44	4,800
Civil Service Association of Alberta[3]	14	1,710
Electrical Trades Union, Canadian[4]	2	450
Engineers of Canada, National Union of Operating[4]	4	2,331
Engineers, Canadian Association of Stationary	26	800
Express Employees, Brotherhood of	29	1,762
Farmer-Labour Union, New Brunswick	20	1,770
Fishermen's Federation of Nova Scotia	8	1,262
Fishermen's Union, Pacific Coast	19	1,169
Letter Carriers, Federated Association of[2]	70	1,920
Marine Engineers of Canada, National Association of[3]	16	872
Musicians, Canadian Federation of[2]	1	20
Native Brotherhood of British Columbia	17	3,394
One Big Union[2]	35	6,461
Postal Employees, Canadian[3]	29	1,157
Printing Trades' Union, Canadian National	4	260
Railway Employees, Canadian Brotherhood of[4]	177	15,305
Railwaymen, Canadian Association of	76	3,354
Railway Mail Clerks' Federation, Dominion	17	890
Seamen's Union, Canadian[3]	5	5,800
Ships' Employees, Canadian Brotherhood of[2]	3	4,771
Shoe Workers' Union and Allied Crafts, Canadian	4	1,400
Steel Workers' National Union, Algoma[4]	1	1,800
Totals	**878**	**91,764**
National Catholic Unions	292	50,188
Independent bodies	62	12,540
Grand Totals, Non-International Bodies	**1,232**	**154,492**

[1] Local branch unions under direct charters at the close of 1938. [2] Affiliated with Canadian Federation of Labour. [3] Affiliated with Trades and Labour Congress of Canada. [4] Affiliated with All-Canadian Congress of Labour.

Canada and the International Labour Organization.*—The International Labour Organization of the League of Nations was set up in 1919 in accordance with Part XIII of the Treaties of Peace to promote the improvement of industrial conditions by legislative action and international agreement.

The Organization comprises the International Labour Conference, which meets annually and is composed of four representatives of each Member State, two of whom are Government delegates, while two represent employers and workers, respectively, and the International Labour Office in Geneva, which functions as a secretariat of the annual conference and also collects and publishes information on subjects relating to industrial life and labour. The Office is under the control of a Governing Body, consisting of 32 persons appointed by the International Labour Conference, of whom 16 represent governments, 8 represent employers, and 8 represent workers. In addition to its control of the Labour Office, the Governing Body is charged with the preparation of the agenda of the annual conference.

* On this subject see also the 1921 Year Book, pp. 607-609; the 1922-23 Year Book, pp. 704-707; and the 1924 Year Book, pp. 666-670.

Under the terms of the Peace Treaties, 8 of the government seats on the Governing Body are held by the countries of "chief industrial importance". Canada has been designated as one of these 8 States of chief industrial importance. There are at present 55 countries comprised in the membership of the International Labour Organization, including nearly all of the industrial States of the world. Germany and Italy ceased to be members of the Organization in October, 1935, and in December, 1939, respectively, and the withdrawal of Japan will become effective in November, 1940. The League of Nations expelled Russia from its membership following the invasion of Finland, and the Governing Body, at its meeting in February, 1940, took similar action in connection with Russia's membership in the International Labour Organization, at the same time according representation on the Governing Body to Belgium and the Netherlands to replace the Italian and Russian vacancies.

Mr. Hume Wrong, the Permanent Delegate of Canada to the League of Nations, Geneva, represents the Government of Canada at the meetings of the Governing Body of the International Labour Office. At the triennial election of the Governing Body in 1937, Mr. P. M. Draper, the President of the Trades and Labour Congress of Canada, was elected as a deputy member of the workers' representatives on this body.

Canada is also represented on the following committees of technical experts that have been set up by the International Labour Office: Mixed Advisory Agricultural; Permanent Agricultural; Management; Public Works; Accident Prevention; Social Insurance; Automatic Coupling; Industrial Hygiene; Workers' Spare Time; Joint Maritime Commission; Women's Work; Statistical Experts; and Unemployment Insurance and Placing. Some of these experts and specialists are specially qualified to represent the interests of certain categories of workers; others are intended rather to aid the Office in various fields of scientific research.

The International Labour Office is being continually looked to from different parts of the world for information and guidance in respect of industrial, social, and labour information. At a meeting of the Emergency Committee (which has been set up to act in the place of the Governing Body, owing to the difficulty at present of the latter's meeting as a whole), both the employer and worker representatives joined with those of the Governments in urging that the functions of the Office should be maintained as fully as possible during the War. Meetings of technical experts which had been scheduled to be held in Geneva during the autumn had to be cancelled, owing to the outbreak of hostilities.

The conclusions of the International Labour Conference are cast in the form of draft conventions or recommendations, addressed to the national governments that comprise the membership of the International Labour Organization. A two-thirds majority of the Conference is required for the adoption of either a draft convention or a recommendation. Under the terms of the Treaties of Peace, the Member States are bound to bring the draft convention or recommendations before the authority or authorities within whose competence the subject matter lies, for the enactment of legislation or other action. Thus the findings of the Conference become binding on the various countries concerned only if and when action regarding them is taken by the latter.

Twenty-five sessions of the International Labour Conference have been held since its inception in 1919. Sixty-seven draft conventions and 66 recommendations

have been adopted at these annual gatherings. The draft conventions and recommendations of the Conference have, among other subjects, related to the following: hours of labour; measures for the avoidance of unemployment; employment conditions of women and children; employment conditions of seamen; employment in agriculture; weekly rest; statistics of immigration and emigration; principles of factory inspection; inspection of emigrants on board ship; workmen's compensation for accidents and occupational diseases; social insurance; minimum wages; prevention of accidents to dockers; forced labour; holidays with pay; and regulation of hours of work of salaried employees and of workers in mines, manufacturing industries, road transport, and agriculture.

Up to December, 1939, 849 ratifications of these conventions had been registered with the League of Nations, of which 12 were conditional or with delayed application; 56 had been approved by the competent national authority; and 138 had been recommended to the competent national authority for approval.

Canadian Action on Draft Conventions and Recommendations.—Nine draft conventions in all have been ratified by the Dominion, namely, those relating to: (1) minimum age for employment of children at sea; (2) unemployment indemnity for seamen in case of the loss or foundering of a ship; (3) minimum age for employment as trimmers and stokers; (4) medical examination of children and young persons employed at sea; (5) seamen's articles of agreement; (6) marking of the weight on heavy packages transported by vessels; (7) limitation of hours of work in industrial undertakings to eight in the day and forty-eight in the week; (8) weekly rest in industrial undertakings; and (9) creation of minimum wage-fixing machinery. The first four of these conventions were ratified in March, 1926, following the adoption of legislation by Parliament to give effect to the proposals that were respectively involved. The next two were ratified in June, 1938, legislation to implement them having been embodied in the Canada Shipping Act, 1934. The latest three conventions were ratified in March, 1935, following the adoption of legislation by Parliament on these respective subject matters, i.e., hours of labour, weekly rest, and minimum wages. Doubts having arisen as to the legal competence of the Dominion Parliament to deal with these matters, a reference was submitted to the Supreme Court of Canada, which was later carried in appeal to the Judicial Committee of the Privy Council. The judgments of the latter body, given in January, 1937, were to the effect that all three of these statutes were ultra vires of the Parliament of Canada.

At the 1935 session of Parliament a resolution was also adopted approving of another draft convention of the International Labour Conference, namely, that relating to safety of workers engaged in loading and unloading ships, with a view to its subsequent ratification. This convention, however, has not been ratified to date.

Section 6.—Industrial Accidents and Workmen's Compensation.

Subsection 1.—Fatal Industrial Accidents.

Statistics of fatal industrial accidents have been compiled by the Dominion Department of Labour since 1903, the data being obtained from provincial Workmen's Compensation Boards, the Board of Railway Commissioners for Canada and various other governmental authorities; from departmental correspondents; and from press clippings.

14.—Fatal Industrial Accidents in Canada, by Industries, 1935-39.

Industry.	Numbers of Fatal Accidents.					Percentages of Fatal Accidents.				
	1935.	1936.	1937.	1938.	1939.[1]	1935.	1936.	1937.	1938.	1939.[1]
Agriculture	124	127	156	156	162	12·3	11·5	12·5	13·4	15·7
Logging	116	133	149	143	141	11·5	12·0	12·0	12·2	13·7
Fishing and trapping	38	57	52	30	28	3·7	5·1	4·2	2·6	2·7
Mining, non-ferrous smelting, and quarrying	175	181	201	253	161	17·4	16·3	16·1	21·7	15·6
Manufacturing	133	112	157	136	105	13·2	10·1	12·6	11·6	10·2
Construction	103	105	170	154	127	10·2	9·5	13·6	13·2	12·3
Electric light and power	25	14	23	19	25	2·5	1·3	1·8	1·6	2·4
Transportation and public utilities	184	240	227	166	174	18·2	21·7	18·2	14·2	16·9
Trade	44	45	46	44	38	4·4	4·1	3·7	3·8	3·7
Service	66	89	65	66	70	6·5	8·0	5·2	5·7	6·8
Miscellaneous	1	4	1	Nil	Nil	0·1	0·4	0·1	–	..
Totals	**1,009**	**1,107**	**1,247**	**1,167**	**1,031**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**

[1] Figures subject to revision.

Causes of Fatal Accidents.—The classification of fatal accidents in 1939, by causes, shows that the largest number, 291, came under the category "by moving trains, vehicles, etc." This includes all accidents caused by cars or engines, including mine and quarry cars, and to automobiles and other power vehicles and horse-drawn vehicles, as well as moving implements, water craft, and aircraft.

"Falls of persons" caused 194 fatalities, including those who fell into pits, shafts, holds of vessels, harbours, rivers, etc. Next in order as a cause came "falling objects", 174 in number. Other fatalities, by cause, were: 142 caused by dangerous substances, including electric current, explosives, hot and inflammable substances, gas fumes, boiler explosions, etc.; 33 by the handling of heavy or sharp objects; 29 caused by animals, including 22 by horses; 28 caused by striking against or being struck by objects; 23 caused by hoisting apparatus; 21 caused by working machines; 13 by prime movers; and 3 by tools. The category "other causes" includes 80 fatalities: 38 were the result of industrial disease, strain, etc., 19 of lightning, frost, storms, and sunstroke, 11 of cave-ins, landslides, ice-jams, etc., 9 of shooting and violence, 1 of drowning not elsewhere classified, and 2 for which no particulars are available.

Numbers of industrial accidents, fatal and non-fatal, dealt with by the various provincial Workmen's Compensation Boards, are included in Subsection 2, below, dealing with workmen's compensation.

Subsection 2.—Workmen's Compensation in Canada.

An account of the development of workmen's compensation legislation in Canada from employers' liability legislation is given at pp. 744-746 of the 1927-28 Year Book, while a summary of the legislation with regard to workmen's compensation, including a statement of the scale of compensation in each province, as at Jan. 1, 1938, appears in the general sketch of labour legislation in Canada at pp. 795-796 of the 1938 edition.

Operations of the Workmen's Compensation Boards.*—*Nova Scotia.*—The Workmen's Compensation Act was passed in 1915, but became effective only on Jan. 1, 1917. During the twenty-three years between that date and Dec. 31, 1939, 182,260 accidents were reported to the Board of which 167,305 were compensated. Prior to Jan. 1, 1920, medical aid was furnished in special cases only.

* Obtained through the courtesy of the respective provincial authorities.

15.—Compensation and Medical Aid Paid, and Accidents Compensated by the Nova Scotia Workmen's Compensation Board, 1930-39.

NOTE.—Estimates for outstanding claims not included. Statistics for the years 1917-29 are given at p. 757 of the 1938 Year Book.

Year.	Compensation.	Medical Aid.	Total.	Accidents Compensated.
	$	$	$	No.
1930	949,828	129,399	1,079,227	8,821
1931	951,256	106,578	1,057,834	6,357
1932	688,448	84,281	772,729	5,024
1933	570,701	69,575	640,276	5,168
1934	794,717	113,860	908,577	8,063
1935	954,061	130,952	1,085,013	8,971
1936	1,160,738	167,255	1,327,993	10,246
1937	1,189,710	190,846	1,380,556	11,953
1938	1,976,154	206,233	2,182,387	11,408[1]
1939	1,391,933	189,031	1,580,964	11,456

[1] Revised since the publication of the 1939 Year Book.

New Brunswick.—The Workmen's Compensation Act of New Brunswick was passed in 1918. It extends to a wide range of industries, and is administered by a Board of three persons, levying assessments and paying benefits.

16.—Compensation, Funeral Expenses, and Medical Aid Paid, and Reserves Held by the New Brunswick Workmen's Compensation Board, 1930-39.

NOTE.—Statistics for the years 1920-29 are given at p. 757 of the 1938 Year Book.

Year.	Weekly Compensation.	Permanent Partial Disability.	Fatal.		Medical Aid.		Permanent Total Disability Reserve.
			Funeral Expenses.	Reserve for Pensions.	Doctors' Fees and Transportation.	Hospital and Nursing Service.	
	$	$	$	$	$	$	$
1930	199,313	92,344	2,682	116,055	77,722	54,172	6,237
1931	181,676	73,774	1,581	72,481	79,021	60,183	[1]
1932	137,762	71,527	1,403	33,280	68,712	46,907	[1]
1933	145,063	103,742	2,126	63,649	88,304	63,572	20,521
1934	192,207	80,967	2,104	83,485	110,103	85,724	[1]
1935	195,763	91,382	2,388	86,161	111,470	83,221	10,273
1936	247,204	88,596	2,290	106,633	130,266	101,262	9,347
1937	304,033	79,246	2,101	73,180	140,014	108,521	[1]
1938	210,590	57,597	1,478	58,359	94,591	51,144	7,326
1939[2]	174,787	49,987	1,705	64,129	66,842	44,265	5,361

[1] No reserve reported. [2] Figures subject to revision.

Quebec.—The Quebec Workmen's Compensation Commission was established in 1928 by authority of cc. 79 and 80 of the Statutes of that year. The Act was brought into force by proclamation on Mar. 22, 1928, operations of the Commission commencing as of Sept. 1, 1928. Under this Act, the Quebec Commission did not insure employers against their liability. On Apr. 4, 1931, a new Act (21 Geo. V, c. 100), effective Sept. 1, 1931, provided for state insurance, practically along the same lines as the Workmen's Compensation Act of Ontario. Amendments were made to this legislation in 1933, 1935, 1936, 1937, and 1938.

17.—Compensation Paid and Accidents Compensated by the Quebec Workmen's Compensation Commission, 1928-39.

Year.	Claims.	Accidents Compensated.	Accident Cost.
	No.	No.	$
1928 (4 months)	8,266	2,625	209,764
1929	25,610	21,377	3,229,554
1930	20,900	19,850	3,792,346
1931 (8 months) old Act	12,534	13,204	2,758,785
1931 (4 months) new Act	12,734	12,717	1,237,738
1932	34,414	30,643	3,048,055
1933	30,462	26,723	2,237,504
1934	35,436	31,557	2,579,002
1935	40,521	35,163	3,396,413
1936	43,838	39,581	3,917,462
1937	70,355	62,616	5,669,368
1938	58,335	51,760	4,597,875
1939[1]	54,000	47,900	4,105,646

[1] Figures subject to revision.

Ontario.—Under the system operated by the Ontario Workmen's Compensation Board in Schedule 1, where the liability is collective, 24 classes of industries pay various percentages of their payrolls annually to the Board, and escape individual civil liability for accidents and certain specified industrial diseases. The percentage of payroll collected by the Board is graded according to the degree of hazard in the occupation and ranged, in 1939, from 15 cents per $100 of payroll in needle trades to $10 in window cleaning. The average for all classes was $1·06 per $100 which amounted to $530,262,800. Certain other industries under Schedule 2, including municipal undertakings, railways, car shops, telegraphs, telephones, etc., are made individually liable to pay the rates of compensation fixed under the Act. Employees of the Dominion or of the Province, killed or injured in the discharge of duty, are by special legislation placed on the same footing as those of private employers of the second class.

During the year 1939, 54,405 accidents were paid for, including 237 cases of death, 988 of permanent disability 23,213 of temporary disability, and 29,967 in which medical aid only was provided; the latter are all under Schedule 1, as medical aid for Schedule 2 cases and Crown cases is furnished directly by the employer.

18.—Compensation and Medical Aid Paid, and Accidents Reported by the Ontario Workmen's Compensation Board, 1930-39.

NOTE.—Statistics for the years 1915-29 are given at p. 759 of the 1938 Year Book.

Year.	Benefits Awarded.				Accidents Reported.			
	Schedule 1.		Schedule 2 and Crown Compensation.	Total Benefits.	Schedule 1.	Schedule 2.	Crown.	Total.
	Compensation.	Medical Aid.						
	$	$	$	$	No.	No.	No.	No.
1930	4,942,756	1,336,046	1,144,216	7,423,018	61,490	4,486	3,291	69,267
1931	3,917,045	1,060,763	1,043,584	6,021,392	46,069	3,348	3,477	52,894
1932	3,202,639	817,240	1,105,741	5,125,621	35,264	2,474	3,732	41,470
1933	2,298,788	667,582	732,699	3,699,069	33,227	1,890	2,925	38,042
1934	2,745,239	841,738	912,730	4,499,707	44,858	2,244	7,628	54,730
1935	3,225,899	1,037,683	1,050,531	5,314,113	50,690	2,208	5,648	58,546
1936	3,553,282	1,058,642	1,031,874	5,643,798	55,878	2,515	2,989	61,382
1937	3,837,589	1,251,848	1,040,523	6,129,961	64,845	2,554	3,183	70,582
1938	4,362,618	1,153,895	947,748	6,464,261	[1]	[1]	[1]	59,834
1939	4,174,408	1,094,693	883,306	6,152,407	[1]	[1]	[1]	60,520

[1] Not available.

Manitoba.—Under the Workmen's Compensation Act, effective Mar. 1, 1917, Part I of the Act, dealing with workmen in hazardous occupations, is administered by the Workmen's Compensation Board, which charges insurance rates according to the hazard of the industry, the sums received by the workman being in lieu of the rights of action previously existing. The Province, the City of Winnipeg, and certain corporations operating public utilities are permitted by the law to practise self-insurance.

The Workmen's Compensation Board also administers the provisions of the Dominion Act respecting payment of compensation of employees of His Majesty who are killed or suffer injuries while performing their duties, under c. 15 of the Statutes of 1918 and subsequent amendments. The figures given below cover accidents dealt with under both provincial and Dominion legislation.

From the date of the coming into force of the Manitoba Workmen's Compensation Act to Dec. 31, 1938, the Board has dealt with 137,587 compensable accidents and paid out $17,371,178 for compensation and medical aid. Of the accidents in 1938, 5,089 involved medical aid costs only, 4,004 involved temporary and 205 permanent disability, while 33 resulted in death.

19.—Compensation and Medical Aid Paid, and Accidents Compensated by the Manitoba Workmen's Compensation Board, 1930-38.

NOTE.—Statistics for the years 1917-29 are given at p. 760 of the 1938 Year Book.

Year.	Benefits Awarded.			Accidents Compensated.
	Compensation.	Medical Aid.	Total.	
	$	$	$	No.
1930	952,760	240,734	1,193,494	8,310
1931	670,461	177,552	848,013	6,671
1932	636,975	165,969	802,944	5,695
1933	456,180	141,536	597,716	5,505
1934	562,276	169,598	731,874	6,578
1935	572,262	189,829	762,091	8,237
1936	702,321	211,307	913,628	9,299
1937	688,312	204,259	892,571	9,153
1938	784,816	202,925	987,741	9,331

Saskatchewan.—The Workmen's Compensation (Accident Fund) Act became fully effective July 1, 1930, and covers practically all employees in the Province except railway employees engaged in the running trades, casual workers, farm and ranch labourers, domestic and menial servants, janitors, retail-store employees, and persons who cannot be classed as workmen.

The Act is administered by a Board of three and imposes compulsory collective liability on the employers concerned. The schedule of benefits is similar to that provided by other compensation Acts.

20.—Compensation and Medical Aid Paid, and Accidents Compensated by the Saskatchewan Workmen's Compensation Board, 1930-39.

Year.	Benefits Awarded.			Accidents Compensated.
	Compensation.	Medical Aid.	Total.	
	$	$	$	No.
1930 (6 months)	131,338	28,434	159,772	2,639
1931	308,662	100,748	409,410	3,969
1932	255,933	73,398	329,331	2,844
1933	224,738	58,099	282,838	2,389
1934	207,842	60,029	267,871	3,222
1935	245,065	70,670	315,735	3,568
1936	357,545	89,930	447,475	4,642
1937	349,862	98,928	448,791	4,296
1938	369,711	106,874	476,586	4,219
1939	388,848	103,897	492,745	4,984

Alberta.—The Workmen's Compensation Act of 1918 became effective Aug. 1, 1918, as regards mining, and Jan. 1, 1919, in respect of almost all industries except agriculture, railroading, and the operation of retail stores and offices. Railroading (except for the running trades) was brought within the scope of the Act in 1919, and a further amendment in 1928 left only conductors and trainmen exempt from the operations of the Act.

The amounts shown in Table **21** do not include sums transferred to the pension fund, nor do they include administration expenses nor sums set aside to cover estimated liabilities. The numbers of accidents compensated, shown in the last column, do not include claims disposed of by payment of accounts for medical aid only.

21.—Compensation and Medical Aid Paid, and Accidents Reported and Compensated by the Alberta Workmen's Compensation Board, 1930-39.

NOTE.—Statistics for the years 1921-29 are given at p. 761 of the 1938 Year Book.

Year.	Benefits Awarded.			Accidents Reported.	Accidents Compensated.
	Compensation.	Medical Aid.	Total.		
	$	$	$	No.	No.
1930	498,015	264,780	762,795	12,607	6,091
1931	452,643	216,212	668,855	10,049	4,878
1932	407,284	203,745	611,029	8,974	4,607
1933	291,406	143,675	435,081	8,160	3,398
1934	312,092	169,490	481,582	9,608	4,090
1935	353,292	205,891	559,183	11,058	4,813
1936	436,498	262,801	699,299	12,381	4,834
1937	446,716	290,733	737,449	13,177	5,096
1938	468,626	317,807	786,433	13,377	6,367
1939	464,398	339,388	803,786	13,504	6,584

British Columbia.—The Workmen's Compensation Act, effective Jan. 1, 1917, provides compulsory accident insurance in almost every industrial occupation carried on in the Province. Insurance rates levied against employers are graded according to the hazard of the industry. All employers under the Act are required,

in addition, to deduct one cent per day or part thereof from the wages of each employee and to remit this money to the Board to the credit of the medical aid fund. This fund provides all necessary medical, surgical, and hospital expenses for injured employees.

22.—Compensation and Medical Aid Paid, and Accidents Compensated by the British Columbia Workmen's Compensation Board, 1930-38.

NOTE.—Figures for the years 1917-29 are given at p. 762 of the 1938 Year Book.

Year.	Benefits Awarded.			Claims (gross).
	Compensation.	Medical Aid.	Total.	
	$	$	$	No.
1930	3,403,743	773,397	4,177,140	33,285
1931	2,572,254	568,289	3,140,543	25,877
1932	1,860,021	447,423	2,307,445	19,011
1933	1,501,700	368,482	1,870,183	18,274
1934	1,590,817	410,126	2,000,943	22,354
1935	2,092,389	506,741	2,599,130	26,280
1936	2,536,166	595,894	3,132,060	29,677
1937	2,966,110	684,115	3,650,225	35,005
1938	3,182,762	701,953	3,884,715	31,505

Section 7.—Strikes and Lockouts.

Statistics of strikes and lockouts in Canada have been collected by the Dominion Department of Labour since its establishment in 1900.

The items in the columns headed "Time Loss in Man-Working Days" in Tables **23-25,** are calculated by multiplying the number of persons directly involved in strikes and lockouts by the number of working days they are so affected during the time the disputes are in existence.

Summary tables of the figures with details as to strikes and lockouts during 1939 will be found in the *Labour Gazette* for March, 1940, pp. 211-231.

Industrial Disputes in Recent Years.—From 1931 to 1937 the figures as to numbers of strikes and lockouts, numbers of employees involved, and time loss were substantially greater than during the period 1926 to 1930, but were still much lower than during the years prior to 1926 when coal-mining strikes involved large numbers of employees and resulted in great time loss. In 1938 figures were about the same as the average for the period 1926-30 but in 1939, even with fewer strikes than in 1938, twice as many workers were involved with a corresponding increase in time loss. Since 1931 most of the important disputes have been in clothing manufacturing, logging, sawmilling, and woodworking industries, with a substantial number in coal mining. In 1939 almost half of the time loss was due to coal-mining strikes, chiefly in Nova Scotia. The largest strike of the year in regard to time loss was that of employees of three rubber factories at Kitchener, Ont. An outstanding dispute was that of fish handlers at Lockeport, N.S. Other important strikes were those of coal miners at Blairmore, Alta., coal miners at Estevan, Sask., gold miners at Pioneer, B.C. (unterminated at end of year), knitting factory workers at Brantford, Ont., and knitting and woollen factory workers at St. Jérôme, Que.

23.—Strikes and Lockouts in Coal Mining, Other, and All Industries in Canada, 1931-39, with Totals for 1901-30.

NOTE.—For the years 1901-20, see the 1933 Year Book, p. 763, and for 1921-30 the 1938 Year Book, p. 763.

Year.	Coal Mining.			Industries Other Than Coal Mining.			All Industries.			
							Disputes—			
	Disputes in Existence during Year.	Workers Involved.	Time Loss in Man-Working Days.	Disputes in Existence during Year.	Workers Involved.	Time Loss in Man-Working Days.	In Existence during Year.	Beginning in Year.	Workers Involved.	Time Loss in Man-Working Days.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Totals, 1901-30	**388**	**266,148**	**8,975,412**	**3,463**	**716,355**	**13,890,333**	**3,851**	**3,736**	**982,503**	**22,865,745**
1931	9	2,129	11,523	79	8,609	192,715	88	86	10,738	204,238
1932	33	8,540	132,766	83	14,850	122,234	116	111	23,390	255,000
1933	21	3,028	33,019	104	23,530	284,528	125	122	26,558	317,547
1934	26	11,461	91,459	165	34,339	483,060	191	189	45,800	574,519
1935	17	6,131	61,032	103	27,138	222,996	120	120	33,269	284,028
1936	22	8,655	56,766	134	26,157	220,231	156	155	34,812	276,997
1937	44	15,477	112,826	234	56,428	773,567	278	274	71,905	886,393
1938	25	5,054	21,366	122	15,341	127,312	147	142	20,395	148,678
1939	48	31,102	111,274	74	9,936	113,314	122	120	41,038	224,588

In 1939 the important strikes by industries were located in the provinces as follows: in Ontario in rubber, knitted goods, cotton manufacturing, and sheet metal industries; in Quebec in men's clothing, and knitted and woollen goods industries; in Nova Scotia in coal mining, trade (fish handling and automobile service stations), and steel manufacturing; in New Brunswick in shipbuilding; in Saskatchewan and Alberta in coal mining; in British Columbia in gold mining and lime manufacturing.

24.—Strikes and Lockouts, Showing Numbers of Workers Involved and Time Loss, by Provinces, 1938 and 1939.

Province.	1938.				1939.			
			Time Loss.				Time Loss.	
	Disputes.	Workers Involved.	Man-Working Days.	P.C. of Total.	Disputes.	Workers Involved.	Man-Working Days.	P.C. of Total.
	No.	No.	No.		No.	No.	No.	
P.E. Island	1	67	166	0·1	2	150	175	0·1
Nova Scotia	26	4,468	24,441	16·4	44	29,527	97,435	43·4
New Brunswick	4	855	4,180	2·8	5	694	1,365	0·6
Quebec	19	2,191	10,533	7·1	18	2,504	16,165	7·2
Ontario	64	8,308	72,984	49·1	34	5,132	60,226	26·8
Manitoba	8	415	967	0·7	4	144	579	0·3
Saskatchewan	3	481	3,400	2·3	1	400	14,000	6·2
Alberta	11	1,720	9,874	6·6	10	1,574	19,043	8·5
British Columbia	10	790	19,633	13·2	4	913	15,600	6·9
Interprovincial	1	1,100	2,500	1·7	Nil	–	–	–
Totals	**147**	**20,395**	**148,678**	**100·0**	**122**	**41,038**	**224,588**	**100·0**

In 1938 the most important strikes and lockouts occurred in manufacturing (mainly in textiles, clothing, etc.; metal products; and miscellaneous wood products), mining, transportation and public utilities, and fishing and trapping; and during 1939 in manufacturing (mainly rubber products; textiles, clothing, etc.; and metal products), mining, and trade.

25.—Strikes and Lockouts, by Industries, 1938 and 1939.

Industry.	1938.					1939.				
	Number of Disputes.	Workers Involved.		Time Loss.		Number of Disputes.	Workers Involved.		Time Loss.	
		Number.	P.C. of Total.	Man-Working Days.	P.C. of Total.		Number.	P.C. of Total.	Man-Working Days.	P.C. of Total.
Agriculture	**1**	**10**	**0·1**	**85**	**0·1**	1	1	–	1	–
Logging	**4**	**870**	**4·3**	**1,750**	**1·2**	**1**	**70**	**0·1**	**210**	**0·0**
Fishing and Trapping	**8**	**1,848**	**9·1**	**22,744**	**15·3**	**1**	**15**	**0·0**	**40**	**0·0**
Mining, etc.[2]	**26**	**5,066**	**24·8**	**21,402**	**14·4**	**50**	**31,333**	**76·4**	**122,074**	**54·4**
Manufacturing	**73**	**7,460**	**36·6**	**81,339**	**54·7**	**43**	**7,901**	**19·3**	**80,962**	**36·1**
Vegetable foods, etc.	7	303	1·5	1,214	0·8	1	1	–	1	–
Tobacco and liquors	1	9	0·1	100	0·1	1	1	–	1	–
Rubber products	2	31	0·1	175	0·1	6	2,062	5·0	42,460	18·9
Animal foods	1	1	–	1	–	1	1	–	1	–
Boots and shoes (leather)	6	715	3·5	4,156	2·8	1	16	0·0	64	0·0
Fur, leather, and other animal products	5	143	0·7	5,592	3·8	2	76	0·2	508	0·2
Textiles, clothing, etc	18	3,461	17·0	25,474	17·1	19	3,840	9·4	27,835	12·4
Pulp and paper	1	1	–	1	–	1	1	–	1	–
Printing and publishing	5	202	1·0	1,793	1·2	1	20	0·1	60	0·0
Miscellaneous wood products	10	991	4·9	18,991	12·8	4	381	0·9	1,005	0·5
Metal products	13	1,232	6·0	10,783	7·2	7	1,272	3·1	6,370	2·9
Non-metallic minerals, chemicals, etc.	5	285	1·4	12,533	8·4	1	104	0·3	2,500	1·1
Miscellaneous products	1	88	0·4	528	0·4	2	130	0·3	160	0·1
Construction	**15**	**879**	**4·3**	**1,328**	**0·9**	**11**	**683**	**1·7**	**1,414**	**0·6**
Buildings and structures	8	418	2·0	603	0·4	3	149	0·4	295	0·1
Railway	1	1	–	1	–	1	1	–	1	–
Shipbuilding	1	1	–	1	–	1	150	0·4	600	0·3
Bridge[2]	1	1	–	1	–	1	1	–	1	–
Highway	4	407	2·0	493	0·3	6	377	0·9	504	0·2
Canal, harbour, waterway	1	1	–	1	–	1	1	–	1	–
Miscellaneous	3	54	0·3	232	0·2	1	7	0·0	15	0·0
Transportation and Public Utilities	**9**	**2,519**	**12·3**	**9,517**	**6·4**	**4**	**265**	**0·6**	**325**	**0·2**
Steam railways	1	1	–	1	–	1	80	0·2	60	0·0
Electric railways	1	1	–	1	–	1	1	–	1	–
Water transportation	1	1	–	1	–	3	185	0·4	265	0·2
Local transportation	3	1,430	7·0	3,160	2·1	1	1	–	1	–
Telegraph and telephone	1	1	–	1	–	1	1	–	1	
Electricity and gas	1	1	–	1	–	1	1	–	1	
Miscellaneous	1	1	–	1	–	1	1	–	1	–
Trade	**5**	**1,489**	**7·3**	**3,439**	**2·3**	**4**	**563**	**1·4**	**18,864**	**8·4**
Finance	1	1	–	1	–	1	1	–	1	–
Service	**6**	**254**	**1·2**	**7,074**	**4·7**	**8**	**208**	**0·5**	**699**	**0·3**
Public administration[2]	1	1	–	1	–	1	1	–	1	–
Recreational	1	1	–	1	–	5	183	0·4	219	0·1
Custom and repair	3	180	0·9	1,050	0·7	1	7	0·0	125	0·0
Business and personal	3	74	0·3	6,024	4·0	2	18	0·1	355	0·2
Miscellaneous	1	1	–	1	–	1	1	-	1	-
Totals	**147**	**20,395**	**100·0**	**148,678**	**100·0**	**122**	**41,038**	**100·0**	**224,588**	**100·0**

[1] None reported. [2] Non-ferrous smelting is included with "Mining"; erection of all large bridges is under "Bridge construction"; water service is under "Public administration"

Causes and Results of Industrial Disputes.—In each of the years since the record was begun in 1901, by far the most important cause of disputes has been changes in wages, but since 1936 union questions (chiefly union recognition, the

discharge of workers for union activity or membership, the employment of union members only) have led to many strikes and caused about 40 p.c. of the total time loss. In 1939, changes in wages, as usual, caused the largest number of strikes, but union questions were again responsible for many strikes and 50 p.c. of the total time loss. An unusually large number were due to other causes affecting wages and working conditions, chiefly in coal mining.

Approximately one-third of all disputes were settled by direct negotiations, one-third by conciliation or mediation, and one-third by the return of workers. This shows a large increase in the number of disputes settled by conciliation and arbitration compared with years previous to 1938, when negotiations ended about one-half of all disputes. As for results, the figures show that about one-fourth of the workers directly involved were successful, that over one-third were partially successful, and the remainder were unsuccessful.

Section 8.—Wage Rates and Earnings.

Subsection 1.—Wage Rates and Hours for Various Classes of Labour in Canada.*

Statistics of rates of wages and hours of labour have been collected for recent years by the Dominion Department of Labour, and are published in a series of bulletins supplementary to the *Labour Gazette*. Report No. 1 of this series was issued in March, 1921. The records upon which the statistics are based begin in most cases with the year 1901. Index numbers have been calculated, with the year 1913 as base, to show the general movement of wage rates; the series covers six groups of occupations back to 1901, and common factory labour, miscellaneous factory trades, and lumbering back to 1911. Average index numbers, weighted according to the average numbers of employees in each group as shown in the Censuses of 1921 and 1931, are also given. Weighting has not been applied within the groups. In groups by occupations or industries such as these, weighting makes comparatively little difference as rates of wages for the various classes of labour tend to rise and fall to the same extent even in different localities. In the three groups of common factory labour, miscellaneous factory trades, and logging and sawmilling, the index numbers being calculated from samples, the averages are automatically weighted by the numbers of samples, which vary according to the numbers of workers in the various occupations and industries. The upward movement that appeared in the index numbers for some groups in 1934 became general in 1935 and continued in 1936, 1937, 1938, and to a slight extent in 1939. On steam railways wages were increased in 1937 and in 1938, the 1929 rates being restored gradually.

* A detailed study on the subject of wages and hours of labour in Canada is obtainable from the Department of Labour, Ottawa. See pp. 774-783 of the 1927-28 Year Book for an article on the "Wages Statistics of the Census of 1921" and pp. 797-799 of the 1933 Year Book for "Earnings in the Census Year 1931"

26.—Index Numbers of Rates of Wages for Various Classes of Labour in Canada, 1913-39.

NOTE.—Rates of wages in 1913=100. Index numbers for 1901-12 are given at p. 674 of the 1932 Year Book.

Year.	Building Trades.	Metal Trades.	Printing Trades.	Electric Railways.	Steam Railways.	Coal Mining.	Common Factory Labour.	Miscellaneous Factory Trades.	Logging and Sawmilling.	General Average, Weighted.[1]
1913	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
1914	100·8	100·5	102·4	101·0	101·4	101·9	101·0	103·2	94·7	101·6
1915	101·5	101·5	103·6	97·8	101·7	102·3	101·0	106·2	89·1	102·2
1916	102·4	106·9	105·8	102·2	105·9	111·7	110·4	115·1	109·5	109·5
1917	109·9	128·0	111·3	114·6	124·6	130·8	129·2	128·0	130·2	125·6
1918	125·9	155·2	123·7	142·9	158·0	157·8	152·3	146·8	150·5	147·2
1919	148·2	180·1	145·9	163·2	183·9	170·5	180·2	180·2	169·8	173·4
1920	180·9	209·4	184·0	194·2	221·0	197·7	215·3	216·8	202·7	207·7
1921	170·5	186·8	193·3	192·1	195·9	208·3	190·6	202·0	152·6	189·9
1922	162·5	173·7	192·3	184·4	184·4	197·8	183·0	189·1	158·7	180·2
1923	166·4	174·0	188·9	186·2	186·4	197·8	181·7	196·1	170·4	184·2
1924	169·7	175·5	191·9	186·4	186·4	192·4	183·2	197·6	183·1	186·4
1925	170·4	175·4	192·8	187·8	186·4	167·6	186·3	195·5	178·7	185·1
1926	172·1	177·4	193·3	188·4	186·4	167·4	187·3	196·7	180·8	186·3
1927	179·3	178·1	195·0	189·9	198·4	167·9	187·7	199·4	182·8	190·4
1928	185·6	180·1	198·3	194·1	198·4	168·9	187·1	200·9	184·3	192·2
1929	197·5	184·6	202·3	198·6	204·3	168·9	187·8	202·1	185·6	196·0
1930	203·2	186·6	203·3	199·4	204·3	169·4	188·2	202·3	183·9	197·1
1931	195·7	182·9	205·1	198·6	199·2	169·4	183·4	197·3	163·0	189·1
1932	178·2	174·7	194·2	191·1	183·9	164·0	173·6	184·3	141·3	177·7
1933	158·0	169·2	184·3	182·7	179·7	161·9	168·1	175·7	121·7	168·3
1934	154·8	168·0	183·5	182·4	173·7	162·9	170·8	180·5	145·1	170·5
1935	159·8	169·7	184·5	183·7	183·9	165·8	174·9	184·7	152·3	175·4
1936	160·8	170·1	185·2	185·5	183·9	165·9	179·7	188·8	165·9	178·6
1937	165·3	187·4	187·8	190·5	196·1	166·8	195·5	203·7	188·1	191·7
1938	169·4	189·3	190·7	193·7	204·3	174·4	199·7	210·3	197·2	197·4[2]
1939	170·7	189·8	191·5	194·9	204·3	174·5	201·4	211·8	194·3	198·3

[1] Weighted according to average numbers of workers in each group in 1921 and 1931. [2] Revised since the publication of the 1939 Year Book.

In editions of the Year Book prior to 1933, a table of wages and hours of common labour in factories for certain cities is given in this section. The information for 1939 will be found at p. 70 of *Wages and Hours of Labour in Canada*, published as a supplement to the *Labour Gazette* for March, 1940. For the five cities of Table 27 the information is now included under heading 5 of the stub. This valuable detailed study is obtainable from the Department of Labour, Ottawa.

27.—Rates of Wages and Hours of Labour in Various Trades and for Unskilled Factory Labour in Certain Cities of Canada, 1939.

Occupation.	Halifax.		Montreal.		Toronto.		Winnipeg.		Vancouver.	
	Wages per Hour.	Hours per Week.	Wages per Hour.	Hours per Week.	Wages per Hour.	Hours per Week.	Wages per Hour.	Hours per Week.	Wages per Hour.	Hours per Week.
	$	No.	$	No.	$	No.	$	No.	$	No.
Building Trades—										
Bricklayers and masons..	1·00	44	·80–·90	44	1·00	40	1·10	44	1·10	40
Carpenters.....	·70	44	·70	44	·90	40	·85	44	·75–·90	40-44
Electrical workers.....	·85	44	·75	44	1·00	40	·85	44	·75–1·00	40-44
Painters.....	·60	44	·66	44	·75	40	·70	44	·62½–·80	40-44
Plasterers.....	·80	44	·80	44	·90	40	1·10	44	1·00	40
Plumbers.....	·85	44	·75	40-44	1·00	40	·95	44	1·00	40-44
Sheet-metal workers.....	·70	44	·65–·75	44	·92½	40	·70	44	1·00	40-44
Stonecutters...	·70	44	·80	44	·95	40	·90	44	1·00	40
Labourers.....	·30–·40	44-48	·40	44-48	·35–·50	40-60	·40–·45	44-48	·45–·50	40-48
Metal Trades—										
Blacksmiths...	·55–·90	40-44	·45–·90	40-55	·47–·75	36-50	·40–·73	44-60	·65–·95	40-44
Boilermakers..	·55–·90	40-44	·50–·90	40-47	·40–·74	40-48	·55–·76	50	·62½–·95	40-44
Machinists.....	·60–·90	40-44	·50–·85	40-55	·50–·90	37½-50	·50–·80	40-50	·60–·95	40-48
Moulders.....	·65–·75	44	·50–·85	40-55	·50–·85	24-48	·53–·70	40-54	·70–·77	40-45
Printing Trades—	Wages per Week.		Wages per Week.		Wages per Week.		Wages per Week.		Wages per Week.	
Compositors, machine and hand, news...	35·00	42	36·00–45·50	40-45	45·50	40	41·00	46	39·75	37½
Compositors, machine, and hand, job....	25·00–35·00	44-48	33·75–40·00	44-45	33·00–40·00	44-48	35·20–38·50	44-48	40·00–40·50	40-44
Pressmen, news	24·00–34·00	42-48	32·00–43·00	44-48	45·50–52·10	40-48	40·00	48	47·70	48
Pressmen, job..	25·00–30·00	44-48	33·75–36·00	44-45	33·00–40·00	44-48	35·00–38·50	44-48	40·00–40·70	40-44
Bookbinders...	27·00–35·00	45-47	33·75–36·00	45	33·00–40·00	44-48	33·00–39·00	44-48	37·20–45·00	40-48
Bindery girls...	11·00–12·00	44-47	12·60–15·30	45	12·50–18·00	44-48	11·00–16·50	44-48	14·00–20·00	40-48
Electric Railways—	Wages per Hour.		Wages per Hour.		Wages per Hour.		Wages per Hour.		Wages per Hour.	
Conductors and motormen[1]...	·65	53	·55	54	·60	44	·55½	42	·63	48
Linemen.....	·50–·77	44	·53–·57	48	·72–·78	44	·47½–·90½	44	·68½–·97	40
Shop and barn men.....	·51–·77	44-52	·34–·62	40	·54–·81	44-48	·42–·69	44-48	·52½–·75	44-48
Electricians....	·73–·82	44	·55–·65	40	·60–·79	44-48	·56½–·69	44	·70–·75	44
Trackmen and labourers....	·35–·55	44	·35	48	·45–·50	48	·42	48	·45½–·54	44
Unskilled Factory Labour.....	·34–·42	44-50	·25–·48	40-60	·30–·57	24-50	·30–·63	44-55	·35–·60	40-48

[1] Maximum rates based on length of service; Halifax rate for one-man cars; 5 cents extra for one-man car operators in Montreal, Toronto, and Winnipeg; Vancouver 6 cents extra.

Wages of Farm Labour.—Rates of pay for farm labour reached their highest point in 1920. In the next two years farm wages dropped considerably, while from 1923 to 1929 there was little change. With the downward trend of prices of farm produce due to the depression, farm wages also showed marked reductions that continued from 1930 to 1933. Since 1934 there have been small increases in each year, but the average rates for both males and females are still far below the rates paid in the year 1930.

The figures in Table 28 include only those persons employed as wage-earners on farms. All female wage-earners on farms are included, even though they may be employed in a purely domestic capacity.

28.—Average Wages and Board of Farm Help in Canada, as Estimated by Crop Correspondents, 1914, 1920, 1930, and 1938-39, and by Provinces, 1938-39.

NOTE.—M = Males. F = Females. Average wages per month in the summer months for a two-year period, and average wages per year for a five-year period are shown in the February issue of the "Monthly Bulletin of Agricultural Statistics".

Province and Year.	Per Month in Summer Season.						Per Year.					
	Wages.		Board.		Wages and Board.		Wages.		Board.		Wages and Board.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
	$	$	$	$	$	$	$	$	$	$	$	$
Canada.....1914	22	8	14	11	36	19	155	57	168	132	323	189
1920	60	27	26	20	86	47	543	275	278	217	821	492
1930	34	20	22	18	56	38	326	210	233	199	559	409
1938	24	12	17	13	41	25	230	135	175	140	405	275
1939	24	12	16	13	40	25	245	140	179	143	424	283
P. E. Island.....1938	20	10	13	11	33	21	205	130	159	130	364	260
1939	18	9	12	11	30	20	219	128	153	131	372	259
Nova Scotia.....1938	25	11	16	12	41	23	269	145	170	132	439	277
1939	25	12	15	11	40	23	271	143	181	128	452	271
New Brunswick...1938	26	12	15	11	41	23	280	128	152	119	432	247
1939	25	12	14	12	39	24	293	143	146	121	439	264
Quebec.....1938	24	11	14	11	38	22	247	122	151	113	398	235
1939	24	11	15	11	39	22	243	124	155	116	398	240
Ontario.....1938	24	15	18	15	42	30	228	152	183	151	411	303
1939	24	15	17	14	41	29	252	165	188	155	440	320
Manitoba.....1938	23	11	16	13	39	24	207	116	166	136	373	252
1939	22	11	15	13	37	24	221	124	177	143	398	267
Saskatchewan.....1938	22	10	15	13	37	23	203	113	160	134	363	247
1939	22	11	16	13	38	24	218	122	163	140	381	262
Alberta..... 1938	25	12	18	15	43	27	237	137	181	152	418	289
1939	25	12	17	15	42	27	251	143	180	152	431	295
British Columbia.....1938	28	16	22	19	50	35	284	170	238	195	522	365
1939	28	15	21	19	49	34	285	172	240	198	525	370

Subsection 2.—Earnings in the Census Year 1931.*

The total number of wage-earners in Canada reporting earnings for the census year ended June 1, 1931, was 2,476,414 or 96·35 p.c. of all wage-earners and the total amount of their earnings was $2,100,552,700. A table at p. 789 of the 1937 Year Book shows statistics of wage-earners, by sex, and their earnings, for the census years 1911, 1921, and 1931.

* This information is compiled by the Dominion Bureau of Statistics.

Section 9.—The Regulation of Minimum Wage Rates in Canada.

The regulation of minimum wages is under provincial jurisdiction. All of the provinces except Prince Edward Island have legislation in effect providing for the establishment of minimum wage rates for female employees in certain industries and occupations through boards authorized to establish and enforce these minimum rates. Such legislation was enacted between 1918 and 1920 in all of these provinces except New Brunswick. In Nova Scotia the legislation is applicable to female workers only, but in the other provinces it now applies both to male and female workers. There is also legislation for the restriction of hours of labour which are regulated in some of the provinces by the minimum wage boards but in the others only under the factory Acts, etc. So far as such legislation has been enacted it is covered in the sections on labour legislation occurring in this and earlier editions of the Year Book (see Index).

In British Columbia since 1925, and in Manitoba since 1931, separate orders have been effective for some classes of male workers and their scope was much extended in 1934 and subsequent years. In New Brunswick, the Labour and Industrial Relations Act, 1937, which reproduces the provisions of the Fair Wage Act, 1936, provides for the establishment of minimum wage rates but no orders of general application had been issued by the end of 1939. In Saskatchewan since 1936, and in Quebec since 1937, all minimum wage orders for females apply also to male workers. In Alberta, separate orders for male workers were issued in 1937 for the first time. In Ontario, under the Minimum Wage Act, 1937, the legislation was extended to male workers but only one order for males had been made effective by the end of 1939, namely, that relating to the textile industry. In Quebec and New Brunswick, wages in logging are regulated under forestry regulation acts.

In Quebec, since 1934, certain wage rates established through collective agreements have been made binding on industries in certain districts or throughout the Province, under the Collective Labour Agreements Extension Act, 1934, and later under the Workmen's Wages Act, 1937, and the Collective Labour Agreements Act, 1938. The Industrial Standards Acts of Ontario and Alberta in 1935, that of Nova Scotia in 1936, and of Saskatchewan in 1937 provided for joint conferences of employers and employees for the establishment of wage scales in various industries in the districts concerned.

Information as to minimum wage rates for work under Dominion Government contracts for the manufacture and supply of equipment, stores, clothing, etc., appears in the paragraphs on Fair Wages in the section on the Dominion Department of Labour at pp. 744-745.

Subsection 1.—Minimum Wages for Females.

The table on pp. 790-791 gives information as to minimum rates of wages and as to hours for which these rates are payable under the orders of the various provincial boards and commissions in effect at the end of 1939.

The information here given is intended to afford merely a statistical summary of the minimum wages with hours of labour in the provinces and industries affected, and, while some of the more significant details have been given in footnotes, it has

been found impossible to include the information in such form as to indicate any more than the general provisions.

For complete information it is necessary to refer to the orders of the various provincial boards. These have been given in some detail in the *Labour Gazette* from time to time as issued, and in summary form, by provinces, in the Wages and Hours Supplement to the *Labour Gazette*, March, 1940. In some provinces these orders include regulations as to employment conditions, sanitary conditions, etc. The boards have power to issue licences permitting lower rates of pay to handicapped workers and to meet special conditions in the nature of emergencies.

In Table 29, pp. 790-791, figures for adult learners and for minors and apprentices are shown in a range covering both classes. There is wide variation in the rates for such classes in the several industries and the time allowed for such periods varies in most cases from one year to 18 months. Probationary periods (usually 3 months) without pay are allowed in some cases—beauty parlours, millinery, dressmaking in shops, etc.

Subsection 2.—Minimum Wages for Male Employees.

Provisions for minimum wage rates for male employees are outlined in the Wages and Hours Supplement to the *Labour Gazette*, March, 1940, a summary of which follows:—

In Prince Edward Island, the City of Charlottetown, as authorized by an amendment to its incorporating Act, has established by by-law a minimum wage rate of 35 cents per hour for labourers and workmen engaged by contractors.

In New Brunswick, the Labour and Industrial Relations Act, 1938, which incorporates the Fair Wage Act, 1936, provides for the establishment of minimum and overtime rates of wages and maximum hours for both male and female workers. Orders have been issued for a number of individual establishments but none of general application in any trade or industry. Under the Forest Operations Act, 1934, the Commission, from Apr. 1, 1939, established for stream-driving a minimum average rate of $2·50 per day and board, net, or its equivalent in case of piece work. For booming and sorting a minimum rate of 25 cents an hour without board was set. After Oct. 1, 1939, for cutting, yarding, and hauling, a minimum rate for each employee of $36 and a minimum average rate of $40 per month and board, net, were fixed.

In Quebec, the Fair Wage Act, 1937, replacing the Women's Minimum Wage Act, applies to both male and female workers (see Table 29, pp. 790-791). Under the Act to Assure Reasonable Wages for Workmen Engaged in Forest Operations, 1937, a minimum of $45 per month with board is established. An Order in Council under the Act, approved Sept. 13, 1939, provides that for youths of 18 to 20 years, handicapped persons, and men of 60 years or over, the minimum is $30 per month of 26 days, with board; regular hours are limited to 60 per week, with time and a quarter for overtime. No one under 18 years of age may be employed, and not more than 12½ p.c. of employees are to be paid less than the regular minimum of $45.

In Ontario, until repealed in 1937, the Minimum Wage Act had provided that wherever a male employee replaces a female employee in any class of industry, the male employee must be paid at least the minimum rate established. This Act was replaced by the Minimum Wage Act, 1937, applying to both male and female workers. By the end of 1939 only one order, which covers the textile industry, had been issued under the new Act and the old orders were still in effect.

29.—Minimum Wage Rates for Female Workers in Canada Under

NOTE.—For further details regarding minimum wage rates for females, see pp. 133-159 of

	Industry.	Nova Scotia.[1]			Quebec.[2]			Ontario.[3]		
		Wages per Week.		Hours per Week.	Wages per Week.		Hours per Week.	Wages per Week.		Hours per Week.
		Adults, Experienced.	Minors, Learners, etc.		Adults, Experienced.[3]	Minors, Learners, etc.		Adults, Experienced.	Minors, Learners, etc.	
		$	$		$	$		$	$	
1	Manufacturing	10·00–11·00	6·00–10·00	44–50	9·60–15·75	5·75–13·25	48–60	10·00–12·50	6·00–11·00[9]	48–54
2	Fruit and vegetable canning	[12]	[12]	–	14c. per hr.	14c. per hr.	–	18-25c. per hr.	15-20c. per hr.	
3	Laundering, dry cleaning, etc.	10·00–11·00	6·00–10·00	44–50	9·60–13·25[14]	5·75–10·80[14]	48–60	11·00–12·50	8·00–11·00	48
4	Retail stores	10·00–11·00	6·00–10·00	44–50	9·60–15·75[15]	5·75–13·25[15]	48–60[15]	8·00–12·50	6·00–11·00	48–54
5	Hotels, restaurants, etc.	10·00–11·00	8·00–10·00	44–50	10–30c. per hr.	10-30c. per. hr.	60	20–26c. per hr.	20–26c. per hr.	
6	Hairdressing, etc.	10·00–11·00	6·00–10·00	48	9·60–15·75	5·75–13·25	48–60	10·00–12·50	4·00–10·50	48–54
7	Theatres and amusement places	[13]	[13]	–	9·60–15·75	5·75–13·25	48–60	11·00–12·50[22]	11·00–12·50[22]	48–54
8	Offices	10·00–11·00	7·00–10·00	48	7·25–15·00[25]	7·25–15·00[25]	48–60[25]	8·00–12·50[26]	6·00–11·00	48–54
9	Telephone operators	9·00–11·00	6·00–10·00	44–50	9·60–15·75	5·75–13·25	48–60	7·00–12·50	5·00–11·00	48

[1] Rates apply to cities and incorporated towns.

[2] Rates vary according to zones, the highest rates being in Zone I—Montreal and District; all rates apply to males as well as females.

[3] Rates vary according to locality and population.

[4] Rates apply in all cities throughout the Province to male and female workers.

[5] Only in cities and in the Towns of Melville and Estevan and within a radius of 5 miles; rates apply to males as well as females.

[6] Orders apply throughout the Province except telephone exchange order which applies only in centres with 100 lines or more.

[7] Rates apply throughout the Province. Provision made for fishing industry (except canning), as follows: experienced—$15·50 per week (48 hours) or 32 7/24 cents per hour; minors, learners, etc.—$12·75 to $14·75 per week.

[8] Rates for experienced, minors, learners, etc. are not specified but for most industries three rates are given. The highest rate, used here as the experienced rate, must usually be paid to 60 p.c. of the workers. Special orders have fixed hourly rates by occupation for certain industries; some of these orders apply only to Montreal, Quebec, Lévis, and Hull.

[9] Custom millinery trades not in factories: minors, learners, etc.—$5 to $10.

[10] Fifty hours per week for tailoring, dressmaking, and millinery establishments.

[11] Factory order includes garages, automobile service stations, fuel and lumber yards, etc.

[12] Millinery shops, $4 to $10 for learners.

Orders of Provincial Minimum Wage Boards, as at Dec. 31, 1939.

Wages and Hours of Labour, Report No. 23, issued as a supplement to the *Labour Gazette*, March, 1940.

Manitoba.[4]			Saskatchewan.[5]			Alberta.[6]			British Columbia.[7]			
Wages per Week.		Hours per Week.	Wages per Week.		Hours per Week.	Wages per Week.		Hours per Week.	Wages per Week.		Hours per Week.	
Adults, Experienced.	Minors, Learners, etc.		Adults, Experienced.	Minors, Learners, etc.		Adults, Experienced.	Minors, Learners, etc.		Adults, Experienced.	Minors, Learners, etc.		
$	$		$	$		$	$		$	$		
10·00–12·00	6·00–11·00	48[10]	13·00[11]	7·50–11·50[11]	48	12·50	6·00–11·00[12]	48	14·00	7·00–13·00	8	1
[13]	[13]		[13]	[13]		[13]	[13]		27c. and 30c. per hr.	25c. per hr.	10-hr. day	2
10·00–12·00	6·00–11·00	48	13·00	7·50–11·50	48	12·50	9·50–11·50	48	13·50	8·00–12·00	48	3
10·00–12·00[16]	6·00–11·00[16]	48	14·00[17]	8·00–13·00[17]	48	12·50[17]	7·50–11·00[17]	48	12·50	7·50–12·00	48	4
8·64–12·00[18]	8·64–9·60	48	10·00–12·00[19]	8·00–10·00[19]	48-60	12·50[20]	9·00–11·00[20]	48	14·00[21]	9·00–12·00	48	5
12·00	8·00–11·00	48	13·00	7·00–12·00	48	14·00	6·00–12·00	48	14·25	10·00–13·00		6
12·00[22]	12·00[23]	48	12·00	12·00	48	14·00	14·00	48	14·25[24]	14·25	48	7
12·50[27]	8·00–11·50[27]	44	13·00[28]	7·50–11·50	48	14·00[29]	7·50–12·00[29]	48	15·00	11·00–14·00	48	8
10·00 and 12·00	10·00 and 12·00	48	[13]	[13]		14·00[6]	7·50–12·00[6]	48	15·00[30]	11·00–13·00[30]	48	9

[13] No minimum wage.

[14] In Montreal district—19 to 26 cents per hour, 54-hour week; Quebec City—15 to 27 cents per hour, 54-hour week.

[15] Quebec City—15 to 30 cents per hour, 60-hour week, except Dec. 5-31 (72 hours).

[16] Department stores and mail-order houses: experienced, $12; minors, learners, etc., $8 to $11.

[17] Applies also to wholesale and mail-order houses.

[18] Rate of $12 applies to Winnipeg and district and Brandon at any time; to Portage la Prairie, May to October; and to any summer resort, June to September.

[19] In Towns of Estevan and Melville: experienced, $10; learners $6 to $10 per week of 48 to 60 hours.

[20] Restaurants only—any place where meals are provided.

[21] Applies also to elevator operators; there is a separate order for janitresses in apartment houses.

[22] Or 25 to 30 cents per hour.

[23] Cleaners 35 cents per hour; no minors to be employed.

[24] Applies also to attendants at garages and automobile service stations, drivers of motor-cars and other vehicles.

[25] Taxicab offices, Montreal—17 and 25 cents per hour, 66-hour week.

[26] Applies also to elevator operators, including learners (under separate order).

[27] Winnipeg, St. Boniface, St. James, and Brandon.

[28] Applies only to offices of industries named in the factories order.

[29] Applies also to physicians', dentists', and optometrists' offices, post, and telegraph offices.

[30] Applies also to telegraph employees.

In Manitoba, the Minimum Wage Act provides that, when a minimum wage scale has been established for any industry, no person of the age of 18 years or over may be paid less than 25 cents per hour except where the Board has passed specific regulations providing for a different rate. As all industries except farming, market gardening, and domestic service are now under regulation, the above minimum rate of 25 cents per hour for male persons of 18 years of age or over applies to all except where special regulations have been made, as follows: In manufacturing, departmental stores and mail-order houses, retail and wholesale stores, and general employees the orders apply to male as well as female employees (see Table 29, pp. 790-791). For hotels, restaurants, etc., the minimum for male workers over 18 is $12 per week of 48 hours at any time in Greater Winnipeg and Brandon and during summer months in Portage la Prairie and summer resorts. The minimum is $10 per week of 48 hours in other places. All orders apply to boys under 18 in cities, except that special orders for boys under 18 in cities provide for minimum rates of $8 to $10 in manufacturing establishments, hotels, garages, etc. The Taxicab Act establishes for Greater Winnipeg a minimum of $17·50 per week or 40 cents per hour with a minimum of $1·60 per day, hours not to exceed 12 per day, 6 days per week. The Highway Traffic Act sets minimum rates for drivers of public passenger vehicles at $80 per month or $20 per week, 9 hours per day for driving, 12 hours in any capacity, 6 days per week. The Fair Wage Act provides for minimum wages and maximum hours on public works under contract, and also on private construction work as defined in the Act, under schedules approved by the Minister of Public Works.

In Saskatchewan, minimum wage rates for female employees in shops and factories now extend to male employees and to all of the Province by amendment in 1936 to the Minimum Wage Act, 1919. (See Table 29, pp. 790-791). The Coal Mining Industry Act, 1935, and an amendment to the Public Services Vehicles Act in 1935 provide for the establishment of minimum wage rates but none had been set by the end of 1939.

In Alberta, under the Male Minimum Wage Act, 1936, a general order covers all workers except those engaged in farm work and domestic service, those working under schedules set by the Industrial Standards Act or under codes drawn up under the Department of Trade and Industry Act, and casual, seasonal, or temporary workers for employers not engaged in the industry, and a few others. The general order establishes a minimum of 25 to 33⅓ cents per hour for full-time employees over 19 years and 20 cents for full-time employees under 17 years. Corresponding minimum rates for part-time employees are from 30 to 40 cents for those over 17 and 25 cents for those under 17. A special order for employees of sawmills, box factories, woodworking, logging, and tie-cutting in rural districts provides a minimum rate of $30 per month with board and lodging. Another special order sets the following minimum rates for retail delivery boys if employed by the week or longer period, under 16 years—$7·50; over 16 and under 18—$9·50 per week; 17 to 22½ cents per hour according to age, if employed by the day or hour.

In British Columbia, under the Male Minimum Wage Act, 1934, applying to all occupations except farm labourers and domestic servants, orders have been issued in relation to: logging, sawmilling, furniture and woodworking industries; baking; fruit and vegetable canning, packing, etc.; construction; carpenters in some localities; shipbuilding; truck, bus, and taxi drivers; mercantile industry; stationary engineers; barbers; elevator operators; first-aid attendants; janitors; and the Christmas-

tree industry. Generally speaking, the minimum rates for unskilled labour are: 40 cents per hour for males over 21 years of age, 25 to 35 cents for those between 18 and 21, and 20 to 25 cents per hour for those under 18. In addition, the Female Minimum Wage Act, 1934, provides that, where a minimum wage rate has been set for female workers in any industry, male workers may not be employed at work usually done by female employees at less than the fixed minimum wage.

Subsection 3.—Wages and Hours of Labour under Collective Agreements and Schedules of Wages and Hours Made Obligatory by Order in Council in Certain Provinces.

In Nova Scotia, under the Industrial Standards Act, 1936, minimum wage rates and standard hours have been fixed in Halifax and Dartmouth for bricklayers, carpenters, electrical workers, plumbers and steamfitters, and plasterers.

In New Brunswick, the Industrial Standards Act, 1939, is in effect, but no schedules had been approved by the end of 1939.

In Quebec, under the Collective Labour Agreements Act, 1938 (which replaced the Workmen's Wages Act, 1937, and the Collective Labour Agreements Extension Act, 1934), wages and hours in agreements between representatives of employers and of workers have been extended and made compulsory for all employers in the trade or industry in the district affected, and were in effect at the end of 1939, as follows: For the whole Province, in certain manufacturing industries, viz., boots and shoes; gloves (all operations on fine gloves, cutters only on work gloves); men's and boys' clothing (except work clothing); children's clothing; men's and boys' hats and caps; women's coats and suits; lithographing; furniture; can, container, and metal utensils; paper boxes; granite, marble, and stone quarrying; also for the paint manufacturing industry from February, 1940: in most of the cities and towns and in some villages for the building trades, and the barbering and hairdressing trades: in three districts, which include all cities of over 11,000 population, for job-printing trades, and in two of these districts for newspaper work as well: for iron oxide mining and aluminium smelting in the districts in which these industries are carried on: in the four largest cities and in Granby for bakeries: in Quebec, Montreal, and Sherbrooke for garages and service stations: in the Montreal and Quebec districts for the fur industry: in Montreal and district for women's and children's millinery; textile and jute bag industry; the passenger, freight, and industrial car and bus manufacturing industry; and for funeral undertakers: in Quebec, Montreal, and Sorel for longshoremen: in Quebec for dairy employees and tavern employees: in eight cities and towns for clerks and accountants: in six Eastern Township counties for horseshoers and wheelwrights: in Sherbrooke for shoe repairing: in Jonquière and Kenogami, for the sash and door industry.

In Ontario, under the Industrial Standards Act, 1935, wages and hours schedules have been made binding by Order in Council and were effective at the end of 1939, for the following industries: throughout the Province for breweries, furniture (wood) factories, men's and boys' clothing factories, and women's cloak and suit factories; in two districts for the logging industry; in Ottawa, for bakers; in Toronto for the soft furniture industry, jewellery manufacturing, coal hoisting, coal handling and driving, and taxi driving; in Toronto, Hamilton, Ottawa, Kingston, Cornwall, Peterborough, Brantford, Galt, Kitchener, St. Thomas, Kirkland Lake, Windsor, Sault Ste. Marie, and Timmins for one or more of the building trades; and in most of the cities and larger towns for barbers.

In Manitoba, Part II of the Fair Wage Act, added in 1938, is similar to the Industrial Standards Acts in other provinces, but no schedules had been approved by the end of 1939.

In Saskatchewan, under the Industrial Standards Act, 1937, schedules were in effect by Order in Council at the end of 1939, as follows: one building trade in Moose Jaw, one in Saskatoon, and five building trades in Regina; barbers in twelve districts and hairdressers in five districts; draying, transferring and storage, and shoe repairing at Regina; bakers at Moose Jaw; sign painters at Regina and Moose Jaw; and watch repairing at Saskatoon.

In Alberta, under the Industrial Standards Act, 1935, schedules have been put into effect by Order in Council and were effective at the end of 1939, as follows: in Calgary, Edmonton, and the adjacent districts, for bakers; two building trades at Calgary and seven at Edmonton and their surrounding districts, and one trade at Red Deer and Sylvan Lake; taxi drivers at Calgary, Banff, and Edmonton; garages and service stations at Calgary; bowling alley employees at Edmonton and Calgary; the honey-producing industry in the Coaldale, Taber, Vauxhall, and Lethbridge zones; the lumbering industry, including logging, sawmills, planing mills, and box factories, in three zones. Under the Department of Trade and Industry Act, 1934, a code setting forth minimum wages for barbers throughout the Province was in effect at the end of 1939.

Section 10.—Proceedings under the Combines Investigation Act.

A general article on Canadian legislation concerning combinations and monopolies in restraint of trade appears in the 1927-28 Year Book under the heading "Legislation Respecting Combinations in Restraint of Trade", pp. 765-770. In each later issue of the Year Book an annual statement on proceedings under the Combines Investigation Act is included.

The first Dominion legislation in this field was "An Act for the Prevention and Suppression of Combinations Formed in Restraint of Trade", passed in 1889 and now in force in amended form as Sect. 498 of the Criminal Code. Legislation providing special facilities for the investigation of combines was first enacted in 1907 and was included in the Customs Tariff of 1907. In 1910 the Combines Investigation Act of that year was enacted. The latter Act was replaced by the Combines and Fair Prices Act, 1919, which, in turn, after declaration of its constitutional invalidity by the Judicial Committee of the Privy Council, was replaced by the present Combines Investigation Act in 1923 (R.S.C. 1927, c. 26).

The Combines Investigation Act.—This Act provides means for the investigation of trade combinations, mergers, trusts, and monopolies alleged to have operated in restraint of trade and to the detriment of the public. The Act was amended in 1935 and 1937. In 1931 its constitutional validity was upheld by the Judicial Committee of the Privy Council, following a reference of questions on this point by the Governor in Council to the Supreme Court of Canada. The Combines Investigation Act provides for publication of reports of investigations of alleged combines. Participation, or knowing assistance, in the formation or operation of combinations or monopolies that are detrimental to the public and come within the scope of the Act, is an indictable offence. Provision also is made in the Act for the reduction or removal of customs duties, at the instance of the Governor in Council, in cases where

it is found that, with respect to any commodity, there exists any combine to promote unduly the advantage of manufacturers or dealers at the expense of the public, and that such disadvantage to the public is facilitated by existing customs duties.

Investigations in 1939.—A report on an investigation into the operations of alleged combines in the manufacture and sale of paperboard shipping containers and related products was made by the Commissioner on Mar. 14, 1939. A combine embracing all principal manufacturers in Canada was found to exist in the shipping-container industry. The Commissioner also found that several manufacturers of paperboard used in such containers were parties to a secondary and related combine. Court proceedings were begun at the instance of the Attorney General of Canada and true bills on two indictments were found by a grand jury in Toronto in September, 1939. One trade association officer and 23 corporations were charged with offences against Sect. 498 of the Criminal Code. Trial under this indictment was expected to proceed early in 1940.

Proceedings against the alleged combine of tobacco manufacturers and wholesalers, investigated under the Combines Investigation Act in 1938, were instituted by the Attorney General of Alberta in November, 1938, when informations were laid charging 44 individuals and companies with offences under Sect. 498 of the Criminal Code. After preliminary hearing of the Crown's evidence in April and May, 1939, the accused were remanded for trial, which was later adjourned to a date early in 1940.

A combine of certain wholesalers and shippers of fruits and vegetables in Western Canada was declared to exist in a report made by the Commissioner on Oct. 31, 1939. The report and evidence were remitted to the Attorney General of British Columbia, at whose instance informations were laid on Dec. 19 charging 4 individuals and 8 companies as parties to this alleged combine and charging the same accused and 2 others as parties to a conspiracy contrary to common law in relation to secret rebates. At the conclusion of the preliminary hearings before a magistrate at Kelowna, B.C., on Feb. 8, 1940, the accused were committed for trial on the combine charges; the conspiracy charges were dismissed.

Investigations made during 1939, in addition to those reviewed above, covered a wide variety of products and various types of trade practices. Complaints alleging the existence of injurious restraints of trade have been carefully investigated when it appeared possible that the public might be affected detrimentally by operations of an alleged monopoly or combination. Modifications of proposed or existing trade programs along lines designed to safeguard public interest have followed certain of these preliminary inquiries.

Section 11.—The Co-operative Movement in Canada.*

The Co-operative Union of Canada was formed in 1909, with six affiliated societies and 1,595 members. In 1938, 62 societies reported to the Union, their membership being 178,832. The sales of the reporting societies totalled $14,013,232 and the purchase dividends returned to their members amounted to $608,600. The classes of co-operative activities covered included retailing, wholesale trading, marketing, dairying, transportation societies, and buying clubs.

* An article on "The Co-operative Movement in Canada", by Miss Margaret Mackintosh, M.A., of the Department of Labour, Ottawa, appears at pp. 704-720 of the 1925 edition of the Year Book.

Since October, 1909, the Union has published a monthly, *The Canadian Co-operator*, from which these statistics and those in Subsection 1 have been taken.

Subsection 1.—Consumers' Co-operation.

The statistics in Table **30,** which cover only those retail societies reporting to the Co-operative Union of Canada, cannot be considered as strictly comparable owing to the fact that, should a large society fail to report in any one year (and this has frequently happened in the past), an apparent decrease in the activities of the societies, not in line with actual conditions, would result.

The following notes, covering membership only, will help the reader to judge the real trend of consumers' co-operative activity. The increase of 624 in 1932 was due, in part, to the failure of 2 existing societies to report in 1931, although 3 new societies reported a membership of 583. Of the total increase of 1,354 in 1933, 1,058 was due to the reporting, for the first time, of 4 societies that had been in existence from 2 to 5 years, while one new society reported 57 members. In 1934, the apparent increase of 418 is modified by the fact that it includes 210 members of a society not reported in 1933, while one new society, with 44 members, reported in 1934. In 1935 the situation was complicated, since 6 societies that reported in the previous year failed to do so in 1935, their 1934 membership having totalled 736—on the other hand, 2 previously existing societies, which did not report in 1934, reported 177 members and 3 new societies reported 525 members; as these two factors almost balance, it would appear that the existing societies increased their membership by nearly 600. In 1936, three new societies reported a membership of 461, while those established societies that reported in both 1935 and 1936 showed an increase in membership of 1,022; in addition, six buying clubs in Quebec and Ontario reported a membership of 739. In 1937, the 38 societies that also reported in 1936 showed an increase in membership of 1,839; five societies that did not report in 1936 had a membership of 1,467, and of these, 3 were new organizations with 474 members. Three societies, with 638 members, reported in 1936 but not in 1937.

Of the 47 societies reporting in 1938, 38 reported in 1937. There were 8 new organizations reporting a membership of 1,713 and 1 old association, which did not report in 1937, had a membership of 252 in 1938. Five societies that reported a total membership of 2,277 in 1937 did not report in 1938.

30.—Statistics of Retail Co-operative Societies Affiliated with the Co-operative Union of Canada, 1931-38.

Year.	Societies.	Members.	Share and Loan Capital.	Reserve Funds.	Stock in Trade.	Other Assets.	Sales.	Net Profits.	Purchase Dividends Paid.
	No.	No.	$	$	$	$	$	$	$
1931....	23	8,122	574,450	449,467	455,986	955,347	2,874,746	185,116	147,175
1932....	27	8,746	536,245	436,184	443,424	829,866	2,631,515	117,895	111,130
1933....	31	10,100	504,623	360,784	443,489	638,138	2,719,212	106,434	80,220
1934....	33	10,518	515,369	370,388	479,574	728,404	3,353,884	117,722	91,784
1935....	34	11,116	573,957	372,732	503,004	877,634	3,876,195	161,113	130,518
1936....	41	13,696	637,012	365,925	585,240	891,053	4,445,339	209,379	163,952
1937....	45	16,364	809,468	415,703	670,296	1,152,963	5,041,328	229,270	182,790
1938....	47	17,428	886,670	418,486	706,887	1,250,668	5,480,806	264,368	199,201

Subsection 2.—Co-operative Credit in Quebec.

A form of co-operation that provides short-term credit for small-scale farmers and industrial workers in the Province of Quebec has achieved great success. In 1900, what are known as "Les Caisses Populaires", or People's Banks, were begun with the establishment, by the late Alphonse Desjardins, of La Caisse Populaire at Lévis. M. Desjardins adopted the following principles: lending money only for approved purposes to carefully selected members in a restricted area; limited liability; issuing shares of small amount payable by instalments and withdrawable; and distribution of profits. These banks are for the most part established in agricultural districts. Loans are made to purchase agricultural implements at cash prices, to increase farm live stock, to improve farm buildings, to tide over a period of depression, to pay off a merchant, and for various similar purposes. The loans, though comprised within the term 'short credit', are for longer periods than are usual in ordinary commercial transactions because agricultural operations necessarily extend over longer periods than those of trade. They may be for 12, 15, or even 24 months, because they must give time for the farmer to realize on his products.

Details of organization may be found in the Statistical Year Book of Quebec. Complete information on the working of each individual bank, including such details as number of members and depositors, rates of interest paid, loans made and profits realized, classification of size of loans, receipts and expenses, and a résumé of chief operations from the date of organization to 1938, for those banks operating in the latter year, are published in the report entitled "Co-operative People's Banks and Co-operative Agricultural Societies".

31.—Progress of Co-operative People's Banks in Quebec, 1915, 1920, 1925, and 1930-38.

Year.	Banks Reporting.	Members.	Depositors.	Borrowers.	Loans Granted.	Value of Loans Granted.	Profits Realized.
	No.	No.	No.	No.	No.	$	$
1915	91	23,614	13,696	6,728	8,983	1,483,160	89,893
1920	113	31,752	26,238	9,213	15,390	4,341,544	311,323
1925	122	33,279	33,527	9,384	13,682	3,909,790	449,531
1930	179	45,767	44,940	14,278	18,857	3,724,537	645,096
1931	174	43,641	43,207	13,240	16,203	2,998,046	594,235
1932	168	40,933	40,201	12,363	13,283	2,157,886	531,765
1933	162	36,470	37,683	10,784	11,407	1,682,551	452,220
1934	190	38,811	39,723	11,230	11,295	2,141,762	441,876
1935	202	43,045	42,856	11,987	12,175	2,803,748	472,543
1936	234	49,890	49,796	13,453	13,974	3,370,821	459,601
1937	256	57,216	56,493	15,576	17,639	4,310,777	519,714
1938	338	75,419	73,262	19,679	23,586	5,771,429	624,263

Subsection 3.—Agricultural Co-operation in Canada.*

Canadian farmers have been accustomed to the idea of mutual assistance since the days of early settlement as evidenced by barn raisings, beef rings, threshing syndicates, and the exchange of labour for various types of farm work. Isolated groups have been in business for some time but in the past thirty years the number of such organizations has increased rapidly. Available statistics for 1938 show 1,332 active farmers' business organizations with a total turnover of $201,659,984.

* Prepared in the Division of Economics, Marketing Service, Department of Agriculture.

These associations have been brought into being in order to obtain better price terms through increased bargaining power, to provide some service not at present available, or to improve some existing service considered inadequate.

In Canada the expansion of co-operative activity has taken place most rapidly and to the greatest degree in the marketing field. Collective action has made possible the pooling of the proceeds received from the sale of agricultural products of the same grade and quality and the return to the farmers of an average price for such products. This has frequently implied better grading and preparation for market while the products are still under the control of the producers than would otherwise have been the case. The value of farm products marketed amounted to $180,747,471 for the crop year ended July 31, 1939.

Many associations formed primarily for marketing have found it possible to render additional service to their members by utilizing the existing organizations for the purpose of purchasing supplies needed on the farm. A number of associations have been formed primarily for the purpose of buying supplies, usually bulk commodities, and some are operating stores carrying a full line of general merchandise. Over half of the associations of this type operate in the Prairie Provinces and the principal commodities handled are gasoline, tractor fuel and other petroleum products, coal and wood, and binder twine. Sales of supplies and merchandise amounted to $20,400,008 for the crop year 1938-39 or about 11 p.c. of the value of farm products marketed.

In order to increase effectiveness, sales agencies have been formed on a regional basis or on a Dominion-wide commodity basis, as the Canadian Co-operative Wool Growers, Limited, and the Canadian National Silver Fox Breeders' Association. Wholesale societies are also operating in most of the provinces, consolidating the buying power of the local associations and augmenting the benefits to be obtained from quantity buying. The United Farmers of Ontario, Limited, and the Coopérative Fédérée de Québec combine the functions of sales agency and wholesale buying agency for their affiliated local associations.

Fruits, vegetables, grain, seed, eggs, poultry, wool, and furs are usually graded and otherwise prepared for market before being offered for sale. Elevators, stockyards, common and cold-storage warehouses, and chick hatcheries are owned and operated co-operatively. Butter and cheese are manufactured, chicken and apple products are canned, commercial feeds and spray materials are prepared in co-operative plants. The First Co-operative Packers of Ontario, Limited, process hogs into bacon and other pork products. The Consumers' Refineries Co-operative Association, Limited, Regina, refine crude oil into gasoline, distillate, and other petroleum products.

In 1908 the Nova Scotia Legislature passed the Farmers' Fruit Produce and Warehouse Associations Act and in the same year the Quebec Legislature enacted the Co-operative Agricultural Associations Act. Since that time each province has provided for the incorporation of co-operative associations by suitable legislation. Since 1932, five provinces have enacted new co-operative associations Acts and in three provinces there have been extensive amendments or consolidations. Such legislation varies between provinces but in most cases interest on capital is limited and profits are required to be distributed to members on the basis of

patronage. There is no Dominion co-operative Act but several farmers' organizations have been incorporated under the Dominion Companies Act. Others have been incorporated by special Acts of the Dominion Parliament and provincial legislatures. Over 90 p.c. of the associations reporting are incorporated by one or other of these means but many have not achieved such status and are buying or shipping through clubs or circles.

The Provincial Governments have set up machinery to assist co-operative activity mainly in connection with marketing. The Agricultural Economics Branch was established within the Dominion Department of Agriculture in 1929 and one phase of its work has been the study of the farmers' co-operative movement. Under joint agreements with the Provincial Governments, a survey of existing organizations was undertaken in 1931 and has been maintained annually since that date.

The number of associations reporting to the Economics Division has shown an increase in each of the eight years since the survey was inaugurated. The annual volume of business increased from 1932-33 to a high point during the 1939 crop season. The total business transacted by farmers' co-operatives amounted to $201,659,984, an increase of $46,579,549 over the previous year. In 1938 the volume and quality of the grain crop in Western Canada showed considerable improvement over that of the 1937 season. The price per bushel showed a decline but, owing to increased volume, the estimated total value of the grain crop marketed co-operatively increased by $31,000,000. The business of the Flue-Cured Tobacco Marketing Association of Ontario has been included in the summary for the first time this year. This is a co-operative bargaining association controlled by growers whose representatives annually negotiate a price with the tobacco manufacturers. After making allowance for the inclusion of the business of this association, amounting to $16,000,000, and the increase in value of the grain marketed, the record indicates a slight gain in general business by other co-operatives in 1938-39 compared with the preceding year.

In addition to the trading associations described above and for which statistics are given in Table 32, farmers are interested in other forms of co-operative activity.

A mutual fire insurance company was formed in Ontario as early as 1836 and several, still functioning as farmers' mutuals, were organized between 1850 and 1860. To-day there are about 350 such companies with net assets of over $5,000,000 and insurance at risk amounting to over $1,000,000,000. These have a long history of successful operation behind them.

Approximately 69,000 or 5 p.c. of the telephones in Canada are operated by rural co-operative companies in which there is a total investment of $19,414,380.

Inspired by the example of Quebec, six other provinces have passed co-operative credit union legislation within recent years, and societies have been formed for the purpose of making credit available to members.

Societies have been formed by fishermen on both coasts for the purpose of canning and marketing fish and buying gear on the co-operative plan. As many of the members of these societies are also farmers, mention may well be made of this activity in a summary of agricultural co-operation. During 1938, 17 fishermen's co-operative societies in Nova Scotia with a membership of 800 did business amounting to $271,610 and had on hand, at the end of the year, assets amounting to $92,075.

32.—Farmers' Co-operative Business Organizations in Canada, Crop Year Ended July 31, 1939.

NOTE.—Co-operative insurance companies, credit societies, telephone co-operatives, and farmers' institutes are not included in this Table.

Province or Function.	Associations.	Places of Business.	Shareholders or Members.	Patrons.	Total Assets.	Value of Plant.	General Liabilities.	Paid-Up Share Capital.	Reserves and Surplus.	Sales of Farm Products.	Sales of Supplies.	Total Business, Including Other Revenue.
	No.	No.	No.	No.	$	$	$	$	$	$	$	$
PROVINCIAL GROUPING.												
Prince Edward Island	15	70	9,807	10,374	88,972	39,246	26,371	13,680	48,921	958,615	56,628	1,017,121
Nova Scotia	129	129	7,328	11,480	1,797,540	664,679	965,060	473,941	358,539	2,936,978	1,606,264	4,600,915
New Brunswick	51	74	3,686	6,482	358,122	125,352	300,769	62,507	−5,154	1,077,007	348,179	1,425,247
Quebec	488	518	38,388	38,388	5,960,165	2,386,403	3,492,786	931,358	1,536,021	10,561,240	4,117,063	14,747,350
Ontario	153	177	35,251	48,508	3,833,054	1,597,934	1,561,954	1,155,529	1,115,571	33,014,301	3,741,002	36,818,286
Manitoba	50	347	46,175	56,394	5,309,709	2,902,992	2,950,407	315,582	2,043,720	15,792,614	1,043,840	16,849,725
Saskatchewan	326	1,403	186,425	172,054	37,833,798	16,167,648	12,067,627	1,251,658	24,514,513	48,408,174	3,674,227	52,125,723
Alberta	44	536	64,498	71,181	16,868,928	5,949,727	6,005,011	407,494	10,456,423	36,038,943	1,578,847	37,685,363
British Columbia	70	74	15,077	17,849	4,813,230	1,631,736	1,831,230	1,765,510	1,216,490	8,382,538	2,145,691	10,706,957
Interprovincial	6	463	39,107	53,879	9,619,539	6,320,086	3,776,689	3,308,278	2,534,572	23,577,061	2,088,267	25,683,297
Totals	**1,332**	**3,791**	**445,742**	**486,589**	**86,483,057**	**37,785,803**	**32,977,904**	**9,685,537**	**43,819,616**	**180,747,471**	**20,400,008**	**201,659,984**
FUNCTIONAL AND COMMODITY GROUPING.												
Marketing—												
Dairy products	197	207	56,979	75,876	5,551,549	2,673,554	2,242,409	2,204,931	1,104,209	19,412,343	314,478	19,898,326
Fruits and vegetables	100	136	9,823	13,156	4,950,746	2,328,976	2,545,270	954,005	1,451,471	9,125,104	1,787,141	11,080,500
Grain and seed	32	2,126	192,615	192,634	64,306,847	29,608,091	22,976,040	3,469,268	37,861,539	111,116,878	1,851,960	113,036,189
Live stock	180	203	60,677	69,422	1,116,621	537,957	400,867	642,758	72,996	16,168,759	590,374	16,777,594
Poultry	87	312	34,895	31,229	559,912	120,019	248,195	69,328	242,389	4,296,694	100,535	4,411,045
Honey	2	2	1,217	772	206,481	17,415	164,389	30,489	11,603	245,025	10,843	257,929
Maple sugar	1	1	1,982	1,982	378,343	248,584	108,050	58,062	212,231	684,925	Nil	684,925
Tobacco	7	7	3,513	3,356	572,471	262,932	171,450	83,850	317,171	16,653,894	577	16,665,506
Wool	1	17	7,000	6,000	228,297	67,336	32,169	117,660	78,468	615,341	54,000	676,368
Fur	2	2	965	4,500	277,969	38,990	7,477	[1]	270,492	1,653,685	17,949	1,671,634
Miscellaneous[2]	6	18	14,371	14,371	3,595,120	700,511	2,635,023	616,349	343,748	149,830	Nil	150,648
Totals, Marketing	615	3,031	384,037	413,298	81,744,356	36,604,365	31,531,339	8,246,700	41,966,317	180,122,478	4,727,857	185,310,664
Purchasing	717	760	61,705	73,291	4,738,701	1,181,438	1,446,565	1,438,837	1,853,299	624,993	15,672,151	16,349,320
Grand Totals	**1,332**	**3,791**	**445,742**	**486,589**	**86,483,057**	**37,785,803**	**32,977,904**	**9,685,537**	**43,819,616**	**180,747,471**	**20,400,008**	**201,659,984**

[1] Not organized on a share-capital basis. [2] Includes assets and liabilities of United Farmers of Ontario, Ltd., and Coopérative Fédérée de Québec but business has been distributed according to commodity groupings.

Section 12.—Old Age Pensions and Pensions for Blind Persons.*

The Old Age Pensions Act, 1927.—Legislation respecting Old Age Pensions (R.S.C., 1927, c. 156) was adopted by the Dominion Parliament in 1927. Under the provisions of this statute the Dominion Government reimbursed each province participating in the Dominion scheme to the extent of one-half of the provincial expenditure for old age pensions. An amendment passed at the 1931 session of Parliament (c. 42, Statutes of 1931) provided that the Dominion contribution to the provinces be increased from 50 p.c. to 75 p.c. of the provincial disbursements for old age pensions. The Dominion contribution of 75 p.c. of provincial disbursements was made effective from Nov. 1, 1931; the provinces have since been reimbursed on this basis.

The Dominion Old Age Pensions Act is now operative in all provinces and in the Northwest Territories.

The Gold Commissioner of Yukon was given authority, by a Yukon Territorial Council Ordinance passed in 1927, to enter into an agreement with the Dominion Government for the purpose of obtaining the benefits of the Old Age Pensions Act for residents in the Territory. No proposed scheme of administration for adoption in Yukon has been submitted for the approval of the Governor in Council.

Sect. 5 of the Act provides that, before any agreement is made with a province, the scheme for the administration of pensions proposed to be adopted by the province shall be approved by the Governor in Council, and that no change in such scheme shall be made without the consent of the Governor in Council.

The qualifications required of an applicant for pension are set forth in Sect. 8 of the Act which reads as follows:—

(1) Provision shall be made for the payment of a pension to every person who, at the date of the proposed commencement of the pension:—
- *(a)* is a British subject, or, being a widow, who is not a British subject, was such before her marriage;
- *(b)* has attained the age of seventy years;
- *(c)* has resided in Canada for the twenty years immediately preceding the date aforesaid;
- *(d)* has resided in the Province in which the application for pension is made for the five years immediately preceding the said date;
- *(e)* is not an Indian as defined by the Indian Act;
- *(f)* is not in receipt of an income of as much as three hundred and sixty-five dollars ($365) a year; and
- *(g)* has not made any voluntary assignment or transfer of property for the purpose of qualifying for a pension.

(2) The receipt of a pension shall not by itself constitute a disqualification from voting at any provincial or municipal election.

Sect. 9 provides that the maximum pension payable shall be $240 yearly, subject to reduction by the amount of the income of the pensioner in excess of $125 a year. The pension authority may accept a transfer of the pensioner's interest in a dwelling house in which he resides, in which case the value of the dwelling is not considered in calculating the amount of pension payable. Subject to certain conditions, the pension authority is entitled to recover out of the estate of any deceased pensioner the amount of pension payments with interest at 5 p.c. per annum, compounded annually.

By Sect. 15 provision is made for the suspension of pension where a pensioner has transferred his residence to some place out of Canada. It is provided by

* Revised under the direction of Dr. W. C. Clark, Deputy Minister, Department of Finance, Ottawa.

Sect. 16 that a pension shall not be subject to alienation or transfer by the pensioner or to seizure in satisfaction of any claim against him.

The Governor in Council is empowered by Sect. 19 of the Act to make regulations pursuant to this section. Existing regulations were revised and approved by Orders in Council dated Dec. 9, 1937, Feb. 3, 1938, and July 27, 1939.

33.—Financial Summary of Old Age Pensions in Canada, by Provinces, as at Dec. 31, 1939.

Item.	Prince Edward Island. — Act Effective July 1, 1933.	Nova Scotia. — Act Effective Mar. 1, 1934.	New Brunswick. — Act Effective July 1, 1936.	Quebec. — Act Effective Aug. 1, 1936.	Ontario. — Act Effective Nov. 1, 1929.	Manitoba. — Act Effective Sept. 1, 1928.
Totals, pensioners as at Dec. 31, 1939.....No.	1,983	14,540	11,854	49,017	59,895	12,530
Av. monthly pensions.....$	11·20	14·82	14·56	17·83	18·51	18·69
Percentages of pensioners to total populations, 1939[1]....	2·09	2·61	2·63	1·53	1·60	1·72
Percentages of persons 70 years of age or over to total populations[1].....	6·19	4·97	4·18	3·02	4·40	3·11
Dominion Government's contributions, Jan. 1 to Dec. 31, 1939.....$	190,216	1,903,437	1,511,256	7,724,937	9,739,010	2,045,715
Dominion Government's contributions from inception of Old Age Pensions Act to Dec. 31, 1939.....$	1.003,099	10,109,193	4,784,188	24,177,886	75,773,426	16,237,316

Item.	Saskatchewan. — Act Effective May 1, 1928.	Alberta. — Act Effective Aug. 1, 1929.	British Columbia. — Act Effective Sept. 1, 1927.	Northwest Territories. — Order in Council Effective Jan. 25, 1929.	Total.
Totals, pensioners as at Dec. 31, 1939..No.	12,502	10,586	13,240	7	186,154
Av. monthly pensions.....$	16·72	18·50	19·15	20·00	–
Percentages of pensioners to total populations, 1939[1].....	1·32	1·34	1·71	0·08	1·65
Percentages of persons 70 years of age or over to total populations[1].....	2·35	2·36	3·54	1·22	3,59
Dominion Government's contributions, Jan. 1 to Dec. 31, 1939.....$	1,878,258	1,716,802	2,174,476	1,753	28,885,860
Dominion Government's contributions from inception of Old Age Pensions Act to Dec. 31, 1939.....$	14,682,287	11,008,581	15,634,547	16,280	173,426,802

[1] Estimates of population on which these figures are based are given at p. 103.

Pensions for Blind Persons.—By an amendment to the Old Age Pensions Act in 1937, provision was made for the payment of a pension to every blind person who, at the date of the proposed commencement of pension:—

(a) is, and continues to be so blind as to be unable to perform any work for which eyesight is essential;
(b) has attained the age of forty years;
(c) is not in receipt of a pension in respect of blindness under the Pension Act, or an allowance in respect of blindness under the War Veterans' Allowance Act;
(d) is:—
  (i) unmarried, or a widower without a child or children, or a widow without a child or children, and is not in receipt of an income of as much as four hundred and forty dollars a year, or—
  (ii) married, or a widower with a child or children, or a widow with a child or children and is not in receipt of an income of as much as six hundred and forty dollars a year; and—
(e) fulfils the conditions laid down in paragraphs *(a)*, *(c)*, *(d)*, *(e)*, and *(g)* of Subsection 1 of Section 8 of the Act.

The maximum pension payable to a blind person is $240 yearly except in the case of a blind person, who, after the coming into force of the amendment to the Act, marries a person so blind as to be unable to perform any work for which eyesight is essential. The maximum pension in such a case is $120 yearly.

The amended Act provides that pensions payable to blind persons shall be subject to reduction as follows:—

(a) in the case of an unmarried person or a widower without a child or children or a widow without a child or children, by the amount of the income of the pensioner in excess of two hundred dollars a year;

(b) in the case of a married person or a widower with a child or children or a widow with a child or children, by the amount of the income of the pensioner in excess of four hundred dollars a year;

(c) in the case of a person married to a blind person receiving a pension under the amended Act, by the amount of the income of the pensioner in excess of two hundred dollars a year.

No blind person who is married, or is a widower with a child or children, or a widow with a child or children, is entitled to any pension in excess of the pension to which an unmarried person is entitled unless such married person and his or her spouse, or such widower or widow and one or more of his or her children, are living together.

The Governor in Council is empowered to make regulations with regard to pensions for blind persons and to define the expression "is so blind as to be unable to perform any work for which eyesight is essential".

34.—Financial Summary of Pensions for Blind Persons in Canada, by Provinces, as at Dec. 31, 1939.

Item.	Prince Edward Island. — Act Effective Dec. 1, 1937.	Nova Scotia. — Act Effective Oct. 1, 1937.	New Brunswick. — Act Effective Sept. 1, 1937.	Quebec. — Act Effective Oct. 1, 1937.	Ontario. — Act Effective Sept. 1, 1937.
Totals, pensioners.....No.	110	551	641	1,700	1,305
Averages, monthly pensions.....$	13·96	19·08	19·71	19·46	19·55
Dominion Government's contributions, Jan. 1 to Dec. 31, 1939.....$	12,936	88,085	102,729	283,011	218,110
Dominion Government's contributions from inception of amendment to Old Age Pensions Act.....$	20,859	153,731	175,356	537,867	404,683

Item.	Manitoba. — Act Effective Sept. 1, 1937.	Saskatchewan. — Act Effective Nov. 15, 1937.	Alberta. — Act Effective Mar. 7, 1938.	British Columbia. — Act Effective Dec. 1, 1937.	Total.
Totals, pensioners.....No.	257	244	181	276	5,265
Averages, monthly pensions.....$	19·46	19·81	19·61	19·24	-
Dominion Government's contributions, Jan. 1 to Dec. 31, 1939.....$	39,850	42,707	28,316	44,108	859,853
Dominion Government's contributions from inception of amendment to Old Age Pensions Act.....$	70,859	70,540	41,238	74,434	1,549,567

Section 13.—Mothers' Allowances.*

Seven of the nine provinces of Canada provide for the payment of allowances to mothers who are widowed or without adequate means of support. The Province of Manitoba was the first to make such provision in 1916, and the example has been

* This information was obtained through the courtesy of the respective provincial authorities.

followed by the other western provinces and by Ontario, Nova Scotia, and Quebec. The Mothers' Allowances Act, 1930, of New Brunswick has not been proclaimed in effect.

All the mothers' allowances Acts stipulate that, at the time of making application, the mother must be a resident of the province and a widow. In British Columbia the recipient must have resided in the Province for a period of at least three years.

In all provinces but New Brunswick and Nova Scotia, a wife whose husband is mentally incapacitated is eligible. In each case the applicant must also be a resident of the province at the time at which death, incapacity, or desertion occurs. Under all the laws, except those of New Brunswick, Nova Scotia, and Quebec, the wife of a physically disabled man is eligible but the section in the Alberta Act relating specifically to such persons has not been proclaimed. In British Columbia allowances are paid in cases where total disability is expected to continue for one year or more, and allowances are paid on behalf of the disabled man.

In Alberta, British Columbia, Ontario, and Saskatchewan 'deserted'* wives are paid an allowance, and in British Columbia and Saskatchewan the wives of inmates of penal institutions are eligible. British Columbia also grants allowances to divorcees or those legally separated. Under all the statutes except those of Alberta and Saskatchewan, the mother must be a British subject, or the widow or wife of a British subject. In Nova Scotia the recipient herself must be a British subject. Allowances may be paid to foster-mothers under certain conditions in all the provinces but Alberta, Nova Scotia, and New Brunswick.

In New Brunswick, Nova Scotia, and Quebec, allowances are payable in respect of two or more dependent children. In addition, New Brunswick pays an allowance for one child under 16 if there is an invalid child over 16 years of age, while the same is true of Nova Scotia, if the mother is unable to maintain herself and the child. In the other provinces, allowances are payable in respect of one or more dependent children, but in Manitoba, under the regulations, no allowance is payable in respect of an only child, unless the mother is temporarily or permanently unable to care for the child. In British Columbia, New Brunswick, Nova Scotia, Ontario, Quebec, and Saskatchewan a dependent child is a child under 16 years of age. In Alberta, a boy under 15 or a girl under 16 is deemed to be dependent. In Manitoba, only children under 15 are regarded as dependent but exceptions are made in the cases of invalids.

In Alberta the cost of the allowances is divided between the Province and the municipalities concerned, and in the other provinces the whole cost is carried by the province.

Rates of Allowances.—In British Columbia, the Act provides for a maximum monthly allowance of $42·50 for a mother with one dependent child, an additional $7·50 for each child under 16 years of age, and a further $7·50 in cases where the husband of the mother is totally disabled and is living with her. Since 1933 the amount allowed for a mother and one dependent child has been reduced to $35, although the Act has not been changed. In New Brunswick and Nova Scotia, a maximum allowance of $60 per month is fixed by statute. In the other provinces, the provincial authority administering the Act has power to fix the rate of the allowance. In Ontario, the maximum for a mother and one child is $35 per month in a city, $30 in a town of over 5,000 population, and $25 in a rural district, with an

* In Ontario presumption of death after complete disappearance of the husband for 3 years is interpreted as desertion. In Saskatchewan death may be presumed after 7 years, while in Alberta and British Columbia pensions may be paid after desertion for 5 and 2 years, respectively.

allowance of $5 for each additional child. In Saskatchewan, under the terms of an Order in Council of January, 1936, maximum monthly payments range from $8 to a mother with one child to $44 to a mother with ten or more children.

In Manitoba, the maximum allowance for a mother and two children is $50 excluding allowance for winter fuel, with a maximum of $89 for a family of seven or more children. In Alberta, the allowance is determined by the special circumstances in each case, the maximum payment ranging from $25 per month to a mother with one child to $50 per month where there are five children.

An allowance of $40 monthly for a woman with two dependent children is paid in Quebec, with $5 for each additional child, the total not to exceed $60.

Nova Scotia.—The Mothers' Allowances Act (c. 4, 1930) was passed at the session of 1930 and came into force on Oct. 1, 1930.

35.—Mothers' Allowances in Nova Scotia, Fiscal Years 1931-39.

Year.	Families Assisted.	Children Assisted.	Benefits Paid.
	No.	No	$
1931 (year ended Sept. 30)	1,030	3,179	310,602
1932 " "	1,108	3,342	331,337
1933 " "	1,158	3,487	341,929
1934 " "	1,168	3,549	356,075
1935 (14 months ended Nov. 30)	1,239	3,720	413,997
1936 (year ended Nov. 30)	1,222	3,630	363,981
1937 " "	1,260	3,682	389,212
1938 " "	1,295	3,713	412,745
1939 " "	1,291	3,640	424,615

Quebec.—The Needy Mothers' Assistance Act, 1937, became operative in December, 1938. The total amount paid out in allowances from Dec. 31, 1938, to Jan. 31, 1940, was $2,263,219. The number of beneficiaries at Jan. 31, 1940, was 4,728. Of this number, 4,449 were widows, 251 were mothers whose husbands were interned in lunatic asylums, and 28 were grandmothers.

Ontario.—The Mothers' Allowances Act (R.S.O., 1927, c. 280) was originally passed at the session of 1920, as c. 89 of the Statutes of that year, and came into force on Oct. 1, 1920.

36.—Mothers' Allowances in Ontario, Fiscal Years 1921-39.

Year.	Families Assisted.	Children Assisted.	Benefits Paid.		
			Chargeable to Province.	Chargeable to Municipalities.	Total.
	No	No.	$	$	$
1921 (year ended Oct. 31)	2,660	8,271	416,152	358,515	774,667
1922 " "	3,559	10,922	762,059	620,079	1,382,138
1923 " "	3,870	11,791	889,252	723,449	1,612,701
1924 " "	4,058	12,374	939,522	768,372	1,707,894
1925 " "	5,007	14,577	974,174	807,107	1,781,281
1926 " "	5,215	15,115	1,027,518	849,367	1,876,885
1927 " "	5,540	16,060	1,101,817	905,740	2,007,557
1928 " "	5,976	17,328	1,203,920	986,487	2,190,407
1929 " "	6,411	18,605	1,260,299	1,045,784	2,306,083
1930 " "	6,712	19,620	1,292,245	1,084,743	2,376,988
1931 " "	7,157	20,906	1,400,418	1,181,468	2,581,886
1932 " "	7,418	21,468	1,455,100	1,234,627	2,689,727
1933 " "	7,653	22,068	1,516,260	1,285,613	2,801,873
1934 " "	8,144	23,173	1,640,283	1,385,872	3,026,155
1935 (Nov. 1, 1934, to Mar. 31, 1935)	7,875	22,417	745,885	634,080	1,379,965
1936 (year ended Mar. 31)	11,189	26,697	2,133,490	1,813,326	3,946,816
1937 " "	12,856	28,700	2,477,631	2,104,916	4,582,547
1938 " "	13,644	29,551	4,851,577	Nil	4,851,577
1939 " "	13,937	29,630	5,016,509	"	5,016,509

Manitoba.—The Mothers' Allowances Act (1916, c. 69), the first of its kind in Canada, came into operation on Mar. 10, 1916. Allowances are now made under the authority of the Child Welfare Act (1936, c. 6).

37.—Mothers' Allowances in Manitoba, 1919-39.

Year.	Families Assisted.	Children Assisted.	Benefits Paid.		
			Chargeable to Province.	Chargeable to Municipalities.	Total.
	No.	No.	$	$	$
1919 (year ended Nov. 30)	413	[1]	107,651	95,833	203,484
1920 " "	532	[1]	157,484	193,360	350,844
1921 (Dec. 1, 1920, to Aug. 31, 1921)	648	[1]	212,237	225,000	437,237
1922 (year ended Aug. 31)	669	[1]	179,060	150,199	329,259
1923 " "	722	2,609	236,399	225,749	462,148
1924 " "	728	[1]	185,661	220,359	406,020
1925 (Sept. 1, 1924 to Apr. 30, 1925)	756	[1]	144,590	150,937	295,527
1926 (Year ended Apr. 30)	825	2,507	172,425	229,796	402,221
1927 " "	855	2,595	183,924	230,000	413,924
1928 " "	967	2,986	286,798	244,559	531,357
1929 " "	1,062	3,239	276,144	281,477	557,621
1930 " "	1,055	3,180	100,979	384,081	485,060
1931 " "	1,042	3,326	140,545	325,194	465,739
1932 " "	1,070	3,412	471,704	Nil	471,704
1933 " "	1,078	3,374	432,615	"	432,615
1934 " "	1,092	3,313	438,649	"	438,649
1935 " "	1,110	3,302	440,769	"	440,769
1936 " "	1,140	3,386	444,869	"	444,869
1937 " "	1,141	3,271	445,549	"	445,549
1937 (May 1, 1937 to Dec. 31, 1937)	1,053	3,072	283,451	"	283,451
1938 (calendar year)	1,079	3,197	426,621	"	426,621
1939 "	1,055	3,088	427,781	"	427,781

[1] Not available.

Saskatchewan.—Mothers' allowances are paid under the authority of Part VI of the Child Welfare Act (R.S.S., 1930, c. 231), originally enacted in 1917 as the Mothers' Pensions Act.

38.—Mothers' Allowances in Saskatchewan, Years Ended Apr. 30, 1929-39.

Year.	Families Assisted.	Children Assisted.	Benefits Paid.
	No.	No.	$
1929	1,214	4,657	521,880
1930	1,800	5,465	467,575
1931	2,183	6,590	544,250
1932	2,372	6,431	483,618
1933	2,511	6,733	403,915
1934	2,608	6,794	407,993
1935	2,826	7,368	440,580
1936	2,944	7,638	474,120
1937	2,958	7,487	482,411[1]
1938	3,007	7,854	495,988
1939	3,071	7,922	498,048

[1] Revised since the publication of the 1939 Year Book.

Alberta.—The Mothers' Allowance Act (R.S.A., 1922, c. 215) was originally passed at the session of 1919, and came into force in that year.

39.—Mothers' Allowances in Alberta, 1919-39.

Year.	Families Assisted.	Children Assisted.	Benefits Paid.		
			Chargeable to Province.	Chargeable to Municipalities.	Total.
	No.	No.	$	$	$
1919 (calendar year)	245	766	19,714	19,714	39,428
1920 "	477	1,502	80,642	76,787	157,429
1921 "	562	1,636	103,572	98,302	201,874
1922 "	721	1,864	126,122	120,629	246,751
1923 "	758	1,887	122,651	120,035	242,686
1924 "	742	2,136	129,242	128,169	257,411
1925 "	828	2,271	142,004	141,582	283,586
1926 "	907	2,290	157,272	157,013	314,285
1927 "	968	2,445	174,500	174,440	348,940
1928 "	1,029	2,517	182,382	182,222	364,604
1929 "	1,094	2,880	198,378	198,377	396,755
1930 "	1,270	3,409	234,828	231,708	466,536
1932 (year ended Mar. 31)	1,499	3,747	242,314	237,293	479,607
1933 "	1,675	3,882	222,606	216,590	439,196
1934 "	1,724	4,060	223,262	216,721	439,983
1935 "	1,812	4,274	233,904	228,489	462,393
1936 "	2,088	4,764	257,327	250,175	507,502
1937 "	2,319	5,172	410,872	164,636	575,508
1938 "	2,317	5,177	462,143	151,421	613,564
1939 "	2,304	4,970	469,126	153,711	622,837

British Columbia.—The Mother's Allowances Act (R.S.B.C., 1937, c. 53) was originally passed as c. 61 of the Acts of 1920, and came into force in July, 1920.

Under the original Act, the full cost of allowances was borne by the Province. In 1932 one-half of the costs of allowances paid to residents of a municipality was charged to the municipality to which they belonged, but at the end of the fiscal year 1936-37 responsibility for all payments was again assumed by the Province.

In 1939 there were 469 cases where mothers received extra allowances for incapacitated husbands.

40.—Mothers' Allowances in British Columbia, Fiscal Years 1921-39.

Year.	Families Assisted.[1]	Children Assisted.[1]	Benefits Paid.[2]		
			Chargeable to Province.	Chargeable to Municipalities.	Total.
	No.	No.	$	$	$
1921	[3]	[3]	[3]	[3]	273,575
1922	771	1,978	487,888	Nil	487,888
1923	785	1,990	414,227	"	414,227
1924	847	2,240	423,233	"	423,233
1925	943	2,544	463,669	"	463,669
1926	986	2,723	518,471	"	518,471
1927	1,100	3,050	612,645	"	612,645
1928	1,233	2,757	628,600	"	628,600
1929	1,370	3,028	677,510	"	677,510
1930	1,468	3,229	759,698	"	759,698
1931	1,568	3,295	816,272	"	816,272
1932	1,547	3,213	842,977	"	842,977
1933	1,514	3,274	468,511	311,129	779,640
1934	1,436	3,147	469,916	151,586	621,502
1935	1,410	2,922	365,288	224,334	589,622
1936	1,485	3,026	403,558	212,997	616,555
1937	1,567	3,191	443,803	238,785	682,588
1938	1,692	3,481	747,878	Nil	747,878
1939	1,751	3,626	790,101	"	790,101

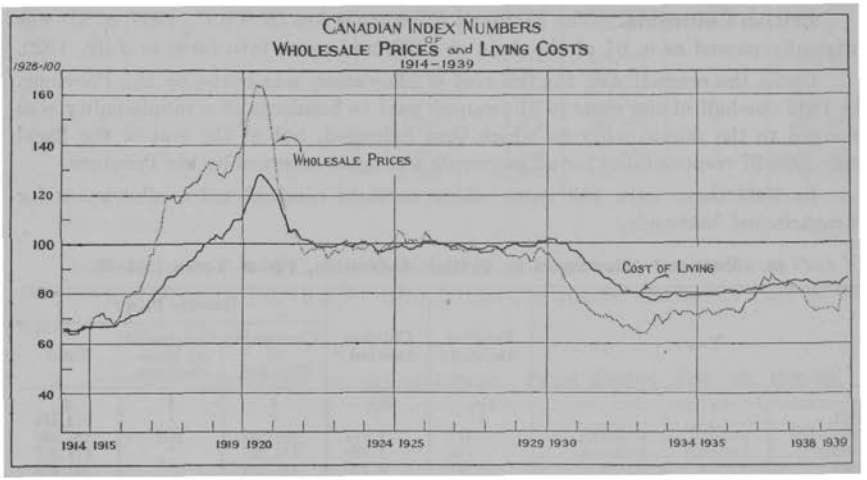
[1] Years ended Sept. 30 for 1921-32, and fiscal years ended Mar. 31 from 1933. [2] Fiscal years ended Mar. 31 in all cases. [3] Not available.

CHAPTER XX.—PRICES.*

CONSPECTUS.

	Page.
Section 1. Wholesale Prices of Commodities	809
Subsection 1. Historical Review of Canadian Prices	809
Subsection 2. The Index Number on the 1926 Base	810
Section 2. Retail Prices and Cost of Living	817
Subsection 1. The Bureau of Statistics Index Numbers of Retail Prices and Services	817
Subsection 2. The Nutrition and Family Living Expenditures Investigation	819
Section 3. Index Numbers of Security Prices	822
Section 4. Index Numbers of Bond Yields	824

For purposes of statistical analysis, commodity prices are usually divided into two principal groups, wholesale prices and retail prices. The term 'wholesale' is not used literally, and primary producers', factory, and jobbers' quotations, as well as actual wholesale prices, are often included in this group. Markets in which this type of price is quoted are usually well organized, and frequently very sensitive. They are responsive to changing business and monetary conditions. Wholesale quotations are preferred, therefore, for sensitive index numbers of prices designed to reflect price reactions to economic factors.



Retail prices represent more diffused markets, and are less sensitive. There is ordinarily a lag of several months between this type of quotation and its wholesale counterpart. Retail prices are important from a statistical point of view, however, because they indicate changes in living costs and, along with measurements of income, show fluctuations in the economic well-being of the community.

* Except as otherwise credited, the sections of this chapter have been revised under the direction of Herbert Marshall, B.A., F.S.S., Chief, Internal Trade Branch, Dominion Bureau of Statistics. This Branch compiles and publishes statistics on: Prices (wholesale, retail, securities, bond yields, services, exchange, cost of living), Retail and Wholesale Trade, Foreign Capital Investments in Canada and Canadian Investments Abroad, Balance of International Payments, and other related subjects. For a complete list of the publications of this Branch, see Chapter XXIX, Section I, under "Internal Trade".

Section 1.—Wholesale Prices of Commodities.

Subsection 1.—Historical Review of Canadian Prices.

From Table 1 will be noted the high prices of 1867, following the close of the American Civil War and the Austro-Prussian War of 1866, and the tendency to declining prices in subsequent years. Prices rose again after the Franco-German War of 1871 and reached a high point in 1872 and 1873, but the crisis of the latter year resulted in a decline. A downward trend persisted fairly steadily throughout the 25 years from 1872 to 1897, when the gold supply of the world did not increase as rapidly as the supply of commodities. This gold shortage was accentuated by the demonetization of silver, which was reduced to the level of token money by most nations. Relief came through the discoveries of gold in the Rand mines and the application of the cyanide process to low-grade ores. The result was a rapidly increasing world production of gold from about 1890 to the outbreak of the War of 1914-18, with consequent rising prices as the volume of the new gold became an appreciable part of the total stock. The War itself, both through the scarcity of commodities that it occasioned and the inflation of the currency, drove prices rapidly upward to a maximum of 243·5 in 1920, followed by a rapid drop to 152·0 in 1922. The tendency from 1922 to 1929 was gradually downward, although the period was one of increasing prosperity.

Commencing in the autumn of 1929, a severe economic depression was accompanied by a drastic decline in wholesale prices (the wholesale price index fell from 153·7 in August, 1929, to 99·2 in February, 1933). A subsequent irregular rise followed until 1937, although the trend of prices was downward in the latter half of that year. This movement persisted until September, 1939. when the outbreak of war in Europe accounted for a sharp rise in the last four months of the year.

1.—Annual Index Numbers of Wholesale Prices in Canada, 1867-1939.

(1913=100. Unweighted index from 1867-1912.)

Year.	Index No.	Year.	Index No.	Year.	Index No.	Year.	Index No.
1867	133·0	1886	90·7	1905	87·8	1924	155·2
1868	128·7	1887	91·9	1906	92·6	1925	160·3
1869	126·5	1888	93·5	1907	96·2	1926	156·2
1870	123·5	1889	92·6	1908	90·9	1927	152·6
1871	124·5	1890	93·0	1909	91·4	1928	150·6
1872	135·7	1891	91·4	1910	94·3	1929	149·3
1873	133·8	1892	86·2	1911	95·0	1930	135·3
1874	129·0	1893	85·2	1912	99·5	1931	112·6
1875	120·7	1894	80·6	**1913**	**100·0**	1932	104·2
1876	116·6	1895	79·6	1914	102·3	1933	104·8
1877	115·1	1896	76·0	1915	109·9	1934	111·8
1878	104·3	1897	75·6	1916	131·6	1935	112·6
1879	101·0	1898	77·8	1917	178·5	1936	116·5
1880	112·9	1899	81·4	1918	199·0	1937	132·1
1881	109·9	1900	85·8	1919	209·2	1938	122·8
1882	112·1	1901	84·5	1920	243·5	1939	117·6
1883	106·0	1902	86·2	1921	171·8		
1884	100·6	1903	86·9	1922	152·0		
1885	92·7	1904	87·0	1923	153·0		

Subsection 2.—The Index Number on the 1926 Base.

There was a net advance during 1939 of 11·5 p.c. in the general index while component groups showed the following percentage increases: vegetable products 19·2, animal products 11·5, textiles 23·3, wood products 11·7, iron and its products 4·0, non-ferrous metals 5·3, non-metallic minerals 0·2, and chemicals 9·5. Net price increases for the year for individual commodities were, with few exceptions, less than 25 p.c. Increases exceeding this amount, however, were recorded for raw silk, wool, grains, rubber, leather, groundwood pulp, and tin.

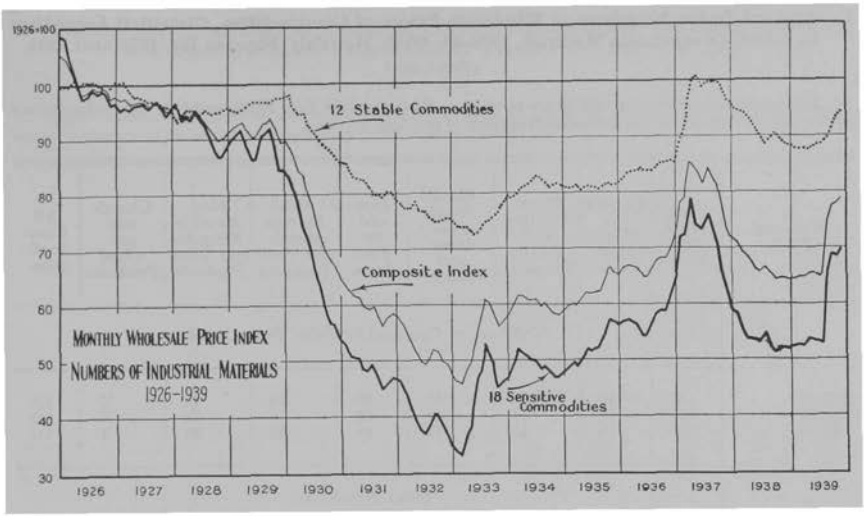
2.—Monthly Weighted Index Numbers of General Wholesale Prices, 1929-39.

(1926=100.)

Month.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.
January	94·0	95·3	75·9	69·5	63·8	70·7	71·4	72·9	81·9	83·8	73·2
February	95·0	93·9	75·5	68·9	63·5	72·1	71·8	72·5	82·9	83·6	73·1
March	95·6	91·8	74·5	69·0	64·3	72·1	71·9	72·4	85·4	83·1	73·2
April	94·5	91·2	73·9	68·2	65·3	71·3	72·5	72·2	86·2	82·3	73·4
May	93·4	89·7	72·5	67·4	66·7	71·1	72·2	71·9	85·3	80·3	73·7
June	93·4	87·7	71·8	66·4	67·5	72·0	71·4	72·3	84·6	80·1	73·3
July	97·2	85·3	71·3	66·5	70·5	72·0	71·4	74·3	87·6	78·6	72·6
August	98·4	83·7	70·5	66·7	69·5	72·2	71·7	76·1	85·6	76·0	72·4
September	97·8	82·1	69·7	65·9	68·9	71·9	72·4	76·4	85·0	74·5	78·3
October	96·8	81·0	69·9	65·0	67·9	71·3	73·1	77·1	84·7	74·1	79·5
November	95·7	79·5	70·7	64·7	68·9	71·1	72·7	77·2	83·1	73·5	80·4
December	96·0	77·7	70·4	64·0	69·0	71·1	72·7	79·6	82·7	73·3	81·7
Yearly Averages	**95·6**	**86·6**	**72·1**	**66·7**	**67·1**	**71·6**	**72·1**	**74·6**	**84·6**	**78·6**	**75·3**

Canadian Farm Products Prices.—Movements in the Canadian farm products index of wholesale prices were somewhat narrower during 1939 than for commodity wholesale prices in general. This was due in part to the use of minimum prices established by the Canadian Wheat Board when market prices of wheat were below the Board's minimum levels. The composite index for Canadian farm products advanced from 64·8 in January to 65·5 in April and then receded to 58·4 in August. The subsequent rise in prices did not cancel summer declines until December, when the index reached 69·1. Throughout 1939 the animal products section held at levels substantially higher than those of the field product section. Annual averages for these two groups were 81·4 and 54·3, respectively, in 1939.

Industrial Materials Prices.—The Dominion Bureau of Statistics inaugurated in 1938 a new series of index numbers, consisting of 30 basic industrial materials. It is computed from an unweighted geometric average with 1926 prices equal to 100. The 30 commodities are divided into 2 main groups of 18 sensitive manufacturing materials and 12 stable price series. The 18 sensitive commodities are, in turn, separated into 2 sub-groups of 13 sensitive manufacturing materials and 5 food products.



The major trends outlined by the index of industrial materials prices since 1926 can be summarized briefly as follows: from 1926 to 1929 underlying instability was apparent and the general index moved lower at a gradual pace throughout the period. Then followed a severe decline, which depressed industrial materials prices along with other principal commodity groups until the beginning of 1933 although temporary improvement occurred during the summer months of 1932; markets weakened, however, towards the close of the year and the index dropped further. A gradual rise punctuated by intermittent short-period declines ensued. In March, 1937, industrial materials prices attained their highest point since 1929 and a slightly lower peak was shown in July, after a minor reaction. From this period to November, 1938, the index of industrial materials prices receded to levels on a par with those of 1936 and the latter part of 1935. The effects of the outbreak of war are noticeable in the last four months of 1939.

3.—Monthly Price Index Numbers of Industrial Materials Prices, 1926-39.

(1926=100.)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1926.....	104·7	102·6	100·7	99·4	98·3	98·4	99·5	98·9	99·2	99·1	97·4	98·0
1927.....	97·2	97·5	96·4	96·7	96·8	96·9	96·0	96·6	96·7	96·0	94·8	96·1
1928.....	95·4	93·7	94·5	94·1	95·2	93·8	93·4	92·1	90·9	89·9	90·2	91·1
1929.....	92·2	92·7	93·2	91·8	90·3	90·4	92·9	93·0	93·7	92·4	89·4	89·5
1930.....	88·3	86·8	84·0	83·4	79·8	77·4	74·0	71·9	69·3	67·7	66·6	64·9
1931.....	63·9	62·1	61·5	61·2	59·5	59·3	59·6	57·9	56·1	57·7	58·1	57·7
1932.....	56·8	55·2	53·4	51·5	49·7	49·2	50·3	51·6	51·5	49·9	49·1	47·4
1933.....	46·0	45·8	48·4	49·3	54·0	56·7	60·8	59·4	58·6	55·7	57·0	57·6
1934.....	59·4	61·7	61·5	60·9	60·7	60·9	59·8	60·1	59·1	58·4	58·3	58·9
1935.....	59·8	60·0	59·7	61·1	62·0	61·7	62·0	62·1	64·1	65·9	65·5	65·3
1936.....	66·1	66·5	66·3	66·0	64·6	64·6	66·4	67·7	68·2	68·0	69·9	73·1
1937.....	78·1	79·3	85·2	84·7	83·4	82·3	84·5	82·9	81·2	76·8	73·4	71·5
1938.....	70·6	69·2	68·8	67·4	65·9	65·5	66·3	65·1	64·1	64·2	64·2	64·0
1939.....	64·3	64·3	64·7	64·6	65·2	65·3	64·9	65·3	75·0	77·4	77·9	79·0

4.—Annual Index Numbers of Wholesale Prices of Commodities, Classified According to Chief Component Material, 1926-39, with Monthly Figures for 1938 and 1939.

(1926=100.)

NOTE.—Annual figures for 1913-25 are given at p. 815 of the 1938 Year Book; monthly figures for certain earlier years are given in the corresponding table of previous editions.

Year and Month.	Vegetable Products.	Animals and Their Products.	Fibres, Textiles, and Textile Products.	Wood, Wood Products, and Paper.	Iron and Its Products.	Non-Ferrous Metals and Their Products.	Non-Metallic Minerals and Their Products.	Chemicals and Allied Products.	All Commodities.
	Numbers of Commodity Price Series Used.								
1913-25	67	50	28	21	26	15	16	13	236
1926-33	124	74	60	44	39	15	73	73	502
1934-39	135	76	85	49	44	18	83	77	567
	Index Numbers.								
1926	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
1927	98·3	101·9	93·7	98·5	96·2	91·5	96·5	98·3	97·7
1928	93·0	108·1	94·5	98·7	93·2	92·0	92·5	95·3	96·4
1929	91·6	109·0	91·3	93·9	93·7	99·2	92·9	95·4	95·6
1930	77·7	99·1	81·8	88·7	91·1	80·7	91·3	92·8	86·6
1931	56·9	73·9	73·4	79·1	87·4	64·6	86·5	86·7	72·1
1932	54·8	59·7	69·7	69·1	86·3	59·0	85·5	83·9	66·7
1933	59·3	59·4	69·7	62·8	85·4	64·3	84·4	81·3	67·1
1934	66·6	67·2	72·9	65·4	87·0	64·3	86·0	81·2	71·6
1935	67·3	70·4	70·2	64·6	87·2	69·1	85·5	79·1	72·1
1936	72·6	71·8	69·7	68·5	88·0	70·0	85·5	78·0	74·6
1937	88·4	78·4	72·8	76·7	101·8	83·8	86·6	81·4	84·6
1938	73·8	76·7	67·5	77·5	100·4	70·9	86·7	79·9	78·6
1939	63·3	74·7	69·8	79·2	98·5	71·3	85·2	79·8	75·3
1938.									
January	87·4	77·2	68·9	79·6	103·9	72·7	87·1	80·7	83·8
February	87·0	77·8	68·7	79·4	103·7	71·1	87·1	80·6	83·6
March	85·1	79·1	68·4	79·0	103·2	71·3	87·0	80·5	83·1
April	84·0	78·9	68·1	77·6	102·5	70·6	86·6	80·5	82·3
May	79·1	77·1	67·9	77·2	101·5	69·0	87·1	80·5	80·3
June	78·6	78·0	67·4	76·8	101·4	67·8	87·1	80·1	80·1
July	74·4	78·3	67·5	76·7	97·8	70·6	86·5	79·4	78·6
August	66·8	76·2	67·1	77·3	98·0	70·0	86·5	79·4	76·0
September	61·7	76·4	66·9	76·9	98·2	70·8	86·7	79·4	74·5
October	60·8	74·8	66·7	76·9	98·1	73·0	86·4	79·4	74·1
November	60·2	73·3	66·5	76·2	98·2	72·7	86·2	79·3	73·5
December	60·3	72·9	66·2	76·2	98·1	71·5	86·3	79·0	73·3
1939.									
January	60·4	72·9	66·2	76·2	97·6	70·3	85·6	78·9	73·2
February	60·1	73·4	66·2	76·1	97·4	69·8	85·7	78·3	73·1
March	60·8	73·3	65·8	76·3	97·4	70·1	85·0	78·1	73·2
April	62·1	72·1	65·7	76·4	97·5	69·5	84·9	78·1	73·4
May	63·1	71·9	66·3	76·8	96·9	69·2	84·7	78·0	73·7
June	62·0	71·2	66·5	77·1	97·0	69·2	84·6	77·7	73·3
July	59·9	71·1	66·4	77·0	97·1	68·6	84·4	77·8	72·6
August	58·8	70·3	66·6	78·4	97·1	69·9	84·1	77·6	72·4
September	68·6	77·6	72·5	82·4	99·3	74·6	84·6	81·5	78·3
October	68·2	80·8	75·1	83·6	100·5	74·9	86·1	82·3	79·5
November	68·5	80·9	79·1	85·0	101·9	74·5	86·5	83·9	80·4
December	72·0	80·4	81·7	85·3	102·0	75·3	86·5	85·1	81·7

5.—Annual Index Numbers of Wholesale Prices of Commodities, Classified According to Purpose, 1926-39, with Monthly Figures for 1938 and 1939.

(1926=100.)

NOTE.—Annual figures for 1914–25 will be found at p. 816 of the 1938 edition; monthly figures for certain earlier years are given in the corresponding table of previous editions.

Year and Month.	Consumer Goods.			Producer Goods.					All Commodities.
	All.	Foods, Beverages, and Tobacco.	Other.	All.	Producer Equipment.	Producer Materials.			
						All.	Building and Construction.	Manufacturing.	
	Numbers of Commodity Price Series Used.								
1913–25	98	74	24	146	15	131	32	99	236
1926–33	204	116	88	351	22	329	97	232	502
1934–39	236	126	110	402	24	378	111	267	567
	Index Numbers.								
1926	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
1927	95·7	99·4	93·3	98·5	101·1	98·2	96·1	98·6	97·7
1928	95·6	99·6	92·9	96·7	93·7	97·0	97·4	96·9	96·4
1929	94·7	100·0	91·1	96·1	94·6	96·3	99·0	95·9	95·6
1930	89·3	93·1	86·8	82·5	92·9	81·7	90·8	79·7	86·6
1931	76·2	70·4	80·0	67·1	90·0	64·6	81·9	61·7	72·1
1932	71·3	61·5	77·8	62·4	88·7	59·5	77·2	56·5	66·7
1933	71·1	63·8	76·0	63·1	86·0	60·5	78·3	57·5	67·1
1934	74·1	69·7	77·0	67·8	88·9	65·5	82·5	62·6	71·6
1935	73·6	70·4	75·7	69·5	89·8	67·2	81·2	64·8	72·1
1936	74·7	73·4	75·5	72·4	90·0	70·4	85·3	67·9	74·6
1937	79·5	81·2	78·4	86·1	93·8	85·2	94·4	83·6	84·6
1938	77·2	77·1	77·2	75·8	95·1	73·7	89·1	71·1	78·6
1939	76·4	74·0	78·0	70·4	95·4	67·6	89·7	63·9	75·3
1938.									
January	78·8	79·9	78·1	84·5	94·5	83·4	91·7	82·0	83·8
February	79·0	80·7	77·9	83·7	94·5	82·5	91·4	81·0	83·6
March	79·1	81·2	77·7	82·5	94·5	81·2	91·0	79·5	83·1
April	78·5	80·5	77·1	81·8	94·5	80·4	89·9	78·8	82·3
May	77·7	78·4	77·2	78·9	95·5	77·0	89·4	74·9	80·3
June	77·4	78·1	76·9	78·6	95·5	76·7	89·0	74·6	80·1
July	77·7	78·9	76·9	75·8	95·5	73·6	87·4	71·3	78·6
August	76·3	75·5	76·8	71·7	95·5	69·1	88·5	65·8	76·0
September	76·0	74·3	77·2	68·7	95·5	65·7	87·8	62·0	74·5
October	75·2	73·0	76·7	68·3	95·3	65·3	88·0	61·5	74·1
November	74·8	72·0	76·7	67·9	95·3	64·8	87·5	60·9	73·5
December	74·6	71·5	76·6	68·2	95·2	65·2	87·3	61·4	73·3
1939.									
January	74·2	71·7	75·8	68·1	95·0	65·1	87·2	61·3	73·2
February	74·4	71·9	76·1	67·9	95·0	64·9	87·3	61·1	73·1
March	74·1	72·2	75·4	68·0	94·9	65·0	87·4	61·2	73·2
April	74·2	72·3	75·4	68·3	94·9	65·3	87·6	61·5	73·4
May	74·0	72·2	75·2	69·0	94·9	66·1	87·9	62·4	73·7
June	73·7	71·9	74·9	68·0	94·9	65·0	88·1	61·1	73·3
July	73·4	71·4	74·8	66·6	94·9	63·4	88·5	59·1	72·6
August	72·8	70·0	74·7	66·7	94·9	63·6	90·2	59·1	72·4
September	77·4	77·2	77·6	74·5	95·7	72·1	91·3	68·8	78·3
October	79·9	79·1	80·4	74·4	96·4	72·0	92·8	68·5	79·5
November	80·6	79·0	81·6	74·6	96·5	72·0	93·9	68·5	80·4
December	81·3	79·1	82·7	78·1	96·6	76·0	94·2	72·9	81·7

6.—Annual Index Numbers of Wholesale Prices of Commodities, Classified According to Origin and Degree of Manufacture, 1933-39.

(1926=100.)

NOTE.—Figures for 1918, 1919, and 1921-29 will be found at p. 866 of the 1934-35 Year Book, and those for 1930-32 at p. 795 of the 1937 Year Book.

Item.	Numbers of Commodities.		1933.	1934.	1935.	1936.	1937.	1938.	1939.
	1926-33.	1934-39.							
Aggregate Combined Indexes, Raw and Partly Manufactured	**232**	**245**	**56·6**	**63·5**	**66·0**	**70·8**	**84·3**	**72·7**	**67·4**
Aggregate Combined Indexes, Fully and Chiefly Manufactured	**276**	**322**	**70·2**	**73·4**	**72·8**	**73·6**	**80·5**	**78·2**	**75·3**
ARTICLES OF FARM ORIGIN—[1]									
Field (grains, etc.)—									
Raw and partly manufactured	98	98	45·3	54·2	56·2	63·8	82·8	63·0	50·7
Fully and chiefly manufactured	69	91	71·2	73·9	72·8	73·8	82·4	76·5	73·1
Combined indexes	167	186	59·3	64·8	65·1	69·2	83·1	70·3	62·8
Animal—									
Raw and partly manufactured	41	46	59·0	66·0	71·6	73·6	82·7	79·8	80·1
Fully and chiefly manufactured	49	59	62·5	69·8	69·9	71·4	76·2	74·3	72·0
Combined indexes	90	105	61·0	68·2	70·6	72·4	79·0	76·7	75·5
CANADIAN FARM PRODUCTS—									
Field (grains, etc.)	46	52	45·8	53·8	57·3	65·8	88·3	69·0	54·2
Animal	13	18	59·7	67·7	74·0	75·3	85·0	81·3	81·2
Combined indexes	59	70	51·0	59·0	63·5	69·4	87·1	73·6	64·3
ARTICLES OF MARINE ORIGIN—									
Raw and partly manufactured	5	5	56·2	60·3	61·8	67·1	72·1	65·4	67·2
Fully and chiefly manufactured	11	11	65·4	75·1	72·0	70·1	71·7	72·0	72·7
Combined indexes	16	16	62·9	71·1	69·2	69·3	71·8	70·2	71·2
ARTICLES OF FOREST ORIGIN—									
Raw and partly manufactured	31	37	69·7	76·3	74·5	80·8	94·0	85·5	88·0
Fully and chiefly manufactured	21	20	57·2	56·1	56·1	57·5	61·1	69·9	70·9
Combined indexes	52	57	63·0	65·5	64·7	68·4	76·4	77·2	78·9
ARTICLES OF MINERAL ORIGIN—									
Raw and partly manufactured	57	62	75·6	77·5	79·6	79·9	85·3	81·5	82·2
Fully and chiefly manufactured	126	141	84·6	86·0	85·3	85·2	91·6	90·5	88·6
Combined indexes	183	203	80·6	82·2	82·8	82·8	88·8	86·5	85·7

[1] Domestic and foreign.

7.—Monthly Index Numbers of Wholesale Prices of Commodities, Classified According to Origin and Degree of Manufacture, 1933, 1938, and 1939.

(1926=100.)

NOTE.—Comparable figures for 1926-37 will be found in the corresponding table of previous editions.

Origin and Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Totals, Raw and Partly Manufactured—												
1933	51·2	50·6	52·1	53·0	56·0	57·6	62·9	60·9	59·9	57·5	59·3	58·9
1938	81·9	81·1	79·6	79·0	75·8	75·4	72·5	67·5	65·5	65·1	64·6	64·9
1939	64·8	64·6	65·1	65·5	66·5	64·9	63·1	62·8	70·9	71·7	72·1	74·4
Totals, Fully and Chiefly Manufactured—												
1933	67·2	66·8	67·8	69·6	70·4	70·2	72·4	71·7	71·5	71·2	71·7	72·0
1938	81·5	81·9	82·0	81·3	79·3	79·2	78·4	76·8	75·6	74·7	73·9	73·6
1939	73·4	73·5	73·2	73·3	73·3	73·0	72·9	72·7	77·9	79·5	80·3	81·3
ARTICLES OF FARM ORIGIN—[1]												
A. Field (grains, fruits, cotton, etc.)—												
Raw and Partly Manufactured—												
1933	35·1	35·8	38·3	40·7	46·5	48·8	58·6	53·5	49·4	44·4	46·3	45·3
1938	80·9	80·0	77·0	76·0	69·5	69·5	63·4	53·3	47·5	46·9	46·1	46·6
1939	46·7	46·1	47·0	48·4	50·5	49·2	45·9	44·5	57·1	55·8	55·7	60·4

[1] Domestic and foreign.

7.—Monthly Index Numbers of Wholesale Prices of Commodities, Classified According to Origin and Degree of Manufacture, 1933, 1938, and 1939—continued.

Origin and Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
ARTICLES OF FARM ORIGIN—concluded.[1]												
Fully and Chiefly Manufactured—												
1933	64·6	64·2	64·7	70·2	73·2	72·5	77·3	75·0	74·1	72·7	73·3	73·2
1938	83·2	83·3	82·6	81·5	79·0	78·0	76·8	73·9	71·1	70·1	69·5	69·3
1939	69·1	69·4	69·2	69·9	70·0	69·0	68·4	68·4	74·5	75·2	76·3	78·2
Totals, Field—												
1933	51·0	51·1	52·5	56·6	60·9	61·6	68·7	65·1	62·7	59·6	60·8	60·3
1938	82·1	81·8	80·0	79·0	74·6	74·1	70·6	64·4	60·2	59·4	58·7	58·8
1939	58·8	58·6	59·0	60·0	61·0	59·9	58·0	57·4	66·5	66·2	66·8	70·0
B. Animal—												
Raw and Partly Manufactured—												
1933	57·9	55·0	55·9	56·2	57·7	57·4	58·5	59·9	62·2	62·0	65·3	65·1
1938	80·9	79·4	79·8	80·6	81·1	79·8	79·3	77·9	80·1	79·4	79·3	80·1
1939	80·0	80·2	80·7	79·7	79·3	75·5	74·8	74·9	80·2	85·2	84·6	84·6
Fully and Chiefly Manufactured—												
1933	59·2	58·9	62·3	63·8	61·9	61·9	63·0	63·3	63·0	63·1	64·0	65·4
1938	75·3	77·1	78·7	77·9	74·1	75·0	75·7	74·0	73·3	71·8	69·9	68·8
1939	69·0	69·2	68·4	67·9	67·8	68·6	68·9	68·2	75·3	79·2	80·3	80·6
Totals, Animal—												
1933	58·6	57·2	59·5	60·5	60·1	59·9	61·0	61·8	62·7	62·6	64·6	65·3
1938	77·7	78·1	79·2	79·2	77·1	77·1	77·3	75·7	76·2	75·1	74·0	73·7
1939	73·8	74·0	73·8	73·0	72·8	71·6	71·5	71·2	77·8	80·7	82·2	82·2
C. TOTAL CANADIAN FARM PRODUCTS—												
FIELD (grains, etc.)—												
1933	34·8	35·8	37·8	40·7	46·9	49·4	60·8	55·1	49·5	44·1	46·7	45·3
1938	88·8	87·5	83·9	83·2	74·6	74·3	65·9	54·9	53·4	53·6	54·6	53·8
1939	54·7	54·7	54·9	56·1	55·9	55·6	55·0	48·2	53·9	51·7	51·8	58·6
ANIMAL—												
1933	58·3	54·7	56·1	56·3	58·3	57·7	58·9	60·6	63·2	63·0	67·7	67·4
1938	82·2	81·1	81·6	81·2	81·7	80·4	80·7	79·6	81·1	81·0	82·1	82·6
1939	81·6	81·3	81·9	81·1	80·5	76·0	75·4	75·4	81·8	86·6	86·8	86·4
TOTALS—												
1933	43·6	42·9	44·6	46·5	51·2	52·5	60·1	57·2	54·6	51·2	54·6	53·6
1938	86·3	85·1	83·0	82·5	77·3	76·6	71·4	64·1	63·8	63·8	64·9	64·6
1939	64·8	64·6	65·0	65·5	65·1	63·2	62·6	58·4	64·3	64·8	64·9	69·0
ARTICLES OF MARINE ORIGIN—												
Raw and Partly Manufactured—												
1933	54·5	44·6	49·6	46·6	48·1	54·8	56·5	59·2	63·3	67·5	71·0	58·9
1938	70·9	73·1	69·5	56·0	56·0	55·4	56·7	62·6	72·7	76·3	73·6	60·8
1939	63·3	63·1	64·0	58·8	71·0	61·6	57·5	58·8	68·0	80·5	82·2	78·8
Fully and Chiefly Manufactured—												
1933	60·8	61·2	61·8	63·0	62·7	62·3	63·6	67·7	67·7	68·9	69·0	69·7
1938	74·1	74·6	74·7	74·0	72·5	72·4	71·1	70·8	69·9	70·6	69·3	69·8
1939	68·9	69·0	69·1	67·8	67·8	69·3	69·7	69·1	79·4	80·0	80·3	87·4
TOTALS, MARINE ORIGIN—												
1933	59·1	56·7	58·5	58·6	58·7	60·3	61·7	65·4	66·5	68·5	69·5	66·8
1938	73·2	74·2	73·3	69·1	68·0	67·8	67·2	68·6	70·6	72·1	70·5	67·4
1939	67·4	67·4	67·7	65·4	68·7	67·2	66·4	66·3	76·3	80·1	80·8	85·1
ARTICLES OF FOREST ORIGIN—												
Raw and Partly Manufactured—												
1933	66·0	65·2	65·2	64·4	64·8	69·7	71·5	72·8	74·0	74·7	74·4	74·4
1938	89·6	89·3	88·2	86·0	84·8	83·6	83·9	84·3	84·4	84·4	83·2	83·1
1939	83·1	83·0	83·7	83·9	84·8	85·2	85·6	88·3	91·5	93·8	96·6	97·1
Fully and Chiefly Manufactured—												
1933	61·8	61·6	61·3	55·3	55·2	55·1	55·2	55·3	55·3	56·0	56·1	56·2
1938	70·2	70·2	70·3	69·8	69·9	70·2	69·9	69·7	69·9	69·8	69·6	69·7
1939	69·6	69·5	69·2	69·3	69·3	69·2	68·9	69·1	73·6	74·0	74·3	74·4
TOTALS, FOREST ORIGIN—												
1933	63·8	63·3	63·1	59·5	59·7	61·9	62·8	63·5	64·0	64·7	64·6	64·7
1938	79·2	79·1	78·6	77·4	76·8	76·4	76·4	76·5	76·7	76·6	75·9	75·9
1939	76·0	76·0	76·0	76·1	76·5	76·7	76·7	78·0	81·9	83·2	84·7	85·0

[1] Domestic and foreign.

7.—Monthly Index Numbers of Wholesale Prices of Commodities, Classified According to Origin and Degree of Manufacture, 1933, 1938, and 1939—concluded.

Origin and Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
ARTICLES OF MINERAL ORIGIN—												
Raw and Partly Manufactured—												
1933	75·8	75·6	75·9	74·9	74·1	74·4	75·7	75·0	76·5	75·9	76·2	77·3
1938	82·1	81·8	81·8	81·2	80·8	80·7	81·2	81·0	81·8	82·0	82·0	81·6
1939	81·1	81·0	80·8	80·5	80·2	80·2	79·7	80·0	81·3	82·0	83·8	83·9
Fully and Chiefly Manufactured—												
1933	84·2	83·3	83·4	83·6	83·7	84·2	84·3	84·7	85·8	86·1	86·1	86·1
1938	92·2	92·0	91·8	91·6	91·4	91·3	89·7	89·6	89·6	89·2	89·0	88·9
1939	88·2	88·2	88·1	88·0	87·6	87·5	87·8	87·6	88·9	90·3	90·7	91·0
TOTALS, MINERAL ORIGIN—												
1933	80·4	79·9	80·0	79·7	79·4	79·8	80·5	80·4	81·6	81·5	81·7	82·2
1938	87·7	87·4	87·3	87·0	86·7	86·6	85·9	85·8	86·1	86·0	85·9	85·6
1939	85·0	85·0	84·8	84·6	84·3	84·2	84·2	84·2	85·5	86·6	87·6	87·8

Wholesale Price Index Numbers of Principal Exports and Imports.—Wholesale prices of principal import and export products were affected in almost equal degree by advances between August and December, 1939. The import index mounted from 80·6 to 93·8, while the export series moved up from 59·9 to 71·5. The relative price margin of imports over exports was greater, however, in 1939 than for any other year since 1913. It was most pronounced in the price groups for vegetable products, iron, and non-ferrous metals, but for all component material groups 1939 import wholesale price indexes were above corresponding export series.

8.—Index Numbers of Wholesale Prices of Exports and Imports, Classified According to Chief Component Material, 1929-39.

(1926=100.)

NOTE.—Statistics for 1913-28 are given at p. 830 of the 1938 Year Book.

Year.	Vegetables and Their Products.	Animals and Their Products.	Fibres, Textiles, and Textile Products.	Wood, Wood Products, and Paper.	Iron and Its Products.	Non-Ferrous Metals and Their Products.	Non-Metallic Minerals and Their Products.	Chemicals and Allied Products.	Total.
	EXPORTS.								
1929	89·3	107·9	85·8	91·9	91·3	88·0	83·7	95·6	92·2
1930	65·3	94·2	69·5	87·3	87·4	75·4	81·5	92·9	77·4
1931	41·7	70·7	56·7	78·3	82·7	66·2	67·8	87·9	60·5
1932	40·4	55·7	39·6	68·1	81·3	65·2	66·1	68·3	54·9
1933	44·9	58·0	46·1	60·0	75·8	68·6	65·7	69·9	55·2
1934	53·4	64·5	59·1	62·5	78·0	67·6	71·2	72·2	60·6
1935	56·7	65·7	49·5	60·8	78·0	73·8	70·5	71·7	62·2
1936	63·9	69·5	61·4	65·0	80·1	71·1	71·3	71·8	66·8
1937	87·2	76·5	73·1	72·1	95·2	79·9	69·7	72·1	81·1
1938	66·4	69·1	54·5	73·4	93·9	70·7	80·0	78·1	70·9
1939	47·4	70·7	42·4	75·8	94·5	68·3	79·8	86·6	63·5
	IMPORTS.								
1929	85·6	113·3	93·4		95·0	116·9	89·4	92·0	94·2
1930	75·0	94·5	75·5		91·1	84·7	87·3	87·5	83·7
1931	60·1	72·5	59·9		88·7	57·5	80·3	83·3	72·4
1932	57·6	59·1	52·6		91·1	46·5	84·8	86·3	70·5
1933	61·4	67·7	57·3		92·2	59·1	79·4	86·9	73·0
1934	65·0	69·7	64·2		92·7	66·7	83·6	88·0	76·5
1935	68·5	74·6	63·6		94·4	68·0	82·5	89·7	77·9
1936	68·4	78·7	67·7		96·3	71·5	82·0	86·9	79·4
1937	79·7	89·9	72·1		114·5	93·6	82·8	95·1	89·8
1938	68·8	75·9	61·2		113·7	72·7	84·1	84·5	83·1
1939	71·3	78·0	66·0		112·2	83·8	82·3	83·5	84·4

Section 2.—Retail Prices and Cost of Living.

Collection of data and calculation of index numbers of retail prices and the cost of living are carried out in co-operation by the Dominion Bureau of Statistics and the Department of Labour. Resultant series of index numbers are computed from different points of view. Index numbers of retail prices and cost of living, issued by the Bureau, have for their object the measurement of the general movement of such prices and costs in the Dominion as a whole, and are so calculated as to make comparisons possible with other general index numbers constructed on similar principles, 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. As a development of retail prices and cost of living studies, investigations into the living expenditures of families in representative cities (see Subsection 2, p. 819) have been made by the Bureau of Statistics. The results of these are available in bulletin form.

The computations of the Labour Department are designed to show changes in the cost of living for workmen's families in cities. They are thus limited in scope and more restricted in application than the Bureau of Statistics index.

Subsection 1.—The Bureau of Statistics Index Numbers of Retail Prices and Services.

In the Bureau's index, 1926 is taken as the base year. A description of the system of weighting of individual items, sub-groups, and groups, and of the method of construction of this index number is given at pp. 812-818 of the 1931 Year Book. Annual figures on the 1913 base covering prices of a family budget of staple foods, fuel, rent, etc., will be found in the Bureau's report "Prices and Price Indexes", while monthly figures are published in the *Labour Gazette*.

As in the case of wholesale prices, retail commodity prices showed little movement during 1939 until the closing months of the year; the food index showed an appreciable advance only in the last four months. During the same period fuels moved higher by slightly more than the usual seasonal increase for the autumn and early winter season. Special surveys of prices of clothing and household furnishings showed that there were moderate advances in November and December and at the end of the year the prices of these two items were, respectively, 3·6 p.c. and 8·4 p.c. above the levels of Sept. 1. Changes in residential rentals during 1939 were generally small. An index of rentals based on a survey in May was 90·0, and the corresponding October, 1939, index was 89·9. The 1938 average index for rentals was 89·8.

9.—Index Numbers of Retail Prices, Rents, and Costs of Services, 1929-39, and by Months, 1938, 1939, and January-April, 1940.

(1926=100.)

NOTE.—Statistics for 1913-28 are given at p. 820 of the 1938 Year Book. Monthly figures prior to 1938 will be found in the corresponding table of previous editions of the Year Book.

Year.	Food Index.	Fuel Index.	Rent Index.	Clothing Index.	Sundries Index.	Total Index.
1929	101·0	96·4	103·3	96·9	99·0	99·9
1930	98·6	95·7	105·9	93·9	99·4	99·2
1931	77·3	94·2	103·0	82·2	97·4	89·6
1932	64·3	91·4	94·7	72·3	94·6	81·4
1933	63·7	87·7	85·1	67·1	92·6	77·5
1934	69·4	87·7	80·1	69·7	92·1	78·6
1935	70·4	86·8	81·3	69·9	92·2	79·1
1936	73·4	86·4	83·7	70·5	92·8	80·8
1937	77·3	84·9	86·9	72·7	93·4	83·1

9.—Index Numbers of Retail Prices, Rents, and Costs of Services, 1929-39, and by Months, 1938, 1939, and January-April, 1940—concluded.

Year and Month.	Food Index.	Fuel Index.	Rent Index.	Clothing Index.	Sundries Index.	Total Index.
1938.						
January	78·4	85·5	89·0	73·3	94·1	84·1
February	77·9	85·3	89·0	73·3	94·1	83·9
March	78·6	85·7	89·0	73·7	94·1	84·3
April	78·8	85·6	89·0	73·7	94·1	84·3
May	77·7	85·3	90·3	73·7	94·1	84·2
June	78·1	84·5	90·3	73·0	94·0	84·1
July	78·4	84·3	90·3	73·0	94·0	84·2
August	80·7	84·6	90·3	73·0	94·0	84·9
September	77·6	84·7	90·3	73·4	94·0	84·1
October	77·1	85·1	90·1	73·4	93·9	83·9
November	76·6	85·5	90·1	73·4	94·2	83·8
December	76·2	85·6	90·1	72·8	94·2	83·6
Averages, 1938	**78·0**	**85·1**	**89·8**	**73·3**	**94·1**	**84·1**
1939.[1]						
January	75·2	85·7	90·1	72·8	94·2	83·3
February	74·5	85·4	90·1	72·8	94·2	83·1
March	74·5	85·3	90·1	72·8	94·1	83·1
April	74·5	85·1	90·1	72·8	94·2	83·1
May	74·6	84·5	90·0	72·8	94·3	83·1
June	74·3	84·3	90·0	72·6	94·1	82·9
July	75·1	83·9	90·0	72·6	94·1	83·1
August	74·9	83·7	90·0	72·6	94·1	83·0
September	74·2	83·8	90·0	73·1	94·1	82·9
October	79·8	85·1	89·9	73·1	94·4	84·7
November	80·5	86·1	89·9	73·1	94·5	85·0
December	79·3	86·1	89·9	75·7	95·2	85·3
Averages, 1939	**76·0**	**84·9**	**90·0**	**73·1**	**94·3**	**83·6**
1940.[1]						
January	78·6	86·4	89·9	75·7	95·2	85·1
February	78·6	86·8	89·9	75·7	95·2	85·1
March	78·5	86·8	89·9	78·3	95·5	85·7
April	78·3	86·8	89·9	78·3	95·5	85·6

[1] Subject to revision.

Prices of Services.—Services are a very considerable item in the cost of living of the average family, and special studies are made annually by the Bureau of Statistics covering the most important services that affect the family budget. Information with regard to street-car fares, rates for manufactured and natural fuel gas for domestic consumption (which is mostly a service charge), and domestic electric light and telephone charges, is published at pp. 801-804 of the 1927-28 Year Book. Detailed information for intervening years regarding such services will be found at pp. 72-83 of the annual report on "Prices and Price Indexes, 1913-38", issued by the Dominion Bureau of Statistics.

Prices of manufactured fuel gas, after showing a downward tendency between 1926 and 1936, reversed direction and recorded a moderate rise, the Dominion index number for 1937 being 94·5, as compared with 93·6 in 1936. A slight decline occurred again in 1938. The index number of the price of natural fuel gas declined from 100·0 in 1926 to 92·5 in 1930, rose again to 94·3 in 1932, then declined to 92·3 in 1936, 1937, and 1938. On the other hand, telephone rates have shown a distinct increase, the Dominion index number of domestic telephone rates having risen from 100·0 in 1926 to 107·4 for 1933-38. Again, the business telephone rate has risen from 100·0 in 1926 to 119·4 in 1938.

Hospital Charges.—Special investigations into hospital charges are made annually by the Dominion Bureau of Statistics and the results are given as Dominion averages

in the following table. Hospital charges in 1930 were 94 p.c. above the 1913 level. From 1930 to 1935 rates gradually declined to less than 88 p.c. above those in 1913, then rose slightly from 1936 to 1938. Operating room charges have not increased at the same rate as room charges, being approximately 56 p.c. above those in 1913, while the latter averaged more than 90 p.c. higher. The cost of maintaining patients in hospitals declined more than 11 p.c. between 1930 and 1934, then gradually rose by more than 5 p.c. during the next four years.

The detailed results of this investigation, including the statistics by provinces, are given at pp. 73-77 of the annual report on "Prices and Price Indexes, 1913-38"

10.—Average Daily Hospital Charges in Canada and Index Numbers Thereof, 1913 and 1931-38.

(1913=100.)

NOTE.—Statistics for 1922-30 are given at p. 828 of the 1938 Year Book.

Item.	1913.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
Public wards..... $	0·99	2·03	2·03	1·99	1·98	1·98	1·99	2·04	2·04
Index numbers.....	100·0	204·1	204·1	200·6	199·1	199·5	200·1	204·8	205·4
Semi-private rooms.... $	1·57	2·89	2·85	2·82	2·80	2·79	2·79	2·81	2·84
Index numbers.....	100·0	190·2	188·0	185·8	184·8	183·7	183·9	185·0	187·4
Private rooms..... $	2·68	5·23	5·11	5·06	5·06	5·01	5·01	5·03	5·05
Index numbers.....	100·0	194·5	190·2	188·1	187·2	186·4	186·4	187·0	187·7
Operating room.....$	5·16	8·33	8·23	8·14	8·10	8·09	8·04	8·03	8·13
Index numbers.....	100·0	159·7	157·6	156·1	155·1	155·0	154·0	153·9	155·9
Costs of maintenance per head..... $	1·68	3·58	3·44	3·25	3·22	3·23	3·23	3·33	3·39
Index numbers.....	100·0	207·8	199·9	189·0	187·2	188·0	188·2	193·8	197·3

Subsection 2.—The Nutrition and Family Living Expenditures Investigation.*

An interdepartmental committee was organized in 1937 to examine possibilities of meeting the need for definite information in respect to nutrition and family living expenditures, especially in urban centres. On this committee were representatives from the Bureau of Statistics, the Department of Pensions and National Health, the Department of Labour, the Department of Agriculture, and the National Research Council. Following recommendations by this committee, Parliament made a vote to the Bureau of Statistics for the purpose of proceeding with a survey in 1938.

At June 15, 1939, the Bureau of Statistics had completed a survey of family living expenditures in the 12 cities of Charlottetown, Saint John, Halifax, Quebec, Montreal, Ottawa, Toronto, London, Winnipeg, Saskatoon, Edmonton, and Vancouver. The statistics cover the 12 months ended Sept. 30, 1938. The sample families were selected at random from among those with certain characteristics that make them typical of Canadian wage-earner homes. Each home consisted of both parents and one or more children, and in some cases one lodger or a domestic also lived with the family. Earnings in the samples ranged from $450 to $2,500 per annum and all families were completely self-supporting throughout the survey year. It was found that family incomes tended to centre between $1,200 and $1,600—the

* Revised by H. F. Greenway, M.A., Prices Statistician and Officer in Charge of the Nutrition and Family Living Expenditures Investigation, Dominion Bureau of Statistics.

proportion receiving less than $1,200 being larger than the proportion receiving more than $1,600. Of the 1,439 families from which records were received, 1,135 were families of British origin, 211 were French families in Montreal and Quebec, and 93 were families of other racial origins in Montreal and Winnipeg.

In addition to the main information as to family expenditures, certain other questions were asked, the replies to which throw light upon some family characteristics at progressive income levels. These are summarized in a statement at p. 863 of the 1939 Year Book.

Summary of Results.—Results show that remarkable similarity prevails in the proportions of income spent upon the more essential budget items in different areas of the Dominion. On the average, about two-thirds of the total expended each year goes for necessities. The value of food purchases tends to be higher in the larger cities. The proportion of expenditures devoted to the provision of shelter ranged from 15·1 p.c. in Charlottetown to 20·9 in Ottawa; fuel and light expenditures range from 4·5 p.c. in Quebec City to 7·7 p.c. in Charlottetown; and clothing expenditures from 9·6 p.c. in Vancouver to 12·5 p.c. for Montreal families other than British and French.

Many factors affect expenditures for living needs. The amount of family income is generally considered the dominant influence, but income in turn is related to the age of the principal breadwinner, and the numbers and ages of children also affect the character of family living expenditur In thees. studies that the Bureau is making, living expenditure records are shown grouped according to three principles of classification with a view to examining the relationships between living expenditures and the factors in family composition, viz., number of children in the family, age of the father, and principal types of families.

From the data gathered there appeared to be no general tendency in urban wage-earner families of British origin for the number of children to increase in the higher family-income groups, although in French families the average number of children was larger at higher income levels.

In both racial origin groups, amounts spent per person declined as the number of children in the family increased. Average expenditure per person dropped from $516 in British families with one child to $212 in households with five children. Corresponding averages from French families were $397 and $219. All budget groups contributed to this decline, with food outlay per person falling from $127 to $74 for British families and from $109 to $75 for French families with one and with five or more children, respectively.

A different picture was obtained when expenditure records were classified according to the age of the father. The number of children per family tended to increase until the father's age was somewhere between 45 and 54, and amounts spent per person on food and clothing increased slightly as the age of the father moved upward into that range. This was associated with a more rapid rise in income than in numbers of children at progressive age levels of the father.

Analyses of records for living expenditure tendencies related to numbers of children and the length of time the family had been formed, did not reveal the existence of a 'typical' family. Families with one child under 13 years, or with two children from 4 to 12 years apparently possess some claim to this title but, contrary to popular opinion, families with three children form a definite minority. The

tendency, already noted, for income to increase as the family life span lengthened was apparent in family groups with the same number of children. The earnings of older children were partly responsible for this increase. For families with the same number of children, expenditures on food and clothing mounted as the family life span extended but not by the full amount of the income increase. Housing and household furnishing expenditures actually declined as the number of children increased. Apparently a wide diversity in consumer tastes exists, which is scattered fairly evenly among 'non-necessity' expenditures, such as recreation, transportation, and savings.

11.—Average Distribution of Family Expenditures, by Income Groups.

NOTE.—The total average amounts of expenditure shown are in some cases greater than the maximum of the salary group, because savings from annual income have been treated as items of expenditure, and considerable credit is utilized by wage-earner families. Purchases made from previous savings and by trade-in allowances also enter into the picture.

Budget Group.	BRITISH FAMILIES. Income Groups and Amounts Expended.									
	$400 -799.	$800 -999.	$1,000 -1,199.	$1,200 -1,399.	$1,400 -1,599.	$1,600 -1,799.	$1,800 -1,999.	$2,000 -2,399.	$2,400+.	Total.
Food	*288*	*351*	*380*	*419*	*442*	*473*	*508*	*517*	*578*	*433*
Housing	165	187	224	254	283	324	315	396	420	276
Capital expenditure on home	Nil	4	2	10	11	8	12	23	20	9
Fuel and light	70	78	84	94	103	110	116	139	142	101
Clothing	62	93	120	147	165	187	217	253	260	160
Household operation	5	8	13	21	30	38	48	60	74	29
Furniture	36	47	72	82	99	107	134	128	176	92
Health	25	41	60	59	70	77	86	94	95	67
Personal care	13	16	20	23	26	28	30	34	35	24
Transportation	12	35	39	73	90	125	143	182	306	93
Recreation	39	49	62	83	102	114	128	139	179	93
Savings	43	69	84	121	143	176	218	307	362	150
Children's education and vocation	6	7	12	14	19	29	36	40	51	21
Community welfare and gifts	11	15	24	32	43	52	71	72	106	42
Totals	**775**	**1,000**	**1,196**	**1,432**	**1,626**	**1,848**	**2,062**	**2,384**	**2,804**	**1,590**
Numbers of families	*45*	*108*	*184*	*256*	*212*	*118*	*91*	*100*	*41*	*1,135*

	FRENCH FAMILIES. Income Groups and Amounts Expended.					
	$400-799.	$800-1,199.	$1,200-1,599.	$1,600-1,999.	$2,000+.	Total.
Food	275	368	446	571	698	445
Housing	167	211	246	287	377	245
Capital expenditure on home	Nil	Nil	2	Nil	Nil	Nil
Fuel and light	50	61	74	87	95	71
Clothing	73	130	167	257	334	175
Household operation	12	13	26	40	53	25
Furniture	76	98	129	118	172	115
Health	13	55	73	77	106	64
Personal care	13	17	22	29	34	22
Transportation	13	22	43	107	63	45
Recreation	30	57	74	107	121	73
Savings	57	103	146	190	244	138
Children's education and vocation	3	7	18	49	80	24
Community welfare and gifts	12	18	29	35	50	27
Totals	**794**	**1,160**	**1,495**	**1,954**	**2,427**	**1,469**
Numbers of families	*27*	*62*	*68*	*34*	*20*	*211*

Section 3.—Index Numbers of Security Prices.

Security prices have long been utilized in statistical measurements related to economic phenomena. They are generally sensitive to changing business conditions, although this valuable characteristic is sometimes overshadowed by the fact that their movements may be influenced greatly by speculative interest very remotely associated with underlying economic conditions. Thus in 1928 and 1929, common stock prices advanced far beyond levels indicated by business profits and prospects.

The behaviour of Canadian common stock prices has been quite different from that of commodity prices since 1914. During the War of 1914-18 there was no advance in security markets paralleling the pronounced inflation in commodity values. Between 1926 and 1929, however, when commodity prices were declining gradually, common stocks more than doubled in price. Both sets of prices recorded a sharp drop between 1929 and 1933, and both have shown recovery subsequently. However, this recovery has been much more pronounced in the case of security prices.

Investors Index Numbers of Common Stocks.—The outbreak of hostilities at the beginning of September found Canadian common stock prices at or near low points for 1939. From the year's opening level of 107·5, the Bureau's daily index for 95 industrial and utility common stocks declined about 16·3 p.c. to 90·0 on Aug. 24. Recessions were common to almost all sections of the market during this period. After the declaration of war on Sept. 3, the industrial and utility share price average mounted within four days to approximately 17 p.c. above the year's low. A decline, almost as sharp, cut more than 80 p.c. off this advance within the ensuing two weeks. A sizable rally developed from that point which moved this index back to 108·7 by the final week of October. The closing weeks of the year again found quotations moving lower, though this reaction was in marked contrast to the substantial improvement in Canadian industrial activity in the final quarter. Closing at 101·2, the composite index of industrials, utilities, and banks showed a net loss of 6·9 p.c. from the corresponding level of a year earlier. Industrial stocks, paced by a 19·6 p.c. decline in the industrial mines sub-group index, dropped 9·8 p.c. during the year to 165·4. An index for 19 utilities, on the other hand, moved 3·2 p.c. higher to 45·6. Bank stocks were 0·7 p.c. higher, the index at the end of the year being 84·4.

12.—Investors Index Numbers of Common Stocks, by Months, 1939.

(1926=100.)

NOTE.—Figures for earlier years will be found in the corresponding table of earlier editions.

Month.	Grand Total.	Types of Stocks.											
		Banks, Total.	Industrials.										
			Industrials, Total.	Machinery and Equipment.	Pulp and Paper.	Milling.	Oils.	Textiles and Clothing.	Food and Allied Products.	Beverages.	Building Materials.	Industrial Mines.
January....	102·9	85·2	171·4	129·4	16·9	79·1	173·5	52·9	172·9	126·9	133·3	422·1
February...	104·1	85·3	174·0	129·4	16·4	77·6	175·9	54·3	175·3	130·4	133·6	433·1
March.....	103·7	85·1	171·4	126·6	15·1	79·8	173·9	57·2	172·5	127·6	132·9	419·2
April.....	96·2	83·7	157·7	111·1	11·5	71·4	162·9	53·1	169·2	116·9	119·3	381·9
May.....	99·2	84·7	163·0	112·5	12·0	78·9	170·2	55·0	176·3	120·4	124·6	387·9
June.....	97·0	85·0	157·6	114·2	12·4	77·4	153·2	56·2	179·2	124·7	128·8	389·0
July.....	97·3	85·0	159·2	118·0	12·7	75·0	154·0	59·8	182·1	124·8	129·5	393·1
August.....	94·2	84·3	154·2	108·6	11·1	76·0	147·9	60·1	180·5	117·7	121·6	386·7
September.	100·1	78·4	168·2	132·8	19·1	99·8	164·6	71·9	170·8	108·5	145·3	426·3
October....	106·0	81·0	177·0	149·1	23·4	106·3	185·9	81·4	178·8	121·4	160·9	399·6
November..	103·6	84·2	171·9	141·1	22·7	100·9	173·9	82·9	174·3	127·5	156·5	394·8
December..	101·2	84·4	165·3	142·1	23·7	101·8	163·5	84·7	180·1	130·8	155·3	376·8

12.—Investors Index Numbers of Common Stocks, by Months, 1939—concluded.

Month.	Types of Stocks.			
	Public Utilities.			
	Public Utilities, Total.	Transportation.	Telephone and Telegraph.	Power and Traction.
January	42·7	13·4	127·3	57·5
February	42·9	12·4	129·7	58·2
March	44·4	11·5	131·7	62·0
April	41·9	9·6	129·7	58·9
May	43·2	10·0	132·6	60·8
June	43·7	11·0	133·8	60·8
July	42·7	10·4	132·8	59·2
August	40·9	9·3	130·0	56·8
September	42·2	17·8	116·7	53·8
October	45·7	19·6	123·4	59·5
November	44·7	16·0	125·2	59·6
December	45·7	16·6	126·5	61·3

Preferred Stocks.—An index of 25 Canadian preferred stock prices dropped from 85·0 in January, 1939, to 78·9 in April. Subsequent recovery was hesitant until September, when preferred issues, like common stocks, reacted sharply to war-time conditions. The December index of 91·3 showed a net rise of 5 p.c. for the year, in contrast to a decline of nearly 7 p.c. for common stocks.

13.—Index Numbers of 25 Preferred Stocks, by Months, 1927, to May, 1940.

(1926=100.)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1927	102·1	102·5	102·7	102·6	102·5	102·1	102·5	103·8	104·8	107·8	110·8	111·8
1928	111·5	110·9	109·9	111·4	111·7	111·2	110·3	107·5	107·6	106·2	104·0	107·9
1929	107·4	108·1	106·8	104·3	104·3	104·8	104·8	105·6	105·1	102·9	99·8	100·4
1930	97·9	98·8	100·0	103·4	102·6	99·5	97·4	97·1	96·2	85·4	81·9	82·5
1931	83·2	83·4	84·2	78·8	73·8	72·6	71·8	69·1	64·2	63·9	66·5	63·0
1932	57·2	58·8	58·0	55·4	48·4	45·2	49·5	52·9	53·4	52·9	52·2	50·2
1933	49·6	49·6	47·3	47·2	54·6	58·5	61·9	61·7	61·0	59·7	59·1	60·2
1934	64·1	66·5	67·3	68·5	68·7	68·4	68·1	67·3	67·4	69·5	70·6	71·4
1935	73·5	73·8	71·2	69·2	68·4	68·4	69·6	70·9	69·2	69·5	72·5	73·8
1936	74·9	77·2	76·3	76·0	74·6	76·2	79·5	80·6	83·8	86·8	91·1	93·9
1937	99·2	100·4	102·6	103·1	100·2	99·3	99·4	101·5	91·0	82·2	82·0	81·0
1938	83·4	82·1	77·5	78·2	80·1	81·8	87·2	86·8	81·3	88·0	87·5	86·9
1939	85·0	84·4	83·9	78·9	79·0	81·9	83·0	81·0	83·3	89·0	90·1	91·3
1940	91·8	91·0	90·2	90·3	80·1	-	-	-	-	-	-	-

Weighted Index Numbers of Mining Stocks.—Prices of mining issues in 1939, while following the major price fluctuations of industrials and utilities, showed some noteworthy differences. Chief among these was the slump in an index for 22 golds, which fell to a 1939 low of 92·8 on Sept. 11. Prices strengthened moderately from this point partly as a result of a 10 p.c. premium on United States funds, thus raising the United States official gold price of $35·00 per ounce to $38·50 in Canadian funds. On a daily basis the final 1938 index of 123·6, compared with the 1939 closing level of 107·6, showed a percentage loss of 12·9. An index of 3 base metal stocks touched a yearly peak of 338·5 on Sept. 5 but within the space of two weeks had fallen to a 1939 low of 270·0. This sharp decline followed the

announcement that British Control Boards were to be set up to establish prices considerably below the current levels for various non-ferrous metals. The year's closing index of 303·2 was down 4·8 p.c. from that of 1938. There was a decline of 9·8 p.c. to 145·6 in the Bureau's composite index for 25 mining issues between Dec. 31, 1938, and Dec. 31, 1939.

14.—Weighted Index Numbers of Prices of Mining Stocks, by Months, 1938, to May, 1940.

(1926=100.)

Year and Month.	Gold.	Base Metal.	Total.	Year and Month.	Gold.	Base Metal.	Total.
1938.				**1939**—concl.			
January	121·0	241·7	144·1	April	110·1	282·6	143·7
February	124·3	246·9	147·7	May	114·6	303·3	151·4
March	111·4	225·3	134·9	June	116·5	308·6	153·9
April	110·5	229·5	133·9	July	117·7	314·7	155·8
May	114·1	243·0	139·5	August	112·8	310·3	151·4
June	119·2	259·5	145·8	September	99·6	298·3	137·7
July	119·8	282·1	151·1	October	106·6	299·6	144·7
August	123·8	289·2	156·0	November	106·3	304·1	144·7
September	113·6	269·8	144·0	December	105·0	298·0	142·4
October	121·3	308·2	157·4				
November	121·1	319·3	159·6	**1940.**			
December	121·6	313·0	159·0	January	107·3	298·8	144·7
1939.				February	101·8	288·1	137·9
January	121·4	307·0	158·0	March	96·5	281·8	132·6
February	121·1	315·1	158·8	April	95·7	276·7	130·7
March	118·2	305·6	155·0	May	79·6	221·1	106·8

Section 4.—Index Numbers of Bond Yields.

The exceptional requirements of the war years of 1914-18 turned the Dominion authorities to the internal market, a field that had hitherto served mainly the needs of the provinces and municipalities. Historical records of long-term bond yields in the internal market for years before 1914 are obtainable, therefore, only from provincial and municipal sources. Ontario issues from 1900 to date are available in this field, and were utilized for the first long-term bond yield index constructed by the Bureau of Statistics. The relatively long period for which these records have been preserved makes this series of considerable value. At pp. 805 and 806 of the 1937 Year Book a statement will be found bearing on the movements of Ontario bond yields since 1900.* Since the War of 1914-18, however, the growing importance of Dominion financing in the domestic market has made it advisable to supplement the Ontario series with the Dominion index of long-term bond yields shown in Table **15**. The data have been revised, as indicated in the headnote, in order to simplify the construction of these series and to lengthen the average maturity of issues included. Comparison of the new indexes with those published for the years 1932 to 1939 at p. 870 of the 1939 Year Book will show a very close correspondence. However, the new yield index, while showing the same fluctuations as the old, has tended to remain at slightly higher levels in recent years.

* This index of Ontario long-term bond yields may be found in the Bureau's monthly bulletin "Prices and Price Indexes", obtainable from the Dominion Statistician.

Revised indexes have been based upon simple arithmetic averages of market prices and computed yields for two representative long-term Dominion issues. At the beginning of 1932, the two issues upon which the indexes were based were Dominion of Canada 4½ p.c. 1948-58, which was used until December, 1936, and Dominion of Canada 4½ p.c. 1949-59, used until December, 1937. The first of these was replaced by Dominion of Canada 3 p.c. 1950-55, which was used from December, 1936, to December, 1938. The two issues now forming the base for the index are Dominion of Canada 3¼ p.c. 1956-66, in use since December 1937, and Dominion of Canada 3 p.c. 1953-58, in use since December, 1938.

15.—Index Numbers of Dominion of Canada Long-Term Bond Yields, by Months, 1932 to May, 1940.

(1926=100.)

NOTE.—Figures have been revised since the publication of the 1939 Year Book.

Month.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.	1940.
January	112·4	97·9	94·9	73·6	76·6	67·8	71·5	67·4	74·4
February	111·5	97·5	93·6	76·2	74·6	71·3	71·0	67·5	73·4
March	109·0	99·0	88·6	74·9	73·6	75·6	70·4	66·3	73·4
April	109·1	97·8	85·5	75·2	73·3	76·5	69·3	67·5	72·4
May	109·1	96·7	84·0	74·0	72·6	75·3	68·2	68·4	71·8
June	112·3	94·9	83·8	76·1	70·5	73·8	68·6	67·0	
July	108·7	94·9	82·4	75·7	68·7	73·3	68·9	66·8	–
August	101·0	94·0	80·3	75·1	66·6	72·6	69·2	68·1	
September	100·1	94·1	79·8	81·2	66·0	72·5	70·6	78·3	
October	97·3	94·9	81·6	81·9	69·1	74·0	70·0	76·5	
November	98·2	95·2	80·1	78·0	68·1	73·7	68·1	74·0	
December	100·6	96·0	74·6	78·5	67·2	72·0	67·7	75·1	

Bond Prices.—Long-term bond prices ended the year approximately 5·3 p.c. lower, the index falling from 118·8 for the final week of 1938 to 112·5 for the week ended Dec. 28, 1939. The year-end index indicated that bonds had recovered approximately one-half of severe September price declines when the index touched a five-year low of 108·7.

CHAPTER XXI.—PUBLIC FINANCE.

CONSPECTUS.

	Page.
Section 1. Dominion Public Finance..	828
Subsection 1. The Current Balance Sheet of the Dominion.....	831
Subsection 2. Receipts and Disbursements.....	833
Subsection 3. Analysis of Revenue from Taxation.....	843
Subsection 4. Subsidies and Loans to Provinces.....	850
Subsection 5. National Debt.....	853
Section 2. Provincial Public Finance.	864
Subsection 1. Provincial Revenues and Expenditures.....	865
Subsection 2. Provincial Debts and Assets.....	868
Section 3. Municipal Public Finance..	870
Section 4. National Wealth and Income.....	876
Subsection 1. National Wealth.....	876
Subsection 2. National Income.....	878
Subsection 3. British and Foreign Capital Invested in Canada and Canadian Capital Invested Abroad.....	879

The great increase in Dominion expenditure since 1913 has been due partly to the War of 1914-18 with the resulting burden of interest, pension charges, etc., and partly to railway expenditures and social services including, latterly, unemployment relief. Increases on a commensurate scale have also taken place during the same period in provincial and municipal expenditures. Thus, in their fiscal years ended 1937, the total ordinary expenditure of the nine Provincial Governments was $253,443,737 as compared with $53,826,219 in 1916, only 21 years before—an increase of over 371 p.c. (The aggregate interest payments of Provincial Governments rose from $7,817,844 in 1916 to $67,222,797 in 1937.) Again, in recent years, between 1924 and 1937, the aggregate tax receipts of the municipalities of Ontario have increased from $94,526,271 to $120,502,561 (comparable figures are not available for earlier years)—an increase of about 27 p.c. In Quebec the ordinary receipts of municipalities increased from $33,288,115 in 1915 to $79,471,242 in 1933—an increase of 139 p.c.; later figures given in Table 34 are not comparable.

Combined Statistics of All Governments.—In Appendix VI is a combined balance sheet for all Governments as Table **1**, and a combined revenue and expenditure current accounts statement of all Governments as adjusted for comparative purposes. The statement below is summarized from the statistics given in the respective sections of this chapter, the guaranteed or indirect debt being shown separately.

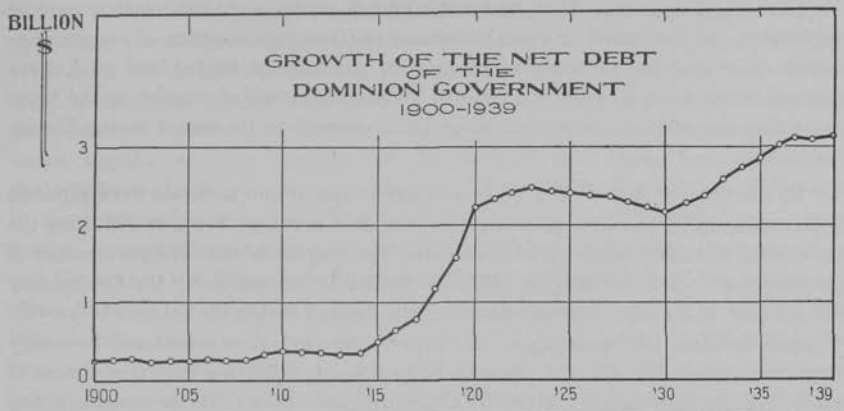
SUMMARY OF THE AGGREGATE PUBLIC DEBT OF CANADA *CIRCA* 1938.

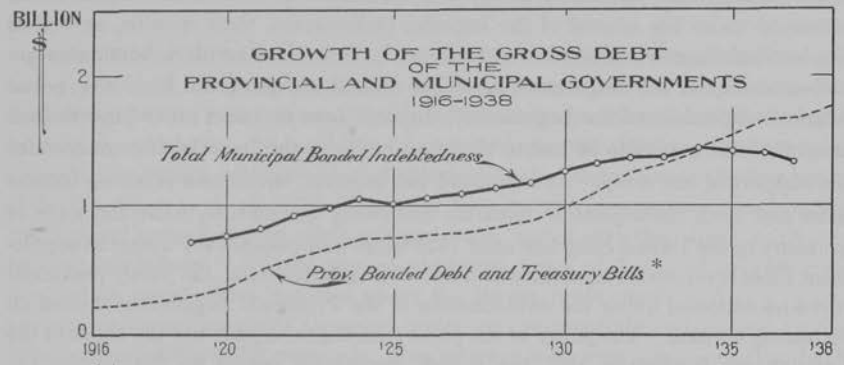
(Dominion, Provincial, and Municipal Debt.)

	$	$
Net Direct Debt—		
Net Debt of Dominion Government, Mar. 31, 1938	3,101,667,570	
Net Direct Liabilities Provincial Governments, 1938 (sinking funds and available capital, current and trust account assets deducted)	1,260,256,621	
Direct Liabilities all Canadian Municipalities, 1937 (less sinking funds and investments)	1,465,486,818	
Total Net Direct Debt		5,827,411,009
Guaranteed or Indirect Debt—		
Dominion Government, Mar. 31, 1938—		
Principal and interest guaranteed on railway and other securities	834,400,643	
Interest only guaranteed on railway securities	216,207,142	
Other guarantees	213,259,230[1]	
	1,263,867,015	
Provincial Governments—individual fiscal years, 1938	275,728,633	
Total Guaranteed or Indirect Debt		1,539,595,648
Grand Aggregate Public Net Direct Debt and Guaranteed or Indirect Debt of Canada		7,367,006,657

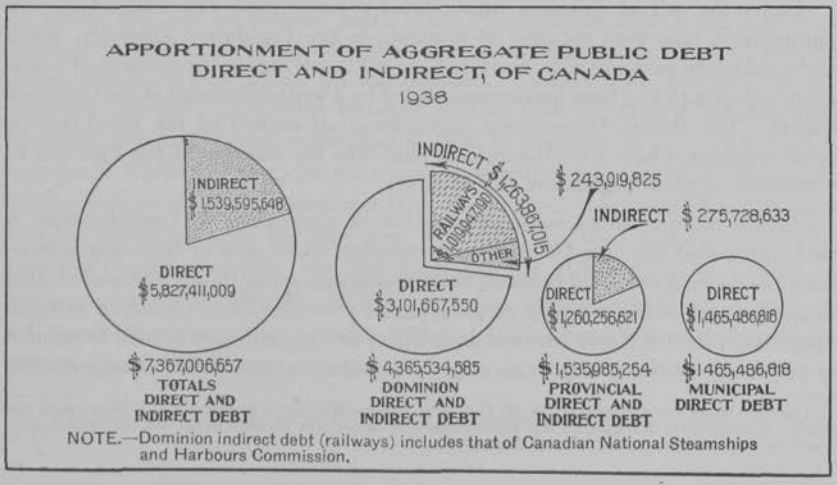
[1] Includes bank advances $8,162,834, British Columbia and Manitoba Treasury Bills $5,505,297, deposits of chartered banks in Bank of Canada $194,859,595; bank loans under Saskatchewan Seed Loan Guarantees Act, 1936, $2,555,113; and the Home Improvement Loans Guarantee Act $2,176,391. There is also an unstated amount guaranteed for the Winnipeg Grain and Produce Clearing Association, Limited, for day-to-day margins of the Canadian Wheat Board. Bank loans guaranteed under the Seed Grain Loans Guarantee Act, 1937, have been authorized up to $8,950,000 and an indeterminate amount has been guaranteed under the Dominion Housing Act, 1935.

PUBLIC DEBT OF CANADA





* The figures of Bonded Debt and Treasury Bills shown here are the only figures of Provincial Debt comparable over the period shown.



NOTE.—Dominion indirect debt (railways) includes that of Canadian National Steamships and Harbours Commission.

Section 1.—Dominion Public Finance.*

Historical Sketch.—Both under the French *régime* and in the earlier part of the British, the territorial or casual revenues of Canada, consisting of certain seigniorial dues and the proceeds of the sale of government timber and land, were reserved to the Crown, while the right of levying taxes and of regulating the trade and commerce of the colony was, after 1763, deemed to be vested in the British Parliament.

By the Quebec Act of 1774, certain duties on spirits and molasses were imposed, to be expended by the Crown in order to provide a revenue "towards defraying the expenses of the administration of justice and the support of the civil government of the province". A little later, in 1778, the British Government, by the Declaratory Act (18 Geo. III, c. 12), renounced forever the right of taxing the colonies to provide Imperial revenue, but maintained its claim to impose duties considered necessary for the regulation of trade, the proceeds to go towards defraying the expenditures of the colonial administration. After the Constitutional Act of 1791, the customs duties remained under the control of the Imperial Government, their revenue, as well as the territorial revenue above mentioned, coming in to the Executive Administration independently of the Legislative Assembly and thus making the Executive power largely independent of the Legislature. In case these revenues proved insufficient, recourse could generally be had to the grant made by the Imperial Government for the support of the army. As time went on, however, the Crown revenues became more and more inadequate to meet the increasing expenditure, while the wave of economy in the United Kingdom after 1815 made it impossible any longer to supplement these revenues from military sources. On the other hand, the purely provincial revenues collected under the authorization of the Provincial Legislature showed an increasing surplus. The power of the purse thus began to pass into the hands of the Legislatures; further, in 1831 the British Parliament passed an Act placing the customs duties at the disposal of the Legislatures.

Under the Act of Union, a consolidated revenue fund was established. All appropriation bills were required to originate in the Legislative Assembly, which was forbidden to pass any vote, resolution, or bill involving the expenditure of public money unless each had been first recommended by a written message of the Governor General. The British Government surrendered all control of the hereditary or casual revenues, which were thenceforth paid into the treasury of the Province to be disposed of as its Legislature should direct.

At the interprovincial conference that took place prior to Confederation, it was decided that the new Dominion Government, which was to take over permanently, as its chief source of revenue, the customs and excise duties that had yielded the greater part of the revenues of the separate provinces (direct taxation being as unpopular in British North America as in other new countries), was also to assume the provincial debts and to provide out of Dominion revenues definite cash subsidies

* Revised under the direction of Dr. W. C. Clark, Deputy Minister, Department of Finance, with the exception of those parts dealing with war tax revenue and income tax revenue at pp. 845-849, which were revised by the Department of National Revenue.

for the support of the Provincial Governments. (See Tables 21 and 22.) Until the War of 1914-18, which made other taxes necessary, the customs and excise duties constituted the chief resource of Dominion Government revenue for general purposes —the Post Office revenue and the Government railway receipts, which are not taxes at all, being mainly or entirely absorbed by the expenses of administering these services. Indeed, for many years preceding the War, customs and excise duties, together with the revenue from the head tax on Chinese immigrants, were the only items of receipts that were classified as taxes by the Department of Finance. In the pre-war fiscal year 1914 these two items aggregated $126,143,275 out of total receipts on consolidated fund account amounting to $163,174,395, the Post Office and Government railways furnishing between them $26,348,847 of the remainder, offset, however, by expenditures on these two services amounting to $27,757,196. Miscellaneous revenue, largely fees, amounted in that year to $10,682,273—a comparatively small fraction of the total. As both customs and excise taxes were indirect, the average Canadian felt but little the pressure of taxation for Dominion purposes.

The War of 1914-18 enormously increased the expenditure, and this increase had, in the main, to be met by loans. It is, however, a cardinal maxim of public finance that, where loans are contracted, sufficient new taxation should be imposed to meet the interest charge upon the loans and to provide a sinking fund for their ultimate liquidation. This War taxation was begun in Canada within the first weeks of the War when, in the short War session of August, 1914, increases were made in the customs and excise duties on various commodities, including coffee, sugar, spirituous liquors, and tobacco. In 1915 special additional duties of 5 p.c. *ad valorem* were imposed on commodities imported under the British preferential tariff and 7½ p.c. *ad valorem* on commodities imported under the intermediate and general tariffs, certain commodities being excepted. New internal taxes were also imposed on bank circulation, on the income of trust and loan companies, on insurance in other than life and marine companies, on telegrams and cablegrams, railway tickets, sleeping-car berths, etc., also on cheques, postal notes, money orders, letters, and post cards. In the following year, the business profits war tax (dropped in 1921)* was introduced, and in 1917 an income tax was imposed. In 1918 both of these taxes were increased and their application widened, and in 1919 the income tax was again increased, and still further augmented in 1920 by a surtax of 5 p.c. of the tax on incomes of $5,000 and over; the sales tax was also introduced in 1920. The cumulative result of these War taxes was that, in the fiscal year ended Mar. 31, 1921, customs duties were, for the first time, displaced from their position as the chief factor in Canadian revenue, the War taxes yielding $168,385,327, as against the customs yield of $163,266,804. This situation has remained true down to 1939 with the exception of the period between 1928 and 1931, when customs duties temporarily assumed their former position.

* Belated revenue from this tax has been collected in subsequent fiscal years down to 1933 (see Table 9, p. 845).

The importance that the sales tax has attained as a source of revenue will be seen from Table **16.** When first introduced in 1920 the tax was 1 p.c. on sales but the rate has been varied from year to year and from May 2, 1936, has been 8 p.c. A statement appears at p. 836 of the 1938 Year Book showing the changes made from the inception of the tax up to 1938. A lesser, but still substantial, source of revenue is the special excise tax on importations, instituted in 1931, the changes in rates of which are shown in a second statement.*

Recent Modifications in the System of Taxation.—A detailed sketch of the changes made in taxation from 1914 to 1926 will be found at pp. 755-759 of the 1926 Year Book, while similar information *re* tax changes in 1927 to 1929 is given at pp. 791-792 of the 1930 Year Book, for the years 1930 to 1935 at pp. 824-826 of the 1936 Year Book, for 1936-37 at pp. 837-839 of the 1938 Year Book, and for 1938 at pp. 874-875 of the 1939 edition.

The Minister of Finance in his Budget Speech of Apr. 25, 1939, outlined the financial position of Canada. Among the tax changes credit was allowed against income tax equal to 10 p.c. of the capital expenditures made by any individual, firm, partnership, or corporation in the year preceding Apr. 30, 1940. Provision was also made for extension to Jan. 1, 1943, of the period of eligibility for the three-year exemption from income tax granted to new metalliferous mines. In order to implement the undertaking made in the United States-United Kingdom Trade Agreement, the Budget exempted all but goods entering the country under the General Tariff from the special excise tax of 3 p.c. on imports. Minor changes were made in the Customs Tariff and the Income War Tax Act, while under the Excise Act the tax on spirits used in making vinegar was increased from 27 cents per gallon to 60 cents per gallon.

The Special War Budget.—On Sept. 12, 1939, at a special session of Parliament called following the outbreak of war in Europe, the Acting Minister of Finance 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 provides for a tax on excess profits, to be calculated on either of two bases at the option of the taxpayer. One option embodies a graduated tax on profits when calculated as a percentage of capital employed in the undertaking, while the other option embodies a tax of 50 p.c. on the increase in profits over the average profits for the four years 1936, 1937, 1938, and 1939, or the four fiscal periods of the taxpayer ending therein. It is provided that, in either case, the ordinary income tax paid may be deducted as an expense before calculating the excess profits tax.

Under the Income War Tax Act the ordinary rate of tax on corporations was increased from 15 p.c. to 18 p.c., while the rate on corporations making a consolidated return was increased from 17 p.c. to 20 p.c. A war surtax equal to 20 p.c. of the tax payable by individuals under existing income tax rates was levied. Allowance of contributions to patriotic organizations as a deduction up to 50 p.c. of net taxable income was also provided.

Under the Excise Act the duty on spirits was increased from $4 to $7 per proof gallon; the duty on Canadian brandy was increased from $3 to $6 per proof gallon;

* Pursuant to changes made in the 1939 Budget, this tax now applies only to importations under the General Tariff, and hence in the future will be of small importance as a source of revenue.

the duty on malt was increased from 6 cents to 10 cents per pound; the duty on manufactured tobacco, with the exception of cigarettes, was increased from 20 cents to 25 cents per pound; the duty on cigarettes weighing not more than three pounds per thousand was increased from $4 per thousand to $5 per thousand. Other changes affecting malt liquor and malt syrup were also made.

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 in the duty on coffee of 10 cents per pound, 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.

A statement at pp. 811-817 of the 1937 Year Book shows complete details of the Dominion tax system as of July, 1936, and statements at pp. 836-837 of the 1938 edition show changes made in the sales tax and in the special excise tax on importations since the inception of these taxes in 1920 and 1931, respectively.

Subsection 1.—The Current Balance Sheet of the Dominion.

The details of the various assets and liabilities are contained in the schedules accompanying the balance sheet and printed in the *Public Accounts*.

It should be noted that under the heading "Non-Active Assets", p. 832, the revision of the capital structure of the Canadian National Railways in 1938 resulted in the elimination of all loans made in previous years to the Canadian National Railways to cover deficits and the setting up of the new accounts shown for 1938 and 1939. These latter represent the Government's present equity in the Railways (see p. 648 for further details). There is, therefore, no comparability between the 1938 and 1939 figures and those for previous years as regards these items.

In the *Public Accounts* for the fiscal year ended Mar. 31, 1939, certain minor changes were made in the form of presentation of the balance sheet. On the liability side a new heading was set up entitled "Floating Debt", under which was shown funded debt matured and outstanding, interest due and outstanding, stock payable on demand and outstanding cheques. Sinking funds, formerly carried as a deduction from the funded debt, are now carried as an asset. In former years the net liability of the Dominon in respect of provincial debt accounts was shown on the liability side of the balance sheet. In the balance sheet for Mar. 31, 1939, the gross liability is shown on the liability side and the deductions applicable thereto as an asset. However, to preserve the continuity of the following five-year table, these changes have not been made and the figures for 1939 are shown on the basis followed in previous years.

1.—Balance Sheets of the Dominion of Canada, as at Mar. 31, 1935-39.

NOTE.—Dashes indicate that the items were not applicable in the years so indicated.

Item.	1935.	1936.	1937.	1938.	1939.
	ASSETS.				
	$	$	$	$	$
Active Assets—					
Cash on hand and in banks	16,296,697	20,243,808	26,239,458	8,297,389	32,127,822
Specie reserve	2,443,224	2,236,629	-	-	-
Bank of Canada, capital stock investment	-	-	5,100,000	5,100,000	5,920,000
Railway accounts[1]	33,884,413	46,087,498	56,335,222	28,784,895	31,016,335
Housing loans to provinces	9,771,188	6,768,387	4,730,388	3,308,000	3,203,000
Relief loans to provinces	74,223,015	116,527,165	113,502,587	129,801,198	144,786,039
Province of Alberta—Subsidy over-payment	468,750	468,750	468,750	468,750	468,750
Advances to National Harbours Board and harbour commissions	81,714,395	83,152,398	83,475,654	85,366,059	86,058,161
Advances to Canadian Farm Loan Board	8,856,850	16,789,808	27,760,379	31,598,256	34,418,291
Loans under Dominion Housing Act, 1935, and National Housing Act, 1938	-	81,583	1,076,492	2,754,513	5,411,954
Loans under Municipal Improvements Assistance Act	-	-	-	-	815,088
Advances to foreign governments	30,494,720	30,494,720	30,494,720	30,854,262	30,854,262
Soldier and general land settlement loans	44,648,325	43,594,540	42,477,774	42,232,502	40,588,430
Canadian Broadcasting Corporation—loans	-	-	-	500,000	450,000
Canadian National (West Indies) Steamships, Ltd.—loans	-	-	-	450,000	450,000
Miscellaneous current accounts	57,043,834	59,398,223	66,907,513	69,054,220	69,193,370
Totals, Active Assets	**359,845,411**	**425,843,509**	**458,568,937**	**438,570,044**	**485,761,502**
Balance of liabilities over active assets, being net debt Mar. 31	2,846,110,958	3,006,100,517	3,083,952,202	3,101,667,570	3,152,559,314
Totals, Gross Debt	**3,205,956,369**	**3,431,944,026**	**3,542,521,139**	**3,540,237,614**	**3,638,320,816**
Non-Active Assets—					
Public works, canals	242,411,265	242,855,235	242,726,334	240,349,604	240,316,691
Public works, railways	442,884,582	442,910,909	443,109,941	429,690,834	429,584,113
Public works, miscellaneous	259,118,195	265,165,018	267,970,363	286,506,741	292,022,857
Military property and stores	12,035,420	12,035,421	12,035,420	12,049,714	12,056,713
Territorial accounts	9,895,948	9,895,948	9,895,948	9,895,948	9,895,948
Railway accounts (old)	88,398,829	88,398,829	88,398,829	62,791,435	62,791,435
Railway accounts (loans non-active)	655,527,455	655,527,455	655,527,456	[2]	[2]
Canadian National Railways security trust stock	[2]	[2]	[2]	269,325,706	266,612,868
Canadian National Railways stock	[2]	[2]	[2]	18,000,000	18,000,000
Canadian National Steamships (loans non-active)	15,840,634	15,507,970	13,754,191	13,858,030	13,864,295
Miscellaneous investments and other accounts (non-active)	77,192,578	79,621,230	100,482,811	101,787,036	104,920,907
Bal. Consolidated Fund as at Mar. 31 of preceding year	935,419,276	1,042,806,052	1,194,182,502	1,250,050,909	1,657,412,522
Excess of expenditure over revenue, year ended Mar. 31	107,386,776	151,376,450	55,868,407	14,443,347	45,080,965
Charges authorized by Canadian National Railways Capital Revision Act, 1937	[2]	[2]	[2]	392,918,266	Nil
Totals, Net Debt	**2,846,110,958**	**3,006,100,517**	**3,083,952,202**	**3,101,667,570**	**3,152,559,314**

[1] Included in "miscellaneous current accounts" in the 1937 and earlier Year Books.
[2] See text on p. 831.

1.—Balance Sheets of the Dominion of Canada, as at Mar. 31, 1935-39—concluded.

Item.	1935.	1936.	1937.	1938.	1939.
	LIABILITIES.[1]				
	$	$	$	$	$
Bank Note Circulation Redemption Fund	6,696,471	6,857,942	7,019,898	5,967,227	5,462,028
Post Office account, money orders, postal notes, etc., outstanding	2,137,533	2,726,925	4,074,164	3,664,726	2,498,656
Post Office Savings Bank deposits	22,547,006	22,047,287	21,879,593	22,587,233	23,045,575
Insurance, superannuation funds and annuities	126,166,496	150,614,097	176,973,747	201,332,556	221,220,852
Trust funds	19,587,159	20,943,718	20,933,993	20,951,204	21,328,456
Contingent and special funds	5,625,412	6,044,065	13,597,412	21,853,040	34,762,566
Province accounts	9,623,817	9,623,817	9,623,817	9,623,817	9,623,817
Funded debt less sinking funds	3,011,713,862	3,211,347,008	3,285,066,671	3,252,577,884	3,318,490,049
Interest due and outstanding	1,858,613	1,739,167	3,351,844	1,679,928	1,888,817
Totals, Liabilities or Gross Debt	**3,205,956,369**	**3,431,944,026**	**3,542,521,139**	**3,540,237,615**	**3,638,320,816**

[1] Direct liabilities only. Indirect liabilities or guarantees given by the Dominion of Canada are listed in Table 28, at pp. 862-863.

Subsection 2.—Receipts and Disbursements.

The receipts of the Dominion Government on Ordinary Account for the fiscal year 1939, showed a decrease of $12,280,875 as compared with the previous year while total receipts were reduced by $14,521,395. The regular expenditure on ordinary account decreased by $1,859,208, though total expenditures were $18,654,980 higher than for 1938. There was an increase of $50,891,744 in the net debt (gross debt less active assets) during the year. (See Table 26 for interest-bearing debt.)

Changes in the Public Accounts, 1936.—Several important changes were made under various headings in the Public Accounts for 1936. On the revenue side "War and Demobilization Receipts", previously carried as "Special Receipts", were transferred to Ordinary Account (Casual Revenue). On the expenditure side several recurring items were also transferred from "Special" to "Ordinary", as follows: cost of loan flotations, representing flotation costs of new loans and annual charges for amortization of bond discount; the Government's annual contribution to the Superannuation Fund; the annual payment to maintain the reserve in the Government Annuities Fund; adjustment of War claims; and expenditures made under the Railway Grade Crossing Act. A new category was established under the heading "Government-Owned Enterprises", to cover expenditures incurred by the Government on account of the Canadian National Railways, the Canadian National Steamships, and various Harbour Commissions. Other major changes were the establishment of a separate category for Write-down of Assets, and transference of payment of Old Age Pensions from the Department of Labour to the Department of Finance.

In Tables 2, 3, and 8 the new classification of items has been adopted for the 1936, 1937, 1938, and 1939 figures and the figures for 1935 have been adjusted to the new basis. The result is that the figures for 1935 as given in the tables do not conform with the figures shown in the Public Accounts for that same year, because

of the new set-up after 1935, but the figures below are on a comparable basis throughout. Certain new items are introduced for 1938, but these do not affect the comparability of the figures of earlier years.

2.—Details of Revenue Receipts, Fiscal Years 1935-39.

NOTE.—See text above *re* adjustment of statistics for 1935. Dashes in this table indicate that the items were not applicable in the years so indicated.

Item.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$
Consolidated Fund Receipts—					
Tax Revenue—					
Customs	76,561,975	74,004,560	83,771,091	93,455,750	78,751,111
Excise duties	43,189,655	44,409,797	45,956,857	52,037,333	51,313,658
War Tax Revenue—					
Banks	1,368,480	1,280,933	1,209,894	1,106,859	1,013,776
Insurance companies	750,100	760,843	774,363	866,820	891,539
Income tax	66,808,066	82,709,803	102,365,242	120,365,532	142,026,138
Sales tax	72,447,311	77,551,974	112,832,259	138,054,536	122,139,067
Tax on cheques, transportation, etc.	39,744,759	35,181,074	39,641,163	42,764,231	39,571,505
Tax on gold	3,573,383	1,412,825	–	–	–
Totals, Tax Revenue	304,443,729	317,311,809	386,550,869	448,651,061	435,706,794
Non-Tax Revenue—					
Canada Grain Act	1,204,536	1,213,087	1,192,099	679,927	1,155,718
Canada Gazette	47,257	49,295	47,697	46,584	49,305
Canals	837,871	889,764	1,003,765	1,866,286	723,234
Casual	4,336,881	4,636,537	6,275,858	6,596,993	7,439,785
Chinese revenue	5,506	6,476	7,444	2,359	2,459
Dominion lands, parks, etc.	516,389	457,680	478,133	540,841	680,477
Electricity inspection	484,498	542,101	646,117	692,361	726,135
Fines and forfeitures	89,806	294,674	134,389	208,988	211,346
Fisheries	42,935	42,104	55,656	60,443	52,281
Gas inspection	96,096	90,948	93,289	87,519	83,465
Insurance inspection	139,304	146,874	151,966	161,934	172,177
Interest on investments	10,963,478	10,614,125	11,231,035	13,120,523	13,163,015
Marine	218,437	221,673	263,260	336,163	377,250
Mariners' Fund	181,203	187,448	204,525	205,586	210,512
Military College	20,044	19,616	20,012	20,100	20,400
Military pensions revenue	173,794	178,408	186,515	194,150	209,231
Ordnance lands	15,819	15,685	15,451	16,437	19,825
Patent and copyright fees	425,677	454,762	463,850	452,150	441,764
Penitentiaries	73,765	67,683	62,324	62,820	81,930
Post Office	31,248,324	32,507,889	34,274,552	35,546,161	35,288,220
Premium, discount, and exchange (net)	751,491	35,600	–	26,911	477,430
Public works	254,158	251,273	274,431	317,835	296,630
Radio receiving licences	1,487,408	1,574,431	989,619[1]	[1]	[1]
R.C.M.P. officers' pensions	9,202	10,807	10,195	10,570	11,028
Weights and measures inspection	407,303	401,457	395,904	392,879	416,295
Totals, Non-Tax Revenue	54,031,182	54,910,397	58,478,086	61,646,520	62,309,912
Totals, Consolidated Fund Receipts	**358,474,911**	**372,222,206**	**445,028,955**	**510,297,581**	**498,016,706**
Special Receipts (Sundry receipts and credits)	**3,397,169**	**319,833**	**8,463,997**	**3,009,879**	**1,255,962**
Other Credits—					
Refunds on capital account	80,409	27,033	616,069	1,543,135	40,796
Credits to non-active accounts	21,275	26,924	44,726	1,842,154	2,857,890
Totals, Other Credits	**101,684**	**53,957**	**660,795**	**3,385,289**	**2,898,686**
Grand Totals, Receipts	**361,973,764**	**372,595,996**	**454,153,747**	**516,692,749**	**502,171,354**

[1] As from November, 1936, radio licence fees are deposited to the credit of the Canadian Broadcasting Corporation.

3.—Details of Expenditures, Fiscal Years 1935-39.

NOTE.—See text on p. 833 *re* adjustment of statistics for 1935. Dashes in this table indicate that the items were not applicable in the years so indicated.

Item.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$
Ordinary Expenditures—					
Agriculture	7,106,535	9,399,311	8,741,070	9,016,839	9,527,766
Auditor General's Office	376,556	428,665	423,367	463,335	473,007
Civil Service Commission	220,787	258,688	304,921	358,252	378,524
External Affairs, including Office of Prime Minister	1,426,999	1,289,879	1,340,912	1,450,048	1,056,727
Finance—					
Interest on public debt	138,533,202	134,549,169	137,410,345	132,117,422	127,995,617
Cost of loan flotations	2,890,192	3,576,858	3,839,481	4,555,437	4,914,349
Subsidies to provinces	13,768,953	13,768,953	13,735,196	13,735,336	13,752,110
Special grants to provinces	1,600,000	3,975,000	3,225,000	7,475,000	7,475,000
Other grants and contributions	466,505	736,505	540,224	560,244	642,577
Superannuation	921,925	835,124	768,046	696,557	630,878
Government contribution to Superannuation Fund	1,947,495	1,874,964	2,018,754	2,065,491	2,219,820
Old age pensions	14,942,459	16,764,484	21,149,352	28,653,005[1]	29,043,639[1]
Premium, discount, and exchange (net)	–	–	399,930	–	–
Other departmental expenditure	3,939,064	3,734,888	3,578,449	3,652,961	3,770,328
Fisheries	1,640,562	1,710,345	1,690,610	1,849,619	2,035,822
Governor General's Secretary's Office	132,789	137,857	143,216	144,179	144,690
Insurance	156,397	162,798	171,658	186,725	193,947
Justice Department—					
Justice	2,410,414	2,454,869	2,502,594	2,507,432	2,473,012
Penitentiaries	2,667,340	2,376,651	2,371,932	2,577,319	2,675,201
Labour Department—					
Labour (incl. technical education)	671,935	758,361	796,598	754,728	815,540
Government annuities—payments to maintain reserve	146,057	271,827	540,832	8,941,196[2]	
Legislation—					
House of Commons	1,796,121	1,485,515	1,759,641	1,515,869	1,799,767
Library of Parliament	71,300	75,962	74,994	79,052	72,456
Senate	490,696	491,076	587,326	535,576	600,195
General	95,000	54,577	72,817	56,899	75,000
Dominion Franchise Office	1,545,283	498,208	52,593	76,240	49,897
Chief Electoral Office, including elections	146,220	1,089,464	71,820	44,609	114,466
Mines and Resources—					
Administration and general expenditures	–	–	–	1,857,868[3]	182,818[3]
Immigration and Colonization	1,268,788	1,322,218	1,312,835	1,163,004	1,334,724
Indian Affairs	4,361,733	4,868,609	4,903,880	4,896,748	5,304,885
Interior	2,749,828	2,938,997	2,887,354	–	–
Lands, Parks, and Forests	–	–	–	1,542,790	2,249,010
Surveys and Engineering	–	–	–	933,387	1,324,945
Mines and Geological Survey	964,869	1,040,346	1,134,714	658,082	1,339,441
Movement of Coal and Domestic Fuel Act	2,123,971	2,102,631	2,276,735	2,520,922	1,921,130
National Defence—					
Militia Service	8,852,632	10,141,230	11,345,751	17,221,198	15,772,295
Naval Service	2,222,003	2,380,018	4,763,294	4,371,980	6,589,714
Air Service	2,258,142[4]	3,777,320[4]	5,821,824[4]	10,018,104	11,216,055
General Services	847,017	878,506	992,224	1,149,025	853,959
National Revenue (including Income Tax)	10,165,641	10,962,988	11,205,101	11,870,199	11,899,312
Pensions, war, military, and civil	44,235,808	43,337,096	43,356,180	42,823,277	42,793,055
Pensions and National Health	10,487,141	12,053,582	12,452,392	13,066,320	14,582,890
Post Office	30,252,310	31,437,719	31,906,272	33,762,269	35,455,182
Privy Council	46,343	45,802	45,488	47,787	48,783
Public Archives	208,719	164,953	160,362	169,953	158,697
Public Printing and Stationery	367,744	168,697	169,367	161,063	190,572
Public Works	9,904,494	12,945,277	14,518,757	12,382,073	15,484,196
Royal Canadian Mounted Police	5,744,326	5,929,815	5,634,760	6,022,503	5,822,638
Secretary of State	394,963	704,972	654,705	692,331	730,092
Soldier Settlement	746,127	761,721	805,945	801,036	757,664
Trade and Commerce—					
Mail subsidies and steamship subventions	2,274,255	2,426,484	2,119,915	2,029,211	1,993,323
Canada Grain Act	1,679,236	1,848,251	1,738,585	1,675,051	1,846,706
Other departmental expenditures	3,057,023	3,458,235	5,522,518	4,069,797	4,762,994

For footnotes, see end of table, p. 837.

3.—Details of Expenditures, Fiscal Years 1935-39—continued.

Item.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$
Ordinary Expenditures—concluded.					
Transport—					
Administration and miscellaneous expenditures	–	–	–	417,277[3]	376,407[3]
Air Service				2,935,256[4]	3,457,108[4]
Marine	5,742,429	5,857,428	5,614,342	4,290,279	4,266,775
Canadian Broadcasting Corporation	1,248,923	1,500,000	878,174	–	–
Railways and Canals	4,581,444	4,250,138	4,019,131	3,911,022	4,616,956
Maritime Freight Rates Act	2,529,394	2,348,399	2,505,823	3,182,458	2,582,897
Railway Grade Crossing Fund	274,820	127,719	53,966	179,770	186,643
Totals, Ordinary Expenditures	**359,700,909**	**372,539,149**	**387,112,072**	**414,891,410**	**413,032,202**
Capital Expenditures—					
Canals	337,907	457,926	51,945	–	–
Railways	525,772	286,887	203,035	71,454	26,348
Public Works	6,243,737	5,799,341	3,236,564	4,358,698	5,397,928
Totals, Capital Expenditures	**7,107,416**	**6,544,154**	**3,491,544**	**4,430,152**	**5,424,276**
Special Expenditures—					
Unemployment Relief Act, 1930	2,500	26,338			
Unemployment Relief Act, 1931	52,243	26,173			
Unemployment Relief Act, 1932	398,928	111,071			
Unemployment Relief Act, 1933	2,419,952	493,416	[5]	[5]	[5]
Unemployment Relief Act, 1934	49,113,684	1,151,357			
Unemployment Relief Act, 1935	–	48,027,323			
Public Works Construction Acts	8,672,549	29,580,578			
Special Supplementary Estimates—					
Grants-in-aid to provinces	–		28,929,774	19,492,958	17,037,033
Dominion's share of joint Dominion-Provincial projects	–	–	12,691,397	8,878,166	6,258,672
Transportation facilities into mining areas	–	–	1,221,227	1,323,657	1,212,941
Railway maintenance	–	–	2,662,084	–	–
Administration	–	–	194,306	377,980	260,466
Dominion projects as provided by Special Supplementary Estimates	–	–	23,553,924	13,875,769	12,980,739
Special drought area relief	–	–	8,750,990	24,585,834	9,145,556
Wheat Crop Equalization Payments Act, 1930	–	6,600,000	–	–	
Loss on 1930 Wheat Pool and stabilization operations, payment to Canadian Wheat Board of net liabilities assumed Dec. 2, 1935	–	15,856,645	–	–	
Loss on 1930 Oats Pool under guarantee of bank advances to Canadian Co-operative Wheat Producers, Limited	–	174,383		–	
Canadian Wheat Board—reserve against estimated losses on wheat marketing guarantees applicable to fiscal year 1938-39	–	–	–	–	25,000,000
Totals, Special Expenditures	**60,659,856**	**102,047,284**	**78,003,702**	**68,534,364**	**71,895,407**
Government-Owned Enterprises—					
Losses Charged to Consolidated Revenue Fund—					
Canadian National Railways	48,407,901	47,421,465	43,303,394	42,345,868	54,314,196
Prince Edward Island Car Ferry	–	–	–	–	387,643
Canadian National Steamships	–	269,969	–	–	–
National Harbours Board	–	1,126,056	249,718	288,917	138,440
Trans-Canada Air Lines	–	–	–	111,005	818,026

For footnotes see end of table, p. 837.

3.—Details of Expenditures, Fiscal Years 1935-39—concluded.

Item.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$
Government-Owned Enterprises—concluded.					
Loans and Advances (Non-Active)—					
Canadian National Steamships	487,167	Cr. 332,664	Cr. 1,753,779	103,839	6,265
National Harbours Board	1,241,733	2,455,576	2,419,193	1,983,759	3,278,924
Totals, Government-Owned Enterprises	**50,136,801**	**50,940,402**	**44,218,526**	**44,833,388**	**58,943,494**
Other Charges—					
Write-Down of Assets Chargeable to Consolidated Fund—					
Reduction in soldier and general land settlement loans	468,916	487,642	627,663	749,766	1,022,617
Yearly established losses in seed grain and relief accounts	21,275	26,924	44,425	14,197	17,701
Cancellation of Canadian Farm Loan Board capital stock	–	–	20,385	10,135	14,280
Province of Manitoba treasury bills	–	–	–	804,897	
Reduction of Immigration and Colonization Assisted Passage Loans			–	247	283
Write-Down of Active Assets to Non-Active Assets—					
Province of Manitoba treasury bills	–	–	804,897	–	
Province of Saskatchewan treasury bills	–	–	17,682,158	–	
Soldier and general land settlement non-active account—adjustment		–	60	139,361	
Bonds, interest and notes—adjustment	–	–	–	200	
Canadian National Railways Securities Trust Stock—reduction due to line abandonments during calendar year 1938	–		–	–	2,712,837
Non-Active Accounts—					
Miscellaneous	200	Nil	Nil	Nil	Nil
Account previously carried as active asset transferred to non-active	11,208	–	–	–	
Totals, Other Charges	**501,599**	**514,566**	**19,179,588**	**1,718,803**	**3,767,718**
Grand Totals, Expenditures	**478,106,581**	**532,585,555**	**532,005,432**	**534,408,117**	**553,063,097**

[1] Includes pensions to blind persons. [2] It was found that the tables heretofore used for valuation understated the liability on annuity contracts. This exceptional amount is due to the adoption of tables in conformity with the mortality experience of previous years. [3] Prior to 1937-38, general administration expenses were not segretated from other expenditures of the respective services of the Departments that were amalgamated to form the Department of Mines and Resources and the Department of Transport. The figures for 1939 represent only Departmental administration, other administration cost being included, as in other departments, under the respective services. [4] Prior to 1937-38 expenditures on Civil Aviation, now the Air Service Branch of the Department of Transport, were included under expenditures for the Air Service Branch of the Department of National Defence. [5] Relief expenditures for 1937, 1938, and 1939 were continued under the Unemployment Relief and Assistance Acts, 1936 and 1937, and other items shown immediately following.

4.—Principal Items of Dominion

NOTE.—From 1868 to 1906, inclusive, the fiscal years ended on June 30; after 1906, on Mar. 31. Figures for

Year.	Ordinary Expenditures.							
	Interest on Debt.	Old Age Pensions.	Pensions, War, Military and Civil.	Public Works.	National Defence.	Subsidies to Provinces.	Post Office.[1]	Total Ordinary Expenditures.[2]
	$	$	$	$	$	$	$	$
1868...	4,501,568	-	56,422	126,270	1,013,016	2,753,966	616,802	13,486,093
1870...	5,047,054	-	53,586	120,031	1,245,973	2,588,605	808,623	14,345,510
1875...	6,590,790	-	63,657	1,756,010	1,013,944	3,750,962	1,520,861	23,713,071
1880...	7,773,869	-	192,889	1,046,342	690,019	3,430,846	1,818,271	24,850,634
1881...	7,594,145	-	96,389	1,108,815	667,001	3,455,518	1,876,658	25,502,554
1882...	7,740,804	-	101,197	1,342,000	772,812	3,530,999	1,980,567	27,067,104
1883...	7,668,552	-	98,446	1,765,256	734,354	3,606,673	2,176,089	28,730,157
1884...	7,700,181	-	95,543	2,908,852	989,498	3,603,714	2,312,965	31,107,706
1885...	9,419,482	-	89,879	2,302,363	2,707,758	3,959,327	2,488,315	35,037,060
1886...	10,137,009	-	88,319	2,046,552	4,355,880	4,182,526	2,763,186	39,011,612
1887...	9,682,929	-	102,109	2,133,316	1,193,693	4,169,341	2,818,907	35,657,680
1888...	9,823,313	-	120,334	2,162,116	1,273,179	4,188,514	2,889,729	36,718,495
1889...	10,148,932	-	116,030	2,299,231	1,323,552	4,051,428	2,982,321	36,917,835
1890...	9,656,841	-	107,391	1,972,501	1,287,014	3,904,922	3,074,470	35,994,031
1891...	9,584,137	-	103,850	1,937,546	1,279,514	3,903,757	3,161,676	36,343,568
1892...	9,763,978		92,457	1,627,851	1,266,308	3,935,914	3,316,120	36,765,894
1893...	9,806,888	-	90,309	1,927,832	1,419,746	3,935,765	3,421,203	36,814,053
1894...	10,212,596		86,927	2,033,955	1,284,517	4,206,655	3,517,261	37,585,025
1895...	10,466,294		84,349	1,742,317	1,574,014	4,250,675	3,593,647	38,132,005
1896...	10,502,430		86,080	1,299,769	1,136,714	4,235,664	3,665,011	36,949,142
1897...	10,645,663		90,882	1,463,719	1,667,588	4,238,059	3,789,478	38,349,760
1898...	10,516,758		96,187	1,701,313	1,514,472	4,237,372	3,575,412	38,832,526
1899...	10,855,112		96,129	1,902,664	2,112,292	4,250,636	3,603,799	41,903,500
1900...	10,699,645		93,453	2,289,889	1,846,179	4,250,608	3,758,015	42,975,279
1901...	10,807,955	-	93,551	3,386,632	2,061,674	4,250,607	3,931,446	46,866,368
1902...	10,975,935		83,305	4,221,294	2,060,979	4,402,098	4,023,637	50,759,392
1903...	11,068,139	-	87,925	4,065,553	1,963,009	4,402,503	4,105,178	51,691,903
1904...	11,128,637	-	113,495	4,607,330	2,252,030	4,402,292	4,347,541	55,612,833
1905...	10,630,115	-	140,424	6,765,446	2,650,700	4,516,038	4,634,528	63,319,683
1906...	10,814,697	-	179,023	7,484,716	4,294,125	6,726,373	4,921,577	67,240,641
1907[6]...	6,712,771	-	125,832	5,520,571	3,347,038	6,745,134	3,979,557	51,542,161
1908...	10,973,597	-	187,557	8,721,327	5,498,184	9,032,775	6,005,930	76,641,452
1909...	11,604,584	-	191,533	12,300,184	5,230,297	9,117,143	6,592,386	84,064,232
1910...	13,098,160	-	216,697	7,261,218	4,686,698	9,361,388	7,215,338	79,411,747
1911...	12,535,851	-	240,586	8,621,431	8,658,668	9,092,472	7,954,223	87,774,198
1912...	12,259,397	-	245,045	10,344,487	8,814,056	10,281,045	9,172,036	98,161,441
1913...	12,605,882	-	283,188	13,468,505	10,198,135	13,211,800	10,882,804	112,059,537
1914...	12,893,505	-	311,900	19,007,513	11,730,964	11,280,469	12,822,058	127,384,473
1915...	15,736,743	-	358,558	19,343,532	10,573,423	11,451,673	15,961,191	135,523,207
1916...	21,421,585	-	671,133	12,039,252	5,083,225	11,451,673	16,009,139	130,350,727
1917...	35,802,567	-	2,814,546	8,633,096	4,880,365	11,469,148	16,300,579	148,599,343
1918...	47,845,585	-	8,155,691	7,432,901	4,311,379	11,369,148	18,046,558	178,284,313
1919...	77,431,432	-	18,282,440	6,295,060	3,482,604	11,327,236	19,273,758	232,731,283
1920...	107,527,089	-	26,004,461	9,016,246	5,033,479	11,490,860	20,774,312	303,843,930
1921...	139,551,520	-	37,420,751	10,846,875	14,020,854	11,490,860	22,696,561	361,118,145
1922...	135,247,849	-	36,153,031	10,574,364	16,412,602	12,211,924	32,003,189[4]	347,560,691
1923...	137,892,735	-	32,985,998	9,978,440	13,448,176	12,207,313	31,180,814	332,293,732
1924...	136,237,872	-	33,411,081	11,900,847	13,757,103	12,386,136	31,733,351	324,813,190
1925...	134,789,604	-	34,888,665	12,029,578	13,172,318	12,281,391	31,721,543	318,891,901
1926...	130,691,493	-	37,203,700	13,416,045	14,113,167	12,375,128	32,099,644	320,660,479
1927...	129,675,367	-	37,902,939	11,178,054	14,909,500	12,516,740	32,392,659	319,548,173
1928...	128,902,945	131,452[4]	39,778,130	14,037,366	17,659,638	12,516,740	33,823,562	336,167,961
1929...	124,989,950	832,687	41,487,323	17,003,254	19,674,201	12,553,724	34,949,550	350,952,924
1930[8]...	121,566,213	1,537,174	40,406,565	18,134,359	21,986,537	12,496,958	36,557,012	363,237,478
1931...	121,289,844	5,658,143	45,965,723	23,763,284	23,736,447	17,435,736	37,891,693	386,584,863
1932...	121,151,106	10,032,410	48,686,389	16,099,739	18,221,632	13,694,970	36,052,208	372,101,318
1933...	134,999,069	11,512,543	45,078,919	11,778,684	13,750,314	13,677,384	31,607,404	354,643,201
1934...	139,725,417	12,313,595	43,883,132	9,666,753	13,476,862	13,727,565	30,553,768	351,771,161
1935...	138,533,202	14,942,459	44,235,808	8,726,385	14,185,772	13,768,953	30,252,310	359,700,909
1936...	134,549,169	16,764,484	43,337,096	11,718,877	17,177,074	13,768,953	31,437,719	372,539,149
1937...	137,410,345	21,149,352	43,356,180	13,346,345	22,923,093	13,735,196	31,906,272	387,112,072
1938...	132,117,422	28,653,005[10]	42,823,277	11,135,878	32,760,307	13,735,336	33,762,269	414,891,410
1939...	127,995,617	29,043,639[10]	42,793,055	15,484,197	34,432,023	13,752,110	35,455,182	413,032,202

[1] The expenditures shown include moneys spent for Civil Government account and miscellaneous expenditures from 1922; figures for subsequent years have been revised since the publication of the 1939 Year Book. [2] Includes various non-enumerated items. [3] Includes expenditures on militia, Dominion lands, and debt allowances to provinces; details of expenditure under these headings, under Public Works, and Railways and Canals, are shown at pp. 846-847, 1938 Year Book. [4] First year expenditure recorded under this head. [5] Includes $2,725,504 for the improvement of the St. Lawrence, spent during the previous years by Montreal Harbour Commission. [6] Nine months. [7] In-

Expenditure, Fiscal Years 1868-1939.

intermediate years not shown between 1868 and 1880 will be found at pp. 845-847 of the 1938 Year Book.

Capital Expenditures.				Other Expenditures.				Total Expenditures.	Year.
Public Works.	Railways.	Canals.	Total.[3]	Railway Subsidies.	War and Demobilization.	Other Charges.	Total.		
$	$	$	$	$	$	$	$	$	
41,690	455,250	51,498	548,438	–	–	37,158	37,158	14,071,689	1868
1,821,887	1,693,229	Nil	3,515,116	–	–	155,988	155,988	18,016,614	1870
189,484	5,018,428	1,714,830	6,922,742	–	–	2,253,097	2,253,097	32,888,911	1875
8,730	6,109,078	2,123,366	8,241,174	–	–	949,948	949,948	34,041,756	1880
187,370	5,577,237	2,077,028	8,176,317	–	–	117,772	117,772	33,796,643	1881
70,950	5,175,047	1,647,759	7,405,637	–	–	201,805	201,805	34,674,625	1882
119,869	11,707,619	1,763,002	14,147,360	–	–	21,369	21,369	42,898,886	1883
491,376	14,013,075	1,577,295	23,977,702	208,000[4]	–	2,567,453	2,775,453	57,860,862	1884
182,306	11,224,245	1,504,621	13,220,185	403,245	–	502,587	905,832	49,163,078	1885
569,202	4,443,220	1,333,325	9,589,734	2,701,249	–	10,534,973	13,236,222	61,837,569	1886
353,044	1,846,887	1,783,698	4,439,939	1,406,533	–	–	1,406,533	41,504,152	1887
1,033,118	1,765,586	963,778	7,162,964	1,027,042	–	155,623	1,182,665	45,064,124	1888
575,408	2,709,854	972,918	4,420,314	846,722	–	1,333,328	2,180,050	43,518,198	1889
495,421	2,392,768	1,026,364	6,778,663[5]	1,678,196	–	44,947	1,723,143	41,770,333	1890
515,702	1,184,317	1,318,092	3,115,860	1,265,706	–	68,074	1,333,780	40,793,208	1891
224,390	417,426	1,437,149	2,164,457	1,248,216	–	2,093,569	3,341,785	42,272,136	1892
181,878	712,918	2,069,573	3,088,318	811,394	–	139,963	951,357	40,853,728	1893
102,059	585,749	3,027,164	3,862,970	1,229,885	–	330,354	1,560,239	43,008,234	1894
102,393	376,815	2,452,273	3,030,490	1,310,549	–	399,294	1,709,843	42,872,338	1895
114,826	326,065	2,258,779	3,781,311	3,228,745	–	137,185	3,365,930	44,096,384	1896
129,238	204,624	2,348,637	3,523,160	416,955	–	682,881	1,099,836	42,972,756	1897
364,018	270,991	3,207,249	4,143,503	1,414,935	–	943,317	2,358,252	45,334,281	1898
385,094	1,112,348	3,899,877	5,936,343	3,201,220	–	501,572	3,702,792	51,542,635	1899
1,089,827	3,309,130	2,639,565	7,468,843	725,720	–	1,547,624	2,273,344	52,717,467	1900
1,006,983	3,922,989	2,360,570	7,695,488	2,512,329	–	908,681	3,421,010	57,982,866	1901
2,190,125	5,103,288	2,114,690	10,078,638	2,093,939	–	1,038,831	3,132,770	63,970,800	1902
1,268,005	3,083,681	1,823,273	7,052,725	1,463,222	–	1,538,722	3,001,944	61,746,572	1903
1,334,396	2,617,770	1,880,787	7,881,719	2,046,878	–	6,713,618	8,760,496	72,255,048	1904
1,642,042	6,125,482	2,071,594	11,933,492	1,275,630	–	2,275,334	3,550,964	78,804,139	1905
2,359,529	6,102,566	1,552,121	11,913,871	1,637,574	–	2,485,555	4,123,129	83,277,642	1906
1,797,872	7,141,569	887,838	11,329,144	1,324,889	–	1,581,944	2,906,833	65,778,139	1907[6]
2,969,049	23,671,553	1,723,156	30,429,907	2,037,629	–	3,469,692	5,507,321	112,578,680	1908
2,832,295	35,846,185	1,873,868	42,593,167	1,785,887	–	4,998,238	6,784,125	133,441,524	1909
4,514,606	21,505,913	1,650,706	29,756,353	2,048,097	–	4,179,576	6,227,673	115,395,774	1910
3,742,717	24,760,771	2,349,475	30,852,963	1,284,892	–	2,949,197	4,234,089	122,861,250	1911
4,116,385	24,262,253	2,560,938	30,939,576	859,400	–	7,181,665	8,041,065	137,142,082	1912
6,057,515	18,888,889	2,259,642	27,206,046	4,935,507	–	255,787	5,191,294	144,456,878	1913
10,100,017	24,250,498	2,829,661	37,180,176	19,036,237	–	2,640,162	21,676,399	186,241,048	1914
11,049,030	24,907,494	5,490,796	41,447,320	5,191,507	60,750,476[4]	5,186,016	71,127,999	248,098,526	1915
8,471,229	23,924,769	6,170,953	38,566,951	1,400,171	166,197,755	3,186,898	170,784,824	339,702,502	1916
7,838,116	14,737,327	4,304,589	26,880,033	959,584	306,488,815	15,275,345	322,723,744	498,203,118	1917
6,347,201	34,982,746	1,781,957	43,111,904	720,405	343,836,802	10,706,787	355,263,994	576,660,210	1918
5,705,348	17,113,954	2,211,964	25,031,266	43,805	446,519,440	−7,283,582	439,279,663	697,042,212	1919
38,869,683	25,881,433	4,550,762	69,301,878	334,845	346,612,955	19,995,313	366,943,113	786,031,611[7]	1920
27,559,809	7,002,993	5,450,005	40,012,807	Nil	16,997,544	492,048	17,489,592	528,302,513[7]	1921
10,431,698	1,381,024	4,482,610	16,295,332	"	1,544,250	301,518	1,845,768	463,528,389[7]	1922
3,411,510	1,400,430	4,995,184	9,807,124	"	4,464,760	4,042,931	8,507,691	434,735,277[7]	1923
3,804,427	309,455	6,747,395	10,861,277	−1,523	446,083	7,902,759	8,347,319	370,589,247[7]	1924
6,030,320	−99,712	10,619,903	16,550,511	Nil	506,931	3,953,433	4,460,364	351,169,803[7]	1925
4,805,949	−31,856	12,024,456	16,798,549	"	191,392	6,330,092	6,521,484	355,186,423[7]	1926
2,920,670	2,792,344	13,845,689	19,558,703	"	64,485	7,814,977	7,879,462	358,555,751[7]	1927
3,281,097	3,591,646	13,762,905	20,635,648	"	1,656,011	1,705,311	3,361,322	378,658,440[7]	1928
3,342,714	6,301,979	13,164,582	22,809,275	"	−669,399	2,067,153	1,397,754	388,805,953[7]	1929
8,589,022	6,873,511	10,264,187	25,726,720	"	Nil	16,302,185[9]	16,302,185	405,266,383	1930[8]
12,145,264	6,702,854	9,862,574	28,710,692	"	"	26,272,857[9]	26,272,857	441,568,413	1931
7,485,438	6,376,207	3,304,298	17,165,943	"	"	59,475,056[9]	59,475,056	448,742,316	1932
4,233,789	1,658,812	3,156,328	9,048,929	"	"	168,677,810[9]	168,677,810	532,369,940	1933
3,839,751	754,194	1,986,140	6,580,085	"	"	99,806,659[9]	99,806,659	458,157,905	1934
6,243,737	525,772	337,907	7,107,416	"	"	111,298,256[9]	111,298,256	478,106,581	1935
5,799,341	286,887	457,926	6,544,154	"	"	153,502,252[9]	153,502,252	532,585,555	1936
3,236,564	203,035	51,945	3,491,544	"	"	141,401,816[9]	141,401,816	532,005,432	1937
4,358,698	71,454		4,430,152	"	"	115,086,555[9]	115,086,555	534,408,118	1938
5,397,928	26,348		5,424,276	"	"	134,606,619[9]	134,606,619	553,063,098	1939

cludes certain advances non-active to railways, amounting to $45,780,690 in 1920, $109,662,655 in 1921, $97,950,645 in 1922, $77,863,938 in 1923, $23,710,617 in 1924, $9,934,453 in 1925, $10,000,000 in 1926 $10,000,000 in 1927; together with advances of $5,979,856 in 1923, $1,500,000 in 1924, $900,000 in 1925, $668,000 in 1926, $426,817 in 1927, $999,837 in 1928, and $758,000 in 1929, to the Canadian Merchant Marine, etc. [8] Figures for 1930 and following years conform with new set-up of Public Accounts as established in 1936 (see p. 833).

[3] For details, see Table 5, p. 840. [10] Includes pensions to blind persons.

5.—Analysis of "Other Charges" (shown in Table 4), Fiscal Years 1930-39.

Year.	Special Expenditure.		Government-Owned Enterprises.		Other Charges.		Total.
	Unemployment Relief Acts and Public Works Construction Acts.	Wheat Bonus and Losses on Grain Marketing Operations, etc.	Losses Charged to Consolidated Fund.	Loans and Advances Non-Active.	Write-Down of Assets Chargeable to Consolidated Fund.	Non-Active Accounts.	
	$	$	$	$	$	$	$
1930	Nil	Nil	4,308,357	8,244,950	3,731,536	17,342	16,302,185
1931	4,431,655	"	6,712,239	5,487,941	9,640,997	25	26,272,857
1932	38,295,515	10,908,429	6,631,856	3,112,285	526,971	Nil	59,475,056
1933	36,720,935	1,811,472	62,139,413	66,453,050[1]	105,717	1,447,223	168,677,810
1934	35,898,311	Nil	58,955,388	2,095,773	1,857,087	1,000,100	99,806,659
1935	60,659,856	"	48,407,901	1,728,900	490,191	11,408	111,298,256
1936	79,416,256	22,631,029	48,817,489	2,122,912	514,566	Nil	153,502,252
1937	78,003,702[2]	Nil	43,553,112	665,414	692,473	18,487,115	141,401,816
1938	68,534,364[2]	"	42,745,791	2,087,597	1,579,242	139,561	115,086,555
1939	46,895,407[2]	25,000,000[3]	55,658,306	3,285,188	3,767,718	Nil	134,606,619

[1] Includes a write-down of assets amounting to $62,938,239. [2] Relief projects, grants-in-aid to provinces, and other works voted as Special Supplementary Estimates, and western drought area relief authorized by Governor General's warrants. [3] Reserve against estimated losses on wheat marketing guarantees applicable to fiscal year 1938-39.

6.—Principal Items of Receipts (Ordinary) and Total Receipts, Fiscal Years 1868-1939.

NOTE.—From 1868 to 1906, inclusive, the fiscal years ended on June 30; after 1906 on Mar. 31. Figures for intermediate years not shown between 1868 and 1880 will be found at p. 848 of the 1938 Year Book.

Year.	Customs Duties.	Excise Duties.	War Tax Revenue.[1]	Total Revenue from Taxation.	Interest on Investments.	Post Office.	Total Revenue Receipts.[2]
	$	$	$	$	$	$	$
1868	8,578,380	3,002,588		11,700,681	174,073	525,692	13,687,928
1870	9,334,213	3,619,623		13,087,882	383,956	573,566	15,539,657
1875	15,351,012	5,069,687		20,664,879	840,887	1,155,332	24,649,724
1880	14,071,343	4,232,428		18,479,577	834,793	1,252,498	23,364,547
1881	18,406,092	5,343,022		23,942,139	751,513	1,352,110	29,635,298
1882	21,581,570	5,884,860		27,549,047	914,009	1,587,888	35,182,549
1883	23,009,582	6,260,117		29,269,699	1,001,193	1,800,391	36,803,669
1884	20,023,890	5,459,309		25,483,199	986,698	1,755,674	32,815,226
1885	18,935,428	6,449,101		25,384,529	1,997,035	1,841,372	33,354,041
1886	19,362,308	5,852,905		25,215,213	2,299,079	1,901,690	33,479,883
1887	22,373,951	6,308,201		28,682,152	990,887	2,020,624	35,775,531
1888	22,091,682	6,071,487		28,163,169	932,025	2,379,242	35,908,464
1889	23,699,413	6,886,739		30,586,152	1,305,392	2,220,504	38,782,870
1890	23,913,546	7,618,118		31,531,664	1,082,271	2,357,389	39,879,925
1891	23,305,218	6,914,850	–	30,220,068	1,077,228	2,515,823	38,579,311
1892	20,361,382	7,945,098		28,306,480	1,086,420	2,652,746	36,921,872
1893	20,910,662	8,367,364	–	29,278,026	1,150,167	2,773,508	38,208,609
1894	19,119,030	8,381,089		27,500,119	1,217,809	2,809,341	36,374,883
1895	17,585,741	7,805,733		25,391,474	1,336,047	2,792,790	33,978,129
1896	19,766,741	7,926,006		27,692,747	1,370,001	2,964,014	36,618,591
1897	19,386,278	9,170,379		28,556,657	1,443,004	3,202,938	37,829,778
1989	21,622,789	7,871,563		29,494,352	1,513,455	3,527,810	40,556,510
1899	25,150,745	9,641,227		34,791,972	1,590,448	3,193,778	46,743,103
1900	28,219,458	9,868,075		38,087,533	1,683,051	3,205,535	51,031,467
1901	28,293,930	10,318,266		38,612,196	1,784,834	3,441,505	52,516,333
1902	31,916,394	11,197,134		43,113,528	1,892,224	3,918,416	58,052,333
1903	36,738,033	12,013,779		48,751,812	2,020,953	4,397,833	69,348,084
1904	40,461,591	12,958,708	–	53,420,299	2,236,256	4,652,325	70,679,251
1905	41,437,569	12,586,475	–	54,020,124	2,105,031	5,125,373	71,186,072
1906	46,053,377	14,010,220	–	60,063,597	2,140,312	5,933,343	80,141,394
1907[3]	39,717,079	11,805,413		51,522,492	1,235,746	5,061,728	67,972,110
1908	57,200,276	15,782,152	–	72,982,428	1,925,569	7,107,887	96,055,417
1909	47,088,444	14,937,768	–	62,026,212	2,256,643	7,401,624	85,549,580
1910	59,767,681	15,253,353	–	75,021,034	2,807,465	7,958,548	101,616,476
1911	71,838,089	16,869,837		88,707,926	1,668,773	9,146,952	117,884,328
1912	85,051,872	19,261,662		104,313,534	1,281,317	10,492,394	136,108,217
1913	111,764,699	21,447,445		133,212,144	1,430,511	12,051,729	168,690,427
1914	104,691,238	21,452,037	–	126,143,275	1,964,541	12,954,530	163,174,395
1915	75,941,220	21,479,731	98,057[4]	97,519,008	2,980,247	13,046,665	133,073,482
1916	98,649,409	22,428,492	3,620,782	124,666,969	3,358,210	18,858,690	172,149,394
1917	134,043,842	24,412,348	16,302,238	174,758,428	3,094,012	20,902,384	232,701,294
1918	144,172,630	27,168,445	25,379,901	196,720,976	4,466,724	21,345,394	260,778,953

For footnotes, see end of table, p. 841.

6.—Principal Items of Receipts (Ordinary) and Total Receipts, Fiscal Years 1868-1939—concluded.

Year.	Customs Duties.	Excise Duties.	War Tax Revenue.[1]	Total Revenue from Taxation.	Interest on Investments.	Post Office.	Total Revenue Receipts.[2]
	$	$	$	$	$	$	$
1919	147,169,188	30,342,034	56,177,508	233,688,730	7,421,002	21,603,542	312,946,747
1920	168,796,823	42,698,083	82,079,801	293,574,707	17,086,981	24,471,709	349,746,335
1921	163,266,804	37,118,367	168,385,327	368,770,498	24,815,246	26,706,198	436,292,184
1922	105,686,645	36,755,207	177,484,161	319,926,013	21,961,513	26,402,299	382,271,571
1923	118,056,469	35,761,997	181,634,875	335,453,341	16,465,303	29,016,771	403,094,210
1924	121,500,799	38,181,747	182,036,261	341,718,807	11,916,479	28,865,374	406,581,318
1925	108,146,871	38,603,489	147,164,158	293,914,518	11,332,328	28,782,535	351,515,392
1926	127,355,144	42,923,549	157,296,320	327,575,013	8,535,086	30,334,575	382,893,009
1927	141,968,678	48,513,160	156,167,434	346,649,272	8,559,401	29,069,169	400,452,480
1928	156,985,818	57,400,898	150,319,087	364,705,803	10,937,822	31,562,580	429,642,577
1929	187,206,332	63,684,954	145,029,742	395,921,028	12,227,562	30,611,964	460,151,481
1930[5]	179,429,920	65,035,701	134,086,005	378,551,626	13,518,205	33,345,385	453,007,129
1931	131,208,955	57,746,808	107,320,633	296,276,396	10,421,224	30,212,326	357,720,435
1932	104,132,677	48,654,862	122,266,064	275,053,603	9,330,125	32,234,946	334,508,081
1933	70,072,932	37,833,858	146,412,011	254,318,801	11,220,989	30,928,317	311,735,286
1934	66,305,356	35,494,220	170,051,973	271,851,549	11,148,231	30,893,157	324,660,590
1935	76,561,975	43,189,655	181,118,715	304,443,729	10,963,478	31,248,324	361,973,764
1936	74,004,560	44,409,797	197,484,627	317,311,809	10,614,125	32,507,889	372,595,996
1937	83,771,091	45,956,857	256,822,921	386,550,869	11,231,035	34,274,552	454,153,747
1938	93,455,750	52,037,333	303,157,978	448,651,061	13,120,523	35,546,161	516,692,749
1939	78,751,111	51,313,658	305,642,024	435,706,794	13,163,015	35,288,220	502,171,354

[1] For detailed statement, see Table **12**, p. 844. [2] Includes various smaller items of revenue receipts for most earlier years and special receipts since 1921. [3] Nine months. [4] Year tax imposed. [5] Figures for 1930 and following years conform with new set-up of Public Accounts as established in 1936 (see p. 833).

7.—Per Capita Figures of Taxation, Total Revenue Receipts, Expenditures on Consolidated Fund Account, and Total Expenditures, Fiscal Years 1868-1939.

NOTE.—The years marked with an asterisk (*) are those of the Censuses, Apr. 6, 1891; Apr. 1, 1901; June 1 1911, 1921, and 1931. For the intercensal years the populations are estimated as at June 1 (see p. 113). See Tables **1-6** for the figures of revenue and expenditure on which this table is based. Figures for intermediate years not shown between 1868 and 1885 will be found at p. 849 of the 1938 Year Book.

Year.	Per Capita.				Year.	Per Capita.			
	Revenue from Taxation.	Total Revenue Receipts.	Expenditures on Consolidated Fund Acct.	Total Disbursements.		Revenue from Taxation.	Total Revenue Receipts.	Expenditures on Consolidated Fund Acct.	Total Disbursements.
	$	$	$	$		$	$	$	$
1868	3·33	3·90	3·84	4·01	1911*	12·31	16·36	12·18	17·04
1870	3·61	4·29	3·96	4·97	1912	14·12	18·42	13·28	18·56
1875	5·23	6·23	6·00	8·32	1913	17·45	22·10	14·68	18·93
1880	4·34	5·49	5·84	8·00	1914	16·01	20·71	16·17	23·64
1885	5·60	7·37	7·72	10·84	1915	12·22	16·67	16·98	31·09
1886	5·56	7·31	8·60	13·63	1916	15·58	21·52	16·29	42·46
1887	6·20	7·73	7·71	8·97	1917	21·68	28·87	18·44	61·81
1888	6·02	7·68	7·85	9·63	1918	24·14	32·01	21·88	70·77
1889	6·47	8·20	7·81	9·20	1919	28·12	37·65	28·00	83·87
1890	6·60	8·34	7·53	8·74	1920	34·31	40·88	35·51	91·87
1891*	6·25	7·98	7·52	8·44	1921*	41·96	49·65	41·09	60·11
1892	5·80	7·56	7·53	8·66	1922	35·87	42·86	38·97	51·97
1893	5·94	7·75	7·47	8·29	1923	37·24	44·74	36·88	48·26
1894	5·52	7·31	7·55	8·64	1924	37·38	44·47	35·53	40·53
1895	5·05	6·76	7·59	8·53	1925	31·63	37·82	34·32	37·78
1896	5·46	7·22	7·52	8·69	1926	34·66	40·51	33·93	37·59
1897	5·58	7·39	7·49	8·40	1927	35·98	41·56	33·17	37·21
1898	5·70	7·84	7·50	8·76	1928	37·09	43·69	34·19	38·51
1899	6·65	8·93	8·00	9·85	1929	39·49	45·88	35·00	38·78
1900	7·18	9·63	8·11	9·94	1930	37·09	43·68	35·06	39·01
1901*	7·19	9·78	8·72	10·79	1931*	28·55	34·32	37·55	42·41
1902	7·85	10·57	9·24	11·64	1932	26·18	32·05	35·73	42·92
1903	8·63	12·27	9·15	10·93	1933	23·81	29·13	33·57	49·79
1904	9·17	12·13	9·54	12·40	1934	25·12	29·98	32·03	42·31
1905	9·00	11·86	10·72	13·13	1935	27·84	33·09	32·41	43·71
1906	9·69	12·93	10·85	13·44	1936	28·77	33·79	33·78	48·29
1907[1]	8·31	10·60	8·32	10·61	1937	34·76	40·84	34·81	47·84
1908	11·02	14·50	11·57	16·99	1938	40·03	46·10	37·01	47·68
1909	9·12	12·58	11·36	19·62	1939	38·51	44·38	36·50	48·88
1910	10·74	14·54	11·36	16·51					

[1] Nine months.

8.—Per Capita Revenue Receipts and Expenditures, by Principal Items, 1935-39.

NOTE.—See Table 2 at p. 834 for the revenue receipts and Table 3 at pp. 835-837 for expenditures on which these per capita figures are based. Dashes in this table indicate that no revenue was collected or expenditures made under the corresponding heads because the items were not applicable in the years so indicated.

Item.	1935.	1936.	1937.	1938.	1939.
	REVENUE RECEIPTS.				
Consolidated Fund Receipts—	$	$	$	$	$
Tax Revenue—					
Customs	7·00	6·71	7·53	8·34	6·96
Excise duties	3·95	4·02	4·13	4·64	4·54
War Tax Revenue—					
Banks	0·13	0·11	0·11	0·10	0·09
Insurance companies	0·07	0·07	0·07	0·08	0·08
Income tax	6·11	7·49	9·21	10·74	12·55
Sales tax	6·63	7·03	10·15	12·32	10·79
Tax on cheques, transportation, etc	3·64	3·19	3·56	3·82	3·50
Tax on gold	0·33	0·13	-	-	-
Totals, Tax Revenue	27·86	28·75	34·76	40·03	38·51
Non-Tax Revenue—					
Canada Grain Act	0·11	0·11	0·11	0·06	0·10
Canals	0·08	0·08	0·09	0·17	0·06
Dominion lands	0·05	0·04	0·04	0·05	0·06
Interest on investments	1·27	0·96	1·01	1·17	1·16
Patent and copyright fees	0·04	0·04	0·04	0·04	0·04
Post Office	2·86	2·94	3·08	3·19	3·12
Totals, Non-Tax Revenue[1]	4·94	4·98	5·26	5·50	5·51
Totals, Consolidated Fund Receipts	**32·78**	**33·75**	**40·02**	**45·53**	**44·01**
Special Receipts and Other Credits	**0·32**	**0·03**	**0·82**	**0·57**	**0·37**
Grand Totals, Receipts	**33·10**	**33·78**	**40·84**	**46·10**	**44·38**
	EXPENDITURES.				
Ordinary Expenditures—	$	$	$	$	$
Agriculture	0·65	0·85	0·79	0·80	0·84
Finance—					
Interest on public debt	12·67	12·20	12·36	11·79	11·31
Subsidies to provinces	1·26	1·25	1·24	1·23	1·22
Old age pensions	1·37	1·52	1·90	2·56	2·57
Fisheries	0·15	0·15	0·15	0·17	0·18
Justice (including penitentiaries)	0·46	0·44	0·44	0·45	0·45
Labour (including technical education and Government annuities)	0·07	0·09	0·12	0·87[2]	0·86
Mines and Resources—					
Immigration and Colonization	0·12	0·12	0·12	0·10	0·12
Indian Affairs	0·40	0·44	0·44	0·44	0·47
Interior	0·25	0·27	0·26	0·22	0·32
Mines and Geological Survey	0·09	0·09	0·10	0·06	0·12
Movement of Coal and Domestic Fuel Act	0·19	0·19	0·20	0·22	0·17
National Defence	1·30	1·56	2·06	2·92	3·04
National Revenue (including Income Tax)	0·93	0·99	1·01	1·06	1·05
Pensions, war, military, and civil	4·05[3]	3·93	3·90	3·82	3·78
Pensions and National Health	0·96[3]	1·09	1·12	1·17	1·29
Post Office	2·77	2·85	2·87	3·01	3·13
Public Works	0·91	1·17	1·31	1·10	1·37
Royal Canadian Mounted Police	0·53	0·54	0·51	0·54	0·51
Trade and Commerce	0·64	0·70	0·84	0·69[3]	0·76
Transport—					
Marine	0·53	0·53	0·50	0·38	0·38
Canadian Broadcasting Corporation	0·11	0·14	0·08	-	-
Railways and Canals (including Maritime Freight Rates Act and Railway Grade Crossing Fund)	0·68	0·61	0·59	0·65	0·65
Totals, Ordinary Expenditures[1]	**32·89**	**33·78**	**34·81**	**37·01**	**36·50**
Totals, Capital Expenditures	**0·65**	**0·59**	**0·31**	**0·40**	**0·48**
Totals, Special Expenditures	**5·55**	**9·25**	**7·01**	**6·11**	**6·35**
Government-Owned Enterprises	**4·58**	**4·62**	**3·98**	**4·00**	**5·21**
Other Expenditures	**0·05**	**0·05**	**1·73**	**0·15**	**0·33**
Grand Totals, Expenditures	**43·72**	**48·29**	**47·84**	**47·68**	**48·88**

[1] Includes other items not specified. [2] See footnote 1, Table 3, p. 837. [3] Revised since the publication of the 1939 Year Book.

Subsection 3.—Analysis of Revenue from Taxation.

As shown in Table 7, of the per capita revenue receipts of $44·38 in 1939, $38·51, or 86·77 p.c., were obtained by taxation. Customs receipts accounted for $78,751,111, or only 18·07 p.c. of the total taxation revenue of $435,706,794, while excise duties amounted to $51,313,658, or 11·78 p.c. Thus the two main sources of taxation revenue, prior to the War of 1914-18, accounted for less than 30 p.c. of the taxation revenue in 1939.

Customs receipts constitute a single item in the Public Accounts and cannot be further analysed here. This treatment of taxation revenue is therefore confined to excise duties and war tax revenue. Excise statistics cover distillation and alcohol and tobacco taken out of bond and those of war tax revenues include an analysis of the occupations and income classes of individuals and corporations contributing to the income tax, together with a statement of the income upon which taxes were assessed.

Excise Duties.—Excise duties proper are presented here together with a summary of the excise tariff and statistics arising as a by-product of administration, such as the quantities of grain and other products used in distillation and the quantities of excisable goods taken out of bond. Excise war taxes are shown under the heading "War Tax Revenue".

Canadian Excise Tariff.—The following is a statement of the Canadian excise tariff, as existing at Jan. 1, 1940:—

1. Spirits distilled in Canada, per proof gal.. $ 7·00
   Canadian brandy, per proof gal..... 6·00

   Except Spirits as follows:—
   (a) Used in a bonded manufactory for medicines, extracts, etc., per proof gal.... 1·50
   (b) Used in a bonded manufactory for perfumes, per proof gal..... 1·50
   (c) Used in a bonded manufactory for vinegar, per proof gal..... 0·60
   (d) Used for chemical compositions approved by Governor in Council, per proof gal..... 0·15
   (e) Sold to licensed druggists for pharmaceutical preparations, per proof gal.... 1·50
   (f) Distilled from native fruits and used by a licensed wine manufacturer for fortification of native wines, per proof gal..... Free

2. Spirits imported (in addition to any of the duties otherwise imposed), per proof gal..... 0·30

3. Beer or Malt Liquor:—
   (a) Brewed in whole or part from any substance other than malt, per gal.....$ 0·30
   (b) Imported (in addition to any of the duties otherwise imposed), per gal..... 0·07

4. Malt:—
   (a) Produced in Canada and Screened, per lb..... 0·10
   (b) Imported, per lb..... 0·10

5. Malt Syrup:—
   (a) Produced in Canada, per lb..... 0·15
   (b) Imported, per lb..... 0·21

6. Tobacco, Cigars, and Cigarettes:—
   (a) Manufactured tobacco, per lb..... 0·25
   (b) Cigarettes weighing not more than 3 lb. per M, per M..... 5·00
   (c) Cigarettes, weighing more than 3 lb. per M, per M..... 11·00
   (d) Cigars, per M..... 3·00

A drawback of 99 p.c. of the duty may be granted when domestic spirits, testing not less than 50 p.c. over proof, are delivered in limited quantities to universities, scientific or research laboratories, or to any bona fide public hospital for medicinal purposes only.

Revenue from Excise Duties.—In the fiscal year 1939, tobacco, including cigarettes, supplied about 63 p.c. of the revenue from excise duties.

9.—Details of Excise Duties Collected, Fiscal Years 1934-39.

(As shown in the Report of the Commissioner of Excise.)

Item.	1934.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$	$
Spirits	7,176,513	8,155,162	7,401,581	8,316,669	9,844,227	9,929,585
Validation fee	323,482	443,550	600,417	1,055,719	918,607	390,763
Beer or malt liquor	234,877	1,143,910	408,760	390,277	363,208	254,819
Malt syrup	[1]	168,705	163,710	160,175	132,210	113,127
Malt	2,773,984	6,263,464	7,691,832	8,050,380	8,852,924	8,177,299
Tobacco (incl. cigarettes)	25,857,511	27,903,910	28,678,512	28,334,748	32,428,275	32,840,490
Cigars	347,803	376,136	373,668	372,058	409,010	383,994
Licences	54,710	45,201	40,540	38,891	38,557	34,339
Totals	**36,768,880**	**44,500,038**	**45,359,020**	**46,718,917**	**52,987,018**	**52,124,416**

[1] Duty not applicable in 1934.

Statistics of Licences and Distillation.—As a by-product of the collection of excise duties, statistics are compiled of excise licences issued and of distillation.

10.—Statistics of Distillation, Fiscal Years 1934-39.

Schedule.	1934.	1935.	1936.	1937.	1938.	1939.
Licences issued.....No.	20	18	18	18	19	19
Licence fees..... $	5,750	5,000	4,750	4,500	5,250	5,250
Duty Collected Ex-manufactory on Deficiencies and Assessment—						
Amount.....proof gal.	297	80	664	678	848	71
Duty..... $	2,076	559	2,655	2,942	3,391	284
Totals, Duties Collected Plus Licence Fees..... $	7,826	5,559	7,405	7,442	8,641	5,534
Grain, etc., for Distillation—						
Malt..... lb.	8,259,033	3,878,133	6,460,673	8,674,360	11,476,111	12,163,156
Indian corn..... "	27,497,313	22,508,624	32,961,102	52,575,085	72,192,878	70,882,809
Rye..... "	13,929,865	4,772,654	7,128,903	10,440,518	11,076,495	15,093,490
Other grain..... "	121,208	119,000	192,098	328,960	392,124	358,094
Totals, Grain Used..... "	49,807,419	31,278,411	46,742,776	72,018,923	95,137,608	98,497,549
Molasses used..... "	69,111,370	48,550,415	74,932,898	87,235,183	88,986,256	73,455,645
Wine and other materials "	1,525,833	2,387,528	304,531	2,247,560	4,160,731	1,445,688
Proof spirits manufactured.....proof gal.	6,411,230	4,321,457	6,553,190	8,723,005	10,198,330	9,642,830

The quantity of spirits manufactured has fluctuated greatly since 1920, varying from the low of 2,356,329 proof gal. in that year to the high of 16,816,312 proof gal. recorded in 1929.

Alcohol and Tobacco Taken Out of Bond.—Record amounts of tobacco and cigarettes were taken out of bond for consumption in 1939. While figures for malt and malt liquor were below those for 1938, they were greater than for the years immediately preceding.

11.—Quantities of Spirits, Malt Liquor, Malt, and Tobacco Taken Out of Bond for Consumption, Fiscal Years 1921-39.

NOTE.—For years prior to 1900, see 1916-17 Year Book, p. 528; for 1901-10, see 1933 Year Book, p. 840; and for 1911-20, the 1938 Year Book, p. 855.

Year.	Spirits.	Malt Liquor.	Malt.	Cigars.	Cigarettes.	Tobacco.[1]
	gal.	gal.	lb.	No.	No.	lb.
1921	2,816,071[2]	35,509,757	82,210,351	214,262,197	2,439,832,278	19,389,268
1922	730,474	38,404,346	87,561,176	181,255,533	2,450,397,154	20,528,228
1923	729,678	36,789,195	84,922,024	183,965,151	1,917,773,908	22,072,709
1924	899,291	43,717,823	105,446,169	198,042,909	2,420,052,731	21,172,307
1925	910,316	48,106,177	118,237,385	168,097,387	2,531,693,150	20,870,651
1926	1,082,785	52,443,505	127,789,729	174,363,188	2,883,448,160	21,595,483
1927	1,404,111	51,726,251	126,967,976	175,335,838	3,333,999,860	21,589,772
1928	1,896,357	58,391,360	142,543,947	181,730,614	3,927,022,325	21,907,747
1929	2,016,802	65,719,129	158,490,019	190,981,166	4,607,500,425	21,973,221
1930	1,926,063	62,992,156	149,746,711	196,251,957	5,035,878,655	22,195,455
1931	1,180,536	58,641,404	137,997,652	177,841,987	5,082,314,590	22,520,345
1932	781,612	52,001,768	121,257,234	152,159,301	4,401,628,765	22,801,035
1933	769,527	40,632,084	95,604,954	122,664,715	3,728,832,089	22,815,839
1934	933,946	40,105,883	92,319,768	115,988,080	4,342,728,835	22,315,295
1935	1,063,928	51,703,781	117,985,480	125,519,841	4,958,250,855	22,891,129
1936	1,621,286	56,913,069	128,204,424	124,570,870	5,310,132,016	23,113,501
1937	1,900,714	59,920,298	134,154,965	123,956,872	5,855,935,609	24,122,763
1938	2,302,210	67,019,336	147,568,751	136,275,443	6,848,693,442	25,155,143
1939	2,299,474	63,069,959	136,284,405	127,756,146	6,912,920,315	25,929,546

[1] Including snuff. [2] Exclusive of imported spirits but inclusive of non-potable spirits.

War Tax Revenue.—An account of the various war taxes imposed in 1915 and subsequently has already been given at p. 829 in the introduction to this Section. For convenience of reference, amounts received from these taxes since first instituted are segregated and the totals paid to the Receiver General are given in Table 12. The taxes imposed on banks, trust and loan companies, and insurance companies are collected by the Department of Finance; excise taxes and income taxes are collected by the Department of National Revenue.

12.—War Tax Revenues Received by the Receiver General, Fiscal Years 1915, 1919, 1920, and 1926-39.

NOTE.—Statistics for the intervening years from 1916 to 1925 will be found at p. 851 of the 1938 Year Book. Receipts for these years are included in the totals.

Year.	Banks.[1]	Trust and Loan Companies.[1]	Insurance Companies.[2]	Business Profits.[3]	Income Tax.	Sales and Other Excise Taxes.	Total War Tax Revenue.
	$	$	$	$	$	$	$
1915	Nil	Nil	Nil	Nil	Nil	98,057	98,057
1919	1,099,764	323,340	546,114	32,970,062	9,349,720	11,888,508	56,177,508
1920	1,170,223	274,216	638,731	44,145,184	20,263,740	15,587,707	82,079,801
1926	1,176,869	326,714	950,221	1,173,449	55,571,962	98,097,106	157,296,321
1927	1,174,665	335,368	947,830	710,102	47,386,309	105,613,160	156,167,434
1928	1,224,645	345,430	999,003	956,031	56,571,047	90,222,931	150,319,087
1929	1,242,399	7,641	894,864	455,232	59,422,323	83,007,283	145,029,742
1930	1,408,420	Nil	74,416	173,300	69,020,726	63,409,143	134,086,005
1931	1,429,264	6	74,250	34,430	71,048,022	34,734,661	107,320,633
1932	1,390,121	Nil	12,152	3,000	61,254,400	59,606,391	122,266,064
1933	1,327,535	"	826,150	54	62,066,697	82,191,575	146,412,011
1934	1,335,546	"	741,681	Nil	61,399,171	106,575,575	170,051,973
1935	1,368,480	"	750,100	"	66,808,066	112,192,069	181,118,715
1936	1,280,933	"	760,843	"	82,709,803	112,733,048	197,484,627
1937	1,209,894	"	774,363	"	102,365,242	152,473,422	256,822,921
1938	1,106,859	"	866,820	"	120,365,531	180,818,767	303,157,977
1939	1,013,776	"	891,539	"	142,026,138	161,710,572	305,642,025
Totals, 1915-39	**29,740,000**	**3,922,644**	**16,260,006**	**198,544,083**	**1,382,858,685**	**1,942,213,186**	**3,573,538,604**

[1] The figures are for special taxation only, imposed in 1915 as outlined at p. 829. [2] Exclusive of life and marine insurance companies. [3] Although this tax was not charged upon profits accruing after Dec. 31, 1920 (see 14-15 Geo. V, c. 10), belated revenue therefrom continued to be received until 1933.

Income Tax.—One of the chief sources of revenue of the Dominion Government is the income tax which, with the sales tax, now provides much the larger part of what is still known as war tax revenue. The latter tax was inaugurated in 1915 but the income tax was not resorted to as a source of revenue until 1919 and, whereas during the first year of its operations $9,350,000 was collected, the Dominion coffers were enriched to the extent of $142,000,000 in 1939.

13.—Income Assessed for the Purposes of the Income War Tax, by Provinces, Fiscal Years 1935-39.

Province.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$
Prince Edward Island	2,256,109	4,579,652	4,446,650	10,687,177	4,327,316
Nova Scotia	21,405,900	21,794,087	23,969,857	27,108,595	27,392,189
New Brunswick	14,207,882	14,389,098	16,539,884	18,348,481	21,552,752
Quebec	273,987,869	357,486,710	331,710,154	282,712,958	268,927,401
Ontario	449,885,677	501,917,767	517,310,542	522,198,138	576,261,365
Manitoba	47,188,764	46,760,597	48,430,521	43,128,266	38,944,495
Saskatchewan	15,226,696	15,347,973	16,918,431	20,191,316	19,908,326
Alberta	35,653,360	35,171,837	36,833,766	34,693,719	41,331,673
British Columbia	67,822,116	74,959,621	83,771,834	106,123,159	127,711,133
Yukon	920,657	1,034,774	958,431	842,735	854,530
Totals	**928,555,030**	**1,073,442,116**	**1,080,890,070**	**1,066,034,544**	**1,127,211,180**

14.—Income Assessed for the Purposes of the Income War Tax, by Individuals and Corporations, Fiscal Years 1921-39.

Year.	Individuals.		Corporations.		Total Income Assessment.
	No.	Assessment.	No.	Assessment.	
		$		$	$
1921	190,561	[1]	3,696	[1]	912,410,429
1922	290,584	1,058,577,617	8,286	403,951,553	1,462,529,170
1923	281,182	823,100,878	6,010	269,307,047	1,092,407,925
1924	239,036	802,617,497	5,569	305,410,374	1,108,027,871
1925	225,514	701,892,820	6,236	297,267,428	999,160,248
1926	209,539	697,016,973	5,738	306,093,673	1,003,110,646
1927[2]	116,029	465,689,900	5,777	278,494,991	744,184,891
1928	122,026	604,736,116	6,121	435,496,832	1,040,232,948
1929	129,663	668,687,536	7,438	526,714,731	1,195,402,267
1930	142,154	781,174,030	7,957	544,019,414	1,325,193,444
1931	143,601	815,714,684	7,603	555,763,956	1,371,478,640
1932	133,621	660,107,257	6,010	332,498,963	992,606,220
1933[2]	166,972	685,543,980	6,483	258,547,584	944,091,564
1934[2]	203,957	617,717,251	8,913	211,614,313	829,331,564
1935	184,195	655,380,912	10,458	273,174,118	928,555,030
1936	199,102	714,333,602	10,970	359,108,514	1,073,442,116
1937	217,049	728,043,754	12,146	352,846,316	1,080,890,070
1938	237,064	712,183,316	13,949	353,851,228	1,066,034,544
1939	264,804	729,639,641	13,809	397,571,539	1,127,211,180

[1] Not segregated into individual and corporation groups for this year. [2] In 1927 the exemption limits, in the case of individuals, from $2,000 to $3,000 for married, and from $1,000 to $1,500 for single persons came into operation; in 1933 the limits were $2,400 and $1,200, and in 1934 the reduction to the old basis was effective. The effects are reflected in the changes in the numbers of taxpayers.

15.—Amounts of Income Tax Collected, by Provinces, Fiscal Years 1935-39.

NOTE.—Includes the 5 p.c. tax on interest and dividends imposed in 1933. (See pp. 848-849.)

Province.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$
Prince Edward Island	329,667	426,893	872,985	970,278	499,138
Nova Scotia	957,893	1,206,481	1,375,274	1,614,332	2,337,848
New Brunswick	570,492	811,186	910,940	1,100,728	1,585,397
Quebec	20,483,134	25,205,466	29,301,603	34,111,907	39,073,779
Ontario	35,935,202	45,059,358	58,162,075	68,170,189	80,729,455
Manitoba	1,922,323	2,204,596	2,484,464	3,008,384	3,993,986
Saskatchewan	296,896	327,843	409,395	537,521	505,097
Alberta	1,298,740	1,599,511	1,850,705	1,922,628	2,273,273
British Columbia	4,526,254	5,512,408	6,738,986	8,819,374	10,973,647
Yukon	16,673	17,850	23,519	26,675	46,482
Head Office	470,792	338,211	235,296	83,515	8,036
Totals	**66,808,066**	**82,709,803**	**102,365,242**	**120,365,531**	**142,026,138**

16.—Income Tax Paid (Individuals and Corporations), by Size of Income, Fiscal Years 1936-39.

Income Class.	1936.		1937.		1938.		1939.	
	No.	$	No.	$	No.	$	No.	$
	INDIVIDUALS							
Under $2,000	89,724	987,387	98,423	1,053,965	106,764	1,152,471	119,346	1,269,724
$ 2,000 to $ 3,000	46,198	1,042,133	50,618	1,092,977	56,026	1,196,682	63,572	1,324,663
$ 3,000 to $ 4,000	26,804	1,125,428	28,690	1,194,403	30,973	1,348,557	34,392	1,462,000
$ 4,000 to $ 5,000	12,766	1,049,783	13,852	1,118,943	14,727	1,216,838	15,902	1,296,625
$ 5,000 to $ 6,000	6,759	976,905	7,448	1,073,623	8,016	1,174,617	8,627	1,234,400
$ 6,000 to $ 7,000	4,267	948,545	4,480	1,026,244	5,148	1,180,612	5,563	1,260,057
$ 7,000 to $ 8,000	2,816	878,603	2,993	944,173	3,344	1,048,250	3,674	1,144,597
$ 8,000 to $ 9,000	1,898	834,797	2,078	892,847	2,290	985,368	2,612	1,107,188
$ 9,000 to $10,000	1,422	767,668	1,533	823,620	1,691	919,723	1,986	1,059,920
$10,000 to $15,000	3,303	3,033,935	3,520	3,194,978	4,121	3,753,354	4,687	4,247,515
$15,000 to $20,000	1,290	2,357,644	1,431	2,674,299	1,613	2,919,947	1,775	3,210,835
$20,000 to $25,000	654	2,029,986	724	2,271,437	763	2,351,043	816	2,551,849
$25,000 to $30,000	345	1,548,875	380	1,753,135	452	2,087,838	469	2,132,006
$30,000 to $35,000	236	1,485,413	261	1,701,135	314	1,923,770	353	2,156,943
$35,000 to $40,000	137	1,071,460	133	1,061,177	215	1,622,398	234	1,732,370
$40,000 to $45,000	101	996,645	108	1,085,591	134	1,245,898	182	1,656,633
$45,000 to $50,000	78	866,677	77	902,373	91	1,095,111	157	1,662,512
$50,000 or over	304	11,055,666	300	11,636,031	382	14,027,159	457	17,289,366
Totals	**199,102**	**33,057,550**	**217,049**	**35,500,961**	**237,064**	**41,249,636**	**264,804**	**47,799,203**
Unclassified amounts	–	309,337	–	232,669	–	80,435	–	4,416
	199,102	33,366,887	217,049	35,733,630	237,064	41,330,071	264,804	47,803,619
Refunds	–	383,655	–	291,245	–	885,232	–	866,414
Net Totals	**199,102**	**32,983,232**	**217,049**	**35,442,385**	**237,064**	**40,444,839**	**264,804**	**46,937,205**
	CORPORATIONS.							
Under $2,000	6,306	547,271	6,671	659,781	7,669	735,456	7,120	722,021
$ 2,000 to $ 3,000	776	309,947	950	381,317	960	400,804	963	440,094
$ 3,000 to $ 4,000	479	259,761	558	328,084	579	347,869	670	410,879
$ 4,000 to $ 5,000	384	271,588	403	303,870	439	345,894	512	399,179
$ 5,000 to $ 6,000	289	238,891	298	284,199	325	305,709	367	351,785
$ 6,000 to $ 7,000	193	199,553	244	258,323	270	317,401	306	350,731
$ 7,000 to $ 8,000	179	196,966	191	237,978	252	317,100	233	306,246
$ 8,000 to $ 9,000	155	214,176	155	213,394	163	251,106	202	325,820
$ 9,000 to $10,000	114	165,293	155	241,772	195	298,756	168	279,560
$10,000 to $15,000	407	774,018	522	1,060,377	552	1,200,875	679	1,462,173
$15,000 to $20,000	252	651,499	354	986,321	410	1,155,034	411	1,142,083
$20,000 to $25,000	188	602,834	199	737,521	279	1,056,383	292	1,033,439
$25,000 to $30,000	151	585,823	169	688,609	215	896,692	200	842,374
$30,000 to $35,000	105	511,228	126	651,375	169	883,432	185	981,286
$35,000 to $40,000	79	387,046	105	605,868	129	827,559	131	813,377
$40,000 to $45,000	69	390,267	64	449,998	124	856,213	104	695,527
$45,000 to $50,000	67	455,800	90	629,706	101	709,111	79	687,262
$50,000 or over	773	36,169,233	892	49,967,659	1,113	59,698,715	1,180	74,433,855
Totals	**10,970**[1]	**42,933,281**[1]	**12,146**	**58,690,403**[2]	**13,949**[3]	**70,607,523**[3]	**13,809**[4]	**85,696,555**[4]
Unclassified amounts	–	28,874	–	2,627	–	3,080	–	3,620
	10,970[1]	42,962,155[1]	12,146	58,693,030[2]	13,949[3]	70,610,603[3]	13,809[4]	85,700,175[4]
Refunds	–	443,184	–	680,187	–	841,998	–	514,287
Net Totals	**10,970**[1]	**42,518,971**[1]	**12,146**	**58,012,843**[2]	**13,949**[3]	**69,768,605**[3]	**13,809**[4]	**85,185,888**[4]

[1] Totals include 4 corporations paying $2,088 in taxation grouped to conceal net income and identity of taxpayers. [2] Totals include corporations paying $4,251 in taxation grouped to conceal net income and identity of taxpayers. [3] Totals include 5 corporations paying $3,414 in taxation grouped to conceal net income and identity of taxpayers. [4] Totals include 7 corporations paying $18,864 in taxation grouped to conceal net income and identity of taxpayers.

17.—Income Tax Paid (Individuals and Corporations), by Occupations of the Taxpayers, Fiscal Years 1936-39.

NOTE.—Exclusive of special 5 p.c. tax on interest and dividends; see text at foot of this page.

Occupation.	1936.		1937.		1938.		1939.	
	No.	$	No.	$	No.	$	No.	$
	INDIVIDUALS.							
Agrarians	694	46,609	921	76,395	1,000	78,081	1,309	124,836
Professionals	6,579	1,967,035	6,992	1,903,221	7,708	2,270,077	7,818	2,621,362
Employees	159,972	12,474,844	174,349	13,506,473	189,731	15,053,910	215,357	16,402,376
Merchants, retail	6,417	748,782	7,400	867,710	8,782	1,100,905	9,054	1,245,580
Merchants, wholesale	832	318,988	878	317,214	1,024	384,168	1,041	473,939
Manufacturers	547	164,014	596	170,196	677	176,508	787	319,251
Natural resources	155	41,559	161	32,561	202	48,908	236	75,843
Financial	12,995	8,931,621	13,871	9,980,752	14,957	12,654,511	15,796	15,903,455
Personal corporations	538	4,433,134	541	4,502,616	570	4,661,792	649	4,771,037
Family corporations	14	31,247	Nil	–	Nil	–	Nil	–
All others	10,359	3,899,717	11,340	4,143,823	12,413	4,820,776	12,757	5,861,524
Unclassified	–	309,337	–	232,669	–	80,435	–	4,416
Totals	**199,102**	**33,366,887**	**217,049**	**35,733,630**	**237,064**	**41,330,671**	**264,804**	**47,803,619**
Refunds	–	383,655	–	291,245	–	885,232	–	866,414
Net Totals	**199,102**	**32,983,232**	**217,049**	**35,442,385**	**237,064**	**40,444,839**	**264,804**	**46,937,205**
	CORPORATIONS.							
Agrarians	114	56,859	132	67,696	121	71,490	83	104,228
Merchants, retail	1,854	2,103,684	2,238	2,632,761	2,577	3,434,094	2,719	4,036,279
Merchants, wholesale	1,150	2,418,014	1,308	3,029,043	1,455	3,872,960	1,421	5,161,351
Manufacturers	2,727	21,264,276	3,060	26,618,505	3,500	32,279,596	3,721	40,207,436
Natural resources	214	4,317,700	258	10,543,396	260	12,289,490	228	15,942,079
Financial	2,806	5,748,756	2,862	7,217,403	3,468	8,680,772	2,928	7,946,274
Transportation and public utilities	555	5,114,318	586	6,071,188	646	6,945,216	663	8,376,726
All others	1,550	1,909,674	1,702	2,510,410	1,922	3,033,905	2,046	3,922,182
Unclassified	–	28,874	–	2,627	–	3,080	–	3,620
Totals	**10,970**	**42,962,155**	**12,146**	**58,693,030**	**13,949**	**70,610,603**	**13,809**	**85,700,175**
Refunds	–	443,184	–	680,187	–	841,998		514,287
Net Totals	**10,970**	**42,518,971**	**12,146**	**58,012,843**	**13,949**	**69,768,605**	**13,809**	**85,185,888**
Grand Totals, Individuals and Corporations	–	**75,502,203**	–	**93,455,228**	–	**110,213,444**	–	**132,123,093**

Table 18 shows the amount received from the special 5 p.c. tax of 1933 (c. 41, 1932-33) imposed at the source on interest (if paid solely in Canadian funds) and dividends paid by Canadian debtors to non-residents of Canada, and on interest and dividends received by Canadian residents by way of bearer coupons or cheques where such are payable by Canadian debtors, optionally or otherwise, in foreign currencies, and such coupons or cheques are cashed in a currency that is at a premium over Canadian funds. The receipts are classified by provinces, no further classification being available.

18.—Amounts Received from Special Five Per Cent Tax on Interest and Dividends, Fiscal Years 1935-39.

Province.	1935.		1936.		1937.		1938.		1939.	
	Amount of Tax Received.	P.C. of Total.	Amount of Tax Received.	P.C. of Total.	Amount of Tax Received.	P.C. of Total.	Amount of Tax Received.	P.C. of Total.	Amount of Tax Received.	P.C. of Total.
	$		$		$		$		$	
P.E.I.	186,857	3·21	134,726	1·87	502,316	5·64	387,732	3·82	166,390	1·68
N.S.	42,047	0·72	72,733	1·01	50,084	0·56	49,845	0·48	43,681	0·44
N.B.	6,284	0·11	8,836	0·12	12,006	0·13	14,653	0·14	17,567	0·18
Que.	1,413,800	24·31	1,532,864	21·27	1,967,221	22·08	2,525,363	24·88	2,382,755	24·06
Ont.	3,830,920	65·86	4,903,102	68·03	5,940,309	66·66	6,697,199	65·97	6,696,446	67·63
Man.	52,705	0·91	65,203	0·90	56,821	0·64	63,357	0·62	77,758	0·78
Sask.	6,590	0·11	8,096	0·11	12,093	0·14	7,461	0·08	7,468	0·07
Alta.	38,546	0·67	52,622	0·73	50,206	0·57	48,968	0·49	56,179	0·57
B.C.	238,686	4·10	429,419	5·96	318,958	3·58	357,510	3·52	454,801	4·59
Yukon	Nil	–	Nil	–	Nil	–	Nil	–	Nil	–
Totals	**5,816,435**	**100·00**	**7,207,601**	**100·00**	**8,910,014**	**100·00**	**10,152,088**	**100·00**	**9,903,045**	**100·00**

Excise War Taxes.—In addition to the income tax, and to those war taxes collected by the Deparment of Finance, as outlined in the text at p. 845, there are certain excise war taxes collected by the Department of National Revenue. These amounted to $165,497,936 for 1939.

19.—Excise War Taxes Collected, by Commodities and Provinces, Fiscal Years 1934-39.

(Accrued Revenue.)

Commodity or Item.	1934.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$	$
Domestic—						
Licences	42,506	48,576	41,872	44,734	51,958	44,880
Stamps	4,438,833	4,419,907	4,404,764	5,543,480	4,824,752	4,527,332
Matches	1,672,390	1,457,117	1,566,896	1,496,195	1,609,604	1,728,140
Automobiles	855,490	1,241,918	1,261,918	1,317,561	1,258,590	1,171,400
Playing cards	240,488	244,000	278,090	222,500	233,000	230,030
Toilet preparations	862,119	1,051,997	1,078,376	1,112,021	1,157,111	1,187,505
Cigars	120,469	120,795	124,837	121,106	124,632	122,624
Wines	213,631	248,425	203,466	207,191	239,787	230,209
Ale, beer, and porter	4,718,307	1,773,712	Nil	Nil	Nil	Nil
Malt products	209,332	64,225	"	"	"	"
Sugar	14,122,564	10,679,488	10,037,792	10,306,171	10,549,056	10,760,584
Transportation and telephones	1,375,046	1,463,203	1,460,952	1,582,223	1,727,434	1,639,936
Embossed cheques (Departmental)	201,395	216,834	229,511	252,899	233,363	219,282
Lighters	Nil	Nil	18,881	26,273	23,974	21,825
Cigarette papers and tubes	"	"	Nil	Nil	146,152	242,241
Penalties and interest	142,328	84,588	85,672	103,764	120,637	93,907
Sales, domestic	54,244,032	64,011,591	70,259,941	99,421,015	121,348,801	107,927,690
Domestic Totals	83,458,930	87,126,375	91,052,968	121,757,133	143,648,851	130,147,585
Importations—						
Sales	8,979,576	10,432,314	10,918,243	16,717,786	20,514,447	17,998,740
Excise	1,434,656	1,510,296	1,561,268	1,889,731	1,842,732	1,760,565
Special excise 3 p.c.	14,534,620	15,007,274	12,939,182	15,415,315	18,621,449	15,591,046
Grand Totals, Excise Taxes	**108,407,782**[1]	**114,076,259**[1]	**116,471,661**[1]	**155,779,965**[1]	**184,627,479**[1]	**165,497,936**[1]

[1] Includes refunds of $1,832,208 in 1934, $2,352,789 in 1935, $3,270,014 in 1936, $3,306,541 in 1937, $3,808,712 in 1938, and $3,787,365 in 1939.

19.—Excise War Taxes Collected, by Commodities and Provinces, Fiscal Years 1934-39—concluded.

Province or Item.	1934.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$	$
Prince Edward Island	66,620	66,264	63,532	78,608	92,144	77,680
Nova Scotia	2,999,426	2,880,166	2,615,775	3,226,915	3,911,193	3,466,045
New Brunswick	1,316,363	1,355,261	1,174,567	2,591,941	3,549,994	3,225,460
Quebec	37,328,247	38,301,415	38,711,344	49,507,285	59,334,505	53,626,296
Ontario	52,235,416	57,371,744	59,675,399	81,461,611	96,429,163	85,416,810
Manitoba	3,319,419	3,413,597	3,645,548	4,965,252	5,518,163	5,283,796
Saskatchewan	950,315	983,661	1,069,734	1,432,091	1,434,562	1,379,497
Alberta	2,398,887	2,249,292	2,237,418	2,793,669	3,545,855	3,663,537
British Columbia	7,562,350	7,209,637	7,011,577	9,416,853	10,502,408	9,054,844
Yukon	19,981	22,580	29,437	44,562	69,417	75,877
Departmental sales	208,887	221,494	236,218	259,726	238,328	226,479
British post office parcels	1,872	1,150	1,112	1,452	1,747	1,615

Subsection 4.—Subsidies and Loans to Provinces.

Subsidies.—By the provisions of the British North America Act and subsequent arrangements entered into from time to time, the Dominion makes certain annual payments, listed below, to the provinces.

Interest on Debt Allowances.—By the terms of the union of the provinces at Confederation in 1867, the Dominion assumed all the outstanding debts and liabilities of the provinces and undertook to pay, except in the case of Ontario and Quebec, interest at 5 p.c. on the amounts by which the actual per capita indebtedness of the provinces fell short of a basic debt allowance calculated at approximately $25 per capita. On the subsequent entry of additional provinces into Confederation, similar arrangements were effected regarding the assumption of their pre-Confederation indebtedness. From time to time, adjustments have been made in the basis of calculation of the debt allowances of the various provinces and the Dominion pays interest at 5 p.c. per annum on the amounts by which the actual debts of the provinces, on their entry into Confederation, fell short of the allowed debts as adjusted. The aggregate annual payment from the Dominion to the provinces in respect of interest on debt allowances is $1,609,386.

Allowances for Government and Legislature.—Under the terms of the Union, annual grants of specific amounts were made to the various provinces for the support of their governments and legislatures. These fixed amounts vary with the population of the provinces according to the following scale, approved in 1907:—

Where population is—	$
Under 150,000	100,000
150,000, but does not exceed 200,000	150,000
200,000, " " 400,000	180,000
400,000, " " 800,000	190,000
800,000, " " 1,500,000	220,000
Over 1,500,000	240,000

The aggregate annual allowances presently paid under this head amount to $1,750,000.

Allowances per Head of Population.—Under the British North America Act of 1867, a grant of 80 cents per head of the population was allowed to each province. The British North America Act of 1907 provided that the grant would be paid to each province at the rate of 80 cents per head up to a population of 2,500,000, and at the rate of 60 cents per head for so much of the population as exceeds that number. Such allowances paid to the provinces in the fiscal year 1939 reached $8,111,844.

Special Grants.—In the case of certain of the provinces, grants have been added to the original scale of subsidies in view of special circumstances obtaining, which, for the fiscal year 1939, amounted in aggregate to $2,280,880 as set forth below:—

Prince Edward Island.—A special grant of $195,000 less a deduction of $39,120 (net grant of $155,880).

New Brunswick.—An annual grant of $150,000 since 1875 in consideration of the repeal of lumber duties reserved to the provinces by the B.N.A. Act of 1867.

Manitoba.—A special grant on the basis of population amounting at present to $562,500 per annum.

Saskatchewan and Alberta.—Receive an annual sum as compensation for loss of Public Lands revenue, based on their respective populations and amounting at present to $750,000 for Saskatchewan and $562,500 for Alberta.

British Columbia.—A special grant amounting at present to $100,000 per annum.

Other Special Grants.—In addition to the above, there are other special grants paid to the Maritime Provinces and British Columbia that are voted annually, aggregating, in the fiscal year 1939, $3,225,000 as follows:—

	$
Prince Edward Island	275,000
Nova Scotia	1,300,000
New Brunswick	900,000
British Columbia	750,000

Temporary grants were made to the Provinces of Manitoba and Saskatchewan in the amounts of $750,000 and $3,500,000, respectively, in the fiscal year 1939.

20.—Subsidies of Dominion to Provincial Governments, Fiscal Years 1934-39.

Province.	1934.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$	$
Prince Edward Island[1]	381,932	381,932	381,932	381,932	381,932	381,932
Nova Scotia[1]	653,048	653,048	653,048	653,048	653,048	653,048
New Brunswick[1]	693,040	693,040	693,040	693,040	693,040	693,040
Quebec	2,592,014	2,592,014	2,592,014	2,592,014	2,592,014	2,592,014
Ontario	2,941,424	2,941,424	2,941,424	2,941,424	2,941,424	2,941,424
Manitoba[1]	1,705,340	1,716,484	1,716,484	1,703,022	1,703,092	1,708,171
Saskatchewan[1]	2,128,889	2,144,975	2,144,975	2,120,084	2,120,095	2,126,132
Alberta	1,757,317	1,771,475	1,771,475	1,776,071	1,776,130	1,781,788
British Columbia[1]	874,561	874,561	874,561	874,561	874,561	874,561
Totals	**13,727,565**	**13,768,953**	**13,768,953**	**13,735,196**	**13,735,336**	**13,752,110**

[1] Additional special and temporary grants, not included in this table, are paid to Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, and British Columbia. (See text).

21.—Subsidy Allowances to Provincial Governments, July 1, 1867, to Mar. 31, 1939.

Province.	Allowances for Government.	Allowances on Basis of Population.	Special Grants.[1]	Interest on Debt Allowances.[2]	Total.[3]
	$	$	$	$	$
Prince Edward Island	4,220,000	5,661,754	5,443,704	2,758,004	18,083,462
Nova Scotia	8,480,000	25,363,393	826,980	3,446,565	38,116,938
New Brunswick	7,840,000	19,410,952	10,530,000	1,529,960	39,310,912
Quebec	10,480,000	93,554,298	Nil	5,834,096	109,868,394
Ontario	10,880,000	114,874,037	"	5,598,176	131,352,213
Manitoba	7,685,000	19,625,417	22,706,733	15,258,540	65,275,690
Saskatchewan	6,596,667	19,082,999	20,781,250	13,782,750	60,243,666
Alberta	6,106,666	15,033,207	17,906,250	13,782,750	52,828,873
British Columbia	7,080,000	14,954,419	7,800,000	1,992,056	31,826,475
Totals	**69,368,333**	**327,560,476**	**85,994,917**	**63,982,897**	**546,906,623**

[1] Compensation for lands and allowances for buildings. [2] Allowances in lieu of debt. [3] Does not include special and temporary grants paid to Maritime Provinces, Manitoba, Saskatchewan, and British Columbia.

Loans to Provinces.—All of the provincial loans recently advanced by the Dominion have been made to the western provinces under the authority of relief legislation beginning with the Unemployment and Farm Relief Act, 1931, and these have been secured by interest-bearing treasury bills of the respective provinces, the rate being 3 p.c. since July 1, 1936. The sum total of such loans outstanding as at Mar. 31, 1940, was $175,880,650 less write-offs of $18,487,055, making net loans outstanding $157,393,595.

In addition to these, however, there were also outstanding at that date $2,504,000 of housing loans, being the balance of loans made to the provinces in the years following the War of 1914-18, on the authority of Orders in Council passed in 1918 and 1919, and of the Appropriation Acts of 1920 and 1921. Upon these loans the Province of Ontario repaid the whole of the advances in 1928, the Province of Quebec repaid in full in 1937, and New Brunswick in full in 1938. The other provinces concerned have, in most cases, reduced their indebtedness from year to year.

22.—Loans to Provincial Governments Under the Relief Acts, by Provinces, Fiscal Years 1936-40.

NOTE.—Figures for 1932 (the first year such loans were made) and 1933 will be found at p. 844 of the 1936 Year Book, and for 1934 and 1935 at p. 858 of the 1938 edition.

Province and Item.	1936.	1937.	1938.	1939.	1940.
	$	$	$	$	$
Manitoba—					
Loans during year	4,720,655	4,627,000	2,982,000	2,312,000	2,012,000
Less cash repayments and credits of Dominion's share of expenditures	2,324,429	1,000	22,812	906,501	129,507
Net loans for year	2,396,226	4,626,000	2,959,188	1,405,499	1,882,493
Net loans outstanding at beginning of year	13,108,630	15,504,856	20,130,856	23,090,044	24,495,543
Totals Outstanding Mar. 31	**15,504,856**	**20,130,856**	**23,090,044**	**24,495,543**	**26,378,036**
Saskatchewan—					
Loans during year	14,291,043	6,059,461	11,604,787	13,767,910	10,289,278
Less cash repayments and credits of Dominion's share of expenditures	45,565	582	Nil	59,063	1,057,068
Net loans for year	14,245,478	6,058,879	11,604,787	13,708,847	9,232,210
Net loans outstanding at beginning of year	34,123,151	48,368,629	54,427,508	66,032,295	79,741,142
Totals Outstanding Mar. 31	**48,368,629**	**54,427,508**	**66,032,295**	**79,741,142**	**88,973,352**
Alberta—					
Loans during year	13,117,000	974,450	200,000	Nil	Nil
Less cash repayments and credits of Dominion's share of expenditures	13,000	169,252	7,000	"	53,698
Net loans for year	13,104,000	805,198	193,000	Nil	—53,698
Net loans outstanding at beginning of year	11,977,000	25,081,000	25,886,198	26,079,198	26,079,198
Totals Outstanding Mar. 31	**25,081,000**	**25,886,198**	**26,079,198**	**26,079,198**	**26,025,500**
British Columbia—					
Loans during year	12,566,000	4,044,000	2,000,000	Nil	1,546,552
Less cash repayments and credits of Dominion's share of expenditures	7,554	71,600	458,363	129,506	Nil
Net loans for year	12,558,446	3,972,400	1,541,637	—129,506	1,546,551
Net loans outstanding at beginning of year	15,014,234	27,572,680	31,545,080	33,086,717	32,957,211
Totals Outstanding Mar. 31	**27,572,680**	**31,545,080**	**33,086,717**	**32,957,211**	**34,503,762**
Grand Totals	**116,527,165**	**131,989,642**[1]	**148,288,254**[1]	**163,273,094**[1]	**175,880,650**[1]

[1] Less write-offs as follows: Manitoba, $804,897 and Saskatchewan, $17,682,158. leaving net loans outstanding at Mar. 31, 1937, of $113,502,587; at Mar. 31, 1938, of $129,801,199; at Mar. 31, 1939, of $144,813,770; at Mar. 31, 1940 of $157,393,595.

23.—Loans to Provincial Governments Outstanding, on Account of Housing, by Provinces, as at Mar. 31, 1920-40.

Date.	Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.	Manitoba.	British Columbia.	Total.
	$	$	$	$	$	$	$	$
Mar. 31—								
1920	Nil	Nil	600,000	60,000	8,750,000	1,580,000	750,000	11,740,000
1921	"	600,000	1,220,000	1,146,700	8,750,000	1,580,000	1,361,500	14,658,200
1922	"	1,100,000	1,525,000	2,312,885	8,750,000	1,975,000	1,701,500	17,364,385
1923	50,000	1,537,000	1,525,000	4,391,617	9,350,000	1,975,000	1,701,500	20,530,117
1924	50,000	1,537,000	1,525,000	7,359,590	9,350,000	1,975,000	1,701,500	23,498,090
1925	50,000	1,537,000	1,525,000	7,355,305	9,350,000	1,975,000	1,701,500	23,493,805
1926	50,000	1,537,000	1,462,000	7,352,018	9,350,000	1,975,000	1,701,500	23,427,518
1927	50,000	1,537,000	1,308,000	7,337,843	9,350,000	1,825,000	1,701,500	23,109,343
1928	50,000	1,362,000	1,250,000	7,317,403	Nil	1,660,000	1,701,500	13,340,903
1929	50,000	1,212,000	1,198,000	7,304,203	"	1,600,000	1,701,500	13,065,703
1930	50,000	1,077,000	1,136,000	5,796,703	"	1,550,000	1,701,500	11,311,203
1931	36,500	1,017,000	1,057,000	5,384,688	"	1,475,000	1,701,500	10,671,688
1932	35,000	937,000	988,000	5,384,688	"	1,475,000	1,701,500	10,521,188
1933	34,000	877,000	910,000	5,384,688	"	1,475,000	1,701,500	10,382,188
1934	33,000	822,000	860,500	5,384,688	"	1,367,000	1,701,500	10,168,688
1935	33,000	757,000	800,000	5,384,688	"	1,095,000	1,701,500	9,771,188
1936	31,500	682,000	648,700	2,609,688	"	1,095,000	1,701,500	6,768,388
1937	30,500	607,000	588,700	730,688	"	1,072,000	1,701,500	4,730,388
1938	29,500	537,000	Nil	Nil	"	1,040,000	1,701,500	3,308,000
1939	29,500	457,000	"	"	"	1,015,000	1,701,500	3,203,000
1940	26,500	402,000	"	"	"	374,000	1,701,500	2,504,000

Subsection 5.—National Debt.

The gross national debt of Canada on Mar. 31, 1914, was $544,391,369, as against assets of $208,394,519, leaving a net debt of $335,996,850. Comparatively small as was this debt, it was a debt incurred almost altogether either for public works of general utility which, like the Intercolonial and transcontinental railways and the canal system, remained assets, though perhaps not realizable assets, of the nation, or was expended as subsidies to enterprises, which, like the Canadian Pacific Railway, though not government-owned, assisted greatly in extending the area of settlement as well as the productive and, therefore, the taxable capacity of the country. Broadly speaking, it was a debt incurred for productive purposes. Also, it was mainly held outside the country, the principal of the Dominion funded debt payable in London being $302,842,485 on Mar. 31, 1914, as against only $717,453 payable in Canada.

The great changes brought about in the national debt during the 26 years from 1914 to 1939 have been: (1) the enormous increase in net debt from $335,996,850 to $3,152,559,314; (2) the gross debt, having been incurred largely for war purposes, is not represented by corresponding assets; (3) the debt is now mainly held in Canada, $2,510,515,435 being payable in Canada at Mar. 31, 1939.

24.—Summary of the Public Debt of Canada and Interest Payments Thereon, July 1, 1867, to Mar. 31, 1939.

Year.	Gross Debt.	Total Assets.	Net Debt.	Net Debt Per Capita.[1]	Increase or Decrease of Debt during Year.[2]	Interest Paid on Debt.	Interest Received from Active Assets.	Interest Paid Per Capita.[1]
	$	$	$	$	$	$	$	$
1867..	93,046,052	17,317,410	75,728,642	21·87	–	–	–	–
1868..	96,896,666	21,139,531	75,757,135	21·58	28,493	4,501,568	126,420	1·28
1869..	112,361,998	36,502,679	75,859,319	21·28	102,184	4,907,014	313,021	1·38
1870..	115,993,706	37,783,964	78,209,742	21·58	2,350,423	5,047,054	383,956	1·39
1871..	115,492,683	37,786,165	77,706,518	21·06	−503,225	5,165,304	554,384	1·40
1872..	122,400,179	40,213,107	82,187,072	21·89	4,480,554	5,257,231	488,042	1·40
1873..	129,743,432	29,894,970	99,848,462	26·10	17,661,390	5,209,206	396,404	1·36
1874..	141,163,551	32,838,587	108,324,964	27·81	8,476,502	5,724,436	610,863	1·47
1875..	151,663,402	35,655,024	116,008,378	29·34	7,683,414	6,590,790	840,887	1·67
1876..	161,204,688	36,653,174	124,551,514	31·07	8,543,136	6,400,902	798,906	1·60
1877..	174,675,835	41,440,526	133,235,309	32·78	8,683,795	6,797,227	717,684	1·67
1878..	174,957,269	34,595,199	140,362,070	34·07	7,126,761	7,048,884	605,774	1·71
1879..	179,483,871	36,493,684	142,990,187	34·17	2,628,117	7,194,734	592,500	1·72
1880..	194,634,441	42,182,852	152,451,589	35·83	9,461,402	7,773,869	834,793	1·83
1881..	199,861,537	44,465,757	155,395,780	35·93	2,944,191	7,594,145	751,513	1·76
1882..	205,365,252	51,703,601	153,661,651	35·12	−1,734,129	7,740,804	914,009	1·77
1883..	202,159,104	43,692,390	158,466,714	35·77	4,805,063	7,668,552	1,001,193	1·73
1884..	242,482,416	60,320,566	182,161,850	40·60	23,695,136	7,700,181	986,698	1·72
1885..	264,703,607	68,295,915	196,407,692	43·29	14,245,842	9,419,482	1,997,936	2·08
1886..	273,164,341	50,005,234	223,159,107	48·72	26,751,415[3]	10,137,009	2,299,079	2·21
1887..	273,187,626	45,872,851	227,314,775	49·14	4,155,668	9,682,929	990,887	2·09
1888..	284,513,842	49,982,484	234,531,358	50·13	7,216,583	9,823,313	932,025	2·10
1889..	287,722,063	50,192,021	237,530,042	50·23	2,998,684	10,148,932	1,305,392	2·15
1890..	286,112,295	48,579,083	237,533,212	49·70	3,170	9,656,841	1,082,271	2·02
1891..	289,899,230	52,090,199	237,809,031	49·21	275,819	9,584,137	1,077,228	1·98
1892..	295,333,274	54,201,840	241,131,434	49·38	3,322,403	9,763,978	1,086,420	2·00
1893..	300,054,525	58,373,485	241,681,040	49·01	549,606	9,806,888	1,150,167	1·99
1894..	308,348,023	62,164,994	246,183,029	49·44	4,501,989	10,212,596	1,217,809	2·05
1895..	318,048,755	64,973,828	253,074,927	50·35	6,891,898	10,466,294	1,336,047	2·08
1896..	325,717,537	67,220,104	258,497,433	50·95	5,422,506	10,520,430	1,370,001	2·07
1897..	332,530,131	70,991,535	261,538,596	51·06	3,041,163	10,645,663	1,443,004	2·08
1898..	338,375,984	74,419,585	263,956,399	51·01	2,417,803	10,516,758	1,513,455	2·03
1899..	345,160,903	78,887,456	266,273,447	50·86	2,317,048	10,855,112	1,590,448	2·07
1900..	346,206,980	80,713,173	265,493,807	50·08	−779,640	10,699,645	1,683,051	2·02
1901..	354,732,433	86,252,429	268,480,004	49·99	2,986,197	10,807,955	1,784,834	2·01
1902..	366,358,477	94,529,387	271,829,090	49·48	3,349,086	10,975,935	1,892,224	2·00
1903..	361,344,098	99,737,109	261,606,989	46·29	−10,222,101[4]	11,068,139	2,020,953	1·96
1904..	364,962,512	104,094,793	260,867,719	44·77	−739,270[5]	11,128,637	2,236,256	1·91
1905..	377,678,580	111,454,413	266,224,167	44·36	5,356,448	10,630,115	2,105,031	1·77
1906..	392,269,680	125,226,703	267,042,977	43·09	818,810	10,814,697	2,140,312	1·75
1907[6].	379,966,826	116,294,966	263,671,860	41·13	−3,371,117	6,716,771	1,235,746	1·05
1908..	408,207,158	130,246,298	277,960,860	41·96	14,289,000	10,973,597	1,925,569	1·66
1909..	478,535,427	154,605,148	323,930,279	47·64	45,969,419	11,604,584	2,256,643	1·71
1910..	470,663,046	134,394,500	336,268,546	48·12	12,338,267	13,098,161	2,807,465	1·87
1911..	474,941,487	134,899,435	340,042,052	47·18	3,773,506	12,535,851	1,668,773	1·74
1912..	508,338,592	168,419,131	339,919,461	46·00	−122,591	12,259,397	1,281,317	1·66
1913..	483,232,555	168,930,930	314,301,625	41·18	−25,617,836	12,605,882	1,430,511	1·65
1914..	544,391,369	208,394,519	335,996,850	42·64	21,695,225	12,893,505	1,964,541	1·64
1915..	700,473,814	251,097,731	449,376,083	56·31	113,379,233	15,736,743	2,980,247	1·97
1916..	936,987,802	321,831,631	615,156,171	76·88	165,780,088	21,421,585	3,358,210	2·68
1917..	1,382,003,268	502,816,970	879,186,298	109·08	264,030,127	35,802,567	3,094,012	4·44
1918..	1,863,335,899	671,451,836	1,191,884,063	146·28	312,697,765	47,845,585	4,466,724	5·87
1919..	2,676,635,725	1,102,104,692	1,574,531,033	189·45	382,646,970	77,431,432	7,421,002	9·32
1920..	3,041,529,587	792,660,963[7]	2,248,868,624	262·84	674,337,591	107,527,089	17,086,981	12·57
1921..	2,902,482,117	561,603,133[7]	2,340,878,984	266·37	92,010,360	139,551,520	24,815,246	15·88
1922..	2,902,347,137	480,211,335[7]	2,422,135,802	271·57	81,256,817	135,247,849	21,961,513	15·16
1923..	2,888,827,237	435,050,368[7]	2,453,776,869	272·34	31,641,067	137,892,735	16,465,303	15·30
1924..	2,819,610,470	401,827,195[7]	2,417,783,275	264·44	−35,993,594	136,237,872	11,916,479	14·90
1925..	2,818,066,523	400,628,837[7]	2,417,437,686	260·11	−345,589	134,789,604	11,332,328	14·50
1926..	2,768,779,184	379,048,085[7]	2,389,731,099	252·85	−27,706,587	130,691,493	8,535,086	13·83
1927.	2,726,298,717	378,464,347[7]	2,347,834,370	243·65	−41,896,729	129,675,367	8,559,401	13·46
1928..	2,677,137,243	380,287,010[7]	2,296,850,233	233·54	−50,984,137	128,902,945	10,937,822	13·11
1929..	2,647,033,973	421,529,268[7]	2,225,504,705	221·91	−71,345,528	124,989,950	12,227,562	12·46
1930..	2,544,586,411	366,822,452[7]	2,177,763,959	213·34	−47,740,746	121,566,213	13,518,205	11·91
1931..	2,610,265,698	348,653,762[7]	2,261,611,937	217·94	83,847,978	121,289,844	10,421,224	11·69
1932..	2,831,743,563	455,897,390[7]	2,375,846,172	226·14	114,234,236	121,151,106	9,330,125	11·53
1933..	2,996,366,665	399,885,839[7]	2,596,480,826	243·09	220,634,654	134,999,069	11,220,989	12·64

For footnotes see end of table, page 855.

24.—Summary of the Public Debt of Canada and Interest Payments Thereon, July 1, 1867, to Mar. 31, 1939—concluded.

Year.	Gross Debt.	Total Assets.	Net Debt.	Net Debt Per Capita.[1]	Increase or Decrease of Debt during Year.[2]	Interest Paid on Debt.	Interest Received from Active Assets.	Interest Paid Per Capita.[1]
	$	$	$	$	$	$	$	$
1934..	3,141,042,097	411,063,957[7]	2,729,978,141	251·96	133,497,314	139,725,417	11,148,231	12·91
1935..	3,205,956,369	359,845,411[7]	2,846,110,958	259·94	116,132,817	138,533,202	10,963,478	12·67
1936..	3,431,944,027	425,843,510[7]	3,006,100,517	271·68	159,989,559	134,549,169	10,614,125	12·20
1937..	3,542,521,139	458,568,937[7]	3,083,952,202	277·33	77,851,685	137,410,345	11,231,035	12·36
1938..	3,540,237,614	438,570,044[7]	3,101,667,570	276·71	17,715,368	132,117,422	13,120,523	11·79
1939..	3,638,320,816	485,761,502[7]	3,152,559,314	278·62	50,891,744	127,995,617	13,163,015	11·31

[1] The per capita figures are based on the official estimates of population given at p. 103. [2] The minus sign (—) denotes a decrease. [3] This amount includes $10,199,520, for which land was taken from the Canadian Pacific Rly. Co. [4] This amount includes $3,305,450, caused by the settlement of accounts with Ontario and Quebec. [5] This amount takes into account $5,397,503, allowed to Ontario and Quebec under 47 Vict., c. 6. [6] Nine months due to change in fiscal year. [7] Active assets only.

Recent Funded Debt Operations.—Conversions and other national debt operations carried out between 1914 and 1930 are dealt with at pp. 842-843 of the 1933 Year Book; those between 1931 and 1934 at pp. 905-907 of the 1934-35 Year Book; those of the fiscal year 1935 at pp. 845-846 of the 1936 Year Book; those of the fiscal year 1937 at p. 837 of the 1937 Year Book; and those of the fiscal year 1938 at p. 898 of the 1939 edition. The following review carries the summary down to Mar. 31, 1940.

On May 18, 1938, the Dominion Government offered in Canada an issue of $50,000,000 in bonds of two maturities, dated June 1, 1938. A six-year 2 p.c. bond due June 1, 1944, priced at 99·375 and accrued interest, and yielding approximately 2·11 p.c. was offered in the amount of $20,000,000, and a twenty-year 3 p.c. bond, due June 1, 1958, priced at 99·00 and accrued interest, and yielding approximately 3·07 p.c. comprised the remaining $30,000,000. In addition to the $50,000,000 of new money called for, the holders of 2 p.c. bonds due Oct. 15, 1938 (outstanding in an amount of $90,000,000), were given the opportunity of conversion into bonds of the new issue, the outstanding maturity being convertible, with final coupons attached, at 100·80 p.c. in exchange for the new bonds at the offering price. Under this offering, conversions were made to the extent of $89,825,000, all but $175,000 of the outstanding issue being refunded. The conversion subscriptions were allotted between the offering maturities in the amount of $70,625,000 for the six-year 2 p.c. bonds, and $19,200,000 for the twenty-year 3 p.c. bonds. Thus, the total amount outstanding of the former maturity is $90,625,000, and of the latter, $49,200,000.

On July 1, 1938, the School Land Debenture Stock, held by the western provinces in the amount of $33,293,471, matured and was renewed for another year at the prevailing rate of 4 p.c.

For the purpose of meeting a New York maturity of $40,000,000 in 2 p.c. notes issued Jan. 1, 1936, and falling due on Jan. 1, 1939, the Dominion Government on Nov. 17, 1938, sold an issue of thirty-year 3 p.c. bonds in the amount of $40,000,000 in New York. These bonds were sold to an underwriting syndicate at 95·25 and accrued interest, or a cost basis of 3·25 p.c.

Early in 1939 there were sold to the Chase National Bank of the City of New York and a group of associated banks, $20,000,000 twenty-seven month 1¼ p.c.

notes dated Feb. 1, 1939, and maturing May 1, 1941. The notes were sold at 99·75 p.c., a cost basis of approximately 1·36 p.c. The proceeds of the issue were used for the purpose of supplying the Government with United States funds to enable it to make temporary loans, or to reimburse the Government in part for temporary loans, made to the Canadian National Railway Company for the purpose of redeeming certain obligations of the Railway Company that matured during January and February, 1939. Some of these obligations were payable in London and some were payable optionally in New York, London, or Canada.

An issue of $134,500,000 in two maturities was next sold on the domestic market. A short-term maturity in the amount of $95,500,000, dated May 15, 1939, and maturing May 15, 1942, bore an interest rate of 1½ p.c. and was priced at 99·375 to yield 1·72 p.c. A maturity of longer term in the amount of $39,000,000 dated May 15, 1939, and maturing June 1, 1958, bore a 3 p.c. rate, and was priced at 98·50 to yield 3·10 p.c. Conversions of outstanding bonds of the following issues were accepted against the new maturities: 1 p.c. bonds due June 1, 1939; 4 p.c. bonds due Oct. 15, 1939; 2½ p.c. bonds due Oct. 15, 1939; and 2 p.c. bonds due Nov. 15, 1939. These issues were converted to a total of $84,500,000, while $50,000,000 of the new issue was sold for cash.

The first issue of the war period was sold directly to the Canadian chartered banks at par in the amount of $200,000,000, dated Oct. 16, 1939, and maturing Oct. 16, 1941, bearing a 2 p.c. rate. The proceeds of this issue were to be used in part for the redemption of the Dominion of Canada 1930-50 registered stock outstanding in London in the amount of £28,162,775 (slightly in excess of $125,000,000 at the rate of exchange then prevailing) against which a sinking fund of £7,733,000 was held. This stock was subject to call at par at any time after July 1, 1930, on six months' notice, and notice was given for redemption on Apr. 16, 1940. The ultimate effect of this operation was to make Canadian dollars available to the British Government for the purchase of supplies in Canada. The remaining part of the issue was to provide for the redemption of domestic maturities falling due in October and November, 1939, to a total of $28,064,500, and for general purposes of the Government.

Early in 1940 the Government sold its first war loan. Dated Feb. 1, 1940, this issue bore an interest rate of 3½ p.c. and was priced at 100. Provision was made for redemption of the issue by annual drawings on Feb. 1, 1948 to 1952, 20 p.c. of the outstanding amount to be redeemed each year at the following prices: on Feb. 1, 1948, 1949, and 1950, at 100; on Feb. 1, 1951, at 100·50, and on Feb. 1, 1952, at 101. In addition to an amount of $200,000,000 issued for cash, $50,000,000 of the new loan was issued in conversion of part of the 3 p.c. loan maturing Mar. 1, 1940, so that the total amount of the new loan outstanding was $250,000,000.

To provide funds to meet in part the unconverted portion of the Mar. 1, 1940, maturity, an issue of $40,000,000 five-year 2 p.c. bonds was sold to the Bank of Canada at 99·375. This issue was dated Mar. 1, 1940, and matures Mar. 1, 1945.

In the past five years a market for short-term treasury bills that has proven highly satisfactory has been built up in Canada. Each issue has, with two exceptions (where the bills were sold direct to the Bank of Canada), been offered for public tender. A complete list of treasury bills sold by public tender for the period Mar. 1, 1934, to Feb. 15, 1937, appears at p. 838 of the 1937 Year Book. The sales since that date are as follows:—

TREASURY BILLS SOLD IN CANADA, MAR. 1, 1937, TO MAR. 31, 1940.

Date of Issue.	Date of Maturity.	Amount.	Average Cost.	Date of Issue.	Date of Maturity.	Amount.	Average Cost.
		$	p.c.			$	p.c.
Mar. 1, 1937	June 1, 1937	20,000,000	0·795	Sept. 15, 1938	Dec. 15, 1938	25,000,000	0·608
Mar. 15, 1937	June 15, 1937	25,000,000	0·805	Sept. 30, 1938	Dec. 30, 1938	25,000,000	0·760
Apr. 1, 1937	July 2, 1937	25,000,000	0·786	Oct. 14, 1938	Jan. 13, 1939	30,000,000	0·747
Apr. 15, 1937	July 15, 1937	25,000,000	0·771	Nov. 1, 1938	Feb. 1, 1939	25,000,000	0·717
May 1, 1937	July 31, 1937	20,000,000	0·749	Nov. 15, 1938	Feb. 15, 1939	25,000,000	0·693
May 15, 1937	Aug. 16, 1937	20,000,000	0·715	Dec. 1, 1938	Mar. 1, 1939	25,000,000	0·675
June 1, 1937	Sept. 1, 1937	20,000,000	0·678	Dec. 15, 1938	Mar. 15, 1939	25,000,000	0·672
June 15, 1937	Sept. 15, 1937	25,000,000	0·643	Dec. 30, 1938	Mar. 31, 1939	25,000,000	0·681
July 2, 1937	Oct. 1, 1937	25,000,000	0·634	Jan. 13, 1939	Apr. 14, 1939	30,000,000	0·690
July 15, 1937	Oct. 15, 1937	25,000,000	0·632	Feb. 1, 1939	May 1, 1939	25,000,000	0·691
July 31, 1937	Nov. 1, 1937	25,000,000	0·633	Feb. 15, 1939	May 15, 1939	25,000,000	0·680
Aug. 16, 1937	Nov. 15, 1937	25,000,000	0·636	Mar. 1, 1939	June 1, 1939	25,000,000	0·669
Sept. 1, 1937	Dec. 1, 1937	25,000,000	0·628	Mar. 15, 1939	June 15, 1939	25,000,000	0·655
Sept. 15, 1937	Dec. 15, 1937	25,000,000	0·632	Mar. 31, 1939	June 30, 1939	25,000,000	0·643
Oct. 1, 1937	Dec. 31, 1937	25,000,000	0·660	Apr. 14, 1939	July 14, 1939	30,000,000	0·636
Oct. 15, 1937	Jan. 14, 1938	25,000,000	0·696	May 1, 1939	Aug. 1, 1939	25,000,000	0·631
Nov. 1, 1937	Feb. 1, 1938	25,000,000	0·781	May 15, 1939	Aug. 15, 1939	25,000,000	0·631
Nov. 15, 1937	Feb. 15, 1938	25,000,000	0·816	June 1, 1939	Sept. 1, 1939	25,000,000	0·622
Dec. 1, 1937	Mar. 1, 1938	25,000,000	0·785	June 15, 1939	Sept. 15, 1939	25,000,000	0·614
Dec. 15, 1937	Mar. 15, 1938	25,000,000	0·761	June 30, 1939	Sept. 29, 1939	25,000,000	0·604
Dec. 31, 1937	Apr. 1, 1938	25,000,000	0·744	July 14, 1939	Oct. 13, 1939	30,000,000	0·584
Jan. 14, 1938	Apr. 14, 1938	25,000,000	0·726	Aug. 1, 1939	Nov. 1, 1939	25,000,000	0·569
Feb. 1, 1938	Apr. 30, 1938	25,000,000	0·700	Aug. 15, 1939	Nov. 15, 1939	25,000,000	0·553
Feb. 15, 1938	May 16, 1938	25,000,000	0·648	Sept. 1, 1939	Dec. 1, 1939	25,000,000	0·683
Mar. 1, 1938	June 1, 1938	25,000,000	0·584	Sept. 15, 1939	Dec. 15, 1939	25,000,000	0·846
Mar. 15, 1938	June 15, 1938	25,000,000	0·524	Sept. 29, 1939	Dec. 29, 1939	25,000,000	0·925
Apr. 1, 1938	June 30, 1938	25,000,000	0·510	Oct. 13, 1939	Jan. 15, 1940	30,000,000	0·880
Apr. 14, 1938	July 15, 1938	30,000,000	0·503	Nov. 1, 1939	Feb. 1, 1940	25,000,000	0·858
Apr. 30, 1938	July 30, 1938	30,000,000	0·490	Nov. 15, 1939	Feb. 15, 1940	25,000,000	0·872
May 16, 1938	Aug. 15, 1938	25,000,000	0·471	Dec. 1, 1939	Mar. 1, 1940	25,000,000	0·831
June 1, 1938	Sept. 1, 1938	25,000,000	0·466	Dec. 15, 1939	Mar. 15, 1940	25,000,000	0·806
June 15, 1938	Sept. 15, 1938	25,000,000	0·465	Dec. 29, 1939	Apr. 1, 1940	25,000,000	0·787
June 30, 1938	Sept. 30, 1938	25,000,000	0·479	Jan. 15, 1940	Apr. 15, 1940	30,000,000	0·784
July 15, 1938	Oct. 14, 1938	30,000,000	0·489	Feb. 1, 1940	May 1, 1940	25,000,000	0·752
July 30, 1938	Nov. 1, 1938	25,000,000	0·501	Feb. 15, 1940	May 15, 1940	25,000,000	0·746
Aug. 15, 1938	Nov. 15, 1938	25,000,000	0·519	Mar. 1, 1940	May 31, 1940	25,000,000	0·751
Sept. 1, 1938	Dec. 1, 1938	25,000,000	0·532				

25.—Funded Debt and Treasury Bills of the Dominion, Dates of Maturity, Rates of Interest Payable Thereon, Centres at Which Loans are Payable, Amounts of Loans Outstanding, and Total Annual Interest Charges, as at Mar. 31, 1939.

Date of Maturity.	Name of Loan.	Rate.	Where Payable.	Amount of Loan Outstanding.	Annual Interest Charges.
		p.c.		$ cts.	$ cts.
1939—June 1	Coversion Loan, 1937	1	Canada	20,000,000 00	200,000 00
June 1	Refunding Loan, 1937	1	Canada	20,000,000 00	200,000 00
July 1	Debentures—School Lands	4	Canada	33,293,470 85	1,331,738 83
Oct. 15	Refunding Loan, 1933	4	Canada	47,269,500 00	1,890,780 00
Oct. 15	Refunding Loan, 1934	2½	Canada	7,933,000 00	198,325 00
Nov. 15	Loan of 1935	2	Canada	20,000,000 00	400,000 00
1940—Mar. 1	Loan of 1935	3	Canada	115,013,636 82	3,450,409 10
June 1	Loan of 1936	1½	Canada	80,000,000 00	1,200,000 00
Sept. 1	Refunding Loan, 1925	4½	Canada	75,000,000 00	3,375,000 00
1941—Mar. 15	Four and One-half Year Notes	1	Canada	45,000,000 00	450,000 00
May 1[1]	Twenty-Seven Month Notes	1½	New York	20,000,000 00	250,000 00
Nov. 15	National Service Loan	5	Canada	141,663,000 00	7,083,150 00
1942—June 1	Conversion Loan, 1937	2	Canada	60,000,000 00	1,200,000 00
Oct. 15	Refunding Loan, 1934	3	Canada	40,409,000 00	1,212,270 00
1943—June 1	Loan of 1935	2½	Canada	20,000,000 00	500,000 00
Oct. 15	Refunding Loan, 1923	5	Canada	147,000,100 00	7,350,005 00
1944—Jan. 15[2]	Loan of 1937	2½	New York	30,000,000 00	675,000 00
June 1	Loan of 1938	2	Canada	90,625,000 00	1,812,500 00
Oct. 15	Refunding Loan, 1924	4½	Canada	50,000,000 00	2,250,000 00
Nov. 15	Refunding Loan, 1937	2½	Canada	20,000,000 00	500,000 00
1945—Aug. 15[3]	Loan of 1935	2½	New York	76,000,000 00	1,900,000 00
Oct. 15[4]	Refunding Loan, 1933	4	Canada	88,337,500 00	3,533,500 00
1946—Feb. 1	Refunding Loan, 1926	4½	Canada	45,000,000 00	2,025,000 00
1947—Oct. 1	Loan of 1897—£1,004,421-14-2	2½	London	4,888,185 64	122,204 64
1949—June 15	Conversion Loan, 1937	3½	Canada	33,500,000 00	1,088,750 00
Oct. 15[6]	Refunding Loan, 1934	3½	Canada	138,322,000 00	4,841,270 00
1950—July 1[7]	Loan of 1930-50—£28,162,775-11-0	3½	London	137,058,841 00	4,797,059 43
1951—Nov. 15[8]	Refunding Loan, 1937	3¼	Canada	60,000,000 00	1,950,000 00
1952—May 1[9]	Loan of 1922	5	New York	100,000,000 00	5,000,000 00
Oct. 15[10]	Loan of 1932	4	Canada	56,191,000 00	2,247,640 00

For footnotes, see end of table, p. 858.

25.—Funded Debt and Treasury Bills of the Dominion, Dates of Maturity, Rates of Interest Payable Thereon, Centres at Which Loans are Payable, Amounts of Loans Outstanding, and Total Annual Interest Charges, as at Mar. 31, 1939—concluded.

Date of Maturity.	Name of Loan.	Rate.	Where Payable.	Amount of Loan Outstanding.	Annual Interest Charges.
		p.c.		$ cts.	$ cts.
1955—May 1[11]	Loan of 1934—£10,000,000-0-0	3½	London	48,666,666 67	1,581,666 67
June 1[12]	Loan of 1935, dated June 1	3	Canada	40,000,000 00	1,200,000 00
June 1[12]	Loan of 1935, dated Nov. 15	3	Canada	55,000,000 00	1,650,000 00
1956—Nov. 1[13]	Conversion Loan, 1931	4½	Canada	43,125,700 00	1,940,656 50
1957—Nov. 1[14]	Conversion Loan, 1931	4½	Canada	37,523,200 00	1,688,544 00
1958—June 1[16]	Loan of 1938	3	Canada	49,200,000 00	1,476,000 00
Sept. 1[16]	Loan of 1933—£15,000,000-0-0	4	London	73,000,000 00	2,920,000 00
Nov. 1[17]	Conversion Loan, 1931	4½	Canada	276,687,600 00	12,450,942 00
1959—Nov. 1[18]	Conversion Loan, 1931	4½	Canada	289,693,300 00	13,036,198 50
1960—Oct. 1[19]	Loan of 1940-60—£19,300,000-0-0	4	London	93,926,666 66	3,757,066 67
Oct. 1[20]	Loan of 1930	4	New York	100,000,000 00	4,000,000 00
1961—Jan. 15[21]	Loan of 1936	3¼	New York	48,000,000 00	1,560,000 00
1963—July 1[22]	Loan of 1958-63—£10,000,000-0-0	3½	London	48,666,666 66	1,581,666 67
1966—June 1[23]	Loan of 1936	3¼	Canada	54,703,000 00	1,777,847 50
1967—Jan. 15[24]	Loan of 1937	3	New York	55,000,000 00	1,650,000 00
1968—Nov. 15[25]	Loan of 1938	3	New York	40,000,000 00	1,200,000 00
Perpetual[26]	Loan of 1936	3	Canada	55,000,000 00	1,650,000 00
1939—Apr. 14	Treasury Bills	·690	Canada	30,000,000 00	207,000 00
May 1	Treasury Bills	·691	Canada	25,000,000 00	172,750 00
May 15	Treasury Bills	·681	Canada	25,000,000 00	170,250 00
June 1	Treasury Bills	·670	Canada	25,000,000 00	167,500 00
June 15	Treasury Bills	·655	Canada	25,000,000 00	163,750 00
June 30	Treasury Bills	·643	Canada	25,000,000 00	160,750 00
Demand	Dominion Stock, Issue A	6	Canada	4,000 00	240 00
	Dominion Stock, Issue B	3½	Canada	9,600 00	336 00
	Compensation to Seigneurs	6	Canada	11,827 40	709 64
				3,385,722,461 70	119,198,476 15
	Recapitulation—				
	Payable in Canada			2,510,515,435 07	88,203,812 07
	Payable in New York			469,000,000 00	16,235,000 00
	Payable in London			406,207,026 63	14,759,664 08
				3,385,722,461 70	119,198,476 15
	Less bonds and stocks of the above loans held as sinking funds			69,993,620 41	
	Net Funded Debt and Treasury Bills			**3,315,728,841 29**	

[1] Subject to redemption in whole or multiples of $100,000 after Mar. 1, 1941, on ten days' notice, at 100 and accrued interest. [2] Subject to redemption as a whole on or after Jan. 15, 1943, on 30 days' notice. [3] Subject to redemption in whole or in part on Aug. 15, 1943, or on any subsequent interest date on 30 days' notice. [4] Subject to redemption as a whole on Oct. 15, 1943, or on any subsequent interest date on 60 days' notice. [5] Subject to redemption in whole or in part on June 1, 1946, or on any subsequent interest date on 60 days' notice. [6] Subject to redemption as a whole on Oct. 15, 1944, or on any subsequent interest date on 60 days' notice. [7] Subject to redemption on 6 months' notice, on or after July 1, 1930. [8] Subject to redemption in whole or in part on Nov. 15, 1948, or on any subsequent interest date on 60 days' notice. [9] Subject to redemption as a whole on or after May 1, 1942, on 60 days' notice. [10] Subject to redemption as a whole on Oct. 15, 1947, or on any subsequent interest date on 60 days' notice. [11] Subject to redemption in whole or in part on or after May 1, 1950, on 3 months' notice. [12] Subject to redemption as a whole on June 1, 1950, or on any subsequent interest date on 60 days' notice. [13] Subject to redemption as a whole on Nov. 1, 1946, or on any subsequent interest date on 60 days' notice. [14] Subject to redemption as a whole on Nov. 1, 1947, or on any subsequent interest date on 60 days' notice. [15] Subject to redemption in whole or in part on June 1, 1953, or on any subsequent interest date on 60 days' notice. [16] Subject to redemption in whole or in part on or after Sept. 1, 1953, on 3 months' notice. [17] Subject to redemption as a whole on Nov. 1, 1948, or on any subsequent interest date on 60 days' notice. [18] Subject to redemption as a whole on Nov. 1, 1949, or on any subsequent interest date on 60 days' notice. [19] Subject to redemption in whole or in part on or after Oct. 1, 1940, on 3 months' notice. [20] Subject to redemption as a whole on Oct. 1, 1950, or on any subsequent interest date on 60 days' notice. [21] Subject to redemption in whole or in part on Jan. 15, 1956, or on any subsequent interest date on 30 days' notice. [22] Subject to redemption in whole or in part on or after July 1, 1958, on 3 months' notice. [23] Subject to redemption as a whole on June 1, 1956, or on any subsequent interest date on 60 days' notice. [24] Subject to redemption in whole or in part on any interest date on 60 days' notice at the following percentages of par: to and including Jan. 15, 1942, at 105 p.c.; thereafter to and including Jan. 15, 1947, at 104 p.c.; thereafter to and including Jan. 15, 1952, at 103 p.c.; thereafter to and including Jan. 15, 1957, at 102 p.c.; thereafter to and including Jan. 15, 1962, at 101 p.c.; and thereafter at 100 p.c. [25] Subject to redemption in whole or in part on any interest date on 60 days' notice at the following percentages of par: to and including Nov. 15, 1943, at 105 p.c.; thereafter to and including Nov. 15, 1948, at 104 p.c.; thereafter to and including Nov. 15, 1953, at 103 p.c.; thereafter to and including Nov. 15, 1958, at 102 p.c.; thereafter to and including Nov. 15, 1963, at 101 p.c.; and thereafter at 100 p.c. [26] Subject to redemption in whole or in part on or after Sept. 15, 1966, on 60 days' notice.

The Interest-Bearing Debt of Canada.—Something of the extent of the burden of national debt being carried by the Canadian people may be realized from the fact that, for the fiscal year 1939, the interest charges on the total interest-bearing debt amounted to about 30 p.c. of the total receipts from taxation and nearly 26 p.c. of the receipts from all sources.

Before the War of 1914-18, interest rates were comparatively moderate, but the unprecedented expenditure of the world's capital in that gigantic struggle led, in all the participating countries, to the raising of enormous loans at comparatively high rates of interest, which in many cases still have to be paid until refunding becomes possible under the terms of the contracts made between the nations and their creditors. Thus, in Canada, the average rate of interest paid upon the direct interest-bearing obligations of the nation, which was only 3·368 p.c. at Mar. 31, 1913, rose to 5·164 p.c. at Mar. 31, 1922, and fell gradually to 3·528 p.c. at Mar. 31, 1939.

26.—The Interest-Bearing Debt, Annual Interest Charges Thereon, and Average Rates of Interest, as at Mar. 31, 1913-39.

Date.	Bonds, Debentures, and Treasury Bills.	Annual Interest Charges on Bonds, Debentures, and Treasury Bills.	Average Interest Rate on Bonds, Debentures, and Treasury Bills.	Savings Bank Deposits, Trust and Other Funds.	Annual Interest on Savings Bank Deposits and Other Funds.	Total Interest-Bearing Debt.[1]	Annual Interest Charge.	Average Rate of Interest.
Mar. 31—	$	$	p.c.	$	$	$	$	p.c.
1913...	260,869,037	8,973,746	3·439	91,735,123	2,904,287	352,604,160	11,878,033	3·368
1914...	311,833,272	11,162,047	3·579	93,031,928	2,957,544	404,865,200	14,119,591	3·487
1915...	358,659,932	13,075,447	3·645	91,910,510	2,935,881	450,570,442	16,011,328	3·554
1916...	508,000,366	20,499,696	4·035	92,240,955	2,960,002	600,241,321	23,459,698	3·908
1917...	893,208,877	39,098,579	4·376	96,885,192	3,114,315	990,094,069	42,212,894	4·263
1918...	1,472,098,608	71,121,368	4·831	95,796,899	3,096,532	1,567,895,507	74,217,900	4·733
1919...	2,035,218,097	102,218,489	5·022	100,636,102	3,441,803	2,135,854,199	105,660,292	4·947
1920...	2,596,816,821	134,559,302	5·181	107,038,317	4,275,480	2,703,855,138	138,834,782	5·134
1921...	2,520,997,021	130,416,007	5·173	107,345,348	4,429,302	2,628,342,369	134,845,309	5·130
1922...	2,564,587,671	133,482,113	5·204	105,379,439	4,399,661	2,669,967,110	137,881,774	5·164
1923...	2,547,105,821	131,476,511	5·161	106,763,391	4,531,156	2,653,869,212	136,007,667	5·125
1924...	2,504,033,820	128,571,337	5·134	110,113,766	4,626,715	2,614,147,586	133,198,052	5·092
1925...	2,503,763,169	125,928,071	5·029	113,943,282	4,758,780	2,617,706,451	130,686,851	4·992
1926...	2,484,410,336	125,108,738	5·035	119,205,393	4,977,889	2,603,615,729	130,086,627	4·996
1927...	2,439,340,736	123,399,911	5·058	126,310,527	5,274,429	2,565,651,263	128,674,340	5·015
1928...	2,377,581,086	119,479,400	5·025	136,485,482	5,721,330	2,514,066,568	125,200,730	4·980
1929...	2,325,413,986	116,843,934	5·024	145,780,369	6,156,036	2,471,194,355	122,999,970	4·977
1930...	2,250,837,286	112,942,215	5·017	154,997,435	6,572,018	2,405,834,721	119,514,233	4,967
1931...	2,320,832,286	115,491,955	4·976	163,994,443	6,969,151	2,484,826,729	122,461,106	4·928
1932...	2,579,238,724	128,188,969	4·970	136,356,977	5,522,579	2,715,595,701	133,711,548	4·923
1933...	2,715,977,874	132,866,543	4·892	144,176,675	5,858,850	2,860,154,549	138,725,393	4·850
1934...	2,858,624,524	132,354,806	4·630	154,137,868	6,093,937	3,012,762,392	138,448,743	4·595
1935...	3,061,955,821	127,074,870	4·150	171,554,957	6,683,560	3,233,510,778	133,758,430	4·136
1936...	3,265,314,332	128,598,908[2]	3·938	196,197,897[2]	7,679,285	3,461,512,729	136,278,193	3·937
1937...	3,337,358,832	125,093,381	3·748	224,157,683	8,798,557	3,561,516,514	133,891,938	3·759
1938...	3,314,558,032	117,062,907	3·532	248,176,039	9,771,812	3,562,734,071	126,834,719	3·560
1939...	3,385,722,462	119,198,476	3·521	272,692,286	9,879,428	3,658,414,748	129,077,904	3·528

[1] Includes bonds purchased and held by the Treasury for sinking funds. [2] In 1936 an amount of $11,827, being compensation to seigneurs, previously included under Savings Bank Deposits, Trust and Other Funds, was transferred to Bonds, Debentures, and Treasury Bills.

Guaranteed Debt of the Dominion.—Besides the direct debt of the Dominion, already dealt with, there are also large indirect obligations, arising mainly out of the guarantee of securities, by the Dominion, of the railway lines that now form the Canadian National Railways, and the subsequent extensions thereof. Together with these are other smaller indirect obligations, originating in the Government's guarantees of the bonds of the Canadian National Steamship services and of the bonds of its Harbour Commissions, issued in the main for harbour improvements. Since 1932 guarantees of certain bank loans have been made under the various Relief Acts. With the commencement of business of the Bank of Canada on Mar. 11, 1935, the guarantee [authorized by Sect. 27 (6) of the Bank of Canada Act] of the deposit required to be maintained in the Bank of Canada by every chartered bank, came into force. This guarantee will require to be implemented "in the event of the property and assets of the Bank being insufficient to pay its liabilities, and if the Bank suspends payment of any of its liabilities" Under the terms of the Home Improvement Loans Guarantee Act, 1937, the Government guarantees chartered banks and other approved lending institutions against losses up to 15 p.c. of the aggregate value of loans made by each such institution for the financing of repairs, alterations, and improvements to rural and urban dwellings. The Act provides that the amount of guarantees shall not exceed $50,000,000 and therefore the limit of the Government's guarantee is $7,500,000. Under the terms of the Saskatchewan Seed Grain Loans Guarantee Act, 1936, the Dominion Government guaranteed the principal and interest of loans made in Saskatchewan by chartered banks for seed grain assistance to farmers during the spring of 1936. These loans were primarily guaranteed by the Province of Saskatchewan and the Dominion's liability was only to the amount that the Province was unable to fulfil its guarantee. The amount of this guarantee was $2,555,113.

Under the terms of the Seed Grain Loans Guarantee Act, 1937, the Dominion Government guaranteed the principal and interest of loans made in Alberta, Manitoba, and Saskatchewan during the spring of 1937. The loans in each province were primarily guaranteed by the provincial government and the Dominion's liability was only to the amount of the guarantee that the province was unable to meet. The amount of such loans outstanding at July 31, 1939, was $6,998,821, divided as follows: Manitoba, $89,425; Saskatchewan, $6,359,144; and Alberta, $550,251.

Under the Act of 1938, such guarantees during the spring of 1938 were extended only to Alberta and Saskatchewan and the liability of the Dominion Government was not to exceed $1,900,000 for Alberta and $14,500,000 for Saskatchewan. In the case of Alberta, the principal amount guaranteed was $1,089,483. The principal amount guaranteed in the case of Saskatchewan has not yet been determined.

Under the terms of an Order in Council, dated Aug. 5, 1938, passed pursuant to the Canadian Wheat Board Act, a price of 80 cents per bushel (basis No. 1 Northern, Fort William) was fixed as the basic price to be paid by the Canadian Wheat Board

for all wheat of the 1938 crop delivered to the Board by producers. The Board's operations in respect of the 1938 crop were financed by loans obtained from a group of chartered banks under guarantee of the Dominion Government. The amount of the guaranteed bank loans outstanding at Mar. 31, 1939, was $61,155,470.

The guarantee of the Dominion to the Winnipeg Grain and Produce Clearing Association, Limited, arising out of transactions and trades made by the Canadian Wheat Board, continues. No liability in connection with this guarantee accrues from day to day, as margin deposits are made by the Board to the Association daily.

In 1935, the Canadian Co-operative Wheat Producers, Limited, purchased oats on account of the Province of Saskatchewan with the proceeds of bank loans guaranteed by the Dominion. As at Mar. 31, 1939, the amount of such guaranteed bank loans outstanding was $173,665. After the end of the fiscal year, these bank loans were paid off with no liability accruing to the Dominion Government.

27.—Securities Guaranteed by the Dominion Government (Amounts Held by the Public), as at Mar. 31, 1914-39.

NOTE.—Dashes in this table indicate that there were no guarantees of the type shown for the corresponding years.

Date.	Railways, Guaranteed as to Principal and Interest.	Railways, Guaranteed as to Interest only.	Canadian National Steamships.	Harbour Commissions.	Other Guarantees.	Bank of Canada.	Total.
Mar. 31—	$	$	$	$	$	$	$
1914	94,738,584			-			94,738,584
1915	114,644,310			-	-		114,644,310
1916	135,546,098			-	-		135,546,098
1917	135,546,098				-		135,546,098
1918	135,546,098			-	-		135,546,098
1919	130,436,098						130,436,098
1920	130,436,098						130,436,098
1921	197,545,125					-	197,545,125
1922	248,987,789	-				-	248,987,789
1923	237,878,762	216,207,142[1]				-	454,085,904
1924	309,628,762	216,207,142				-	525,835,904
1925	365,915,762	216,207,142					582,122,904
1926	364,415,762	216,207,142		-			580,622,904
1927	397,795,002	216,207,142	-	4,000,000[1]			618,002,144
1928	440,224,186	216,207,142	828,789[1]	9,467,165			666,727,282
1929	472,709,509	216,207,142	7,936,486	17,355,118			714,208,255
1930	590,091,292	216,207,142	9,400,000	21,335,118			837,033,552
1931	707,474,852	216,207,142	9,400,000	21,835,118			954,917,112
1932	753,080,146	216,207,142	9,400,000	21,835,118	-		1,000,522,406[2]
1933	748,874,239	216,207,142	9,400,000	21,670,472	28,272,301[1,2]		1,024,424,154[2]
1934	746,035,434	216,207,142	9,400,000	21,634,472	93,296,073[2]	-	1,086,573,121[2]
1935	740,117,976	216,207,142	9,400,000	21,601,481	104,525,860	149,028,902[1]	1,240,881,361
1936	747,366,632	216,207,142	9,400,000	21,576,481	96,044,370	188,202,917	1,278,797,542
1937	756,163,072	216,207,142	9,400,000	21,565,595	14,836,167	194,275,314	1,212,447,290
1938	803,740,048	216,207,142	9,400,000	21,260,595	18,399,635[3]	194,859,595	1,263,867,015[3]
1939	838,658,616	216,207,142	9,400,000	21,200,338	87,617,198[3]	205,641,646	1,378,724,940[3]

[1] First year data recorded. [2] Unstated advances *re* wheat marketing are not included.
[3] Does not include indeterminate amounts and amounts not yet determined.

28.—Securities Guaranteed by the Dominion Government, as at Mar. 31, 1939.

Security.	Amount of Guarantee Authorized.	Amount Outstanding and Held by the Public.	Where Payable.
	$	$	
Railway Securities Guaranteed as to Principal and Interest—			
Canadian Northern Rly. Co., 3 p.c. deb. stock, due 1953, £1,923,287-0-0	9,359,997	9,359,997	London.
Canadian Northern Rly. Co., 3½ p.c. deb. stock, due 1958, £1,622,586-19-9	7,896,590	7,896,543	[1]
Canadian Northern Ontario Rly. Co., 3½ p.c. deb. stock, due 1961, £7,350,000-0-0	35,770,000	34,229,997	London.
Canadian Northern Alberta Rly. Co., 3½ p.c. deb. stock, due 1960, £647,260-5-6	3,150,000	3,149,999	London.
Grand Trunk Pacific Rly. Co., 3 p.c. bonds, due 1962, £14,000,000-0-0	68,040,000	34,992,000	London, New York, and Canada.
Canadian Northern Alberta Rly. Co., 3½ p.c. deb. stock, due 1962, £733,561-12-10	3,570,000		London and Canada.
Grand Trunk Pacific Rly. Co., 4 p.c. bonds, due 1962, £3,280,000-0-0	15,940,800	8,440,848	London, New York, and Canada.
Canadian Northern Rly. Co., 6½ p.c. bonds, due 1946	25,000,000	24,238,000	New York.
Canadian National Rly. Co., 5 p.c. bonds, due 1954	50,000,000	50,000,000	Canada.
Canadian National Rly. Co., 1927, 2 p.c. guar. deb. stock, £7,176,801-0-0	34,927,098	22,351,232	London.
Canadian National Rly. Co., 4½ p.c. gold bonds, due 1957	65,000,000	65,000,000	New York and Canada.
Canadian National Rly. Co., 5 p.c. gold bonds, due July 1, 1969	60,000,000	60,000,000	London, New York, and Canada.
Canadian National Rly. Co., 5 p.c. gold bonds, due Oct. 1, 1969	60,000,000	60,000,000	London, New York, and Canada.
Canadian National Rly. Co., 5 p.c. gold bonds, due 1970	18,000,000	18,000,000	London, New York, and Canada.
Canadian National Rly. Co., 4¾ p.c. gold bonds, due 1955	50,000,000	50,000,000	London, New York, and Canada.
Canadian National Rly. Co., 4½ p.c. gold bonds, due 1956	70,000,000	70,000,000	London, New York, and Canada.
Canadian National Rly. Co., 4½ p.c gold bonds, due 1951	50,000,000	50,000,000	London, New York, and Canada.
Canadian National Rly. Co.,3 p.c. bonds, due 1950	20,500,000	20,500,000	Canada.
Canadian National Rly. Co.,3 p.c. bonds, due 1944	35,000,000	35,000,000	Canada.
Canadian National Rly. Co.,2 p.c. bonds, due 1943	55,000,000	55,000,000	Canada.
Canadian National Rly. Co.,3 p.c. bonds, due 1953	25,000,000	25,000,000	Canada.
Canadian National Rly. Co., 2¼ p.c. bonds, due 1944	15,500,000	15,500,000	Canada.
Canadian National Rly. Co., 3 p.c. bonds, due 1952	20,000,000	20,000,000	Canada.
Canadian National Rly. Co., 2 p.c. bonds, due 1942	20,000,000	20,000,000	Canada.
Canadian National Rly. Co.,3 p.c. bonds, due 1950	30,000,000	30,000,000	Canada.
Canadian National Rly. Co.,2¼ p.c. bonds, due 1946	15,000,000	15,000,000	Canada.
Canadian National Rly. Co.,3 p.c. bonds ,due 1959	35,000,000	35,000,000	Canada.
Totals	**897,654,485**	**838,658,616**[2]	

[1] Part of this issue is payable in Canada, part in London, and the balance in London and Canada.
[2] Additional railway securities guaranteed as to principal and interest to the value of $45,657,952 were held by the Canadian National Securities Trust as at Mar. 31, 1939, but these are not outstanding in the same sense as those in the hands of the public.

28.—Securities Guaranteed by the Dominion Government, as at Mar. 31, 1939— concluded.

Security.	Amount of Guarantee Authorized.	Amount Outstanding and Held by the Public.	Where Payable.
	$	$	
Railway Securities Guaranteed as to Interest Only—			
Grand Trunk Rly., Acquisition Guarantees—			
Grand Trunk 4 p.c. perp. guar. stock, £12,500,000	60,833,333	60,833,333	London.
Grand Trunk 5 p.c. perp. deb. stock, £4,270,375	20,782,492	20,782,492	London.
Great Western 5 p.c. perp. deb. stock, £2,723,080	13,252,323	13,252,323	London.
Grand Trunk 4 p.c. perp. deb. stock, £24,624,455	119,839,014	119,839,014	London.
Northern Rly. of Canada, 4 p.c. perp. deb. stock, £308,215	1,499,980	1,499,980	London.
Totals	**216,207,142**	**216,207,142**	
Other Securities Guaranteed as to Principal and Interest—			
Harbour Commissioners of Montreal, Montreal South Shore Bridge 5 p.c. bonds due 1969	19,500,000	19,000,000	London, New York, and Canada.
Canadian National (West Indies) Steamships, Ltd., 5 p.c. bonds, due 1955	10,000,000	9,400,000	London, New York, and Canada.
Saint John Harbour Commission—			
Bonded indebtedness of the City of Saint John, assumed by the Commission	1,467,165	832,385	$219,000 payable in London, New York, and Canada; balance in Canada.
Debentures of the Commission issued to the City of Saint John, due 1952	667,953	667,953	Canada.
New Westminster Harbour Commissioners 4½ p.c. debentures, due 1948	700,000	700,000	New York and Canada.
Totals	**32,335,118**	**30,600,338**	
Other Guarantees—			
Bank advances, *re* Province of Manitoba Savings Office	12,442,400	6,688,965	Canada.
Bank advances, *re* Government of Newfoundland	625,000	625,000	Canada.
Province of British Columbia treasury bills	626,534	626,534	Canada.
Province of Manitoba treasury bills	5,894,127	4,878,764	Canada.
Loans made by approved lending institutions under National Housing Act	Unstated.	Indeterminate.	Canada.
Loans made by approved lending institutions under the Home Improvement Loans Guarantee Act	7,500,000	3,914,867	Canada.
Bank advances, *re* Grain Marketing—			
Canadian Co-operative Wheat Producers, Ltd. (Saskatchewan Oats Acct.)	–	173,665	Canada.
The Canadian Wheat Board	75,000,000	61,155,470	Canada.
Winnipeg Grain and Produce Clearing Association, Ltd. Day-to-day margins of the Canadian Wheat Board (closed out daily)	Unstated.	–	Canada.
Bank loans guaranteed under the Saskatchewan Seed Grain Loans Guarantee Act, 1936	4,000,000	2,555,113	Canada.
Bank loans guaranteed under the Seed Grain Loans Guarantee Act, 1937	8,950,000	6,998,821[1]	Canada.
Bank loans guaranteed under the Seed Grain Loans Guarantee Act, 1938	16,400,000	Not determined.	Canada.
Bank of Canada—			
Deposits maintained by the chartered banks in Bank of Canada	Unstated.	205,641,646	Canada.

[1] Principal outstanding July 31, 1939.

Section 2.—Provincial Public 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. Details of these payments are given for the years 1934 to 1939 at pp. 850-851. In addition, through their retention of ownership of their lands, minerals, and other natural resources, those provinces that, by the voluntary action of their previously existing governments, entered Confederation, raise considerable revenue through land sales, sales of timber, mining royalties, leases of water powers, etc., while the Prairie Provinces, which have controlled their own natural resources since 1930, formerly received from the Dominion special grants in lieu of land revenues. Further, under Sect. 92 of the British North America Act, provincial legislatures are given authority to impose direct taxation within the province for provincial purposes and to borrow money on the sole credit of the province. The total revenues received by Provincial Governments for their respective fiscal years ended in 1937 are analysed by source at pp. 912-913 of the 1939 Year Book.

Prior to the opening of the present century, provincial receipts and expenditures were generally moderate, as may be seen from Table **29.** The demand, more especially in Ontario and the West, for increased services from governments, particularly in respect of education, sanitation, and public ownership and operation of public utilities; and the performance of these functions, necessitated increased revenues, which had, in the main, to be raised by taxation. Among the chief methods of taxation to be employed has been the taxation of corporations and estates, succession duties showing a considerably increased yield even within the comparatively short period of twenty-two years from 1916 to 1938 covered by the statements compiled by the Finance Branch of the Bureau of Statistics.† The fact that provincial government is cheaper per head in the eastern provinces (although both Ontario and Nova Scotia have shown large per capita increases in recent years) is evident from Table **30.** This, however, is not to be taken as evidence that the larger services rendered to the public are not worth what is being paid for them.

For the half-century subsequent to Confederation, the provincial accounts, published by each Government according to its own system of accounting, were quite incomparable as among the provinces, a fact much regetted by students of provincial public finance. Upon the creation of the Dominion Bureau of Statistics in 1918, its Finance Branch undertook the work of placing the various provincial public accounts on a comparable basis, correlating, for example, the revenue derived from succession duties, taxation of corporations, sales of public lands, royalties on forest, mineral, and fisheries products, as well as the expenditures on such services as agriculture, civil government, education, and public works. As the result of the Bureau's exhaustive analysis of the provincial public accounts, a summary statement of the ordinary receipts and expenditures of the Provincial Governments

* Revised by Col. J. R. Munro, Chief of the Finance Branch of the Dominion Bureau of Statistics. This Branch issues detailed statements on Provincial Finance that may be obtained from the Dominion Statistician. For a list of these publications, see Section 1 of Chapter XXIX.

† The succession duties collected by the provinces in 1938 amounted in the aggregate to $36,416,605, as compared with $1,020,972 as recently as 1904, an increase of more than 35-fold in 34 years. The aggregate revenue raised by taxation of corporations, land, income, and miscellaneous (exclusive of gasoline taxes, succession duties, and amusement taxes), increased from $7,217,548 in 1916 to $53,742,101 in 1938, an increase of 745 p.c. in 22 years.

appears for the first time in the 1919 Year Book. The various items of receipts and expenditures were classified under appropriate headings and a uniform terminology was adopted. From these statements it is possible to ascertain the amounts received and expended in each year under the respective headings for each province, as well as for the provinces collectively. The detailed figures for the years 1916 to 1920 will be found at pp. 680-685 of the 1921 Year Book, those for 1921 at pp. 786-791 of the 1922-23 Year Book and those for 1922 to 1926 at pp. 836-841 of the 1927-28 Year Book.

The Bureau now makes more extensive analyses of the finances of the provinces, including capital and trust accounts as well as ordinary revenue and expenditure. These analyses are based on a uniform classification adopted at a conference held in 1933 between provincial treasury officials and the Dominion Bureau of Statistics. This new extended analysis, however, does not affect the comparability of the summary totals of Table 29.

Subsection 1.—Provincial Revenues and Expenditures.

Ordinary Revenues and Expenditures.—Revenues have grown very rapidly over the period covered in Table 29 and expenditures have more than kept pace. Since 1916, i.e., in the short space of 21 years, while total revenues of all provinces have shown an increase of 437 p.c., ordinary expenditures have increased 371 p.c. Detailed ordinary revenues and expenditures for 1937 are shown at pp. 912-915 of the 1939 Year Book. Complete figures for 1938 are not available at the time of going to press, and are not included in the tables, but certain items of revenue are given in the textual treatment of the growth of provincial taxation.

Growth of Provincial Taxation.— In earlier years Dominion subsidies and revenues arising out of the natural resources of the provinces and from fees for specific services rendered to the citizens nearly sufficed to cover the whole expenses of government and rendered a resort to taxation for provincial purposes practically unnecessary in most of the provinces. However, the great increase in the functions of government since the commencement of the present century has put an end to this state of affairs. The aggregate amount of taxation for provincial purposes in the fiscal years prior to 1916 is unfortunately not available. Since that time provincial taxation has increased from $12,521,816 in 1916 to $131,755,348 in 1938 (exclusive of motor-vehicle licences, liquor traffic profits, and other licences and permits, etc.), or over ten-fold in 22 years.

The increase in the use of automobiles, both for commercial purposes and for pleasure, is clearly demonstrated by the growing revenues from licences and permits issued by the Provincial Governments. In 1921 the total revenue of all provinces from automobile licensing alone amounted to $7,857,751. It has since fluctuated considerably, reaching $21,735,827 in 1929 but declining to $19,952,575 in 1931. The revenue from this source in 1938 was $25,606,890.

The gasoline tax is now generally adopted as a means of increasing provincial receipts and has proven to be a lucrative source of revenue. In 1923 only Manitoba and Alberta showed gasoline-tax revenue, the total being $280,404. In 1924 the five Provinces of Prince Edward Island, Quebec, Manitoba, Alberta, and British Columbia collected such revenue to the amount of $559,543, while in 1925 the same provinces, with Ontario added, collected $3,521,388. In 1926 all provinces, except Saskatchewan, collected gasoline taxes to the amount of $6,104,716, in 1927 to $7,615,907, and in 1928 to $9,151,735; thereafter, gasoline taxes were collected in all provinces and amounted to $17,237,017 in 1929, $20,956,590 in 1930, $23,859,067

in 1931, $24,987,273 in 1932, $25,931,480 in 1933, $26,812,275 in 1934, $20,474,977* in 1935, $32,310,353 in 1936, $35,415,061 in 1937, and $39,688,974 in 1938. The higher yields in recent years, however, were due partly to higher rates of taxation. The general rates of taxation at present (1940) in force are 10 cents in the Maritime Provinces, 8 cents in Quebec and Ontario, and 7 cents in the Western Provinces; certain exemptions are allowed in each province.

The provincial revenues from the liquor traffic increased considerably between 1925 and 1930, but subsequently declined until 1934, again increasing in 1938. The adoption of government control of the sale of liquor in one province after another, until now it exists in all but Prince Edward Island where prohibition is still in force, has resulted in trading profits, licensing revenues, and permit fees, all of which have swelled the provincial revenues. Prior to the adoption of government control, such revenues were not available to the provinces. In 1925 the total revenue collected by all provinces from the liquor traffic was $8,964,824; in 1926 it was $11,609,392, increasing to $27,599,687 by 1929. In 1933 such revenue amounted to $16,160,980, in 1934 to $12,814,120, in 1935 to $12,886,197, in 1936 to $19,338,366, in 1937 to $25,913,699, and $27,962,194 in 1938. The method of control varies somewhat as between the provinces. In the majority of cases there are independent commissions or boards to administer the provincial liquor traffic Acts, but the accounting and trading profits are shown somewhat differently in the various provincial public accounts reports.†

Fiscal Years of the Provinces.—The fiscal years of the provinces are as follows: P.E.I., Dec. 31; N.S., Sept. 30 prior to 1935 and Nov. 30 thereafter; N.B., Oct. 31; Que., June 30; Ont., Oct. 31 prior to 1935 and Mar. 31 thereafter; Man. and Sask., Apr. 30; Alta. and B.C., Mar. 31.

* The wide difference between the figure for 1935 and that for 1936 is accounted for largely by the change in the fiscal year for the Province of Ontario from Oct. 31 to Mar. 31, so that the Ontario figures for 1935 included in the 1935 total were for five months only.

† See Chapter XVII, pp. 626-630, and also the report of the Dominion Bureau of Statistics on "The Control and Sale of Liquor in Canada".

29.—Ordinary Revenues and Expenditures of the Provincial Governments for Their Respective Fiscal Years Ended in the Census Years 1871-1926 and in Each Year from 1931-37.

NOTE.—For provincial ordinary revenues and expenditures in all other provincial fiscal years since Confederation, see the 1932 Year Book, pp. 734-736. Figures for intervening years between 1916 and 1931 are given at p. 875 of the 1938 Year Book. For dates on which the fiscal years of the provinces end, see text above.

Year.	Prince Edward Island.		Nova Scotia.		New Brunswick.		Quebec.	
	Revenue.	Expenditure.	Revenue.	Expenditure.	Revenue.	Expenditure.	Revenue.	Expenditure.
	$	$	$	$	$	$	$	$
1871	385,014	406,236[1]	525,824	600,344	451,076	438,407	1,632,032	1,575,545
1881	275,380	261,276[1]	476,445	494,582	607,445	598,844	3,191,779	3,566,612
1891	274,047	304,486[1]	661,541	692,538	612,762	680,813	3,457,144	4,095,520
1901	309,445	315,326	1,090,230	1,088,927	1,031,267	910,346	4,563,432	4,516,554
1906	258,235[2]	264,135[1,2]	1,391,629	1,375,588	887,202	879,066	5,340,167	5,179,817
1911	374,798	398,490[1]	1,625,653	1,790,778	1,347,077	1,403,547	7,032,745	6,424,900
1916	508,455	453,151[1]	2,165,338	2,152,773	1,580,419	1,568,340	9,647,984	9,436,687
1921	769,719	694,042[1]	4,586,840	4,678,146	2,892,905	3,432,512	15,914,521	14,624,088
1926	832,551	756,114[1]	5,744,575	6,327,043	4,206,853	4,078,775	27,206,335	26,401,480
1931	1,149,570	1,453,191[1]	8,104,602	8,194,592	5,980,914	6,761,420	41,630,620	40,854,245
1932	1,206,026	1,277,401[1]	8,874,095	9,037,199	6,495,573	6,898,263	39,349,193	39,933,901
1933	1,263,063	1,392,276[1]	8,013,463	9,632,347	5,691,138	5,770,207	33,324,760	40,165,668
1934	1,385,777	1,656,924[1]	8,876,505	10,168,838	5,809,975	6,434,035	31,018,343	36,612,816
1935	1,535,709	1,912,006[1]	13,642,410[3]	14,540,011[3]	6,486,481	7,189,598	35,195,579	40,134,814
1936	1,718,466	1,743,120[1]	12,841,266	12,689,548	7,330,142	7,755,111	40,497,031	42,420,207
1937	1,830,260	1,951,034[1]	14,101,342	14,038,953	9,630,144	9,601,052	47,924,840	43,956,275

For footnotes, see end of table, p. 867.

29.—Ordinary Revenues and Expenditures of the Provincial Governments for Their Respective Fiscal Years Ended in the Census Years 1871-1926 and in Each Year from 1931-37—concluded.

Year.	Ontario.		Manitoba.		Saskatchewan.	
	Revenue.	Expenditure.	Revenue.	Expenditure.	Revenue.	Expenditure.
	$	$	$	$	$	$
1871	2,333,180	1,816,784	–	–		
1881	2,788,747	2,592,800	121,867	226,808		
1891	4,138,589	4,158,460	590,484	664,432		
1901	4,466,044	4,038,834	1,008,653	988,251	–	–
1906	7,149,478	6,720,179	2,089,652	1,572,691	1,441,258[3]	1,364,352[3]
1911	9,370,834	9,916,934	4,454,190	4,002,826	2,699,603	2,575,145
1916	13,841,339	12,706,333	5,897,807	6,147,780	4,801,064	5,258,756
1921	30,411,396[4]	28,579,688	9,358,956	10,063,139	11,789,920	12,151,665
1926	52,039,855[4]	51,251,781	10,582,537	10,431,652	13,317,398	13,212,483
1931	54,390,092[5]	54,846,994[5]	13,842,511	14,491,673	14,346,010	18,202,677
1932	68,999,855[6]	71,060,654[6]	15,726,641	15,726,641	13,254,871	19,075,161
1933	67,800,543	67,324,118	13,838,339	15,782,904	16,177,784	16,756,421
1934	61,426,935	103,578,686	13,966,921	14,003,533	15,585,918	16,979,911
1935	30,941,953[7]	41,382,625[7]	16,092,546	15,933,111	15,278,905	18,115,533
1936	90,321,896	103,664,602	16,415,993	16,294,294	17,838,692	18,890,607
1937	107,088,435	97,774,496	17,214,854	16,931,472	18,388,857	19,635,392

Year.	Alberta.		British Columbia.		Totals for All Provinces.	
	Revenue.	Expenditure.	Revenue.	Expenditure.	Revenue.	Expenditure.
	$	$	$	$	$	$
1871			191,820[8]	97,692[8]	5,518,946[9]	4,935,008[9]
1881			397,035	378,779	7,858,698[9]	8,119,701[9]
1891			959,248	1,032,104	10,693,815[9]	11,628,353[9]
1906	–	–	1,605,920	2,287,821	14,074,991	14,146,059
1911	1,425,059[2]	1,485,914[2]	3,044,442	2,328,126	23,027,122[9]	21,169,868[9]
1916	3,309,156[10]	3,437,088[10]	10,492,892	8,194,803	40,706,948[9]	38,144,511[9]
1921	5,281,695	6,018,894	6,291,694	10,083,505	50,015,795[9]	53,826,219[9]
1926	11,086,937	13,109,304	15,219,264	15,236,931	102,030,458[9]	102,569,515[9]
1931	11,912,128	11,894,328	20,608,672	19,829,522[11]	146,450,904[9]	144,183,178[9]
1932	15,710,962	18,017,544	23,988,199	27,931,866[11]	179,143,480[9]	190,754,202[9]
1933	13,492,430	18,645,481	25,682,892	32,734,453	193,081,576[9]	214,389,154[9]
1934	15,426,265	17,533,786	23,333,115	26,169,492	184,868,470[9]	200,527,219[9]
1935	15,178,607	17,056,639	22,618,367	22,992,344	175,867,349[9]	229,483,726[9]
1936	15,790,170	17,528,221	25,603,942	24,439,767	160,567,695[9]	181,175,686[9]
1937	16,636,652	18,287,450	29,016,044	26,396,869	232,616,182[9]	248,141,808[9]
1933	20,743,046	20,665,193	31,575,892	28,886,870	268,497,670[9]	253,443,737[9]

[1] Includes expenditure on capital account, which is not separable. [2] Nine months. [3] Fourteen months. [4] Includes capital revenue for lands, which cannot be separated. [5] Exclusive of interest paid by Hydro and other commissions. [6] Taken from the Public Accounts of Ontario. [7] Five months. [8] Six months. [9] See footnotes to figures for individual provinces. [10] Includes small sums of capital revenue or expenditure that cannot be separated. [11] Includes sinking funds taken from capital expenditure (expenditure out of income).

30.—Ordinary Revenues and Expenditures of Provincial Governments per Head of Population for Their Respective Fiscal Years Ended 1931-37.

NOTE.—Per capita figures are calculated on the basis of the population figures given at p. 103. See also headnote to Table 29. Figures for the census years 1871-1930 are given at p. 911 of the 1939 Year Book.

Year.	Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Average for All Provinces.
	$	$	$	$	$	$	$	$	$	$
	ORDINARY REVENUES.									
1931	13·06	15·80	14·66	14·48	15·85[1]	19·77	15·56	21·46	34·56	17·27[2]
1932	13·55	17·10	15·73	13·52	19·86[2]	22·18	14·21	18·23	36·48	18·13[2]
1933	14·19	15·35	13·55	11·22	19·02	19·49	17·36	20·62	32·77	17·31
1934	15·57	16·91	13·67	10·28	16·93	19·64	16·72	20·08	31·20	16·22
1935	17·26	25·89[4]	15·12	11·49	8·42[5]	22·63	16·41	20·67	34·84	14·68[2]
1936	18·68	23·91	16·85	13·08	24·48	23·09	19·16	21·55	38·69	21·09
1937	19·68	26·02	21·89	15·29	28·86	24·01	19·58	26·66	42·05	24·15
	ORDINARY EXPENDITURES.									
1931	16·51[6]	15·97	16·57	14·22	15·98[1]	20·70	19·74	24·61	40·25[7]	18·38[2]
1932	14·35[6]	17·41	16·70	13·72	20·45[2]	22·18	20·44	25·20	46·50	19·77[2]
1933	15·64[6]	18·45	13·74	13·52	18·89	22·23	17·98	23·44	36·75	18·77[2]
1934	18·62[6]	19·37	15·14	12·13	28·54	19·70	18·22	22·56	31·71	20·11[2]
1935	21·48[6]	27·59[4]	16·76	13·11	11·27[5]	22·41	19·46	22·94	33·25	16·57[2]
1936	18·95[6]	23·63	17·83	13·70	28·09	22·92	20·29	23·69	35·20	22·50[2]
1937	20·98[6]	25·90	21·82	14·02	26·35	23·62	20·91	26·56	38·46	22·79[2]

[1] Exclusive of interest paid by Hydro and other commissions. [2] See footnotes to figures for individual provinces. [3] Taken from Public Accounts of Ontario. [4] Fourteen months. [5] Five months. [6] Includes expenditure on capital account which is not separable. [7] Including sinking funds taken from capital expenditure (expenditure out of income).

Subsection 2.—Provincial Debts and Assets.

Bonded Indebtedness of the Provinces.—Of the total liabilities of the provinces the major part is represented by bonded debt owing to the public in Canada and abroad. The total gross bonded debt amounted to $1,533,524,253 in 1938 as compared with only $218,875,927 in 1916, an increase of over 600 p.c. in the 22 years. In addition to this bonded debt there were treasury bills outstanding on provincial accounts amounting to $229,361,796 for 1938. The rapid rise in the bonded debt of the provinces is accounted for largely by the development of public ownership of utilities (such as the "Hydro" in Ontario), the extension of the highways and surfaced roads systems in all provinces (highway debentures outstanding in 1938 accounting for $639,658,405 of the provincial debt), and the requirements for the promotion of industrial activities and public and social welfare. These demanded heavy expenditures that could not easily be met out of current revenue. The borrowings, while increasing the public debt, are in the main considered justifiable, as the public utilities are in most cases meeting from their revenues the interest on indebtedness incurred in their construction, and the provincial assets generally are sound enough to take care of capital investment for other services that are necessary to develop the country.

31.—Gross Bonded Debt (Exclusive of Treasury Bills) of Provincial Governments, by Provinces, for Their Respective Fiscal Years 1916, 1921, 1926, and 1931-38.

NOTE.—Figures for intervening years, from 1917-30, are given at p. 877 of the 1938 Year Book. For dates on which the fiscal years of the provinces end, see p. 866.

Year.	Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.
	$	$	$	$	$
1916	733,000	13,443,087	9,100,647	38,346,128	52,411,401
1921	858,000	20,678,267	23,573,432	51,652,113	184,693,420
1926	1,873,000	35,986,324	35,325,909	78,004,926	280,559,094
1931	2,104,000	60,325,613	45,858,996	84,235,292	455,375,344
1932	3,504,000	61,740,747	58,739,663	91,987,692	499,986,011
1933	3,754,000	66,439,880	61,935,163	110,237,892	522,687,345
1934	4,554,000	73,476,013	63,570,920	126,518,007	600,454,102
1935	5,754,000	85,866,647	67,562,920	149,748,007	594,088,188
1936	6,029,000	86,974,113	74,049,920	164,747,607	602,027,288
1937	6,104,000	92,969,247	76,613,920	195,170,199	576,886,147
1938	6,690,000	102,666,380	89,801,573	257,576,099	585,557,531

Year.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Total.
	$	$	$	$	$
1916	30,396,274	24,292,044	29,000,200	21,153,146	218,875,927
1921	61,929,870	41,785,436	59,010,257	46,511,436	490,692,231
1926	64,433,595	54,114,176	86,894,666	71,485,736	708,677,426
1931	81,381,906	85,141,205	106,866,573	95,358,236	1,016,647,165
1932	89,630,906	101,831,236	128,970,593	111,932,236	1,148,323,084
1933	90,938,906	109,209,642	133,837,260	125,332,736	1,224,372,824
1934	90,024,906	112,868,207	129,055,260	129,163,236	1,329,684,651
1935	92,136,606	121,109,740	129,744,260	127,311,236	1,373,321,604
1936	95,480,881	124,446,374	128,140,260	144,398,236	1,426,293,679
1937	94,962,481	124,043,319	127,999,260	145,546,236	1,440,294,809
1938	93,997,481	123,949,693	127,999,260	145,286,236	1,533,524,253

Total Provincial Public Debt.—The statistics of Table 32 have been assembled on as comparable a basis as possible, but differences in Provincial bookkeeping are accountable for minor incomparabilities. New Brunswick, for instance, regards treasury bills as current debt, while Ontario does not consider as "available" assets such items as Dominion Debt Account; Common School Fund; Quebec Turnpike; and Plant, Live Stock, and Equipment. More complete details are given in the footnotes to the table at p. 13 of the Bureau's bulletin "The Public Debt of Canada, Dominion and Provincial Governments, 1938, and Municipalities, 1937".

32.—Debts of Provincial Governments at the Ends of Their Respective Fiscal Years in 1937 and 1938, Showing Bonded Debt with Offsetting Sinking Funds, Treasury Bills, Other Direct Liabilities, Available Assets Offsetting Direct Liabilities, and Indirect Liabilities.

NOTE.—See text at p. 868 *re* minor variations in classification, and for dates on which the fiscal years of the provinces end, see text at p. 866. For details for 1935-36 see the 1937 Year Book, p. 853.

Year and Province.	Direct Liabilities.									Total Indirect Liabilities.
	Funded Debt.					Other Direct Liabilities.	Total Direct Liabilities (less sinking funds).	Assets Available or Realizable[1] (deductible).	Total Net Direct Liabilities.	
	Bonded or Debenture Debt.			Treasury Bills.	Net Funded Debt.					
	Gross.	Sinking Funds (deductible).	Net.							
	$	$	$	$	$	$	$	$	$	$
Totals, 1935	**1,373,321,604**	**95,916,799**[2]	**1,277,404,805**	**185,332,114**	**1,462,736,919**	**158,716,717**	**1,621,453,636**	**646,767,819**	**974,685,817**	**231,294,836**
Totals, 1936	**1,426,293,679**	**105,602,435**[2]	**1,320,691,244**	**232,928,298**	**1,553,619,542**	**180,100,165**	**1,733,719,707**	**649,612,505**	**1,084,107,202**	**224,549,202**
1937.										
Prince Edward Island	6,104,000	1,445,683	4,658,317	Nil	4,658,317	2,095,660	6,753,977	958,299	5,795,678	Nil
Nova Scotia	92,969,247	6,371,632	86,597,615	2,250,000	88,847,615	6,053,366	94,900,981	26,605,648	68,295,333	502,031
New Brunswick	76,613,920	10,032,833	66,581,087	5,865,000	72,446,087	6,160,768	78,606,855	13,194,172	65,412,683	1,948,660
Quebec	195,170,199	21,526,965[2]	173,643,234	22,250,000	195,893,234	51,439,965	247,333,199	55,313,938	192,019,261	8,932,250
Ontario	576,886,147	8,913,016	567,973,131	38,000,000	605,973,131	50,487,217	656,460,348	251,024,309	405,436,039	138,375,600
Manitoba	94,962,481	10,121,984	84,840,497	33,191,158	118,031,655	10,565,886	128,597,541	60,828,401	67,769,140	7,355,409
Saskatchewan	124,043,319	11,414,644	112,628,675	75,758,532	188,387,207	11,103,661	199,490,868	71,512,855	127,978,013	37,312,658
Alberta	127,999,260	11,399,555	116,599,705	26,887,498	143,487,203	19,475,507	162,962,710	38,621,544	124,341,166	7,795,619
British Columbia	145,546,236	32,620,668	112,925,568	37,395,986	150,321,554	23,028,942	173,350,496	30,917,050	142,433,446	48,422,915
Totals, 1937	**1,440,294,809**	**113,846,980**[2]	**1,326,447,829**	**241,598,174**	**1,568,046,003**	**180,410,972**	**1,748,456,975**	**548,976,216**	**1,199,480,759**	**250,645,142**
1938.										
Prince Edward Island	6,690,000	1,580,679	5,109,321	Nil	5,109,321	2,907,841	8,017,162	971,627	7,045,535	Nil
Nova Scotia	102,666,380	7,020,270	95,646,110	"	95,646,110	3,353,189	98,999,299	26,822,283	72,177,016	1,504,934
New Brunswick	89,801,573	10,733,098	79,068,475	4,450,000	83,518,475	3,532,678	87,051,153	9,971,322	77,079,831	2,246,346
Quebec	257,576,099	25,351,171[2]	232,224,928	9,500,000	241,724,928	16,419,790	258,144,718	46,124,367	212,020,351	17,153,564
Ontario	585,557,531	9,884,829	575,672,702	49,000,000	624,672,702	53,401,814	678,074,516	239,780,832	438,293,684	137,308,097
Manitoba	93,997,481	11,373,298	82,624,183	33,496,016	116,120,199	13,589,956	129,710,155	62,543,610	67,166,545	6,973,295
Saskatchewan	123,949,693	12,539,314	111,410,379	65,786,209	177,196,588	12,362,057	189,558,645	71,485,930	118,072,715	53,629,448
Alberta	127,999,260	12,033,078	115,966,182	27,606,948	143,573,130	18,071,919	161,645,049	39,300,322	122,344,727	8,281,687
British Columbia	145,286,236	33,591,706	111,694,530	39,522,623	151,217,153	23,202,512	174,419,665	28,363,448	146,056,217	48,631,262
Totals, 1938	**1,533,524,253**	**124,107,443**[2]	**1,409,416,810**	**229,361,796**	**1,638,778,606**	**146,841,756**	**1,785,620,362**	**525,363,741**	**1,260,256,621**	**275,728,633**

[1] In addition to the available assets shown most of the provinces had partially secured loans and advances for railways, dyking districts, unemployment relief, and seed grain relief, etc., a large portion of which will be realizable. [2] Not including the outstanding amount of a secured loan to the Banque Canadienne Nationale ($12,527,239 in 1938). This item is included here in "Assets available"

Interest Payments and Receipts of the Provinces.—The current burden of a debt in the case of a continuing organization is represented by interest payments, which may be offset in whole or in part by interest received on loans made to provincially owned public utilities or to corporations or individual citizens. In a country where provincial public policy varies widely with regard to public ownership, it appears desirable to include a statement showing, for each province, the gross interest payments, the interest receipts, and the net interest payments. This information, which is subject to revision, is given below for the provincial years ended in 1938. (See text at p. 866 for respective dates.)

Province.	Gross Interest Paid.	Interest Received.	Net Interest Paid.	Net Interest Paid per Capita.[1]
	$	$	$	$
Prince Edward Island	292,050	Nil	292,050	3·11
Nova Scotia	3,925,357	914,227	3,011,130	5·49
New Brunswick	3,529,594	444,816	3,084,778	6·93
Quebec	6,534,205	919,314	5,614,891	1·77
Ontario	27,037,065	9,548,178	17,488,887	4·69
Manitoba	5,763,846	1,892,588	3,871,258	5·38
Saskatchewan	6,711,715	1,784,158	4,927,557	5·24
Alberta	3,937,224	608,225	3,328,999	4·25
British Columbia	8,053,190	339,660	7,713,530	10·14

[1] Estimates of population on which these figures are based are given at p. 103.

Section 3.—Municipal Public Finance.*

The existence of local self-governing units has always been characteristic of democratic societies, and nowhere more so than in Canada. The struggle for responsible government was naturally accompanied by an agitation for local self-government in the cities and towns of Canada and, after responsible government had been conceded, a complete system of municipalities was established throughout the old Province of Canada by the Municipal Act of 1849.† Under the division of powers made by the British North America Act between the Dominion and the Provincial Governments, legislation regarding municipal government, being a local matter, was naturally assigned to the provinces, which differ considerably with regard to their types of municipal organization. Thus, in Prince Edward Island the only incorporated municipalities are the City of Charlottetown and seven incorporated towns. In British Columbia seven of the 33 cities have fewer than 1,000 people, while there are no towns at all and only 18 villages; again, in the same Province the rural districts are mainly administered from the Provincial capital, there being only 28 rural municipalities. Finally, in Saskatchewan and Alberta

* Revised by Col. J. R. Munro, Chief of the Finance Branch of the Dominion Bureau of Statistics. This Branch issues statements on "Financial Statistics of Urban Municipalities of 10,000 Population and Over", on "Bonded Indebtedness of Municipalities", and on "Assessment Valuations of Municipalities". For a list of publications see Chapter XXIX, Section 1, under "Finance".

† For a brief outline of the rise of the municipal system of Ontario, see 1922-23 Year Book, p. 108.

there exist local improvement districts (areas that have not as yet been organized into rural municipalities) where the taxes are levied, collected, and expended by the Provincial Governments. Such districts, however, may be regarded as on the way to becoming self-governing rural municipalities. Their statistics are therefore included in Table 33.

33.—Municipalities in Canada, by Provinces and Classes, 1937.

Province.	Cities.	Towns.	Villages.	Counties.	Other Rural Municipalities.	Local Improvement Districts.	Suburban Municipalities.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
P.E. Island	1	7	Nil	Nil	Nil	Nil	Nil	8
Nova Scotia	2	43	"	1	24	"	"	69
New Brunswick	3	20	2	15	Nil	"	"	40
Quebec	26	106	304	76	1,037	"	"	1,549
Ontario	27	146	156	38[2]	571[3]	"	"	938
Manitoba	4	31[4]	22	Nil	112	"	5	174
Saskatchewan	8	82	382	"	302	82	Nil	856
Alberta	7	53	146	"	158	240	"	604
British Columbia	33	Nil	18	"	28	Nil	"	79
Totals	**111**	**488**	**1,030**	**129**	**2,232**	**322**	**5**	**4,317**

[1] Nova Scotia has 18 counties, some of which are 'municipalities', while others are divided into 'municipalities'. [2] There are 43 counties in all, geographically, but a number are united for municipal purposes. [3] Officially known as 'townships'. [4] Includes Flinflon Municipal District.

Municipal Revenue from Taxation.—As a result of accumulated borrowings to meet conditions peculiar to the depression, the relentless advance of interest charges against realizable taxation has brought about a condition in many municipalities where expenditures are out of all proportion to receipts, in spite of the fact that the trend of interest rates has been definitely downwards. It is natural under such conditions that the general subject of taxation should receive the increasing attention of the public and, of all forms of taxation, the imposition of municipal taxes—where the tax is applied broadly to assessed valuations placed on homes and other real property and on incomes and business—hits the ratepayer's pocket most directly.

In view of the wide public interest in municipal taxation, the Dominion Bureau of Statistics published a bulletin giving as complete a picture as is possible of tax levies and taxation receipts of municipalities, classified into cities, towns, and rural municipalities, by provinces, for the years 1913-37.* The following summary table, taken therefrom, gives figures of tax receipts for these years so far as they are available. Unfortunately, there are certain inconsistencies and omissions, as between provinces, which cannot be overcome owing to the lack of uniformity in the collection of municipal data.

* See the bulletin "Municipal Tax Levies and Receipts, by Provinces", obtainable from the Dominion Statistician.

34.—Tax Receipts of Municipalities in Canada, by Provinces, 1913-37.

Year.	P.E.I.[1]	N.S.	N.B.[2]	Que.	Ont.	Man.	Sask.	Alta.	B.C.
	$	$	$	$	$	$	$	$	$
1913....				[3]					
1914....									[3]
1915....		[3]		33,288,115					
1916....				32,131,489					
1917....				33,222,593			[3]		9,382,099
1918....		3,462,587		36,628,407	[3]			[3]	10,630,355
1919....		3,443,681		47,001,911					14,096,799
1920....		4,099,780		53,929,349					15,519,092
1921....		4,727,730		60,400,650			22,278,621		14,664,292
1922....	[3]	5,229,302	[3]	57,311,990		[3]	27,314,503		14,627,777
1923....		6,367,966		58,857,190			26,079,908		14,506,982
1924....		6,184,398		64,236,251	94,526,271		26,009,764	10,706,183	13,856,416
1925....		6,012,030		65,654,871	94,559,210		27,245,639	9,694,632	14,748,216
1926....		6,397,612		67,779,258	96,703,171		26,300,069	12,433,696	14,858,435
1927....		6,576,609		71,044,091	103,426,618		26,241,928	10,572,853	15,208,181
1928....		6,801,365		62,619,679	107,449,970		27,369,597	9,583,254	16,153,676
1929....		6,813,918		69,450,228	116,693,006		26,612,226	11,005,241	17,345,523
1930....		6,642,094		73,337,620	120,627,896		20,779,829	10,424,676	17,989,046
1931....	168,646	6,605,580	2,598,910	73,761,481	122,316,767	6,998,963[4]	18,392,914	10,255,692	18,260,430
1932....	145,830	6,613,675	2,441,063	79,612,584	121,284,311	17,290,889	17,616,414	12,032,471	17,089,972
1933....	156,135	6,440,471	2,295,247	79,471,242	116,920,000	17,104,553	15,822,648	11,661,595	17,521,554
1934....	164,158	7,108,035	2,207,230[7]	59,729,973[5]	117,892,884	18,187,714	16,624,783	12,218,328	18,002,475
1935....	168,262	7,273,053	2,353,811	59,253,714	122,108,912	16,622,464	16,769,993	10,900,409	17,185,917
1936....	186,152	7,403,541	5,033,039[6]	65,445,212	121,825,930	18,342,869	16,672,335	11,325,644	17,070,680
1937....	198,127	4,804,779	5,090,231	65,354,034	120,502,561	19,127,157	11,376,192	11,405,962	18,006,961

[1] Statistics are for Charlottetown only. [2] Cities of Saint John, Moncton, and Fredericton only for 1931-33; for Saint John and Moncton only for 1934 and 1935. [3] Figures not available. [4] The figure shown is for all municipalities except cities. [5] Statistics are not comparable with those for previous years owing to modification of provincial reports. [6] Statistics of taxation receipts covering all municipalities were published for the first time in 1936.

Municipal Assessments.—The chief basis of municipal tax revenue is the real estate within the limits of the municipalities; though, as indicated above, in certain provinces personal property, income, and business carried on are also taxed. General taxes are normally assessed at the rate of so many mills on the dollar of the assessed valuations. In the Prairie Provinces, the values of improvements made to real property are often rated at a very low figure, e.g., in Saskatchewan, where the taxable valuations of buildings are about 13 p.c. of the taxable valuations of lands, and in Alberta, where they are about 26 p.c. of the taxable valuations of lands, as shown in Table 35.

There are various reasons for fluctuations in assessment valuations, owing to differences in laws and varying practices with regard to assessment in the various classes of municipalities throughout Canada.* Lands in the West, valuations for which in earlier years were somewhat inflated, have of late been assessed on a sounder basis, and in some provinces the Equalization Boards have placed a more equitable valuation on lands as among the various rural municipalities.

* This subject is dealt with more fully in the special report of the Dominion Bureau of Statistics on "Assessment Valuations by Provinces", obtainable from the Dominion Statistician.

35.—Total Assessment Valuations of Municipalities, by Provinces, 1933-37.

NOTE.—Corresponding figures for 1927 and 1928 are given at p. 824 of the 1930 Year Book and for 1929-32 at p. 874 of the 1936 Year Book. Data for earlier years are given in previous editions.

Province.	Taxable Real Property.		Personal Property.	Income.	Total Taxable Valuations.[1]	Exempted Property.
	Land.	Total, Land and Buildings.				
	$	$	$	$	$	$
P.E.I.....1933		33,731,795	6,307,809		40,220,965	5,183,790
1934		33,987,896	6,217,767		40,385,822	5,187,040
1935	[2]	34,065,474	6,322,012	[3]	40,388,851	8,225,030
1936		34,131,877	6,427,925		40,561,202	8,259,050
1937		34,305,065	6,421,647		40,728,099	8,146,550
N.S.....1933		139,323,274	22,616,603[4]	1,198,436[4]	174,180,858	45,513,267
1934		137,808,458	22,071,512[4]	1,081,182[4]	171,701,982	44,961,175
1935	[2]	137,172,626	22,298,294[4]	1,133,393[4]	171,345,143	47,309,476
1936		137,076,180	22,796,404[4]	725,348[4]	171,109,587	45,940,264
1937		186,324,890	21,157,256[4]	1,068,215[4]	219,257,116	47,866,312
N.B.....1933		129,634,462	19,580,954		149,215,416	
1934		126,366,539	19,333,049	[2]	145,699,588	[2]
1935	[2]	123,570,899	18,227,865		141,798,764	
1936		117,976,386	13,072,457	28,024,270	168,456,159	64,319,825
1937		123,329,347	14,584,307	28,622,121	173,705,975	52,009,103
Que.....1933		2,192,446,982			2,240,825,176	741,701,310[5]
1934		2,184,368,606			2,233,093,702	743,230,611[5]
1935	[2]	2,173,591,643	[3]	[2]	2,224,039,302	734,498,153[5]
1936		2,146,101,583			2,199,369,834	738,067,746[5]
1937		2,130,452,112			2,180,743,058	748,078,891[5]
Ont.....1933	1,298,794,571	2,817,352,141		105,838,712[6]	3,163,733,491	578,130,065
1934	1,266,175,295	2,702,400,638		86,035,072	3,023,011,441	587,889,203
1935	[2]	2,685,249,332	[3]	71,500,340	3,000,835,872	380,845,652[7]
1936	1,263,202,479	2,679,132,724		10,930,854[6]	3,002,146,474	386,428,507[7]
1937	1,312,183,104	2,677,749,749		8,633,910[6]	3,003,425,657	391,910,347[7]
Man.....1933		502,767,941	5,769,755		517,628,197	162,430,924
1934		495,428,343	5,595,233		509,753,890	162,235,639
1935	[2]	471,645,195	5,479,320	[3]	487,829,469	159,039,314
1936		461,402,958	5,329,075		477,221,364	159,619,526
1937		455,012,254	5,398,365		471,012,168	160,179,240
Sask.....1933	959,838,291	1,076,520,081			1,115,773,324	
1934	950,175,177	1,067,714,102			1,106,016,437	
1935	941,489,766	1,058,009,449	[3]	[3]	1,096,061,102	[2]
1936	932,992,544	1,049,145,800			1,087,413,856	
1937	913,548,145	1,030,218,868			1,068,558,074	
Alta.....1933	445,610,003[1]	567,605,428[1]			586,965,175	
1934	437,678,242[1]	560,408,966[1]			577,407,878	[2]
1935	383,233,937[1]	501,630,807[1]	[3]	[3]	518,180,058	
1936	384,883,284[1]	501,092,352[1]			519,710,605	
1937	454,250,660[1]	570,663,047[8]			588,072,856	1,381,988[9]
B.C.....1933	277,291,181	640,461,800			640,461,800	145,988,409
1934	268,996,902	625,762,235			625,762,235	146,434,234
1935	243,225,090	583,756,323	[3]	[3]	583,756,323	146,685,827
1936	242,488,675	452,684,537			452,684,537	146,925,242
1937	230,845,861	440,372,156			440,372,156	150,939,644
Totals.....1933		**8,099,843,904**[11]			**8,629,004,402**[11]	
1934		**7,934,245,783**[11]			**8,432,832,975**[11]	
1935	[10]	**7,768,691,748**[11]	[10]	[10]	**8,264,234,884**[11]	[10]
1936		**7,578,744,397**[11]			**8,118,673,618**[11]	
1937		**7,648,427,488**[11]			**8,185,875,159**[11]	

[1] Includes certain taxable valuations not specified. [2] Not available. [3] No assessment in this province. [4] In Nova Scotia personal property and income assessments for cities are for Sydney only. [5] Includes property temporarily exempted. [6] Corporation income only. [7] Cities only. [8] In 1937 figures include $1,381,988 statutory exemptions for municipal districts not separable. [9] Municipal districts only. [10] Complete totals not available. [11] In interpreting these totals, footnotes to the constituent items should be noted.

Bonded Indebtedness.—Like other Canadian governing bodies the municipalities of the greater part of Canada borrowed rather freely during the boom period of 1900-12, and again during the nineteen-twenties. The figures of Table 36 show that there was an increase in 1937 over 1936 in the Provinces of Prince Edward Island, Nova Scotia, and Quebec; the others showed a decrease.

36.—Total Bonded Indebtedness of All Classes of Municipalities, by Provinces, 1919-37.

NOTE.—Figures are for gross debenture debt unless otherwise indicated.

Year.	Prince Edward Island.[1]	Nova Scotia.	New Brunswick.[1]	Quebec.	Ontario.
	$	$	$	$	$
1919	970,100	17,863,881	11,188,467	199,705,568	243,226,877
1920	1,086,500	19,192,462	10,841,466	224,269,714	269,727,271
1921	1,202,200	22,451,743	7,578,567	230,955,538	317,613,283
1922	1,254,900	23,541,759	10,025,633	246,920,376	349,276,606
1923	1,290,800	24,248,782	7,974,362	260,907,356	376,512,002
1924	1,143,550	25,348,664	17,350,225	276,834,787	430,010,501
1925	1,163,050	25,722,635	10,660,863	281,213,213	405,178,853
1926	1,247,545	26,281,152	17,091,550	296,746,090	413,474,813
1927	1,452,425	28,381,616	15,707,699	313,416,960	434,464,056
1928	1,515,125	29,049,412	19,584,335	335,784,811	435,912,807
1929	1,598,624	29,029,119	21,343,890	352,291,456	451,936,592
1930	1,863,211	30,182,264	20,942,988[1]	384,763,515	485,280,182
1931	1,959,672	31,386,025	22,165,501	427,815,926	499,002,074
1932	2,129,350	31,606,140	24,752,873	463,613,696	504,755,977
1933	2,147,650[1]	32,772,717	24,667,909	479,608,472	494,433,956
1934	2,348,275	33,318,115	26,495,037	493,867,826	483,952,700
1935	2,479,550	33,866,913	27,538,898	500,788,727	461,653,182
1936	2,510,675	34,211,220	26,796,910	513,113,001	431,546,483
1937	2,901,175	34,695,716	26,591,813	513,533,544	425,744,206

Year.	Manitoba.	Saskatchewan.[2]	Alberta.	British Columbia.	Total.[3]
	$	$	$	$	$
1919	55,562,788	39,585,388[4]	66,870,464[4]	94,741,615	729,715,148
1920	57,820,588	40,611,271	57,205,275[4]	96,107,911	776,862,458
1921	65,463,239	41,180,255	53,429,558[4]	97,495,984	837,370,367
1922	68,811,040	59,719,165	60,832,650[4]	98,761,630	919,143,759
1923	73,908,963	59,011,174	70,999,611[4]	96,273,987	971,127,037
1924	73,944,105	57,763,699	65,414,317[4]	96,106,151	1,043,915,999
1925	79,211,867	55,835,505	57,908,593[4]	99,055,201	1,015,949,780
1926	80,716,272	54,844,759	56,950,712[4]	102,853,228	1,050,206,121
1927	83,017,302	54,361,158	62,414,660[4]	107,376,118	1,100,591,994
1928	85,651,906	53,092,330	63,428,853[4]	110,124,819	1,134,144,398
1929	85,901,404	54,913,100	78,473,392	118,483,618	1,193,971,195
1930	84,879,707	59,000,183	78,645,803	125,832,088	1,271,389,941
1931	91,615,195	59,146,592	78,679,571	129,913,890	1,341,684,446
1932	92,471,256	59,238,281	76,892,413	129,332,791	1,384,792,777
1933	96,076,856[5]	57,288,400	69,455,181	128,094,159	1,384,545,300
1934	90,767,215	55,692,110	67,886,011	127,172,942	1,381,500,231[6]
1935	95,557,149[7]	55,519,672	67,251,233	127,370,560	1,372,025,884[6]
1936	95,883,699[7]	55,582,491	67,641,130	125,838,619	1,353,124,228
1937	94,487,659[7]	55,507,932	60,964,770	122,780,368	1,337,207,183

[1] Statistics above the rule are not strictly comparable, owing to the varying number of municipalities reporting. [2] Statistics of school debt for villages and rural municipalities not included. [3] Footnotes on constituent items should be noted in interpreting these totals. [4] Net debenture debt. [5] Includes deferred liabilities, not separable. [6] Revised since the publication of the 1939 Year Book. [7] Includes schools.

37.—Principal Financial and Other Statistics of Canadian Cities and Towns with Populations of 10,000 or Over, 1937.

Province and City.	Area.	Population as Furnished by Municipality.	Total Assessed Value of Taxable Property.	Grand Total Receipts.	Grand Total Expenditures.	Total Assets.	Total Liabilities.
	acres.	No.	$	$	$	$	$
Prince Edward Island—							
Charlottetown	810	13,883	9,153,663	323,629	342,858	3,536,040	2,729,628
Nova Scotia—							
Halifax	4,403	59,275	99,797,270	2,536,452	2,531,826	12,435,014[1]	22,516,970
Sydney	3,730	26,000	12,168,259	984,695	992,989	1,914,899[1]	4,025,704
Glace Bay	6,400	24,000	5,312,150	515,144	517,771	788,541	1,976,918
New Brunswick—							
Saint John	13,440	50,000	46,301,300	2,825,040	2,574,299	17,001,942	10,356,086
Moncton	2,093	21,632	22,923,440	1,130,635	1,130,635	7,834,338	7,235,731
Fredericton	10,790	10,135	10,200,180	461,945	402,332	2,069,909	1,053,023
Quebec—							
Montreal	32,254	885,000	947,742,839	43,602,062	44,903,630	426,375,352	415,996,088
Quebec	5,754	151,432	121,088,197	6,150,903	6,366,628	56,515,107	55,643,986
Verdun	1,416	63,582	41,758,500	2,282,103	2,291,173	18,456,128	18,055,597
Three Rivers	2,560	42,000	29,011,993	2,020,733	2,059,635	16,625,165	18,572,544
Sherbrooke	3,104	31,832	28,606,884	1,897,088	1,866,095	14,220,669	9,557,364
Hull	4,000	30,154	20,094,244	1,474,015	1,504,407	7,608,847	7,661,711
Outremont	975	29,850	37,120,958	1,409,491	1,405,264	10,796,689	10,649,243
Westmount	976	26,000	67,451,875	2,223,541	2,103,256	16,640,634	15,216,722
Lachine	2,996	19,552	19,706,568	905,354	897,644	10,340,717	9,038,807
Shawinigan Falls	1,610	17,600	26,828,330	827,598	821,683	7,572,245	7,271,270
St. Hyacinthe	1,170	16,532	14,716,193	499,175	494,887	3,645,806	2,055,010
Chicoutimi	1,570	14,068	7,100,307	302,169	375,156	3,731,215	2,896,043
Valleyfield	600	13,411	6,770,325	350,939	344,228	2,061,164	1,790,135
St. Jean	1,331	12,850	11,702,902	378,458	367,707	3,032,039	2,397,873
Granby	960	12,700	7,233,346	244,882	259,397	1,857,398	1,297,522
Joliette	1,288	12,467	5,820,842	322,956	328,856	2,698,191	1,683,664
Lévis	2,222	11,873	6,003,614	272,508	284,383	2,231,934	2,206,383
Sorel	2,000	11,509	5,663,940	247,896	271,071	2,441,449	2,512,774
Jonquière	1,800	11,500	4,378,080	293,298	266,905	2,933,753	2,882,266
Thetford Mines	2,080	11,250	6,133,250	215,424	222,257	1,527,637	547,412
Cap de la Madeleine	4,275	10,375	5,831,395	192,370	215,712	1,927,066	1,821,602
St. Jérôme	9,404	10,172	4,820,540	242,357	233,737	2,037,136	1,196,895
Ontario—							
Toronto	12,932	648,309	974,088,170	36,481,641[2]			
Hamilton	9,273	153,527	164,649,920	7,027,198[2]			
Ottawa	3,211	142,852	155,084,619	6,800,874[2]			
Windsor	4,135	102,704	93,272,633	4,427,745[2]			
London	7,231	74,281	81,918,905	3,529,936[2]			
Kitchener	3,270	32,550	26,122,591	1,349,272[2]			
Brantford	1,709	31,282	26,705,468	1,293,266[2]			
St. Catharines	1,860	27,426	24,170,001	1,160,043[2]			
Sudbury	1,479	26,315	13,380,255	901,705[2]			
Oshawa	2,589	24,844	16,431,975	991,565[2]			
Kingston	2,641	24,331	18,981,180	906,109[2]			
Fort William	9,865	24,020	28,748,147	1,228,301[2]			
Sault Ste. Marie	3,216	23,627	19,046,253	802,747[2]			
Timmins	620	23,622	12,208,926	581,733[2]			
Peterborough	1,898	23,450	24,346,325	940,219[2]	[3]	[3]	[3]
Guelph	2,476	21,333	13,888,108	812,156[2]			
Port Arthur	3,109	20,302	26,041,546	1,069,119[2]			
Niagara Falls	1,204	18,747	18,284,102	854,817[2]			
Sarnia	1,375	18,155	17,948,860	745,272[2]			
Stratford	1,877	17,615	13,727,535	722,479[2]			
St. Thomas	1,898	16,208	15,094,174	645,754[2]			
Chatham	1,000	16,153	14,322,343	537,872[2]			
North Bay	1,379	15,287	9,519,825	641,744[2]			
Belleville	1,800	14,560	10,326,955	619,092[2]			
Galt	1,330	14,410	11,016,215	517,310[2]			
Owen Sound	2,148	13,118	8,639,537	429,910[2]			
Cornwall	700	12,870	9,715,604	306,060[2]			
Woodstock	1,525	11,382	7,465,645	330,991[2]			
Welland	768	10,924	9,847,162	473,751[2]			
Pembroke	1,323	10,364	4,864,713	262,712[2]			

[1] In addition there were capital assets amounting to over $13,000,000 for Halifax and over $3,000,000 for Sydney. [2] Total receipts are not available; this figure of total tax collections represents by far the major portion of receipts. [3] Owing to a revision of the system of reporting municipal statistics, incomplete returns only are available for receipts, expenditures, assets, and liabilities.

37.—Principal Financial and Other Statistics of Canadian Cities and Towns with Populations of 10,000 or Over, 1937—concluded.

Province and City.	Area.	Population as Furnished by Municipality.	Total Assessed Value of Taxable Property.	Grand Total Receipts.	Grand Total Expenditures.	Total Assets.	Total Liabilities.
	acres.	No.	$	$	$	$	$
Manitoba—							
Winnipeg	15,287	215,814[1]	202,933,208	[2]	[2]	47,712,090[3]	80,000,413
Brandon	5,427	16,461[1]	11,289,948	[2]	[2]	3,994,240[3]	4,559,767
St. Boniface	11,642	16,275[1]	8,771,970	[2]	[2]	6,677,475[3]	8,583,805
Saskatchewan—							
Regina	8,936	54,250[1]	42,241,360	5,711,504	5,781,797	27,719,512	18,937,412
Saskatoon	8,000	42,500[1]	33,107,821	4,893,734	4,651,923	21,462,912	17,897,147
Moose Jaw	9,760	19,500[1]	16,803,075	1,459,507	1,432,341	12,721,287	7,147,906
Prince Albert	9,713	11,350[1]	6,797,804	590,306	574,906	4,911,010	3,839,041
Alberta—							
Calgary	25,920	83,304[1]	60,427,489	5,258,762	5,074,768	[2]	25,709,503
Edmonton	27,200	87,034[1]	53,948,165	9,308,206	6,879,263	[2]	32,638,006
Lethbridge	6,944	13,520[1]	9,550,115	840,381	767,272	[2]	4,285,441
Medicine Hat	10,880	10,000[1]	6,985,600	686,623	650,617	[2]	2,852,578
British Columbia—							
Vancouver	27,965	270,000	216,966,863	13,202,063	14,124,938	88,779,100	80,625,403
Victoria	4,637	39,000	38,804,415	5,951,089	5,762,501	13,849,486	14,410,623
New Westminster	3,481	20,500	16,445,143	2,012,998	2,124,913	8,213,471	7,122,102

[1] Census of 1936 figure. [2] Not available. [3] Real property and public utility assets not included.

Section 4.—National Wealth and Income.

Subsection 1.—National Wealth.

A general idea of the size and composition of the national wealth is essential for the intelligent consideration of many problems, both national and international, although, in view of the numerous elements of uncertainty in a calculation of this nature, the statistics must be regarded as indicative rather than as strictly accurate; when carefully prepared they hold a very important place in a national statistical system.

There are several methods of computing national wealth, i.e., the aggregate value of the public and private property within the nation apart from undeveloped natural resources. Perhaps the most familiar of these methods is that of working back to capital values through income tax returns, but this can be applied only in countries where small as well as large incomes are assessed for income tax. A second method is that of estimation from probate returns, the value of the estates of deceased persons being regarded as representative. A third is that of a complete census, based upon a canvass of the individual. A fourth method, namely, the so-called 'inventory' method, is often employed.* The estimate of Canada's wealth herein presented is based on the inventory principle, i.e., an attempt is made to secure for the nation an approximation of the businessman's inventory of his possessions. This method consists in totalling the amounts invested in agriculture, manufacturing, dwellings, etc. It does not include the value of undeveloped natural resources but only natural wealth that has been appropriated.

The first official estimate of national wealth issued by the Dominion Bureau of Statistics was for 1921, being based on the census data of that year. The national wealth was then placed at $22,195,000,000. Later estimates were $25,673,000,000 for 1925 and $27,668,000,000 for 1927. The estimates for 1921, 1925, and 1927 are not exactly comparable with those for 1929 and 1933 given in Table 38, but are sufficiently so for most purposes. The 1929 estimate presents a picture at the peak of

* An explanation of method and of the background of early estimates of national wealth as applied to Canada will be found in the article "The Wealth of Canada and Other Nations" by R. H. Coats, Dominion Statistician, published in the Journal of the Canadian Bankers' Association, October, 1919.

prosperity, whereas that of 1933 reflects the writing down of values resulting from the depression. The 1933 estimate is the latest that has been published.

Wealth of Canada by Items, 1929 and 1933.—In the items showing the composition of the national wealth, as set out in Table 38, care has been taken to exclude all duplication. For instance, the item "Fisheries" includes only capital invested in primary operations. Capital invested in fish-canning and -curing establishments is included with "Manufactures", though this also might be considered as part of the wealth connected with "Fisheries" Similarly, the items for "Manufactures" do not include lands and buildings in urban centres that are shown under the heading "Urban Real Property".*

* A fuller explanation of the composition of the separate items is contained in the bulletin "Canada's National Wealth", obtainable from the Dominion Statistician.

38.—Estimate of the National Wealth of Canada, with Percentage and Per Capita Distribution of Component Items, 1929 and 1933.

NOTE.—For discussion of these items, see p. 871 of the 1933 Year Book and the bulletin referred to above.

Classification.	Aggregate Amounts.		Percentages of Totals.		Average Amounts per Head of Population.[1]	
	1929.	1933.	1929.	1933.	1929.	1933.
	$'000	$'000	p.c.	p.c.	$	$
Farm values (land, buildings, implements, machinery, and live stock)	6,308,353	4,760,844	20·17	18·48	629·01	445·73
Agricultural products in the possession of farmers and traders	1,631,124	802,946	5·22	3·11	162·64	75·17
Totals, Agricultural Wealth	7,939,477	5,563,790	25·39	21·59	791·65	520·90
Mines (capital employed)	867,021	800,292	2·77	3·10	86·45	74·930
Forests (estimated value of accessible raw materials, pulpwood, and capital invested in woods operations)	2,299,903	2,090,821	7·35	8·11	229·33	195·75
Fisheries (capital invested in boats, gear, etc., in primary operations)	33,935	25,380	0·11	0·10	3·38	2·38
Central electric stations (capital invested in lands and buildings other than office buildings and in equipment, materials, etc.)	1,003,070	1,309,801	3·21	5·08	100·02	122·63
Manufactures (machinery and tools, and estimate for capital in rural lands and buildings, duplication excluded)	1,421,430	949,721	4·55	3·69	141·73	88·92
Manufactures (materials on hand and stocks in process, duplication excluded)	837,805	368,070	2·68	1·43	83·54	34·46
Construction, custom and repair (estimate of capital invested in machinery and tools and materials on hand)	137,685	32,385	0·44	0·13	13·73	3·03
Trading establishments (estimate of the value of furniture and fixtures, equipment and materials on hand)	1,039,584	708,043	3·32	2·75	103·66	66·29
Steam railways (investment in road and equipment)	3,321,033	3,365,464	10·62	13·06	331·14	315·09
Electric railways (investment in road and equipment)	240,111	223,704	0·77	0·87	23·94	20·94
Telephones (cost of property and equipment)	291,589	330,491	0·93	1·28	29·07	30·94
Urban real property (assessed valuations and exempted property and estimate for undervaluation by assessors and for roads, sewers, etc.)	8,251,011	6,913,530	26·38	26·83	822·72	647·27
Canals (amounts expended on construction to Mar. 31, 1930 and 1934)	241,946	267,671	0·77	1·04	24·13	25·06
Harbours (approximate amounts expended to Mar. 31, 1930 and 1934)	405,346	502,264	1·30	1·95	40·42	47·02
Shipping (including aircraft)	150,827	135,506	0·48	0·53	15·04	12·69
Automobiles (estimate of the value of automobiles registered)	690,039	392,211	2·21	1·52	68·81	36·72
Highways, etc.	532,972	689,333	1·70	2·68	53·14	64·54
Household furnishings, clothing, etc. (value estimated from production and trade statistics)	1,370,000	913,397	4·38	3·54	136·60	85·52
Specie, coin, and other currency held by the Government, chartered banks, and the general public	201,030	186,362	0·64	0·72	20·04	17·45
Grand Totals	**31,275,814**	**25,768,236**	**100·00**	**100·00**	**3,118·54**	**2,412·53**

[1] These averages are based on the estimates of population as given in Table 39.

Aggregate and Per Capita Wealth, by Provinces, 1929 and 1933.—For 1933 Ontario and Quebec led in absolute wealth, but Saskatchewan, Alberta, and British Columbia came first in per capita wealth. In 1929 the provinces held the same relative places, both as regards aggregate and per capita wealth.

39.—Provincial Distribution of the National Wealth of Canada, with Percentage and Per Capita Analyses, 1929 and 1933.

NOTE.—Figures for 1921 and 1925 are given at pp. 849-850 of the 1927-28 Year Book, and for 1927 at p. 870 of the 1931 Year Book.

Year and Province.	Estimated Wealth.	Percentage Distribution of Wealth.	Estimated Population, June 1.	Percentage Distribution of Population.	Per Capita Wealth.
1929.	$	p.c.	No.	p.c.	$
Prince Edward Island	167,117,000	0·54	88,000	0·88	1,899
Nova Scotia	925,822,000	2·96	515,000	5·14	1,798
New Brunswick	855,511,000	2·74	404,000	4·03	2,118
Quebec	8,403,854,000	26·87	2,772,000	27·64	3,032
Ontario	10,655,562,000	34·07	3,334,000	33·24	3,196
Manitoba	1,979,141,000	6·33	677,000	6·75	2,923
Saskatchewan	3,088,281,000	9·87	883,000	8·80	3,497
Alberta	2,427,957,000	7·76	684,000	6·82	3,550
British Columbia	2,756,844,000	8·81	659,000	6·57	4,183
Yukon	15,725,000	0·05	4,000	0·04	[1]
Totals, 1929	**31,275,814,000**	**100·00**	**10,029,000**[2]	**100·00**[2]	**3,119**
1933.					
Prince Edward Island	138,699,000	0·54	89,000	0·83	1,558
Nova Scotia	790,290,000	3·07	522,000	4·89	1,514
New Brunswick	730,297,000	2·83	420,000	3·93	1,739
Quebec	6,738,181,000	26·15	2,970,000	27·81	2,269
Ontario	8,795,801,000	34·14	3,564,000	32·99	2,468
Manitoba	1,562,421,000	6·06	710,000	6·75	2,201
Saskatchewan	2,527,147,000	9·81	932,000	8·90	2,711
Alberta	2,035,576,000	7·90	748,000	7·09	2,721
British Columbia	2,430,890,000	9·43	712,000	6·67	3,414
Yukon	18,934,000	0·07	4,000	0·04	[1]
Totals, 1933	**25,768,236,000**	**100·00**	**10,681,000**[2]	**100·00**[2]	**2,413**

[1] As the statistics for Yukon are uncertain, the per capita estimate of wealth is not shown. [2] Includes the population of the Northwest Territories: 9,000 in 1929 and 10,000 in 1933, 0·09 p.c. in both cases.

Analyses of Itemized Wealth, by Provinces, 1929 and 1933.—Detailed statistics of the wealth of each province by leading items are given at pp. 882-883 of the 1936 Year Book.

Subsection 2.—National Income.

The subject of the national income is dealt with at pp. 889-896 of the 1938 Year Book, under the following headings: definition of national income, approaches to the measurement of national income, and income tax statistics as a measure of national income. The statistics shown under the last-named heading have been transferred to Subsection 3 of Sect. 1 of this Chapter, where they appear under the general heading of war tax revenue. The subject of national income as a whole and the revision of the method of estimation are still undergoing investigation by the Bureau, as outlined at p. 891 of the 1938 Year Book. Statistics for the years 1933-34, based upon the Survey of Production, are given at p. 866 of the 1937 Year Book. These are the latest figures published on the old basis.

Subsection 3.—British and Foreign Capital Invested in Canada and Canadian Capital Invested Abroad.*

Because of the increasing complexity and the great variety of forms 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. They are, however, indicative of the general proportions of the investments involved. In using these statistics it should be recognized that changes in value from one year to another do not always reflect actual capital movements between Canada and other countries as there are important changes in the value of 'equity' investments arising from internal operations, such as reinvested profits, for instance, which are quite independent of external factors.

Revised estimates of British and foreign investments in Canada and Canadian investments in other countries were issued in 1938 by the Dominion Bureau of Statistics. Revisions went back to 1926 and revised statistics of international investments will be found for the years 1926 and 1929 to 1937 in tables at p. 930 of the 1939 Year Book. Very marked changes have taken place in Canada's international indebtedness during the present century. The industrial expansion in Canada in the years preceding the War of 1914-18 was related closely to the heavy inflow of capital from Great Britain. In 1914 the value of United Kingdom investments in Canada was not much different from the value shown for recent years, although slightly higher than in 1926. The rapid growth in United States investments in Canada took place after 1914. Part of this increase in the investments of the United States in Canada came after 1926 and there was a change in these investments between 1926 and 1930 of 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 at New York but the capital coming to Canada through the channel of direct investment was also especially heavy and this capital invested directly in Canada has given to such United States investments a particular character. 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.

In 1937 the indebtedness abroad of Canadian governments amounted to $1,698,000,000 of which $514,200,000 represented government securities held by British investors and $1,180,600,000 government securities held by residents of the United States. The total non-resident investments in Canadian railways, $1,632,900,000, was about the same as the total government securities held abroad, but the British investments predominated in this group, being $1,065,600,000 compared with a United States investment of $538,500,000. In most other classes of investment the amounts owned in the United States were larger than the British although the latter were generally substantial.

In appraising Canada's international indebtedness, consideration must also be given to Canadian investments abroad. These have grown from $1,352,800,000

* Revised by Herbert Marshall, B.A., F.S.S., Chief, Internal Trade Branch, Dominion Bureau of Statistics. This subject is treated more fully in the bulletins "British and Foreign Capital Invested in Canada and Canadian Capital Invested Abroad, 1926-36", "Canadian Balance of International Payments—A Study of Methods and Results" and recent reports on direct investments, obtainable from the Dominion Statistician. For a list of the publications of this Branch, see Chapter XXIX.

in 1926 to $1,757,900,000 in 1937. The principal growth was in Canadian portfolio holdings of United States securities although considerable amounts of the securities of Latin American and European governments were also acquired in the earlier part of the period. The increase in the holdings of these miscellaneous investments in other countries has been greater than the increase in total Canadian investments abroad, as there has been a very marked reduction in the net assets of the Canadian banks in other countries during this period.

For 1937, Canadian capital in other countries is estimated at $1,757,900,000. The largest part of this, about $1,097,600,000, was invested in the United States and was principally in the form of direct investments in railways and branch and subsidiary plants and in portfolio investments in the stocks and bonds of United States governments and corporations. Investments in other countries include a miscellaneous item of $382,000,000 representing an estimate of Canadian holdings of other foreign securities such as the bonds of Latin American and European governments. Direct investments in other countries, largely in the British West Indies and Latin America, amounted to $169,600,000.

Of further interest, in considering the relative importance of Canada's international indebtedness in the nation's economic life, is the place Canadian capital occupies in the total amount of capital invested in Canada. It is estimated that the amount of capital invested in Canada is about $18,000,000,000. This sum includes the bonded indebtedness of Dominion, provincial, and municipal governments, investments in railways, all manufacturing concerns, mines and metal industries, public utilities, trading establishments, finance, insurance, land, and mortgages. It does not include private capital in domestic enterprises such as farms, homes, etc. Of this sum, it is estimated that 62 p.c., or over $11,000,000,000, is owned in Canada; about 22 p.c., or $3,932,400,000, in the United States; 15 p.c., or $2,684,800,000, in the United Kingdom; and less than 1 p.c., or $147,800,000, in other countries.

Investments of Canadian Insurance Companies Operating Abroad.—Insurance investments, so-called, are not investments of quite the same character as the other items shown in the tables. The large assets in other countries held by Canadian insurance branches in those countries have against them, besides ordinary liabilities, the fiduciary interest of the policyholders. In fact, when the prospective claims of policyholders are considered, it appears that, on balance, there is a small net investment of these branches in Canada rather than a Canadian investment abroad. This is possible because the assets underlying the reserve funds need not all be held abroad. On the other hand, the fact that assets can be transferred between countries gives an importance to them as a factor in capital movements. Again, British and foreign securities held by Canadian companies in Canada have already been included as Canadian investments abroad. On account of the ambiguity of the item "Investments of Canadian Insurance Companies Operating in Other Countries" and the fact that it has already been included in another form, it has not been repeated in the tables.

With regard to British and foreign insurance investments in Canada, since there exist net assets in Canada over all liabilities including reserves against future claims of Canadian policyholders, the residual amount is shown in Table 40 as a bona fide investment in Canada.

40.—Estimated British and Foreign Capital Invested in Canada as at Dec. 31, 1937.

NOTE.—Net equities of policyholders, etc., outside of Canada invested in Canada through Canadian insurance companies operating abroad are not shown in this table for the reason given at p. 880. The omission does not materially affect the totals.

Type of Investment.	Invested by Residents of—			Total.
	United Kingdom.	United States.	Other Countries.	
	$'000,000	$'000,000	$'000,000	$'000,000
Government Securities—				
Dominion	317·1	546·6	[1]	863·7
Provincial	61·3	430·8	3·2	495·3
Municil	135·8	203·2	[1]	339·0
Public Utilities—				
Railways	1,065·6	538·5	28·8	1,632·9
Other (traction, light, heat, power, telephone, etc.)	176·0	553·0	9·0	738·0
Manufacturing—				
Wood and paper products	97·0	354·0	2·0	453·0
Metal industries	72·0	334·0	5·0	411·0
All other manufacturing industries	201·0	277·0	9·0	487·0
Mining	90·0	257·0	10·0	357·0
Merchandising and service	73·0	145·0	4·0	222·0
Insurance	85·2	104·9	4·3	194·4
Finance and mortgage corporations	150·8	103·4	42·5	296·7
Miscellaneous (agricultural lands, summer homes, prospecting, assets administered for persons or corporations residing outside Canada, etc.)	160·0	85·0	30·0	275·0
Grand Totals	**2,684·8**	**3,932·4**	**147·8**[1]	**6,765·0**

[1] Some indeterminate parts of the amounts shown as owned in the United Kingdom and possibly some shown as owned in the United States are owned by residents of other countries.

41.—Estimated Canadian Investments Abroad as at Dec. 31, 1937.

NOTE.—Investments held abroad by Canadian insurance companies operating in other countries are not shown in this table for the reason given at p. 880. The omission in its net effect does not materially affect the totals.

Type of Investment.	Canadian Investments in—			Total.
	United Kingdom.	United States.	Other Countries.	
	$'000,000	$'000,000	$'000,000	$'000,000
Canadian Government credits	Nil	Nil	30·9	30·9
Net assets of Canadian banks held outside Canada	10·1	101·5	8·4	120·0
Foreign securities held in Canada by Canadian insurance companies	9·6	161·2	28·5	199·3
Direct investments	13·2	327·9	169·6	510·7
Miscellaneous investments	8·0	507·0	382·0	897·0
Grand Totals	**40·9**	**1,097·6**	**619·4**	**1,757·9**

CHAPTER XXII.—CURRENCY AND BANKING; MISCELLANEOUS COMMERCIAL FINANCE.

CONSPECTUS.

	Page.
Part I.—Currency and Banking	882
Section 1. Historical Sketch	882
Section 2. The Bank of Canada	882
Subsection 1. The Bank of Canada Act and Its Amendments	882
Subsection 2. The Bank of Canada and Its Relationship to the Canadian Financial System	884
Subsection 3. Bank of Canada Operations	885
Section 3. Currency	886
Subsection 1. Canadian Coinage	886
The Royal Canadian Mint	888
Subsection 2. Dominion and Bank of Canada Notes	893
Subsection 3. Chartered Bank Notes	894
Section 4. Monetary Reserves	895
Subsection 1. Bank of Canada Reserves	895
Subsection 2. Chartered Bank Canadian Cash Reserves	896
Section 5. Commercial Banking	896
Subsection 1. Historical	896
Subsection 2. Combined Statistics of Chartered Banks	898
Subsection 3. Statistics of Individual Chartered Banks	906
Section 6. Government and Other Savings Banks	911
Part II.—Miscellaneous Commercial Finance	915
Section 1. Loan and Trust Companies	915
Section 2. Small Loans Companies	919
Section 3. Sales of Canadian Bonds	920
Section 4. Corporation Dividends	922
Section 5. Foreign Exchange	923

In this chapter are assembled the statistics regarding financial institutions and transactions, other than those pertaining to insurance, which are dealt with separately in Chapter XXIII.

PART I.—CURRENCY AND BANKING.

Section 1.—Historical Sketch.

At pp. 900-905, inclusive, of the 1938 Year Book there appears a historical sketch of currency and banking in Canada, in which certain features of a central banking system were traced that finally led up to the establishment of the Bank of Canada. In chronological order these were:—

1. *Central Note Issue*, permanently established with the issue of Dominion notes under legislation of 1868.

2. *The Canadian Bankers' Association*, established in 1900, and designed to effect greater co-operation among the banks in the issue of notes, in credit control, and in various aspects of bank activities.

3. *The Central Gold Reserves*, established by the Bank Act of 1913.

4. *Rediscount Facilities*, although originated as a war measure by the Finance Act of 1914, were made a permanent feature of the system by the Finance Act of 1923, which empowered the Minister of Finance to issue Dominion notes to the banks on the deposit by them of approved securities. This legislation provided the banks with a means of increasing their legal tender cash reserves at will.

Section 2.—The Bank of Canada.

Subsection 1.—The Bank of Canada Act and Its Amendments.

C. 43 of the Statutes of 1934, "An Act to incorporate the Bank of Canada", provided for the establishment of a central bank in Canada. The capital of the Bank was originally $5,000,000, divided into shares of $50 par value. These shares were offered for public subscription by the Minister of Finance on Sept. 17, 1934, and were

largely oversubscribed. The maximum allotment to any one individual or corporation was 15 shares. Shares of the Bank could be held only by British subjects ordinarily resident in Canada, or by corporations controlled by British subjects ordinarily resident in Canada. The maximum holding permitted one person was 50 shares. The Bank commenced business on Mar. 11, 1935.

By an amendment to the Act, passed at the 1936 session of Parliament, the capitalization of the Bank was increased to $10,100,000 by the sale of $5,100,000 Class "B" shares to the Minister of Finance; the original shareholders were designated Class "A".

The Bank of Canada Act was further amended in 1938 (c. 42 of the Statutes of 1938). By this legislation the capital of the Bank was reduced from $10,100,000 to $5,000,000 divided into 100,000 shares of the par value of $50 each to be exchanged for the Class "B" shares held by the Minister of Finance which were to be cancelled by the Bank of Canada. All "A" shares, held by the public, were purchased for the sum of $59·20 each plus accrued dividends, and these certificates were also cancelled. This legislation, therefore, brought the Bank of Canada under complete government ownership. Owing to changes in constitution and ownership, adjustments were made in the method of appointing directors as well as in other directions.

The Bank is authorized to pay cumulative dividends of 4½ p.c. per annum from its profits after making such provision as the Board thinks proper for bad and doubtful debts, depreciation in assets, pension funds, and all such matters as are properly provided for by banks. The remainder of the profits will be paid into the Consolidated Revenue Fund of Canada and to the Rest Fund of the Bank in specified proportions until the Rest Fund is equal to the paid-up capital, when all the remaining profits will be paid into the Consolidated Revenue Fund.

The Bank may buy and sell securities of the Dominion and the provinces without restriction if of a maturity not exceeding two years, and in limited amounts if of longer maturity: short-term securities of the Dominion or provinces may be rediscounted. It may also buy and sell short-term securities of British Dominions, the United States, or France without restriction, if maturing within six months, and such securities having a maturity exceeding six months in limited amounts. The Bank may buy and sell certain classes of commercial paper of limited currency, and, if endorsed by a chartered bank, may rediscount such commercial paper. Advances for six-month periods may be made to chartered banks, Quebec Savings Banks, the Dominion, or any province against certain classes of collateral, and advances of specified duration may be made to the Dominion or any province in amounts not exceeding a fixed proportion of such government's revenue. The Bank may accept from the Dominion or Provincial Governments, or from any chartered bank or any bank incorporated under the Quebec Savings Banks' Act, deposits that shall not bear interest. The Bank may buy and sell gold, silver, nickel, and bronze coin, and gold and silver bullion, and may deal in foreign exchange.

The provisions regarding the note issue of the Bank of Canada are dealt with at p. 893.

The Bank of Canada must maintain a reserve of gold equal to not less than 25 p.c. of its total note and deposit liabilities in Canada. The reserve, in addition to gold, may include silver bullion; balances in pounds sterling in the Bank of England, in United States dollars in the Federal Reserve Bank of New York, and in

gold currencies in central banks in gold-standard countries or in the Bank for International Settlements; treasury bills of the United Kingdom or the United States of America having a maturity not exceeding three months; and bills of exchange having a maturity not exceeding 90 days, payable in London or New York, or in a gold-standard country, less any liabilities of the Bank payable in the currency of the United Kingdom, the United States of America, or a gold-standard country.

The chartered banks are required to maintain a reserve of not less than 5 p.c. of their deposit liabilities payable in Canadian dollars in the form of deposits with and notes of the Bank of Canada.

The Bank acts as the fiscal agent of the Dominion of Canada without charge and may, by agreement, act as banker or fiscal agent of any province. The Bank does not accept deposits from individuals and does not compete with the chartered banks in commercial banking fields.

The head office of the Bank is at Ottawa, and it has an agency in each province, namely, at Charlottetown, Halifax, Saint John, Montreal, Toronto, Winnipeg, Regina, Calgary, and Vancouver.

The Governor of the Bank is its chief executive officer and Chairman of the Board of Directors, and he is assisted by a Deputy Governor and an Assistant Deputy Governor. The first appointments were made by the Government. Subsequent appointments are to be made by the Board of Directors subject to the approval of the Governor in Council.

At the first meeting of the shareholders on Jan. 23, 1935, seven directors were elected by the shareholders for terms to run as follows: one until the third annual general meeting (1938), two until the fourth (1939), two until the fifth (1940), and two until the sixth annual general meeting (1941). Directors are now appointed by the Minister of Finance with the approval of the Governor in Council for terms of three years. There are now eleven directors. Former directors continued in office when the Government took over the management of the Bank. In the transaction of the business of the Bank each director has one vote.

There is also an Executive Committee of the Board of Directors consisting of the Governor, Deputy Governor, and one member of the Board, which must meet once a week. This Committee has the same powers as the Board but every decision is submitted to the Board of Directors at its next meeting. The Board must meet at least four times a year. The Deputy Minister of Finance is an ex officio member of the Board of Directors and of the Executive Committee, but is without a vote.

The Governor, or in his absence the Deputy Governor only, has the power to veto any action or decision of the Board of Directors or the Executive Committee, subject to confirmation or disallowance by the Governor in Council.

Subsection 2.—The Bank of Canada and Its Relationship to the Canadian Financial System.

An article under this title is given at pp. 881-885 of the 1937 edition of the Year Book. It deals with such subjects as the functions of the Bank, its control and regulation of credit and currency, the mechanism by which such control is exercised, the expansion and contraction of credit, the mitigation of general economic fluctuations, the control of exchange operations, the advisory function of the Bank, and its duties as the Government's banker.

Subsection 3.—Bank of Canada Operations.

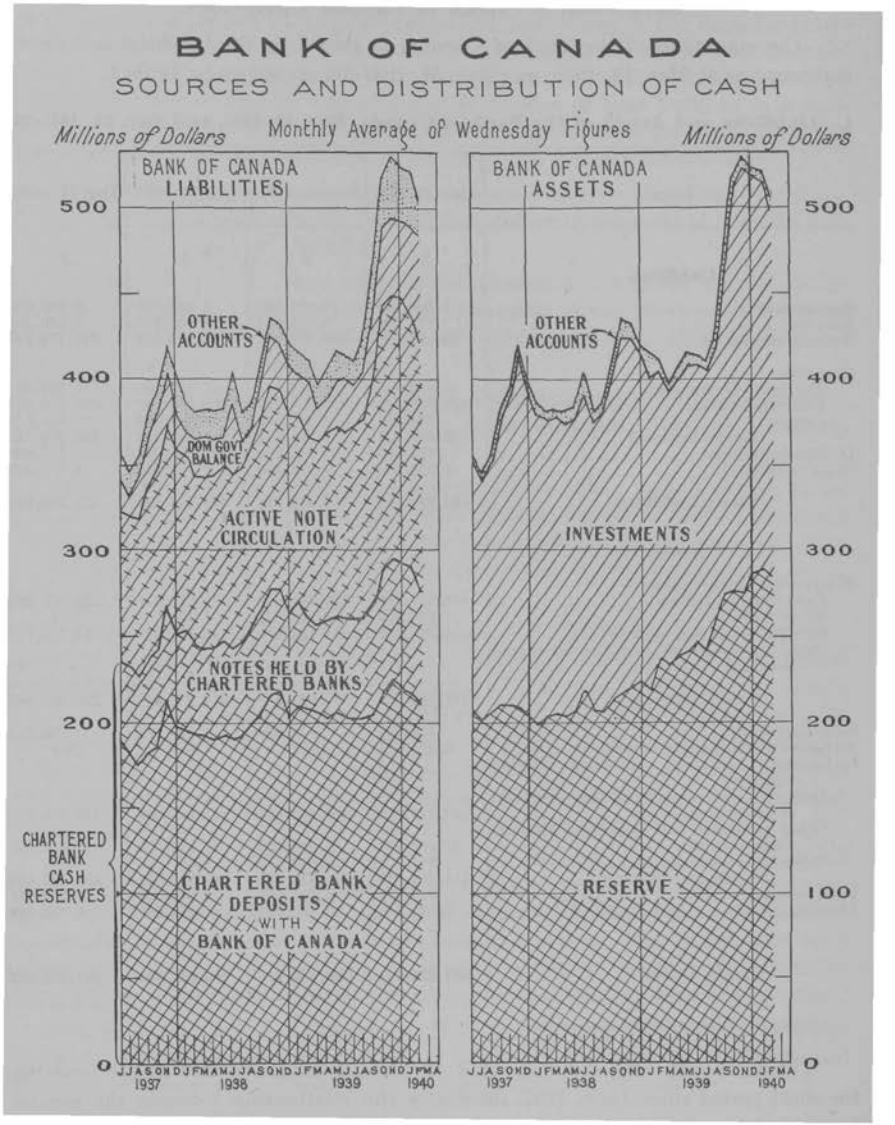
The operations of the Bank of Canada, as shown by the liabilities and assets statement as at Mar. 13, 1935, and Dec. 31, 1937-39, are shown in Table 1.

1.—Liabilities and Assets of the Bank of Canada, Mar. 13, 1935, and Dec. 31, 1937-39.

Item.	Mar. 13, 1935.	Dec. 31, 1937.[1]	Dec. 31, 1938.[1]	Dec. 31, 1939.[1]
Liabilities.	$	$	$	$
Capital paid up	5,000,000	10,100,000	5,000,000	5,000,000
Rest fund	173,092	1,348,414	1,903,515	2,449,757
Notes in circulation	99,677,229	165,330,405	175,259,573	232,779,327
Deposits—				
Dominion Government	*18,262,844*	*12,292,382*	*17,783,300*	*47,362,964*
Chartered banks	*181,636,034*	*196,039,737*	*200,645,826*	*216,996,201*
Other	*766,255*	*3,456,935*	*3,086,373*	*17,851,578*
Totals, Deposits	200,665,133	211,789,054	221,515,499	282,210,743
Dividends declared	113,000	228,260	85,000	112,500
Other liabilities	2,026,698	1,634,083	1,172,015	4,678,505
Totals, Liabilities	**307,655,152**	**390,430,216**	**404,935,602**	**527,230,832**
Assets.				
Reserves (at market values)—				
Gold coin and bullion	180,509,343	179,763,762	185,912,017	225,677,320
Silver bullion	1,638,366	2,992,623	Nil	Nil
Sterling and U.S.A. dollars	4,223,101	14,884,810	28,354,420	64,324,718
Other currencies, of countries on a gold standard	9,215	382	2,005	47
Totals, Reserves	186,380,025	197,641,578	214,268,442	290,002,085
Subsidiary coin	128,778	42,989	220,152	90,273
Advances to Dominion Government	3,465,813	Nil	Nil	Nil
Investments (at not exceeding market values)—				
Dominion and Provincial Government short-term securities	*30,873,169*	*82,343,729*	*144,620,866*	*181,896,820*
Other Dominion and Provincial Government securities	*83,409,675*	*91,564,710*	*40,894,976*	*49,875,738*
Other securities	*Nil*	*12,212,437*	*Nil*	*Nil*
Totals, Investments	114,282,844	186,120,876	185,515,842	231,772,558
Bank premises	111,911	1,167,563	1,647,580	1,635,158
All other assets	3,285,780	5,457,210	3,283,586	3,730,758
Totals, Assets	**307,655,152**	**390,430,216**	**404,935,602**	**527,230,832**

[1] From the Bank's Annual Statement.

The chart on p. 886, showing Bank of Canada liabilities and assets covering the short period since June, 1937, illustrates the relationship between the central bank's balance sheet and chartered banks' cash reserves. The expansion of Bank of Canada liabilities and assets has provided for increased Bank of Canada notes in active circulation, as the chartered bank-note issue is limited and is gradually being retired under Bank Act regulations, and has somewhat enlarged the cash reserves of the chartered banks. The principal change in Bank of Canada assets since June, 1937, has been the rise in reserve and investments, variations in the latter having been due, in part, to seasonal variation in cash reserves and active note circulation.



Section 3.—Currency.

Subsection 1.—Canadian Coinage.

The present standard of Canada is gold of 900 millesimal fineness (23·22 grains of pure gold equal to one gold dollar). Under the Uniform Currency Act of 1871, gold coin has been authorized but only very limited issues were ever made. The British sovereign and half sovereign, and United States eagle, half eagle, and double eagle

are legal tender. Subsidiary coin consists of 50-, 25-, and 10-cent silver pieces,* 800 fine (reduced from 925 fine in 1920). Such subsidiary silver coin is legal tender to the amount of ten dollars. The 5-cent piece (now made of nickel) is legal tender up to five dollars and the 1-cent bronze coin up to twenty-five cents. There is no provision for the redemption of subsidiary coin.

* The Currency Act of 1910 made provision for a silver dollar and a 5-cent silver coin. The former was not coined until 1935, when a limited issue was made as a jubilee coin. The 5-cent silver coin was coined freely until 1921. It still has limited legal tender but has been replaced in the coinage by the nickel 5-cent piece.

2.—Particulars of Canadian Coinages Current in 1940.

Coin.	Thickness of Blank.	Diameter of Coin.		Fineness.	Legal Weight.			Legal Remedy— of Weight.		Legal Remedy— of Fineness.	Amount for which Legal Tender.
	in.	in.	mm.	1,000 ths.	grns.	oz.	grams.	grns.	grams.	1,000ths.	$
Gold—											
$10	·068	1·060	26·92	900	258	·5375	16·72	·4	·026	1	any amount.
$ 5	·053	·850	21·59	900	129	·26875	8·36	·25	·016	1	any amount.
Silver—											
$ 1	·09375	1·40	35·56	800	360	·75	23·33	1·50	·097	6	10·00
50c	·064	1·170	29·72	800	180	·375	11·66	1·50	·097	6	10·00
25c	·051	·930	23·62	800	90	·1875	5·83	1·00	·055	6	10·00
10c	·035	·705	17·91	800	36	·075	2·33	per 10 pieces. 3·00	·194	6	10·00
Nickel— 5c	·055 to ·057	·835	21·21	1,000	70	lb.av. ·01	4·54	per lb. of 100 pieces. 100·00	6·480	15	5·00
Bronze— 1c	·0495	·750	19·05	Cu. 955 Sn. 30 Zn. 15	50	·007	3·24	per lb. of 140 pieces. 140·00	9·072	-	0·25

3.—Circulation of Canadian Coin as at Dec. 31, 1926-39.

NOTE.—The figures are of net issues of coin from 1858 to the years given.

Date.	Silver.	Nickel.[1]	Bronze.	Total.	Per Capita.
Dec. 31—	$	$	$	$	$
1926	27,433,463	564,865	2,043,833	30,042,161	3·18
1927	27,104,534	813,784	2,080,196	29,998,514	3·11
1928	27,737,963	1,063,627	2,171,657	30,973,247	3·15
1929	28,638,195	1,330,498	2,290,789	32,259,482	3·22
1930	28,562,330	1,494,525	2,297,405	32,354,260	3·17
1931	28,706,348	1,775,139	2,346,054	32,827,541	3·16
1932	28,853,740	1,939,923	2,558,962	33,352,625	3·17
1933	28,530,340	2,064,054	2,678,302	33,272,696	3·12
1934	28,702,640	2,256,268	2,745,296	33,704,204	3·11
1935	28,407,168	2,449,278	2,818,341	33,674,787	3·08
1936	28,442,074	2,650,891	2,904,288	33,997,253	3·08
1937	29,387,857	2,899,361	3,003,286	35,290,504	3·17
1938	30,482,924	3,051,594	3,091,873	36,626,391	3·27
1939	32,236,145	3,355,906	3,276,771	38,868,822	3·44

[1] Nickel coins were first issued in 1922.

4.—Annual Receipts of Gold Bullion at the Royal Canadian Mint, and Bullion and Coinage Issued, 1926-39.

Year.	Gold Received.	Gold Bullion Issued.	Silver Coin Issued.	Nickel Coin Issued.	Bronze Coin Issued.
	fine oz.	fine oz.	$	$	$
1926	1,375,502	1,347,668	50,000	168,500	28,200
1927	1,448,180	1,451,907	574,000	249,000	37,500
1928	1,325,113	1,305,200	867,000	250,000	92,100
1929	438,351	468,384	1,081,000	267,000	123,300
1930	862,075	722,469	326,000	164,500	13,400
1931	1,721,237	1,735,112	475,400	281,000	51,400
1932	2,829,529	2,873,221	287,000	165,000	213,200
1933	2,568,838	2,589,649	155,000	125,000	120,800
1934	3,008,977	3,038,019	172,300	193,000	69,900
1935	3,158,780	3,177,401	601,020	194,000	75,100
1936	3,603,335	3,625,549	809,200	202,600	87,200
1937	3,933,453	3,937,910	1,322,200	251,100	105,400
1938	4,398,258	4,308,067	1,376,000	153,500	184,300
1939	4,869,239	4,834,214	2,794,032	321,000	214,600

THE ROYAL CANADIAN MINT.*

History.—On Jan. 2, 1908, His Excellency the Governor General, Earl Grey, formally opened the Ottawa Branch of the Royal Mint and struck the first coin made in Canada. Previously, all coinages required for Canada had been executed at the Royal Mint, London, or, under its supervision, at the "Mint", Birmingham. Authority for the establishment of the Ottawa Branch of the Royal Mint was the (Imperial) Coinage Act, 1870, and the Ottawa Mint Act passed by the Dominion Parliament in 1901. The work of construction commenced in June, 1905, the Royal Proclamation authorizing the opening of the Ottawa Branch of the Mint was published at Buckingham Palace on Nov. 2, 1907, became effective Jan. 1, 1908, and the Mint was formally opened the next day.

The main purpose of the Ottawa Branch as first constituted was the minting of coins of gold, silver, and bronze for domestic circulation, of British sovereigns and small coins struck under contract for Newfoundland and Jamaica.† Previous to 1911 only small amounts of gold bullion were refined but after that date the increasing amounts of bullion sent to the Mint for refining in the Assay Department soon led to the decision by the Dominion Government to build a refinery. This had actually been begun in 1909, and operations were in active progress by January, 1911, the process being entirely electrolytic. The subsequent great development of the gold-mining industry in Canada has made gold refining one of the principal activities of the Mint. The result was that the refining facilities of the Mint again proved to be entirely inadequate and it was necessary to enlarge the plant. The new equipment installed, designed for the Miller Chlorine Process of refining,

* Revised by H. E. Ewart, M.E.I.C., Master, Royal Canadian Mint, Ottawa.

† There were three important amendments to the Currency Act of 1910 made during the reign of King George V: the first, in 1919, reducing the size and weight of the bronze cent from one inch to three-quarters inch diameter and from 87½ grains to 50 grains; the second, in 1920, reducing the millesimal fineness of the silver coinage from 925 to 800; and the third, in 1921, giving currency to a five-cent pure nickel coin. The latter coin, first issued in 1922, replaced the silver five-cent piece, which had not been struck after 1920.

The first Canadian silver dollar was struck in 1935 commemorating the twenty-fifth anniversary of the accession of His Late Majesty, King George V.

New reverse designs for all subsidiary coins were instituted at the beginning of King George VI's reign in 1937.

speeded up the process materially and the total refining capacity of the Mint was increased to 1,250,000 ounces of fine gold per annum.

During the War of 1914-18, the Ottawa Mint came to the assistance of the British Government by refining South African gold on account of the Bank of England. This necessitated the erection of a temporary building in the Mint grounds. The building was equipped with an entirely new chlorine plant and, by working several shifts, had a capacity of one million ounces of fine gold per month. During the years 1916-18, over nineteen million ounces of South African crude bullion were refined in this plant. After 1918 the supply of South African gold ceased and the refinery operated at normal working capacity on bullion from Canadian sources only.

On Dec. 1, 1931, the Mint was taken over by the Department of Finance on behalf of the Dominion of Canada and is now known as the Royal Canadian Mint. As the gold production in Canada had increased steadily and had been particularly accelerated by the increase in the price of gold from $20·671834 until it reached $35 per fine ounce in 1934, the capacity of the plant was again found inadequate. Therefore, a new refinery with modern machinery was completed late in May, 1936.

Organization of the Ottawa Mint, 1940.—As constituted at present, the Ottawa Mint consists of four principal departments:—

1. The Mint Office, in which all bullion is received for coinage purposes and from which the finished coins are issued to various parts of Canada on requisitions received from the Chief of the Currency Division, Bank of Canada, Ottawa.

2. The Operative Department, with its subdivisions: (a) The Melting House in which the bullion is melted with the requisite alloy into coinage bars. (b) The Coining Department, where the coinage bars are rolled into fillets from which the coin blanks are cut, marked, annealed, blanched, cleaned, struck, and tested before delivery to the Mint Office. (c) The Die Department, where the coinage dies are made. (d) The Mechanical Department, where the power is generated and renewals and repairs to all minting machinery effected.

3. The Assay Office, where the fineness of crude bullion, fine ingots, coinage bars, and finished coins is ascertained.

4. The Refinery, where deposits of rough gold bullion are melted and refined, the fine gold and silver contents extracted and cast into bars for coinage or for trade purposes.

Once each year the integrity of the coins turned out by the Mint is checked by three Assay Commissioners nominated by the Governor General in Council under the terms of the Currency Act. During the year, Mint officers set aside one piece, selected at random, from each 'journey' (720 ounces) of silver coin ready for issue. The Assay Commissioners meet once each year and weigh and assay the pieces that have been set aside, in order to determine whether they are within the prescribed limits of weight and fineness, reporting their findings to the Minister of Finance.

Refining Procedure.—The deposits of crude gold bullion—known in Mint parlance as 'rough gold'—are received at the refinery receiving-room, weighed by officers from the Mint Office, and each deposit given a serial number; any marks or peculiar features are noted at the time. They are then transferred to the refinery office and again weighed by refinery officers. These deposits may vary in

weight from ingots of 1,500 ounces to a few ounces and may contain from 99·9 p.c. of gold to 20 p.c. of gold, the remainder being silver and base metals (copper, lead, zinc, etc.). Regulations prohibit the acceptance of bullion containing less than 20 p.c. of gold or any deposit containing less than one ounce of gold.

From the receiving office the deposits are transferred to the Rough Gold Melting Room. Each deposit is melted separately and two small dip samples are taken during this process. The molten metal is poured into moulds that shape the ingots. Cuts are taken from these ingots and, along with the dip samples, are sent to the Assay Office for assay. If the assays of the dips and cuts agree within certain limits, the assay is reported and payment made, less the refining charges, for the gold and silver contents calculated on the weight after melting. When concordant assays cannot be obtained, the deposit is remelted and the operation repeated. When the bullion is passed for payment, it becomes the property of the Mint and there is no necessity to retain the separate identity of each deposit. The whole purpose of this process is to obtain the actual weights of gold and silver contained in the deposits and thus determine the amount to be paid the consignor.

The rough gold ingots are then taken to the Gold-Refining or Chlorination Room. The Miller Chlorine Process is based on the fact that chlorine attacks base-metals and silver in preference to gold when passed into a molten mixture of these metals. Chlorine gas is passed into molten crude bullion covered with borax. The chlorine combines with the metals to form chlorides. A large portion of the base-metal chlorides and some silver chloride volatilize and are carried off while the remainder rise to the surface. When all the silver and base metals have been converted into chlorides, the addition of chlorine is stopped before the gold is attacked. The chlorides are bailed off, leaving the refined gold which assays 995·0 and over. The chlorides, which contain a little gold, are melted and some carbonate of soda is scattered on the surface. This reduces a portion of the silver chloride and the metallic silver settles to the bottom carrying the gold with it. The container is allowed to cool below the melting-point of silver and the chlorides, which are still liquid, are poured off, leaving a 'button' of silver which contains all the gold. This bullion is put in with another charge of rough gold and again passes through the chlorination process.

The refined gold, obtained in the foregoing manner, is poured into moulds, each holding 400 ounces. The weight of the fine gold ingots (trade bars) must not be less than 390 and not more than 410 ounces. Small sample bars of about 20 ounces are poured before casting the first ingot and after every tenth ingot. Cuts taken from these sample bars are assayed in the regular manner.

The chlorides remaining after the removal of the gold are treated with nascent chlorine to dissolve the base-metal impurities, the principal one being cuprous chloride. The silver chloride is reduced to metallic silver, washed, and transferred to the silver melting room where it is cast into ingots of 1,000 ounces in the same manner as gold. The liquids drained off during the silver chloride reduction process are treated further to precipitate the copper. This copper is sold as a copper sweep containing a little silver and a trace of gold.

Every possibility of loss of precious metal is guarded against. Slags, discarded crucibles, furnace linings, chamber dust, etc.—known as sweeps—are crushed and any metals extracted. During the process, samples are continually being taken and these are sent to the Assay Office for further sampling and assaying. The sweep is stored in drums until sold to smelters. In addition to this, the fumes from all

furnaces are drawn by a special ventilating system into the "Cottrell Precipitators". The flue gases carry gold, silver, and other metals in suspension. The precipitators, by means of an electrical process, extract the metals in the form of a fine powder, which is collected, sampled, assayed, and sold to smelters.

In 1938, 6,913 deposits were received having a gross weight of 5,601,257 ounces. The rough gold received weighed 4,671,147 ounces, the average assay being: gold, 743·0; silver, 143·8; base metals, 113·2. The number of fine gold trade bars produced was 10,967, weighing 4,420,379 ounces with an average fineness of 996·87. Granulated gold, produced for sale to manufacturing jewellers, etc., had a gross weight 12,395 ounces, with an average fineness of 999·84. The capacity of the refinery is approximately 140,000 ounces of fine gold trade bars per week. A record was kept, some years ago, over a period of nine months, of the recoveries of gold from the refining of rough gold containing 474,000 ounces fine gold. The percentage recoveries were as follows: gold in the form of trade bars, 98·357; gold in silver 'buttons', 1·504; gold in flue dust, slags, etc., 0·135; gold not recovered, 0·004. The output of silver is approximately 20,000 ounces per week.

Coinage Methods.—The ingots used for coinage must be of a purity of 999 parts per 1,000, or over. These ingots are placed with the necessary alloys in crucibles and are charged into the melting-furnaces where the metals are thoroughly mixed. The flues of the furnaces are so arranged that the gases issuing from the furnaces enter a large condensing chamber where any fine particles of metal that may be carried from the furnaces are removed from the air before it reaches the chimney stack. When the metal is ready for pouring, it is cast into bars about 24 inches long, ½ inch thick, and varying in width from 1¼ inches to 2¼ inches according to the denomination of the coin to be made. The bars cast from each crucible are kept separate and marked distinctively, so that their origin can be readily traced at any time. In the case of gold or silver bars, a small piece is cut from one end of the first and of the last bar from each crucible, and these pieces are forwarded to the Assay Office for testing. The bars are not used until a report from that department has been received stating that they are within the legal standard as to fineness. All bars above or below this standard are remelted with the necessary amount of alloy, or fine metal, to bring them to standard.

From the melting-house, the bars go to the rolling-mills where they are rolled into long thin strips or fillets. There are three of these mills: the breaking-down mill, through which the bars pass about twenty times; the thinning mill, through which they pass about ten times; and finally, the finishing mill, where, after being passed through about eight times, the bars are reduced to correct thickness for the coin that is to be made. In the finishing mill, the adjustment of the rolls can be made as fine as 0·0002 inch.

In the case of silver and bronze, the fillets pass from the finishing mill to the blank-cutting machines, but in the case of gold it is found that further adjustment is necessary. This is done by drawing the gold fillets between two steel cylinders that can be adjusted to a space of 0·0001 inch. Blanks are then cut from the fillets and the skeleton of the fillet is sent back for remelting.

The blank coins are then put through a marking machine which puts pressure on the edges, raising them and forming a protection for the impressions that are to be made on the blanks in the coining process. Before coining, however, the metal must be rendered ductile as it has been hardened considerably by the rolling, cutting, and marking processes. This is accomplished by annealing—heating the metal

to redness and suddenly quenching it in water. The blanks are cleaned thoroughly and dried, and are then ready for the coining presses.

The embossing of the blank coin is accomplished by subjecting it to pressure when placed in a collar between dies. The collar is fixed on the plate, or table, of the press; the dies work up and down through the collar. The blanks are placed in the feed tube of the press, and feeding fingers, at each stroke of the press, take a blank from the bottom of the tube and place it upon the bottom die, which is just level with the surface of the table; the bottom die then sinks to the centre of the collar, the blank resting upon it, and the top die, following down, strikes the blow, causing the imprisoned metal to squeeze out and fill all space available. The blank thus takes the impressions of both dies and also any markings placed on the inside of the collar (the milling in the case of ordinary gold and silver coins). The top die then rises and the bottom one follows, forcing the struck piece out of the collar, the feeding fingers advance, pushing the struck piece down the delivery tube at the back of the press and placing another blank on the bottom die. The process is then repeated. A feature of this machine is a device that prevents the dies from striking each other in the event of the fingers failing to carry a piece forward from the feeding tube. A pair of dies will strike an average of 78,000 coins before they become unserviceable but, naturally, if they struck each other they would be rendered useless immediately. The speed of the presses can be controlled so that the number of blows struck per minute can be varied from thirty to one hundred. The battery of six presses can strike an average of 200,000 pieces per day.

The finished coins are forwarded to the examining room to be subjected to various tests. The edges of the coins are examined for flaws and then weighed. The automatic weighing machine, on which are weighed all gold coins and fifty-cent and twenty-five-cent pieces, separates the coins into three boxes, one for those of correct weight and the others for those coins that are too light or too heavy. The ten-cent pieces are weighed against a standard dollar weight, while the five-cent nickel pieces and the one-cent bronze pieces are weighed against an avoirdupois pound.

Coins of correct weight are examined on both sides for imperfections. Those coins not of correct weight, discoloured, 'dumb', or imperfect in any way are destroyed in the defacing machine and remelted. The good coins are delivered to the Mint Office and counted into bags by an automatic machine. The bags are tagged as to denomination, weight, and value of contents, sealed, and placed in the stronghold ready for use.

Precautions Observed in Working up Bullion.—The handling of precious metals in such large quantities at the Mint necessitates the enforcement of certain precautions. Each workman has a locker furnished with a special key and, on arrival in the morning, changes from his street clothes to his working clothes, fastens his locker and deposits the key with the foreman of the room. Each stronghold where the bullion is kept is fitted with a double combination and time-lock. When the bullion to be worked on is checked out into various rooms, it is weighed on balances carrying up to 3,500 troy ounces and turning to the one-hundredth part of an ounce. Each room is debited with the issue of raw material in the shape of bullion and credited with the amount of finished work turned in. At the close of the day, the floors are swept, the dust burned, and all small particles of bullion are recovered and weighed in. If the accounts then balance, the keys of the lockers are released to the men; if there is a loss, search is made for the missing metal or coin.

Subsection 2.—Dominion and Bank of Canada Notes.

Dominion Notes.—It is explained in the historical outline referred to at the beginning of this chapter that Dominion notes became established in 1868. The legislation by which the issue was expanded with the growth of the country is given in an explanatory footnote at p. 952 of the 1934-35 Year Book.

Prior to the taking over of the note issue by the Bank of Canada when it opened on Mar. 11, 1935, Dominion notes were issued under any one of three statutory authorities: (1) The Dominion Notes Act (Statutes of 1934, c. 34), which required a gold reserve of 25 p.c. to be held against the first $120,000,000 of notes issued, and full gold coverage against any issue in excess of $120,000,000. (2) The Finance Act (R.S.C. 1927, c. 70), Part II of which authorized the Minister of Finance to advance to any chartered bank or to the savings banks of Quebec, Dominion notes to any amount on the pledge of approved securities deposited with the Minister—these advances bore interest and no gold coverage was required to be held on Dominion notes so advanced. (3) C. 4 of the Statutes of 1915, authorizing the Government to issue Dominion notes to the amount of $26,000,000 without gold coverage, but partly covered by the deposit of $16,000,000 of railway securities guaranteed by the Dominion Government.

The Dominion note issue was, therefore, partly gold-backed and partly fiduciary. Dominion notes were legal tender and, in normal times when Canada was on the gold standard, they were redeemable in gold.

Dominion notes were of two types, those for the purpose of general circulation, and 'special' notes. The latter were used only by the banks for inter-bank transactions and clearings, or for cash reserves or deposit in the Central Gold Reserves. They were mainly of $5,000 and $50,000 denominations. Dominion notes for the purpose of general circulation were of the denominations of 25 cents, $1, $2, $4, $5, $50, $500, and $1,000, although for a considerable time no $4 or $50 notes had been issued. Since the minimum denomination for chartered bank notes was set at $5, Dominion notes of lower denominations naturally were largely in circulation among the general public, but there was nothing to prevent any of these Dominion notes from being included in the reserves of the banks, and it was provided that at least 40 p.c. of the banks' reserves were to consist of Dominion notes.

Bank of Canada Notes.—The Bank of Canada, when it commenced operations, assumed the liability for Dominion notes outstanding, which were replaced in public circulation, and partly replaced as cash reserves, by its own legal-tender notes in denominations of $1, $2, $5, $10, $20, $50, $100, and $1,000. Deposits of chartered banks at the Bank of Canada completed the replacement of Dominion notes as cash reserves.

The chartered banks are required under the Bank Act of 1934 to reduce the issue of their own bank notes gradually during the years 1935-45 to an amount not in excess of 25 p.c. of their paid-up capital on Mar. 11, 1935. Bank of Canada notes are thus replacing chartered bank notes as the issue of the latter is reduced.

There has been little change in the circulation of denominations of notes under $5. In the denominations from $5 to $1,000, where Bank of Canada notes have partially replaced chartered bank notes or Dominion notes, there has been a large increase. On the other hand, the special Dominion notes in denominations from $1,000 to $50,000, which were used almost exclusively for inter-bank transactions or bank reserves, are no longer in use.

5.—Denominations of Dominion or Bank of Canada Notes in Circulation, 1926, 1929, 1932, and 1937-39.

NOTE.—Annual averages of month-end figures. The totals outstanding are not always multiples of the denominations of notes, because of adjustments made according to scale when parts of mutilated notes are turned in for cancellation.

Denomination.	1926.	1929.	1932.	1937.	1938.	1939.
	$	$	$	$	$	$
Provincial.....	27,624	27,621	27,594	27,581	27,578	27,576
Fractional.....	1,330,663	1,380,710	1,287,544	1,142,455	1,123,738	1,112,857
$ 1.....	17,732,100	20,032,308	18,957,935	23,048,042	23,716,228	24,675,157
2.....	12,925,212	14,609,088	13,346,323	15,662,722	15,900,985	16,292,040
4.....	33,397	32,138	31,004	29,444	29,334	29,204
Totals....	32,048,996	36,081,865	33,650,400	39,910,244	40,797,863	42,136,834
$ 5.....	626,179	730,101	5,137,627	21,415,392	24,005,936	27,651,343
10.....	Nil	Nil	Nil	37,914,727	45,738,944	57,562,141
20.....	"	"	"	15,328,494	19,849,718	24,325,035
25.....	"	"	"	73,433	63,390	57,654
50.....	650	650	650	4,588,100	5,591,283	6,991,237
100.....	Nil	Nil	Nil	5,813,192	8,056,675	10,518,633
500.....	1,875,917	1,811,875	2,530,833	1,981,542	1,411,500	967,292
1,000.....	3,799,250	4,168,917	6,437,583	14,017,333	15,610,750	14,683,750
Totals....	6,301,996	6,711,543	14,106,693	101,132,213	120,328,196	142,757,085
Specials—						
$ 1,000.....	671,333	407,667	3,500	1,000	1,000	1,000
5,000.....	16,307,500	7,209,583	8,063,750	10,000	10,000	10,000
50,000.....	134,675,000	153,970,834	110,054,167	Nil	Nil	Nil
Totals, Specials.	151,653,833	161,588,084	118,121,417	11,000	11,000	11,000
Grand Totals..	**190,004,825**	**204,381,492**	**165,878,510**	**141,053,457**	**161,137,059**	**184,904,919**

Subsection 3.—Chartered Bank Notes.

The developments by which bank notes became the chief circulating medium in Canada in the period preceding the establishment of the Bank of Canada are described in the historical outline referred to at the beginning of this chapter. The main steps of this development which remained as permanent features of the system are assembled and emphasized here. By the Bank Act of 1870 (later consolidated with the general Bank Act of 1871), the note issue of a bank was not to exceed its paid-up capital, no bank notes were to be issued under $4 in value (later changed to $5 and multiples thereof), and, while the banks were allowed to use their own discretion regarding the amount of their cash reserves, it was stipulated that at least one-third (later increased to 40 p.c.) of such cash reserves as they chose to carry should consist of Dominion notes. In the revision of 1880, a note-holder was definitely recognized as a preferred creditor. The Bank Act of 1890 provided for the Bank Note Circulation Redemption Fund, made up by each bank depositing with the Minister of Finance an amount equal to 5 p.c. of its note circulation. As a result of the operation of this fund and of making notes a prior lien against the assets of failed banks, no bank-note holder in Canada has suffered a loss since 1881. In 1908, after the financial crisis of 1907, provision was made for the banks to issue, during the crop-moving season, (October to January inclusive—later extended to September to February inclusive), an excess circulation up to 15 p.c. of their combined capital and 'rest' or reserve funds, such excess to be taxed at a rate not exceeding 5 p.c. per annum. The revision of the Bank Act in 1913 provided for the establishment of Central Gold Reserves in which banks might deposit gold or Dominion notes

and issue additional notes of their own there-against. The Finance Act (c. 3) of 1914, gave the Minister of Finance authority to issue Dominion notes to the banks against approved securities deposited with him. Originally passed as a war measure, this was made a permanent feature of the system by the Finance Act (c. 48) of 1923, and provided the banks with the means of further expanding their note issue by the deposit of the Dominion notes, so obtained, in the Central Gold Reserves.

Bank notes, although the chief circulating medium in the hands of the public, were a fiduciary issue; they were not legal tender but were convertible into Dominion notes which were legal tender.

The provisions regarding bank notes were materially changed with the establishment of the Bank of Canada under the Bank Act (c. 24) of 1934. The authority both for seasonal expansion and for additional issue secured by deposit in the Central Gold Reserves was then terminated. Provision was made for a gradual reduction in bank-note circulation over a period of years as explained at p. 893. As a result of these changes, current data on bank-note circulation are not comparable with those of earlier years. However, statistics of total notes in the hands of the general public are comparable. This public circulation includes chartered bank notes together with Dominion notes and Bank of Canada notes, exclusive of those held by the banks as reserves. Statistics on this basis are shown in Table 6.

6.—Annual Averages of Note Circulation in the Hands of the Public, 1926-39.

NOTE.—Averages of month-end figures have been revised since the publication of the 1939 Year Book.

Year.	Averages of Month-End Figures.			Averages of Daily Figures of Total.	
	Chartered Bank.[1]	Dominion or Bank of Canada.[2]	Total.	Amount.[3]	Per Capita.[4]
	$	$	$	$	$
1926	153,931,898	26,314,706	180,246,604	195,000,000	20·63
1927	156,254,231	27,793,500	184,047,731	198,000,000	20·55
1928	160,209,051	28,803,340	189,012,391	204,000,000	20·74
1929	161,483,696	30,003,870	191,487,566	205,000,000	20·44
1930	144,178,819	28,812,059	172,990,878	185,000,000	18·12
1931	128,881,241	28,572,011	157,453,252	167,000,000	16·09
1932	120,918,577	28,483,686	149,402,263	158,000,000	15·04
1933	120,624,661	29,066,051	149,690,712	157,000,000	14·70
1934	125,119,382	30,547,720	155,667,102	163,000,000	15·06
1935	118,512,334	47,288,651	165,800,985	169,000,000	15·45
1936	112,914,641	66,934,958	179,849,599	182,000,000	16·50
1937	104,211,037	94,876,384	199,087,421	200,000,000	17·99
1938	93,978,355	109,748,030	203,726,385	205,000,000	18·29
1939	88,820,636	129,261,655	218,082,291	216,000,000	19·09

[1] Gross note circulation of chartered banks. [2] Total issue less notes held by chartered banks and notes deposited in the Central Gold Reserves up to March, 1935. [3] Figures to nearest million supplied by the Bank of Canada. [4] Figures based on estimates of population as given at p. 103.

Section 4.—Monetary Reserves.

Subsection 1.—Bank of Canada Reserves.

The composition of Canadian Gold Reserves held by the Government is presented in the 1936 edition of the Year Book, for the years 1905 to 1934, at p. 895. Since March, 1935, the gold reserves have been held by the Bank of Canada. By authority of the Exchange Fund Act (c. 60, 1935), effective in July, 1935, they are valued at the prevailing current market price of gold. The effect of the revaluation as from the above date is shown in the chart at p. 886. The new data are now to be found under the item "Reserves" on the "Assets" section of Table 1, p. 885.

Subsection 2.—Chartered Bank Canadian Cash Reserves.

Before the Establishment of the Bank of Canada.—Up to March, 1935, legal tender cash reserves in Canada were made up partly of Dominion notes (see p. 893); and partly of gold coin and bullion, and subsidiary coin, including these forms of cash held by the banks themselves; and as deposits in the Central Gold Reserves. In so far as these reserves were in actual gold or were in Dominion notes backed by gold, they were subject to the expanding or contracting influences of monetary gold imports or exports arising from Canada's balance of international payments, so long as Canada was on the gold standard.

Since the Establishment of the Bank of Canada.—When the Bank of Canada was established, the chartered banks turned over their reserves of gold in Canada and Dominion notes to the new bank in exchange for deposits with and notes of the Bank of Canada. It was provided that henceforth the chartered banks were to carry reserves in these forms amounting to at least 5 p.c. of their deposit liabilities in Canada. Since that time, therefore, the gold reserves against currency and bank credit have been in the custody of the central bank.

The cash reserves shown in Table 7 include, prior to Mar. 11, 1935, the gold and coin and Dominion notes held by the banks in Canada and the deposits in the Central Gold Reserves not ear-marked against the issue of bank notes, and, since the above date, notes of and deposits with the Bank of Canada.

7.—Annual Averages of Cash Reserves of the Chartered Banks in Canada, 1926-39.

NOTE.—Figures, to nearest million, supplied by the Bank of Canada.

Year.	Annual Average of Daily Figures.	Annual Average of Month-End Figures.	Year.	Annual Average of Daily Figures.	Annual Average of Month-End Figures.
	$	$		$	$
1926	192,000,000	197,000,000	1933	189,000,000	195,000,000
1927	187,000,000	194,000,000	1934	201,000,000	203,000,000
1928	193,000,000	205,000,000			
1929	191,000,000	212,000,000	1935[1]	213,000,000	216,000,000
1930	176,000,000	197,000,000	1936	225,000,000	225,000,000
			1937	240,000,000	240,000,000
1931	169,000,000	182,000,000	1938	254,000,000	252,000,000
1932	172,000,000	186,000,000	1939	269,000,000	268,000,000

[1] See text immediately preceding this table.

Section 5.—Commercial Banking.

Subsection 1.—Historical.

Since one of the chief functions of the early banks in Canada was to issue notes to provide a convenient currency or circulating medium, it has been expedient to cover both currency and banking in the one historical sketch which is given at pp. 901-905 of the 1938 Year Book. However, the function of note issue is no longer as important as it was. Latterly, the services of the chartered banks in gathering deposits from innumerable sources have emphasized the importance of deposit banking by which the savings of the people are put to immediate productive and commercial use; with the development of commercial banking, other necessary commercial banking facilities have been given more importance. Included among these is the mechanism of bills of exchange by which foreign trade is financed. The principal features of this development of commercial banking facilities in the evolution of the Canadian banking system may be summarized as follows: (1) its origin, closely related to the Montreal produce and export trade, and to the commerce of Halifax and Saint John; (2) the development of the branch bank system in order to meet the demands of a rapidly moving frontier of settlement; (3) the

adaptation to the requirements of the grain and cattle trade of the West; and (4) the consolidation during later years of the features that tended towards its early success. The development of a stable system has been accompanied by failures, particularly marked about the middle of the 19th century, but progress has nevertheless been steady and based on sound principles.

The branch bank is perhaps the most distinctive feature of the Canadian system as it exists to-day, and for a country such as Canada, vast in area and with a small population, the plan has proved a good one. A result of the growth of branch banks was the development of a partly centralized system — centralized as to banks, of which there are now ten, rather than as to districts as in the partly centralized system of the United States. There were 28 chartered banks in existence at Confederation. The elimination of weaker banks or their amalgamation with more stable institutions has been a progressive move towards greater security and confidence. The banks at Confederation were as follows:—

ONTARIO AND QUEBEC.

Bank of Montreal.
Quebec Bank.
Commercial Bank of Canada.
City Bank.
Gore Bank.
Bank of British North America.
Banque du Peuple.
Niagara District Bank.
Molson's Bank.
Bank of Toronto.
Ontario Bank.
Eastern Townships Bank.
Banque Nationale.
Banque Jacques-Cartier.
Merchants' Bank of Canada.
Royal Canadian Bank.
Union Bank of Lower Canada.
Mechanics' Bank.
Canadian Bank of Commerce.

NOVA SCOTIA.

Bank of Yarmouth.
Merchants' Bank of Halifax.
People's Bank of Halifax.
Union Bank of Halifax.
Bank of Nova Scotia.

NEW BRUNSWICK.

Bank of New Brunswick.
Commercial Bank of New Brunswick.
St. Stephen's Bank.
People's Bank of New Brunswick.

A table at pp. 894-895 of the 1937 Year Book shows the insolvencies since Confederation; there have been no further changes reported.

8.—Bank Absorptions in Canada since 1867.

NOTE.—The purchasing banks named in that part of the table at p. 898 are no longer in business.

Purchasing Bank.	Bank Absorbed.	Date.[1]
Bank of Montreal	Exchange Bank, Yarmouth, N.S.	Aug. 13, 1903
	People's Bank of Halifax, N.S.	June 27, 1905
	Ontario Bank	Oct. 13, 1906
	People's Bank of New Brunswick	Apr. 15, 1907
	Bank of British North America	Oct. 12, 1918
	Merchants' Bank of Canada	Mar. 20, 1922
	Molson's Bank	Jan. 20, 1925
Canadian Bank of Commerce	Gore Bank	May 19, 1870
	Bank of British Columbia	Dec. 31, 1900
	Halifax Banking Company	May 30, 1903
	Merchants' Bank of P.E.I.	May 31, 1906
	Eastern Townships Bank	Feb. 29, 1912
	Bank of Hamilton	Dec. 31, 1923
	Standard Bank of Canada	Nov. 3, 1928
Bank of Nova Scotia	Union Bank of P.E.I.	Oct. 1, 1883
	Bank of New Brunswick	Feb. 15, 1913
	The Metropolitan Bank	Nov. 14, 1914
	The Bank of Ottawa	Apr. 30, 1919
Royal Bank of Canada	Union Bank of Halifax	Nov. 1, 1910
	Traders' Bank of Canada	Sept. 3, 1912
	Quebec Bank	Jan. 2, 1917
	Northern Crown Bank	July 2, 1918
	Union Bank of Canada	Aug. 31, 1925
Imperial Bank of Canada	Niagara District Bank	June 21, 1875
	The Weyburn Security Bank	May 1, 1931
Banque d'Hochelaga[2]	Banque Nationale	Apr. 30, 1924

[1] Dates later than 1900 are those of the Orders in Council authorizing the absorptions. [2] The Banque d'Hochelaga after absorbing the Banque Nationale adopted the name Banque Canadienne Nationale.

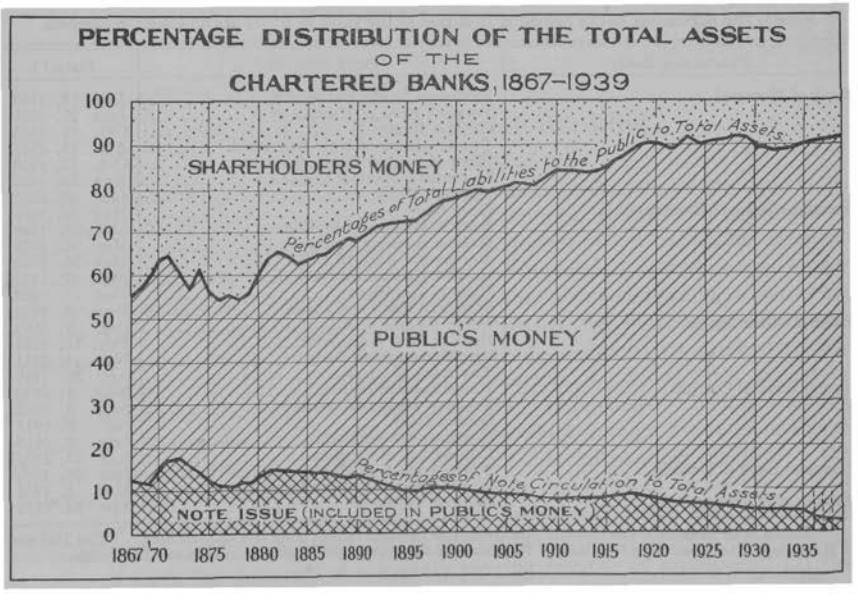
8.—Bank Absorptions in Canada since 1867—concluded.

Purchasing Bank.	Bank Absorbed.	Date.[1]
Bank of New Brunswick	Summerside Bank	Sept. 12, 1901
Merchants' Bank of Canada	Merchants' Bank	Feb. 22, 1868
	Commercial Bank of Canada	June 1, 1868
Union Bank of Halifax	Commercial Bank of Windsor	Oct. 31, 1902
Northern Crown Bank	The Northern Bank	July 2, 1908
	Crown Bank of Canada	July 2, 1908
Union Bank of Canada	United Empire Bank	Mar. 31, 1911
Home Bank of Canada	La Banque Internationale du Canada	Apr. 15, 1913
Standard Bank of Canada	Western Bank of Canada	Feb. 13, 1909
	Sterling Bank of Canada	Dec. 31, 1924

[1] Dates later than 1900 are those of the Orders in Council authorizing the absorptions.

Subsection 2.—Combined Statistics of Chartered Banks.

In order to afford a clear view of the nature of banking transactions in Canada bank liabilities have been classified in Table 9 in two main groups: liabilities to shareholders and liabilities to the public. Only the latter group is ordinarily considered when determining the financial position of any such institution. Assets are divided into four groups, 'other assets' being included in the total. As of interest to students of banking practice, the relative rates of increase of capital and reserve funds may be noted, also the great increase in the proportion of liabilities to the public to total liabilities, and the gradually increasing percentage of liabilities to the public to total assets. The accompanying chart of ownership division of total assets is of interest in this connection. The declining proportion of notes in circulation to total liabilities to the public is also characteristic of the evolution of banking in recent times. Holdings of Dominion and Provincial Government and municipal securities were relatively insignificant prior to the War of 1914-18.



9.—Development of Chartered Banking Business in Canada, 1867–1939.

NOTE.—These statistics are yearly averages computed from the twelve monthly returns. Dashes indicate that no information is available under the corresponding column heads for years so indicated. Figures for intermediate years not shown between 1867 and 1880 will be found at pp. 918–919 of the 1938 Year Book.

Year.	LIABILITIES.						
	Liabilities to Shareholders.		Liabilities to the Public.				
	Capital.	Rest or Reserve Fund.	Notes in Circulation.	Demand Deposits in Canada.	Notice Deposits in Canada.	Total on Deposit.[1]	Total Public Liabilities.[2]
	$	$	$	$	$	$	$
1867.....	30,926,470[3]	–	9,346,081[3]	–	–	31,375,316[3]	43,273,969[3]
1880.....	60,052,117	–	22,529,623	–	–	85,303,814	111,838,941
1881.....	59,534,977	–	28,516,692		–	94,346,481	127,176,249
1882.....	59,799,644	–	33,582,080		–	110,133,124	149,777,214
1883.....	61,390,118	–	33,283,302		–	107,648,383	145,938,095
1884.....	61,579,021	18,149,193[4]	30,449,410		–	102,398,228	137,493,917
1885.....	61,711,566	17,879,716	30,720,762		–	104,014,660	138,762,695
1886.....	61,662,093	17,817,693	31,030,499	–	–	111,449,365	146,954,260
1887.....	60,860,561	17,873,582	32,478,118	–	–	112,656,985	149,704,402
1888.....	60,345,035	18,529,911	32,205,259	–	–	125,136,473	163,990,797
1889.....	60,229,752	19,766,426	32,207,144	–	–	134,650,732	173,029,602
1890.....	59,974,902	21,127,838	32,834,511	–	–	135,548,704	173,207,587
1891.....	60,700,697	22,821,501	33,061,042	–	–	148,396,968	187,332,325
1892.....	61,626,311	24,511,709	33,788,679	–		160,668,471	208,062,169
1893.....	62,009,346	25,837,753	33,811,925	–		174,776,722	217,195,975
1894.....	62,063,371	27,041,235	31,166,003	–		181,743,890	221,066,724
1895.....	61,800,700	27,273,500	30,807,041	–		190,916,939	229,794,322
1896.....	62,043,173	26,526,632	31,456,297	–		193,616,049	232,338,086
1897.....	62,027,703	27,087,782	34,350,118	–		211,788,096	252,660,708
1898.....	62,571,920	27,627,520	37,873,934	–		236,161,062	281,076,656
1899.....	63,726,399	28,958,989	41,513,139	–		266,504,528	318,624,033
1900.....	65,154,594	32,372,394	46,574,780	–	–	305,140,242	356,394,095
1901.....	67,035,615	36,249,145	50,601,205	95,169,631[4]	221,624,664[4]	349,573,327	420,003,743
1902.....	69,869,670	40,212,943	55,412,598	104,424,203	244,062,545	390,370,493	466,963,829
1903.....	76,453,125	47,761,536	60,244,072	112,461,757	269,911,501	424,167,140	507,527,550
1904.....	79,234,191	52,082,335	61,769,888	117,962,023	307,007,192	470,265,744	554,014,076
1905.....	82,655,828	56,474,124	64,025,643	138,116,550	338,411,275	531,243,476	618,678,633
1906.....	91,035,604	64,002,266	70,638,870	165,144,569	381,778,705	605,968,513	713,790,553
1907.....	95,953,732	69,806,892	75,784,482	166,342,144	413,014,657	654,839,711	769,026,924
1908.....	96,147,526	72,041,265	71,401,697	169,721,755	406,103,063	658,367,015	762,077,184
1909.....	97,329,333	75,887,695	73,943,119	225,414,828	464,635,263	783,298,880	882,598,547
1910.....	98,787,929	79,970,346	82,120,303	260,232,399	532,087,627	909,964,839	1,019,177,601
1911.....	103,009,256	88,892,256	89,982,223	304,801,755	568,976,209	980,433,788	1,097,661,393
1912.....	112,730,943	102,090,476	100,146,541	359,431,895	625,705,765	1,102,910,383	1,240,124,354
1913.....	116,297,729	109,129,393	105,265,336	367,214,143	626,199,470	1,126,871,523	1,287,372,534
1914.....	114,759,807	113,130,626	104,600,185	346,069,908	656,760,687	1,144,211,363	1,309,944,006
1915.....	113,982,741	113,020,310	105,137,092	358,444,252	690,904,274	1,198,340,315	1,353,629,123
1916.....	113,175,353	112,989,541	126,691,913	428,717,781	780,842,383	1,418,035,429	1,596,905,337
1917.....	111,637,755	113,560,997	161,029,606	468,049,790	928,271,838	1,643,203,020	1,866,228,236
1918.....	110,618,504	114,041,500	198,645,254	587,342,904	966,341,499	1,912,395,780	2,184,359,820
1919.....	115,004,960	121,160,774	218,919,261	621,676,065	1,125,202,403	2,189,428,885	2,495,582,568
1920.....	123,617,120	128,756,690	228,800,379	653,862,869	1,239,308,076	2,438,079,792	2,784,068,698
1921.....	129,096,339	134,104,030	194,621,710	551,914,643	1,289,347,063	2,264,586,736	2,556,454,190
1922.....	125,456,485	129,627,270	166,466,109	502,781,234	1,191,637,004	2,120,997,030	2,364,822,657
1923.....	124,373,293	126,441,667	170,420,792	523,170,930	1,197,277,065	2,107,606,111	2,374,308,376
1924.....	122,409,504	123,841,666	166,136,765	511,218,736	1,198,246,414	2,130,621,760	2,438,771,001
1925.....	118,831,327	123,108,366	165,235,168	531,180,578	1,269,542,584	2,221,160,611	2,532,832,064
1926.....	116,638,254	125,441,700	168,885,995	553,322,935	1,340,559,021	2,277,192,043	2,604,601,786
1927.....	121,666,774	130,320,897	172,100,763	596,069,007	1,399,062,201	2,415,132,260	2,758,324,713
1928.....	122,839,879	134,087,485	176,716,979	677,467,295	1,496,608,451	2,610,594,865	3,044,742,165
1929.....	137,269,085	150,636,682	178,291,030	696,387,381	1,479,870,058	2,696,747,857	3,215,503,098
1930.....	144,560,874	160,639,246	159,341,085	622,895,347	1,427,569,716	2,516,611,587	2,909,530,263
1931.....	144,674,853	162,075,000	141,969,350	578,604,394	1,437,976,832	2,422,834,828	2,741,554,219
1932.....	144,500,000	162,000,000	132,165,942	486,270,764	1,376,325,128	2,256,639,530	2,546,149,789
1933.....	144,500,000	157,250,000	130,362,488	488,527,864	1,378,497,944	2,236,841,539	2,517,934,260
1934.....	144,916,667	132,604,166	135,537,793	513,973,506	1,372,817,869	2,274,607,936	2,548,720,434
1935.....	145,500,000	132,750,000	125,644,102	568,615,373	1,445,281,247	2,426,760,923	2,667,950,352
1936.....	145,500,000	133,000,000	119,507,306	618,340,561	1,518,216,945	2,614,895,597	2,855,622,232
1937.....	145,500,000	133,750,000	110,259,134	691,319,545	1,573,654,555	2,775,530,413	3,025,721,653
1938.....	145,500,000	133,750,000	99,870,493	690,485,877	1,630,481,857	2,823,686,934	3,056,684,905
1939.....	145,500,000	133,750,000	94,064,907	741,733,241	1,699,224,304	3,060,859,111	3,298,351,099

[1] Includes the deposits of Dominion and Provincial Governments and also, since 1901, deposits elsewhere than in Canada. [2] Includes other liabilities to the public. [3] Six-month average. [4] First year reported.

9.—Development of Chartered Banking Business in Canada, 1867-1939—concluded.

Year.	ASSETS.						P.C. of Public Liabilities to Total Assets.
	Specie and Dominion or Bank of Canada Notes.	Dominion and Provincial Government Securities.	Municipal Securities in Canada and Public Securities Elsewhere.	Total Securities.	Total Loans.	Total Assets.[1]	
	$	$	$	$	$	$	p.c.
1867...	–	–	–	–	53,889,703[2]	78,294,670[2]	55·27[2]
1880...	–	–	–	–	102,166,115	184,276,190	60·69
1881...	–	–	–	–	116,953,497	200,613,879	63·39
1882...	–	–	–	–	140,077,194	227,426,835	65·86
1883...	–	–	–	–	143,944,957	228,084,650	63·98
1884...	–	–	–	–	130,490,053	219,998,642	62·50
1885...	–	–	–	–	126,827,792	219,147,080	63·32
1886...	–	–	–	–	132,833,313	228,061,872	64·44
1887...	–	–	–	–	139,753,755	230,393,072	64·98
1888...	–	–	–	–	141,002,373	243,504,164	67·35
1889...	–	–	–	–	149,958,980	253,789,803	68·18
1890...	–	–	–	–	153,301,335	254,546,329	68·05
1891...	–	–	–	–	171,082,077	269,307,032	69·56
1892...	17,794,201[3]	–	–	–	193,455,883	291,635,251	71·34
1893...	19,714,648	–	–	–	206,623,042	302,696,715	71·75
1894...	22,371,954	–	–	–	204,124,939	307,520,020	71·87
1895...	22,992,872	–	–	–	203,730,800	316,536,510	72·50
1896...	22,318,627	–	–	–	213,211,996	320,937,643	72·39
1897...	24,178,151	–	–	–	212,014,635	341,163,505	74·06
1898...	25,330,564	–	–	–	223,806,320	370,583,991	75·86
1899...	26,682,971	–	–	–	251,467,076	412,504,768	77·24
1900...	29,047,382	–	–	–	279,279,761	459,715,065	77·52
1901...	32,088,501	11,331,385[3]	13,031,176[3]	–	388,299,888	531,829,324	78·97
1902...	35,478,598	9,804,998	14,487,632	–	430,662,670	585,761,109	79·72
1903...	42,510,574	11,186,607	14,896,472	–	472,019,689	641,543,226	79·11
1904...	50,307,871	10,705,202	15,560,145	–	509,011,993	695,417,736	79·67
1905...	56,590,323	8,833,626	18,820,985	–	559,814,918	767,490,183	80·61
1906...	61,287,581	9,360,614	20,460,670	–	655,869,879	878,512,076	81·25
1907...	70,550,520	9,546,927	21,198,817	–	709,975,274	945,685,708	81·32
1908...	80,654,276	9,522,743	19,788,937	–	670,170,833	941,290,619	80·96
1909...	95,558,461	11,653,798	21,707,363	–	762,195,546	1,067,007,534	82·72
1910...	104,735,626	14,741,621	21,696,987	–	870,100,890	1,211,452,351	84·13
1911...	120,146,690	10,637,580	22,848,170	–	926,909,616	1,303,131,260	84·23
1912...	132,853,405	9,388,968	22,586,119	–	1,061,843,991	1,470,065,478	84·36
1913...	141,872,884[4]	9,995,237	23,183,162	–	1,109,493,263	1,530,093,671	84·14
1914...	165,845,957[4]	11,697,603	22,707,738	–	1,101,880,924	1,555,676,395	84·20
1915...	208,438,854[4]	12,814,898	31,553,091	–	1,066,252,854	1,596,424,643	84·75
1916...	230,113,831[4]	29,717,007	117,902,686	–	1,135,866,531	1,839,286,709	86·82
1917...	265,389,567[4]	131,078,854	138,341,125	–	1,219,161,252	2,111,559,555	88·38
1918...	351,762,841[4]	162,821,026	252,936,568	–	1,339,660,669	2,432,331,418	89·81
1919...	370,775,723[4]	214,621,625	256,270,715	–	1,552,971,202	2,754,568,118	90·60
1920...	367,165,054[4]	120,356,255	210,826,991	–	1,935,449,637	3,064,133,843	90·86
1921...	335,081,032[4]	166,688,146	156,552,503	–	1,781,184,781	2,841,782,079	89·96
1922...	305,522,425[4]	198,826,031	90,131,491	–	1,643,643,443	2,638,776,483	89·62
1923...	291,999,879[4]	242,292,315	112,642,627	401,792,206[3]	1,606,932,483	2,643,773,986	92·16
1924...	266,961,330[4]	314,099,097	135,597,860	502,561,847	1,546,792,080	2,701,427,011	90·28
1925...	259,714,043[4]	358,344,887	147,563,292	565,505,647	1,562,017,009	2,789,619,061	90·80
1926...	252,754,268[4]	343,595,936	127,765,375	532,817,056	1,682,379,658	2,864,019,213	90·94
1927...	252,188,447[4]	324,580,796	133,314,843	520,971,402	1,839,905,275	3,029,680,616	91·04
1928...	264,804,251[4]	333,837,004	124,996,823	522,628,208	2,072,403,628	3,323,163,195	91·62
1929...	261,625,173[4]	341,744,572	104,309,024	499,015,138	2,279,247,504	3,528,468,027	91·13
1930...	232,016,616[4]	316,196,343	101,585,131	471,637,542	2,064,597,746	3,237,073,853	89·88
1931...	207,983,857[4]	454,386,965	154,829,056	674,357,232	1,764,088,477	3,066,018,472	89·42
1932...	206,925,103[4]	489,709,241	150,891,599	695,758,801	1,582,667,313	2,869,429,779	88·73
1933...	209,550,285[4]	626,881,709	163,834,318	841,151,958	1,409,067,110	2,831,393,641	88·93
1934...	214,419,280[4]	683,498,403	139,850,099	866,725,958	1,373,683,071	2,837,919,961	89·81
1935...	227,692,952[5,6]	860,942,292	137,764,626	1,044,351,653	1,276,430,825	2,956,577,704	90·24
1936...	240,596,447[5]	1,074,795,141	161,879,725	1,330,808,991	1,140,557,800	3,144,506,755	90·81
1937...	249,372,724[5]	1,118,893,938	181,972,016	1,426,371,394	1,200,574,223	3,317,087,132	91·22
1938...	262,354,597[5]	1,143,040,485	170,487,703	1,439,666,822	1,200,692,605	3,348,708,580	91·28
1939...	279,161,539[5]	1,234,066,994	179,924,335	1,540,330,246	1,243,616,409	3,591,564,586	91·84

[1] Includes other assets. [2] Six-month average. [3] First year reported. [4] Includes deposits in Central Gold Reserves. [5] Notes of, and deposits in, the Bank of Canada and specie. [6] Ten-month average.

10.—Assets of Chartered Banks, 1929, 1932, and 1937-39.

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year. As the first two items have been worked out only to the nearest million for the years prior to 1937, the totals for 1929 and 1932 are not the exact sums of the individual items.

Item.	1929.	1932.	1937.	1938.	1939.
	$	$	$	$	$
Cash reserves against Canadian deposits (as per Table 7)	212,000,000	186,000,000	239,893,926	252,144,266	268,255,213
Secured bank-note issue	25,000,000	2,000,000	Nil[1]	Nil	Nil
Subsidiary coin	[2]	[2]	5,075,458	5,338,991	5,372,204
Notes of other Canadian banks	16,807,334	11,247,365	6,048,097	5,892,138	5,244,271
Cheques of other banks	149,545,199	82,948,867	110,292,586	111,586,831	115,190,028
Deposits at other Canadian banks	4,698,323	3,461,775	4,584,844	4,189,163	4,112,564
Gold and coin abroad	24,797,260	19,089,489	4,403,340	4,871,340	5,534,122
Foreign currencies	19,468,671	16,022,766	23,086,428	27,223,767	31,683,643
Deposits at United Kingdom banks	4,826,444	9,383,994	23,783,213	31,383,908	25,050,301
Deposits at foreign banks	86,178,585	97,999,358	96,487,680	102,293,489	190,186,300
Securities—					
Dominion and Provincial Government securities	341,744,572	489,709,241	1,118,893,938	1,143,040,485	1,234,066,994
Other Canadian and foreign public securities	104,309,024	150,891,599	181,972,016	170,487,703	179,924,335
Other bonds, debentures, and stocks	52,961,542	55,157,961	125,505,440	126,138,634	126,338,917
Call and Short Loans—					
In Canada	267,271,438	117,224,745	107,443,328	66,722,525	54,508,836
Elsewhere	301,091,053	84,227,574	67,697,568	51,427,577	47,693,574
Current Loans—					
Canada—					
Loans to Provincial Governments	19,002,655	34,386,119	19,652,784	19,821,221	18,762,323
Loans to cities, towns, municipalities, and school districts	93,325,211	130,567,792	97,769,341	109,145,741	114,548,420
Other current loans and discounts	1,342,666,883	1,032,081,481	731,660,179	786,145,073	854,511,568
Elsewhere than in Canada	248,367,887	171,861,621	164,776,853	157,672,674	144,759,685
Non-current loans	7,522,377	12,317,980	11,574,170	9,757,794	8,832,002
Other Assets—					
Real estate, other than bank premises	5,618,820	7,141,708	8,662,108	8,305,205	7,870,483
Mortgages on real estate sold by the banks	7,221,774	6,244,908	4,228,687	4,323,494	4,150,701
Bank premises	75,536,822	79,714,603	74,420,237	73,349,685	72,323,493
Bank circulation redemption fund	6,246,861	6,721,355	6,697,792	5,744,888	5,288,771
Liabilities of customers under letters of credit as *per contra*	100,473,805	48,671,585	69,512,423	58,269,394	53,772,575
All other assets	11,957,574	14,520,279	12,964,696	13,432,594	13,583,263
Totals, Assets	**3,528,468,027**	**2,869,429,779**	**3,317,087,132**	**3,348,708,580**	**3,591,564,586**

[1] System changed owing to establishment of the Bank of Canada. [2] Included in cash reserves.

11.—Liabilities of Chartered Banks, 1929, 1932, and 1937-39.

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year.

Item.	1929.	1932.	1937.	1938.	1939.
LIABILITIES TO THE PUBLIC.	$	$	$	$	$
Notes in circulation	178,291,030	132,165,942	110,259,134	99,870,493	94,064,907
Deposit Liabilities—					
Government Deposits—					
Dominion	77,815,312	55,598,660	47,244,049	49,436,735	92,261,070
Provincial	24,536,732	26,151,681	42,705,268	44,952,800	53,494,539
Advances from Bank of Canada secured	Nil	Nil	Nil	416,666	Nil
Public Deposits—					
Demand	696,387,381	486,270,764	691,319,545	690,485,877	741,733,241
Time	1,479,870,058	1,376,325,128	1,573,654,555	1,630,481,857	1,699,224,304
Foreign	418,138,374	312,293,297	420,606,996	408,329,665	474,145,957
Inter-Bank Deposits—					
Canadian	14,528,474	10,694,683	14,572,664	15,609,409	14,800,678
United Kingdom	25,693,879	5,131,001	12,208,396	11,455,218	24,620,341
Other	100,254,711	49,732,341	37,432,300	41,236,295	43,716,370
Totals, Deposit Liabilities[1]	2,837,224,921	2,322,197,555	2,839,743,773	2,892,404,522	3,143,996,500
Canadian currency (estimated)	*2,293,000,000*	*1,955,000,000*	*2,382,000,000*	*2,449,000,000*	*2,630,000,000*
Foreign currency (estimated)	*544,000,000*	*367,000,000*	*458,000,000*	*443,000,000*	*514,000,000*
Totals, Note and Deposit Liabilities	3,015,515,951	2,454,363,497	2,950,002,907	2,992,275,015	3,238,061,407
Advances under the Finance Act	82,916,667	37,352,667	Nil	Nil	Nil
Other Liabilities to the Public—					
Bills payable	10,842,329	1,579,945	953,701	411,131	266,334
Letters of credit outstanding	100,473,804	48,671,585	69,512,423	58,269,394	53,772,575
Liabilities not included under foregoing heads	5,754,347	4,182,095	5,252,622	5,729,365	6,250,783
TOTALS, LIABILITIES TO THE PUBLIC	3,215,503,098	2,546,149,789	3,025,721,653	3,056,684,905	3,298,351,099
LIABILITIES TO SHAREHOLDERS.					
Capital	137,269,085	144,500,000	145,500,000	145,500,000	145,500,000
Rest or reserve fund	150,636,682	162,000,000	133,750,000	133,750,000	133,750,000
Grand Totals, Liabilities	**3,503,408,865**	**2,852,649,789**	**3,304,971,653**	**3,335,934,905**	**3,577,601,099**

[1] The totals of deposit liabilities do not correspond with those shown in Table 9 because of the inclusion here of inter-bank deposits.

12.—Ratio Comparisons of Certain Assets and Liabilities of Chartered Banks, 1926-39.

NOTE.—Yearly averages of month-end figures, except where otherwise specified.

Year.	Canadian Cash to Canadian Deposits.		Securities to Note and Deposit Liabilities.	Loans to Note and Deposit Liabilities.
	Daily.[1]	Month-End.		
	p.c.	p.c.	p.c.	p.c.
1926	9·8	10·1	21·3	67·2
1927	9·0	9·4	19·7	69·4
1928	8·5	9·1	18·2	72·0
1929	8·3	9·2	16·6	75·6
1930	8·2	9·2	17·1	74·6
1931	8·1	8·6	25·5	66·7
1932	8·8	9·5	28·4	64·5
1933	9·8	10·1	34·8	58·2
1934	10·2	10·3	35·3	56·0
1935	10·1	10·2	40·1	49·1
1936	10·2	10·0	47·7	40·9
1937	10·2	10·1	48·4	40·7
1938	10·5	10·3	48·1	40·1
1939	10·4	10·0	47·5	38·4

[1] Supplied by the Bank of Canada.

Classification of Deposits and Loans.—As a result of an amendment to the Bank Act in 1934, deposits and loans are required to be classified each year according to size of the deposit, or purpose of the loan. The following figures cover deposits and loans in Canada only.

13.—Deposits, According to Size, in Chartered Banks in Canada, as at Oct. 31, 1937-39.

NOTE.—Figures for earlier years will be found in the corresponding table of previous editions of the Year Book.

Kind and Size of Deposit.	1937.		1938.		1939.	
	No.	$	No.	$	No.	$
Deposits Payable on Demand—						
$1,000 or less	596,830	84,938,517	604,490	88,127,361	614,045	89,018,025
$1,000 to $5,000	47,438	97,755,972	50,094	102,443,022	53,088	109,226,479
$5,000 to $25,000	11,416	114,786,855	11,991	121,542,883	13,020	132,366,292
$25,000 to $100,000	3,542	115,483,832	2,708	125,413,101	3,019	142,043,879
Over $100,000	765	264,111,589	861	306,077,873	947	341,237,352
Adjustment items[1]	–	2,048,380	–	5,752,550	–	7,825,055
Totals	**659,991**	**679,125,145**	**670,144**	**749,356,790**	**684,119**	**821,717,082**
Deposits Payable After Notice—						
$1,000 or less	3,770,692	456,017,245	3,797,481	452,808,233	3,828,291	454,885,624
$1,000 to $5,000	274,810	551,364,607	284,243	571,677,424	290,222	588,216,921
$5,000 to $25,000	36,343	315,602,966	38,077	330,974,095	40,001	348,860,597
$25,000 to $100,000	2,371	103,622,340	2,541	111,882,640	2,757	123,329,760
Over $100,000	536	154,100,491	621	185,235,546	626	190,117,190
Adjustment items[1]		2,987,073	–	3,204,167	–	3,746,682
Totals	**4,084,752**	**1,583,694,722**	**4,122,963**	**1,655,782,105**	**4,161,897**	**1,709,156,774**

[1] Representing certified cheques, interest accrued on interest-bearing accounts, items in transit, etc.

14.—Loans, According to Class, made by Chartered Banks in Canada and Outstanding as at Oct. 31, 1937-39.

NOTE.—Figures for earlier years will be found in the corresponding table of previous editions of the Year Book.

Class of Loan.	1937.	1938.	1939.
	$	$	$
Provincial Government	26,384,534	22,847,911	18,454,687
Municipal government and school district	94,187,869	114,507,761	112,165,925
Agricultural—			
Loans to farmers, cattlemen, and fruit growers	57,490,784	56,802,780	56,980,203
Loans to grain dealers, grain exporters, and seed merchants	30,803,892	91,651,082	211,387,522
Totals, Agricultural	88,294,676	148,453,862	268,367,725
Financial—			
Call loans and other accommodation to brokers and bond dealers	73,531,185	62,401,107	51,749,848
Loans to trust, loan, mortgage, investment and insurance companies, and other financial institutions	68,966,413	66,906,329	58,817,649
Loans to individuals against approved stocks and bonds not otherwise classified	142,798,237	120,450,926	109,409,126
Totals, Financial	285,295,835	249,758,362	219,976,623
Merchandising, wholesale and retail	129,635,451	133,652,188	133,977,633
Manufacturing—dealers in lumber, pulpwood, and products thereof	62,949,545	75,176,990	56,947,765
Other manufacturing of all descriptions	156,555,520	138,380,018	135,656,465
Mining	6,109,791	8,904,144	6,419,591
Fishing, including packers and curers of fish	7,709,483	8,683,300	7,017,102
Public utility, including transportation companies	11,948,007	24,923,530	36,322,931
Building—contractors and others for building purposes	33,579,276	39,248,172	45,772,468
Charitable and religious institutions—churches, parishes, hospitals, etc	16,408,806	19,359,989	19,034,041
Other	61,567,831	74,691,584	83,338,328
Grand Totals	**980,626,624**	**1,058,587,811**	**1,143,451,284**

Clearing-House Transactions.—In advanced industrial societies money is only 'the small change of commerce'. The great bulk of monetary transfers, particularly in the case of the larger transactions, is made through the banks. It has been estimated that about 6 p.c. of the business transactions of the Continent of North America are financed by the use of money and the remaining 94 p.c. by the use of cheques. Accordingly, if the aggregate amount of the cheques paid through the banks and charged to accounts is known, there is an almost complete record of the volume of business transacted, and thus of the business activity of the country.

Statistics of this character were at first secured through the operation of the clearing houses—places where the representatives of all the banks met daily in the leading cities and presented for payment the notes of other banks and the cheques drawn upon other banks that had been paid in to their institutions in the regular course of business. In Canada, the first clearing houses to be established were those of Halifax (1887), Montreal (1889), Toronto (1891), Hamilton (1891), and Winnipeg (1893); the number has subsequently increased to 32.

For the purpose of the Central Clearing Settlement, each bank maintains in its account with the Bank of Canada, Ottawa, a balance (in excess of whatever deposit is maintained as part of the 5 p.c. reserve against deposit liabilities in Canada required by statute) deemed sufficient to settle its clearing obligations. Montreal, Ottawa, Toronto, Winnipeg, and Vancouver are settlement points for the clearing houses in their respective zones. The debit or credit balances of the banks at the specified points are daily communicated by the clearing-house manager, and confirmed by the respective bank, to the local agent of the Bank of Canada (to the Bank of Canada in the case of Ottawa) for transmission to the Bank of Canada at Ottawa by telephone or telegraph, which bank on the same day debits or credits, as the case may be, the account of the respective bank maintained with the Bank of Canada. By this means practically all the banking transactions of the country are adjusted daily in Ottawa in the accounts maintained by the banks with the Bank of Canada.

The figures of Table **15**, represent not only actual city clearings but exchanges between numerous rural branches in each district.

15.—Exchanges of the Clearing Houses of Chartered Banks in Canada, 1935-39.

NOTE.—Figures for earlier years will be found in the corresponding table in previous Year Books.

Clearing House.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$
Brandon	15,020,604	16,404,775	16,950,884	17,582,200	16,972,436
Brantford	41,207,595	45,356,164	50,506,997	46,424,869	44,722,995
Calgary	292,584,549	305,417,532	306,818,675	300,161,170	279,663,913
Chatham	22,192,630	25,865,402	31,781,621	30,160,322	30,139,377
Edmonton	199,411,079	197,022,175	206,183,407	201,035,055	201,977,802
Fort William	30,651,099	37,944,014	40,556,659	37,527,993	34,157,614
Halifax	112,710,681	119,545,816	134,094,626	128,130,093	130,899,207
Hamilton	197,844,548	236,482,873	285,024,414	254,838,784	267,959,422

15.—Exchanges of the Clearing Houses of Chartered Banks in Canada, 1935-39—concluded.

Clearing House.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$
Kingston	26,779,593	28,025,967	29,466,619	29,132,380	29,484,373
Kitchener	50,414,984	54,834,963	56,542,066	56,352,022	53,778,980
Lethbridge	23,963,854	24,105,821	25,229,839	26,331,675	26,996,736
London	134,707,964	145,222,921	146,861,077	133,836,073	127,963,282
Medicine Hat	12,995,361	12,367,706	12,092,715	12,080,166	12,903,438
Moncton	35,753,000	37,250,494	41,278,230	38,511,645	38,648,686
Montreal	4,582,416,573	5,386,188,857	5,871,146,518	5,382,362,315	5,306,897,388
Moose Jaw	27,283,900	31,587,919	30,976,707	29,487,745	31,805,492
New Westminster	27,463,691	32,166,195	35,055,324	32,687,614	33,076,133
Ottawa	1,076,864,472	1,132,979,446	1,091,883,251	998,823,343	1,041,873,213
Peterborough	31,325,062	32,347,673	32,660,582	30,946,954	30,242,390
Prince Albert	18,437,203	17,814,604	18,048,670	15,742,684	16,795,057
Quebec	207,012,322	222,901,251	264,680,505	250,085,177	245,139,004
Regina	191,995,407	218,683,823	186,954,514	207,704,393	236,430,344
Saint John	84,059,113	90,730,398	99,326,689	91,306,823	92,751,127
Sarnia	23,082,010	23,754,497	24,842,473	24,564,744	23,514,866
Saskatoon	74,956,723	77,033,722	70,019,704	64,577,460	69,199,123
Sherbrooke	28,659,155	29,959,127	35,528,449	36,194,610	36,637,764
Sudbury	38,895,230	46,340,527	50,746,395	51,778,260	51,126,380
Toronto	5,720,065,081	6,465,263,740	6,397,987,564	5,835,980,087	5,735,792,413
Vancouver	781,264,535	953,566,363	975,233,058	867,619,815	888,885,944
Victoria	79,007,806	87,484,888	89,962,678	85,997,667	89,366,862
Windsor	115,902,542	142,249,058	161,779,776	145,037,711	137,314,911
Winnipeg	2,622,557,766	2,925,627,890	2,030,163,981	1,800,572,038	2,379,667,846
Totals	**16,927,486,132**	**19,202,526,601**	**18,850,384,667**	**17,263,573,887**	**17,742,784,518**

Bank Debits.—As the number of separate banks has in recent years been steadily diminishing through amalgamations (see pp. 896-898), there being only 10 in December, 1939,* as compared with 18 in 1923, inter-bank transactions are a steadily decreasing proportion of total business transacted, and bank clearings have ceased to be a satisfactory measure of general business. The Canadian Bankers' Association agreed to secure from January, 1924, the monthly aggregate figures of the amount of cheques charged to accounts at all banking offices situated in the clearing-house centres of Canada, and monthly and annual figures of cheques charged to accounts (bank debits) have been published since that time by the Dominion Bureau of Statistics. Further, in order that an estimate might be made of the proportion of banking transactions outside the clearing-house cities to the total, the Canadian Bankers' Association secured for the month of January, 1935, the grand total of all cheques charged to accounts at all branch banks throughout the Dominion. The results were published in the Bureau's Monthly Review of Bank Debits for February, 1935, and showed that in January, 1935, the aggregate of transactions outside the clearing-house cities was 12½ p.c. of the grand total in the clearing-house cities. The corresponding figures in the five economic areas were as follows: Maritime Provinces 104·2 p.c.; Quebec 6·9 p.c.; Ontario 13·5 p.c.; Prairie Provinces 8·4 p.c.; British Columbia 16·7 p.c. Only in the Maritime Provinces did the total of bank debits in clearing-house cities appear to represent inadequately the grand total of business transactions.

*Barclays Bank, established in 1929, was the latest addition to the commercial chartered banks in Canada; the number has remained at 10 since 1931.

16.—Bank Debits at the Clearing-House Centres of Canada, by Individual Centres, 1935-39.

NOTE.—Figures for earlier years will be found in the corresponding table in previous Year Books.

Clearing-House Centre.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$
Maritime Provinces—					
Halifax	310,052,273	341,775,552	406,591,857	339,640,504	381,824,396
Moncton	90,680,025	98,641,301	112,550,923	108,145,304	108,891,549
Saint John	173,320,562	189,985,161	214,216,666	191,897,145	189,232,027
Totals, Maritime Provinces	574,052,860	630,402,014	733,359,446	639,682,953	679,947,972
Quebec—					
Montreal	8,307,134,410	10,150,016,770	10,596,261,705	9,005,746,968	8,759,472,109
Quebec	606,964,150	717,146,205	888,524,702	875,695,644	977,211,370
Sherbrooke	63,430,463	71,484,756	83,635,135	83,739,779	83,715,973
Totals, Quebec	8,977,529,023	10,938,647,731	11,568,421,542	9,965,182,391	9,820,399,452
Ontario—					
Brantford	94,186,017	103,221,469	120,088,991	109,468,693	107,113,483
Chatham	79,902,107	100,652,126	111,553,991	103,272,854	102,259,883
Fort William	50,202,917	63,348,734	68,085,229	68,129,478	67,033,183
Hamilton	559,388,191	601,358,570	691,483,173	625,033,425	644,434,304
Kingston	55,634,971	67,867,438	76,687,282	71,213,576	72,712,646
Kitchener	114,191,829	128,018,389	143,265,155	141,030,659	145,302,026
London	362,317,629	420,889,625	413,075,352	389,223,524	385,768,062
Ottawa	1,444,156,227	1,469,292,434	1,348,844,155	1,203,891,077	1,266,268,210
Peterborough	60,023,193	68,620,664	75,770,408	70,269,426	70,496,391
Sarnia	69,145,537	74,160,267	81,347,420	75,489,832	76,489,776
Sudbury	55,597,151	72,735,265	88,780,681	84,715,014	85,812,435
Toronto	10,642,516,427	12,168,836,487	12,226,885,028	10,428,035,428	10,173,866,946
Windsor	289,364,280	439,678,369	493,282,632	440,290,022	420,933,103
Totals, Ontario	13,876,626,476	15,778,679,837	15,939,149,497	13,810,063,008	13,618,490,448
Prairie Provinces—					
Brandon	25,666,690	28,313,991	31,358,553	32,845,981	33,810,275
Calgary	616,831,075	636,145,594	658,768,183	650,666,363	661,675,521
Edmonton	400,418,426	387,386,725	417,969,669	430,271,739	470,279,314
Lethbridge	48,945,714	45,780,043	51,787,553	57,226,409	56,702,076
Medicine Hat	27,322,542	26,842,729	26,611,236	28,155,429	27,707,009
Moose Jaw	53,874,399	77,376,584	73,307,647	68,605,328	83,327,283
Prince Albert	24,434,064	25,976,662	28,790,736	25,789,444	27,796,295
Regina	505,052,792	495,621,447	428,357,691	507,534,686	555,513,335
Saskatoon	110,058,112	121,553,190	121,374,564	114,863,759	121,853,807
Winnipeg	4,632,791,950	4,660,521,712	2,988,695,575	2,656,424,383	3,439,564,964
Totals, Prairie Provinces	6,445,395,764	6,505,518,677	4,827,021,407	4,572,383,521	5,478,229,879
British Columbia—					
New Westminster	59,819,150	70,089,850	74,751,206	73,972,517	78,647,117
Vancouver	1,349,924,217	1,682,786,803	1,692,513,585	1,546,113,353	1,587,410,731
Victoria	262,718,851	322,481,831	330,844,455	316,964,989	354,226,232
Totals, British Columbia	1,672,462,218	2,075,358,484	2,098,109,246	1,937,050,859	2,020,284,080
Grand Totals	**31,546,066,341**	**35,928,606,743**	**35,166,061,138**	**30,924,362,732**	**31,617,351,831**

Subsection 3.—Statistics of Individual Chartered Banks.

Assets and Liabilities.—The statistics in column 2 of Table **17** represent, for the years 1935 (when the Bank of Canada was established) and 1937 to 1939, the total of Bank of Canada notes in the possession of the chartered banks together with their deposits at the Bank of Canada. For 1929 (before the establishment of the Bank of Canada) they represent the totals of the banks' holdings of gold and coin in Canada, Dominion notes, and that part of their deposits in the Central Gold Reserves not required against their note issues.

17.—Principal and Total Assets of Individual Chartered Banks, 1929, 1935, and 1937-39.

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year.

Bank.	Year.	Cash Reserve Against Canadian Deposits.[1]	Total Securities.	Total Loans.	Total Assets.
		$	$	$	$
Bank of Montreal	1929	86,400,000	130,941,236	581,302,970	913,759,043
	1935	65,400,000	349,672,401	266,878,000	766,144,449
	1937	74,800,000	451,446,479	231,442,795	843,559,930
	1938	71,600,000	440,267,982	245,738,502	851,843,235
	1939	78,300,000	468,069,688	260,693,738	925,992,713
Bank of Nova Scotia	1929	18,400,000	44,107,378	172,881,551	275,257,022
	1935	23,400,000	103,828,021	110,217,442	277,368,870
	1937	21,200,000	117,296,803	116,505,352	297,863,823
	1938	23,000,000	123,262,557	113,745,078	305,196,111
	1939	22,700,000	128,464,101	117,409,315	322,729,150
Bank of Toronto	1929	8,700,000	17,633,621	89,012,432	134,485,442
	1935	11,000,000	43,941,167	51,748,891	121,582,723
	1937	12,700,000	65,362,279	47,498,717	141,847,481
	1938	14,600,000	69,015,109	46,781,406	145,714,429
	1939	14,600,000	72,630,780	49,577,778	157,932,947
Banque Provinciale du Canada	1929	1,200,000	10,203,136	33,956,608	54,648,363
	1935	2,400,000	20,044,145	18,463,790	48,383,082
	1937	4,500,000	26,213,729	17,419,458	55,310,698
	1938	5,100,000	27,176,678	19,717,569	58,545,562
	1939	4,900,000	30,766,756	19,986,634	61,891,607
Canadian Bank of Commerce	1929	40,000,000	86,446,466	498,345,544	737,542,966
	1935	46,500,000	206,399,787	253,387,099	585,971,609
	1937	46,300,000	271,802,611	240,530,574	646,200,637
	1938	49,900,000	279,967,984	231,775,730	646,969,476
	1939	50,200,000	287,270,300	251,199,518	680,265,958
Royal Bank of Canada	1929	38,300,000	126,757,074	614,062,764	949,919,252
	1935	42,000,000	192,962,019	379,979,253	750,717,195
	1937	49,400,000	323,108,273	349,453,135	869,211,590
	1938	53,700,000	321,915,852	342,317,904	864,199,597
	1939	58,600,000	356,990,782	339,970,347	935,002,482
Dominion Bank	1929	7,700,000	20,378,753	99,205,694	150,976,550
	1935	8,300,000	36,766,116	62,975,908	126,554,150
	1937	9,500,000	53,952,829	59,671,160	141,619,393
	1938	11,800,000	55,808,860	56,527,867	142,288,383
	1939	13,700,000	56,882,370	58,999,340	148,898,691
Banque Canadienne Nationale	1929	4,400,000	39,444,192	90,376,497	155,406,098
	1935	8,300,000	49,179,738	54,918,167	128,034,699
	1937	10,100,000	55,143,091	63,037,116	145,750,652
	1938	11,100,000	54,319,008	67,474,078	150,073,389
	1939	11,300,000	56,858,195	69,747,306	155,671,248
Imperial Bank of Canada	1929	7,300,000	21,818,113	96,859,437	148,644,987
	1935	7,700,000	36,690,525	75,599,203	137,764,752
	1937	10,700,000	54,932,510	72,434,899	157,036,305
	1938	10,300,000	57,871,212	74,455,372	162,228,588
	1939	12,200,000	69,870,089	73,819,560	175,969,083
Weyburn Security Bank[2]	1929	200,000	1,165,832	3,178,206	6,349,160
Barclays Bank (Canada)	1929[3]	100,000	358,012	197,405	4,437,434
	1935	600,000	4,867,734	2,263,072	14,056,175
	1937	700,000	7,112,790	2,581,017	18,686,623
	1938	1,000,000	10,061,580	2,159,099	21,649,810
	1939	1,700,000	12,527,185	2,212,873	27,210,707
Totals	**1929**	**212,000,000**	**499,015,138**	**2,279,247,504**	**3,528,468,027**
	1935	**215,600,000**	**1,044,351,653**	**1,276,430,825**	**2,956,577,704**
	1937	**239,900,000**	**1,426,371,394**	**1,200,574,223**	**3,317,087,132**
	1938	**252,100,000**	**1,439,666,822**	**1,200,692,695**	**3,348,708,580**
	1939	**268,200,000**	**1,540,330,246**	**1,243,616,409**	**3,591,564,586**

[1] Excluding minor amounts of gold carried in such reserves. See also text immediately preceding this table. [2] Absorbed by the Imperial Bank of Canada, May 1, 1931. [3] Four-month averages; bank commenced business in September, 1929. The grand totals for 1929 are, however, twelve-month averages for all banks.

18.—Principal and Total Liabilities of Individual Chartered Banks, 1929, 1935, and 1937-39.

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year.

Bank.	Year.	Notes in Circulation.	Deposit Liabilities.			Liabilities to Shareholders.	Total Liabilities.
			Government.	Public.	Inter-Bank.		
		$	$	$	$	$	$
Bank of Montreal..	1929	44,588,405	53,303,709	680,631,822	30,303,442	70,446,677	908,926,178
	1935	29,849,273	23,491,810	617,001,769	9,486,070	74,000,000	764,351,694
	1937	24,246,142	38,833,093	679,048,576	12,511,120	75,000,000	842,093,963
	1938	22,457,550	36,021,636	692,210,561	12,892,138	75,000,000	850,271,288
	1939	21,346,573	44,796,211	750,843,149	20,597,881	75,000,000	924,521,059
Bank of Nova Scotia.....	1929	15,956,549	3,061,797	202,312,043	6,968,960	30,000,000	272,704,813
	1935	10,771,142	2,957,607	215,204,121	4,105,639	36,000,000	276,534,562
	1937	9,800,871	2,565,548	237,225,243	4,427,098	36,000,000	296,815,820
	1938	9,337,665	4,096,324	243,885,881	4,818,185	36,000,000	304,153,257
	1939	8,473,645	9,280,712	255,696,020	5,825,746	36,000,000	321,557,115
Bank of Toronto...	1929	8,334,322	1,058,293	100,825,532	4,301,318	14,127,164	132,734,214
	1935	5,260,483	1,914,259	94,232,159	2,500,251	15,000,000	120,647,696
	1937	4,225,007	2,684,423	112,252,400	3,537,407	15,000,000	140,353,623
	1938	3,961,319	2,803,875	116,212,605	4,408,036	15,000,000	143,752,583
	1939	3,715,337	6,033,716	124,955,879	4,277,255	15,000,000	155,644,457
Banque Provinciale du Canada.....	1929	4,464,714	425,790	42,296,216	121,181	5,500,000	54,146,698
	1935	3,602,388	245,491	38,919,770	45,940	5,000,000	48,052,045
	1937	3,253,591	1,515,086	45,046,361	97,644	5,000,000	55,022,562
	1938	2,965,134	2,417,226	47,135,326	144,861	5,000,000	58,236,725
	1939	2,757,853	3,192,000	47,741,664	2,824,619	5,000,000	61,570,884
Canadian Bank of Commerce.....	1929	33,352,567	11,530,442	529,141,722	53,207,388	55,343,749	731,593,634
	1935	25,348,088	14,619,635	466,714,142	10,233,069	50,000,000	584,120,623
	1937	22,294,347	17,766,683	518,257,897	13,767,952	50,000,000	643,936,683
	1938	18,250,316	17,078,129	526,457,708	14,683,516	50,000,000	644,930,263
	1939	16,437,765	26,470,370	553,561,604	16,210,772	50,000,000	677,765,630
Royal Bank of Canada.....	1929	41,105,812	23,341,461	700,120,040	33,889,308	68,142,960	944,796,101
	1935	30,894,509	14,668,783	614,911,650	10,559,813	55,000,000	748,444,778
	1937	29,431,462	15,695,540	726,481,376	14,886,475	55,000,000	866,173,511
	1938	27,126,023	18,691,618	725,013,715	14,624,668	55,000,000	861,061,632
	1939	25,845,811	31,466,558	782,428,491	18,055,054	55,000,000	931,464,933
Dominion Bank....	1929	7,994,871	1,890,531	107,612,958	6,009,296	15,638,582	150,041,996
	1935	6,264,324	1,343,678	97,065,461	3,234,575	14,000,000	125,952,174
	1937	5,779,618	1,964,018	111,797,450	3,498,397	14,000,000	140,886,800
	1938	5,273,824	2,065,475	112,502,498	4,182,107	14,000,000	141,459,442
	1939	5,122,320	4,674,175	117,171,195	3,411,827	14,000,000	148,019,960
Banque Canadienne Nationale.....	1929	11,796,049	3,117,266	115,948,289	1,079,893	12,598,742	153,806,492
	1935	6,660,373	1,653,758	104,903,295	1,051,327	12,000,000	127,372,211
	1937	5,145,059	1,089,900	123,767,079	2,065,425	12,000,000	144,989,351
	1938	4,714,484	1,358,935	127,909,329	2,313,814	12,000,000	149,203,346
	1939	4,852,045	3,947,263	131,068,530	1,962,173	12,000,000	154,834,376
Imperial Bank of Canada.....	1929	10,150,422	4,484,691	110,927,178	3,602,427	15,000,000	146,916,789
	1935	6,704,185	3,757,551	106,821,368	2,803,772	15,000,000	136,675,412
	1937	5,747,553	7,793,619	122,375,207	3,826,475	15,000,000	156,020,052
	1938	5,438,889	9,682,274	125,321,823	4,814,740	15,000,000	161,225,972
	1939	5,141,100	15,243,191	134,540,528	3,724,812	15,000,000	175,024,696
Weyburn Security Bank[1].....	1929	511,116	138,064	4,415,648	45,729	774,560	6,258,719
Barclays Bank (Canada).....	1929[2]	108,607	Nil	493,097	2,844,367	1,000,000	4,449,695
	1935	289,337	138,598	6,196,018	5,078,168	2,250,000	14,049,157
	1937	335,484	41,407	9,329,507	5,595,367	2,250,000	18,679,288
	1938	345,289	174,043	12,647,953	5,418,857	2,250,000	21,640,397
	1939	372,458	651,413	17,096,442	6,247,250	2,250,000	27,197,989
Totals.....	**1929**	**178,291,030**	**102,352,044**	**2,594,395,813**	**140,477,064**	**287,905,767**	**3,503,408,865**
	1935	**125,644,102**	**64,791,170**	**2,361,969,753**	**49,098,624**	**278,250,000**	**2,946,200,352**
	1937	**110,259,134**	**89,949,317**	**2,685,581,096**	**64,213,360**	**279,250,000**	**3,304,971,653**
	1938	**99,870,493**	**94,389,535**	**2,729,297,399**	**68,300,922**	**279,250,000**	**3,335,934,905**
	1939	**94,064,907**	**145,755,609**	**2,915,103,502**	**83,137,389**	**279,250,000**	**3,577,601,099**

[1] Absorbed by the Imperial Bank of Canada, May 1, 1931. [2] Four-month averages; bank commenced business in September, 1929. The grand totals for 1929 are, however, twelve-month averages for all banks.

Earnings of Canadian Banks.—The chartered banks of Canada are for the most part Dominion-wide institutions, doing business in all parts of the country. Their earnings, therefore, reflect with very considerable accuracy the fluctuations of general business.

19.—Net Profits of Canadian Banks and Rates of Dividend Paid, for Their Business Years Ended 1934-39.

NOTE.—These figures are not strictly comparable owing to variations from year to year in the practices of individual banks and between banks. With the exception of La Banque Provinciale du Canada, the profits for 1936, 1937, 1938, and 1939 are shown after deducting Dominion and Provincial Government taxes.

Bank.	1934.		1935.		1936.	
	Net Profits.	Dividend Rate.	Net Profits.	Dividend Rate.	Net Profits.	Dividend Rate.
	$	p.c.	$	p.c.	$	p.c.
Bank of Montreal	4,105,024	8	3,005,212	8	3,181,501	8
Bank of Nova Scotia	1,850,330	12	1,834,174	12	1,926,686	12
Bank of Toronto	822,499	10	806,391	10	1,141,810	10
Banque Provinciale du Canada	417,366	6	400,843	6	402,678	6
Canadian Bank of Commerce	3,413,654	8	3,389,031	8	2,909,124	8
Royal Bank of Canada	4,398,217	8	4,340,522	8	3,504,241	8
Dominion Bank	1,151,561	10	901,556	10	951,277	10
Banque Canadienne Nationale	935,823	9[1]	915,790	8	727,935	8
Imperial Bank of Canada	1,231,992	10	1,208,079	10	962,813	10
Barclays Bank (Canada)	[2]	–	[2]	–	[2]	–
Totals, Net Profits	**18,326,466**		**16,801,598**		**15,708,065**	

Bank.	1937.		1938.		1939.	
	Net Profits.	Dividend Rate.	Net Profits.	Dividend Rate.	Net Profits.	Dividend Rate.
	$	p.c.	$	p.c.	$	p.c.
Bank of Montreal	3,408,328	8	3,398,390	8	3,462,446	8
Bank of Nova Scotia	1,982,140	12	1,980,769	12	2,033,333	12
Bank of Toronto	1,156,372	10	1,163,716	10	1,324,229	10
Banque Provinciale du Canada	444,410	6	450,427	6	457,173	6
Canadian Bank of Commerce	2,934,117	8	2,648,975	8	2,938,105	8
Royal Bank of Canada	3,711,379	8	3,696,233	8	3,724,842	8
Dominion Bank	976,838	10	960,121	10	802,296[3]	10
Banque Canadienne Nationale	774,228	8	780,240	8	783,184	8
Imperial Bank of Canada	967,977	10	961,342	10	966,258	10
Barclays Bank (Canada)	[2]	–	[2]	–	[2]	–
Totals, Net Profits	**16,355,789**	–	**16,040,213**		**16,491,866**	

[1] This bank paid at the rate of 10 p.c. per annum for the first half-year and 8 p.c. for the second. [2] Not reported. [3] Ten months.

Branches of Chartered Banks.—During the period from 1881 to 1901, the number of chartered banks doing business in Canada under the Bank Act remained almost the same (36 in 1881 and 1891, and 34 in 1901), but during the present century there has been in banking, as in industry, an era of amalgamations, the number of banks having dropped to 25 in 1913 and to 10 in 1931. That this has been far from involving a curtailment of banking facilities is seen in Table **9**, which shows the development of the banking business since 1867, and in Table **20**, which compares the number of branch banks existing in Canada at different periods, and shows a growth from 123 at Confederation to 4,083, inclusive of sub-agencies, at Dec. 31, 1930. Since then, owing to the shrinkage in commercial activities as a result of the depression, some unprofitable branches have been closed and the total has declined to 3,319, exclusive of 140 branches and agencies in other countries, as at Dec. 31, 1939.

20.—Branches of Chartered Banks in Canada, by Provinces, as at Dec. 31, 1868, 1902, 1905, 1920, 1926, 1930, and 1936-39.

Province.	1868.	1902.	1905.	1920.[1]	1926.[1]	1930.[1]	1936.[1]	1937.[1]	1938.[1]	1939.[1]
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
P.E. Island	Nil	9	10	41	28	28	27	27	27	26
Nova Scotia	5	89	101	169	134	138	135	134	134	134
New Brunswick	4	35	49	121	101	102	98	97	98	97
Quebec	12	137	196	1,150	1,072	1,183	1,069	1,074	1,078	1,079
Ontario	100	349	549	1,586	1,326	1,409	1,224	1,209	1,210	1,208
Manitoba	Nil	52	95	349	224	239	175	169	164	164
Saskatchewan	"	30	87	591	427	447	279	248	246	241
Alberta	"			424	269	304	200	186	180	174
British Columbia	2	46	55	242	186	229	187	188	190	191
Yukon and N.W.T.	Nil	Nil	3	3	3	4	4	4	5	5
Totals	**123**	**747**	**1,145**	**4,676**	**3,770**	**4,083**	**3,398**	**3,336**	**3,332**	**3,319**

[1] Includes sub-agencies for receiving deposits for the banks employing them.

21.—Branches of Individual Canadian Chartered Banks in Each Province and Outside Canada, as at Dec. 31, 1939.

NOTE.—This table does not include sub-agencies which numbered 598 in 1939, including 2 outside Canada.

Bank.	P.E. Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.	Manitoba.
	No.	No.	No.	No.	No.	No.
Bank of Montreal	1	13	13	107	189	28
Bank of Nova Scotia	8	36	34	21	123	7
Bank of Toronto	Nil	Nil	Nil	15	106	11
Banque Provinciale du Canada	3	"	13	107	14	Nil
Canadian Bank of Commerce	6	18	6	60	231	35
Royal Bank of Canada	6	63	22	77	222	57
Dominion Bank	Nil	Nil	1	8	97	12
Banque Canadienne Nationale	"	"	Nil	204	12	4
Imperial Bank of Canada	"	"	"	3	124	8
Barclays Bank (Canada)	"	"	"	1	1	Nil
Totals	**24**	**130**	**89**	**603**	**1,119**	**162**

Bank.	Saskatchewan.	Alberta.	British Columbia.	Yukon and N.W.T.	Outside Canada.	Total.
	No.	No.	No.	No.	No.	No.
Bank of Montreal	34	43	46	2	10	486
Bank of Nova Scotia	15	9	6	Nil	38	297
Bank of Toronto	23	7	9	"	Nil	171
Banque Provinciale du Canada	Nil	Nil	Nil	"	"	137
Canadian Bank of Commerce	52	40	63	3	12	526
Royal Bank of Canada	79	45	47	Nil	75	693
Dominion Bank	4	3	4	"	2	131
Banque Canadienne Nationale	2	Nil	Nil	"	1	223
Imperial Bank of Canada	28	21	11	"	Nil	195
Barclays Bank (Canada)	Nil	Nil	Nil	"	"	2
Totals	**237**	**168**	**186**	**5**	**138**	**2,861**

The number of branches of Canadian banks doing business outside Canada increased rapidly during the war and early post-war period, rising to a total of 206 in 1921. Since then the number has gradually declined to 140 branches and sub-agencies in 1939.

22.—Numbers of Branches of Each of the Canadian Chartered Banks in Other Countries, with Their Locations, as at Dec. 31, 1938 and 1939.

Bank and Location.	1938.	1939.	Bank and Location.	1938.	1939.
	No.	No.		No.	No.
Bank of Montreal—			Royal Bank of Canada—		
Newfoundland	5[1]	5[2]	Newfoundland	5	5
England	2	2	England	2	2
United States	3	3	British West Indies	11	11
			United States	1	1
Bank of Nova Scotia—			Cuba	23	22
Newfoundland	12	12	Puerto Rico, etc	11	11
England	1	1	France (auxiliary)	1	1
British West Indies	12[2]	11[2]	Spain	1	1
United States	3	3	Central and South America	21	21
Cuba	8	8			
Puerto Rico, etc	3	3	Dominion Bank—		
			England	1	1
Canadian Bank of Commerce—			United States	1	1
Newfoundland	2	2			
England	1	1	Banque Canadienne Nationale—		
British West Indies	3	3	France	1	1
United States	5	5			
Cuba	1	1	**Totals**	**141[3]**	**138[1]**
St. Pierre and Miquelon	1	Nil			

[1] Exclusive of two sub-agencies. [2] Exclusive of one sub-agency. [3] Exclusive of three sub-agencies.

Section 6.—Government and Other Savings Banks.

In a comparatively new country where capital is relatively scarce, it is natural that the banks that finance the business institutions should also absorb the bulk of the people's savings for use in promoting the business of the country. Thus, in Canada the great bulk of the current savings of the people is found in the savings or notice deposits of the Canadian chartered banks, the annual average figures of which are given for recent years in Table 9 of this chapter, the 1939 average being $1,699,224,304. Further, the current savings of the Canadian people are going very largely into the purchase of life insurance, the total premiums paid in the single year 1938 aggregating $205,290,819. In comparison with the enormous figures of notice deposits in chartered banks and with total insurance in force, the deposits in the special savings banks are comparatively small, but are none the less significant.

There are three distinct types of savings bank in Canada at the present time, in addition to the savings departments of the chartered banks and of trust and loan companies. First, there is the Post Office Savings Bank, in which the deposits are a direct obligation of the Dominion Government. Secondly, there are Provincial Government savings banking institutions in Ontario and in Alberta, where the depositor becomes a direct creditor of the Province. Thirdly, there are, in the Province of Quebec, two important savings banks, the Montreal City and District Savings Bank and the Caisse d'Economie de Notre-Dame de Québec, established under Dominion legislation and making monthly reports to the Department of Finance.

Dominion Government Savings Banks.—Prior to 1929 there were two classes of Dominion Government savings banks in Canada, the Post Office Savings Bank under the Post Office Department, and the Dominion Government Savings Bank attached to the Department of Finance. The former was established under the Post Office Act of 1867 (31 Vict., c. 10) in order to "enlarge the facilities now

available for the deposit of small savings, to make the Post Office available for that purpose, and to give the direct security of the Dominion to every depositor for repayment of all money deposited by him together with the interest due thereon". Branches of the Government Savings Bank proper, under the authority of the Finance Department, were established in the leading cities of Canada under the management of the Assistant Receivers General and in other places, in the Provinces of Nova Scotia and New Brunswick, under managers appointed by the Governor in Council. From deposits of $1,483,219 at June 30, 1868, increases were registered until 1887, $21,334,525 being shown at the credit of depositors at June 30 of that year. Commencing about 50 years ago, the individual banks were gradually amalgamated with the Post Office Savings Bank, and at Mar. 31, 1928, deposits had fallen to $7,640,566. The remaining banks finally were amalgamated with those of the Post Office in March, 1929.

23.—Deposits with Post Office and Dominion Government Savings Banks, Fiscal Years 1918-39.

NOTE.—Figures for Provincial Government savings banks are not included. Figures for 1868-1917 will be found at pp. 833-834 of the 1926 Year Book. The Dominion Government Savings Bank was amalgamated with the Post Office Savings Bank in 1929.

Year.	Post Office Savings Bank.	Dominion Government Savings Bank.	Year.	Post Office Savings Bank.
	$	$		$
1918	41,283,479	12,177,283	1929	28,375,770
1919	41,654,960	11,402,098	1930	26,086,036
1920	31,605,594	10,729,218	1931	24,750,227
1921	29,010,619	10,150,189	1932	23,919,677
1922	24,837,181	9,829,653	1933	23,920,915
1923	22,357,268	9,433,839	1934	23,158,919
1924	25,156,449	9,055,091	1935	22,547,006
1925	24,662,060	8,949,073	1936	22,047,287
1926	24,035,669	8,794,870	1937	21,879,593
1927	23,402,337	8,519,706	1938	22,587,233
1928	23,463,210	7,640,566	1939	23,045,576

24.—Financial Business of the Post Office Savings Bank, as at Mar. 31, 1934-39.

Item.	1934.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$	$
Deposits during year	2,565,470	2,223,907	2,292,326	2,830,193	3,671,298	3,812,974
Interest on deposits	580,946	510,592	435,558	426,535	432,436	445,886
Totals, cash and interest	3,146,415	2,734,499	2,727,884	3,256,728	4,103,734	4,258,861
Withdrawals	3,908,411	3,346,412	3,227,602	3,424,422	3,396,094[1]	3,800,518
At credit of depositors	23,158,919	22,547,006	22,047,287	21,879,593	22,587,233	23,045,576

[1] Revised since the publication of the 1939 Year Book.

Provincial Government Savings Banks.—Institutions for the deposit of savings are operated by the Provincial Governments of Ontario and Alberta, while a similar institution was in operation in Manitoba from 1924 to 1932 when the depositors' accounts were taken over by the chartered banks.

Ontario.—In the session of 1921, the Legislature of Ontario authorized the establishment of the Province of Ontario Savings Office, and in March, 1922, the first branches were opened. Interest at the rate of 1 and 1½ p.c. per annum compounded half-yearly is paid on accounts. The deposits are repayable on demand. Total deposits on Jan. 31, 1940, were $39,850,000, and the number of depositors at that date was approximately 114,000. Twenty-six branches are in operation throughout the Province.

Alberta.—In Alberta the Provincial Treasury receives savings deposits and issues demand savings certificates bearing interest at 2 p.c., or term certificates for one, two, or three years, in denominations of $25 and upwards, bearing interest at 2 p.c. for one year and 2½ p.c. for two or three years. The total amount in savings certificates on Dec. 31, 1939, was $5,597,931, made up of $3,474,337 in demand certificates and $2,123,594 in term certificates.

Penny Banks.—Provision is made by the Penny Bank Act (R.S.C., 1927, c. 13) for the institution of banks designed to encourage small savings by school children, although their facilities are not confined to children. Such banks are not deemed to be banks within the meaning of the Bank Act, but are savings banks within the meaning of the Winding Up Act and their powers are strictly limited.

The only bank operating under this Statute is the Penny Bank of Ontario.

ASSETS AND LIABILITIES OF THE PENNY BANK OF ONTARIO, YEARS ENDED JUNE 30, 1937-39.

Item.	1937.	1938.	1939.
	$	$	$
ASSETS—			
Securities	991,988	816,190	894,136
Cash on hand and on deposit	384,299	596,874	565,330
TOTALS, ASSETS[1]	1,377,511	1,414,027	1,460,562
LIABILITIES—			
Deposits and accrued interest	1,350,793	1,384,612	1,428,225
Surplus (guarantee fund and interest earned)	26,718	28,415	32,337
TOTALS, LIABILITIES	1,377,511	1,414,027	1,460,562

[1] Totals include minor unspecified items.

For many years the Penny Bank of Ontario has been paid a grant by the Ontario Government on the requisition of the Department of Education; the grant paid during the fiscal year 1939 was $5,000. As at June 30, 1939, the Penny Bank of Ontario served a school population of 208,000 children in 522 schools. R.S.O.,

c. 357, Sect. 89-Y, the Public Schools Act, and c. 360, Sect. 25-B, the High Schools Act, state that the Board of Trustees may provide books, stationery, and other materials necessary in connection with the establishment and maintenance of a penny savings bank or any system introduced for the encouragement of thrift and the habit of saving.

Other Savings Banks.—The Montreal City and District Savings Bank, founded in 1846 and now operating under a charter of 1871, had on Mar. 31, 1940, a paid-up capital and reserve of $5,000,000, savings deposits of $66,306,745, and total liabilities of $67,872,412. Total assets amounted to $72,994,651 including nearly $56,000,000 of Dominion, provincial, and municipal securities. The Caisse d'Economie de Notre-Dame de Québec, founded in 1848 under the auspices of the St. Vincent de Paul Society, incorporated by Act of the Canadian Legislature in 1855, and given a Dominion charter by 34 Vict., c. 7, had on Dec. 31, 1939, savings deposits of $13,532,218, a paid-up capital and reserve of $3,000,000, and total assets of $17,069,847.

Les Caisse Populaires or People's Banks of Quebec (338 reported to the Provincial Government in 1938) are also an important element in promoting thrift and assisting business in that Province although they are in reality co-operative credit loaning agencies and not banks. On Dec. 31, 1938, savings deposits in these agencies amounted to $12,103,888, while the amount on loan was $13,035,610. Loans granted in 1938 numbered 23,586 amounting to $5,771,429. Profits realized amounted to $624,263. Further information regarding them will be found at p. 797 of this volume.

25.—Deposits in the Montreal City and District Bank and the Caisse d'Economie de Notre-Dame de Québec, Representative Fiscal Years 1868-1900, and 1905-39.

NOTE.—Figures for intermediate years will be found at p. 833 of the 1926 Year Book.

Year.	Deposits.	Year.	Deposits.	Year.	Deposits.
	$		$		$
1868	3,369,799	1912	34,770,386	1927	69,940,351
1870	5,369,103	1913	39,526,755	1928	72,695,422
1875	6,611,416	1914	40,133,351	1929	70,809,603
1880	6,681,025	1915	39,110,439	1930	68,846,366
1885	9,191,895	1916	37,817,474	1931	69,820,422
1890	10,908,987	1917	40,405,037	1932	68,683,324
1895	13,128,483	1918	44,139,978	1933	68,113,501
1900	17,425,472	1919	42,000,543	1934	66,673,219
1905	25,050,966	1920	46,799,877	1935	66,496,595
1906	27,399,194	1921	53,118,053	1936	69,665,415
1907[1]	28,359,618	1922	58,576,775	1937	73,450,133
1908	28,927,248	1923	59,327,961	1938	77,260,433
1909	29,867,973	1924	64,245,811	1939	81,566,754
1910	32,239,620	1925	65,837,254	1940	79,838,963
1911	32,239,620	1926	67,241,344		

[1] For 1907 and subsequent years the fiscal year ended Mar. 31; previous to 1907 the year ended June 30.

PART II.—MISCELLANEOUS COMMERCIAL FINANCE.

Section 1.—Loan and Trust Companies.*

The Canada Year Book, 1934-35, presents at p. 993 an outline of the development of loan and trust companies in Canada from 1844 to 1913.

The laws relating to loan and trust companies were revised by the Loan and Trust Companies Acts of 1914 (4-5 Geo. V, cc. 40 and 55), with the result that the statistics of provincially incorporated loan and trust companies ceased to be collected. However, certain summary statistics of provincial companies have been supplied for 1938 by courtesy of those companies and are included in Table 1 in order to complete the picture for loan and trust companies throughout Canada. It is estimated that more than 90 p.c. of the business of provincial companies is represented in the figures, so that they may be accepted as fairly inclusive and representative of the volume of business transacted as compared with Dominion registered companies. The statistics of Tables 2 and 3 refer only to those companies operating under Dominion charter, except that, beginning in 1925, the statistics of loan companies and trust companies incorporated by the Province of Nova Scotia, and brought by the laws of that Province under the examination of the Dominion Department of Insurance, have been included in Table 3 as well as those for trust companies in New Brunswick since 1934 and in Manitoba for 1938. These historical series start with the year 1920, at which time the Dominion Department of Insurance took over the administration of the legislation concerning Dominion loan and trust companies—the Department of Finance had previously exercised supervision of their activities.

As indicating the progress of the aggregate of loan company business in Canada, it may be stated that the book value of the assets of all loan companies rose from $188,637,298 in 1922 to $213,649,794 in 1931, but declined to $193,677,487 in 1938. The assets of trust companies (not including estates, trust, and agency funds, which cannot be regarded as assets in the same sense as company and guaranteed funds) increased from $154,202,165 in 1928 to $233,521,151 in 1938. In the former year, the total of estates, trust, and agency funds administered amounted to $1,077,953,643 and in the latter year to $2,582,791,675. (Table 1.)

Functions of Loan Companies.—The principal function of loan companies is the lending of funds on first mortgage security, the money thus made available for development purposes being secured mainly by the sale of debentures to the investing public and by savings department deposits. Of the loan companies operating under provincial charters, the majority conduct loan, savings, and mortgage business, generally in the more prosperous farming communities.

Functions of Trust Companies.—Trust companies act as executors, trustees, and administrators under wills or by appointment, as trustees under marriage or other settlements, as agents or attorneys in the management of the estates of the

* Revised under the direction of G. D. Finlayson, Superintendent of Insurance, Department of Insurance.

living, as guardians of minor or incapable persons, as financial agents for municipalities and companies and, where so appointed, as authorized trustees in bankruptcy. Some companies receive deposits, but the lending of actual trust funds is restricted by law.

Statistics of Loan and Trust Companies.—The figures of Table 1 are of particular interest in the case of trust companies, on account of the nature of their functions, they are mainly provincial institutions, their chief duties being intimately connected with the matter of probate, which lies within the sole jurisdiction of the provinces.

1.—Operations of Dominion and Provincial Loan and Trust Companies in Canada, as at Dec. 31, 1938.

Item.	Provincial Companies.	Dominion Companies.	Total.
	$	$	$
Loan Companies—			
Assets (book values)	57,537,845	136,139,642	193,677,487
Liabilities to the public	28,305,959	100,655,486	128,961,445
Capital Stock—			
Authorized	36,645,875	59,150,000	95,795,875
Subscribed	19,978,215	26,156,600	46,134,815
Paid-up	18,424,146	19,340,788	37,764,934
Reserve and contingency funds	10,473,570	14,757,224	25,230,794
Other liabilities to shareholders	892,619	1,380,221	2,272,840
Total liabilities to shareholders	29,790,335	35,478,233	65,268,568
Net profits realized during year	996,309	815,746	1,812,055
Trust Companies—			
Assets (book values)—			
Company funds	61,081,680	20,247,474	81,329,154
Guaranteed funds	115,175,854	37,016,143	152,191,997
Totals, Company Funds and Guaranteed Funds	176,257,534	57,263,617	233,521,151
Estates, trust, and agency funds	*2,346,323,940*	*236,467,735*	*2,582,791,675*
Capital Stock—			
Authorized	53,607,600	25,150,000	78,757,600
Subscribed	26,639,300	13,108,470	39,747,770
Paid-up	25,122,508	11,949,775	37,072,283
Reserve and contingency funds	16,162,335	5,946,939	22,109,274
Unappropriated surpluses	3,586,011	461,126	4,047,137
Net profits realized during year	2,666,783	618,361	3,285,144

2.—Assets and Liabilities of Loan Companies Chartered by the Dominion Government, as at Dec. 31, 1920-38.

NOTE.—Figures given in this table do not include small loans companies (see Section 2 of this chapter, pp. 919-920).

Year.	ASSETS.						
	Real Estate.[1]	Mortgages on Real Estate.	Collateral Loans.	Bonds, Debentures, Stocks, and Other Company Property.	Cash on Hand and in Banks.	Interest, Rents, etc., Due and Accrued.	Total.[2]
	$	$	$	$	$	$	$
1920	4,753,049	63,725,084	1,750,128	16,593,932	3,363,877	1,658	90,413,261
1921	4,979,779	67,147,513	1,618,865	15,328,797	4,568,984	2,790,348	96,698,810
1922	5,309,854	69,824,985	1,916,976	16,967,305	4,800,649	2,989,460	102,462,090
1923	5,515,170	73,858,726	1,772,148	16,445,635	3,467,822	3,353,822	104,866,102
1924	4,035,532	71,468,506	1,722,803	18,568,856	3,636,592	2,470,756	101,919,837
1925[3]	3,982,921	79,106,407	1,532,366	20,210,387	3,442,928	2,180,700	110,638,667
1926[3]	4,150,307	89,873,578	1,161,886	18,426,169	4,284,648	2,274,535	120,321,095
1927[3]	3,999,808	102,501,193	1,585,891	18,884,434	5,672,479	2,020,087	134,669,734
1928[3]	4,172,704	105,106,365	2,472,312	17,874,808	3,255,166	1,746,138	134,634,288
1929[3]	6,156,227	103,774,850	2,266,288	17,654,463	3,186,180	1,833,545	134,877,701
1930[3]	7,069,914	105,477,328	2,420,927	20,834,907	4,291,855	2,558,238	142,657,134
1931[3]	8,104,521	106,607,563	1,020,076	23,430,382	3,282,016	3,529,451	147,094,183
1932[3]	8,263,875	102,661,879	491,387	21,521,472	4,527,610	4,366,369	142,886,473
1933[3]	8,860,817	98,357,741	240,069	18,767,937	4,311,894	5,437,535	136,990,422
1934[3]	9,112,878	97,169,985	253,458	21,693,414	4,384,592	6,532,256	140,147,053
1935[3]	9,527,647	96,008,289	306,183	20,572,693	3,670,060	6,926,558	137,994,145
1936[3]	9,770,965	97,622,787	271,660	21,175,454	3,496,046	3,928,038	137,210,511
1937[3]	10,593,241	97,050,041	134,333	20,371,285	3,303,863	3,891,070	136,262,516
1938[3]	10,436,985	97,104,591	112,270	20,204,905	3,714,627	3,669,841	136,139,642

Year.	LIABILITIES.							
	Liabilities to Shareholders.			Liabilities to the Public.				
	Capital Paid Up.	Reserve Funds.	Total.[4]	Debentures and Debenture Stock.		Deposits.	Interest Due and Accrued.	Total.[5]
				Canada.	Elsewhere and Sundries.			
	$	$	$	$	$	$	$	$
1920	24,062,521	13,442,364	39,110,640	16,982,032	18,451,054	15,257,840	[6]	51,302,020
1921	25,750,966	14,278,619	40,629,689	17,682,083	20,265,766	15,868,926	480,547	54,651,433
1922	25,241,600	14,740,834	40,013,363	20,360,480	22,390,990	16,910,558	499,661	60,386,903
1923	24,939,622	14,879,516	41,239,712	22,667,861	24,315,010	15,854,029	577,460	63,600,093
1924	22,592,057	13,734,681	37,122,138	25,426,434	21,901,431	15,970,077	543,131	63,989,554
1925[3]	23,632,474	14,555,603	38,461,375	30,052,139	21,600,001	18,660,122	538,755	71,066,398
1926[3]	23,498,336	14,861,280	38,977,937	36,613,088	21,572,810	21,316,150	663,987	80,447,480
1927[3]	20,699,710	14,867,432	38,596,121	47,818,386	19,965,321	27,019,323	868,694	95,895,897
1928[3]	20,038,831	14,112,114	36,067,816	51,269,133	15,292,362	30,671,257	940,528	98,408,186
1929[3]	20,192,840	14,427,948	35,694,166	52,857,277	14,813,287	29,602,789	941,795	98,482,375
1930[3]	20,333,966	14,615,844	35,634,733	58,058,682	15,063,313	31,581,913	978,602	105,896,436
1931[3]	20,407,157	14,717,152	35,765,429	63,158,214	14,837,565	30,823,662	1,027,388	110,280,658
1932[3]	19,174,463	14,724,620	35,455,456	61,959,437	14,858,798	29,418,924	989,303	107,431,181
1933[3]	19,253,370	15,182,125	35,855,209	60,483,299	15,161,505	24,287,270	996,132	101,120,948
1934[3]	19,373,841	15,800,582	36,599,186	61,157,372	16,222,139	24,908,363	1,004,063	103,536,768
1935[3]	19,393,907	15,618,715	36,404,095	59,386,546	14,530,516	26,556,302	898,830	101,578,778
1936[3]	19,301,368	15,262,697	36,005,271	58,918,941	14,939,518	26,250,954	860,115	101,194,543
1937[3]	19,352,276	15,048,254	35,771,946	57,506,233	14,977,437	26,966,644	765,435	100,478,054
1938[3]	19,340,788	14,757,224	35,478,233	57,073,555	14,959,522	27,668,490	705,622	100,655,486

[1] Book value of real estate for companies' use and other real estate. [2] Includes other assets. [3] Includes statistics of loan companies chartered by the Government of Nova Scotia, but inspected by the Dominion Department of Insurance. [4] Includes other liabilities to shareholders. [5] Includes other liabilities to the public. [6] Not shown separately.

3.—Assets and Liabilities of Trust Companies Chartered by the Dominion Government, as at Dec. 31, 1920-38.

Year.	COMPANY FUNDS—ASSETS.							
	Loans.		Real Estate.	Government, Municipal, School, and Other Securities Owned.	Stocks.	Cash on Hand and in Banks.	All Other Assets Belonging to the Companies.	Total Assets of the Companies.
	On Real Estate.	On Stocks and Securities.						
	$	$	$	$	$	$	$	$
1920	4,736,064	512,800	701,564	2,500,942	349,294	576,125	847,463	10,224,252
1921	4,408,914	344,302	908,618	2,400,914	253,779	603,618	1,317,785	10,237,930
1922	5,254,434	391,475	973,022	1,584,234	264,186	473,687	1,412,205	10,353,243
1923	5,402,752	375,129	1,048,682	1,656,304	292,564	481,672	1,573,406	10,830,509
1924	5,114,753	446,001	1,551,673	1,598,971	336,818	524,368	2,483,675	12,056,259
1925[1]	5,143,123	618,250	1,969,737	2,323,064	432,956	203,431	1,763,355	12,453,916
1926[1]	5,450,907	580,128	2,091,322	2,318,344	477,917	705,064	1,571,595	13,195,277
1927[1]	5,668,574	977,514	2,140,344	1,993,823	494,083	804,469	1,603,906	13,682,713
1928[1]	5,651,201	1,156,698	2,148,354	2,808,630	495,094	917,019	1,589,288	14,766,284
1929[1]	5,652,084	1,121,536	1,959,581	3,228,722	425,077	659,466	1,623,031	14,669,497
1930[1]	5,573,596	1,183,298	2,049,285	3,176,348	458,392	732,025	1,779,338	14,952,282
1931[1]	6,034,794	1,035,169	2,140,792	3,211,183	488,995	551,595	1,996,819	15,459,347
1932[1]	6,057,336	628,586	2,306,950	3,105,079	447,940	773,537	2,042,228	15,361,656
1933[1]	5,413,800	706,146	2,655,924	3,418,374	451,552	624,363	2,081,259	15,351,418
1934[1]	5,034,509	973,532	3,008,327	3,681,872	454,975	667,932	2,080,072	15,901,219
1935[1]	5,162,632	666,465	3,163,130	3,591,823	471,431	1,008,869	1,906,543	15,970,893
1936[1]	5,105,167	884,014	3,304,918	3,960,552	461,014	914,439	1,744,454	16,374,558
1937[1]	5,411,003	971,560	3,734,913	4,008,247	657,507	724,846	1,900,231	17,408,307
1938[1]	6,116,342	901,935	4,518,886	4,423,228	1,103,090	1,020,266	2,163,727	20,247,474

Year.	GUARANTEED FUNDS—ASSETS.						
	Loans.		Government, Municipal, School, and Other Securities Owned.	Stocks.	Cash on Hand and in Banks.	All Other Assets.	Total Assets Held Against Guaranteed Funds.
	On Real Estate.	On Stocks and Securities.					
	$	$	$	$	$	$	$
1920	4,247,183	Nil	2,437,106	329,801	853,832	941,588	8,809,510
1921	4,159,355	"	2,508,197	Nil	550,011	1,556,622	8,774,185
1922	5,241,872	"	1,823,290	150,951	546,929	1,022,363	8,785,405
1923	8,552,388	220,717	1,010,225	137,791	251,508	476,375	10,649,004
1924	12,278,138	345,892	989,050	137,791	404,999	152,867	14,308,737
1925[1]	12,897,930	490,528	1,463,920	85,062	636,526	323,373	15,897,339
1926[1]	14,005,093	1,334,078	1,488,070	85,062	813,344	253,765	17,979,412
1927[1]	16,596,737	2,407,158	1,978,136	85,062	1,067,790	329,870	22,464,753
1928[1]	17,095,284	2,337,415	2,376,726	85,062	1,911,962	299,275	24,105,724
1929[1]	18,447,949	1,804,750	2,689,069	3,288	1,132,633	387,574	24,465,263
1930[1]	19,513,691	2,075,322	2,491,089	Nil	1,948,592	380,135	26,408,829
1931[1]	20,812,176	887,015	2,598,587	18,300	919,982	482,159	25,718,219
1932[1]	19,336,735	1,480,454	3,286,467	Nil	688,136	431,121	25,222,913
1933[1]	19,141,920	2,551,966	4,072,131	23,400	1,084,150	523,140	27,396,707
1934[1]	19,911,247	3,913,332	5,771,085	Nil	1,444,847	610,546	31,651,057
1935[1]	20,123,641	4,004,017	8,542,061	"	1,345,204	742,469	34,757,392
1936[1]	20,474,810	5,748,256	7,300,519	"	1,199,866	733,156	35,456,607
1937[1]	21,926,852	3,172,609	8,525,407	"	1,486,606	673,202	35,784,676
1938[1]	21,452,863	4,025,109	9,573,096	"	1,353,753	611,322	37,016,143

For footnotes, see end of table, p. 919.

3.—Assets and Liabilities of Trust Companies Chartered by the Dominion Government, as at Dec. 31, 1920-38—concluded.

Year.	LIABILITIES.							
	Company Funds.						Guaranteed Funds.	
	Liabilities to Shareholders.				Liabilities to the Public.	Total.	Principal.	Total.
	Capital Paid Up.	Reserve Funds.	Other Liabilities.	Total.	Taxes, Borrowed Money, etc.			
	$	$	$	$	$	$	$	$
1920	7,465,376	1,851,028	263,716	9,580,120	422,368	10,002,488	8,673,539	8,809,510[2]
1921	7,532,777	1,746,815	126,279	9,405,871	501,460	9,907,331	8,424,128	8,549,642[2]
1922	7,678,401	1,912,123	46,068	9,636,592	329,827	9,966,419	8,473,720	8,600,588[2]
1923	7,772,749	1,908,887	5,674	9,687,310	832,724	10,520,034	10,306,767	10,484,863[2]
1924	8,796,479	1,918,567	169,390	10,884,436	766,783	11,651,219	14,027,120	14,160,703[2]
1925[1]	9,523,618	2,261,890	184,153	11,969,661	232,813	12,202,474	15,897,339	15,897,339
1926[1]	9,666,449	2,313,464	393,932	12,373,845	580,380	12,954,225	17,979,412	17,979,412
1927[1]	9,824,031	2,653,673	443,377	12,921,081	571,279	13,492,360	22,464,753	22,464,753
1928[1]	10,424,249	2,877,766	549,905	13,851,920	741,364	14,593,284	24,105,724	24,105,724
1929[1]	10,512,879	3,325,020	257,288	14,095,187	325,914	14,421,101	24,465,263	24,465,263
1930[1]	10,260,025	3,431,538	718,240	14,409,803	294,897	14,704,700	26,408,829	26,408,829
1931[1]	10,493,608	3,478,889	629,215	14,601,712	464,719	15,066,431	25,718,221	25,718,221
1932[1]	10,601,822	3,461,760	457,518	14,521,100	368,279	14,889,379	25,222,913	25,222,913
1933[1]	10,630,336	3,555,585	444,302	14,630,223	206,372	14,836,595	27,396,708	27,396,708
1934[1]	10,652,618	3,746,260	591,103	14,989,981	246,466	15,236,447	31,651,057	31,651,057
1935[1]	10,590,333	3,744,068	679,078[3]	15,013,479[3]	302,667[3]	15,316,146	34,757,391	34,757,391
1936[1]	9,803,722	4,935,216	805,197[3]	15,544,135[3]	333,926[3]	15,878,061	35,456,607	35,456,607
1937[1]	10,357,757	5,311,158	542,708[3]	16,211,623[3]	359,026[3]	16,570,649	35,784,676	35,784,676
1938[1]	11,949,775	5,946,939	584,149	18,480,863	974,982	19,455,846	37,016,143	37,016,143

[1] Includes statistics of trust companies chartered by the Government of Nova Scotia but inspected by the Dominion Department of Insurance for the years 1925-33, inclusive, by the Governments of Nova Scotia and New Brunswick for 1934-37, inclusive, and by the Governments of Nova Scotia, New Brunswick, and Manitoba for 1938. [2] Includes interest due and accrued. [3] Revised since the publication of the 1939 Year Book.

4.—Amount of Estates, Trust, and Agency Funds of Trust Companies Chartered by the Dominion Government, as at Dec. 31, 1920-38.

Year.	Estates, Trust, and Agency Funds.	Year.	Estates, Trust, and Agency Funds.
	$		$
1920	57,225,303	1930[1]	205,282,593
1921	79,252,639	1931[1]	215,698,469
1922	92,449,298	1932[1]	215,702,235
1923	102,764,835	1933[1]	225,484,151
1924	123,082,289	1934[1]	230,230,283
1925[1]	131,420,502	1935[1]	242,594,310
1926[1]	139,777,235	1936[1]	226,024,454
1927[1]	161,040,061	1937[1]	228,155,009
1928[1]	202,655,185	1938[1]	236,467,735
1929[1]	210,005,726		

[1] See footnote 1 to Table 3.

Section 2.—Small Loans Companies.

There have been incorporated in recent years, by the Parliament of Canada, a number of companies that make small loans, usually not exceeding five hundred dollars each, on the promissory notes of the borrowers and additionally secured in most cases by endorsements or chattel mortgages. While small loans companies may, under their charter powers, make loans on the security of real estate, actually they have made but very few of such loans.

5.—Assets and Liabilities of Small Loans Companies Chartered by the Dominion Government, as at Dec. 31, 1928-38.

Year.	ASSETS.			
	Loans Receivable.	Cash on Hand and in Banks.	Other Assets.	Total Assets.
	$	$	$	$
1928	138,635	3,597	17,007	159,239
1929	434,432	9,621	36,341	480,394
1930	598,275	21,814	31,551	651,640
1931	777,414	13,020	36,939	827,373
1932	644,339	22,125	13,449	679,913
1933	1,228,180	327,760	14,019	1,569,959
1934	2,353,862	284,761	22,111	2,660,734
1935	2,962,580	194,406	30,403	3,187,389
1936	4,145,066	214,363	32,961	4,392,390
1937	4,875,596	261,864	37,092	5,174,552
1938	4,764,032	412,594	32,182	5,208,808

Year.	LIABILITIES.									
	Liabilities to Shareholders.					Liabilities to the Public.				Total Liabilities.
	General Reserve.	Reserve for Losses.	Capital Paid Up.	Other Liabilities.	Total.	Borrowed Money.	Unearned Income.	Other Liabilities.[1]	Total.	
	$	$	$	$	$	$	$	$	$	$
1928	Nil	1,757	101,000	2,650	105,407	45,000	6,549	397	51,946	157,353
1929	"	10,075	101,000	1,399	112,474	346,924	16,656	1,571	365,151	477,625
1930	"	16,284	141,150	7,418	164,852	450,659	22,211	9,349	482,219	647,071
1931	"	36,028	273,150	3,992	313,170	474,659	24,532	10,759	509,950	823,120
1932	"	14,722	331,600	1,775	348,097	295,930	18,596	12,375	326,901	674,998
1933	"	22,945	976,750	10,871	1,010,566	445,382	96,248	4,075	545,705	1,556,271
1934	"	65,559	976,750	76,518	1,118,827	1,330,797	171,817	17,181	1,519,795	2,638,622
1935	"	91,061	976,750	163,923	1,231,734	1,681,062	222,643	21,742	1,925,447	3,157,181
1936	300,000	146,658	976,750	2,771	1,426,179	2,581,710	315,678	37,559	2,934,947	4,361,126
1937	300,000	220,308	1,001,750	237,643	1,759,701	2,920,840	361,315	95,904	3,378,059	5,137,760
1938	318,000	295,361	1,001,750	441,718	2,056,829	2,653,334	348,355	118,108	3,119,797	5,176,626

[1] Including taxes.

Section 3.—Sales of Canadian Bonds.

The total sales of Canadian bonds naturally reached a very high mark toward the close of the War of 1914-18, owing to the Dominion Government financing required to cover the war expenditures. However, the total sales were greater in 1936 than in any other year, owing largely to Dominion Government conversion loans.

Dominion Government financing through bond sales since 1907 may be divided into three periods: the first from 1908 to 1914, when the money was required largely for internal development of the country, public works, and Government railways; the second from 1915 to 1919, when war expenditures required very large borrowings; and the third since the War of 1914-18, when the issues have been required largely for refunding former loans at lower interest rates and for expenditures in connection with public works and railways. For index numbers of Dominion of Canada long-term bond yields, by months, for 1932 to May, 1940 see p. 825.

Provincial bond issues have been on a much larger scale since the War of 1914-18 than formerly, probably because of the development of provincially owned public utilities and of improved highways. Sales of the bonds of Canadian municipalities, on the other hand, were greater in 1913, toward the end of the 'land boom', than they have been in any other year, although sales in 1930 almost reached the record. However, apart from considerations of the increased urbanization of the population there has not been the same marked increase in the average annual sales of municipal bonds in the period since the War of 1914-18, as compared with the period before the War, that is noticeable in the case of provincial bonds.

Sales of corporation bonds, which from 1926 to 1930 had averaged over $257,000,000 per year, dropped to $10,550,000 in 1932 and to $4,385,000 in 1933, this being due largely to the uncertainty of the industrial outlook. Railway bonds also showed a precipitate decline to $12,500,000 in 1932 and fell to $1,000,000 in 1933. A change in the method of accounting between the Dominion and the Canadian National Railways partly accounts for the apparent decrease since 1936.

A very striking change has taken place during the present century in the market in which Canadian bond issues are principally sold. Prior to the War of 1914-18, a great part of the capital required for Canadian development came from the United Kingdom, and the major portion of Canadian bond issues was sold there. The outbreak of war temporarily eliminated that market, and Canadians turned largely to the United States for outside capital. However, the great increase in wealth during and since the War of 1914-18 has enabled a much greater proportion of public and industrial financing to be done at home, and, beginning with the Victory Loan campaigns, Canadians not only learned how to invest their money in bonds, but had the necessary funds to invest on a large scale in bond issues. In 1939, 90·7 p.c. of all bonds issued were sold in Canada, and 8·8 p.c. in the United States.

6.—Sales of Canadian Bonds, by Class of Bond and Country of Sale, 1926-39.

(From the *Monetary Times Annual.*)

NOTE.—Figures for 1904-25, inclusive, are given at p. 921 of the 1933 Year Book.

Year.	CLASS OF BOND.					
	Dominion.	Provincial.	Municipal.	Railway.	Corporation.	Total.
	$	$	$	$	$	$
1926	105,000,000	76,633,267	65,020,194	34,500,000	250,919,200	532,072,661
1927	45,000,000	114,795,500	72,742,114	80,000,000	289,680,067	602,217,681
1928	[1]	92,992,500	27,120,588	48,396,000	285,083,000	453,592,088
1929	[1]	119,960,500	98,667,809	199,200,000	243,330,600	661,158,909
1930	140,000,000	160,004,000	109,648,063	137,238,000	220,355,000	767,245,063
1931	858,109,300	126,239,205	85,290,066	121,750,000	59,432,000	1,250,820,571
1932	226,250,000	128,217,000	95,600,632	12,500,000	10,550,000	473,117,632
1933	440,000,000	82,889,000	41,282,513	1,000,000	4,385,000	569,556,513
1934	400,000,000	139,868,000	24,690,132	32,500,000	40,902,696	637,960,828
1935	739,300,000	123,407,000	44,793,200	48,400,000	60,605,700	1,016,505,900
1936	793,000,000	118,735,000	34,356,087	133,000,000	219,983,224	1,299,074,311
1937	919,000,000	174,362,000	52,137,475	30,380,000	89,566,800	1,265,446,275
1938	903,491,667[2]	118,792,000[2]	35,154,344[2]	19,480,000	55,962,500[2]	1,132,880,511[2]
1939	1,024,585,000	154,059,900	26,897,689	6,500,000	236,208,600	1,448,251,189

[1] Not reported for this year. [2] Revised since the public ation of the 1939 Year Book.

6.—Sales of Canadian Bonds, by Class of Bond and Country of Sale, 1926-39— concluded.

Year.	DISTRIBUTION OF SALES, BY COUNTRIES.			
	Sold in Canada.	Sold in United States.	Sold in United Kingdom.	Total.
	$	$	$	$
1926	263,862,718	259,209,943	9,000,000	532,072,661
1927	373,637,014	223,714,000	4,866,667	602,217,681
1928	278,080,088	159,512,000	16,000,000	453,592,088
1929	378,395,909	263,654,000	19,109,000	661,158,909
1930	368,868,063	393,632,000	4,745,000	767,245,063
1931	1,090,800,571	155,920,000	4,100,000	1,250,820,571
1932	377,752,632	81,015,000	14,350,000	473,117,632
1933	434,556,513	60,000,000	75,000,000	569,556,513
1934	529,630,828	50,000,000	58,330,000	637,960,828
1935	853,940,900	162,065,000	500,000	1,016,505,900
1936	1,211,824,311	86,000,000	1,250,000	1,299,074,311
1937	1,177,196,275	88,250,000	Nil	1,265,446,275
1938	1,044,038,844[1]	40,175,000	48,666,667[1]	1,132,880,511[1]
1939	1,316,651,189	127,500,000	100,000	1,448,251,189[2]

[1] Revised since the publication of the 1939 Year Book. [2] Includes $4,000,000 distributed elsewhere.

Section 4.—Corporation Dividends.

Although the 1939 estimate of total dividends paid by Canadian companies was $23,910,000 below that of 1938, it was the third highest annual amount disbursed by Canadian corporations and was over double that of 1933, the lowest year of the depression in this respect. Mining companies accounted for $94,100,000 or 31·1 p.c. of the total disbursements for the year.

7.—Dividend Payments of Canadian Companies, by Months, 1932-39.

(From the *Financial Post Business Year Book*.)

Month.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
January	20,401	13,855	14,417	14,785	16,032	22,442	23,078	20,671
February	4,095	3,336	3,783	3,496	4,311	5,722	5,018	7,003
March	18,945	16,754	17,267	9,440	19,176	21,500	23,731	26,233
April	21,274	11,602	12,266	14,621	16,161	20,917	22,535	20,896
May	4,674	2,931	4,793	4,025	3,332	6,847	5,711	6,893
June	19,343	17,497	41,939	55,804	61,333	71,562	69,178	64,924
July	16,008	12,672	16,423	18,679	23,408	31,212	27,404	23,543
August	4,392	3,260	4,464	4,362	3,580	4,585	5,926	6,516
September	16,049	14,271	9,732	12,315	14,610	19,226	19,845	24,299
October	15,920	11,807	13,849	14,801	16,018	19,489	19,506	21,019
November	3,652	3,656	4,188	3,601	4,680	9,046	9,887	6,557
December	20,209	23,038	42,639	66,700	78,000	91,176	94,112	73,467
Totals	**164,962**	**134,679**	**185,760**	**222,629**	**260,641**	**323,724**	**325,931**	**302,021**

Section 5.—Foreign Exchange.*

The Canadian dollar, adopted as Canada's currency in 1857, was equivalent to 15/73 of the pound sterling; in other words, the pound was equal to $4·866 in Canadian currency at par, and remained so, with minor variations between the import and export gold points representing the cost of shipping gold in either direction, until the outbreak of the War of 1914-18. During the first eleven years after Confederation, the Canadian dollar was at a premium in the United States, as the United States dollar was not, after the Civil War, redeemable in gold until 1878. From the latter date, the dollar in the two countries was equivalent at par, and variation was only between the import and export gold points or under $2 per $1,000.

At the outbreak of the War of 1914-18, both the pound sterling and the Canadian dollar were removed from the gold standard and fell to a discount in New York, though this discount was 'pegged' or kept at a moderate percentage by sales of United States securities previously held in the United Kingdom, by borrowing in the United States, and, after the United States entered the War, by arrangement with the United States Government. After the War, when the exchanges were 'unpegged' about November, 1920, the British pound went as low as $3·18 and the Canadian dollar as low as 82 cents in New York. In the course of the next year or two, exchange returned practically to par, and the United Kingdom resumed gold payments in April, 1925, and Canada on July 1, 1926. From then until 1928 the exchanges were within the gold points, but in 1929 the Canadian dollar again fell to a moderate discount in New York. The dislocation of exchange persisted, with the exception of a few months in the latter half of 1930, into 1931. Dollar rates were below the gold export points, however, only for a few scattered intervals.

Recent Movements in Canadian Exchange.—In September, 1931, the equilibrium of the international exchange was seriously disturbed. This unfortunate turn of events followed a period of over six years during which the nations of the world had worked steadily towards the stabilization of their currency systems upon a gold basis. Within two months of the time when the United Kingdom found it necessary to suspend free gold shipments, however, only a very small number of countries, including the United States and France, were left with currencies unshaken by preceding abnormal gold movements. The decision of the United Kingdom to go off the gold standard (Sept. 21, 1931) resulted in a sharp depreciation of sterling in New York. Canadian rates depreciated also, and fluctuated broadly with sterling until the United States dollar dropped from the ranks of gold standard currencies on Apr. 19, 1933.

Since that time major adjustments have occurred in practically all currencies of the world. The United States dollar was replaced on a gold basis, but was devalued at 59·06 p.c. of its former gold parity ($13\frac{5}{7}$ grains or $\frac{1}{35}$ oz. of gold to the dollar as against 23·22 grains previously) on Jan. 31, 1934, with other countries following suit at irregular intervals until the final break-up of the European gold 'bloc' in September, 1936. These countries, including France, Belgium, and Switzerland, were the last to abandon post-War gold standards established between 1925 and 1927. During 1936, the United States dollar and the Canadian dollar fluctuated narrowly about par, while the pound sterling declined in the latter half of the year

* Revised by Herbert Marshall, B.A., F.S.S., Chief, Internal Trade Branch, Dominion Bureau of Statistics.

until it also approached its old New York and Montreal parity of $4·866. With the exception of the last three months of the year, when readjustments within the former gold bloc were occurring, 1936 exchange fluctuations were unusually narrow. This was broadly true also for 1937, although there were considerable declines in the French franc, Spanish peseta, and Brazilian milreis.

On May 5, 1938, the French franc was devalued to a minimum rate of 179 francs to the pound sterling; the pound itself dropped sharply during the year from an average of $5·00 in January to $4·71 in December. The Canadian dollar remained at fractional discounts in New York from March to December.

Foreign exchange trading, outside of the Unites States, was subject to a marked increase in official control in 1939. Soon after the outbreak of hostilities in September, belligerents took action to safeguard the positions of their currencies and foreign exchange reserves. However, both sterling and the Canadian dollar were depreciated materially in September as may be observed from Table 8.

8.—Monthly Averages of Exchange Quotations at Montreal, 1938 and 1939.

NOTE.—The noon rates in Canadian funds upon which these averages are based have been supplied by the Bank of Canada.

Month.	Australia. Pound.		Belgium. Belga.		Denmark. Krone.		Finland. Markka.		France. Franc.	
Old par value.	4·8666		·1390		·2680		·0252		·0392	
	1938.	1939.	1938.	1939.	1938.	1939.	1938.	1939.	1938.	1939.
	$	$	$	$	$	$	$	$	$	$
January	4·000	3·765	·169	·170	·223	·210	·022	·021	·033	·027
February	4·013	3·767	·170	·169	·224	·210	·022	·021	·033	·027
March	3·998	3·764	·169	·169	·223	·210	·022	·021	·031	·027
April	4·005	3·763	·169	·169	·224	·210	·022	·021	·031	·027
May	4·006	3·759	·170	·171	·224	·210	·022	·021	·028	·027
June	4·009	3·754	·171	·170	·224	·209	·022	·021	·028	·027
July	3·964	3·751	·170	·170	·221	·209	·022	·021	·028	·027
August	3·918	3·706	·169	·170	·219	·208	·022	·021	·027	·026
September	3·867	3·529	·170	·187	·216	·212	·021	·021	·027	·025
October	3·851	3·576	·171	·186	·215	·214	·021	·021	·027	·025
November	3·793	3·576	·170	·183	·212	·214	·021	·020	·027	·025
December	3·771	3·576	·170	·184	·210	·214	·021	·019	·027	·025

Month.	Germany. Reichsmark.		Netherlands. Florin.		Italy. Lira.		Norway. Krone.		Spain. Peseta.	
Old par value.	·2382		·4020		·0526		·2680		·1930	
	1938.	1939.	1938.	1939.	1938.	1939.	1938.	193 9	1938.	1939.
	$	$	$	$	$	$	$	$	$	$
January	·403	·404	·557	·546	·053	·053	·251	·236	·061	·047
February	·404	·403	·559	·539	·053	·053	·252	·237	·061	[1]
March	·404	·403	·557	·533	·053	·053	·251	·236	·058	[1]
April	·404	·403	·559	·534	·053	·053	·252	·236	·058	[1]
May	·405	·403	·558	·538	·053	·053	·252	·236	·059	·111
June	·407	·402	·559	·533	·053	·053	·252	·236	·058	·110
July	·404	·402	·553	·534	·053	·053	·249	·236	·057	·110
August	·402	·401	·548	·537	·053	·053	·246	·234	·058	·111
September	·402	[1]	·543	·585	·053	·057	·243	·249	·053	·115
October	·404	[1]	·549	·590	·053	·056	·242	·252	·051	·113
November	·403	[1]	·547	·589	·053	·056	·238	·252	·051	·111
December	·405	[1]	·549	·590	·053	·056	·237	·252	·050	·110

[1] No quotations received.

8.—Monthly Averages of Exchange Quotations at Montreal, 1938 and 1939—concluded.

Month.	Sweden. Krona.		Switzerland. Franc.		Argentina. Peso.[1] (paper.)		Brazil. Milreis.[1]		Mexico. Peso.		Hong Kong. Dollar.	
Old par value.	·2680		·1930		·4244		·1196		·4985		·3000	
	1938.	1939.	1938.	1939.	1938.	1939.	1938.	1939.	1938.	1939.	1938.	1939.
	$	$	$	$	$	$	$	$	$	$	$	$
January	·258	·242	·231	·228	·292	·231	[2]	·059	·278	·196	·312	·293
February	·259	·243	·232	·228	·266	·231	·058	·059	·277	·201	·313	·292
March	·258	·242	·231	·227	·257	·232	·059	·059	·256	·201	·311	·292
April	·258	·242	·231	·225	·256	·232	·059	·059	·232	·201	·310	·288
May	·258	·242	·230	·226	·263	·232	·059	·057	·226	·201	·311	·290
June	·258	·242	·231	·226	·263	·233	·059	·051	·211	·201	·312	·290
July	·255	·242	·230	·226	·261	·233	·059	·051	·202	·172	·309	·288
August	·252	·241	·230	·227	·259	·232	·059	·050	·198	·169	·306	·288
September	·249	·261	·228	·248	·255	·257	·059	·055	·196	·212	·302	·274
October	·248	·264	·229	·249	·254	·260	·059	·056	·199	·224	·300	·278
November	·245	·264	·228	·249	·237	·257	·059	·056	·202	·228	·296	·272
December	·243	·264	·228	·249	·230	·253	·059	·056	·201	·202	·295	·272

Month.	India. Rupee.		Japan. Yen.		Shanghai. Dollar.		London. Sterling.		New York. Dollar.	
Old par value.	·3650		·4985		·4167		4·8666		1·00	
	1938.	1939.	1938.	1939.	1938.	1939.	1938.	1939.	1938.	1939.
	$	$	$	$	$	$	$	$	$	$
January	·378	·351	·291	·274	·295	·164	5·000	4·706	1·000	1·008
February	·379	·352	·290	·274	·296	·160	5·017	4·709	1·000	1·005
March	·377	·352	·290	·274	·283	·161	4·998	4·704	1·003	1·004
April	·376	·351	·292	·274	·271	·161	5·006	4·704	1·005	1 005
May	·374	·351	·292	·274	·241	·161	5·008	4·698	1·008	1·004
June	·371	·350	·292	·274	·191	·135	5·012	4·692	1·011	1·002
July	·370	·350	·289	·273	·183	·107	4·956	4·689	1·005	1·002
August	·365	·335	·285	·270	·167	·072	4·897	4·633	1·003	1·005
September	·361	·328	·282	·258	·173	·075	4·834	4·409	1·006	1·095
October	·359	·336	·281	·261	·162	·086	4·812	4·450	1·009	1·105
November	·354	·335	·276	·260	·160	·093	4·741	4·450	1·007	1·105
December	·352	·336	·275	·260	·163	·083	4·713	4·450	1·009	1·105

[1] Free market rates. [2] Exchange transactions temporarily suspended.

CHAPTER XXIII.—INSURANCE.*

CONSPECTUS.

	Page.		Page.
Section 1. Fire Insurance	927	Section 4. Insurance as it Affects the Balance of International Payments	952
Section 2. Life Insurance	936	Section 5. Government Annuities	954
Section 3. Miscellaneous Insurance	943		

Insurance business is transacted in Canada by companies of the following classes: (1) companies incorporated under the laws of the Dominion of Canada or of the former "Province of Canada", (2) companies incorporated under the laws of the provinces of Canada, and (3) companies incorporated or formed under the laws of British and foreign countries. The word "companies", as here used, includes fraternal benefit societies and exchanges that transact the business of insurance. The Dominion Insurance Acts provide that companies of classes (1) and (3) above may not transact business anywhere in Canada unless registered† by the Dominion, but these Acts also provide that fire insurance on property in Canada may be effected in companies of class (3) even though not registered, if the insurance is effected without solicitation, advertising, or the use of the mails; and if an office is not maintained in Canada, though property to be insured may be inspected and losses may be adjusted. Insurance so effected is generally known as 'unlicensed insurance'. Companies of class (2) may transact business in the province of incorporation, subject to compliance with the laws thereof, or in any other province subject to compliance with the laws thereof, or, on compliance with the Dominion laws, may be granted Dominion registration. Most of these companies limit their business to the province of incorporation or to one or more other provinces; a few only have been granted Dominion registration.

What has been said above implies that jurisdiction concerning insurance companies and insurance business is divided between the Dominion and the provinces. There have been many references to the courts and appeals to the Privy Council with a view to determining the respective legislative domains, both in respect of insurance legislation specifically and in respect of legislation affecting companies generally, including insurance companies. The latest Privy Council decision was handed down in 1931. It may now be taken as established that the Parliament of Canada may require companies formed or incorporated outside of Canada to obtain Dominion registration and to continue to be so registered as a condition of transacting business in Canada, and these companies may be required to make returns from time to time of their business and doings in Canada and to furnish evidence of their solvency. The powers of the Dominion go much further in reference to

* The statistics of Fire, Life, and Miscellaneous Insurance have been revised under the direction of G. D. Finlayson, Superintendent of Insurance, and those pertaining to Government Annuities (Section 5) under the direction of W. M. Dickson, Deputy Minister of Labour.

† Prior to 1932, the Dominion Insurance Acts provided for the "licensing" of companies; the Acts passed in 1932 provided for "registration". The change in terminology does not indicate any change in substance.

companies incorporated by the Parliament of Canada, but include all of the powers that may be exercised over companies formed or incorporated outside of Canada and registered by the Dominion. The Acts passed in 1932,* as since amended, implement the powers of the Dominion as determined by the Privy Council decisions.

The Dominion Acts under which companies are registered are administered by the Department of Insurance under the Minister of Finance. The chief officer of the Department of Insurance is the Superintendent of Insurance. The first Superintendent was appointed in 1875 as head of a newly created Insurance Branch of the Department of Finance. In 1910 the Insurance Branch was organized as a separate Department, the Department of Insurance, under the Minister of Finance.

Precedent to obtaining initial registration, in addition to filing certain documents, including a full and complete financial statement, a company must satisfy the Minister that it is sound and solvent and must make the required initial deposit of securities, varying from $10,000 to $100,000, depending on the class of business to be undertaken. Annual returns are required of all registered companies and the Acts require an examination to be made, by the Superintendent or on his behalf, of the books and records of companies with a view to substantiating the accuracy of the statements filed and the soundness of the companies. Should any company show an unsatisfactory financial condition, the Acts require remedial measures to be taken. British and foreign companies are required to maintain in Canada assets sufficient to cover all of their liabilities in Canada, while Canadian companies are required to maintain in Canada all of their assets, except such as it may be necessary to deposit outside of Canada as security for 'out of Canada' business.

The statistics herein given for companies registered by the Dominion are divided into three classes relating to: (1) insurance against fire; (2) life insurance; and (3) miscellaneous insurance, viz., accident, automobile, aviation, burglary, credit, earthquake, explosion, falling aircraft, forgery, fraud, guarantee, hail, inland transportation, live-stock, machinery, personal property, plate glass, property, sickness, sprinkler leakage, steam boiler, title, tornado, and weather insurance. These statistics are compiled from the reports of the Department of Insurance; throughout they apply to calendar years.

Since 1915, the Department of Insurance has collected statistics, included herein for 1938, of business transacted by provincial companies licensed by the provinces, classified as to: (1) business transacted within the province of incorporation, and (2) business transacted in other provinces.

Returns for unlicensed insurance (above referred to) formerly collected, for taxation purposes, under the Special War Revenue Act, are no longer required. The last figures are for the year 1933 and appear at p. 1016 of the 1934-35 Year Book.

Statistics of Dominion Government annuities are given at the end of this chapter. The Department of Labour administers the Acts under which these annuities are sold.

* The Canadian and British Insurance Companies Act, 1932 (22-23 Geo. V, c. 46). The Foreign Insurance Companies Act, 1932 (22-23 Geo. V, c. 47).

Section 1.—Fire Insurance.

Fire insurance in Canada began with the establishment by British fire insurance companies of agencies, usually situated in the seaports and operated by local merchants. The oldest existing agency of a British company is that of the Phœnix Fire Office of London, now the Phœnix Assurance Company, Ltd., which commenced business in Montreal in 1804. On account of the growth of the insurance business of these early British companies, branch offices were established and local managers were appointed, charged with directing the companies' affairs in Canada.

The Halifax Fire Insurance Co. is the first purely Canadian company of which any record is available. 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. Among the other pioneer fire insurance companies still in operation, mention may be made of the following: the Quebec Fire Assurance Co., which commenced business in 1818 and was largely confined in ownership and operations to Quebec Province; the British America Assurance Co., incorporated in 1833, the oldest company in Ontario; the Western Assurance Co., organized in 1851, and now, after a rapid and steady growth, one of the largest companies of its kind on the continent; two United States companies, the Ætna Insurance Co., Hartford, Conn., and the Hartford Fire Insurance Co., which commenced business in Canada in 1821 and 1836, respectively.

The report of the Superintendent of Insurance for the year ended Dec. 31, 1938, shows that at that date there were 275 fire insurance companies doing business in Canada under Dominion registration; of these 56 were Canadian, 69 were British, and 150 were foreign companies. In 1875, the first year for which authentic records were collected by the Department of Insurance, 27 companies operated in Canada—11 Canadian, 13 British, and 3 United States. The proportionate increase in the number of British and foreign companies from 59 p.c. to 80 p.c. of the total number is a very marked point of difference between the fire and life insurance businesses in Canada, the latter being carried on very largely by Canadian companies.

Although in its early days the Dominion did not prove a very lucrative field for fire insurance companies, the great advance in building construction and the wide use of improved fire appliances and safety devices have materially reduced the danger of serious conflagrations and have placed the risks assumed by companies in Canada on an equality with those of other countries.

A feature of the fire insurance business, besides the large percentage of British and foreign companies, is the continued increase in the number of companies that are operating on the mutual or reciprocal plan. These companies, in which all profits or losses are directly received or paid by the policyholders, are making themselves felt as competitive factors in the fire insurance business.

Statistics of Fire Insurance.—The net amount of fire insurance in force on Dec. 31, 1938, with companies holding Dominion licences, was $9,953,905,417, while the net amount in force with provincial companies on the same date was $1,214,374,556. Thus the grand total net fire insurance in force on Dec. 31, 1938, with Dominion and provincial companies was $11,168,279,973.

In Table 1 it is shown that the average cost per $100 of insurance reached a maximum in 1904 and 1905; there has since been a steady decrease with the exception of the years 1921, 1922, and 1924, when temporary reversals of the downward swing were in evidence. It is noteworthy that the cost of fire insurance has decreased by 57·5 p.c. since 1905.

1.—Summary Statistics of Fire Insurance by Companies Operating under Dominion Registration, 1901-39.

NOTE.—Figures for the years 1869-1900 are given at p. 973 of the 1939 Year Book.

Year.	Amount in Force at End of Year.	Net Premiums Received during Year.	Losses Paid during Year.	Percentage of Losses to Premiums.	Gross Amount of Risks Taken during Year.	Premiums Charged Thereon.	Average Cost per $100 of Insurance.
	$	$	$	p.c.	$	$	$
1901.....	1,038,687,619	9,650,348	6,774,956	70·20	821,522,854	11,688,958	1·42
1902.....	1,075,263,168	10,577,084	4,152,289	39·26	892,049,886	13,087,251	1·47
1903.....	1,140,453,716	11,384,762	5,870,716	51·57	933,274,764	14,038,182	1·50
1904.....	1,215,013,931	13,169,882	14,099,534	107·06	1,002,305,105	16,006,969	1·60
1905.....	1,318,146,495	14,285,671	6,000,519	42·00	1,140,095,372	18,262,037	1·60
1906.....	1,443,902,244	14,687,963	6,584,291	44·83	1,210,099,865	18,554,730	1·53
1907.....	1,614,703,536	16,114,475	8,445,041	52·41	1,364,204,991	20,492,863	1·50
1908.....	1,700,708,263	17,027,275	10,279,455	60·37	1,466,294,021	21,968,432	1·50
1909.....	1,863,276,504	17,049,464	8,646,826	50·72	1,579,975,867	22,293,633	1·41
1910.....	2,034,276,740	18,725,531	10,292,393	54·96	1,817,055,685	24,684,296	1·36
1911.....	2,279,868,346	20,575,255	10,936,948	53·16	1,987,640,591	26,867,170	1·35
1912.....	2,684,355,895	23,194,518	12,119,581	52·25	2,374,161,732	30,639,867	1·29
1913.....	3,151,930,389	25,745,947	14,003,759	54·39	2,925,200,553	36,032,461	1·21
1914.....	3,456,019,009	27,499,158	15,347,284	55·81	3,104,101,568	36,185,927	1·17
1915.....	3,531,620,802	26,474,833	14,161,949	53·49	3,111,552,903	36,048,345	1·16
1916.....	3,720,058,236	27,783,852	15,114,063	54·40	3,418,238,860	37,231,691	1·09
1917.....	3,986,197,514	31,246,530	16,379,101	52·42	4,049,059,999	43,515,822	1·07
1918.....	4,523,514,841	35,954,405	19,359,352	53·84	4,606,035,056	48,770,112	1·06
1919.....	4,923,024,381	40,031,474	16,679,355	41·67	5,423,569,961	57,577,632	1·06
1920.....	5,969,872,278	50,527,937	21,935,387	43·41	6,790,670,610	71,143,917	1·05
1921.....	6,020,513,832	47,312,564[1]	27,572,560[2]	58·28	6,139,531,168	68,161,786	1·11
1922.....	6,348,637,436	48,168,310[1]	32,848,020[2]	68·19	6,471,133,294	68,347,294	1·06
1923.....	6,806,937,041	51,169,250[1]	32,142,494[2]	62·82	7,311,835,110	73,037,471	1·00
1924.....	7,224,475,267	49,833,718[1]	29,186,904[2]	58·57	6,987,536,461	71,146,802	1·02
1925.....	7,583,297,899	51,040,075[1]	26,943,089[2]	52·79	7,646,026,535	74,679,130	0·98
1926.....	8,051,444,136	52,595,923[1]	25,705,975[2]	48·87	8,716,166,834	81,104,612	0·93
1927.....	8,287,732,966	51,375,637[1]	20,831,931[2]	40·55	8,531,139,424	76,423,855	0·90
1928.....	8,761,579,512	54,826,851[1]	25,544,664[2]	46·57	9,187,224,958	80,413,215	0·88
1929.....	9,431,169,594	56,112,457[1]	30,209,839[2]	53·84	10,791,096,165	87,317,411	0·81
1930.....	9,672,996,973	52,646,520[1]	30,427,968[2]	57·71	10,311,193,608	82,700,147	0·80
1931.....	9,544,641,293	50,342,669[1]	29,938,409[2]	59·47	10,789,737,477	86,741,056	0·80
1932.....	9,301,747,991	46,911,929[1]	30,068,923[2]	64·10	10,339,649,769	81,823,235	0·79
1933.....	9,008,262,736	41,573,986[1]	21,655,460[2]	52·09	10,644,787,101	78,980,010	0·74
1934.....	8,804,840,676	41,468,119[1]	16,968,030[2]	40·92	9,506,703,020	68,793,705	0·72
1935.....	8,782,698,099	40,884,876[1]	14,821,465[2]	36·25	9,641,773,674	67,596,146	0·70
1936.....	9,248,273,260	40,218,296[1]	14,072,237[2]	34·99	9,642,269,141	66,831,039	0·69
1937.....	9,773,324,476	42,498,127[1]	14,821,536[2]	34·88	10,432,290,081	71,913,161	0·69
1938.....	9,953,905,417	42,439,688[1]	17,363,670[2]	40·91	10,422,793,265	70,735,709	0·68
1939[3].....	10,202,388,022	41,092,009[1]	15,729,854[2]	38·28	11,168,784,302	71,858,397	0·64

[1] Premiums written. [2] Losses incurred. [3] Subject to revision.

2.—Assets of Canadian Companies Transacting Fire Insurance, or Fire Insurance and Other Classes of Insurance, and Assets in Canada of Companies Other Than Canadian Transacting Such Business in Canada, 1934-38.

Item.	1934.	1935.	1936.	1937.	1938.
Canadian Companies.	$	$	$	$	$
Real estate	2,020,588	1,989,144	1,833,914	1,835,280	1,881,384
Loans on real estate	1,116,048	1,801,885	1,938,969	2,500,869	2,692,587
Stocks, bonds, and debentures	45,611,133	50,515,906	56,674,057	61,819,268	64,012,380
Agents' balances and premiums outstanding	3,220,983	3,179,405	3,259,316	3,798,305	3,848,582
Cash on hand and in banks[1]	5,451,675	5,857,871	5,587,889	6,111,766	6,332,151
Interest and rents	504,444	530,024	524,483	607,413	611,540
Other assets	3,899,758	3,448,895	3,064,360	3,213,985	2,767,451
Totals, Canadian Companies	**61,824,629**	**67,323,130**	**72,882,988**	**79,886,886**	**82,146,075**
British Companies.					
Real estate	2,995,983	3,020,175	2,290,810	2,256,975	2,240,275
Loans on real estate	2,733,535	2,535,040	1,999,665	1,904,856	1,884,562
Stocks, bonds, and debentures	50,857,791	50,353,298	49,196,988	46,219,454	44,304,812
Agents' balances and premiums outstanding	3,967,856	3,807,444	3,872,727	3,921,247	3,940,107
Cash on hand and in banks[1]	4,514,297	4,579,638	4,462,608	4,599,708	4,919,277
Interest and rents	292,177	284,484	266,540	242,987	241,930
Other assets in Canada	978,444	922,161	804,109	1,025,148	1,047,995
Totals, British Companies[2]	**66,340,083**	**65,502,240**	**62,893,447**	**60,170,375**	**58,578,958**
Foreign Companies.					
Real estate	Nil	Nil	Nil	Nil	Nil
Loans on real estate	13,000	13,000	13,000	12,875	12,625
Stocks, bonds, and debentures	33,369,124	33,969,892	35,387,700	33,804,847	35,857,190
Agents' balances and premiums outstanding	2,788,018	2,682,621	2,892,533	3,046,224	2,981,469
Cash on hand and in banks[1]	6,111,374	7,137,333	6,740,761	6,911,974	8,152,561
Interest and rents	262,193	245,152	272,387	227,344	237,207
Other assets in Canada	150,196	170,809	95,450	132,913	139,831
Totals, Foreign Companies[2]	**42,693,905**	**44,218,807**	**45,401,831**	**44,136,177**	**47,380,883**
All Companies.					
Real estate	5,016,572	5,009,319	4,124,724	4,092,255	4,121,659
Loans on real estate	3,862,583	4,349,925	3,951,634	4,418,600	4,589,774
Stocks, bonds, and debentures	129,838,047	134,839,096	141,258,745	141,843,569	144,174,382
Agents' balances and premiums outstanding	9,976,857	9,669,470	10,024,576	10,765,776	10,770,158
Cash on hand and in banks[1]	16,077,346	17,574,842	16,791,258	17,623,448	19,403,989
Interest and rents	1,058,814	1,059,660	1,063,410	1,077,744	1,090,677
Other assets in Canada	5,028,398	4,541,865	3,963,919	4,372,046	3,955,277
Totals, All Companies	**170,858,617**	**177,044,177**	**181,178,266**	**184,193,438**	**188,105,916**

[1] Or deposited with the Government. [2] Assets in Canada only.

3.—Liabilities of Canadian Companies Transacting Fire Insurance, or Fire Insurance and Other Classes of Insurance, and Liabilities in Canada of Companies Other Than Canadian Transacting Such Business in Canada, 1934-38.

Item.	1934.	1935.	1936.	1937.	1938.
Canadian Companies.	$	$	$	$	$
Reserves for unsettled losses	4,976,772	4,970,058	4,644,185	5,393,839	5,205,698
Reserves of unearned premiums	12,598,953	12,589,143	13,033,448	15,275,117	15,714,087
Sundry items	6,540,093	6,640,900	8,055,097	7,880,190	8,062,815
Total, Canadian Companies[1]	**24,115,818**	**24,200,101**	**25,732,730**	**28,549,146**	**28,982,600**
Excess of assets over liabilities, excluding capital	37,708,811	43,123,029	47,150,259	51,337,740	53,163,475
Capital stock paid up	16,772,229	17,201,092	17,412,854	18,394,690	18,475,575

[1] Not including capital.

3.—Liabilities of Canadian Companies Transacting Fire Insurance, or Fire Insurance and Other Classes of Insurance, and Liabilities in Canada of Companies Other Than Canadian Transacting Such Business in Canada, 1934-38—concluded.

Item.	1934.	1935.	1936.	1937.	1938.
British Companies.	$	$	$	$	$
Reserves for unsettled losses	3,400,961	3,190,800	3,188,672	3,625,504	3,920,496
Reserves of unearned premiums	16,225,608	15,828,479	15,568,239	16,052,912	16,336,321
Sundry items	1,888,313	1,996,588	1,751,518	1,918,415	1,843,674
Totals, British Companies[1]	**21,514,882**	**21,015,867**	**20,508,429**	**21,596,831**	**22,100,491**
Excess of assets over liabilities, excluding capital	44,825,202	44,486,373	42,385,018	38,573,544	36,478,467
Foreign Companies.					
Reserves for unsettled losses	1,059,395	1,254,840	1,100,262	1,494,564	1,997,718
Reserves of unearned premiums	10,531,393	10,720,926	12,322,459	13,206,175	13,491,624
Sundry items	986,749	1,162,783	1,247,252	1,227,574	1,252,026
Totals, Foreign Companies[1]	**12,577,537**	**13,138,549**	**14,669,973**	**15,928,313**	**16,741,368**
Excess of assets over liabilities, excluding capital	30,116,368	31,080,258	30,731,858	28,207,864	30,639,515
All Companies.					
Reserves for unsettled losses	9,437,128	9,415,698	8,933,119	10,513,907	11,123,912
Reserves of unearned premiums	39,355,954	39,138,548	40,924,146	44,534,204	45,542,032
Sundry items	9,415,155	9,800,271	11,053,867	11,026,179	11,158,515
Totals, All Companies[2]	**58,208,237**	**58,354,517**	**60,911,132**	**66,074,290**	**67,824,459**
Excess of assets over liabilities, excluding capital	112,650,380	118,689,660	120,267,135	118,119,148	120,281,457
Capital stock paid up[3]	16,772,229	17,201,092	17,412,854	18,394,690	18,475,575

[1] Liabilities in Canada only. [2] Not including capital. [3] Canadian companies only.

4.—Income and Expenditure of Canadian Companies Operating Under Dominion Registration Transacting Fire Insurance, or Fire Insurance and Other Classes of Insurance, and Income and Expenditure in Canada of Companies Other Than Canadian Transacting Such Business in Canada, 1934-38.

Item.	1934.	1935.	1936.	1937.	1938.
INCOME.	$	$	$	$	$
Canadian Companies.					
Net premiums written, fire and other insurance	23,121,983	22,082,758	22,911,717	27,164,951	27,565,605
Interest and dividends earned	2,261,329	2,369,553	2,500,051	2,929,554	2,897,289
Sundry items	3,205,661	4,071,625	4,770,420	1,374,879	16,932
Totals, Canadian Companies	**28,588,973**	**28,523,936**	**30,182,188**	**31,469,384**	**30,479,826**
British Companies.					
Net cash for premiums	26,243,241	25,474,312	25,210,739	26,709,676	27,169,022
Interest and dividends on stocks, etc.	1,523,618	1,108,045	907,527	926,068	879,140
Sundry items	11,696	1,878	84,338	1,179	476
Totals, British Companies[1]	**27,778,555**	**26,584,235**	**26,202,604**	**27,636,923**	**28,048,638**
Foreign Companies.					
Net premiums written	17,611,181	18,605,796	19,260,146	20,943,128	21,925,770
Interest and dividends earned, etc.	1,244,377	1,165,140	1,114,610	1,076,579	1,092,830
Sundry items	8,440	145	2,222	993	831
Totals, Foreign Companies[1]	**18,863,998**	**19,771,081**	**20,376,978**	**22,020,700**	**23,019,431**
EXPENDITURE.					
Canadian Companies.					
Incurred for losses (fire)	5,023,355	4,271,020	4,179,480	4,408,141	4,884,296
General expenses (fire)	7,113,962	6,969,212	6,837,687	8,388,119	6,254,822
On account of branches other than fire or life	12,176,171	11,629,827	11,207,478	14,915,314	13,607,265
Dividends or bonuses to shareholders	1,049,407	1,257,937	2,044,148	1,694,073	1,829,525
Taxes	1,014,006	1,018,258	1,259,924	1,265,219	1,323,617
Totals, Canadian Companies	**26,376,901**	**25,146,254**	**25,528,717**	**30,670,866**	**27,945,652**[2]
Excess of income over expenditure	2,212,072	3,377,682	4,653,471	798,518	2,534,174

[1] Income in Canada only. [2] Includes $46,127 dividends to policyholders.

4.—Income and Expenditure of Canadian Companies Operating Under Dominion Registration Transacting Fire Insurance, or Fire Insurance and Other Classes of Insurance, and Income and Expenditure in Canada of Companies Other Than Canadian Transacting Such Business in Canada, 1934-38—concluded.

Item.	1934.	1935.	1936.	1937.	1938.
EXPENDITURE—concluded.	$	$	$	$	$
British Companies.					
Incurred for losses (fire)	7,267,241	6,251,193	5,839,751	5,545,301	6,745,108
General expenses (fire)	8,217,314	8,074,949	7,755,018	7,714,303	7,618,842
On account of branches other than fire or life	8,004,002	8,033,050	8,721,614	9,811,510	10,648,364
Taxes	1,196,576	1,297,532	1,267,445	1,320,171	1,183,618
Totals, British Companies[1]	**24,685,133**	**23,656,724**	**23,583,828**	**24,391,285**	**26,195,932**
Excess of income over expenditure	3,093,422	2,927,511	2,618,776	3,245,638	1,852,706
Foreign Companies.					
Incurred for losses (fire)	6,492,204	5,942,698	5,629,986	6,338,724	7,260,092
General expenses (fire)[2]	7,041,693	7,093,073	7,105,345	7,499,756	7,584,659
On account of branches other than fire or life	1,943,418	2,636,652	2,951,588	4,101,968	4,990,420
Taxes	851,998	1,003,448	1,107,679	1,091,998	1,041,277
Totals, Foreign Companies[1,2]	**16,329,313**	**16,675,871**	**16,794,598**	**19,032,446**	**20,876,448**
Excess of income over expenditure	2,534,685	3,095,210	3,582,380	2,988,254	2,142,983

[1] Expenditure in Canada only. [2] Including dividends returned to policyholders.

5.—Net Premiums Written and Net Losses Incurred in Canada by Canadian Companies Operating Under Dominion Registration, and by British and Foreign Companies Transacting Fire Insurance Business, by Provinces, 1937 and 1938.

(Registered reinsurance deducted.)

Year and Province.	Canadian.		British.		Foreign.	
	Premiums.	Losses.	Premiums.	Losses.	Premiums.	Losses.
1937.	$	$	$	$	$	$
Prince Edward Island	40,040	19,051	155,042	55,812	66,909	27,300
Nova Scotia	364,208	182,362	805,058	361,444	734,511	353,752
New Brunswick	256,863	108,435	791,622	246,198	579,969	191,098
Quebec	1,970,794	742,676	4,269,059	1,440,209	5,071,512	1,984,301
Ontario	4,223,897	1,247,604	6,017,854	1,960,230	5,363,242	1,750,081
Manitoba	899,666	276,795	986,830	267,619	970,168	248,738
Saskatchewan	990,771	257,380	824,668	178,773	910,757	239,861
Alberta	823,017	265,769	1,021,887	383,001	1,123,275	544,400
British Columbia	657,960	200,753	1,770,155	651,786	1,736,941	981,548
Yukon	5,638	29	22,320	18	8,589	502
Totals, 1937[1]	**10,234,678**	**3,301,048**	**16,702,623**	**5,545,300**	**16,572,917**	**6,338,720**
1938.						
Prince Edward Island	39,185	11,886	152,217	45,924	65,507	18,499
Nova Scotia	396,822	179,935	850,109	356,948	757,509	343,923
New Brunswick	251,181	97,157	719,204	301,530	554,817	195,201
Quebec	1,983,836	986,343	4,232,180	1,782,282	5,194,612	2,750,411
Ontario	4,297,231	1,518,939	5,843,539	2,257,766	5,541,750	2,513,936
Manitoba	952,795	301,515	940,029	305,456	958,001	304,314
Saskatchewan	973,135	253,575	759,246	153,163	895,708	104,188
Alberta	813,361	233,583	974,292	381,944	1,132,227	403,284
British Columbia	681,561	183,731	1,667,182	1,155,533	1,685,613	626,186
All other Canada	13,681	186	45,969	4,562	18,766	146
Totals, 1938	**10,402,788**	**3,766,850**	**16,183,967**	**6,745,108**	**16,804,510**	**7,260,088**

[1] Totals include small items unapportioned by provinces.

6.—Percentages of Net Losses Incurred to Net Premiums Written by Canadian Fire Insurance Companies and Percentages of Net Losses Incurred to Premiums Written in Canada by Companies Other Than Canadian, by Classes of Risks, 1934-38, with Five-Year Averages, 1934-38.

(Registered reinsurance deducted.)

Class.	1934.				1935.			
	Canadian.	British.	Foreign.	Total.	Canadian.	British.	Foreign.	Total.
Dwellings—protected	39·52	47·97	49·68	46·58	31·98	35·83	39·67	36·18
Dwellings—unprotected	57·53	62·43	60·31	60·63	45·47	56·84	58·64	54·56
All other dwellings and farm property	50·10	70·08	65·50	59·36	42·00	54·86	57·14	48·85
All other two- or three-year risks	31·78	25·34	32·10	28·97	30·49	32·15	26·54	29·91
Mercantile risks, wholesale stores, and warehouses and contents	35·57	22·94	33·16	30·01	31·31	36·59	44·14	39·23
Mercantile risks, retail stores and contents	29·92	32·18	32·97	32·07	33·67	33·12	40·83	36·69
All other mercantile risks	37·37	20·86	19·45	23·10	29·26	18·67	28·20	23·60
Breweries and malt houses	17·94	15·02	13·40	14·65	[1]	3·43	11·18	6·81
Boot and shoe factories	259·18	27·22	91·35	95·70	3·18	24·05	4·03	12·63
Canning factories	54·99	51·38	30·63	43·00	23·97	44·39	33·84	37·37
Confectionery and biscuit factories	101·99	11·99	26·81	32·79	16·44	56·37	75·53	55·10
Flour and oatmeal mills	115·81	94·36	64·23	87·15	25·44	44·36	20·83	31·25
Grain elevators	35·23	21·50	24·67	29·61	17·20	44·35	19·59	25·03
Laundries	23·25	8·42	17·78	13·89	40·09	40·45	16·05	31·28
Sawmills	149·80	146·60	222·00	194·43	29·01	27·54	30·21	29·38
Lumber yards	68·39	168·58	86·63	109·92	39·87	20·62	37·18	32·59
Machine shops and metal workers	60·95	25·46	33·85	34·46	36·68	16·64	61·94	41·30
Mining risks	49·80	73·44	55·41	64·64	33·70	75·55	41·59	59·70
Pork packing and curing houses	46·26	59·93	31·74	44·70	38·80	43·72	55·21	49·12
Pulp and paper mills	9·29	32·07	35·57	30·87	0·18	8·96	11·37	9·11
Street-car barns	8·09	5·47	11·39	7·46	53·26	31·84	24·26	31·14
Tanneries	33·99	3·85	20·73	14·61	274·08	145·04	172·28	172·12
Wood-working factories	30·12	24·15	31·99	28·90	50·82	33·86	50·08	44·71
Woollen and knitting mills	82·24	74·44	132·14	95·10	121·67	1·67	44·20	37·84
All other manufacturing risks	30·52	24·49	32·32	28·72	40·87	37·74	35·96	37·47
All other one-year and short term risks	43·27	33·96	36·68	36·72	31·42	27·26	36·20	31·65
Sprinklered risks of whatever nature or occupancy	15·38	17·18	18·62	17·58	22·12	22·41	21·68	22·07
Totals	**40·21**	**40·22**	**42·14**	**40·91**	**33·78**	**35·83**	**38·13**	**36·25**

	1936.				1937.			
	Canadian.	British.	Foreign.	Total.	Canadian.	British.	Foreign.	Total.
Dwellings—protected	32·13	36·07	39·51	36·25	25·75	29·40	36·54	30·74
Dwellings—unprotected	43·27	48·75	46·05	46·54	39·26	47·44	47·69	45·07
All other dwellings and farm property	45·21	56·08	49·52	49·45	42·70	62·05	56·32	50·40
All other two- or three-year risks	36·92	41·14	40·17	39·83	37·55	27·99	27·91	30·23
Mercantile risks, wholesale stores, and warehouses and contents	30·33	20·68	33·51	28·41	24·97	30·38	33·05	30·54
Mercantile risks, retail stores and contents	30·87	32·78	32·29	32·21	33·01	27·54	35·03	32·06
All other mercantile risks	18·57	9·56	18·82	14·24	22·14	30·46	26·41	26·91
Breweries and malt houses	1·72	1·69	2·56	2·11	1·40	1·04	2·92	1·85
Boot and shoe factories	61·54	74·76	29·43	52·86	147·86	44·13	46·08	67·00
Canning factories	18·91	8·99	24·17	17·72	56·01	62·47	46·57	52·80
Confectionery and biscuit factories	7·12	37·64	40·70	33·30	13·40	36·44	15·29	21·24
Flour and oatmeal mills	24·00	29·16	33·04	29·55	55·39	27·50	21·31	33·65
Grain elevators	22·38	92·26	46·91	43·35	18·92	20·43	27·46	20·91
Laundries	25·33	12·52	26·77	20·04	17·29	20·31	18·70	19·14
Sawmills	39·21	13·91	34·28	27·15	57·37	51·80	28·44	40·27

[1] Not reported.

6.—Percentages of Net Losses Incurred to Net Premiums Written by Canadian Fire Insurance Companies and Percentages of Net Losses Incurred to Premiums Written in Canada by Companies Other Than Canadian, by Classes of Risks, 1934-38, with Five-Year Averages, 1934-38—concluded.

Class.	1936—concluded.				1937—concluded.			
	Canadian.	British.	Foreign.	Total.	Canadian.	British.	Foreign.	Total.
Lumber yards	29·83	39·69	32·17	34·11	19·91	27·33	18·05	20·88
Machine shops and metal workers	27·38	25·22	30·16	28·07	14·05	61·26	44·23	43·91
Mining risks	25·05	38·94	39·31	37·96	44·70	40·41	127·11	79·52
Pork packing and curing houses	8·18	24·54	15·69	17·54	37·11	25·45	34·97	32·46
Pulp and paper mills	39·31	42·11	34·99	38·84	30·12	33·79	18·41	26·52
Street-car barns	4·26	7·71	15·84	9·14	54·03	50·27	52·30	50·93
Tanneries	84·94	10·32	106·49	66·92	103·55	100·73	114·39	108·12
Wood-working factories	47·12	63·18	44·70	51·36	28·85	25·48	35·02	30·93
Woollen and knitting mills	37·54	75·71	57·39	61·82	86·21	22·53	19·49	27·67
All other manufacturing risks	39·67	43·12	38·36	40·43	29·62	27·13	35·20	31·17
All other one-year and short-term risks	25·77	27·75	33·25	29·55	31·93	28·92	36·99	32·79
Sprinklered risks of whatever nature or occupancy	26·50	24·57	33·36	29·15	25·22	35·59	35·16	34·50
Totals	**33·20**	**35·41**	**35·73**	**35·05**	**32·25**	**33·19**	**38·24**	**34·90**

	1938.				Five-Year Averages.			
	Canadian.	British.	Foreign.	Total.	Canadian.	British.	Foreign.	Total.
Dwellings—protected	27·74	31·71	36·35	32·09	31·42	36·20	40·35	36·37
Dwellings—unprotected	49·91	31·06	40·02	40·51	46·09	49·30	50·54	49·46
All other dwellings and farm property	41·84	51·59	47·87	45·54	44·37	58·93	55·27	50·72
All other two- or three-year risks	42·26	50·82	57·10	51·04	35·85	35·49	36·76	36·00
Mercantile risks, wholesale stores, and warehouses and contents	32·61	38·91	65·42	50·00	30·96	29·90	41·86	35·64
Mercantile risks, retail stores and contents	32·58	35·62	41·65	37·68	32·01	32·25	36·55	34·14
All other mercantile risks	24·03	22·23	20·79	22·30	26·27	25·76	22·73	22·03
Breweries and malt houses	5·04	1·28	2·31	2·32	5·22	4·49	6·47	5·55
Boot and shoe factories	23·81	27·14	34·07	29·79	99·11	39·46	40·99	51·60
Canning factories	50·04	82·42	182·04	136·31	40·78	49·93	63·45	57·44
Confectionery and biscuit factories	61·13	81·84	9·39	51·67	40·02	44·86	33·54	38·82
Flour and oatmeal mills	82·42	172·35	58·68	103·57	60·61	73·55	39·62	57·03
Grain elevators	35·51	53·78	88·65	50·21	25·85	46·46	41·46	33·82
Laundries	45·50	22·54	9·14	22·22	30·29	20·85	17·69	21·31
Sawmills	31·91	46·14	31·13	37·01	61·46	57·20	69·21	65·65
Lumber yards	29·68	16·24	23·54	22·15	37·54	54·49	39·51	43·93
Machine shops and metal workers	41·29	30·17	24·13	28·85	36·07	31·75	38·86	35·32
Mining risks	15·03	15·06	26·15	20·13	33·66	48·68	57·91	52·39
Pork packing and curing houses	17·21	8·54	15·64	14·11	29·51	32·44	30·65	31·59
Pulp and paper mills	171·35	174·90	87·15	129·10	50·05	58·37	37·50	46·89
Street-car barns	22·93	29·10	13·49	23·23	28·51	24·88	23·46	24·38
Tanneries	56·81	59·47	4·47	30·40	110·67	63·88	83·67	78·43
Wood-working factories	66·51	51·03	73·35	65·14	44·68	39·54	47·03	44·21
Woollen and knitting mills	16·73	39·50	10·18	21·92	68·88	42·77	52·68	48·87
All other manufacturing risks	48·39	32·79	54·97	45·55	37·81	33·05	39·36	36·67
All other one-year and short-term risks	37·18	64·94	42·17	49·60	33·91	36·57	37·06	36·06
Sprinklered risks of whatever nature or occupancy	37·38	42·47	38·04	39·67	25·32	28·44	29·37	28·59
Totals	**36·22**	**41·68**	**43·15**	**40·94**	**35·13**	**37·27**	**39·48**	**37·61**

Summary of Fire Insurance in Canada, 1938.—Of the total amount of fire insurance effected in Canada during each year, a part is sold by companies holding provincial licences and permits. Such companies generally confine their operations to the province of incorporation, but may be allowed to sell insurance in other provinces. The bulk of fire insurance business, however, is transacted by companies registered by the Dominion.

7.—Dominion and Provincial Fire Insurance in Canada, 1938, with Totals for 1937.

Item.	Gross Insurance Written.	Net in Force at End of Year.	Net Premiums Received.	Net Losses Paid.
	$	$	$	$
Dominion Licensees	10,422,793,265	9,953,905,417	42,439,688	17,363,670
Provincial Licensees—				
(a) Provincial companies within provinces by which they are incorporated	715,768,904	1,124,035,697	4,763,005	2,792,925
(b) Provincial companies within provinces other than those by which they are incorporated	87,566,260	90,338,859	547,447	330,801
Totals, Provincial Licensees	803,335,164	1,214,374,556	5,310,452	3,123,726
Grand Totals, 1938	**11,226,128,429**	**11,168,279,973**	**47,750,140**	**20,487,396**
Grand Totals, 1937	**10,971,567,640**	**10,749,545,174**	**46,141,317**	**16,656,227**

Fire Losses.—Closely allied to the subject of fire insurance is the question of fire losses. The Dominion Fire Prevention Association publishes, under the auspices of the Dominion Department of Insurance and with the co-operation of the Association of Canadian Fire Marshals, a report of the loss of life and property caused by fire, from which the information shown in Tables 8 and 9 has been summarized.

In addition to the data there shown, the report gives such information as: per capita losses by provinces and by type of building, numbers of fires reported, origins of fires, and criminal investigations arising from fires.

In 1939, the per capita loss was greatest in Nova Scotia, being $2·99 as against the Dominion average of $2·18. The uninsured losses amounted to $5,452,892, or 22·1 p.c. of the total. Of the 45,755 fires reported in 1939, 1,402 were the subject of official inquiry, 152 prosecutions were instituted, and 107 convictions were registered.

8.—Fire Losses in Canada, 1926-39.

NOTE.—For fire losses from 1923-25, see *Statistical Report of Fire Losses in Canada, 1926*, published by the Dominion Department of Insurance. An estimate of losses from 1898-1922 was published in *Statistical Bulletin No. 27 (1922)*, issued by the same Department.

Year.	Property Loss.	Loss per Capita.	Deaths by Fire.	Year.	Property Loss.	Loss per Capita.	Deaths by Fire.
	$	$	No.		$	$	No.
1926	38,295,096	4·15	288	1933	32,676,314	3·15	254
1927	32,254,084	3·29	465	1934	25,437,840	2·44	268
1928	36,402,018	3·79	314	1935	23,221,521	2·12	293
1929	47,499,746	4·85	233	1936	21,549,484	1·95	347
1930	46,109,875	4·70	311	1937	22,746,058	2·04	246
1931	47,117,334	4·54	251	1938	25,899,180	2·31	263
1932	42,193,815	4·06	285	1939	24,632,509	2·18	263

9.—Fire Losses in Canada, by Provinces, and Percentages of Losses Covered by Insurance, 1930-39.

Province.	1930.		1931.		1932.		1933.		1934.	
	Loss.	P.C. Insured.	Loss.	P.C. Insured.	Loss.	P.C. Insured.	Loss.	P.C. Insured.	Loss.	P.C. Insured.
	$'000		$'000		$'000		$'000		$'000	
P. E. Island	236	62·0	821	44·3	615	62·8	273	52·9	191	56·3
Nova Scotia	1,614	66·8	1,735	79·8	1,687	81·3	1,780	74·8	1,219	69·3
New Brunswick	1,943	65·8	4,222	40·5	1,508	67·2	2,188	74·8	824	69·4
Quebec	12,177	75·7	12,085	76·0	13,912	80·8	10,862	77·2	7,568	83·0
Ontario	16,146	81·0	15,959	82·9	15,466	88·6	11,250	88·2	10,040	84·5
Manitoba	2,746	82·7	2,517	86·6	1,586	74·6	1,146	90·4	1,195	82·1
Saskatchewan	3,504	76·5	3,565	88·4	1,674	92·6	1,870	69·2	1,233	80·5
Alberta	2,963	82·4	2,983	82·2	2,377	86·0	1,436	93·2	1,177	90·1
British Columbia	4,701	79·2	3,162	82·5	3,299	84·0	1,852	72·8	1,989	73·6
Totals	**46,030**	**78·5**	**47,049**	**77·0**	**42,124**	**83·7**	**32,657**	**81·0**	**25,436**	**81·7**

Province.	1935.		1936.		1937.		1938.		1939.	
	Loss.	P.C. Insured.	Loss.	P.C. Insured.	Loss.	P.C. Insured.	Loss.	P.C. Insured.	Loss.	P.C. Insured.
	$'000		$'000		$'000		$'000		$'000	
P. E. Island	167	77·8	164	62·9	223	62·6	200	56·9	137	60·6
Nova Scotia	1,156	67·7	1,247	72·9	1,409	70·0	1,442	68·3	1,658	65·8
New Brunswick	1,059	64·9	886	68·0	866	63·6	836	74·7	1,210	74·0
Quebec	7,405	75·7	6,645	80·8	6,499	76·4	8,552	79·1	9,334	79·7
Ontario	8,164	83·8	7,867	86·2	8,135	79·5	9,397	85·5	7,922	82·8
Manitoba	1,040	79·4	846	87·8	893	89·6	1,053	90·9	800	90·1
Saskatchewan	1,189	70·9	1,081	77·2	1,056	64·4	502[1]	100·0[1]	717	77·8
Alberta	1,088	89·2	1,099	75·7	1,503	87·4	1,387	79·0	1,148	66·7
British Columbia	1,942	72·1	1,690	66·4	2,144	85·6	2,530	78·4	1,706	62·2
Totals	**23,210**	**78·0**	**21,525**	**80·5**	**22,728**	**78·1**	**25,899**	**81·3**	**24,633**	**77·9**

[1] This amount was given as the total loss, no uninsured losses being reported for Saskatchewan in 1938.

Section 2.—Life Insurance.

An article descriptive of the growth and development of life insurance in Canada, more particularly with reference to insurance legislation, contributed by A. D. Watson, of the Department of Insurance, Ottawa, appears at pp. 937-944 of the Canada Year Book, 1933.

Life Insurance Statistics.—Life insurance business was transacted in Canada in 1938 by 41 companies registered by the Dominion, including 28 Canadian, 4 British, and 9 foreign companies. There were also 8 British and 5 foreign companies registered to write insurance, that had practically ceased to write new insurance, while 2 other British and 3 other foreign companies were authorized under the Act to transact business in connection only with policies written prior to Mar. 31, 1878. One foreign company was licensed to transact business in 1931, but has not yet written any life insurance business in Canada, except by way of reinsurance. Another foreign company was registered during 1938 for the acceptance of reinsurance only. Because of the surrender in 1938 of its last remaining Canadian policy, one of the British companies which ceased to issue new Canadian business in 1878 withdrew from Canada.

The total net life insurance in force in all companies licensed by the Dominion in 1869 was only $35,680,082, while in 1938 it was $6,630,183,594;* the amount

* This total does not include $179,590,977 of fraternal insurance.

per head of the estimated population of Canada has more than doubled since 1919—an evidence of the general recognition of the value of life insurance for the adequate protection of dependants against misfortune. Notable also from these statistics is the fact that in this field British companies, the leaders in 1869, have fallen far behind the Canadian and the foreign companies. Detailed analyses are given in Tables 11 to 19.

10.—Life Insurance in Force and Effected in Canada by Companies Operating Under Dominion Registration (Fraternal Insurance Excluded),[1] 1901-39.

NOTE.—Figures for the years 1869-1900 are given at p. 958 of the 1938 Year Book.

Year.	Net Amounts in Force.				Insurance in Force per Head of Estimated Population.[2]	Net Amount of New Insurance Effected during Year.
	Canadian Companies.	British Companies.	Foreign Companies.	Total.		
	$	$	$	$	$	$
1901	284,684,621	40,216,186	138,868,227	463,769,034	86·35	72,854,859
1902	308,202,596	41,556,245	159,053,464	508,812,305	92·61	79,638,914
1903	335,638,940	42,127,260	170,676,800	548,443,000	97·05	90,732,415
1904	364,640,166	42,608,738	180,631,886	587,880,790	100·89	97,617,402
1905	397,946,902	43,809,211	188,578,127	630,334,240	105·02	104,719,585
1906	420,864,847	45,655,951	189,740,102	656,260,900	106·46	93,722,510
1907	450,573,724	46,462,314	188,487,447	685,523,485	106·93	88,784,250
1908	480,266,931	46,161,957	193,087,126	719,516,014	108·61	98,644,410
1909	515,415,437	46,985,192	217,956,351	780,356,980	114·76	130,122,008
1910	565,667,110	47,816,775	242,629,174	856,113,059	122·51	150,785,305
1911	626,770,154	50,919,675	272,530,942	950,220,771	131·85	173,341,738
1912	706,656,117	54,537,725	309,114,827	1,070,308,669	144·85	212,772,151
1913	750,637,902	58,176,795	359,775,330	1,168,590,027	153·12	225,606,787
1914	794,520,423	60,770,658	386,869,397	1,242,160,478	157·65	212,977,464
1915	829,972,809	58,087,018	423,556,850	1,311,616,677	164·34	218,205,427
1916	895,528,435	59,151,931	467,499,266	1,422,179,632	177·75	227,210,162
1917	996,699,282	58,617,506	529,725,775	1,585,042,563	196·66	277,532,095
1918	1,105,503,447	60,296,113	619,261,713	1,785,061,273	219·08	307,279,759
1919	1,362,631,562	66,908,064	758,297,691	2,187,837,317	263·25	517,863,639
1920	1,664,348,605	76,883,090	915,793,798	2,657,025,493	310·55	630,110,900
1921	1,860,026,952	84,940,938	989,875,958	2,934,843,848	333·96	514,654,111
1922	2,013,722,848	93,791,180	1,063,874,968	3,171,388,996	355·58	502,279,333
1923	2,187,434,147	98,023,020	1,148,051,506	3,433,508,673	381·03	548,640,800
1924	2,413,853,480	103,519,236	1,246,623,756	3,763,996,472	411·64	615,372,723
1925	2,672,989,676	108,565,248	1,377,464,924	4,159,019,848	447·44	712,091,889
1926	2,979,946,768	111,375,336	1,518,874,230	4,610,196,334	487·65	797,940,009
1927	3,277,050,348	113,883,716	1,653,474,770	5,044,408,834	523·44	838,475,057
1928	3,671,325,188	115,340,577	1,820,979,858	5,607,645,623	570·16	918,742,064
1929	4,051,612,499	116,545,637	1,989,104,071	6,157,262,207	613·94	978,141,485
1930	4,319,370,209	117,410,860	2,055,502,125	6,492,283,194	636·00	884,749,748
1931	4,409,707,938	119,262,511	2,093,297,344	6,622,267,793	638·17	782,716,064
1932	4,311,747,692	115,831,319	2,044,029,535	6,471,608,546	615·99	653,249,366
1933	4,160,351,570	113,807,916	1,973,466,488	6,247,625,974	584·93	578,585,659
1934	4,139,796,088	116,745,642	1,964,184,199	6,220,725,929	574·13	595,194,820
1935	4,164,893,298	123,148,855	1,971,116,251	6,259,158,404	571·66	588,353,277
1936	4,256,850,150	129,940,311	2,016,247,016	6,403,037,477	580·62	618,264,819
1937	4,304,631,608	137,862,702	2,099,130,736	6,541,625,046[3]	588·28	671,957,904
1938	4,363,517,357	140,838,697	2,125,827,540	6,630,183,594[3]	591·54	626,989,339
1939[4]	4,469,775,787	145,385,637	2,161,396,975	6,776,558,399	598·90	588,587,140

[1] For statistics of fraternal insurance, see p. 943. [2] For estimates of populations upon which these figures are based, see p. 103. [3] During 1937 approximately $85,000,000, and during 1938 approximately $60,000,000 were transferred from insurance in force in Canada. These amounts represent mainly transfers to business out of Canada of certain reinsurances previously classed as Canadian business. They also include transfers to annuities of contracts providing for combined insurance and annuity benefits or options. [4] Subject to revision.

11.—Life Insurance in Force and Effected in Canada by Companies Operating under Dominion Registration, 1936-38.

Year and Nationality of Company.	Policies Effected.		Policies in Force.		Net Premium Income.	Net Amount of Policies Become Claims.[1]
	No.	Net Amount.	No.	Net Amount.		
1936.		$		$	$	$
Canadian companies	262,200	389,909,385	2,156,693	4,256,850,150	129,258,259	37,337,200
British companies	23,050	18,623,741	148,612	129,940,311	3,975,367	1,894,351
Foreign companies	513,696	209,731,693	4,107,888	2,016,247,016	67,307,639	18,855,083
Totals, 1936	**798,946**	**618,264,819**	**6,413,193**	**6,403,037,477**	**200,541,265**	**58,086,634**
1937.						
Canadian companies	276,576	418,796,687	2,210,957	4,304,631,608	125,956,518	38,661,918
British companies	24,244	18,609,592	154,627	137,862,702	4,281,570	2,073,469
Foreign companies	511,105	234,551,625	4,119,300	2,099,130,736	68,857,439	19,644,098
Totals, 1937	**811,925**	**671,957,904**	**6,484,884**	**6,541,625,046**	**199,095,527**	**60,379,485**
1938.						
Canadian companies	250,499	408,990,281	2,250,696	4,363,517,357	125,824,719	42,417,007
British companies	19,404	15,645,335	155,859	140,838,697	4,236,091	2,598,014
Foreign companies	449,974	202,353,723	4,064,402	2,125,827,540	68,567,269	22,104,002
Totals, 1938	**719,877**	**626,989,339**	**6,470,957**	**6,630,183,594**	**198,628,079**	**67,119,023**

[1] Death claims, matured endowments, and disability claims.

12.—Progress of Life Insurance Effected under Dominion Registration, 1934-38.

Item.	1934.	1935.	1936.	1937.	1938.
Canadian Companies—[1]					
Policies effected.....No.	256,294	241,514	262,200	276,576	250,499
Policies in force at end of each year.. "	2,077,236	2,100,310	2,156,693	2,210,957	2,250,696
Policies become claims..... "	20,471	20,284	20,818	22,095	22,457
Net amounts of policies effected... $	366,634,749	365,542,246	389,909,385	418,796,687	408,990,281
Net amounts of policies in force.... $	4,139,796,088	4,164,893,298	4,256,850,150	4,304,631,608	4,363,517,357
Net amounts of policies become claims..... $	35,102,636	34,395,990	37,337,200	38,661,918	39,791,863
Amounts of premiums..... $	131,407,513	128,714,106	129,258,259	125,956,518	125,824,719
Claims paid[2]..... $	36,246,115	36,114,865	38,207,604	39,799,509	42,417,007
Outstanding claims..... $	4,688,741	4,884,373	5,569,363	6,159,083	5,586,049
British Companies—					
Policies effected.....No.	31,437	25,690	23,050	24,244	19,404
Policies in force at end of each year.. "	143,132	145,111	148,612	154,627	155,859
Policies become claims..... "	1,972	1,954	2,244	2,632	2,628
Net amounts of policies effected... $	17,131,400	17,961,436	18,623,741	18,609,592	15,645,335
Net amounts of policies in force.... $	116,745,642	123,148,855	129,940,311	137,862,702	140,838,697
Net amounts of policies become claims..... $	2,158,900	1,560,289	1,894,351	2,073,469	2,525,556
Amounts of premiums..... $	3,682,687	4,733,100	3,975,367	4,281,570	4,236,091
Claims paid[2]..... $	1,860,638	1,432,254	1,910,261	1,852,762	2,598,014
Outstanding claims..... $	445,952	466,822	453,075	654,708	521,733
Foreign Companies—					
Policies effected.....No.	518,617	510,090	513,696	511,105	449,974
Policies in force at end of each year.. "	4,120,156	4,106,278	4,107,888	4,119,300	4,064,402
Policies become claims..... "	39,464	47,394	49,772	54,068	60,350
Net amounts of policies effected... $	211,428,671	204,849,595	209,731,693	234,551,625	202,353,723
Net amounts of policies in force.... $	1,964,184,199	1,971,116,251	2,016,247,016	2,099,130,736	2,125,827,540
Net amounts of policies become claims..... $	16,621,059	17,842,159	18,855,083	19,644,098	21,400,849
Amounts of premiums..... $	67,493,336	66,710,361	67,307,639	68,857,439	68,567,269
Claims paid[2]..... $	17,956,517	19,281,966	20,315,814	20,971,421	22,104,002
Outstanding claims..... $	1,428,788	1,523,459	1,700,718	2,020,583	2,885,545

[1] Canadian business only.

[2] Death claims, matured endowments, and disability claims.

12.—Progress of Life Insurance Effected under Dominion Registration, 1934-38—concluded.

Item.		1934.	1935.	1936.	1937.	1938.
All Companies—						
Policies effected	No.	806,348	777,294	798,946	811,925	719,877
Policies in force at end of each year	"	6,340,524	6,351,699	6,413,193	6,484,884	6,470,957
Policies become claims	"	61,907	69,632	72,834	78,795	85,435
Net amounts of policies effected	$	595,194,820	588,353,277	618,264,819	671,957,904	626,989,339
Net amounts of policies in force	$	6,220,725,929	6,259,158,404	6,403,037,477	6,541,625,046[1]	6,630,183,594[1]
Net amounts of policies become claims	$	53,882,595	53,798,438	58,086,634	60,379,485	63,718,268
Amounts of premiums	$	202,583,536	200,157,567	200,541,265	199,095,527[1]	198,628,079[1]
Claims paid[2]	$	56,063,270	56,829,085	60,433,679	62,623,692	67,119,023
Outstanding claims	$	6,563,481	6,874,654	7,723,156	8,834,374	8,993,327

[1] During 1937 approximately $85,000,000, and during 1938 approximately $60,000,000 were transferred from insurance in force in Canada. This amount represents mainly transfers to annuities of contracts providing for combined insurance and annuity benefits or options. It also includes transfers to business out of Canada of certain reinsurances previously classed as Canadian business. [2] Death claims, matured endowments, and disability claims.

13.—Ordinary and Industrial Life Insurance Policies in Force and Issued in Canada by Companies Operating under Dominion Registration, 1938.

Type of Policy and Nationality of Company.	New Policies Effected.			Policies in Force.		
	No.	Total Amount.	Average Amount of a Policy.	No.	Total Amount.	Average Amount of a Policy.
		$	$		$	$
Ordinary Policies—						
Canadian companies	164,572	343,237,374	2,086	1,713,129	3,742,375,445	2,185
British companies	6,409	12,986,875	2,026	48,496	121,783,723	2,511
Foreign companies	58,716	95,445,320	1,626	736,569	1,207,704,081	1,640
Totals, Ordinary Policies	**229,697**	**451,669,569**	**1,966**	**2,498,194**	**5,071,863,249**	**2,030**
Industrial Policies—						
Canadian companies	85,728	36,828,609	430	535,391	202,343,662	378
British companies	12,995	2,658,460	205	107,358	17,558,474	164
Foreign companies	391,234	98,552,196	252	3,327,438	689,784,470	207
Totals, Industrial Policies	**489,957**	**138,039,265**	**282**	**3,970,187**	**909,686,606**	**229**

14.—Insurance Death Rates in Canada, 1935-38.

Type of Insurer.	Number of Policies Exposed to Risk.	Number of Policies Terminated by Death.	Death Rate per 1,000.	Number of Policies Exposed to Risk.	Number of Policies Terminated by Death.	Death Rate per 1,000.
	1935.			1936.		
All companies, ordinary	2,408,858	14,473	6·0	2,433,360	15,106	6·2
All companies, industrial	3,961,037	26,701	6·7	3,976,250	27,103	6·8
Fraternal benefit societies	195,827	3,218	16·4	202,181	3,284	16·2
Totals	**6,565,722**	**44,392**	**6·8**	**6,611,791**	**45,493**	**6·9**
	1937.			1938.		
All companies, ordinary	2,459,433	15,688	6·4	2,491,871	15,271	6·1
All companies, industrial	4,009,140	28,198	7·0	4,004,485	26,426	6·6
Fraternal benefit societies	209,516	3,362	16·0	216,361	3,391	15·7
Totals	**6,678,089**	**47,248**	**7·1**	**6,712,717**	**45,088**	**6·7**

15.—Assets of Canadian Life Companies with Dominion Registration, and Assets in Canada of Life Companies Other Than Canadian Companies, 1934-38.

NOTE.—Certain British companies transacting fire insurance in Canada transact also life insurance in Canada, and inasmuch as a separation of assets has not been made between these two classes, their assets in Canada are not included here, but are included in the assets of British companies shown in Table 3, p. 931.

Item.	1934.	1935.	1936.	1937.	1938.
	$	$	$	$	$
Canadian Companies—[1]					
Real estate	69,379,472	75,503,841	80,495,129	77,041,766	78,103,230
Real estate held under agreements of sale	14,538,336	15,134,489	17,658,063	20,220,895	21,542,612
Loans on real estate	310,791,592	300,707,103	297,992,429	298,146,148	300,715,173
Loans on collaterals	126,010	809,128	223,113	745,124	154,386
Policy loans	284,466,595	272,158,603	261,172,955	259,578,690	255,627,400
Stocks, bonds, and debentures	993,039,478	1,100,025,515	1,250,954,257	1,366,540,901	1,477,298,236
Interest and rent due and accrued	31,591,496	31,115,498	29,413,033	30,044,101	30,060,944
Cash on hand and in banks	32,249,720	40,240,011	31,289,540	39,860,753	42,424,853
Outstanding and deferred premiums	42,499,654	41,464,884	40,878,240	42,490,962	42,612,312
Other assets	2,625,116	3,585,954	3,127,374	2,327,975	2,471,133
Totals, Canadian Companies[2]	**1,781,307,469**	**1,889,745,026**	**2,013,204,133**	**2,136,997,315**	**2,251,010,279**
British Companies—					
Real estate	892,058	933,158	1,049,529	1,065,402	1,081,187
Real estate held under agreements of sale	37,813	31,364	24,610	15,818	15,563
Loans on real estate	11,325,817	10,867,000	10,151,601	9,628,225	8,925,688
Loans on collaterals	13,610	38,510	13,510	13,510	13,510
Policy loans	4,568,307	4,307,469	4,041,957	3,962,924	3,847,118
Stocks, bonds, and debentures	52,949,697	51,161,817	53,896,211	52,562,569	55,214,868
Interest and rent due and accrued	638,897	594,190	575,502	536,607	523,901
Cash on hand and in banks	1,175,226	987,736	832,282	853,305	921,823
Outstanding and deferred premiums	480,525	451,784	476,225	488,057	516,587
Other assets	18,482	26,264	17,215	10,264	31,046
Totals, British Companies[3]	**72,100,432**	**69,399,292**	**71,078,642**	**69,136,681**	**71,091,291**
Foreign Companies—					
Real estate	2,588,944	5,269,627	5,696,573	6,618,667	5,731,165
Real estate held under agreements of sale	[4]	[4]	[4]	[4]	[4]
Loans on real estate	28,007,828	26,619,081	24,981,149	22,079,857	21,732,063
Loans on collaterals	[4]	[4]	[4]	[4]	[4]
Policy loans	61,198,865	60,695,186	60,296,544	60,452,038	60,158,174
Stocks, bonds, and debentures	372,056,124	376,622,542	391,066,447	383,669,030	399,703,037
Interest and rent due and accrued	6,292,263	6,196,987	6,203,412	6,125,310	6,111,599
Cash on hand and in banks	8,114,505	8,396,188	9,918,566	9,918,311	10,040,932
Outstanding and deferred premiums	8,676,335	8,510,123	8,320,073	8,236,123	8,210,940
Other assets	8,747	10,119	11,549	12,020	11,514
Totals, Foreign Companies[3]	**486,943,611**	**492,319,853**	**506,494,313**	**497,111,356**	**511,699,424**

[1] A detailed classification of assets showing investments of Canadian companies and giving the percentage of the total in each group and sub-group for 1937 and 1938 will be found at p. xxxviii of the Report of the Superintendent of Insurance, Vol. II, for the year ended Dec. 31, 1938. [2] Book values. The market (or authorized) values of these assets were: $1,769,443,643 in 1934, $1,868,987,065 in 1935, $2,012,215,355 in 1936, $2,135,373,567 in 1937, and $2,249,795,908 in 1938. [3] Assets in Canada only. [4] None reported.

16.—Liabilities of Canadian Life Companies with Dominion Registration, and Liabilities in Canada of Life Companies Other Than Canadian Companies, 1934-38.

Item.	1934.	1935.	1936.	1937.	1938.
	$	$	$	$	$
Canadian Companies—					
Outstanding claims	11,871,872	13,050,445	14,181,886	15,541,724	14,989,024
Net reinsurance reserve	1,505,819,533	1,588,098,044	1,687,181,483	1,793,814,530	1,885,390,870
Sundry liabilities	206,856,357	219,453,533	246,686,777	259,033,682	278,073,251
Totals, Canadian Companies, Liabilities, Not Including Capital	**1,724,547,762**	**1,820,602,022**	**1,948,050,146**	**2,068,389,936**	**2,178,453,145**
Surpluses of assets (Table 15, footnote 2) excluding capital	44,895,881	48,385,043	64,165,209	66,983,631	71,342,763
Capital stock paid up	10,851,079	10,714,596	11,091,148	11,141,228	11,281,228

16.—Liabilities of Canadian Life Companies with Dominion Registration, and Liabilities in Canada of Life Companies Other Than Canadian Companies, 1934-38— concluded.

Item.	1934.	1935.	1936.	1937.	1938.
	$	$	$	$	$
British Companies—					
Outstanding claims	445,952	466,822	453,075	654,709	521,733
Net reinsurance reserve	32,732,196	34,195,194	35,044,871	37,116,823	38,270,148
Sundry liabilities	496,863	553,201	715,504	738,851	796,774
Totals, British Companies, Liabilities, Not Including Capital[1]	**33,675,011**	**35,215,217**	**36,213,450**	**38,510,383**	**39,588,655**
Surpluses of assets in Canada	38,431,736	34,190,390	34,872,208	30,633,314	31,509,652
Foreign Companies—					
Outstanding claims	1,428,789	1,523,458	1,700,718	2,020,585	2,885,545
Net reinsurance reserve	379,364,705	391,152,923	404,775,317	419,263,754	431,878,508
Sundry liabilities	19,250,375	19,161,479	21,518,345	21,805,227	23,060,267
Totals, Foreign Companies, Liabilities, Not Including Capital[1]	**400,043,869**	**411,837,860**	**427,994,380**	**443,089,566**	**457,824,320**
Surpluses of assets in Canada	86,899,742	80,481,993	78,499,933	54,021,790	53,875,104

[1] Liabilities in Canada.

17.—Cash Income and Expenditure of Canadian Life Companies with Dominion Registration, and Cash Income and Expenditure in Canada of British and Foreign Life Companies, by Principal Items, 1934-38.

Item.	1934.	1935.	1936.	1937.	1938.
INCOME.	$	$	$	$	$
Canadian Companies—					
Net premium income (including sinking funds)	247,688,370	242,592,120	241,855,580	242,767,374	245,417,469
Consideration for annuities	38,411,121	24,682,052	25,508,449	30,170,769	32,784,213
Interest, dividends, and rents	76,754,763	79,205,749	84,402,395	88,672,914	89,714,320
Sundry items	30,242,669	37,823,442	53,954,295	44,258,474	46,966,418
Totals, Canadian Companies[1]	**393,096,923**	**384,303,363**	**405,720,719**	**405,869,531**	**414,882,420**
British Companies—					
Net premium income (including sinking funds)	3,685,576	4,735,989	3,978,180	4,284,383	4,238,904
Consideration for annuities	150,100	236,353	416,589	335,966	562,653
Interest, dividends, and rents	2,577,378	2,627,766	2,461,065	2,399,259	2,380,545
Sundry items	123,065	93,109	200,745	206,969	205,492
Totals, British Companies[2]	**6,536,119**	**7,693,217**	**7,056,579**	**7,226,577**	**7,387,594**
Foreign Companies—					
Net premium income	67,493,336	66,710,361	67,307,639	68,857,439	68,567,269
Consideration for annuities	1,197,298	1,272,025	1,609,131	1,630,831	1,581,682
Interest, dividends, and rents	25,190,898	24,569,493	21,456,301	21,140,106	20,838,629
Sundry items	3,191,575	2,706,000	3,238,487	3,353,590	3,464,789
Totals, Foreign Companies[2]	**97,073,107**	**95,257,879**	**93,611,558**	**94,981,966**	**94,452,369**
EXPENDITURE.					
Canadian Companies—					
Payments to policyholders	210,376,762	194,269,254	190,307,438	186,189,872	201,844,569
General expenses	54,521,948	54,788,898	56,678,411	57,434,391	58,166,254
Dividends to stockholders	1,032,675	1,042,022	1,123,781	1,355,104	1,480,345
Other disbursements	19,315,106	21,170,341	23,463,163	24,727,370	24,506,579
Totals, Canadian Companies[1]	**285,246,491**	**271,270,515**	**271,572,793**	**269,706,737**	**285,997,747**
Excess of income over expenditure	107,850,432	113,032,848	134,147,926	136,162,794	128,884,673

[1] Includes income or expenditure on business outside of Canada. [2] Income in Canada.

17.—Cash Income and Expenditure of Canadian Life Companies with Dominion Registration, and Cash Income and Expenditure in Canada of British and Foreign Life Companies, by Principal Items, 1934-38—concluded.

Item.	1934.	1935.	1936.	1937.	1938.
EXPENDITURE—concluded.	$	$	$	$	$
British Companies—					
Payments to policyholders	3,348,684	3,791,435	3,373,878	3,040,135	3,950,186
General expenses	1,113,153	1,149,283	1,267,760	1,282,760	1,240,536
Other disbursements	102,629	122,985	86,687	83,438	106,944
Totals, British Companies[1]	**4,564,466**	**5,063,703**	**4,728,325**	**4,406,333**	**5,297,666**
Excess of income over expenditure	1,971,653	2,629,514	2,328,254	2,820,244	2,089,928
Foreign Companies—					
Payments to policyholders	55,176,652	53,897,929	53,586,710	53,802,628	54,446,857
General expenses	13,342,697	13,617,539	13,494,715	13,902,443	14,151,371
Other disbursements	1,888,402	1,790,883	1,914,591	2,469,658	2,316,784
Totals, Foreign Companies[1]	**70,407,751**	**69,306,351**	**68,996,016**	**70,174,729**	**70,915,012**
Excess of income over expenditure	26,665,356	25,951,528	24,615,542	24,807,237	23,537,357

[1] Expenditure in Canada.

Life Insurance Effected through Fraternal Benefit Societies.—In addition to life insurance, some fraternal benefit societies grant other insurance benefits to members, notably sickness benefits, but these are relatively unimportant. Table 18 gives statistics of life insurance effected with fraternal benefit societies by Canadian members, together with statistics of assets, liabilities, income, and expenditure relating to the whole business of Canadian societies and to the business in Canada of foreign societies. The rates charged by these societies are computed to be sufficient to provide the benefits granted, having regard for actuarial principles. Each benefit fund of every society must be valued annually by a qualified actuary (Fellow, by examination, of the Institute of Actuaries, London; of the Faculty of Actuaries in Scotland; of the Actuarial Society of America; or of the American Institute of Actuaries) and unless the actuary certifies to the solvency of each fund a readjustment of rates or benefits must be made. The statistics in the first part of this table relate to the 10 Canadian societies reporting to the Insurance Department of the Dominion Government.

Under an amendment to the Insurance Act, effective Jan. 1, 1920, all foreign fraternal benefit societies were required to obtain Dominion authority precedent to transacting business in Canada, but any such societies which at that date were

transacting business under provincial licences, while forbidden to accept new members, were permitted to continue all necessary transactions in respect of insurance already in force. Most of these societies have since obtained Dominion authority to transact business, also some foreign societies that had not previously been licensed by the provinces. Of both classes of society, 28 transacted business in Canada in 1938.

18.—Statistics of Insurance of Fraternal Benefit Societies Reporting to the Dominion Insurance Department, 1934-38.

Item.	1934.	1935.	1936.	1937.	1938.
CANADIAN SOCIETIES. (Life Insurance in Canada.)	No.	No.	No.	No.	No.
Certificates effected	16,167	11,382	9,356	13,857	17,216
Certificates become claims	3,021	2,907	2,946	3,113	3,100
	$	$	$	$	$
Amounts paid by members	2,371,386	1,882,790	1,802,479	1,810,873	1,931,515
Amounts of certificates effected	9,760,802	9,335,867	7,343,950	10,858,832	14,445,147
Net amounts in force	116,738,500	106,882,394	103,673,283	108,743,852	112,698,333
Amounts of certificates become claims	2,704,716	2,569,401	2,582,490	2,649,682	2,649,795
Benefits paid	3,458,208	3,381,297	3,505,486	3,183,242	3,234,829
Outstanding claims	224,026	199,672	232,166	258,419	233,624
Amounts Terminated by—					
Death	2,067,427	1,944,665	1,998,792	1,940,583	1,898,776
Surrender, expiry, lapse, etc	13,175,227	14,290,452	11,386,571	10,650,996	12,490,938
Totals, Terminated	15,242,654	16,235,117	13,385,363	12,591,579	14,389,714
Assets (whole business)—					
Real estate	8,585,993	10,397,022	11,193,596	11,155,559	11,328,650
Loans on real estate	18,515,117	15,554,444	14,204,277	13,052,672	11,742,512
Policy loans	10,255,430	9,694,277	9,075,256	8,685,975	8,535,744
Stocks, bonds, and debentures	40,877,813	41,510,089	43,744,256	47,674,717	49,548,912
Cash on hand and in banks	1,287,571	1,597,591	1,398,799	1,160,077	1,042,243
Interest and rent due and accrued	1,083,875	875,755	872,229	876,312	669,913
Dues from members	358,250	266,475	229,175	275,563	309,561
Other assets	1,547,646	1,387,957	1,227,336	1,161,418	1,068,204
Totals, Assets[1]	**82,511,695**	**81,283,610**	**81,944,924**	**84,042,293**	**84,245,739**
Liabilities (whole business)—					
Outstanding claims	328,645	262,719	310,891	346,968	329,959
Reserves	67,004,964	64,959,678	64,861,647	66,189,870	68,242,149
Other liabilities	3,808,321	4,386,740	5,339,604	5,379,673	4,523,400
Totals, Liabilities	**71,141,930**	**69,609,137**	**70,512,142**	**71,916,511**	**73,095,508**
Income (whole business)—					
Assessments	5,075,666	4,003,059	3,913,675	3,769,475	3,892,824
Fees and dues	474,741	1,227,896	1,290,622	1,437,808	1,397,527
Interest and rents	3,647,972	3,532,387	3,430,954	3,589,554	3,810,516
Other receipts	139,281	213,156	373,074	126,150	141,142
Totals, Income	**9,337,660**	**8,976,498**	**9,008,325**	**8,922,987**	**9,242,009**
Expenditures (whole business)—					
Paid to members	6,503,369	6,619,470	6,589,420	6,302,558	6,229,003
General expenses	1,448,178	1,338,747	1,415,766	1,603,334	1,563,248
Other expenditures	99,045	198,249	160,567	224,416	48,111
Totals, Expenditures	**8,050,592**	**8,156,466**	**8,165,753**	**8,130,308**	**7,840,362**
Excess of income over expenditure	1,287,068	820,032	842,572	792,679	1,401,647

[1] Book values. The market (or authorized) values of these assets were: $80,058,350 in 1934, $79,520,428 in 1935, $80,619,538 in 1936, $81,728,539 in 1937, and $82,797,534 in 1938.

18.—Statistics of Insurance of Fraternal Benefit Societies Reporting to the Dominion Insurance Department, 1934-38—concluded.

Item.	1934.	1935.	1936.	1937.	1938.
	No.	No.	No.	No.	No.
FOREIGN SOCIETIES. (Life Insurance in Canada.)					
Certificates effected	3,627	4,060	6,023	6,501	6,581
Certificates become claims	804	937	1,018	1,057	1,071
	$	$	$	$	$
Amounts paid by members	965,081	979,666	1,438,081	1,446,716	1,483,104
Amounts of certificates effected	3,437,570	3,836,683	5,350,134	5,943,093	6,567,445
Net amounts in force	50,617,201	50,642,333	64,912,851	65,607,329	66,892,644
Amounts of certificates become claims	802,247	926,068	1,114,864	1,155,782	1,124,021
Benefits paid	1,012,918	1,015,819	1,164,726	1,290,020	1,270,704
Outstanding claims	69,647	68,877	144,723	141,575	119,480
Amounts Terminated by—					
Death	660,431	782,952	872,797	919,072	958,825
Surrender, expiry, lapse, etc	5,640,029	4,887,648	5,297,111	5,249,921	5,395,821
Totals, Terminated	6,300,460	5,670,600	6,169,908	6,168,993	6,354,646
Assets (Canadian business)—					
Real estate	Nil	Nil	Nil	1,200	3,722
Loans on real estate	6,275	6,275	20,250	121,107	163,550
Policy loans	463,612	515,440	617,839	726,576	813,346
Stocks, bonds, and debentures	3,721,489	4,341,378	5,589,268	6,444,230	7,345,430
Cash on hand and in banks	278,463	386,155	359,497	330,755	545,035
Interest and rent due and accrued	51,981	58,400	70,349	84,065	89,918
Dues from members	102,827	108,166	106,625	111,550	106,827
Other assets	58	179	16	1,614	2,756
Totals, Assets	**4,624,705**	**5,415,993**	**6,763,844**	**7,821,097**	**9,070,584**
Liabilities (Canadian business)—					
Outstanding claims	94,681	94,816	189,947	171,689	147,393
Reserves	9,268,650	9,786,781	10,646,026	10,938,525	11,456,464
Other liabilities	53,173	81,137	221,596	327,264	447,015
Totals, Liabilities	**9,416,504**	**9,962,734**	**11,057,569**	**11,437,478**	**12,050,872**
Income (Canadian business)—					
Assessments	1,088,497	1,126,971	1,593,970	1,620,408	1,672,125
Fees and dues	211,021	179,500	304,217	343,801	371,789
Interest and rents	118,186	154,376	190,179	221,296	246,603
Other receipts	11,081	12,769	40,159	72,618	78,130
Totals, Income	**1,428,785**	**1,473,616**	**2,128,525**	**2,258,123**	**2,368,647**
Expenditures (Canadian business)—					
Paid to members	1,113,707	1,140,766	1,304,327	1,443,439	1,424,105
General expenses	160,640	179,042	218,171	221,125	217,949
Other expenditures	7,092	6,379	13,877	18,831	25,004
Totals, Expenditures	**1,281,439**	**1,326,187**	**1,536,375**	**1,683,395**	**1,667,058**
Excess of income over expenditure	147,346	147,429	592,150	574,728	701,589

Summary of Life Insurance in Canada, 1938.—In addition to the business transacted by life insurance companies registered by the Dominion, a considerable volume of business is also transacted by companies licensed by the provinces.

Statistics of these provincial companies have been collected since 1915 by the Department of Insurance. Table 19, showing policies effected and in force, premiums received, and claims paid in Canada in 1938, summarizes the volume of business done by Canadian, British, and foreign life companies and fraternal societies, whether registered by the Dominion or licensed by the provinces.

19.—Summary of Dominion and Provincial Life Insurance in Canada, by Class of Licensee and by Type of Company, 1938.

Item.	New Policies Effected (net).	Net Insurance in Force, Dec. 31.	Net Premiums Received.	Net Claims Paid.
	$	$	$	$
CLASS OF LICENSEE.				
Dominion Licensees—				
(a) Life companies	626,989,339	6,630,183,594[1]	198,628,079[1]	67,119,023
(b) Fraternals	21,012,592	179,590,977	3,414,619	3,736,290
Totals, Dominion Licensees	**648,001,931**	**6,809,774,571**	**202,042,698**	**70,855,313**
Provincial Licensees—				
(a) Provincial companies within province by which they are incorporated—				
(1) Life companies	9,722,162	45,181,617	1,367,348	628,255
(2) Fraternals	4,328,619	36,636,578	820,154	950,061
(b) Provincial companies in provinces other than those by which they are incorporated—				
(1) Life companies	4,436,421	18,997,804	495,920	198,627
(2) Fraternals	3,509,667	33,039,124	564,699	668,902
Totals, Provincial Licensees	**21,996,869**	**133,855,123**	**3,248,121**	**2,445,845**
Grand Totals	**669,998,800**	**6,943,629,694**	**205,290,819**	**73,301,158**
TYPE OF COMPANY.				
Canadian Life Companies—				
Dominion	408,990,281	4,363,517,357	125,824,719	42,417,007
Provincial	14,158,583	64,179,421	1,863,268	826,882
Canadian Fraternal Companies—				
Dominion	14,445,147	112,698,333	1,931,515	2,647,401
Provincial	7,838,286	69,675,702	1,384,853	1,618,963
British life companies	15,645,335	140,838,697	4,236,091	2,598,014
Foreign life companies	202,353,723	2,125,827,540	68,567,269	22,104,002
Foreign fraternal companies	6,567,445	66,892,644	1,483,104	1,088,889

[1] During 1938 approximately $60,000,000 was transferred from insurance in force in Canada. This amount represents mainly transfers to business out of Canada of certain reinsurance previously classed as Canadian business. It also includes transfers to annuities of contracts providing for combined insurance and annuity benefits or options.

Life Insurance in Force Out of Canada by Canadian Companies Registered by the Dominion Government.—Tables 20 and 21 give summary statistics of insurance in force as at Dec. 31, 1938, in currencies other than Canadian, classified by companies and by the currencies in which business was written, respectively. The data are given in Canadian dollars, mainly at par rates of exchange for the countries concerned, but there are several exceptions where, for purposes of account, certain companies have converted foreign currencies at rates other than par, particularly where the current rate differs substantially from the par rate. The major part (over 62 p.c.) of the business in force was written in United States currency and over 23 p.c. in sterling. From another standpoint, over 32 p.c.

was written in currency of British countries outside Canada and over 67 p.c. in currencies of foreign countries.

Canadian life companies operating under Dominion registration had, at Dec. 31, 1938, life insurance in force in countries outside Canada amounting to $3,126,295,884. As shown in Table 20, insurance in force in currencies other than Canadian amounted to $3,033,132,892. The difference between these figures is presumably the net amount of non-Canadian business transacted in Canadian currency. As against the total non-Canadian business, including annuity business, the British and foreign investments of Canadian life insurance companies as at Dec. 31, 1938, amounted to $781,011,292.

Since the business in force in Canada of these companies at Dec. 31, 1938, amounted to $4,363,517,357, the total business on their books, Canadian and non-Canadian, amounted to $7,489,813,241. Thus over 41 p.c. of the total business in force was out of Canada. If to this total are added the amounts of life insurance in force in Canadian fraternal benefit societies registered by the Dominion Government ($112,698,333 of Canadian, and $93,883,698 of foreign business), the total business of Canadian companies and societies operating under Dominion registration reached the amount of $7,696,395,272 at the end of 1938. On the assumption that all provincially licensed companies and societies are Canadian and limit their business to Canada, then, adding the amount of their business in force in Canada ($133,855,123), the grand total of net insurance in force in Canadian companies and societies, in and out of Canada, amounted to about $7,830,250,395 at Dec. 31, 1938.

20.—Life Insurance Effected and in Force, and Reserves, by Canadian Companies (Excluding Fraternal Societies) Operating Under Dominion Registration, in Currencies Other Than Canadian, by Companies, 1938, with Totals for 1937.

NOTE.—Figures are given in Canadian dollars, mainly at par rates of exchange.

Company.	Insurance Effected.			Insurance in Force.		
	British Currencies.	Foreign Currencies.	Total.	British Currencies.	Foreign Currencies.	Total.
	$	$	$	$	$	$
Canada	7,577,731	12,005,643	19,583,374	145,090,282	196,913,820	342,004,102
Confederation	7,558,826	7,305,600	14,864,426	75,476,945	63,137,305	138,614,250
Continental	Nil	25,662	25,662	3,750	99,025	102,775
Crown	5,554,576	8,118,326	13,672,902	22,719,199	38,047,701	60,766,900
Dominion	393,445	2,108,516	2,501,961	2,232,532	6,881,905	9,114,437
Dominion of Canada	272,860	Nil	272,860	1,187,774	9,000	1,196,774
T. Eaton	Nil	"	-	19,000	24,000	43,000
Equitable of Canada	"	"	-	Nil	679,512	679,512
Great-West	"	12,187,724	12,187,724	"	116,544,566	116,544,566
Imperial	2,768,722	2,850,000	5,618,722	16,820,000	27,150,000	43,970,000
London	Nil	191,158	191,158	Nil	2,303,468	2,303,468
Manufacturers	15,513,650	17,240,971	32,754,621	119,781,300	136,404,684[1]	256,185,984[1]
Maritime	301,918	Nil	301,918	2,126,600	30,266	2,156,866
Monarch	Nil	2,000	2,000	Nil	4,500	4,500
Montreal	133,644	37,800	171,444	762,568	380,704	1,143,272
Mutual of Canada	109,698	864,023	973,721	1,039,551	13,443,612	14,483,163
National Life	288,980	78,570	367,550	892,162	384,530	1,276,692
North American	187,574	1,819,014	2,006,588	534,895	11,777,895	12,312,790
Northern	Nil	632,379	632,379	23,133	956,272	979,405
Sun	41,077,736	103,343,149	144,420,885	600,001,828	1,429,248,608	2,029,250,436
Totals, 1938	**81,739,360**	**168,810,535**	**250,549,895**	**988,711,519**	**2,044,421,373[1]**	**3,033,132,892[1]**
Totals, 1937	**81,387,615**	**223,314,430**	**304,702,045**	**961,612,173**	**2,033,386,389**	**2,994,998,562**

[1] Includes miscellaneous insurance.

20.—Life Insurance Effected and in Force, and Reserves, by Canadian Companies (Excluding Fraternal Societies) Operating Under Dominion Registration, in Currencies Other Than Canadian, by Companies, 1938, with Totals for 1937— concluded.

Company.	Reserves.		
	British.	Foreign.	Total.
	$	$	$
Canada	53,485,720	47,489,804	100,975,524
Confederation	24,578,903	12,404,391	36,983,294
Continental	971	10,192	11,163
Crown	2,460,943	3,561,891	6,022,834
Dominion	373,324	865,265	1,238,589
Dominion of Canada	67,836	2,060	69,896
T. Eaton	7,845	4,646	12,491
Equitable of Canada	Nil	100,721	100,721
Great-West	"	17,556,220[1]	17,556,220[1]
Imperial	3,530,000	6,520,000	10,050,000
London	Nil	403,000	403,000
Manufacturers	27,039,987	29,790,072[2]	56,830,059[2]
Maritime	495,443	3,727	499,170
Monarch	Nil	32	32
Montreal	2,098	65,815	67,913
Mutual of Canada	167,055	2,251,629	2,418,684
National Life	110,457	42,722	153,179
North American	113,779	2,526,899	2,640,678
Northern	2,634	33,852	36,486
Sun	197,770,387	246,797,974	444,568,361
Totals, 1938	**310,207,382**	**370,430,912[1,2]**	**680,638,294[1,2]**
Totals, 1937	**297,806,439**	**348,646,723[3]**	**646,453,162[3]**

[1] Includes reserves for vested and deferred annuities with annual payments amounting to $623,953. [2] Figures for the Manufacturers Life Insurance Company include miscellaneous insurance. [3] Includes reserves for vested and deferred annuities with annual payments aggregating $541,880.

21.—Life Insurance in Force by Canadian Companies (Excluding Fraternal Societies) Operating Under Dominion Registration, in Currencies Other Than Canadian, by Currencies, 1938.

NOTE.—Figures are given in Canadian dollars, mainly at par rates of exchange.

Currency.	Insurance Effected.	Insurance in Force.	Reserve.
	$	$	$
British—			
Pounds—			
Sterling	56,437,387	712,783,275	232,323,319
British West Indies	1,739,628	12,942,050	4,279,366
Palestine	237,155	302,961	10,851
South Africa	8,735,228	82,702,859	16,741,198
Southern Rhodesia	69,422	1,284,210	266,428
Dollars—			
British Guiana	331,940	1,235,822	132,504
British West Indies	1,943,480	15,325,576	3,656,166
Hong Kong	741,308	10,164,725	1,930,935
Straits Settlements	827,333	8,078,890	1,980,178
Rupees—			
British India	10,676,479	143,891,151	48,886,437
Totals, British	**81,739,360**	**988,711,519**	**310,207,382**

21.—Life Insurance in Force by Canadian Companies (Excluding Fraternal Societies) Operating Under Dominion Registration, in Currencies Other Than Canadian, by Currencies, 1938—concluded.

Currency.	Insurance Effected.	Insurance in Force.	Reserve.
	$	$	$
Foreign—			
Cordobas (Nicaragua)	Nil	235,520	54,348
Dollars (China)	846,672	5,196,254	1,244,987
Dollars (Shanghai)	491,661	7,017,499	1,021,011
Dollars (United States)	156,052,458	1,907,546,082	333,993,004
Florins (Netherlands)	349,879	1,523,402	213,012
Francs (France)	22,276	409,140	134,884
Francs (Switzerland)	6,624	16,124	1,600
Guilders (Netherlands)	2,417,509	12,726,605	2,815,564
Lire (Italy)	Nil	91	64
Pesos (Argentina)	4,663,625	28,796,148	5,401,958
Pesos (Chile)	2,218	4,326,328	1,733,968
Pesos (Colombia)	241	527,889	193,141
Pesos (Mexico)	322,058	7,721,010	1,049,142
Pesos (Phillippines)	1,723,497	14,760,395	4,262,884
Pounds (Egypt)	1,091,206	15,509,008	2,882,101
Sol Oros (Peru)	Nil	3,181,550	1,194,945
Taels (Shanghai)	"	126,350	20,556
Ticals (Thailand)	506,899	2,304,465	524,106
Yen (Japan)	313,712	32,430,142	13,680,710
Miscellaneous	Nil	67,371	8,927
Totals, Foreign	**168,810,535**	**2,044,421,373**	**370,430,912**
Grand Totals, 1938	**250,549,895**	**3,033,132,892**	**680,638,294**[1]
Grand Totals, 1937	**304,702,045**	**2,994,998,562**	**646,453,162**[1]

[1] See footnotes 1 and 3 to Table 20.

Grand Total Business of All Life Companies in Canada and of Canadian Companies Abroad.—In the second half of Table 22 the figures given at the end of Table 19 have been added to give a grand total of the business transacted by all ordinary and fraternal life insurance companies in Canada and of the business of Canadian companies abroad.

22.—Summary of the Business of Canadian Life Companies Abroad and of the Grand Total of All Life Business in Canada and Business of Canadian Companies Abroad, 1938.

NOTE.—Figures for business in Canada will be found in Table 19, p. 945.

Item.	New Policies Effected (net).	Net Insurance in Force Dec. 31.	Net Premiums Received.	Net Claims Paid.
Canadian Companies Outside Canada.	$	$	$	$
Canadian Life Companies—				
Dominion	256,431,000	3,126,295,884	119,234,916	50,495,669
Provincial	[1]	[1]	[1]	[1]

[1] None reported.

22.—Summary of the Business of Canadian Life Companies Abroad and of the Grand Total of All Life Business in Canada and Business of Canadian Companies Abroad, 1938—concluded.

Item.	New Policies Effected (net).	Net Insurance in Force Dec. 31.	Net Premiums Received.	Net Claims Paid.
Canadian Companies Outside Canada—concluded.	$	$	$	$
Canadian Fraternal Companies—Dominion	6,504,837	93,883,698	1,585,572	2,350,859
Provincial	[1]	[1]	[1]	[1]
British life companies	Nil	Nil	Nil	Nil
Foreign life companies	"	"	"	"
Foreign fraternal companies	"	"	"	"
Totals	**262,935,837**	**3,220,179,582**	**120,820,488**	**52,846,528**
All Life Insurance in Canada and Canadian Business Abroad.				
Canadian Life Companies—Dominion	665,421,281	7,489,813,241	245,059,635	92,912,676
Provincial	14,158,583	64,179,421	1,863,268	826,882
Canadian Fraternal Companies—Dominion	20,949,984	206,582,031	3,517,087	4,998,260
Provincial	7,838,286	69,675,702	1,384,853	1,618,963
British life companies	15,645,335	140,838,697	4,236,091	2,598,014
Foreign life companies	202,353,723	2,125,827,540	68,567,269	22,104,002
Foreign fraternal companies	6,567,445	66,892,644	1,483,104	1,088,889
Grand Totals	**932,934,637**	**10,163,809,276**	**326,111,307**	**126,147,686**

[1] None reported.

Section 3.—Miscellaneous Insurance.

Since 1875 the growth of insurance business other than fire and life has been steady. The report of the Superintendent of Insurance for the calendar year 1880 shows that the number of companies licensed for the transaction of accident, guarantee, plate glass, and steam boiler insurance—the only four classes of miscellaneous insurance then transacted—was 5, 3, 1, and 1, respectively. The report for the year 1938 shows that miscellaneous insurance in Canada now includes various forms of accident and 24 other classes of insurance transacted by Dominion companies. In 1880, 10 companies transacted business of the miscellaneous kind, but in 1938 such insurance was issued by 250 companies, of which 54 were Canadian, 66 British, and 130 foreign; 192 of these 250 companies also transacted fire insurance. In addition, 18 fraternal orders or societies carried on accident and sickness insurance as well as life insurance business and 2 fraternal orders or societies carried on accident insurance only.

23.—Net Premiums Written and Net Losses Incurred in Canada (Registered Insurance Deducted), by Companies Registered by the Dominion to Transact Insurance Other Than Fire and Life, by Class of Business, 1936-38.

Class of Business.	1936.		1937.		1938.	
	Net Premiums.	Net Losses.	Net Premiums.	Net Losses.	Net Premiums.	Net Losses.
	$	$	$	$	$	$
Accident—						
Personal	3,013,065	1,212,206	3,199,319	1,356,466	3,246,458	1,272,422
Employers' liability and workmen's compensation	488,449	198,079	623,713	215,606	761,013	441,397
Other	1,649,633	558,321	1,894,090	575,915	2,119,726	840,951
Combined sickness and accident	1,845,491	1,099,378	2,319,214	1,293,069	2,696,848	1,535,805
Falling aircraft	491	Nil	25	1	137	Nil
Automobile	13,510,431	7,618,002	16,810,675	9,659,005	18,015,202	9,930,504
Aviation	30,316	15,474	82,828	72,607	187,157	85,924
Burglary	1,345,343	540,325	1,522,799	586,549	1,515,603	693,630
Credit	171,809	−6,100	197,112	13,510	212,015	29,883
Earthquake	5,397	Nil	9,006	9	5,561	8
Explosion	38,013	−13	48,053	418	33,391	6,331
Forgery	65,129	−8,038	40,383	8,117	45,850	22,085
Fraud	11,955	3,870	10,641	2,786	10,324	1,927
Guarantee—						
Fidelity	1,092,295	277,448	1,240,064	291,098	1,260,160	359,793
Surety	761,953	37,122	928,040	299,597	759,488	131,109
Hail	815,228	273,503	567,833	408,949	1,444,039	1,098,981
Inland transportation	1,355,814	518,933	918,778	356,671	826,729	331,026
Live stock	26,767	18,860	28,511	11,455	27,083	14,339
Machinery	196,665	92,351	286,401	66,378	218,725	52,875
Personal property	130,077	58,167	1,058,017	390,648	1,154,108	398,829
Plate glass	465,436	237,257	549,105	238,544	539,208	253,236
Property	11,424	1,547	53,719	7,386	129,839	22,466
Sickness	1,417,688	926,567	1,501,763	913,810	1,558,883	959,724
Sprinkler [1]	4,782	995	4,650	396	4,343	2,133
Steam boiler	438,954	27,161	552,557	22,362	640,537	37,311
Tornado	161,381	61,890	132,147	86,609	140,421	46,101
Weather	6,046	991	6,284	3,771	7,448	2,793
Totals	**29,060,032**	**13,764,296**	**34,585,727**	**16,881,732**	**37,560,296**	**18,571,583**

[1] Transacted by a company not holding certificates of registry to transact fire insurance.

24.—Income and Expenditure, and Assets and Liabilities of Canadian Companies Operating Under Dominion Registration Doing Insurance Business Other Than Fire and Life, 1938.

Company.	Income.	Expenditure.	Excess of Income over Expenditure.	Assets.	Liabilities.[1]	Excess of Assets over Liabilities.
	$	$	$	$	$	$
Boiler Inspection	470,800	389,346	81,454	1,188,635	560,651	627,985
Chartered Trust	524,631	450,192	74,439	5,794,672[2]	4,510,172	1,284,500
Confederation Life	126,896	104,044	22,851	165,864	36,914	128,950
T. Eaton General	18,478	14,690	3,788	158,208	20,576	137,631
Fidelity Insurance	260,097	239,992	20,105	540,156	213,945	326,211
Guarantee Co. of North Amercia	546,642	490,999	55,643	4,595,726	1,057,309	3,538,417
London Life	376,182	327,332	48,850	415,361	214,544	200,817
North American Accident	105,850	60,700	45,150	667,308	34,763	632,546
Protective Association	342,213	324,347	17,866	326,479	151,881	174,598
Royal Guardians	1,728	2,941	−1,213	18,749	12,656	6,093
Totals	**2,773,517**	**2,404,583**	**368,934**	**13,871,159**	**6,813,412**	**7,057,746**

[1] Not including capital stock.

[2] Including $1,108,298 loans on collateral, and $1,000 deposits with trust companies for investment.

25.—Dominion and Provincial Insurance in Canada, Other Than Fire and Life, 1938.

Class of Business.	Dominion Licensees.	Provincial Licensees— Within Provinces by Which They Are Incorp.	Provincial Licensees— In Provinces Other Than Those by Which They Are Incorp.	Provincial Licensees— Total Provincial Licensees.	Grand Total.
	$	$	$	$	$
	NET PREMIUMS WRITTEN.				
Accident—					
Personal	3,246,458	90,454	22,932	113,386	3,359,844
Employers' liability and workmen's compensation	761,013	131,155	2,360	133,515	894,528
Other	2,119,726	238,900	17,762	256,662	2,376,388
Combined sickness and accident	2,696,848	96,943	59,208	156,151	2,852,999
Falling aircraft	137	Nil	Nil	Nil	137
Automobile	18,015,202	3,705,663	154,454	3,860,117	21,875,319
Aviation	187,157	69,704	29,650	99,354	286,511
Burglary	1,515,603	91,365	9,255	100,620	1,616,223
Credit	212,015	Nil	Nil	Nil	212,015
Earthquake	5,561	"	"	"	5,561
Explosion	33,391	"	"	"	33,391
Forgery	45,850	"	"	"	45,850
Fraud	10,324	"	"	"	10,324
Guarantee (fidelity)	1,260,160	191,034	23,124	214,158	1,474,318
Guarantee (surety)	759,488	Nil	Nil	Nil	759,488
Hail	1,444,039	227,871	64	227,935	1,671,974
Inland transportation	826,729	26,879	52,438	79,317	906,046
Live stock	27,083	17,917	1,478	19,395	46,478
Machinery	218,725	Nil	Nil	Nil	218,725
Personal property	1,154,108	11,698	1,301	12,999	1,167,107
Plate glass	539,208	54,553	370	54,923	594,131
Property	129,839	15,001	7,728	22,729	152,568
Sickness	1,558,883	4,007	7	4,014	1,562,897
Sprinkler[1]	4,343	Nil	Nil	Nil	4,343
Steam boiler	640,537	64,037	9,180	73,217	713,754
Tornado	140,421	Nil	Nil	79,295	219,716
Weather	7,448	79,210	85	Nil	7,448
Totals	**37,560,296**	**5,116,391**	**391,396**	**5,507,787**[2]	**43,068,083**[2]
	NET LOSSES INCURRED.				
Accident—					
Personal	1,272,422	29,121	24,484	53,605	1,326,027
Employers' liability and workmen's compensation	441,397	41,698	190	41,888	483,285
Other	840,951	85,507	4,114	89,621	930,572
Combined sickness and accident	1,535,805	42,173	25,960	68,133	1,603,938
Falling aircraft	Nil	Nil	Nil	Nil	Nil
Automobile	9,930,504	2,479,654	91,540	2,571,194	12,501,698
Aviation	85,924	83,729	70,424	154,153	240,077
Burglary	693,630	27,707	2,495	30,202	723,832
Credit	29,883	Nil	Nil	Nil	29,883
Earthquake	8	"	"	"	8
Explosion	6,331	"	"	"	6,331
Forgery	22,085	"	"	"	22,085
Fraud	1,927	"	"	"	1,927
Guarantee (fidelity)	359,793	87,153	3,636	90,789	450,582
Guarantee (surety)	131,109	Nil	Nil	Nil	131,109
Hail	1,098,981	233,549	"	233,549	1,332,530
Inland transportation	331,026	8,557	50,712	59,269	390,295
Live stock	14,339	30,983	Nil	30,983	45,322
Machinery	52,875	Nil	"	Nil	52,875
Personal property	398,829	1,469	311	1,780	400,609
Plate glass	253,236	26,322	992	27,314	280,550
Property	22,466	9,691	93	9,784	32,250
Sickness	959,724	1,302	Nil	1,302	961,026
Sprinkler[1]	2,133	Nil	"	Nil	2,133
Steam boiler	37,311	5,002	−12	4,990	42,301
Tornado	46,101	Nil	Nil	Nil	46,101
Weather	2,793	13,703	"	13,703	16,496
Totals	**18,571,583**	**3,207,320**	**274,939**	**3,482,259**[3]	**22,053,842**[3]

[1] This business was transacted by a company not holding certificates of registry to transact fire insurance. [2] Excluding $1,248,896, premiums of fraternal benefit societies for accident, sickness, and funeral business. [3] Excluding $751,566, losses of fraternal benefit societies for accident, sickness, and funeral business.

Section 4.—Insurance as it Affects the Balance of International Payments.*

Because insurance business is frequently international in its scope, the activities of this type of financial concern demand a place in studies of the balance of payments and international indebtedness. British and foreign insurance companies have important branch operations in Canada and Canadian insurance companies have external operations that extend into most parts of the world. There were, in 1938, 4 British and 9 United States companies registered to transact life insurance in Canada. In addition to these, there were 8 British and 5 United States registered companies that had practically ceased to do new business in Canada. In the same year, British companies registered to transact fire or casualty insurance in Canada numbered 74 and United States and other foreign companies of this type 197. Besides these companies, there were some registered under provincial insurance Acts and some transacting marine and inland marine insurance for which no certificates of registry are required. At the same time, there were 17 Canadian life insurance companies and 30 Canadian fire and casualty insurance companies carrying on business outside of Canada.

Most of the business carried on by British and foreign companies is transacted by branches in Canada which, in many respects, are similar to internal companies and whose operations are, therefore, to a large extent, domestic and do not give rise to international remittances. Their income in Canada is generally available for Canadian disbursements, and any surplus income there may be is frequently invested in Canadian securities. There is a tendency for these companies to build up Canadian assets against liabilities in Canada because Canada is a favourable field for investment. In the estimate of British and foreign capital invested in Canada, p. 881, the insurance item includes net assets held at the branches of British and foreign insurance companies in Canada along with the value of equity of non-resident shareholders in Canadian insurance companies.

The activities of Canadian insurance companies in other countries also do not give rise to transactions affecting the balance of international payments to the extent that might be expected from the size of the operations abroad. In many respects the transactions are entirely outside of Canada and do not directly touch the Canadian economy. A comparison of the assets and liabilities of Canadian companies outside of Canada shows that the liabilities exceed the assets, and for this reason the assets of such companies do not appear in the statement of Canadian investments abroad at p. 881. Such assets, however, have significance in relation to the Canadian economy, since a large part of them is represented by foreign marketable securities that may be transferred to or from Canada. The difference between the total assets held outside of Canada and the foreign securities held outside of Canada is due to other assets such as real estate, mortgages, loans and cash, etc., as well as substantial amounts of Canadian securities held outside of

* A much more detailed treatment of this subject will be found in Chapter XX of the publication "The Canadian Balance of International Payments—A Study of Methods and Results", by Herbert Marshall, B.A., F.S.S., Chief of the Internal Trade Branch, Dominion Bureau of Statistics. Price, $1. The subject of international balance of payments as a whole is dealt with in the External Trade chapter, at pp. 584-589.

Canada. All the foreign securities owned, however, are not held outside of Canada. At the end of 1936, the foreign securities held in Canada were valued at $175,000,000. These are shown in the statement of Canadian investments abroad because of their origin, although the interest and dividends received from them may not always be remitted to Canada. There is a large turnover in foreign securities resulting from the operations of Canadian life insurance companies, but since the bulk of the transactions are executed abroad, through the agency of the branch offices of the insurance companies abroad, the financial transactions connected with many are entirely external to Canada and do not affect the Canadian balance of payments.

Because of the various factors at work influencing the valuation of investments and the disposition of surplus income abroad, it has been found necessary to obtain records of movements of funds especially for the balance of payments statement. Such information has been collected by the Bureau of Statistics on two schedules, one for Canadian companies and another for British and foreign companies with branches or agencies in Canada. The schedule for the Canadian companies is in three sections that call, respectively, for the following information: (1) movements of funds between insurance companies and their branches, agencies, bank accounts, and shareholders abroad; (2) movements of funds between Canadian insurance companies and other companies, policyholders, or individuals outside of Canada not included in (1); and (3) transactions that must be taken account of as debits in the Canadian balance of payments to cover situations arising when interest or principal on certain Canadian bonds is collected in sterling or United States dollars and not remitted to Canada. The schedule sent to the British and foreign companies operating in Canada is divided into two sections as follows: (1) movements of funds between branch or agency in Canada and head office or other offices outside of Canada; (2) movements of funds between branch or agency in Canada and other companies, policyholders, or individuals outside of Canada not included in (1). The companies whose movements of funds have been recorded are limited to those registered with the Dominion Department of Insurance. However, such companies account for the bulk of the insurance business in Canada.

The movements of funds between Canada and other countries, by groups of companies and the movements of such funds by classes of companies are shown in the tables at p. 954. Movements of funds in connection with international purchases or sales of securities that have been executed through the medium of brokers, investment dealers, or other agencies resident in Canada are not included, since they are taken account of in the record of international trade in securities.

The figures shown demonstrate how unpredictable, in the main, these transactions are. There has been no consistent trend or total net movement that may be considered typical, although in the case of Canadian companies in Table 26 the net inward movement is emphasized as compared with the net outward movement for foreign companies. However, although there have been some abrupt changes in direction from one year to another, it appears that a definite movement in one direction is usually maintained for several years. This suggests that the basic factors underlying the movements of funds may be subject to changes that require some time to develop.

26.—Movements of Funds Between Canada and All Other Countries, by Groups of Companies, 1926-37.

(In millions of dollars.)

Group.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
CANADIAN COMPANIES—												
Inward	4·8	3·7	3·5	18·4	8·9	28·3	9·6	17·7	20·0	13·1	14·6	20·1
Outward	6·8	9·8	6·6	1·7	1·7	1·3	1·2	4·2	5·1	11·1	17·5	12·5
Net Inward	–	–	–	16·7	7·2	27·0	8·4	13·5	14·9	2·0	–	7·6
Net Outward	2·0	6·1	3·1	-	-	..	..	..	–	–	2·9	–
BRITISH, UNITED STATES, AND OTHER COMPANIES—												
Inward	9·2	6·3	4·5	11·6	12·1	12·7	4·4	2·3	7·0	6·9	4·4	3·9
Outward	16·2	15·2	13·4	9·3	10·3	5·7	13·8	16·8	18·9	26·9	27·5	21·5
Net Inward	–	–	–	2·3	1·8	7·0	..	–	..	–	–	–
Net Outward	7·0	8·9	8·9		..	..	9·4	14·5	11·9	20·0	23·1	17·6
ALL COMPANIES—												
Inward	14·0	10·0	8·0	30·0	21·0	41·0	14·0	20·0	27·0	20·0	19·0	24·0
Outward	23·0	25·0	20·0	11·0	12·0	7·0	15·0	21·0	24·0	38·0	45·0	34·0
Net Inward	..	–	..	19·0	9·0	34·0	–	–	3·0	–	–	–
Net Outward	9·0	15·0	12·0	–	–	–	1·0	1·0	–	18·0	26·0	10·0

Table 27 shows that in 1937 operations between Canada and the United States accounted for more than half the total movement of funds, and for more than the total net outward movement because of the influence of United States on foreign life companies.

27.—Movements of Funds Between Canada and Other Countries, by Classes of Companies, 1937.

(In millions of dollars.)

Between Canada and—	All Companies.	Canadian Life.	Canadian Fire and Other.	British Life.	British Fire and Other.	United States and Foreign Life.	United States and Foreign Fire and Other.
United Kingdom—							
Inward from	9·0	8·0	0·1	0·6	0·3	Nil	[1]
Outward to	9·2	5·4	0·5	1·0	2·1	0·2	[1]
United States—							
Inward from	11·8	8·2	0·9	0·9	Nil	0·2	1·6
Outward to	23·7	5·2	0·5	[1]	0·1	13·2	4·7
Other Countries—							
Inward from	3·2	2·8	0·2	[1]	[1]	Nil	0·2
Outward to	1·1	0·8	0·1	0·2	[1]	"	[1]
All Countries—							
Inward from	24·0	19·0	1·2	1·5	0·3	0·2	1·8
Outward to	34·0	11·4	1·1	1·2	2·2	13·4	4·7
Net Inward	–	7·6	0·1	0·3	–	–	–
Net Outward	10·0		–	–	1·9	13·2	2·9

[1] Less than 0·1.

Section 5.—Government Annuities.

For more than thirty years the Dominion Government has carried on a service that permits and encourages Canadians, during the earning period of their lives, to make provision for their old age. The necessary legislation was passed in 1908 as the Government Annuities Act (c. 7, R.S.C., 1927, amended by c. 33, 1931). This Act is now administered by the Minister of Labour, and provides that any person resident or domiciled in Canada may purchase an annuity from the Government of Canada.

A Canadian Government annuity is a fixed yearly income paid by the Government of Canada. The income is payable in quarterly instalments (unless otherwise expressly provided) for life, but may be guaranteed for ten, fifteen, or twenty years in any event. The minimum amount of annuity obtainable on the life of one person

or on the lives of two persons jointly is $10 a year and the maximum amount of annuity payable to any annuitant or to joint annuitants is $1,200 a year.

Although in the vast majority of cases annuities issued on the lives of individuals are purchased by the individuals themselves, provision is made in the Act whereby employers may contract for the purchase of annuities on behalf of their employees, or associations on behalf of their members. In the latter case the purchase money required may be derived partly from the wages of employees and partly from employers' contributions.

The growth of retirement annuity plans in recent years is indicative of the co-operative trend of labour and capital in the industrial organization. At Mar. 31, 1939, group annuity plans had been contracted between the Government and some 50 industrial firms and institutions (religious and educational) involving 6,000 lives. By the sale of these group annuities, a reasonably adequate income for old age is assured for a growing proportion of the working population.

Annuity contracts are of two classes, deferred and immediate, under each of which there are various plans available. Deferred annuity contracts are for purchase by younger persons desiring to provide for their old age, purchase being made by monthly, quarterly, or yearly premiums, or by a lump sum. Immediate annuity contracts are for purchase by older persons wishing to obtain immediate incomes through their accumulated savings.

The property and interest of the annuitant in a contract for a Government annuity is neither transferable nor attachable. As a rule, the purchaser contracts that, in the event of the death of the annuitant before the date fixed for the annuity to begin, all money paid shall be refunded to the purchaser or his legal representatives with interest at the rate of 4 p.c. per annum, compounded annually.

From Sept. 1, 1908, the date of the inception of the Government annuities system, up to and inclusive of Mar. 31, 1939, the total number of annuity contracts issued was 51,141. Of these contracts, 4,171 have been cancelled, leaving in force on Mar. 31, 1939, 46,970 contracts. The total amount of purchase money received during the same period was $133,298,497.

28.—Government Annuities Contracted for, and Purchase Money Received, Fiscal Years 1909-39.

Year.	Contracts.	Purchase Money Received.	Year.	Contracts.	Purchase Money Received.
	No.	$		No.	$
1909[1]	66	50,391	1925	486	1,606,822
1910	566	434,491	1926	668	1,938,921
1911	1,069	393,441	1927	503	1,894,885
1912	1,032	441,601	1928	1,223	3,843,088
1913	373	417,136	1929	1,328	4,272,419
1914	318	390,887	1930	1,257	3,156,475
1915	264	314,765	1931	1,772	3,612,234
1916	325	441,696	1932	1,726	4,194,384
1917	285	432,272	1933	1,375	3,547,345
1918	187	332,792	1934	2,412	7,071,439
1919	147	322,154	1935	3,930	13,376,400
1920	204	408,719	1936	6,357	21,281,981
1921	195	531,800	1937	7,806	23,614,824
1922	277	748,160	1938	5,724	13,550,483
1923	339	1,028,353	1939	8,518	18,189,319
1924	409	1,458,819	**Totals**	**51,141**	**133,298,497**

[1] Seven months.

On Mar. 31, 1939, 18,296 immediate annuity contracts and 28,674 deferred annuity contracts were in force, making a total of 46,970. The total value of these contracts on that date was $122,764,923 and the amount of annuity under vested contracts in force on that date was $7,462,651.

29.—Government Annuities Fund Statements, Fiscal Years 1935-39.

Item.	1935.	1936.	1937.	1938.	1939.
	$	$	$	$	$
Assets.					
Funds at beginning of year	35,023,476	46,906,192	66,441,822	87,984,936	107,644,200
Receipts during the year, less payments	11,882,716	19,535,630	21,543,114	19,659,264	15,422,198
Funds at end of year	46,906,192	66,441,822	87,984,936	107,644,200	123,066,398
Liabilities.					
Net present values of all outstanding contracts	47,178,019	66,982,654	88,224,794	107,644,200	122,764,923
Receipts.					
For immediate annuities	9,904,714	14,881,398	14,883,153	6,740,308	9,859,844
For deferred annuities	3,577,200	6,458,204	8,841,716	6,854,850	8,412,712
Interest on funds	1,527,547	2,111,374	3,039,106	3,615,612	4,437,942
Refunds	3,980	737	Nil	Nil	Nil
For amounts transferred to maintain reserves	146,057	271,827	540,832	8,941,196	"
Totals, Receipts	**15,159,498**	**23,723,540**	**27,304,807**	**26,151,966**	**22,710,498**
Payments.					
Payments under vested annuity contracts	3,115,031	4,097,230	5,556,153	6,369,494	7,057,224
Return of premiums with interest	56,237	33,059	95,496	78,533	147,839
Return of premiums without interest	105,514	57,621	110,044	44,675	83,237
Balances at end of year	11,882,716	19,535,630	21,543,114	19,659,264	15,422,198
Totals, Payments	**15,159,498**	**23,723,540**	**27,304,807**	**26,151,966**	**22,710,498**

30.—Valuation of Annuity Contracts Issued, as at Mar. 31, 1938 and 1939.

Description of Contract.	1938.			1939.		
	Annuity Contracts.	Amount of Annuities.	Value at Mar. 31, of Outstanding Contracts.	Annuity Contracts.	Amount of Annuities.	Value at Mar. 31, of Outstanding Contracts.
	No.	$	$	No.	$	$
Immediate annuities	8,390	3,336,785	33,325,158	9,107	3,563,907	35,405,948
Immediate guaranteed	5,392	2,263,450	29,219,119	6,472	2,691,550	34,545,259
Immediate last survivor	2,423	1,100,761	15,696,690	2,717	1,207,194	16,922,774
Deferred annuities	22,810	[1]	29,403,233	28,674	[1]	35,890,942
Totals	**39,015**	**6,700,996** [2]	**107,644,200**	**46,970**	**7,462,651**	**122,764,923**

[1] Undetermined. [2] Amount of immediate annuities.

It will be seen from the statements above that Government annuities have grown steadily in favour, especially since 1921, the fund reaching a total of $123,066,398 on Mar. 31, 1939.

CHAPTER XXIV.—COMMERCIAL FAILURES.

CONSPECTUS.

	Page.
Section 1. Industrial and Commercial Failures from Private Sources..	958
Section 2. Commercial Failures from Administrations under Dominion Legislation.....	960
Section 3. Administration of Bankrupt Estates.....	963

According to Sect. 91 of the British North America Act, "the exclusive legislative authority of the Parliament of Canada" extends to bankruptcy and insolvency legislation, and an Insolvency Act (32-33 Vict., c. 16) was actually passed by the Dominion Parliament in 1869, applying to the four original provinces. This Act was in force for four years and was renewed by c. 46 of the Statutes of 1874, while in 1875 a new Insolvency Act (38 Vict., c. 16) applicable to the whole Dominion was passed, but was repealed in 1880. After this there was no Dominion legislation on the subject of bankruptcy until 1919. During the interval of nearly 40 years commercial failures were handled under provincial legislation, and the statistics relating to such failures during this period were compiled and published by Dun's and Bradstreet's commercial agencies. In 1919 a general Dominion Bankruptcy Act was passed (9-10 Geo. V, c. 36). Statistics of commercial failures dealt with under this Act since it came into force in 1920 have been compiled and published by the Dominion Bureau of Statistics. (See pp. 960-962.)

The three Sections of this chapter, although closely related so far as subject matter is concerned, cover different aspects of the same field and the statistics presented in each Section are not comparable with those in the others.

Statistics of industrial and commercial failures in Canada, given in Section 1, are compiled by Dun and Bradstreet, Inc. This concern is a mercantile agency interested primarily in credit information, and it is not to be expected that their data will be compiled on the same basis as figures of the Dominion Bureau of Statistics or the Superintendent of Bankruptcy. Their statistics are established on a broader basis than those of Section 2, inasmuch as they include, as well as bankruptcies in general, insolvencies under provincial companies' Acts and such proceedings as bulk sales, bailiffs' sales, landlords' seizures, etc., when loss to creditors results. On the other hand, they do not include assignments of farmers (under the Farmers' Creditors Arrangement Act) or of wage-earners, so that as a general rule their totals run lower than those in Section 2. As pointed out, between 1875 and 1919 Dun and Bradstreet were the only source of figures of commercial failures, and their statistics have an added value because they present an unbroken historical series, though not on a comparable basis since 1934 (see text preceding Table 1).

Section 2, on the other hand, is limited to bankruptcies and insolvencies made under Dominion legislation, such as the Bankruptcy Act (including the Farmers' Creditors Arrangement Act), the Winding-Up Act, and the Companies' Creditors Arrangement Act, but not failures, sales, or seizures carried out apart from such Dominion legislation. In the field covered, however, Section 2 is broader than Section 1, inasmuch as the Dominion Bureau of Statistics figures include failures of individuals such as wage-earners and farmers.

A word should be added as regards the value to be placed upon figures of assets and liabilities. Such values are estimates made by the debtor and unfortunately are not uniformly made. The human equation enters into them to a considerable degree and they must be accepted with this qualification.

Section 3 is limited to the administration of bankrupt estates by the Superintendent of Bankruptcy, under the Bankruptcy Act (including the Farmers' Creditors Arrangement Act). This Section, however, gives definite information on the amounts realized from the assets as established by debtors and indicates that values actually paid to creditors are invariably very much lower than such estimates alone would imply. It can be assumed that this applies in even greater degree to the extended fields covered in Sections 1 and 2.

Section 1.—Industrial and Commercial Failures from Private Sources.

A historical table giving failures for Canada and Newfoundland by classes for the years 1915 to 1935 appears at p. 969 of the 1936 Year Book. Early in 1936, however, Dun and Bradstreet, Incorporated, from whose reports these figures were taken, adopted a new method of classification. The principal changes consisted of setting up a new group of construction enterprises previously included in manufacturing and a new class for commercial service. Real estate companies, holding and other financial companies, and agents of various kinds were dropped. These changes have had the effect of confining the failure records more to industrial and commercial lines of activity, and liabilities are reduced more in proportion to the number of failures since the companies eliminated usually ran high in indebtedness. The present figures of Table 1 are not comparable with those given at p. 969 of the 1936 Year Book, because of the above reasons and because the earlier statistics cover Canada and Newfoundland whereas these are for Canada only.

1.—Industrial and Commercial Failures in Canada, by Classes, 1934-39, and by Provinces, 1939.

(From Dun and Bradstreet, Incorporated.)

Year and Province.	Manufacturing.		Wholesale Trade.		Retail Trade.		Construction.		Commercial Service.		Totals.	
	No.	Liabilities.	No.	Liabilities.	No.	Liabilities.	No.	Liabilities.	No.	Liabilities.	No.	Liabilities.
		$'000		$'000		$'000		$'000		$'000		$'000
Totals, 1934	**303**	**6,056**	**82**	**2,518**	**1,068**	**8,767**	**63**	**950**	**84**	**751**	**1,600**	**19,042**
Totals, 1935	**285**	**5,044**	**65**	**1,249**	**879**	**5,202**	**58**	**689**	**80**	**910**	**1,367**	**13,094**
Totals, 1936	**260**	**4,459**	**63**	**1,454**	**806**	**4,331**	**37**	**574**	**72**	**496**	**1,238**	**11,314**
Totals, 1937	**190**	**2,875**	**51**	**925**	**630**	**3,041**	**33**	**228**	**48**	**357**	**952**	**7,426**
Totals, 1938	**225**	**4,760**	**55**	**1,229**	**699**	**4,464**	**39**	**267**	**31**	**316**	**1,049**	**11,036**
1939.												
P.E. Island	Nil	Nil	Nil	Nil	4	99	Nil	Nil	Nil	Nil	4	99
Nova Scotia	3	21	1	2	32	219	2	15	"	"	38	257
New Brunswick	5	193	4	79	31	256	Nil	Nil	3	31	43	559
Quebec	124	2,200	37	430	364	1,996	39	675	27	591	591	5,892
Ontario	72	974	19	402	239	1,273	7	62	22	123	359	2,834
Manitoba	17	172	8	321	81	396	5	41	6	25	117	955
Saskatchewan	5	17	8	59	76	365	Nil	Nil	3	4	92	445
Alberta	3	6	Nil	Nil	34	232	"	"	Nil	Nil	37	238
British Columbia	5	246	"	"	13	110	"	"	"	"	18	356
Totals, 1939	**234**	**3,829**	**77**	**1,293**	**874**	**4,946**	**53**	**793**	**61**	**774**	**1,299**	**11,635**

In 1939 Quebec and Ontario accounted for 45·5 p.c. and 27·6 p.c., respectively, of the total failures in the Dominion. As regards liabilities, while the two Provinces ranked in the same order, Quebec accounted for a greater percentage of the total, 50·6 p.c. as compared with 24·3 p.c. registered for Ontario.

2.—Industrial and Commercial Failures in Canada, by Provinces, 1937-39.

(From Dun and Bradstreet, Incorporated.)

NOTE.—Figures for 1934-36 will be found at p. 951 of the 1937 Year Book.

Province.	Failures.			Assets.			Liabilities.		
	1937.	1938.	1939.	1937.	1938.	1939.	1937.	1938.	1939.
	No.	No.	No.	$'000	$'000	$'000	$'000	$'000	$'000
Prince Edward Island	2	Nil	4	1	–	16	5	–	99
Nova Scotia	18	28	38	43	130	76	180	385	257
New Brunswick	15	43	43	93	425	429	91	894	559
Quebec	377	482	591	2,159	2,928	3,743	3,241	4,845	5,892
Ontario	359	316	359	1,862	2,790	1,701	2,484	3,617	2,834
Manitoba	68	77	117	229	434	609	364	552	955
Saskatchewan	42	55	92	102	177	294	232	255	445
Alberta	44	24	37	44	70	229	273	90	238
British Columbia	27	24	18	280	232	230	556	398	356
Totals	**952**	**1,049**	**1,299**	**4,813**	**7,186**	**7,327**	**7,426**	**11,036**	**11,635**

Failures, by Divisions of Industry.—In every year the great majority of the commercial failures of the country are found among trading establishments, which are so much more numerous than manufacturing establishments. Thus, according to the records of Dun and Bradstreet, Incorporated, out of a total of 1,299 commercial failures in Canada in 1939, 874 were among the retail trading establishments, including 213 in foods and 183 in apparel. Out of the 234 manufacturers who failed, 65 were in the textiles business, 48 in foods, and 20 among manufacturers of forest products.

3.—Industrial and Commercial Failures in Canada, by Divisions of Industry, 1937-39.

(From Dun and Bradstreet, Incorporated.)

NOTE.—Figures for 1934-36 will be found at p. 951 of the 1937 Year Book.

Industry and Division.	Failures.			Liabilities.		
	1937.	1938.	1939.	1937.	1938.	1939.
	No.	No.	No.	$'000	$'000	$'000
Manufacturing—						
Foods	55	44	48	560	563	607
Textiles	41	67	65	390	894	1,365
Forest products	20	27	20	995	1,372	186
Paper, printing, and publishing	14	17	15	152	129	102
Chemicals and drugs	11	6	15	39	32	75
Fuels	2	4	4	11	179	252
Leather and leather products	9	15	11	171	144	209
Stone, clay, glass and products	5	6	7	174	185	64
Iron and steel	2	4	10	10	223	104
Machinery	6	5	3	72	86	32
Transportation equipment	1	6	2	4	112	12
All other	24	24	34	297	841	821
Totals, Manufacturing	**190**	**225**	**234**	**2,875**	**4,760**	**3,829**

3.—Industrial and Commercial Failures in Canada, by Divisions of Industry, 1937-39—concluded.

Industry and Division.	Failures.			Liabilities.		
	1937.	1938.	1939.	1937.	1938.	1939.
	No.	No.	No.	$'000	$'000	$'000
Wholesale Trade—						
Farm products, foods, groceries	15	17	20	526	430	372
Clothing and furnishings	1	6	9	15	157	193
Dry goods and textiles	3	5	6	30	229	215
Lumber, building materials, hardware	9	3	7	72	40	137
Chemicals and drugs	1	2	2	2	7	48
Fuels	1	1	Nil	1	13	-
Automotive products	3	3	2	27	7	15
Supply houses	4	7	Nil	36	102	-
All other	14	11	31	216	244	313
Totals, Wholesale Trade	**51**	**55**	**77**	**925**	**1,229**	**1,293**
Retail Trade—						
Foods	189	211	213	563	767	683
Farm supplies, general stores	72	72	101	502	691	829
General merchandise	31	44	46	186	307	214
Apparel	96	125	183	472	628	989
Furniture, household furniture	17	20	41	224	67	360
Lumber, building materials, hardware	41	33	45	246	514	392
Automotive products	37	33	66	326	302	722
Restaurants	63	74	90	137	434	252
Drugs	21	23	20	101	73	88
All other	63	64	69	284	676	417
Totals, Retail Trade	**630**	**699**	**874**	**3,041**	**4,464**	**4,946**
Construction—						
General contractors	11	6	13	62	73	499
Carpenters and builders	4	15	9	34	78	97
Building sub-contractors	17	16	31	123	107	197
Other contractors	1	2	Nil	9	9	-
Totals, Construction	**33**	**39**	**53**	**228**	**267**	**793**
Commercial Service—						
Cleaners and dyers, tailors	5	4	10	18	12	77
Haulage, buses, taxis, etc.	10	12	10	171	145	109
Hotels	8	3	11	43	67	239
Laundries	4	3	7	58	49	269
Undertakers	5	2	2	14	31	9
All other	16	7	21	53	12	71
Totals, Commercial Service	**48**	**31**	**61**	**357**	**316**	**774**
Grand Totals	**952**	**1,019**	**1,299**	**7,426**	**11,036**	**11,635**

Section 2.—Commercial Failures from Administrations under Dominion Legislation.

Under the Bankruptcy and Winding Up Acts (R.S.C. 1927, cc. 11 and 213) certain documents relating to estates administered under these Acts have, since 1920, been forwarded to the Dominion Statistician for statistical analysis. The statistics of this Section cover all bankruptcies and insolvencies that fall under Dominion legislation including assignments of individuals and farmers.

4.—Commercial Failures in Canada, by Provinces, 1923-39.

Year.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total.
1923	16	155	67	1,181	970	258	280	323	158	3,408
1924	3	69	67	907	835	100	131	150	57	2,319
1925	4	71	67	758	721	85	77	139	74	1,996
1926	4	63	74	654	655	84	68	113	58	1,773
1927	4	66	74	658	681	97	54	135	72	1,841
1928	4	90	56	767	758	103	63	126	70	2,037
1929	1	71	61	927	762	91	84	101	69	2,167
1930	3	61	45	1,011	776	113	146	152	95	2,402
1931	7	51	74	795	793	109	152	131	104	2,216
1932	9	62	80	968	889	86	91	131	104	2,420
1933	10	55	42	935	730	67	59	88	58	2,044
1934	8	42	38	779	474	56	36	42	57	1,532
1935	4	28	37	632	390	46	66	83	28	1,314
1936	6	29	15	589	384	33	57	48	37	1,198
1937	Nil	23	23	623	335	23	34	25	40	1,126
1938	4	35	31	588[1]	391[1]	67	56	20	27	1,219[1]
1939	3	38	45	669	403	74	67	37	56	1,392

[1] Revised since the publication of the 1939 Year Book.

5.—Commercial Failures in Canada, by Branches of Business, 1925-39.

Year.	Trade.	Manufactures.	Agriculture.	Logging and Fishing.	Mining.	Construction.	Transportation and Public Utilities.	Finance.	Service.	Not Classified.	Total.
1925	1,026	403	158	14	15	50	21	5	220	84	1,996
1926	805	390	135	27	20	52	34	1	225	84	1,773
1927	818	430	116	30	26	63	36	Nil	243	79	1,841
1928	884	505	108	31	23	70	45	5	263	103	2,037
1929	1,100	443	125	4	11	61	21	5	239	158	2,167
1930	1,204	488	115	12	9	55	48	29	283	159	2,402
1931	1,102	464	125	5	7	61	42	21	255	134	2,216
1932	1,171	468	190	9	6	83	43	7	290	153	2,420
1933	1,089	357	92	1	5	57	26	12	246	159	2,044
1934	799	217	82	3	2	59	20	16	217	117	1,532
1935	594	180	173	3	10	62	11	16	186	79	1,314
1936	536	191	123	2	12	53	10	11	189	71	1,198
1937	584	182	104	5	21	46	7	15	123	39	1,126
1938	667	200	101	1	11	50	9	4	109[1]	67	1,219[1]
1939	664	210	108	6	18	80	22	12	197	75	1,392

[1] Revised since the publication of the 1939 Year Book.

6.—Estimated Assets and Liabilities of Commercial Failures in Canada, 1923-39.

Year.	Estimated Grand Total Assets.	Estimated Grand Total Liabilities.	Year.	Estimated Grand Total Assets.	Estimated Grand Total Liabilities.
	$	$		$	$
1923	62,127,489	61,617,527	1932	40,604,208	51,629,303
1924	43,194,035	48,105,397	1933	27,033,240	32,953,858
1925	26,968,371	32,153,697	1934	19,257,469	23,598,260
1926	24,676,661	32,291,125	1935	12,174,401	17,567,002
1927	23,197,894	30,634,469	1936	10,703,620	15,144,945
1928	26,583,462	32,455,437	1937	10,704,079	14,303,362
1929	32,064,027	38,747,638	1938	8,782,191	14,017,061
1930	44,048,171	48,164,065	1939	11,186,360	15,089,461
1931	46,839,179	52,552,900			

7.—Commercial Failures in Canada, by Provinces and Branches of Business, 1939, with Totals for 1938.

Branch of Business.	P.E.I. and N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total for 1939.	Total for 1938.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Trade—										
General stores	4	6	43	26	4	3	11	4	101	105
Grocery	5	4	41	34	4	4	3	1	96	129
Confectionery	1	Nil	15	8	Nil	Nil	Nil	Nil	24	22
Drink and tobacco	Nil	"	14	Nil	"	"	"	"	14	9
Fish and meat	1	"	29	22	1	"	3	2	58	30
Boots and shoes	1	2	11	6	Nil	"	Nil	3	23	16
Dry goods	1	1	26	13	1	2	"	Nil	44	61
Clothing	3	2	48	37	3	8	1	3	105	98
Furniture	Nil	1	7	4	Nil	1	Nil	Nil	13	18
Books and stationery	"	Nil	11	4	"	Nil	"	"	15	12
Automobile	1	2	10	9	1	"	1	1	25	6
Hardware	Nil	Nil	13	6	2	1	1	Nil	23	16
Electrical apparatus	"	"	5	4	1	1	Nil	1	12	10
Jewellery	"	"	5	6	2	Nil	"	1	14	18
Coal and wood	"	"	6	4	Nil	"	"	3	13	15
Drugs and chemicals	1	2	9	3	2	"	1	1	19	22
Miscellaneous	6	4	21	16	5	4	4	5	65	80
Totals, Trade	**24**	**24**	**314**	**202**	**26**	**24**	**25**	**25**	**664**	**667**
Manufacturing—										
Vegetable foods	2	Nil	21	13	Nil	1	1	Nil	38	39
Drink and tobacco	Nil	"	1	Nil	"	Nil	Nil	"	1	Nil
Animal foods	1	3	9	6	4	"	"	2	25	14
Fur and leather	Nil	Nil	9	10	1	"	1	Nil	21	14
Pulp and paper	"	1	2	Nil	Nil	"	Nil	1	4	2
Textiles	"	Nil	13	6	"	1	"	Nil	20	12
Clothing	"	"	18	13	"	Nil	"	2	33	35
Lumbering and manufactures	"	2	12	2	1	"	1	2	20	22
Iron and steel	"	Nil	6	4	Nil	"	Nil	Nil	10	6
Non-ferrous metals	"	"	5	2	2	"	"	"	9	9
Non-metallic minerals	"	"	7	Nil	3	"	"	1	11	7
Drugs and chemicals	"	"	5	"	Nil	"	"	1	6	4
Miscellaneous	"	"	7	4	"	1	"	Nil	12	36
Totals, Manufacturing	**3**	**6**	**115**	**60**	**11**	**3**	**3**	**9**	**210**	**200**
Service—										
Garages	Nil	1	18	7	1	Nil	1	Nil	28	18
Other customs and repairs	1	Nil	19	13	4	"	1	2	40	10[1]
Personal service	Nil	3	22	17	3	2	1	2	50	16[1]
Restaurants	"	4	26	14	Nil	Nil	1	2	47	51
Professional service	"	Nil	13	4	1	1	Nil	Nil	19	10
Recreational service	1	"	Nil	2	Nil	Nil	2	"	5	1
Business service	Nil	1	6	1	"	"	Nil	"	8	3
Totals, Service	**2**	**9**	**104**	**58**	**9**	**3**	**6**	**6**	**197**	**109[1]**
Other—										
Agriculture	3	Nil	34	25	14	30	1	1	108	101
Mining	2	1	6	4	Nil	Nil	Nil	5	18	11
Logging, fishing, and trapping	Nil	Nil	1	Nil	"	"	"	5	6	1
Construction	1	1	45	26	5	1	1	Nil	80	50
Transportation and public utilities	Nil	Nil	11	6	2	Nil	Nil	3	22	9
Finance	1	1	8	1	1	"	"	Nil	12	4
Totals, Other	**7**	**3**	**105**	**62**	**22**	**31**	**2**	**14**	**246**	**176**
Not Classified	**5**	**3**	**31**	**21**	**6**	**6**	**1**	**2**	**75**	**67**
Grand Totals	**41**	**45**	**669**	**403**	**74**	**67**	**37**	**56**	**1,392**	**1,219[1]**

[1] Revised since the publication of the 1939 Year Book.

Section 3.—Administration of Bankrupt Estates.

The administration of bankrupt estates is now supervised by the Superintendent of Bankruptcy (appointed in 1932) with the object of conserving as far as possible the assets of bankrupt estates for the benefit of the creditors. Figures from the first report are given at p. 1039 of the 1934-35 Year Book, and those for subsequent years are to be found in later editions.

8.—Assets, Liabilities, Assets Realized, and Costs of Administration in Bankrupt Estates Closed, 1933-39, and by Provinces, 1939.

(From the Annual Report of the Superintendent of Bankruptcy.)

Year and Province or City.	Estates Closed.	Assets as Estimated by Debtor.	Liabilities as Estimated by Debtor.	Total Realization.	Cost of Administration.	Percentage of Cost.	Paid to Creditors.
	No.	$	$	$	$	p.c.	$
Totals, 1933	**850**	**9,207,503**	**8,629,392**	**1,880,015**	**423,833**	**22·6**	**1,449,392**
Totals, 1934	**1,620**	**14,887,298**	**20,342,883**	**3,800,996**	**880,803**	**23·2**	**2,908,020**
Totals, 1935	**1,198**	**14,039,847**	**19,402,471**	**2,797,009**	**763,617**	**27·3**	**2,020,868**
Totals, 1936	**1,069**	**10,314,455**	**14,018,966**	**2,265,125**	**603,182**	**26·6**	**1,661,943**
Totals, 1937	**1,149**	**18,397,022**	**20,431,515**	**2,805,743**	**770,563**	**27·5**	**2,035,180**
Totals, 1938	**1,098**	**15,995,276**	**21,740,131**	**2,526,562**	**717,485**	**28·4**	**1,809,077**
1939.							
Prince Edward Island	3	61,413	94,306	28,367	3,673	13·0	24,694
Nova Scotia	21	292,968	170,726	50,024	13,505	27·0	36,519
New Brunswick	21	226,628	740,270	41,896	15,333	36·6	26,563
Quebec[1]	295	2 064,769	2,849,291	637,125	188,619	29·6	448,506
Montreal	411	4,085,064	4,240,337	708,342	227,787	32·2	480,555
Ontario[1]	205	3,695,187	4,014,626	629,893	177,246	28·1	452,647
Toronto	69	1,508,332	1,536,989	311,372	120,748	38·8	190,624
Manitoba	31	391,781	560,415	67,343	13,053	19·4	54,290
Saskatchewan	13	99,654	123,221	27,593	6,737	24·4	20,856
Alberta	14	98,540	137,647	24,979	11,056	44·3	13,923
British Columbia	36	649,836	1,292,815	140,774	37,639	26·7	103,135
Totals, 1939	**1,119**	**13,174,172**	**15,760,643**	**2,667,708**	**815,396**	**30·6**	**1,852,312[2]**

[1]Exclusive of the city shown separately. [2] In addition to the payments by the trustee, secured creditors valued their security or realized on it themselves without the intervention of the trustee to an amount of approximately $3,688,064.

The Farmers' Creditors Arrangement Act came into effect Sept. 1, 1934. Assignments are made only in those cases in which the farmers are hopelessly insolvent and in many cases the assignments follow the rejection of proposals submitted to the creditors. Receiving orders are made only in cases in which the farmers have failed to fulfil the terms of their proposals as accepted by the creditors and approved by the court. Table 9 shows only statistics of estates closed by assignments and receiving orders and does not indicate the proposals that have been approved and are being carried out under the Bankruptcy Act.

9.—Assets, Liabilities, Assets Realized, and Costs of Administration in Estates Closed by Assignments and Receiving Orders Under the Farmers' Creditors Arrangement Act, 1935-39, and by Provinces, 1939.

(From the Annual Report of the Superintendent of Bankruptcy.)

Year and Province.	Estates Closed.	Assets as Estimated by Debtor.	Liabilities as Estimated by Debtor.	Total Realization.	Cost of Administration.	Percentage of Cost.	Paid to Creditors.
	No.	$	$	$	$	p.c.	$
Totals, 1935	**94**	**352,030**	**729,203**	**20,731**	**2,296**	**11·1**	**18,435**
Totals, 1936	**259**	**1,227,198**	**2,426,374**	**55,451**	**12,904**	**23·3**	**42,547**
Totals, 1937	**167**	**641,096**	**1,131,828**	**78,562**	**13,885**	**17·7**	**64,677**
Totals, 1938	**139**	**575,514**	**974,002**	**76,832**	**13,400**	**17·4**	**63,432**
1939.							
Prince Edward Island	2	8,153	12,355	681	374	54·9	307
Nova Scotia	Nil	–	–	–	–	–	–
New Brunswick	3	3,064	6,276	338	259	76·6	79
Quebec	23	109,244	162,296	22,496	4,537	20·2	17,959
Ontario	24	74,288	178,869	12,750	2,480	19·5	10,270
Manitoba	6	5,484	21,533	867	304	35·1	563
Saskatchewan	17	92,622	152,474	2,050	1,036	50·5	1,014
Alberta	6	48,408	111,737	389	239	61·4	150
British Columbia	2	27,285	42,984	237	237	100·0	Nil
Totals, 1939	**83**	**368,548**	**688,524**	**39,808**	**9,466**	**23·8**	**30,343**[1]

[1] In addition, land and chattels under mortgage or lien, of an estimated value of $221,601 were transferred to secured creditors.

CHAPTER XXV.—EDUCATION* AND RESEARCH.

CONSPECTUS.

	Page.
Section 1. Schools, Colleges, and Universities	965
Subsection 1. Provincially Controlled Schools	969
Subsection 2. Private Schools	973
Subsection 3. Higher Education	973
Section 2. Scientific and Industrial Research in Canada	979
Subsection 1. The National Research Council	980
Subsection 2. Research in the Departments of the Dominion Government	986
Subsection 3. Aspects of Industrial Research in Canada	1001
Subsection 4. Research in Universities	1004
Subsection 5. Other Research Organizations	1009
Section 3. Libraries	1012
Section 4. Museums and Art in Canada	1012

Section 1.—Schools, Colleges, and Universities.

The British North America Act assigned public education in Canada, except in the case of the native Indian population, to the jurisdiction of the Provincial Governments. A system of public elementary and secondary education, financed mainly by local school authorities but assisted by provincial grants, has developed in each province. There are some private schools in all provinces (i.e., schools that are not conducted by publicly elected or publicly appointed boards and that are not financed out of public money) but their enrolment is not large in comparison with that of the public schools. At the level of higher education, six provinces each have a provincially supported university, and the remaining three each have one or more colleges supported out of provincial funds.

Table 2 of this Chapter gives statistics of enrolment in four different categories of educational institutions including Dominion Indian schools. Indian schools are treated more fully in Chapter XXVIII, Miscellaneous Administration, along with other information on Indian Affairs.

School Attendance in Relation to Educational Status of the Entire Population.†—School attendance data, collected annually, do not give the number of persons of school age who are not at school. Even the number of persons who, at a fixed date, report themselves as having been at school is not necessarily the same as the number of persons who attended school during the year. In a rapidly moving population the difference may be considerable. Much less do annual figures show the penetration of schooling into the population structure as a whole. In this respect a study of census data must be depended upon.

Educational Status of the 1931 Population.—In considering the educational status of those now living in Canada, not only present school attendance but school attendance as far back as 1861 must be considered, since the ages at which schooling took place may have been anywhere between 5 and 19 years for persons now 75 years of age or over. Unfortunately, records of school attendance are not available for 1861 or 1891. From figures of other censuses, data are interpolated in Table 1 so as to show the numbers of the present population who were of school age at each of those dates and an approximation of the educational status of the 1931 population is thus obtained, in spite of the fact that the figures are qualified by the several factors brought out in the footnotes to the table.

* Revised, except for those parts otherwise indicated, by J. E. Robbins, M.A., Ph.D., Chief, Education Statistics Branch, Dominion Bureau of Statistics. This Branch is concerned with compiling and publishing comparable data relating to educational institutions throughout Canada, and to this end co-operates with the Provincial Departments of Education. A list of the publications of this Branch will be found in Chapter XXIX, Section 1, under "Education".

† Prepared by M. C. MacLean, M.A., F.S.S., Chief of Social Analysis, Dominion Bureau of Statistics.

1.—Persons of the 1931 Population of School Age (5-19) and Persons Attending School in 1931, and at the Dates of the Seven Previous Decennial Censuses.

Year.	Population of School Age.			Attending School.	
	Canadian Born.[1]	Immigrant.[1]	Total.		
	No.	No.	No.	No.	p.c.
1931	3,017,687	3,436	3,021,123	1,983,971	65·67
1921	2,188,938	227,622	2,416,560	1,483,042	61·37
1911	1,394,569	244,785	1,639,354	867,874	52·94
1901	1,133,255	271,494	1,404,749	733,700	52·23
1891	877,125	96,231[2]	973,356[2]	504,198[3]	51·80[3]
1881	606,627	97,653[2]	704,280[2]	361,999[4]	51·40[4]
1871[5]	366,044	65,581[2]	431,625[2]	216,373[4]	50·13[4]
1861	124,666	26,411[2]	151,077[2]	74,027[3]	49·00[3]

[1] The fact that it is impossible to separate repatriated Canadians from either the Canadian born or immigrants leads to a slight duplication. [2] Not comparable with first four figures because it includes *all* immigrants 5-19 years of age arriving before 1901 whether they were in Canada at ages 5-19 or not. [3] Estimated. [4] School attendance figures for 1871 and 1881 are for all ages. [5] Populations of Yukon and Northwest Territories are included in 1871 population.

New School Curricula.—One of the noteworthy features of education in most of the English-language provinces during the past few years has been revision of the school curricula—the most thorough-going revisions in the hundred years of public education in Canada. Teachers are given much more freedom and responsibility in interpreting them; 'activity programs', 'enterprises' and 'projects' are encouraged; the emphasis on health teaching, physical education, and social studies is substantially increased; the old 8-4 division of grades as between elementary and secondary education is changed to 6-3-3; and there is very much less use of departmental examinations to test successful completion of a year's work. In some provinces it is now possible to matriculate to university without a single examination external to the school. The old entrance-to-high school examination, obligatory for all students twenty years ago, is now taken by only about one-fourth of the students, considering the provinces together, and the proportion writing external examinations at the end of Grades IX and X is lower still.

Changes in Rural Administration.—Another change in the educational structure, widely advocated and beginning to make its appearance, is the adoption of a larger unit of administration for rural schools. The typical unit of rural school administration in the past has been a community of a few dozen families responsible for raising independently the greater part of the money required to operate its schools. (For a description of the system of school administration, see pp. 960-962 of the 1937 Year Book.) Difficulties in this system have long been obvious, and one province (Alberta) has now abandoned it. In a period of three years, beginning in 1936, the Alberta Department of Education has brought its more than 3,000 rural school districts into some fifty school divisions for financial and administrative purposes. Two or three similar units have been established in British Columbia, while Manitoba and Ontario, in some localities, are making headway in consolidating educational services on a municipal or township basis, such as has been used in Quebec. For several years the Nova Scotia, New Brunswick, and Saskatchewan Departments of Education have been giving close attention to the possibility of developing larger units.

Adult Education.—Post-school education is a field that has received greatly increased attention in Canada during recent years. The Canadian Association for Adult Education, established in 1935, is one of the very few Dominion-wide educational organizations maintaining full-time staffs. It is being financed largely by

grants from the Carnegie Corporation of New York and the provincial Departments of Education. The Director, at the annual meeting in 1938, reported that the number of people following more or less formal courses, apart from the regular school and university enrolment, was in the neighbourhood of 200,000. The Association aims to assist the various agencies whose work is represented by this enrolment, as well as to encourage more informal types of adult education. It is collaborating with the Canadian Broadcasting Corporation, for instance, in its attempt to train leaders for listening groups and make radio a more influential educational factor. It is co-operating with the National Film Society and the Canadian Film Committee in the development of Canadian cultural and educational films.

Some of the most distinctive work of Canadian universities has been done by their extension services on behalf of the population at large. The University of Alberta is outstanding in the variety of services offered, while others have won an international reputation for work of a specialized kind—notably St. Francis Xavier University in Nova Scotia with its more than one thousand study groups, which aim at bettering the economic and social condition of communities through the formation of co-operative enterprises. The extension service of the University of Toronto has given particular attention to assisting the Workers' Educational Association, which began as an Ontario organization but now has classes in large centres throughout the country. It is not possible to describe here the extent of adult education activities of the universities, but their increasing importance is indicated.

The provincial Departments of Education, too, are giving greater attention to the educational needs of the adult population. The biennial conference of their representatives in 1938 (the Canadian Education Association) took adult education for its central theme. Owing in some measure to the Association's interest in adult education, the Association was joined by Newfoundland and became the Canada and Newfoundland Education Association.

Following upon the outbreak of war in September, 1939, the Canadian Association for Adult Education and the Canadian Legion of the British Empire Service League jointly undertook to organize educational facilities for men in the armed forces, both in Canada and abroad.

Research in Education.—The many changes, completed or contemplated in Canadian education during recent years, have led educators to feel a greater need for scientific investigation of their problems, and, since most of the problems are common to a majority of the provinces, they have thought in terms of creating a medium through which they could collaborate in research. Plans have been on foot for a considerable period and resulted, during the early months of 1939, in the formation of a Canadian Council for Educational Research. This Council was supported by Departments of Education through the medium of the Canada and Newfoundland Education Association, by the provincial teachers' organizations through the agency of the Canadian Teachers' Federation, and with assistance for the initial years, from the Carnegie Corporation of New York. The Council is composed of seven members: five on a regional basis (one from each of British Columbia, the Prairie Provinces, Ontario, Quebec, and the Maritime Provinces), the Director of Research for the Canadian Teachers' Federation, and the Chief of the Education Branch of the Dominion Bureau of Statistics.

A record of the first topics proposed for the Council's consideration indicates some of the problems currently to the fore in the minds of Canadian educators:

(1) relations between the school systems and occupations; (2) instruction by correspondence; (3) teacher training; (4) the selective character of Canadian education; (5) tests and examinations to measure the outcome of modern programs of study; (6) the development of educational records that will give the maximum amount of useful information; (7) the effectiveness and practicability of instruction by means of radio and visual materials.

2.—Enrolment in Educational Institutions in Canada, by Provinces, School Year, 1937-38.

Type of Institution.	Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.
	No.	No.	No.	No.	No.
Provincially Controlled Schools—					
Ordinary and technical day schools	18,191	116,438	90,998	585,387[1]	672,696
Evening schools	Nil	3,689	1,775	17,874[1]	34,124
Correspondence courses	"	730	Nil	Nil	2,800
Special schools[2]	"	413	"	1,443	2,324
Normal schools	[3]	306	292	3,370	1,087
Privately Controlled Schools—					
Ordinary day schools	552	2,723	2,954	60,993	12,297
Business training schools	173	775	336	5,367	9,085
Dominion Indian schools	15	444	337	1,742	4,631
Universities and Colleges—					
Preparatory courses	549	368	531	14,774	3,123
Courses of university standard	108	2,417	1,332	11,827	18,647
Other courses at university[4]	Nil	10,443	253	12,974	17,550
Totals	**19,588**	**138,746**	**98,808**	**715,751**	**778,364**
Populations, 1938[5]	94,000	548,000	445,000	3,172,000	3,731,000

	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Canada.
	No.	No.	No.	No.	No.
Provincially Controlled Schools—					
Ordinary and technical day schools	139,329	211,298	166,664	120,360	2,121,536[6]
Evening schools	7,774	1,385	1,595	29,836	98,052
Correspondence courses	1,711	9,620	1,613	4,058	20,532
Special schools[2]	577	119	214	89	5,179
Normal schools	230	584	366	177	6,412
Privately Controlled Schools—					
Ordinary day schools	5,011	1,897	3,222	4,968	94,617
Business training schools	3,814	870	1,742	1,781	23,943
Dominion Indian schools	2,567	2,465	2,017	4,072	18,743[7]
Universities and Colleges—					
Preparatory courses	583	619	300	Nil	20,847
Courses of university standard	3,322	3,443	2,240	3,482	46,818
Other courses at university[4]	1,358	1,839	335	1,079	45,831
Totals	**166,276**	**234,139**	**180,308**	**169,902**	**2,502,510[8]**
Populations, 1938[5]	720,000	941,000	783,000	761,000	11,209,000[9]

[1] 1936-37 figure. [2] Schools for the blind, deaf, or mentally defective. These are boarding schools and many of the pupils are from provinces other than the one in which they are at school. [3] Included with "Universities and Colleges—Preparatory courses". [4] Includes also those in the Departmental summer schools for teachers in Ontario and British Columbia, not held at universities or colleges. [5] Official estimates as at June 1, see p. 103. [6] Includes 175 in ordinary day schools for Yukon and the Northwest Territories. [7] Includes 453 in Dominion Indian schools for Yukon and the Northwest Territories. [8] See footnotes 6 and 7. [9] Includes 14,000 estimated population for Yukon and the Northwest Territories.

Subsection 1.—Provincially Controlled Schools.

An outline of the provincial systems of school administration is given at pp. 960-962 of the 1937 Year Book. Summary statistics of these along with privately controlled schools, Dominion schools, and universities and colleges are given in Table 2.

A table at p. 963 of the 1937 Year Book includes the record of annual enrolment by provinces from 1911 to 1935, together with the record of average daily attendance shown in Table 3 below. The record of average daily attendance is the more comparable one, as between provinces, and probably the more significant for most purposes. Both figures have been practically at a standstill, or declining, in all provinces, for several years, because of the annually decreasing number of younger children entering the schools. The decrease would be much more pronounced were it not for the tendency of older children to remain in school longer. The extent of this latter trend is indicated at pp. 956-957 of the 1937 Year Book.

3.—Average Daily Attendance in Provincially Controlled Schools, by Provinces, 1921-38.

NOTE.—Figures for years previous to 1911 will be found at pp. 839-840 of the 1932 Year Book, and those from 1911 to 1920 at p. 963 of the 1937 edition.

Year.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total.
1921...	11,446	78,238	49,714	401,655	450,656	86,137	113,412	89,401	68,597	1,349,256
1922...	12,338	79,410	51,668	426,466	475,591	95,433	119,041	100,515	75,528	1,435,990
1923...	11,763	83,472	53,745	426,935	482,068	98,787	130,499	103,612	77,752	1,468,633
1924...	11,783	79,509	58,366	430,185	496,673	103,775	139,782	104,003	79,262	1,503,338
1925...	12,259	80,318	58,397	443,741	508,044	104,312	144,650	105,978	82,721	1,540,420
1926...	11,823	80,446	58,731	448,252	512,175	106,809	152,430	108,881	85,293	1,564,840
1927...	11,777	81,426	61,070	452,757	528,485	106,793	157,392	112,401	88,306	1,600,407
1928...	12,123	82,591	62,205	461,228	535,691	114,270	157,207	116,245	91,760	1,633,320
1929...	12,144	84,275	63,312	468,537	583,334	116,766	161,658	120,229	94,410	1,704,665
1930...	12,201	85,080	65,726	478,682	592,265	117,037	169,893	129,371	96,196	1,746,451
1931...	12,721	87,418	70,856	502,890	597,164	120,703	176,716	134,112	99,375	1,801,955
1932...	13,119	89,513	71,423	518,921	606,867	122,843	176,916	136,711	103,510	1,839,823
1933...	13,810	93,866	72,204	525,215	614,357	121,190	175,002	137,558	104,978	1,858,180
1934...	13,399	93,294	72,109	542,355	611,000[1]	120,314	175,457	139,155	103,408	1,870,491[1]
1935...	13,496	90,565	70,757	539,441	609,269	117,379	175,323	136,202	104,824	1,857,256
1936...	13,140	92,279	71,132	539,675	601,758	115,671	164,104	132,725	101,873	1,832,357
1937...	13,313	92,713	72,691[2]	541,681	605,778	117,244	165,465	133,109	104,044	1,846,038
1938...	13,498	93,231	73,041	[3]	607,851	116,650	173,205	135,163	106,515	-

[1] Approximate. [2] Revised since the publication of the 1939 Year Book. [3] Not available.

A record of the age distribution of pupils in the provincially controlled schools of all provinces is presented in Table 4. The ages of boys and girls are not shown separately, and it should be mentioned that there is a definite tendency for boys to leave school at earlier ages than girls. A table at p. 964 of the 1937 Year Book shows, for the years 1911 to 1935, the comparative numbers of boys and girls in the secondary grades of seven provinces.

4.—Age Distribution of Pupils in Provincially Controlled Schools, by Provinces, 1938.

Age.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
5 years or under..	187	1,410	7,351	64,635	13,244	623	1,122	251	72
6 "	1,011	6,924			42,959	8,042	8,611	6,602	4,553
7 "	1,646	10,349	8,877		60,715	11,398	17,474	14,992	10,032
8 "	1,817	11,001	8,951		63,540	12,237	19,979	16,376	10,587
9 "	1,787	11,009	8,930		62,822	12,099	21,112	15,810	10,560
10 "	1,879	10,959	9,437	477,847	64,216	12,520	21,507	15,797	10,618
11 "	1,747	10,607	8,954		63,162	12,430	20,577	15,493	10,681
12 "	1,856	11,206	9,404		64,817	12,820	20,355	15,684	11,106
13 "	1,747	11,207	8,593		65,165	12,814	20,210	15,647	11,346
14 "	1,646	10,440	7,072	74,260	57,281	12,687	19,527	15,136	11,188
15 "	1,448	8,490	5,352		45,850	9,999	15,264	12,868	10,327
16 "	722	6,202	3,571	23,775	30,311	7,562	10,420	9,132	8,596
17 "	350	3,797	2,124		19,271	4,279	7,163	6,313	6,143
18 "	149	1,909	1,037		10,789	1,598	4,080	3,908	3,170
19 "	44	661	341	3,658	7,164	476	1,885	1,673	853
20 "	4	186	104			122	787	640	209
21 years or over...	3	81	75			67	677	342	134
Totals, Classified	**18,043**	**116,438**	**90,173**	**644,175**	**671,306**	**131,773**	**210,750**	**166,664**	**120,175**
Unclassified.....	**148**	**Nil**	**825**	**Nil**	**1,390**	**7,556**	**548**	**Nil**	**185**

Technical Education.—Since the War of 1914-18 there has been a tendency toward diversity of instruction at the secondary level. The extent to which communities of various sizes have made provision for technical and commercial instruction is noted below.

Among the 35 cities in Canada with populations of more than 20,000, there are 9 without day technical schools. Three of these—Verdun, Outremont, and Westmount—are within reach of the Montreal Technical School. The others in order of size are Winnipeg, Halifax, Sherbrooke, Sydney, Glace Bay, and Moncton, the last four being among the smaller cities of the group. Evening technical classes are held in practically the same number of larger cities, though not the same cities, those without them in this case being all in Ontario and Quebec.

Among the 103 cities with populations of between 5,000 and 20,000 about one-fourth have day technical schools and a similar number have evening technical classes. In smaller centres day schools are extremely rare, considering that there are nearly 400 places with populations of between 1,000 and 5,000, with only half a dozen schools between them. A considerable number, however, provide evening instruction of a technical character.

As information is not available concerning the number of centres offering commercial instruction in Quebec, reference can be made to only eight provinces. The chief difference to be noted, in comparison with the coverage of other technical instruction, is that approximately twice as many towns and smaller cities include commercial courses in their high schools. There are privately owned business schools in quite a number of others, although they, too, are unusual in places with populations smaller than 5,000.

Enrolment in day technical schools has changed little for several years (an interesting situation in view of the fact that the academic high school enrolment has continued to increase) probably because the technical schools have been filled to capacity with no money available for their extension. Over a ten-year period technical students have increased proportionately more than academic students. They have approximately doubled while the others have increased by less than one-half. Even so, in the eight provinces only about one high school student in five is following a technical course.

*The Technical Education Act.**—Under the provisions of the Technical Education Act of 1919, and amendments thereto, only the Province of Manitoba is now participating in grants, all other provinces having received their entire allotments. The ten-year period for which grants were made available by the Act of 1919 came to an end on Mar. 31, 1929. At that time, only the Province of Ontario had been paid the whole of its appropriation, and, by c. 8 of the Statutes of 1929, the other eight provinces were granted a further period of five years to earn the remainder of their respective shares. At the expiration of this extension several provinces still had substantial sums to their credit and the Act was again extended at the 1934 session of Parliament for another five-year term. At the end of this term only the Province of Manitoba had an unexpended balance and once again that Province has, by c. 8 of the Statutes of 1939, been given another five years in which to earn the remainder of its original apportionment, which, at the beginning of the fiscal year 1939-40, amounted to $275,223.

Teaching Staffs.—The teaching staffs of day schools under provincial control in Canada consisted, in 1938, of 73,937 teachers, 19,171 males and 54,766 females. All of the increase of 4,000 teachers since 1930 has been in the male class. Table 5 summarizes statistics regarding rates of salary, except for Quebec where comparable data are not available. A separate report, "Elementary and Secondary Education in Canada, 1936-38" deals in detail with the classification of these teachers, the rates of salary paid, and their teaching experience.

5.—Teachers in All Provincially Controlled Schools, Classified According to Salary Received, for Eight Provinces, 1938.

Salary.	Prince Edward Island.	Nova Scotia.	New Brunswick.	Ontario.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.
Less than $400	76	147	102	76	50	262	Nil	Nil
$ 400 - $ 499	316	786	767	214	488	2,079	"	"
500 - 599	115	777	594	1,071	1,000	2,035	21	"
600 - 699	67	366	253	3,436	490	1,011	607	"
700 - 799	34	240	212	2,286	311	451	1,252	353
800 - 899	32	196	122	1,794	208	283	1,703	450
900 - 999	9	166	91	1,436	238	264	503	368
1,000 - 1,099	3	166	50	1,356	152	138	268	293
1,100 - 1,199	2	139	115	969	106	121	166	270
1,200 - 1,299	1	136	89	833	125	121	185	313
1,300 - 1,399	Nil	56	137	650	99	113	99	227
1,400 - 1,499	"	33	29	649	217	89	120	235
1,500 - 1,599	6	22	16	782	141	66	130	167
1,600 - 1,699	Nil	32	24	497	52	56	167	468
1,700 - 1,799	"	19	9	544	147	45	114	82
1,800 - 1,899	1	17	19	512	31	28	91	97
1,900 - 1,999	Nil	13	25	412	35	48	59	70
2,000 - 2,099	"	10	11	320	34	29	41	68
2,100 - 2,199	"	15	15	388	21	17	51	73
2,200 - 2,299	"	10	16	1,021	58	17	31	61
2,300 - 2,399	"	10	6	278	15	14	30	60
2,400 - 2,499	"	7	11	196	16	6	27	41
2,500 - 2,599	"	3	Nil	254	4	24	30	36
2,600 - 2,699	"	4	2	176	12	5	12	67
2,700 - 2,799	"	4	2	197	36	2	49	25
2,800 - 2,899	"	Nil	3	222	Nil	8	7	28
2,900 - 2,999	"	2	Nil	166	3	1	15	89
3,000 - 3,499	"	7	1	501	21	8	68	53
3,500 - 3,999	"	1	1	356	1	Nil	15	15
4,000 or over	"	Nil	Nil	37	4	"	Nil	1
Unspecified	7	9	"	21	41	60	5	25
Totals	**669**	**3,393**	**2,722**	**21,650**	**4,156**	**7,401**	**5,866**	**4,035**

Financial Statistics.—Table 6 presents records of the finances of the boards operating the provincial schools, in a comparable way, in so far as this can be done with existing records.

* Revised by W. M. Dickson, Deputy Minister, Department of Labour.

6.—Financial Support of Provincially Controlled Schools in Canada, by Provinces, 1926, 1931, and Recent Fiscal Years.

NOTE.—The receipts shown in the following table do not include any amounts raised by loans, or the sale of bonds or debentures, as all revenue of this nature must be repaid ultimately with money raised by local taxation. With the exception of the Maritime Provinces, for which the information is not available, the total debenture indebtedness of the schools of each province is given annually, thus showing the net increase or decrease per year. Figures for 1914 to 1925 will be found at pp. 985-987 of the 1936 Year Book and those for intervening years from 1926 at pp. 967-969 of the 1937 edition and p. 989 of the 1938 edition.

Province and Year.	Government Grants.	Taxation within School Administrative Units.	School Board Revenue from Counties.	Total Current Revenue Recorded.[1]	Debenture Indebtedness.	Administrative Units Operating Schools.
Prince Edward Island—	$	$	$	$	$	No.
1926	242,336[2]	171,650	Nil	413,986		469
1931	258,905[2]	189,444	"	448,349		469
1936	265,723[2]	199,172	"	464,895		473
1938	271,934[2]	170,509	"	442,443		475
Nova Scotia—						
1926	365,219[2]	2,393,155	497,229	3,255,603		1,704
1931	509,462[2]	2,657,780	493,533	3,660,775	[3]	1,714
1935	631,233[2]	2,604,137	483,185	3,718,555		1,722
1937	663,421[2]	2,590,733	477,265	3,731,419		1,721
1938	688,073[2]	2,650,580	479,063	3,817,716		1,767
New Brunswick—						
1926	511,350[2]	2,263,082	213,066	2,987,498		1,459
1931	459,029[2]	2,467,510	210,500	3,137,039		1,483
1936	462,182[2]	1,964,287	223,493	2,649,962	4,961,800	1,518
1937	505,021[2]	2,077,475	224,451	2,806,947	4,904,200	1,540
1938	519,639[2]	[3]	225,244	[3]	[3]	1,547
Quebec—						
1926	993,509	15,647,512	Nil	17,271,783	50,413,950	1,800
1931	1,429,033	18,697,183	"	20,742,951	65,886,105	1,827
1935	1,137,886	19,002,389	"	20,735,404	82,919,989	1,859
1937	1,306,691	17,752,626	"	19,754,490	79,275,399	1,867
Ontario—						
1926	4,775,853	30,903,925[4]	1,774,592	37,605,519	71,061,955	
1931	6,276,666	39,544,376[4]	3,100,225	49,351,714	88,781,934	
1935	4,739,116	33,548,155[4]	2,195,651	40,482,922	79,570,591	6,600
1936	4,837,275	35,930,987[4]	2,173,659	38,104,646	76,623,629	(approx.)
1937	5,645,381	37,411,648[4]	2,003,486	39,415,134	67,521,000	
Manitoba—						
1926	1,091,151	7,302,044[5]	Nil	8,393,195	14,790,474	1,862
1931	1,310,587	7,675,879[5]	"	8,986,466	15,006,997	1,938
1937	972,277	6,091,895[5]	"	7,064,172	14,590,064	1,892
1938	1,128,656	7,890,471[5]	"	9,019,127	14,805,883	1,892
Saskatchewan—						
1926	2,265,481	10,696,154	Nil	13,111,829	11,933,064	4,525
1931	2,704,242	8,114,719	"	11,015,486	15,945,934	4,796
1935	1,613,960	6,075,000	"	7,840,354	13,526,765	4,923
1937	1,749,698	5,050,000	"	6,945,181[6]	12,279,162	4,986
1938	2,310,660	5,369,000	"	7,679,660	13,406,617	4,927
Alberta—						
1926	1,137,638	8,241,715	Nil	9,491,130	10,704,634	3,124
1931	1,511,776	8,931,880	"	10,599,204	12,026,157	3,395
1935	1,432,085	7,489,823	"	9,063,248	9,883,239	3,492
1937	1,527,056	7,738,066	"	9,385,328	8,542,168	3,591[7]
1938	1,635,503	8,060,275	"	9,841,294	8,006,090	3,592[7]
British Columbia—						
1926	2,380,668	5,095,420	Nil	7,476,088	12,101,417	[3]
1931	2,856,376	6,226,661	"	9,083,037	15,936,753	811
1935	2,175,619	5,623,115	"	7,798,734	14,922,884	762
1937	2,456,372	6,315,902	"	8,772,274	14,127,303	763
1938	2,613,981	6,668,404	"	9,282,385	14,440,995	741
1939	2,722,702	7,009,070	"	9,731,772	[3]	721

[1] Includes tuition fees where these are recorded. [2] Includes contributions to teachers' salaries in the Maritime Provinces, and, in New Brunswick, grants made to schools by the Vocational Education Board. [3] Record not available. [4] The Ontario figures include the township grant towards the salaries of rural public school teachers. [5] In the rural municipalities of Manitoba about three-fifths of the school support is equalized by a uniform rate levied over the whole municipality. [6] Revised since the publication of the 1939 Year Book. [7] Larger "school divisions" are being established to perform many of the administrative duties formerly confined to the rural school districts, though the districts retain their identity for certain purposes.

Subsection 2.—Private Schools.

Private Elementary and Secondary Schools.—There are numerous schools in each province except Quebec doing work similar to that of the ordinary provincially controlled schools, but that are not publicly financed or administered and hence are not included in Subsection 1. Except in Quebec, the private schools have from about 2 to 4 p.c. of the elementary and secondary pupils in the different provinces. In Quebec the proportion is about 10 p.c., but most of these schools are subsidized by the Provincial Government and reports include a record of them similar to, and in some cases (as of average daily attendance) inseparable from, the records of publicly controlled schools. Thus their statistics are of necessity included in Subsection 1. Table 7, however, shows their enrolment at intervals from 1921, the year in which the Education Branch of the Dominion Bureau of Statistics commenced the collection of reports from private schools. A directory of the schools is included in the "Annual Survey of Education, 1936"

7.—Enrolment in Private Elementary and Secondary Schools in Canada, by Provinces, 1921, 1926, 1931, and 1936-38.

NOTE.—Figures for intervening years are given at p. 970 of the 1937 Year Book.

Year.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total.
1921	682	3,047	2,607	54,671	9,961	3,149	1,608	2,274	3,159	81,158
1926	580	2,956	3,528	54,767	10,126	4,534	2,358	2,281	4,624	85,754
1931	570	2,746	3,625	57,320	12,214	5,864	2,853	2,944	5,276	93,412
1936	547	3,044	2,784	55,775	11,612	5,131	2,003	3,083	4,568	88,547
1937	597	2,977	2,395	57,031	12,046	5,157	1,931	3,594	4,686	90,414
1938	552	2,723	2,954	60,993	12,297	5,011	1,897	3,222	4,968	94,617

Business Colleges.—There are private schools in fields of education other than elementary and secondary, the most numerous group working in the field of business and commercial education. A record of enrolment from this group also has been collected by the Education Branch of the Dominion Bureau of Statistics since 1921.

8.—Enrolment in Private Business and Commercial Schools (Business Colleges) in Canada, by Provinces, 1921, 1926, 1931, and 1936-38.

NOTE.—Figures for intervening years are given at p. 971 of the 1937 Year Book.

Year.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total.
1921	85	1,280	740	4,319	14,537	3,538	1,333	2,216	1,986	30,034
1926	114	766	722	2,743	10,314	3,502	1,436	2,739	2,230	24,566
1931	140	775	671	2,807	9,732	3,087	1,400	1,629	2,180	22,421
1936	175	585	366	3,218	6,790	2,773	873	1,527	1,197	17,504
1937	188	720	373	4,133	7,548	3,164	912	1,641	1,853	20,532
1938	173	775	336	5,367	9,085	3,814	870	1,742	1,781	23,943

Subsection 3.—Higher Education.

Editions of the Year Book previous to 1938 include considerable current information on universities and colleges, concerning enrolment, graduates, teaching staffs, and finances. For example, at pp. 971-978 of the 1937 Year Book the enrolment and number of graduates of individual schools of higher education for the

year 1934-35 are presented and reference is made to previous editions of the Year Book in which statistics regarding the finances, staffs, etc., of these institutions are given. Statistics of this nature may be consulted in the report "Higher Education in Canada 1936-38", published by the Dominion Bureau of Statistics.

Trends in Current Revenue since 1921.—Recorded revenues rose from less than $10,000,000 in 1921 and 1922 to almost $14,000,000 in 1931, then after declining for four years, rose again to their present level of $15,000,000. Since the decline of 1931 began, heavy deficits have been shown by many of the institutions. Evidence of these having been met to some extent by the use of capital funds is to be found in the final column of the Table 9 showing value of endowments and other revenue-yielding property.

Important changes have taken place in the sources of revenue. These are summarized by the following percentages:—

	P. C. of Total Revenue Contributed.	
	1921.	1939.
Government grants	49·8	42·2
Student fees	20·1	32·7
Endowments	16·4	13·2
Miscellaneous (including religious bodies)	13·7	11·9
All sources	100·0	100·0

Students have been called upon to provide a decidedly increased proportion of the money required to operate the universities, while other sources of revenue—provincial grants, interest, etc.—have declined, relatively, at approximately equal rates. This is a trend that, unaccompanied by any substantial increase in funds available for student aid, tends to make financial means, rather than intellectual ability, the basic qualification for a university education in Canada.

From the matriculation scholarships and bursaries at present available only one student per hundred of each year's high school graduating class can receive financial assistance, i.e., only one in seven or eight of those who enter university. The others must rely on private means—with some exceptions, such as those at present benefiting from student aid under the Dominion-Provincial Youth Training Program.

Even in provincial universities in Canada, in normal times, students have not been admitted without fees as is still the practice in some of the state universities in the United States and other countries. In the latest ten years the increase in tuition fees for a year in the Arts course at the provincial universities has ranged from 37 p.c. to 200 p.c., averaging about 80 p.c. for the 7,000 students concerned.

The prospect of equality in educational opportunity for persons of equal ability —the generally accepted ideal of democracy—seems more and more remote.

University and College Revenues in 1939.—The current revenue of the universities and colleges (about $15,200,000 in 1939), recorded in Table 9, is exclusive of income from board and lodging. However, it does not all represent revenue for the purpose of higher education. Some of the colleges have preparatory departments, and most of the larger universities spend considerable parts of their incomes on extension services for the general public. Deduction of such sums, and addition of an estimate for the unreported institutions (with 20 p.c. of total enrolment) would indicate that the total amount available for operation of places of higher education in Canada was between $17,000,000 and $18,000,000 for the academic year ended in 1939.

A better appreciation of the significance of this amount may be gained by considering it in relation to support for some other educational or cultural institutions. It is equivalent to about one-half of the receipts of motion picture theatres, about one-third of the sum required to produce our newspapers and magazines, or one-eighth of the amount contributed to the support of elementary and secondary schools.

Capital Resources.—The value of university plants (sites, buildings, and equipment) almost doubled between 1921 and 1932, with an average annual increase of nearly $4,000,000 in the institutions reported. Since 1932 there has been little change, making the 18-year average less than $2,500,000 per year.

As might be expected, additions to endowment did not keep pace with additions to plant. A certain amount of construction continued into the depression years, but the market crash of 1929 was apparently decisive in stopping additions to endowment. The average annual increase in property other than plant was about $1,500,000 over the 18 years. The nominal value, in fact, doubled from the $28,000,000 of 1921, but its earning power, in terms of interest and dividends, increased by only about one-third.

The increase in capital resources of all kinds, over the 18-year period, was $4,000,000 per year—from $76,000,000 to $148,000,000.

9.—Financial Statistics of Universities and Colleges in Canada, 1921-39.

NOTE.—This table provides a record of the annual income since 1921 of the larger universities and many of the colleges in Canada. The institutions omitted are mainly those conducted by religious orders, where teachers receive little or no salary, and the financial returns consequently do not present a comparable record. Those included have enrolled approximately 80 p.c. of the full-time students of university grade throughout the period.

Year.	Current Income.					Deficits.[2]	Surpluses.[2]	Value of Capital Resources.	
	From Endowment.	Government Grants.	Student Fees.[1]	Miscellaneous.	Total.			Plant.[3]	Endowment.
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
1921....	1,497	4,522	1,826	1,244	9,089	80	194	48,124	28,328
1922....	1,709	4,811	1,974	1,295	9,789	96	275	52,784	33,313
1923....	1,848	5,186	2,070	1,063	10,167	148	191	56,461	36,394
1924....	1,934	5,141	2,077	1,457	10,609	192	100	59,765	39,724
1925....	1,924	5,038	2,114	1,562	10,638	247	214	61,665	39,744
1926....	2,148	5,471	2,380	1,236	11,235	192	132	65,708	42,157
1927....	2,183	5,860	2,473	1,233	11,749	262	139	68,158	43,842
1928....	2,293	6,132	2,810	1,211	12,446	379	255	70,480	44,577
1929....	2,340	6,195	3,030	1,194	12,759	426	213	71,639	48,554
1930....	2,344	6,529	3,142	1,637	13,652	507	311	74,865	48,112
1931....	2,258	6,925	3,323	1,455	13,961	600	126	82,403	48,459
1932....	2,135	6,578	3,615	1,453	13,781	931	85	89,017	50,172
1933....	1,933	5,972	3,992	1,540	13,437	462	156	89,961	49,274
1934....	1,924	5,587	3,975	1,625	13,111	610	175	89,635	52,339
1935....	1,879	5,635	3,919	1,483	12,916	600	93	89,973	53,939
1936....	1,950	5,359	4,457	1,535	13,301	543	115	88,541	54,378
1937....	1,986	5,883	4,616	1,396	13,881	406	142	89,111	49,918
1938....	2,099	6,040	4,784	1,739	14,662	555	102	90,867	56,685
1939....	2,017	6,417	4,977	1,807	15,218	676	45	91,342	57,070

[1] Board and lodging not included. [2] Combined deficits or surpluses of schools reporting. [3] Site, buildings, and equipment.

Graduates from Schools of Higher Education.—The number of university graduates since 1923 or 1924, when the abnormalities of enrolment resulting from the War of 1914-18 had practically disappeared, has increased by about 50 p.c. Nearly 3 p.c. of the young people growing up in Canada to-day become university

graduates—about 4 p.c. of the young men and 1·5 p.c. of the young women. The proportion receiving degrees in Arts or Science is now nearly double that of fifteen years ago, but in several of the other faculties the proportion has not increased at all, and in some has definitely fallen.

It is of interest to recall that university education for women in Canada began only within the lifetime of the older generation still living. According to the archives of the Canadian Federation of University Women, it was not until about 1850 that women were first admitted to a university course in Canada, and only about 50 years ago that the practice became general.

There has been no tendency in post-War years for women to increase their enrolment in such professional lines of study as medicine, dentistry, pharmacy, law, theology, or missionary courses. A few appear in the record of every branch of study into which enrolment can be divided, except forestry, but they have held in the main to Arts, including Science and Commerce, and to Education, Social Service, and Public Health. Altogether they constitute about one-fourth of university graduates, but their proportion of the total has not tended to increase noticeably since the abnormal enrolment of returned soldiers came to an end in the early 1920's. Their proportion is highest in Ontario and the western provinces.

10.—Graduates from Canadian Universities and Colleges, 1930-38.

NOTE.—For figures from 1920-29, see pp. 993-997 of the 1938 Year Book.

Year.	GRADUATES IN ARTS, PURE SCIENCE, AND COMMERCE.							
	Bachelors of Arts.[1]		Bachelors of Science (in Arts.)		Bachelors of Commerce.[2]		Totals.	
	Total.	Women.	Total.	Women.	Total.	Women.	Both Sexes.	Women.
1930	2,499	989	237	38	134	17	2,870	1,044
1931	2,474	981	252	45	169	17	2,895	1,043
1932	2,629	1,020	277	41	199	15	3,105	1,076
1933	2,881	1,143	259	35	244	32	3,384	1,210
1934	3,081	1,157	293	45	241	33	3,615	1,235
1935	3,034	1,162	288	39	200	26	3,522	1,227
1936	3,175	1,168	320	45	202	25	3,697	1,238
1937	3,342	1,168	280	28	211	23	3,833	1,219
1938	3,364	1,187	297	41	221	23	3,882	1,251

Year.	GRADUATES IN APPLIED SCIENCE.							
	Bachelors of Applied Science or Engineering.		Bachelors of Architecture.[3]		Bachelors of Forestry.		Totals.	
	Total.	Women.	Total.	Women.	Total.	Women.	Both Sexes.	Women.
1930	384	1	25	Nil	44	Nil	453	1
1931	418	Nil	24	"	41	"	483	Nil
1932	439	1	22	1	32	"	493	2
1933	554	1	32	Nil	27	"	613	1
1934	624	2	31	"	32	"	687	2
1935	642	1	21	2	37	"	700	3
1936	564	2	53	Nil	21	"	638	2
1937	536	1	26	2	17	"	579	3
1938	604	Nil	36	6	18	"	659	6

[1] Includes Bachelors of Letters and of Social Science. [2] Includes Bachelors of Accountancy and of Secretarial Science. [3] Includes diplomas in architecture from the Schools of Fine Arts of Montreal and Quebec.

10.—Graduates from Canadian Universities and Colleges, 1930-38—continued.

Year.	GRADUATES IN AGRICULTURE, VETERINARY SCIENCE, AND HOUSEHOLD SCIENCE.						
	Bachelors of Agricultural Science.		Graduates in Veterinary Science.		Bachelors of Household Science.	Totals.	
	Total.	Women.	Total.	Women.	Women.	Both Sexes.	Women.
1930	131	1	21	Nil	122	274	123
1931	160	2	28	"	112	300	114
1932	150	1	34	"	146	330	147
1933	198	2	37	"	137	372	139
1934	215	2	36	"	164	415	166
1935	243	10	52	"	128	423	138
1936	238	7	53	"	138	429	145
1937	216	3	40	"	162	418	165
1938	232	5	62	1	184	478	190

Year.	TEACHER DIPLOMAS AND GRADUATES IN EDUCATION AND SOCIAL SERVICE.										
	Teachers' Diplomas.	Degrees in Education or Pedagogy.		Librarians' Degrees or Diplomas.		Physical Training Diplomas.		Social Service Diplomas.		Totals.	
	Total.	Total.	Women.	Total.	Women.	Total.	Women.	Total.	Women.	Both Sexes.	Women.[1]
1930	523	77	31	36	36	41	41	20	20	697	128
1931	581	60	19	39	37	45	45	18	18	743	119
1932	744	72	21	48	46	41	41	55	51	960	159
1933	807	56	18	53	51	25	25	48	42	989	136
1934	810	74	14	61	58	24	24	36	36	1,005	132
1935	649	61	18	54	53	26	25	48	44	838	140
1936	584	100	25	66	63	21	20	45	39	816	147
1937	517	108	19	43	42	31	29	65	55	764	145
1938	508	114	17	79	78	33	33	71	59	805	187

Year.	GRADUATES IN MEDICINE AND RELATED STUDIES.									
	Medical Doctors.		Dentists.		Pharmacists.		Post-Graduate Nurses' Diplomas.[2]	Diplomas in Physiotherapy and Occupational Therapy.	Totals.	
	Total.	Women.	Total.	Women.	Total.	Women.	Women.	Women.	Both Sexes.	Women.
1930	518	31	114	1	204	11	111	27	974	181
1931	535	26	90	Nil	208	10	122	20	975	178
1932	511	24	78	"	203	12	159	24	975	219
1933	483	25	70	1	162	10	174	25	914	235
1934	488	18	83	2	160	9	125	1	857	155
1935	472	20	80	1	150	13	150	6	858	190
1936	497	21	106	Nil	190	10	191	27	1,011	249
1937	511	22	113	"	164	14	166	31	985	233
1938	544	15	98	1	157	19	162	31	992	228

[1] Excludes teachers' diplomas. [2] Includes 12 to 24 dental nurses annually.

10.—Graduates from Canadian Universities and Colleges, 1930-38—concluded.

Year.	GRADUATES IN LAW AND THEOLOGY.				
	From Law Schools.		From Roman Catholic Theological Colleges.	From Protestant Theological Colleges.	
	Total.	Women.	Total.	Total.	Women.
1930	211	8	269	161	16
1931	223	5	245	189	18
1932	235	8	265	173	15
1933	213	7	258	162	17
1934	209	8	288	202	20
1935	238	11	289	202	15
1936	209	7	310	174	16
1937	236	7	338	183	19
1938	239	7	343	165	18

Year.	POST-GRADUATE AND HONORARY DEGREES.							
	Honorary Doctorates.		Doctorates in Course.		Masters of Arts.[1]		Masters of Science.[2]	
	Total.	Women.	Total.	Women.	Total.	Women.	Total.	Women.
1930	127	1	61	7	238	78	68	4
1931	95	Nil	46	7	274	94	93	4
1932	78	2	80	11	239	80	124	5
1933	102	Nil	87	9	287	101	145	7
1934	96	"	89	11	254	87	134	4
1935	76	3	77	4	254	93	115	7
1936	100	2	68	5	252	73	133	3
1937	129	4	78	7	265	70	107	8
1938	94	5	79	9	268	80	116	5

Year.	Bachelors of Divinity.	Licentiates (except in Theology).		Other Post-Graduate Degrees and Diplomas.[3]		Totals.	
	Total.	Total.	Women.	Total.	Women.	Both Sexes.	Women.
1930	41	94	1	107	Nil	736	91
1931	37	91	2	100	2	736	109
1932	33	130	2	107	2	791	102
1933	32	97	4	97	Nil	847	121
1934	46	129	16	108	5	856	123
1935	36	112	7	95	3	765	117
1936	43	100	7	90	Nil	786	90
1937	45	121	4	88	8	833	101
1938	35	121	3	90	11	803	113

Year.	ESTIMATES OF STUDENTS RECEIVING FIRST DEGREES.								
	Grand Totals.[4]			Deductions for Duplication.			Net Totals.		
	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.
1930	5,185	3,839	1,346	467	453	14	4,718	3,386	1,332
1931	5,290	3,952	1,338	449	437	12	4,841	3,515	1,326
1932	5,552	4,109	1,443	459	447	12	5,093	3,662	1,431
1933	5,891	4,307	1,584	440	428	12	5,451	3,879	1,572
1934	6,272	4,687	1,585	479	467	12	5,793	4,220	1,573
1935	6,226	4,648	1,578	460	449	11	5,766	4,199	1,567
1936	6,441	4,834	1,607	455	444	11	5,986	4,390	1,596
1937	6,541	4,926	1,615	505	493	12	6,036	4,433	1,603
1938	6,663	4,989	1,674	528	516	12	6,135	4,473	1,662

[1] Includes M. Com. and M. Ed. or M. Pæd. [2] Includes M.A. Sc., M.S.A., M.Sc.F., M. Arch., M.V.Sc., M.Sc. Dent., M. Surgery (where conferred separately). [3] Except diplomas for teachers, and theologians. [4] Not including diplomas in Education and Social Service, a few other diplomas, post-graduate and honorary degrees.

Section 2.—Scientific and Industrial Research in Canada.

The signal for the practical application of science and invention to industry on a wide scale was given between 1750 and 1800 when the steam engine, supplemented by the inventions of Hargreaves, Compton, and Cartwright, revolutionized the textile industry, then transportation, and finally all industry and gave to Britain the lead that placed her in the vanguard of industrial progress. But for many years the scientific point of view was not understood and scientists were pictured as absent-minded men who had little or no conception of the practical details of everyday life. As late as 1794, Lavoisier, the great chemist, lost his head at the guillotine because, in the words of the President of the Court, "the Republic has no need for chemists".

In Canada, the need for co-ordinated research was not widely recognized until the War of 1914-18. It is true that Canadians had shown initiative and marked ability in many fields of scientific investigation in which individual research was necessary but, taken by and large, industry itself was not alive to the benefits that science could give. From the early years of the War, however, enterprising Canadian manufacturers found opportunities for entering upon new lines of manufacture with practical control of the market at a time when agriculture was booming, prices were abnormally high, and imports of competitive goods were shut off. This was Canada's industrial opportunity. Naturally, factory methods became more specialized and a high degree of administrative and mechanical efficiency was attained, but the times and the conditions were not such as to stimulate interest in research methods. The sheer independence and initiative of the Canadian manufacturer was enough of itself to bring success.

After 1918, the application of research was imperative if Canadian industry was to retain the lead it had won, but the incentive was often lacking: competition was keener and the manufacturer had to cut his costs to the limit in order to survive the successive periods of post-war depression. It was during this time that pressure on the Government for help was greatest. For Government aid to be effective, however, it was necessary to enlist the active support of the industrialist, without undermining his independence and initiative, or chaining him to the routine of government administration.

Up to this time the improvement of old and the discovery of new industrial processes had depended on the initiative of the manufacturer; now they depended on the co-operation of progressive industry with science and the practical application of the results obtained in the laboratories of scientific men. Yet difficulties had to be faced. Under the present economic system, such efforts must not be too centralized. Manufacturers who carry on their own research work are legitimately jealous in their effort to keep the results to themselves. Yet the Government can help even in the most exclusive fields by promoting scientific research along generally useful lines and handing the results over to industry as a whole or, again, by assisting in the solution of individual problems of national importance, as in the case of the separation of radium from Great Slave Lake ores, carried out by the Mines and Resources Department in co-operation with Eldorado Mines in 1933. All considerations point to the necessity for co-operation along such lines wherever possible. If industries engaged in the production of similar articles can be brought to improve their product continually by their own systematic efforts, then the ability of the Government to make joint contributions through the channels of governmental

research is greatly facilitated. It was to achieve these ends that the research facilities of the various Departments of the Dominion Government and, latterly, the National Research Council were organized in Canada. Because of the widespread and varied activities of the National Research Council in co-operation with departmental, institutional, and industrial organizations throughout Canada, its work is dealt with first.

Subsection 1.—The National Research Council.*

The National Research Council was established in 1916 as a result of the realization that a modern industrial country, particularly in time of war, must have its research facilities and resources organized and correlated. Following the lead of the United Kingdom, there was established in 1916 an Honorary Advisory Council for Scientific and Industrial Research. The work of the Council increased rapidly during the years of peace and when war broke out in 1939 its function as the scientific arm of the Government became increasingly apparent and in a few weeks the normal peace-time program had been transformed very largely into or deferred in favour of war projects which, of course, cannot be discussed in detail at the present time.

For some years following its establishment the National Research Council was not equipped with a laboratory of its own and functioned only as a consulting and co-operating agency, giving financial aid and leadership in the organization of research and ensuring the most efficient use of the various laboratories and technical staffs available in universities, departments of government, and industry. To-day the Council has its own laboratories in Ottawa that enable it to fulfil its responsibility more efficiently, but it also continues to work in the closest co-operation with all organizations interested in research and to consult and co-operate with research workers throughout Canada and the Empire. The consultative and co-operative efforts are facilitated by associate committees and by means of assisted researches and scholarships.

The Council proper consists of fifteen members selected from men prominent in scientific and industrial work in Canada. They are appointed by the Governor in Council on the recommendation of the Committee of the Privy Council on Scientific and Industrial Research under which the National Research Council operates. The Minister of Trade and Commerce is Chairman of this Privy Council Committee.

The National Research Council meets four times a year to review past work and plan future projects.

The technical staff is organized in four laboratory divisions, each under a director and each responsible for investigations that fall into the categories suggested by the division titles, which are: Biology and Agriculture; Chemistry; Mechanical Engineering; and Physics and Electrical Engineering. Co-operation between divisions is easily arranged and a group of workers with a wide variety of training and experience can be quickly assembled to work on any problem that arises.

In order to provide for the better collection, collation, and issue of scientific information and the general planning of co-operative investigations through committees, a Research Plans and Publications Section has been organized, the Officer-in-Charge reporting to the President direct. This Section has charge of the library and is responsible for the *Canadian Journal of Research* issued monthly by the Council.

* Prepared in the Research Plans and Publications Section of the National Research Council, Ottawa.

There is also a Codes and Specifications Section which is chiefly concerned with the work of the Canadian Government Purchasing Standards Committee and the National Building Code.

Administrative services are under the direction of the Secretary-Treasurer.

Since the beginning of its activities, the National Research Council has recognized the importance of utilizing the technical knowledge and directing ability of scientific men in universities, in other government departments, and in industry. A means of utilizing the services of these men has been found in the system of Associate Committees.

Associate Committees as a Means of Co-ordinating Research.—Associate Committees are composed of representatives of institutions interested in certain fields of investigation, specialists of interested Dominion Government Departments, and members of the Research Council staff. It is the function of these committees to direct co-operative research on problems assigned to them, to determine which individuals and laboratories are to undertake the components of the program, to settle the objectives, and to co-ordinate the results obtained.

Committees are organized in answer to a stated need. For example, the Associate Committee on Forestry was organized in 1935 after a joint meeting of the Canadian Society of Forest Engineers and the Woodlands Section of the Canadian Pulp and Paper Association had pointed out that, while a number of organizations were engaged in forestry research, there was a need for some means of co-ordinating and harmonizing the investigations and the results obtained. At this meeting a resolution was passed asking the National Research Council to undertake the task of co-ordination. A conference of all organizations interested in forestry research in Canada was called to discuss the matter, and as a result of its deliberations and decisions the Associate Committee was set up. Since that time the various organizations represented on the Committee have worked in close co-operation in the planning and execution of work. The Dominion Forest Service has continued work in site classification, forest tree breeding, forest fire control, and so on, for which its staff is peculiarly fitted. Other organizations connected with the Committee supply their services where necessary. For example, in the Council's laboratories, work on the use of plant hormones in the rooting of cuttings, on apparatus for the determination of degree of fire hazard in the forest, on the testing of fire-fighting equipment, and on certain radio problems, has been conducted with the advice and guidance of the Committee.

The Associate Committee on Grain Research originated in 1926 as a joint organization of the Dominion Department of Agriculture and the National Research Council. Its membership now is representative of these organizations and of the Universities of Alberta, Manitoba, and Saskatchewan, McGill University, and the Board of Grain Commissioners for Canada.* There is not a single laboratory in Canada, concerned in any way with the quality of Canadian grain, that has not at some time co-operated with the Committee. Close relations have been developed also with grain laboratories in other countries. The independence and special qualifications of the personnel of this Associate Committee and the wide scope of the facilities of the co-operating laboratories have given it a well-deserved reputation as an authoritative body on questions of grain quality. Opinions of this body have

* For details of the research activities of the Board of Grain Commissioners, see pp. 990-992.

been sought on important matters by the Dominion Government, the Board of Grain Commissioners, the National Barley Committee, the Northwest Grain Dealers' Association, the Wheat Pools, and other organizations.

Fundamental investigations on grain problems have been, for the most part, initiated and carried out independently by the co-operating laboratories, but there has always been full and frank discussion of all projects, plans, and results with other members of the Committee. By this means co-ordination without restriction of initiative, and organization without hampering individual freedom of action have been achieved. To date, 175 scientific papers have been published under the ægis of the Committee. Among the matters investigated by the co-operating laboratories, often with financial assistance from the Committee, are drought hardiness of cereals, quality of wheat grown on wooded soils, seed injury by fungicidal treatments, prevention of heating of damp grain in storage, proteins and diastase of barley, influence of weather conditions on growth and yield of wheat, and factors influencing the carotene content of wheat.

The Associate Committee on Grain Research co-operates closely with the Associate Committee on Field Crop Diseases, which is interested in the development of high-quality disease-resistant varieties of grain. The latter body deals with the production of the varieties, but collaborates with the former on problems of quality. To provide for this collaboration these Committees meet concurrently once annually, and arrangements are always made for consultation between the plant breeders of the Associate Committee on Field Crop Diseases and the members of the Associate Committee on Grain Research, on all matters affecting the quality of newly developed varieties. By this means it is possible to prevent the economic waste that would result from the distribution to growers of varieties whose commercial qualities might not be of the high standard desired, even though their agronomic qualities were satisfactory. The combined efforts of these two Committees have resulted in the production of the high-quality rust-resistant wheats that are available in Canada to-day.

The work of the committees mentioned so far has many subdivisions, each with its specific interest, and consists of a series of steps, each of which prepares the way for a further advance; in other words their program is one of gradual and continuous development of the field for its scientific as well as its practical value. Other committees have had tasks that had from the first a specific program and one specific objective. An outstanding example of this type of organization was the Associate Committee on Trail Smelter Smoke.

This Committee was formed as a result of a request by the Department of External Affairs that the National Research Council investigate the damage said to be done to crops in Stevens County, Washington, U.S.A., by sulphur dioxide fumes from the stacks of the plant of the Consolidated Mining and Smelting Company at Trail, B.C. Claims aggregating many millions of dollars had been entered. The Government of the United States took up the matter with the Dominion Government, and the problem became one of determining the facts to be put before an international tribunal. The evidence having been collected and presented, the Committee was disbanded after a decision had been made in 1937. Before dissolution, however, the Committee collected the results of this, the most comprehensive study on the subject ever undertaken, in book form, under the title "The Effect of Sulphur Dioxide on Vegetation".

At present there are in existence, in addition to the committees already mentioned, committees on aeronautics, asbestos, coal classification and analysis, fire-

hazard testing, fish culture, gas research, hydraulic research, industrial radiology, laundry research, leather research, magnesian products, medical research, metallic magnesium, radio research, storage and transport of food, survey research, transhipment of perishables, wool, and other subjects. Co-operation with outside organizations is maintained through each of these, so that the Council has active contact with almost every scientific laboratory in Canada whether in a university, a Provincial or Dominion Government Department, or a private organization. The benefits to the progress of research within and without the Council's own laboratories are obvious.

Financial Assistance for Research.—In the development of co-operative research it frequently becomes necessary to give some financial assistance to a co-operator whose abilities should be utilized, but whose laboratory is insufficiently equipped with special apparatus, or who requires additional personnel for the proposed work. For this purpose the National Research Council has devised a system of grants known as assisted research grants. These are available only to persons who are recognized as capable research workers and whose laboratories possess the fundamental apparatus for the type of work to be done. The grants are made only for the purposes of investigations approved by the Council, and may be used only to purchase special apparatus and to employ assistants whose training and experience are regarded by the Council as satisfactory. These grants have resulted in much valuable scientific investigation by workers in Canadian universities, at a minimum of cost to the country. They have enabled the Council to assist qualified scientists whose services could not have been utilized without the financial assistance, in many cases quite small, that was supplied. In addition, research has been stimulated, particularly in the smaller institutions and those with limited financial support. This in itself adds materially to the scientific strength of Canada.

Another means of assistance to the development of science and technology in Canada is found in the Council's system of scholarships. These are awarded to students of high attainments to enable them to proceed with training in research in approved research laboratories under investigators of proved ability. The scholarship holders must engage in actual research, and their work as students, while equipping them for careers in scientific work, adds to the general store of knowledge and assists the investigators with whom they are associated to contribute to Canada's research effort. Many of the posts in research in Canada to-day are being held with distinction by scientists to whose training National Research Council scholarships contributed in no small degree.

Research Carried on by the National Research Council.—In this article it is not intended to list in detail the investigations that have been completed or are under way, but to give a few examples, chosen arbitrarily, to provide a picture of types of work undertaken.

Investigations dealing with storage and transportation of food have resulted in improvement of the methods of pre-cooling and packaging poultry. Maintenance of the quality of poultry held in cold storage has been assured by means of new developments in packaging the poultry and by humidifying the freezers. Considerable success has been achieved in efforts to improve railway refrigerator cars; remodelled and new cars designed as a result of this work are now in operation. Other investigations along this line deal with the development of automatic heater controls for refrigerator cars. A comprehensive study of the steps in the preparation of bacon for the export market has been carried on with the co-operation and support of the Dominion Department of Agriculture and the packing industry. This

study has uncovered a number of promising ideas for improving the quality and the uniformity of this important export product. Investigations aimed at improving the quality of beef, mutton, and pork are also being conducted.

Plant breeders in various institutions have added much to the wealth of Canada by developing new varieties. When the variety must meet specific environmental conditions, the tests may be made in the field or greenhouse, but tests of quality for certain market requirements demand laboratory facilities and accurate methods of measurement. The development of means of testing grain, such as wheat for its milling value and barley for malting, has received attention in the Council's laboratories, and the results have been of marked value to agricultural industry. This work has also received support from industry and from the Dominion Department of Agriculture, and has been stimulated by means of the close co-operation achieved through the medium of the Associate Committees on Field Crop Diseases and on Grain Research.

An inexpensive means of synthesizing certain plant hormones, and the discovery that these substances encourage root formation in some varieties of tree cuttings that normally root with difficulty are recent developments of interest to foresters. In addition, a program of tree breeding is being carried on in co-operation with the Dominion Forest Service, the requirements of commercial forestry, the farm woodlot, and the shelter belt being kept in view. In another field of plant breeding, work is proceeding, in co-operation with the Dominion Department of Agriculture, toward the development of a Western Canadian forage crop that possesses drought-resistance, soil-binding properties, and large seeds. For this purpose wheat has been crossed with the Agropyrons or wheat grasses. Interesting progress in this field has been achieved by doubling the chromosome numbers in hybrids by use of colchicine.

In the textile field extensive work has been done on industrial problems such as the damage done to wool by alkalis with which it is in contact during the scouring and milling operations. In co-operation with the University of Alberta and the Dominion Department of Agriculture, work is proceeding on the effect of environment and nutrition on the growth of wool, and a sheep-breeding program for fleece improvement is also being carried on. Studies of the means of testing such qualities of textiles as fastness of colour, water absorbency in towels, and the development of specifications for many types of textiles are other phases of the work. The cleaning of textiles is also being given attention, with the close co-operation of the laundering and dry cleaning industry. In this work the Council's laboratory provides periodic checks on the efficiency of 120 commercial and institutional laundries.

The work of the magnesian products laboratory has enabled the industry to develop to such an extent that the yearly payments to the Canadian railways for freight on products from the co-operating companies' plants in recent years have been almost as great as the total sum spent on these investigations in 13 years. Among the developments in this field are stable dolomitic materials and calcium silicates of high refractoriness. A type of brick that has extremely great resistance to fracture when subjected to rapid temperature changes was developed in the laboratory, and has been manufactured for several years in England, and will now be made in Canada also. A chemically bonded, unburned brick, developed in the laboratories is widely used in Canada, and is being exported to many foreign countries.

In aviation, in addition to considerable testing of fuels and instruments and the calibration and repair of instruments, researches are conducted on design and performance of aircraft and their component parts, such as engines, wings, and skis, and on engines and fuels. The effects of such factors as wind and gradient or current on the take-off of land and sea planes have also been investigated.

Apparatus for the study of vibration in aircraft has been constructed and tested in trial flights, and is expected to be valuable in helping to overcome high-frequency vibrations and wing-tip flutter, which have been troublesome and, on some occasions, dangerous.

A small model of a wind tunnel such as is used for aeronautical tests has been designed for the investigation of problems in soil drifting. A model-testing basin is available for the study of problems in the design of floats or ships' hulls. The results of these studies are valuable to designers of naval or commercial vessels.

In addition to research in the above specified fields, a large number of miscellaneous investigations have been carried on.

The asbestos industry has co-operated with the Council in laboratory investigations aimed at the improvement of quality, the testing of the raw and processed material, and the development of new uses for asbestos.

Casein, an agricultural product, has been studied in the Council's laboratories with a view to the preparation of high-quality raw material for the manufacture of coatings, water paints, insecticides and other preparations. The laboratories have investigated problems raised by corrosion of equipment used in various industries.

Among other studies of interest to industry are: the investigation of means of utilizing a recently discovered Canadian source of brucite, a hydroxide of magnesium; the development of highly efficient packings for fractionating columns and scrubbing towers; and use of an adhesive for bonding rubber to metals, particularly aluminium.

Cathode-ray direction-finding equipment for aircraft and marine use has been steadily improved. Marine equipment recently constructed near Halifax will facilitate the taking of bearings by pilots from fixed land stations, and by fixed stations from ships. Observations in atmospherics have been made at two Canadian stations in synchronism with a station in Puerto Rico and another in Florida.

In the X-ray Laboratory, thousands of articles are examined by X-ray methods, prominent among which are alloys, castings of various metals of importance in industry, and pressure cylinders. Methods of standardizing the examination of such materials are being studied and developed. Instruments for the measurement of radium content have been constructed and, in the year 1938-39 alone, radioactive materials to the value of approximately one million dollars were measured.

Considerable attention has been devoted to equipment for aerial photography in the interests of aviation, forestry, and surveying; the designing and construction of a light-weight camera, and the testing of negative material for survey operations are examples of the work done. Suitable light for colour grading of furs and other products is important in industry, and the laboratories are experimenting with means of producing artificial daylight for such purposes. An impulse generator capable of developing instantaneous potentials up to one million volts has been constructed for the testing of high-voltage insulators for power-transmission lines.

The examples cited above are, as has already been stated, merely a few chosen to illustrate the type and scope of the investigations undertaken in the laboratories. Little mention has been made of routine testing, although a large proportion of the time and energy of many members of the staff is devoted to that type of work.

Subsection 2.—Research in the Departments of the Dominion Government.

THE DEPARTMENT OF AGRICULTURE.*

Since the beginning of the twentieth century there has been a remarkable change in the relation of the farmer to the scientist. The scientist has taken his critical methods to the fields; the farmer has brought his problems to the laboratory. To apply the laws of science to the practices of agriculture is the function of the research and experimental services of the Dominion Department of Agriculture. Highly trained specialists are continuously at work carrying research projects through various stages of analysis in the laboratory, and through testing under controlled conditions in stable, greenhouse, and experimental plot. Finally the products of their research are tested under practical farming conditions throughout the area concerned.

There is no one science of agriculture; it is made up of many sciences. The tillage and fertility of soils, the growth and protection of plants, the feeding and care of animals, and the processing of farm products into human food and clothing present problems that the research worker solves by reference to the laws of a score of sciences. Because of the great diversity of effort required in reaching a practical solution, research on many problems is not confined completely to any one unit of the Department of Agriculture. The major part of the research work, however, is conducted in the Divisions of the Science Service and the Experimental Farms Service. Units of these two services are located in every province. The research work of the Department is co-ordinated with that of the agricultural colleges and the National Research Council, and there is an interchange of personnel and facilities wherever the work will be benefited.

Research on Soil Problems.—The basis of profitable farming is the maintenance of soil fertility. In a young country, the store of fertility accumulated over centuries of soil weathering and plant and animal decay is tapped by the first few generations of farmers. After the virgin soil has been partially exhausted of the mineral constituents that are used by the growing plant, the farmer's troubles begin to multiply. The vigour of the plants is lowered, crop yields decline, and weeds, diseases, and insect pests increase.

The soil surveyor, who maps the areas covered by various productive and unproductive types of soils, furnishes basic information from which the economist and the administrator are able to evolve land utilization policies for future settlement, or for the rehabilitation or abandonment of areas that are now in distress. This type of work is under way throughout the Dominion in co-operation with the provinces, and has reached an advanced stage in several areas.

The soil chemist and the field-crop specialist are able to determine the kind and amount of plant food needed for various crops on various soils, and to recommend fertilizers that will produce profitable crops. The manufacture of commercial fertilizers has been greatly improved through the research work of the chemist, and regulations controlling the content of fertilizer mixtures have been drawn up and are administered by the Department for the protection and benefit of the farmer and the manufacturer.

Studies in plant nutrition conducted by the Department have ascertained the causes and the methods of prevention of many obscure diseases. For example, although as early as 1857 boron was known to be present in plants, it is only within

* Prepared in the Department of Agriculture.

the past decade that its importance in plant nutrition has been realized. It is now known that almost all farm crops require minute quantities of boron in the soil, and diseases such as brown heart of turnips, corky core and drought spot of apples, dry rot of sugar beets, and cracked stem of celery may be prevented by its use. There is now research in progress to discover whether the addition of too much boron to the soil reduces the keeping quality of the fruit. Other deficiency troubles are known to be caused by lack of zinc, manganese, copper, sulphur, and magnesium.

Horticulture has been greatly benefited by recent researches in plant physiology. Through characteristic effects on the plant foliage, it is now possible to diagnose potassium and magnesium deficiencies with practical benefit. The balance between certain mineral plant foods has been demonstrated; an excess of nitrogen may be corrected to a degree by the addition of potassium, but an excess of calcium or of phosphorus can interfere with the utilization of potassium. A practical application of research in plant nutrition is found in the new greenhouse culture whereby plants are fed nutrients in solution. These methods remove numerous difficulties inherent in the use of soils and composts, and it may be that a large part of the greenhouse crops will soon be grown under these conditions.

The bacteriologist is concerned with the living organisms in the soil that bring about changes in soil fertility. Certain bacteria cause decay of vegetable matter or humus, thus making plant food available, and other bacteria that live in close relationship with leguminous plants assist in extracting nitrogen from the air for the use of the growing crop. Pure cultures of bacteria for the inoculation of legumes are maintained, and the Department exercises certain control measures over the commercial distribution of cultures.

Not all bacteria in the soil are beneficial. Some of them cause plant diseases, and some, on the other hand, produce substances that assist in controlling plant diseases. A program of research is conducted by bacteriologists and plant pathologists dealing with specific points involving the relationship of plants to soil organisms, particularly to soil-borne diseases such as root-rots of cereals, tobacco, and garden crops.

In recent years great improvements have been made in the efficiency of tillage implements and methods of culture. The laws of physics play an important part in the management of the soil and in the designing of tillage instruments. New instruments are constantly being designed and thoroughly tested by the Department. Soil drifting conditions are studied in a specially designed wind tunnel.

Research on Crop Production.—Man improves upon nature, not only by careful management of the soil, but also through the selection of the seed or stock from which the crop is produced. Modern practices require that seed must be pure, free from diseases and insects, and of high vitality. Regulations regarding the grading and distribution of seed are based upon careful research work, confirmed by field trials, and finally drafted into laws that are administered by the Department.

More fundamental than the appearance and vitality of the seed, however, are the inherited factors carried in the germ of the seed. The natural law of the survival of the fittest produces hardy strains of plants whose main characteristic is their ability to survive and not their usefulness to man. The plant breeder takes the most useful strains that have been developed by natural selection, and by artificial selection he improves the yield and quality of the crop. The botanist searches Canada and other parts of the world for suitable hardy varieties to form

the basis of improved varieties; the geneticist and the cytologist study the factors of inheritance that may be transmitted by these strains, and combine them with existing domesticated strains to produce improved varieties. Plant breeders at work in the Department are engaged in producing improved varieties of all types of field and garden crops. The great diversity of climate in Canada makes it necessary to have many varieties capable of producing satisfactory crops under varying conditions of soil, temperature, light, and moisture. For example, in order to produce a better Western Canadian forage crop, wheat is being crossed with Agropyron species of grasses. A variety that may prove highly desirable in one area may be quite unsuitable in another.

Marquis wheat has had a world-wide reputation for many years among the field-crop varieties produced by this Department. Unfortunately, this variety is susceptible to injury and destruction by black stem rust. In recent years, the plant breeders, with the assistance of the plant pathologists, have produced new high-yielding, rust-resistant varieties, and are continually searching for resistant varieties of still higher quality. The two outstanding features of the cereal-breeding work conducted by the Department are the contribution of genetics in guiding plant breeders in the production of varieties with the required characteristics, and the discovery by plant pathologists of the physiologic races of stem rust. About one hundred and fifty of these physiologic races of wheat stem rust have been discovered. Some are regional in distribution, some injure certain wheat varieties more than others, and some occur in one season and not in others. New races are discovered from time to time. It has been necessary therefore to study the characteristics of these physiologic races of rust, and to breed varieties of wheat resistant to all of the races that might affect the crops in the area concerned. This example is a striking illustration of the work of plant breeders and plant pathologists in producing agricultural plants resistant to diseases. Remarkable success has been achieved in a number of instances, and there is now the possibility that many plant disorders may be eliminated through the production of disease-resistant varieties.

Many diseases may be controlled by the application of fungicides. Researches that have been conducted over a period of years now make possible the publication of spray calendars for the control of diseases and insects, indicating to the farmer the time of spraying, condition of crop, and type of spray that must be applied to secure economical results. Regulations have been drafted and are now in force to further the production of strains of potatoes free from disease, and this work is being extended to seeds of cereal and vegetable crops.

The control of insect pests is one of the main problems that come with intensified farming. Forest insects, which present an enormous problem, also come under the purview of the Department. A protective service is maintained to prevent the introduction of foreign pests into Canada.

Control measures, developed by entomologists and chemists, include the use of contact sprays, poisons, and repellents. Thorough research on the life histories of insects also reveals the possibility of control by cultural methods. Entomologists and agronomists of the Department have worked out changes in methods of tillage, dates and rates of seeding, rotation of crops, and other cultural details that permit of an attack on the weakest link in the life history of the insect concerned. Cultural methods of control are of great importance in connection with crops grown on an extensive scale where poisoning and contact sprays would be uneconomic. A recent development that holds much promise is control by the use of parasites and predators. Stocks of parasites are multiplied in a laboratory maintained by the Department and released in areas where certain insect infestations are in progress.

By such biological methods, satisfactory results have been obtained in the control of several important insects, including pests of both farm and forest.

Research on Animal Production.—An increasing proportion of the field crops grown in Canada is being fed to live stock. Domestic animals are fed on natural and cultivated pastures, and on grasses and other crops harvested for winter feeding. The winter rations may be supplemented by the use of highly processed feeds containing the necessary minerals and vitamins to take the place of the sunlight and natural feed obtained during the summer months.

The animal husbandman, with the aid of the chemist, is constantly seeking for improved methods of feeding in order to produce strong, healthy live stock of the proper market type. The increased production of milk, eggs, and other animal products places a great strain on the constitution of domestic animals. The large amount of materials required by the animal body to produce human foods makes it necessary that the ration for the domestic animal contain much larger amounts of food constituents than is the case under natural conditions where production is limited. A balance must always be preserved between the ability of the animal to consume rough foods that are turned into human foods, and its disposition to remain in normal health and to produce economically. This raises research problems that require the utmost skill of the animal husbandman and the chemist.

The animal breeder is constantly on the search for improved blood lines that may be used in raising the standard of quality of the live stock throughout the Dominion. Careful recording of the performance of herds and flocks under the control of the Department, and studies of the best strains available from other sources, are functions of the animal husbandman and the geneticist. New breeds of live stock cannot be produced as rapidly as new strains of crops, and the improvement of existing strains is the main endeavour at present. An effort is being made, however, to develop new strains of sheep, swine, and poultry; this may eventually result in the establishment of breeds most suitable to Canadian conditions.

Research that has as its object the establishment of the most efficient means for the control and prevention of animal diseases is carried on continuously. Priority is given to diseases of major economic importance in the breeding and production of the various classes of live stock, poultry, and fur-bearing animals. Intensive research is made into the nature, causes, and effects of the more specific infectious diseases, their sources and tributaries, modes of transmission, reservoirs, carriers, and intermediary hosts. The possibilities of vaccination and immunization are explored and developed. Pathological determinations and laboratory tests, isolation and propagation of causative organisms and viruses, the preparation of diagnostic reagents, vaccines and serums, animal inoculations and experiments, are all included in these exacting studies and tests. In addition, studies are in progress relating to the occurrence and control of internal parasites preying on farm animals.

Regulations govern the manufacture in Canada and the importation of serums, vaccines, and similar products, some of which are prepared at the Departmental laboratories. All these products are subject to safety and efficiency tests. Quarantines, regulations, and standard methods, based on research and administered by officers of the Department, assist in controlling established diseases and in preventing the introduction of destructive diseases common to many other countries.

Research in Processing and Marketing.—As a basis for the framing of effective regulations concerning the interprovincial and export movement of farm

products, research is undertaken on methods of processing, storing, and transporting human and animal foods. The marketing of perishable foods, such as fruit and vegetables, butter, cheese, eggs, honey, and meat, continually presents new problems that demand solution in the best interests of producers and distributors. The recent development in the production and marketing of apple juice made from surplus apples is an example of this type of work.

Great advances have been made in the cold storage of fruits and vegetables, and the recent use of gas storage, discovered in Britain after research in the respiration of fruits, is being applied in this country to Canadian varieties in relation to commercial requirements. Definite progress is being made in maturity studies of fruits, problems of dehydration, and the preservation of fruit juices. Morphology and bacteriology are guiding the application of freezing processes used in the preservation of various agricultural products.

The present-day system of handling milk and dairy products is almost entirely the result of knowledge based on research in bacteriology. The establishment of modern methods is based on painstaking investigation on the physiology of micro-organisms, and the application of this knowledge to practical problems. The researches into methods of evaluating milk and dairy products have become as important as the hygiene of milk production. Bacteriological research has effected a marked change in the conception of food utilization.

Economic research relating to farm management and marketing is also a function of the Department. It is not the intention to increase production without regard to consumer preferences and potential markets. The maintenance of production on an economic basis in well-established farming areas is necessary to prevent the decline and abandonment of such areas with the consequent dislocation of community and national services. Agricultural research is aimed at lowering the cost of production and maintaining a continuous flow of high-quality products to available markets. This service is absolutely necessary for the maintenance of a well-balanced Canadian economy.

THE BOARD OF GRAIN COMMISSIONERS LABORATORY* (DEPARTMENT OF TRADE AND COMMERCE).

The rapid development of grain production in Western Canada during the first decade of the present century led to the passing in 1912 of the Canada Grain Act. Provision was made for administration of the Act by a Board of Grain Commissioners who were thus made responsible for control of the transportation, weighing, grading, and warehousing of Canadian grain. The Board soon encountered problems that required scientific study and a Grain Research Laboratory was established in 1913.

The Laboratory, which now employs a permanent staff of seven chemists and twelve assistants, comprises a sample-receiving and moisture-testing room, mill room, baking laboratory, macaroni laboratory, optical laboratory, constant temperature room, balance room, nitrogen laboratory, two general chemical laboratories, a small work shop, and various store-rooms and offices.

Studies Undertaken at the Laboratory.—Each year the Laboratory provides certain information required by the Board for the administration of the Canada Grain Act. During August and September the quality characteristics of the new crops are determined by the study of numerous individual and composite samples. The Laboratory then collaborates with the Inspection Branch in preparing the

* Prepared in the Board of Grain Commissioners Laboratory, Winnipeg.

tentative standard samples of each grade, which are submitted to the Western Committee on Grain Standards. When the standards are set, their quality characteristics are determined and a report is released by the Board for the information of prospective purchasers of Canadian grain. Throughout the remainder of the crop year, the Laboratory continues to collect and test samples of various crops in order that the Board may have information on the current quality of grain in storage and in transit, and a final record of the quality of all grain shipped during the crop year. Annual records are prepared showing the variations in the quality of wheat produced in different districts, inspected at different points, unloaded in different elevators, and shipped from different ports. Information is also provided on the variations in quality both within and between grades, at monthly intervals during the crop year, and at various stages of the movement from producer to consumer. Similar though less extensive records are kept for durum wheat, barley, flax, oats, and rye.

The Laboratory also tests numerous individual samples, the grade or quality of which has been questioned by a producer, inspector, or purchaser. A fairly steady demand exists for wider investigations relating to day-to-day grading problems; the effects of artificial drying, frost damage, bleaching, bronzy-green kernels, immaturity, and taints, on milling and baking quality are given careful study. About half the Laboratory's time is given to more fundamental research comprising investigations designed to improve and standardize laboratory methods used in assessing the quality of cereal grains, and comparative studies of the quality characteristics of different varieties and of grains grown under different environmental conditions are also carried on.

Most of the major investigations undertaken form part of a broader program of studies formulated and directed by the Associate Committee on Grain Research of the National Research Council and the Dominion Department of Agriculture, on which the Board of Grain Commissioners is represented by two members of the Laboratory staff. As a result of this work a very considerable body of reliable information has been collected on the milling and baking characteristics of Canadian varieties of wheat and these have been classified with respect to quality, and thus with respect to the commercial grades for which they are eligible. Moreover, there has been steady improvement and development of the methods used for assessing quality both on a macro- and a micro-scale, and a concurrent expansion of the services given to Canadian plant breeders by testing their new hybrids and selections.

In 1932 the attention of the Associate Committee was drawn to the need for research on the macaroni-making quality of durum wheat. A grant was made for the purpose of initiating a program of investigations in that field and such investigations have been carried on at the Laboratory since 1933.

The Board has at its disposal a laboratory that is better equipped for investigations of the macaroni-making quality of durum wheats than any other laboratory on this continent. Through the co-operation of the Department of Agriculture, considerable progress has been made in determining the macaroni-making qualities of established varieties of amber durum wheat, and in determining the effects of environment on these qualities. Improvements in the equipment and methods used in the durum laboratory are being sought continuously. At present, particular

attention is being given to the development of more satisfactory micro-tests for small samples of new hybrids and selections.

For some years the Laboratory has also been the principal Canadian centre for research on oil seeds. Attention has been given to the development of rapid methods for the determination of the oil content and iodine value of flaxseed, so that, should flax production reach an appreciable commercial volume in Canada, it will be possible for the Board to put the grading of the crop on a quantitative basis. Several other oil seeds have also been studied, including soybeans, safflower, "Peritome serrulata", and sunflower seeds, all of which have certain commercial possibilities for the production of both drying and edible oils.

THE DEPARTMENT OF MINES AND RESOURCES.*

Various types of scientific and industrial research are carried on in the different branches of the Department of Mines and Resources. The Mines and Geology Branch and the Lands, Parks, and Forests Branch are in direct administrative contact with two of the most important industries in Canada, and undertake a large proportion of the research carried out in this Department, with the object of achieving the more efficient development and utilization by industry of the products of mine and forest. The Bureau of Geology and Topography, the National Museum, and the Dominion Observatories carry out research in their respective fields. The Bureau of Northwest Territories and Yukon Affairs carries out research on wild life in the Northwest Territories, while the National Parks Bureau, in connection with the administration of the Migratory Birds Convention Act, carries on research in ornithology and also studies the factors affecting the fish and game populations of the National Parks.

Bureau of Mines.—The rapid growth of the mining industry in Canada has resulted in an increased demand for information relating to the mineral resources of the Dominion. The Bureau of Mines, through its various divisions, is making an effort to correlate and make available to industry and to the public all information pertaining to these mineral resources. This work has been greatly facilitated by the recent erection of new laboratories that are equipped to carry out extensive investigations and tests of minerals and their products. At present the following laboratories are maintained: the Ore Dressing and Metallurgical Laboratory, the Fuel Research Laboratory, and the Ceramic and Industrial Minerals Laboratory.

Ore Dressing and Metallurgical Laboratory.—The Ore Dressing and Metallurgical Laboratory, Ottawa, is fully equipped for such mineralogical, physical, chemical, mechanical, and metallurgical investigations, tests, and researches as are found necessary: to determine the characteristics and methods of treatment of Canadian ores; to improve plant practices; increase recoveries and improve the quality of metallic products; and in general to aid the mining and metallurgical industry of Canada.

Research work is carried out on both ferrous and non-ferrous metals. The Ferrous Metal Laboratory is equipped for the production and testing of alloy steels and allied products and to be of service to firms that either manufacture or use metals and metallic alloys.

* Prepared in the Department of Mines and Resources.

Fuel Research Laboratory.—At the Fuel Research Laboratory, Ottawa, investigations are carried out on solid, liquid, and gaseous fuels with the purpose of promoting more extensive and more efficient use of the fuel resources of the Dominion. Research and investigative work is being done on the classification and physical and chemical properties of coals, coal washing and beneficiation, carbonization and briquetting; on petroleum, bitumen, natural gas, and on the hydrogenation of various fuels for the production of motor fuel and other petroleum products. Equipment permits large- and small-scale coking tests on coals as well as the determination of the relative heating values of various fuels.

Ceramic and Industrial Minerals Laboratory.—In the Ceramic and Industrial Minerals Laboratory, Ottawa, facilities are provided for investigative research and tests on the non-metallic minerals, principally those used in the building, chemical and metallurgical, and ceramic industries. The investigations deal with the winning, marketing, uses, crushing, and grinding of minerals, and with problems of processing in the manufacture of mineral products, particularly of those materials used in the ceramic industries. In the latter case, the work is directed chiefly to improving the processing in the clay-working industries and in assisting operators to overcome their technical difficulties.

National Museum.—The National Museum, singly or in co-operation with other governmental departments, universities, and private organizations, conducts research in the natural sciences, chiefly anthropology—to elucidate the history of the Canadian aborigines—and biology (mammals, birds, insects, aquatic and other animals, botany, forestry) for educational purposes and for the application of these sciences to industry and conservation.

Bureau of Geology and Topography.—Through the Bureau of Geology and Topography, geological, topographical, and related work is undertaken to further the knowledge of the geology and geography of Canada.

Geological Survey.—The Geological Survey makes studies and investigations in geology, mineralogy, and palæontology in order to obtain systematic information regarding the geology of Canada and to aid in the discovery and development of her mineral resources.

Topographical Survey.—The Topographical Survey, in the course of its regular work, conducts research on methods, materials, and instruments for preparing maps both from aerial photographs and ground surveys. The co-operation of the National Research Council is obtained in certain phases of this work that involve actual constructions.

The Dominion Forest Service.—The Dominion Forest Service operates five forest experiment stations with a total area of 238 square miles. Here investigations of the underlying principles governing the growth of forests can be made and practical methods of management are tested. The first of these stations was established at Petawawa, Ont., in 1918. The Forest Products Laboratories were organized in 1913 with the object of keeping Canada abreast of other countries in scientific developments in wood utilization.

Forest Economics.—Latest available information regarding the forest resources of the Dominion is collected and compiled by this Division. Data are secured both from special inventory investigations and from reports supplied by the Provincial Governments. The annual depletion in the forest due to cutting, fire,

and other causes is compiled, and information respecting the annual production of various forest products is assembled.

Inventory investigations are facilitated by the use of air photography. Large sections of Canada have been photographed from the air by the Royal Canadian Air Force and by private companies. The interpretation of these photographs has been developed by a special technique to the stage where it is possible not only to plot the various timber stands but to estimate with considerable accuracy the volume of standing timber.

Silvicultural Research.—Research in the field of silviculture is centred in the five forest experiment stations located in New Brunswick, Quebec, Ontario, Manitoba, and Alberta, but supplementary studies are conducted in other areas in co-operation with the provinces and industry. The main objectives are: to determine and demonstrate the best methods of treating existing young timber stands that have come in naturally after cutting or fire, and to devise systems for the cutting of mature stands so as to ensure natural regeneration of the more desirable species. Intensive studies are made on small sample-plots and then the results are applied to larger areas more representative of commercial operations. The experiments include improvement cuttings in which undesirable species and defective trees are removed, thinnings to promote growth, and pruning to improve the quality of the wood. Records of costs and of the revenue from the sale of timber removed are kept in order to determine the financial practicability of applying these methods to commercial operations.

Forest Fire Protection Research.—Research in forest fire protection is conducted at the forest experiment stations and in co-operation with the provinces and the National Research Council. Annual statistics of forest fire losses are compiled from returns submitted by the provincial authorities, and the efficiency of new equipment and methods used for combating forest fires are investigated.

The outstanding accomplishment in this field has been the development of a system for the daily measurement and forecasting of forest fire hazard. This system, developed from studies begun in 1929, is now used throughout Quebec and New Brunswick. In each region intensive research into the factors influencing fire hazard must be undertaken. Field investigations are now being conducted in the western provinces with a view to applying this system in those regions.

Forest Products Research.—This branch of research is carried on at three laboratories. The main Forest Products Laboratories are located at Ottawa. All phases of wood utilization are dealt with except those relating particularly to the manufacture of pulp, paper, and related products. The latter are conducted at the Pulp and Paper Laboratory at Montreal.

The Pulp and Paper Association, in addition to providing accommodation for research, makes a yearly grant to the Laboratories to assist in financing the work, and, through a Joint Administrative Committee consisting of representatives of the Government and the Association, takes an active part in formulating and forwarding the work of the Division. Close co-operation is also maintained with McGill University.

A third laboratory is maintained at Vancouver to deal with special problems in connection with the forest products of British Columbia.

Research projects in connection with timber mechanics, wood preservation, lumber seasoning, wood chemistry, timber pathology, timber physics, and wood

utilization are conducted at the Ottawa and Vancouver Laboratories; analysis and testing of pulp and paper, methods of mechanical pulping, chemical pulping, printing, and fundamental studies are carried on at the Montreal Laboratory.

Since the Laboratories were established, many advances have been made in the technique of wood utilization. Improvements have been made in treating railway ties, telephone poles, mining timbers, and other structural timbers with creosote, water-soluble salts, and other chemicals. This has enhanced the value of wood as a permanent structural material and permitted its use for a variety of purposes for which it is otherwise unsuitable. The work carried out in the treatment of hardwoods, especially birch, beech, and maple, has been of particular value. Reductions in the cost of manufacture of pulp and paper, and improvements in quality of products have resulted from researches of the Laboratories. Of particular interest has been the development in the Pulp and Paper Laboratory of the Canadian Standards Freeness Tester and the Johnston Fibre Classifier. Valuable work has also been carried out in the manufacture of groundwood pulp and in the pulping of resinous woods and hardwoods.

The study of the significance of discoloration in timber, as for example in jack pine, red cedar, and Douglas fir, has been responsible to a considerable degree for curtailing rejection of such material. Researches carried out in the spraying or dipping of timber, notably the sapwood of the pines, with chemicals that are toxic to wood-staining organisms have assisted in curtailing losses on this account, which in some years amounted to as much as one million dollars.

Through researches carried out in the Laboratories and at woodworking plants important advances have been made in seasoning, both in the open air and in experimental dry-kilns. This work has been particularly valuable in both Eastern and Western Canada in connection with export markets which are becoming increasingly critical of specifications. The work carried out has been of significance to exporters of both softwoods and hardwoods.

Mechanical and physical tests have been carried out on nearly all important Canadian commercial species of timber in accordance with the practices adopted by laboratories of countries of the British Empire and of the United States. A great deal of work has also been carried out on large structural timbers. This information has been used widely by Canadian engineers and by municipal authorities in the revision of building codes. It has also been made the basis for structural grades, for all species of Canadian woods of structural importance, which have been set up by the Canadian Engineering Standards Association. In logging operations in Canada a great deal of material such as limbs, small logs, defective logs, and species not ordinarily used commercially are left in the woods and wasted. At the sawmills quantities of bark, slabs, edgings, sawdust, and trim are consumed in refuse burners. The Laboratories are paying special attention to devising ways and means of curtailing this waste, and industry is becoming keenly aware of the importance of such work.

The Bureau of Northwest Territories and Yukon Affairs.—The conservation of the fur bearers of Canada is a matter coming under the jurisdiction of the respective Provincial and Territorial Governments. Nevertheless, the Dominion, as a whole, is concerned with the conservation of fur and of all wild-life resources. It was to co-ordinate the wild-life conservation efforts of the various Dominion Departments that the Advisory Board on Wild Life Protection was organized in 1916. The Board is specially authorized to advise with respect to the

administration of the Migratory Birds Convention Act and the Northwest Game Act, but has dealt with many other problems of wild-life conservation. Through conferences of provincial and Dominion officials, which were convened for many years by the former Department of the Interior but are now arranged by the Department of Mines and Resources, uniform and concerted action has been taken and the conservation of Canada's wild-life resources has been advanced. The general policy followed with regard to the fur-bearing animals has been mainly along two lines: (1) To so regulate the taking of animals by limitation of catch or close season as to prevent their extinction in districts where natural conditions provide a suitable habitat. (2) To provide sanctuaries in strategic places to serve as reservoirs from which large areas of surrounding country may be restocked naturally.

Wild-Life Research in the Northwest Territories.—Through the medium of questionnaires distributed annually, the co-operation of the resident fur traders and trappers and government officials is secured in making a continuous survey of wild-life conditions in the Northwest Territories. By this means data are obtained upon all forms of wild life, particularly those economically important to the natives, such as the caribou and the fur-bearing animals. This is referred to the Bureau of Animal Population, Oxford University, England, for purposes of scientific study.

In making this study the Department also secures information upon the lemming, ptarmigan, and snowy owl, which are subject to periods of abundance and scarcity in the same manner as the fur-bearing animals. The investigation also includes a study of the diseases affecting sleigh dogs. These animals are subject to a disease that periodically reduces their number to an extent that seriously affects the livelihood and economy of the native population.

The Institute of Parasitology, Macdonald College, Quebec, and the Bureau of Animal Population, Oxford University, England, are co-operating with the Department in carrying out the sleigh-dog investigation.

National Parks Bureau.—The Division of Wild Life Protection of the National Parks Bureau carries out migratory-bird and ornithological research work directed to the conservation of the bird and animal life of the continent.

Migratory Birds.—The National Parks Bureau of the Department of Mines and Resources, Ottawa, and the Fish and Wild-life Service of the United States Department of the Interior, Washington, D.C., are co-operating fully in the study of wild-bird migration routes and fly-ways, increase and decrease in numbers, concentration points, mortality rate, percentage of the take of game birds by hunters, longevity, and other problems related to the conservation of wild birds as a natural resource of great economic importance in North America.

These and other problems involved in bird conservation cannot be completely solved without the aid of certain precise data that can be obtained only by bird banding.

In Canada, the National Parks Bureau, which records and makes use of all data being accumulated in this way, has the voluntary co-operation of some two hundred ornithologists and conservationists who are marking hundreds of thousands of native wild birds with official bands, and this activity is yielding a great deal of new and useful information.

In addition to acting as a clearing house for Canadian banding records, the Division's staff does considerable banding in the field and has co-operated with research workers in the United States in a study of migrations of the Herring Gull by the use of coloured bands.

Ornithology.—A great deal of special research has been done on the life histories of birds that, because of their usefulness or destructiveness, are considered to be of economic importance, and on factors affecting the population of these important birds. The subjects embraced are: the reproductive rate of the Southern Eider Duck; eel-grass disease, and the introduction on the Atlantic Coast of eel-grass from the Pacific Coast; waterfowl food plants of the Precambrian Shield; effect of drought on waterfowl breeding grounds of the prairies; relation of waterfowl to sockeye salmon; relation of screech owl to agriculture; relation of the European gray partridge to agriculture; waterfowl disease in Alberta; cormorants and food fishes in Manitoba; food habits of hawks and owls; waterfowl and herring; the American merganser and fisheries; the red-breasted merganser and fisheries; food of the common mallard; the ring-billed gull in Alberta; food of the bald eagle; life history of the golden-eye ducks; relation between ducks and certain of their bird enemies; relation between ducks and coots; distribution of waterfowl; extent and productivity of nesting grounds; food resources of waterfowl; life histories of waterfowl; and relation of waterfowl to fisheries.

General topics studied are: the numbers and distribution of birds in Canada; the migrations of Canadian birds; phenomena of the manner of bird migration, particularly anemotaxis; the migrations of the white-bellied brant. Research has been carried on concerning the distribution of birds and mammals in the Canadian National Parks, factors affecting animal population in the National Parks, and factors affecting game-fish populations in National Parks.

Research in the Dominion Observatories.—The Dominion Observatory at Ottawa carries out research in the fields of solar physics, the photo-electric and photographic study of stars, seismology, magnetism, and gravity.

Research in solar physics includes a detailed study of the solar rotation, investigation of relations between the sun-spot cycle and temperature, rainfall, and vegetable and animal life, and other related subjects; incidentally a new generalized formula has been developed for the representation of the speed of solar rotation.

With the equatorial telescopes the work at present is mainly devoted to the study of variable stars by photo-electric and photographic methods; occasional work is done in direct photography and in spectroscopy.

Seismographs are maintained at Ottawa and at six subsidiary stations distributed from Halifax to Victoria, for the study of Canadian earthquakes and for international collaboration; one important problem is the measurement of the velocity of seismic waves under the Canadian Shield, with its relations to crustal phenomena and structure. Particular attention is being paid at present to the application of physical and seismic methods to the problem of rock-bursts in mines in northern Ontario.

Two magnetic observatories are maintained (at Agincourt, Ont., and Meanook, Alta.), to furnish a continuous record of magnetic declination and horizontal and vertical force; a magnetic survey covering the whole country is also carried on, repeat observations over a network of stations being made every five or ten years, for control of secular variation and its changes.

A gravity survey is in progress, and measurements of the intensity of gravity have been made at about 150 stations distributed throughout the more settled regions of the country; isostatic reduction of the available data shows that, in the main, the earth's crust in Canada is nearly in isostatic equilibrium, though important questions remain to be solved.

Research in the Dominion Astrophysical Observatory at Victoria, B.C., consists almost entirely of spectroscopic study of the stars carried out by means of the seventy-two inch reflecting telescope, with accessories consisting of spectrographs, cameras, etc.

Much attention has been paid to determinations of radial velocity, and the institution has the record of having determined more spectroscopic binary orbits than any other observatory. Among the other notable investigations are: determination of a large list of spectroscopic parallaxes; definite proof of the rotation of the galaxy and measurement of the resulting solar motion; confirmation of the widespread distribution of absorbing material in interstellar space; rotation of the line of apsides in spectroscopic binaries; measurements of the masses of binary stars; the distribution of variables in the globular clusters; investigations of Wolf-Rayet stars and novæ; and many other related problems.

THE DEPARTMENT OF FISHERIES AND THE FISHERIES RESEARCH BOARD.*

The Background of Fishery Research in Canada.—The beginning of fishery research in Canada dates from the appointment in 1852 of Dr. Pierre Fortin as Stipendiary Magistrate. He was provided with a vessel, *La Canadienne*, for the protection of the fisheries in the Gulf of St. Lawrence. Dr. Fortin investigated and reported upon all the fisheries, described the various species, and inaugurated a system of annual reports, with detailed statistics of the catches, fishermen, and gear. This investigation was extended to the remainder of the Province and, after Confederation, to the other provinces as they came in, or were constituted.

Decrease in the catches of the valuable salmon was the incentive for the development, in the fifties and sixties of the 19th century, of methods of taking, fertilizing, and hatching their eggs (following similar work in other countries) as a means of replenishing the diminishing supply of this fish. Pioneer work was done more or less independently by Richard Nettle in Quebec, Samuel Wilmot in Ontario, and Stone and Goodfellow in New Brunswick. There came into being a system of fish culture carried on by the Government and extended during succeeding years to more and more species of fish.

Then came the idea of a biological or fishery station that might assist in the development of fish culture, particularly for marine species. In 1893 a scientist was obtained from Great Britain to take the new post of Dominion Commissioner of Fisheries. The movement for a scientific station or laboratory gathered force, and in 1898 the Government made a grant to a Board of Management of a Marine Biological Station, which was located for successive two-year periods at St. Andrews, N.B., Canso, N.S., Malpeque, P.E.I., Gaspe, Que., and Seven Islands, Que. In 1907 it was located permanently at St. Andrews, N.B. In the meantime the Georgian Bay Biological Station had been established at Go Home in 1901 to serve the Great Lakes fisheries but this station continued only until 1913. A Pacific Biological Station was established at Departure Bay, B.C., in 1907. The managing board was incorporated by Act of Parliament in 1912 as the Biological Board of Canada.

The Board consisted entirely of scientists, principally biologists from the larger universities, and the investigations were carried out by scientists from the universities, working at the stations during the summer and continuing at their institutions during the winter. The problems were those of the fishermen, dealing with the abundance of the fish, bait, etc. However, the War of 1914-18 gave a

* Prepared in the Fisheries Research Board, Canada.

distinct impetus to fisheries research partly through interlocking between the Biological Board and the newly formed Honorary Advisory Council for Scientific and Industrial Research. The demand for greater food production directed attention toward the problems connected with the handling and curing of fish for food, which were being studied by the biochemists and bacteriologists associated with the Board. The fish merchants and dealers, being principally concerned with such problems, developed interest in the work done by the Board and, in 1923, the latter was reorganized to include a representative of the fishing industry from each coast as well as two administrative officials from the Department of Fisheries. Fisheries Experimental Stations specifically designed to investigate the problems of fish handling were established at Halifax, N.S., in 1924, and at Prince Rupert, B.C., in 1925.

The stations gradually developed permanent scientific staffs in order to achieve greater continuity in their investigations. Doubts of the efficacy of fish culture led to the appointment in 1924 of an investigator for continuous work at a temporary station at Cultus Lake, B.C., to determine the effectiveness of fish cultural procedure for the sockeye salmon. When the Dominion was given full control of the oyster fisheries of Prince Edward Island in 1929, the Board appointed a permanent investigator and, in 1930, established a subsidiary station for the study of the problems of the oyster fishery at Ellerslie, P.E.I. A demand for work on the fish-handling problems of the French-speaking fishing population of Gaspesia and northern New Brunswick led to the establishment by the Board in 1936 of the Gaspe Fisheries Experimental Station at Grand River, Que. A reorganization of the Board in 1937 added to it two additional representatives from the industry, and at the same time the name was changed to the Fisheries Research Board of Canada.

In 1920 the Governments of the United States, Canada, and Newfoundland established an organization to co-ordinate their fishery investigations in international waters of the western North Atlantic; this ultimately took the name of the North American Council on Fishery Investigations. In 1922, France, with fisheries on the Grand Banks and owning the Islands of St. Pierre and Miquelon, joined the Council. In the Pacific, also, greater co-operation in connection with fisheries was achieved. A Convention signed in 1911 by the United Kingdom (for Canada), the United States, Japan, and Russia stopped pelagic sealing and substituted therefor a method of control of fur seal production by the United States and Russia, who own the breeding islands in the north, parts of the product going to the other countries. By a treaty made effective in 1924, Canada and the United States established the International Fisheries Commission for the investigation and regulation of the common halibut fishery of the Pacific Coast, and, in 1937, a similar body, the International Pacific Salmon Fisheries Commission, was established to deal with the sockeye salmon of the Fraser River, which are of great importance to the fishermen of both countries.

The interior provinces of the Dominion, beginning with Ontario, took over control of their fisheries, which tended to give them responsibility for fisheries research in their own waters. Some years after the Georgian Bay Biological Station ceased to operate, the University of Toronto undertook a biological investigation of the waters of Ontario with the establishment in 1921 of the Ontario Fisheries Research Laboratory, which began work on Lake Nipigon. Finally, in 1937, a permanent site for the Laboratory was selected on Lake Opeongo in Algonquin Park. More direct practical investigations have been conducted by the Game and Fisheries Department of the Province. Quebec has carried on fresh-water investigations

under a Fish Culture Branch of the Department of Mines and Fisheries, with headquarters at McGill University. In 1931, Laval University established "la Station Biologique du St-Laurent à Trois-Pistoles" for marine investigations. In 1937 the Quebec Government formed "la Commission de Québec pour l'Etude du Saumon", which is conducting an investigation of the salmon of the Gulf of St. Lawrence. The Biological Board carried on investigations of lakes in the Prairie Provinces from 1926 until 1930, when these provinces took over the administration of their natural resources. For several years afterwards Manitoba attempted to continue these investigations in its own waters.

Research Conducted in Recent Years.—The Fisheries Research Board of Canada investigates the fishery problems of the Maritime Provinces and British Columbia, the only provinces at present whose fisheries are administered by the Dominion. The work is done at and from four principal stations, located at St. Andrews, N.B., Nanaimo, B.C., Halifax, N.S., and Prince Rupert, B.C., with a subsidiary station for oyster research at Ellerslie, P.E.I. The Board also operates a station at Grand River, Que., for the fish-handling problems of the French-speaking population of Quebec and northern New Brunswick, and a sub-station at Cultus Lake, B.C., for salmon investigations.

In co-operation with the National Research Council, the Board sponsors a National Committee on Fish Culture, which arranges for grants to university investigators and co-ordinates fish cultural investigations throughout Canada. The two bodies also sponsor a Canadian Committee on Oceanography, to co-ordinate and develop oceanographic and related research.

Research on hydrography, the physical background for the production of fish, includes studies of: (1) The nature, seasonal character, and movements of the waters on the Scotian shelf (continental shelf outside Nova Scotia). (2) Changes in the northern edge of the Gulf Stream. (3) River influence in the Atlantic related to salmon return. (4) The characteristics and movements of the waters of the Strait of Georgia and the Strait of Juan de Fuca over which the Fraser River exerts a dominant influence.

In confined inland waters, susceptible to control, the investigations include: (1) The effects of fertilizing water by adding fertilizers or by flooding land covered with vegetation. (2) "Fallowing" the water, preparatory to planting with desirable fish, by destroying other fish with derris root powder. (3) Making artificial freshets to distribute salmon suitably. (4) Prevention of pollution inimical to fish.

Ocean Fisheries.—Those investigated have been: (1) The erratic pilchard fishery of British Columbia (this failed in 1939 and Canadian boats had to go south to the Washington coast). These fish, by means of metal tags placed inside them, have been shown to be part of a stock taken as young off the Californian coast for canning as sardines. (2) The expanding herring fishery of British Columbia, which on the outer coast of Vancouver Island, however, has been steadily declining (the local populations are fairly distinct, mingling but little). (3) The Pacific ling cod, smelt, oulachon, and anchovy fisheries, the last-named a new development in 1939. (4) The Atlantic cod, which has somewhat local populations, in part spawning at different seasons, and with some complicated migrations. (5) The Atlantic haddock, (also with local populations and complicated migrations) which is heavily fished and seems to be decreasing. (6) The Atlantic lobster, more heavily fished than ever in some places (perhaps 60 p.c. of those of catchable size being taken each year as shown by tagging). (7) The Pacific halibut fishery, with limits set to the amounts

to be taken from specific areas, and with the expected increase in the spawning stock being tested by sampling the numbers of the deeply floating eggs.

Mollusk Fisheries.—There have been investigated: (1) The oysters of the Prince Edward Island region, almost eliminated in Malpeque Bay by a disease that started in 1914, but now brought back by cultural methods, with rapidly mounting annual yields; disease recently wiped out the fishery in other localities, but it has been brought back by the introduction of immune stock. (2) The scallop fishery of the Digby, N.S., region, which seems easily over-fished. (3) The clams of the Bay of Fundy, which it is hoped may be profitably 'farmed' in the future. (4) The quahaugs of the Prince Edward Island region. (5) The butter and little neck clams of Vancouver Island. (6) The native and the very large introduced Japanese oyster of Vancouver Island; for spawning the latter requires higher water temperatures (applied artifically in experiments) than usually occur in those waters.

Fisheries for Migratory River Fishes.—These include salmon and trout investigated as follows: (1) The sockeye salmon of the Fraser River, characterized by one very good year's fishing out of every four. (Means have been sought to bring back the cycle, which was interrupted by a rock slide in 1914.) (2) The sockeye salmon of the Skeena River. (3) The pink salmon of the Queen Charlotte Islands, for which no means have yet been found to obtain a good yield each year; every alternate year is very poor, although the actual year depends on the locality. (4) The various kinds of salmon and trout in the Cowichan River system of Vancouver Island. (5) Atlantic salmon; these fail to enter rivers sufficiently early to give good angling, and the numbers have decreased in recent years. (6) Speckled trout of the Maritime Provinces, both sea-run and purely freshwater types; these are in increasingly greater demand for angling as improved roads make the waters more accessible.

Biological Problems of Varied Nature.—Investigations cover: (1) The ship worm (*Teredo*) that attacks the piles of wharves, lobster traps, etc., in the waters of northern New Brunswick and Prince Edward Island. (2) The death of Atlantic salmon from high temperature in the Moser River, N.S. (3) The death of spring salmon at Sooke and of sockeye salmon in English Bay, B.C., through excessive growth of algæ. (4) The difficulties in rearing Atlantic salmon and speckled trout. (5) The fish-disease furunculosis that occurs in trout in British Columbia.

Problems in Handling Fish for Food and Commercial Uses.—For fresh (untreated) fish, a thorough study is being made of the changes associated with spoilage, which are not the same in freshwater fish as in sea fish. The possible advantages of incorporating various bactericidal substances in the ice used to keep fish fresh are being tested. For salted fish the prevention of 'red' and 'dun' has been given attention as well as the difficulties associated with the drying of salted fish for which unfavourable climatic conditions make artificial drying desirable. The possibilities in canning oysters and boneless cod have been tested, and other canning problems have been studied. Various fish oils have been investigated as to their vitamin content (as in cod-liver oil) and in connection with their use in the leather and paint industries. Fish enzymes are tested for use as bates in tanning. A start has also been made in determining the amounts of iodine in marine material.

Subsection 3.—Aspects of Industrial Research in Canada.*

No single industry can undertake to make use of a country's natural resources to the full and without waste. Science has shown that the waste products of farms,

* Prepared in the Research Plans and Publications Section of the National Research Council.

mills, mines, and factories can be transformed into useful articles. Without scientific investigation Canada, instead of being one of the richest countries in the world as a result of the development of its natural resources, would be one of the poorest.

Research in industry in Canada is affected very largely by the parentage of many of our industries. Canadian industries draw on the results obtained by their respective American and British parent bodies. An American industry that employs hundreds of professional men to do research in its central organization is likely to have only a handful of people to do routine checking and perhaps an occasional piece of research in its Canadian subsidiary plant. Further, the companies that spend money on original research usually do not publish their findings and are reluctant to give information concerning this research work. It would be of tremendous value to Canada as a growing nation if the Canadian industries not only undertook original research but made the results known to all concerned.

Even to-day expenditures on industrial research in Canada are relatively small. This fact is illustrated by data showing the status of laboratories and laboratory equipment in Canadian industry in 1938. In that year there were in Canada approximately 1,000 industrial laboratories, employing 2,500 professional and 2,700 non-professional workers. The total investment in laboratory buildings and equipment was about $10,500,000 and the total annual expenditure, including salaries and other expenses, was approximately $9,000,000. While these figures may appear large, it must be noted that most of the laboratories are small, and that by far the greater proportion of them are engaged almost entirely in plant control and testing work, as opposed to research. Many of the staff members may and do conduct some research but this is incidental, their fundamental task being control of the uniformity and quality of the materials used or produced by the industry.

In Canada, one transportation system has established a laboratory as an adjunct to its medical department. This laboratory now handles not only medical and biochemical work but also general industrial and sanitary control and research, such as the sanitary analyses of water, ice, and milk products, purification of air, and the development of chemical methods for the examination and control of railway supplies, with the view not only of speeding up analysis, but also for the examination of compounds for which no established procedure exists. Methods of analysis for phosphates in soaps, for synthetic insecticides, volatile oils and perfumes, and phenols, and many other organic and inorganic tests have been developed. The method developed for phosphates in soap is an example of increased speed in determination. The railway laboratory has also succeeded very largely in overcoming the insect problems that were formerly incidental to transportation. In general, however, the value of the chemist has been overlooked by the railroads on this continent.

In England, France, and Germany large laboratories, employing research and analytical chemists in considerable numbers, have been maintained for years by the railway organizations. In other directions Canada has made progress in building up her chemical industries particularly those branches that have a solid foundation in the Dominion's natural resources of raw materials and energy.

A Few Outstanding Examples of Industrial Research in Canada.—One of the largest of the Canadian chemical process industries is the manufacture of pulp and paper. Radical changes in the methods of bleaching pulp that have been developed largely in Canada have greatly increased the efficiency of operation and

have reduced the amount of waste. One of the new products of the pulp and paper industry is 'vanillin' made from waste sulphite liquor.

The manufacture of phosphoric acid by oxidation was started in Canada in 1924. Phosphorus had been produced by the electrothermic smelting of phosphate rock since 1897. A plant was built in 1932 to use this pure phosphoric acid for making phosphate of lime which is used as one of the primary ingredients in many baking powders. The production of trisodium and disodium phosphate followed in 1934.

In recent years a number of additional products derived from acetylene have been prepared in Canada. Among these are acetylene black used in dry batteries and for thermal insulation, a variety of synthetic resins produced by polymerization of vinyl acetate alone and in conjunction with acetaldehyde and formaldehyde, ethyl acetate produced by the catalytic condensation of acetaldehyde, and vinyl acetate from acetylene and acetic acid.

A sulphuric acid plant erected in 1925 near Sudbury is believed to be the first contact plant to employ smelter gases. Much preliminary investigation was necessary, since these gases have characteristics different from those of ordinary burner gases.

The mining industry in Canada has been helped in many ways by the application of science. New mines have been discovered by the application of geology and geophysics. The determination of mineral deposits has been effected by these sciences. The limits of the Precambrian area, which is known to contain great mineral wealth, have been outlined by geological methods. The calibre of the Canadian work in geology is indicated by the fact that in a recently prepared list of Canadians who have distinguished themselves in the field of science about half the names are those of geologists.

Prior to 1920, nickel was used chiefly in armament manufacture. With the policy of reduction in armaments that followed, the nickel industry faced serious conditions. However, the research staffs in the United States and Great Britain developed new alloys and uses for nickel. Nickel has made possible the production of alloys having a wide variety of properties, sometimes opposite in character, such as low magentic permeability (no-mag), extremely high magnetic permeability (permalloy), zero coefficiency of thermal expansion (invar), the same coefficient of thermal expansion as glass (platinite) zero coefficiency of electrical conductivity (constantan), resistance to tarnish (monel), resistance to tarnish at high temperatures (nichrome), resistance to alkalis, resistance to all common acids, hot or cold, dilute or concentrated.

In the metallurgical field Canada has contributed her share to progress. The late D. H. Browne conceived the idea of firing reverberatory furnaces with pulverized coal. This method made possible the burning of a greatly increased quantity of coal per unit of time. The higher temperature and higher rate of smelting resulted in a lower cost for fuel, refractories, and overhead, and reduced slag losses.

Selenium is being recovered as a by-product in refining the copper from certain mines. Recovery was started in 1931, and the output has grown so rapidly that Canada is now an important producer of the element.

An electrolytic process using as anodes the lead concentrate to be refined and as a bath a solution of lead fluosilicate containing an excess of fluosilicic acid was developed at Trail, B.C. The production of zinc at lowered cost was made possible

by the ingenuity of a group of men who saw the advantages of making use of the abundant source of hydro-electric power in Canada. The process developed has as its main features roasting, leaching, and electrolysis. A modified method of selective flotation was developed to cope with the problem of the complex lead-zinc ore from the Sullivan mine. This method has since become universal in the concentration of lead-zinc ores.

Since the remarkable development in recent years in the construction of the internal combustion engine, the refiner has been pressed to improve the quality of lubricating oil. Until comparatively recent years, the chemicals used in refinery practice were sulphuric acid, caustic soda, and litharge. Research has brought about an enormous decrease in the use of these chemicals and eliminated them altogether in some operations. This has been done by the development of more efficient processes, such as solvent extraction of lubricating oils and solvent de-waxing of lubricating oil distillate. Both of these methods result in lessened manufacturing costs and produce a product far superior in quality to that obtained by the old methods. An important Canadian contribution to petroleum refining is the use of a tower in which the ascending vapours of cracked gasoline meet a descending slurry of finely ground clay. It has been found that the gasoline from these towers will retain its colour and resist oxidation for an extended period.

Subsection 4.—Research in the Universities.*

In general, research in Canadian universities covers the same broad fields as are covered by research in those organizations to which reference has already been made. The utilization, development, and conservation of the large and varied natural resources of Canada provide problems that engage the attention of all research organizations and several of them may carry on similar investigations at the same time. Thus, research in agriculture is carried on by government research workers and also by university scientists while research may be applied to mining problems by scientists in the Department of Mines and Resources, in laboratories of interested industrial firms, and in universities. This does not necessarily mean duplication of effort as investigations of Dominion-wide application are quite frequently carried on co-operatively, with different phases of the work being assigned to the various organizations. Again, the research efforts of universities often supplement those of the other organizations. Besides the study of problems of applied science, an important phase of university research is the investigations in 'pure science' which, although not initiated with a view to immediate application to specific problems, have added greatly to the store of scientific knowledge that may be drawn on to help solve problems as they arise.

University Research in the Field of Natural Resources Development.—Since agriculture plays a large role in the Canadian economy, research in agricultural problems is actively pursued at many universities. This industry commands the services of specialists in a wide variety of scientific endeavour. The production of forage crops and of grain for the live-stock industry and of grain and other plant products for human food as well as for certain secondary purposes has been aided

* Prepared in the Research Plans and Publications Section of the National Research Council, Ottawa.

by the work of university investigators. Considerable effort is expended on studies of the chemical, physical, and microbiological features of the soil in order to devise means of cultivation and discover suitable fertilizers to improve the yield and quality of crops of all kinds. An interesting phase of soil study has been the zonation of large areas for crop production on the basis of the suitability of the soil for specific crops and varieties. In this work the universities have taken a leading part.

The utilization of the products of the farm presents further problems for research. Cereal chemists in the universities are engaged in devising improved means of testing and controlling the quality of wheat, barley, flax, and other grains, and the products made from them. Bacteriologists, plant pathologists, engineers, chemists, and physicists are studying the conditions that provide safe storage for perishable foodstuffs such as meats, dairy products, and fruits. Others are engaged in devising means of producing new products for the purpose of widening the market for farm produce.

Among the many factors that limit the quantity of animal and plant production are diseases and parasites of animals and plants. University laboratories, dealing with such subjects as bacteriology, parasitology, plant pathology, and entomology, carry on investigations toward the control of such pests.

The application of the results of many of these researches is not limited to plant and animal production. Many investigations in parasitology, for instance, are of direct importance to human health. Some parasites that have injurious effects on human beings may be ingested with improperly prepared meat or fish. Such parasites would cause widespread misery but for the fact that public health authorities and others have used the information gained by research workers in the formulation of regulations governing the preparation of foodstuffs. By this means both the quality of the food supply and the health of the individual are protected.

In agriculture, weather is as important as soil and, consequently, the science of meteorology can offer the farmer aid by the development of weather forecasting and by providing information on the agricultural possibilities of local areas as these are affected by climate. In Canadian universities, meteorological studies are carried on for the purpose of extending knowledge of climatic conditions and their effects on crop yield and quality. The development of improved instruments for meteorological work also receives attention. The expansion of air transport has made necessary the rapid development of the branches of physical science that bear on meteorology, and valuable services to agriculture and forestry may arise as a by-product of this development.

The forest resources of Canada provide problems in the production of timber and the manufacture of such products as pulp, paper, and veneers, and studies of many of these problems are carried on either by scientists in university laboratories or in association with them. The production and conservation of forests is aided by research in entomology, botany, soils, meteorology, and aeronautics, in which researches the universities take part. The control of waste caused by forest fires has become a problem for the physicist and the engineer in developing equipment for detecting conditions predisposing to fire. Such problems as the difficulties that complicate the apparently simple procedure of floating logs to the mill have provided universities with opportunities for research and the results have proved useful to forest products industries.

In the utilization of forest resources, co-operative research in which university workers participate has been concerned with such subjects as the structure and properties of cellulose and lignin; bleaching, physical properties, and characteristics of cellulose-water systems; physical properties of wood; studies of the mechanism of sulphite and alkaline cooking; and purification of rayon.

The varied mineral wealth of Canada produces an equally varied set of problems, many of which are studied by university laboratories in the areas in which the mineral deposits occur. Among such problems are those dealing with the analysis, processing, and utilization of oil, natural gas, coal, tar sands, and various types of ores. The structure of metals and the development of improved alloys and metal products also receive attention. Studies on the petrographic and economic geology of mineral areas throughout the Dominion are also carried on.

Growing appreciation of the value of the animals, birds, and fish that form the wild-life population of Canada has resulted in increased attention to the factors influencing their abundance. In this work the universities have taken a very active part. The life histories of many of the creatures of the wild as well as those of their parasites and of the creatures and plants on which they feed are being investigated. Studies have been made of the migration of birds, the breeding habits of animals, and the factors affecting the value of feeding grounds. The knowledge accumulated from such work forms a sound basis for the work of wild-life conservation.

The inland fisheries of Canada also profit from the work of university investigators on the factors affecting the abundance of fish, the possibilities of stocking waters that are not now considered satisfactory for fish, and the releasing of varieties of fish in new localities which study has shown to be suitable habitats. University workers have also done work of value to the marine fisheries, although most of this type of investigation is conducted in co-operation with the Fisheries Research Board, whose program is described elsewhere in this article.

Scientific and Other Phases of University Research.—These examples of university research in agriculture, forestry, minerals, and fisheries, while obviously important, do not by any means complete the list, even in those fields. The results of many researches that fall in this class can be applied immediately upon completion of the investigation and have a direct and obvious connection with some phase of economic activity. Many engineering researches, for instance, have as their objective the solution of difficulties presented by the use of local materials for such purposes as the construction of roads and buildings, or the determination of remedial measures for certain local difficulties. An example of the latter is found in the study of deleterious effects of certain soils on concrete, now under way at a western university. The fundamental facts obtained in investigations of this nature are usually of wide general importance, even though the original problem is a local one.

The immediate practical application, and therefore the value, of the types of research described above are easily understood. There are, however, researches in many fields of science that are not at all well known, but that contribute to the general fund of knowledge and to the welfare of mankind. Many of these researches are of such a nature that their value can be understood only by those who can directly utilize their results, or who appreciate the gaps in technical knowledge that such

investigations attempt to bridge. Thus, for example, the professional man in medicine may be supplied with new drugs, improved methods, and more effective instruments for the control of disease as a result of researches in such subjects as physics and chemistry, which to the layman would appear to have little or no connection with the practice of medicine. In fundamental researches of this kind the universities are particularly active. Reference to this type of research is made below in connection with the discussion of medical research, some of which is carried on in universities and some in institutions such as hospitals and sanatoria, and some cooperatively in all these types of institutions.

Researches in all the fundamental sciences carried on in Canadian universities cover such a wide field that only a few examples can be quoted here. In the biological sciences, studies in classification of types of animal and plant life are carried on. These are of interest not only to the taxonomist but also to many scientific workers in other fields of endeavour. Thus workers in cytology, who deal with the structure and functions of the cells that make up the living organism, and those in genetics, who deal with the laws of inheritance, are continually building on the work of those who have made classifications of various kinds of living things. Therefore, in the practical application of genetics, plant and animal breeders who develop new types of plants or new breeds of live stock are indirectly indebted to the taxonomist. A university researcher dealing with the classification or habits of growth of fungi may appear to be working on a subject of no practical importance. But it must be remembered that many of the most important plant diseases, including rust and smut, are caused by fungi. The knowledge gained by the mycologist, or student of the fungi, is used by the plant pathologist, who is interested in controlling plant disease, and also by the plant breeder, who wishes to develop varieties of crops whose yield and quality will not be affected by disease. It is clear, therefore, that many obscure studies may have the greatest practical importance. In the production of plants and animals for all sorts of purposes the facts obtained in such fundamental researches are in constant use. In making such information available, not only with regard to living things but in the field of the inanimate as well, scientists in university laboratories continue to serve the country effectively, if unobtrusively.

The above examples of fundamental research as applied to biological problems have been mentioned in order to indicate the connection between the laboratory and the problems of practical everyday life. Many similar examples could be quoted in the fields of physics and chemistry. Within a short space of time remarkable technical advances have been made and automobiles, aeroplanes, and radios are the concrete evidence of progress. But there is a tendency to take these things for granted and little attempt to understand why they are available now, when they were not available forty years ago. The material from which they were constructed and the sources of the power for the factories were available, but their possibilities were not understood until research workers in their laboratories elicited fact after fact, and added these to the knowledge gained by their predecessors to build up a unified body of knowledge in one field after another. This knowledge was taken in hand by engineers, chemists, and others who were often more closely in contact with industry than the research worker himself, and applied to problems of production. The ordinary citizen reaps the benefit in the form of modern improvements. But

he rarely realizes that, in such laboratories as exist in Canadian universities from coast to coast, investigators in all phases of science are building on the work of their predecessors to make possible the physical, chemical, and biological wonders of the future.

Medical Research in Canada.—Almost all branches of medical science are included in the problems now being investigated in Canada. Medical research in hospitals or other centres of medical activity and in universities is too intimately related to allow of separate consideration and must be taken as a whole. The fundamental laboratory investigations often have as their aim the clinical application of results so that the university scientist and the clinician must work in the closest association.

Many of the investigations now being conducted relate to cancer, heart disease, tuberculosis, and rheumatism, four of the major causes of death and disability among Canadians. For example, the investigations on tuberculosis include such problems as a search for a specific compound that will act as a curative agent; studies on immunity and detection of the disease; the value of B.C.G. vaccine as a means of prevention among infants in tuberculous families and among nurses exposed to the disease in hospitals and sanatoria; the effect of diet on resistance; and surgical methods of treatment. Cancer researches include a study of the relation of certain food factors to the development of the disease; a test designed to aid in its early diagnosis; researches on standardization of X-ray equipment and radium to improve their efficiency as therapeutic agents; and the effects of cancer-producing substances. Further knowledge is being sought on the causes and treatment of coronary artery disease, high blood pressure, and associated pathological conditions in the thyroid gland and the cerebral vascular system.

Fundamental researches on medical subjects are being conducted in the science departments of many universities. In biochemistry and physiology, for example, the roles of vitamins and hormones, normal and abnormal requirements and functions of the body, nutritional deficiencies, and related topics are being examined. In pharmacology and chemistry, new chemical substances with therapeutic properties are being developed and tested. Immunological problems and methods of treatment of infectious diseases and the organisms causing them, improved techniques for detection and study of bacteria, and production of new or improved toxins and vaccines are all subjects of bacteriological investigations.

The field of university research is, therefore, as broad as science itself and is circumscribed only by the limited facilities at the disposal of the individual institutions. Indeed, most basic scientific research discoveries have been, and will probably continue to be, made in the universities; governmental research, on the other hand, is more properly concerned with the direct application of research knowledge to problems of national importance and the pursuit of individual problems which, because of their nature, scope, or the extensive facilities required, cannot well be followed to a conclusion by the universities.

Subsection 5.—Other Research Organizations.*

The Research Council of Alberta.—The Research Council of Alberta was organized in 1919 under the name of the Scientific and Industrial Research Council of Alberta and was attached to the Department of the Provincial Secretary. The Council was affiliated closely with the University of Alberta. Its laboratories were located in the University buildings and much of the research work of the Council was directed by members of the University staff. Two full-time, senior research workers were appointed and given university status. The Council received a direct government appropriation for its work. Investigational work included study of the coal resources of the Province, geological surveys, the bituminous sands of the Athabaska region, soil surveys, natural gas, and other problems. Annual Reports were published.

The Council was incorporated in 1930 by an Act of the Legislature under the name of the Research Council of Alberta and was attached to the Executive Council of Alberta.

Government appropriations for the Research Council were discontinued in 1933 because of the depression and have not been revived. However, the Council was not disbanded. The University took over the senior members of its research staff and provided funds for the continuance of part of its program of work. This arrangement still holds. Publication of annual reports was continued until 1935.

At present the Research Council is continuing, in a modest way, with the study of the coal resources of the Province. In addition, it is co-operating with the Provincial Government in the making of gasoline surveys and in the testing of petroleum products for specification purposes. The organization and laboratories of the Council are still intact and its work can be expanded whenever funds are made available.

The Ontario Research Foundation.—The Ontario Research Foundation was established by an Act of the Legislature in 1928. An endowment fund was created from subscriptions received, over a period of five years, from manufacturers, corporations, and private individuals, and from contributions by the Provincial Government on a dollar-for-dollar basis. Quarters in Queen's Park were set aside by the Government for offices and laboratories. At the beginning of 1940 there were 27 full-time research men on the staff as well as administrative officers and technical assistants.

Following the provisions laid down in the Act, researches have been carried out to assist agriculture and industry and to develop the natural resources of the Province. The following are examples of the types of investigations conducted by this institution.

Members of the staff in agriculture have studied the southeastern portion of the Province and have published three papers dealing with its physiography, climate, and soil. These papers give a comprehensive picture of the fundamental factors affecting crop yields, and their practical value can be readily appreciated. A similar study of the agricultural section of northern Ontario has been commenced. A survey is being made of the apple orchards in Ontario with a view to determining not only the most suitable varieties for different areas but also suitable areas for commercial production. An economic survey of dairy farms in the eastern part of the Province has been commenced as a preliminary step in a study of cheese production.

* The material in this subsection has been prepared from information supplied by the various organizations covered.

In animal pathology, a study of bovine mastitis is in progress and microscopic and bacteriological examinations of samples of milk have been made. It is hoped that this work will assist the practising veterinarian in his efforts to diagnose the disease in its early stages and prevent its rapid spread through the herds. Work has been continued on parasitic infestation of domestic and game animals. Food stuffs infested with grubs have been sent in for examination and means of destroying the grubs have been worked out. Moth colonies have been maintained for the purpose of testing moth-resistant products.

The increased demand for vitamin assays has necessitated enlarged facilities in this field so that biological as well as chemical tests can be made. Many problems dealing with food spoilage and its prevention have been handled in the food laboratories. Several new processes have been developed that greatly benefited the manufacturers concerned, and, as a result, new industries have been started in the Province.

In the Leather Laboratory a process has been worked out for shortening the time required to tan sole leather and belting leather. Studies have been made on the wearing properties of leather and spew and on other problems of the leather industry.

New equipment for the heat treatment of steel has been added to the metallurgical department, thus attracting to Canadian firms industrial work that otherwise would have been sent to the United States. A fine-measurement department has also been added and is now in operation. Air-conditioning, and heating and ventilating equipment has been tested and numerous problems solved for metal-using firms in the Province. Fundamental researches on iron alloys have been continued.

In the Textile Division researches are in progress dealing with textile oil, scouring, wool shrinkage, and the structure and properties of silk fibre. These are fundamental in character and will benefit the industry as a whole. The Quality Control Plan which has been in operation for seven years has continued to expand both with regard to the number of firms participating in it and the range of materials covered. Day-to-day problems associated with the industry in general have been brought to this department for solution.

In the Chemical Division industrial fellowships have been maintained dealing with gas, the production of waxed paper, and the manufacture of coloured brick. An analytical laboratory has been established, not only for general analytical work but for referee work and studies of unknown compounds and products. Individual laboratories have been equipped to handle problems dealing with paint, paper, ink, ceramics, plastics, etc. There has been a marked increase in the number and diversity of problems submitted to this department.

Numerous papers have been published in scientific and trade journals and annual and monthly reports covering the work of the Foundation are issued.

The Banting Research Foundation.—The Banting Research Foundation, as a result of appeals made in 1925, raised the sum of some $700,000, the income from which is devoted to two purposes. In the first instance, the Foundation makes grants to support the work of Sir Frederick Banting and his associates in the Department of Medical Research in the University of Toronto. Secondly, it makes grants to workers throughout Canada who present to the Trustees applications for aid in the solution of some problem of medical research. This aid may be given in the form of living expenses to the worker or for the purpose of buying apparatus or supplies, but it is usually the policy of the Foundation not to contribute

to the small items of supply that are supposed to be provided by the laboratory in which the worker is to be active. Each year there are some 20 to 25 workers scattered throughout Canada, usually in the Universities, who are receiving aid from the Foundation in this manner. It is the only Foundation of a private character in Canada that makes such grants and, consequently, the Foundation's grants are given only for work carried out in Canada.

Naturally, the problems taken up by the various workers vary greatly from year to year. However, it has been evident, particularly in recent years, that there is an increasing interest throughout Canada in the investigation of hormones and vitamins, which are so important physiologically. There is little doubt that the present tendency to investigate the action of these substances will do more to combat the ailments of old age than the study of the bacterial infections. The study of bacteria as infective agents, as is well known, has done a great deal to lower the incidence of disease, particularly among the youthful, and such scourges as typhoid fever, diphtheria, and scarlet fever have a much decreased incidence; of course it must not be forgotten that the progress made in the treatment of syphilis, gonorrhœa, pneumonia, and streptococcal infections by means of powerful internal antiseptics has done much to improve the mortality and morbidity statistics for the middle-age group and to a certain extent, the old-age group. A study of vitamins will doubtless contribute to the maintenance and development of health in the younger-age group, but there is increasing evidence that their study, and also that of the endocrines, should mitigate the ravages of disease in late middle and old age. The applications approved by the Banting Research Foundation in recent years clearly reflect this tendency, though it will be found that money has been granted for such purposes as research in the use of sulphanilamide and its cognate drugs.

The Rockefeller Foundation.—Assistance has been given by the Rockefeller Foundation to various agencies in Canada for the purpose of furthering scientific research in medical science, natural science, social science, and public health. A total amount of $2,495,668 has been granted to universities, local health services, and other agencies up to the present time. Of this amount $2,015,332 or almost 81·0 p.c. was allotted to research in medical science. McGill University received $1,494,252, most of which was used in 1932 for the construction of a laboratory in the Royal Victoria Hospital and the establishment of an endowment fund for research in neurology, neurosurgery, and the physiology and pathology of the nervous system. The University of Montreal received $375,000 for the development of medical laboratories over the period 1921-35. The University of Toronto received a total of $146,080 to be used in research in pediatrics and psychiatry.

In the field of natural science, $77,886 has been distributed, McGill University receiving $72,386 and the University of Toronto $5,500. A total of $344,375 has been granted to organizations carrying on research in the social sciences. The Canadian National Committee for Mental Hygiene received $75,000 between 1924 and 1929, for studies in mental hygiene as applied to school children. A further grant of $60,000 was made towards a program of research in the social sciences and mental hygiene to be carried on in co-operation with seven Canadian universities. In the ten years 1930-40, the University of Toronto received $175,000 for the development of child research and parent education. Smaller grants have been made to Dalhousie University and to the Ontario Medical Association.

The Health Departments of several provinces have received grants to carry on research in the field of public health. Alberta and British Columbia have received a joint grant of $30,855 for research in disease peculiar to that area while Manitoba has received $11,220 for special studies of morbidity and maternal mortality. The Bureau of Health in the Province of Quebec has received a total of $16,000 towards the establishment of a Division of Industrial Hygiene and a Division of the Hygiene of Nutrition.

Section 3.—Libraries.

The Dominion Bureau of Statistics publishes, biennially, a Survey of Libraries in Canada. It lists public, university, government, and other special libraries individually, showing the location, size, etc., of each. The latest edition, for 1936-38, includes information on school and hospital libraries. A summary of the data is included at pp. 1023-1025 of the 1939 Year Book; more recent information will not be available until 1941.

Section 4.—Museums and Art.

At pp. 1025-1026 of the 1939 Year Book a list of the 37 museums (including art galleries) in Canada employing full-time staff was published, showing floor space and average daily attendance at each.

A complete directory of museums is available in a report, "Museums in Canada",* published in 1938 by the Dominion Bureau of Statistics.

An article entitled "The Development of the Fine Arts in Canada", contributed by Newton MacTavish, M.A., D.Litt., appears at pp. 995-1009 of the 1931 Year Book and a shorter article, dealing more particularly with the National Art Gallery, at pp. 886-888 of the 1924 Year Book.

* This publication may be obtained on application to the Dominion Statistician at the price of 25 cents per copy.

CHAPTER XXVI.—PUBLIC HEALTH AND RELATED INSTITUTIONS.

CONSPECTUS.

	Page.
Section 1. Administration	1013
Subsection 1. Public Health Activities of the Dominion Government	1014
Subsection 2. Public Health Activities of the Provincial Governments	1017
Section 2. Institutional Statistics	1022
Subsection 1. Statistics of Hospitals, Other Than Mental	1024
Subsection 2. Statistics of Mental Hospitals	1027
Subsection 3. Charitable and Benevolent Institutions	1028
Subsection 4. Corrective and Reformative Institutions	1029
Section 3. The Victorian Order of Nurses	1029
Section 4. The Canadian Red Cross Society	1029

The rapid increase in the numbers committed to various institutions, such as hospitals for the insane, feeble-minded, and epileptic; the alleged increase in juvenile crime and the extension of social work in this field; the increasing number of institutions caring for the aged and incurable, as well as for dependent, neglected, and handicapped children, have been marked features of the first part of the twentieth century.

Section 1.—Administration.

In Canada public health is administered by the Dominion and Provincial Governments through their respective health departments.

The Dominion Government deals only with such public health matters as are exclusively national, or such interprovincial public health matters as cannot be controlled effectively by the provinces. In addition, the Dominion Government makes grants to voluntary organizations that are engaged in public health work, notably: Canadian Welfare Council; Canadian National Institute for the Blind; Canadian Tuberculosis Association; Canadian National Committee for Mental Hygiene; Victorian Order of Nurses; Canadian Branch of the St. John Ambulance Association; Canadian Red Cross Society; Health League of Canada; Canadian Mental Hygiene Council.

The Dominion Council of Health was created in 1919 with the object of obtaining uniform legislation and procedure in the various provinces. This body consists of the Deputy Minister of the Dominion Department of Pensions and National Health as Chairman; the chief executive officer of the provincial department or board of health of each province; together with such other persons, not exceeding five, as may be appointed by the Governor in Council to hold office for three years. Of these appointed members, four represent agriculture, labour, and urban and rural women's work, respectively; the fifth member is a scientific adviser on public health matters. The Council meets twice a year at Ottawa, when public health problems are discussed and uniform standards and legislation adopted.

Speaking generally, the administration of local public health activities and the establishment and maintenance of institutions is in the hands of the Provincial Governments, under Sect. 92 of the British North America Act, 1867. Under their control, municipalities, societies, and individuals initiate charitable and humane efforts, depending on the Government to some extent for financial aid and for competent uniform inspection of methods and standards. Important, and reflecting most clearly the benefits accruing from such work, are the provisions for

medical inspection of school children. These are carried out in some cases by the district or sub-district medical health officers, and in others by public health nurses whose activities are confined to this work alone. In addition, expert advice and assistance are supplied free to children, teachers, and parents. In many cases dental inspection is provided for. This work is relatively new and has been carried on upon a considerable scale for only a short period, but great benefits have already resulted in the general improvement in health and sanitary conditions and in the control and prevention of epidemics.

Public hospitals are the most numerous among health institutions. They are usually erected and supported by the municipalities, their actual administration being in the hands of boards of trustees; their revenue, in addition to that provided by the municipalities, is derived from grants from the Provincial Governments, donations of individuals and societies, and fees paid by patients. Admission and treatment are free to all deserving persons who apply and whose resources are so limited as to prevent them from receiving proper medical attention otherwise, while it is generally expected of others that payments for services shall be made in proportion to costs and their ability to defray them. Such public hospitals include isolation and maternity hospitals, tuberculosis sanatoria, etc. The two lazarettos for lepers are under Dominion administration, as are also hospitals for veterans and certain marine and immigrant hospitals.

Private hospitals do not receive public grants. There are also hospitals that are conducted by various religious orders, most common in the Province of Quebec; Red Cross hospitals and outposts; and special hospitals that may be privately administered or maintained by the provinces.

Mental institutions (homes for the feeble-minded and the epileptic) are in most cases under provincial administration, although in Nova Scotia the insane are cared for in county institutions.

Among charitable and benevolent institutions, orphanages, refuges, and homes for the aged are usually supported by the larger centres and by county municipalities. Homes or schools for the deaf and dumb, and the blind are generally under provincial administration.

In the case of penal and reformative institutions, penitentiaries are administered by the Dominion Government, while reformatories, industrial schools, prison farms, and similar corrective institutions are administered by the Provincial Governments.

Subsection 1.—Public Health Activities of the Dominion Government.

The Act of Parliament (18-19 Geo. V, c. 39, An Act respecting the Department of Pensions and National Health) creating the Dominion Department of Pensions and National Health, clearly defined its functions. The Department is divided into two sections as indicated by the title. The chief functions of the National Health Section (which from 1919 to 1929 was the Department of Health) are: to protect the country against the entrance of infectious disease; to exclude immigrants who might become charges upon the country; to treat sick and injured mariners; to see that men employed on public construction work are provided with proper medical care; to set the standards and control the quality of food and drugs, except export meat and canned goods, which are under the Department of Agriculture; to control proprietary medicines and the importation and exportation of habit-forming drugs such as morphine, cocaine, etc.; to care for lepers; to carry out special studies in co-operation with Provincial Departments or Boards of Health;

and to co-operate with the provinces with a view to preserving and improving the public health. Following are the various Divisions of the National Health Sections with outlines of their function.

Division of Quarantine, Leprosy, Immigration Medical, Sick Mariners and Marine Hospitals.—*Quarantine*—Quarantine has for its object the prevention of the entry into the country by water, land, or air traffic of quarantinable diseases, especially plague, cholera, yellow fever, smallpox, and typhus. Quarantine stations are maintained at Halifax, N.S., Saint John, N.B., Quebec, Que., and William Head, B.C. In accordance with the principles laid down in the Convention of Paris, 1926, supervision is exercised over all vessels, especially those coming from abroad, and any passengers or crews who are found to be suffering from quarantinable disease, together with contacts, are removed to the quarantine station. Necessary measures are also taken regarding vessels infested with rats or other vermin. *Leprosy*—The Leprosy Branch of this Division operates two hospitals for the treatment of all cases of leprosy found in Canada—one at Tracadie, N.B., and the other at Bentinck Island, B.C. *Immigration Medical*—Medical advice is given the Immigration Department with regard to the mental and physical suitability of prospective immigrants. With this end in view there has been placed in Great Britain, Ireland, and on the Continent of Europe, a staff of Canadian doctors, who carefully examine all intending emigrants to Canada prior to their embarkation. This arrangement obviates the expense, discomfort, disappointment, and hardship experienced hitherto when it was necessary to deport, on account of physical or mental disability, immigrants who had made the journey across the ocean to Canada. Medical officers, stationed at the principal ports of entry in Canada, make a final inspection of the prospective immigrants and supply medical care for those who are ill on arrival. *Sick Mariners and Marine Hospitals*—The sick mariners and marine hospitals provide medical and surgical attendance and such other treatment as may be required to all sick and injured mariners arriving at Canadian ports and belonging to vessels that pay sick mariners' dues, in conformity with Part V of the Canada Shipping Act (c. 44, 1934).

Division of Sanitary Engineering.—The activities normally carried on under Public Health Engineering include: the administration of the Public Works Health Act, which is concerned with the health of men on construction works, canals, railways, and other forms of public works; by agreement with the U.S. Public Health Service, investigations and reports on sources of water supplies for use aboard common carriers in interprovincial and international traffic; special investigations and reports regarding pollution of the International Boundary waters in conjunction with representatives of the U.S. Public Health Service; supervision of water supplies of common carriers on the inland waters of Canada; co-operation with the Dominion Department of Mines and Resources *re* sanitation in National Parks and summer camps on Dominion lands, and allied matters; co-operation with the American Railway Association regarding regulations on sanitation; co-operation with the Provincial Health Departments and the U.S. Public Health Service for the certification of water supplies of common carriers in interprovincial and international traffic.

Proprietary or Patent Medicine Division.—This Division is organized to give the public a reasonably safe and truthfully labelled proprietary medicine supply. Registration of all secret-formula non-pharmacopœial medicines for human

use is required, and control is exercised over the potent drugs used in the manufacture of such medicines and the representations made regarding their use.

Laboratory of Hygiene.—The Laboratory of Hygiene is concerned mainly with the control of biologic products used in treatment of human diseases, particularly with reference to the potency of certain toxins, antitoxins, and other serological preparations. Sera and vaccines are scrutinized for purity, sterility, and potency. Such drugs as digitalis, strophanthus, ergot, pituitrin, and the salvarsans are examined for potency, and standards for them, based upon those of the League of Nations' Health Committee, are prepared by the Laboratory and furnished to all manufacturers desiring to use them in making their products. The manufacture and sale of vitamins and hormones are controlled. Disinfectants are investigated as to manufacturers' claims for germicidal qualities. Special and general aid is rendered to other departments of government, and research problems are undertaken.

Food and Drugs Division.—In this Division, inspection and laboratory services are maintained primarily for the purposes of the Food and Drugs Act, which is regulatory in character, designed to prevent the importation and sale of adulterated or misbranded food and drugs. Samples taken from suspected stocks are examined in laboratories at Halifax, Montreal, Ottawa, Toronto, Winnipeg, and Vancouver. Corrective measures are applied whenever adulteration or misbranding is found. Standards of quality have been established for many products, and the supervision of informative, truthful label declarations is a special objective. Laboratory services are provided for other Divisions of the Department, and co-operation with other departments of government is carried on effectively.

Narcotic Drug Division.—Since the introduction of opium smoking into Canada forty or more years ago, the use of habit-forming drugs, such as morphine, heroin, and cocaine, has increased. One of the first steps taken by the Department of Health was the creation of a Narcotic Branch. Through this Branch, the importation and sale of such drugs are controlled in accordance with the principles laid down by international Conventions agreed to at The Hague and Geneva. Wholesale agents and druggists are obliged to keep records of importation or sale and to forward their records periodically to the Department. The legitimate use of these habit-forming drugs is thus controlled.

Epidemiology.—The Epidemiological Division co-operates with the provincial Departments of Health in the control of communicable diseases and carries out special studies in regard to morbidity and mortality of disease and public health problems that arise from time to time.

Industrial Hygiene.—The purpose of the Industrial Hygiene Division is to develop methods for the protection and improvement of the health of industrial workers. This Division conducts special studies regarding illness in industries in co-operation with the provincial Departments of Health.

Child and Maternal Hygiene.—The work of this Division consists of measures designed for the reduction of infantile and maternal mortality in Canada. This necessitates collection of information regarding causative factors and the dissemination of knowledge regarding the application of remedial measures.

Medical Investigation Division.—This Division is concerned with medical examination of civil servants, supervision of sick leave and superannuation of civil servants throughout Canada on behalf of the Civil Service Commission, and special medical studies.

Publicity and Health Education.—As the name indicates, the efforts of this Division are directed towards the dissemination of information on all phases of public health. The work consists of the compilation and distribution of public health literature, of exhibits, lectures, etc.

Subsection 2.—Public Health Activities of the Provincial Governments.*

Prince Edward Island.—The supervision of public health matters in Prince Edward Island was placed, on July 1, 1931, under a specially created Department of Public Health, headed by a Minister and a Deputy Minister. Two part-time physicians, five full-time public health nurses, and two food and sanitary inspectors are employed. Under the direction of the Deputy Minister, the Province is divided into five public health districts and each nurse is assigned a territory in which she is responsible for the inspection of school children, home visits, home-nursing classes, immunizing and vaccinating clinics, etc. The sanitary and food inspectors make regular surveys of the food-manufacturing plants, school premises, hotels, boarding houses, restaurants, etc., throughout the Province.

The Government operates the Falconwood Hospital for the Insane and the Provincial Infirmary; it also subsidizes the Provincial Sanatorium, which has a capacity of seventy beds and has functioned to capacity since July 1, 1931. In charge of the Provincial Sanatorium is a Medical Superintendent with an assistant and a staff of trained nurses. The Superintendent conducts chest clinics throughout the Province at regular intervals as well as a regular weekly clinic in the Sanatorium, where referred cases from physicians are examined.

The Department of Health operates the Provincial Laboratory and a qualified technician examines material forwarded by physicians throughout the Province.

Two venereal disease clinics are conducted by the Public Health Department, one in Charlottetown and the other in Summerside. All prisoners in the gaols of Queens and Prince Counties are examined and treatment given when required. Other patients unable to attend these clinics on account of distance are treated by their own local physicians who are supplied with the necessary medication.

Nova Scotia.—In Nova Scotia the Department of Public Health directs its energies to communicable disease control; pre-natal, post-natal, and school hygiene; sewage disposal; safety of milk and water supplies; collection of vital statistics; mental hygiene; and health education. All of this has brought into being a comprehensive organization, presided over by a Minister. The Department acts in an advisory capacity to local boards of health; makes regulations respecting any matter relevant to the public health; maintains a field force that provides a consulting service in tuberculosis and other health activities; supports a public health nursing service with specially trained nurses, who work both in the schools and in the homes; gives a free public health laboratory service that extends throughout the Province; supervises the provincial hospitals, both general and special; provides inspection of public general hospitals and humane institutions; stocks and dispenses sera and vaccines; and distributes literature on all phases of health.

As interest in public health increases, a corresponding increase in the number of necessary public health activities becomes noticeable. In recent years a marked demand has resulted for trained and experienced health workers. In 1939 the Department procured (through the courtesy of the International Health Division,

* The material under this heading has been revised by the respective provincial authorities.

Rockefeller Foundation) three more fellowships for specialized training of staff medical men. Two are at present pursuing studies at Toronto University and the third at Johns Hopkins, Baltimore, U.S.A. When these men return in the spring of 1940, three more health divisions will be organized in the Province. During 1939, the public health nursing service was expanded, a sanitary inspector was attached to the Cape Breton Island Health Unit, and an equipped dental trailer-car was put in operation in those rural districts that are a considerable distance from resident dentists.

In addition to the foregoing, the functions of the Department have broadened out recently; certain phases of social welfare and dependency such as the administration of mothers' allowances, old age pensions, child welfare, and a training school for the mentally deficient, have been included.

New Brunswick.—The Department of Health, under the administration of a Minister of Health, was established in 1918. It provides the following services: general sanitation, including supervision of water supplies and sewage disposal; control of communicable diseases, including tuberculosis and venereal diseases; public health laboratory and the supply of biologicals; medical inspection of schools; collection of vital statistics; public health nursing and child welfare; health education; and general supervision and co-ordination of the work of the sub-district boards of health.

Under the Minister, the Department is directed by the Chief Medical Officer who is also Registrar General of Vital Statistics. The staff consists of a director of laboratories, eleven full-time medical health officers, a director of public health nursing service and, in addition, a part-time director of venereal disease clinics.

There are ten health districts, each in charge of a District Medical Health Officer who also provides the tuberculosis diagnostic and medical inspection of schools services.

Sixteen sub-health districts, each with its own board of health of which the District Medical Health Officer is the chairman, have been organized. The sub-district boards of health have their own individual staffs of sanitary, food, plumbing, and other inspectors, and registrars of vital statistics and public health nurses, all operating under the Provincial Health Act and Regulations.

The Department also maintains twenty-four depots for the distribution of biologicals and twelve venereal disease clinics.

The twenty-second annual report of the Chief Medical Officer contains a review of the various services, the vital statistics for the Province, and the reports of staff members and of the sub-district boards of health.

Quebec.—The Department of Health, under the control of the Minister of Health, replaced the former Provincial Bureau of Health at the end of 1936.

In 1926, the Province of Quebec inaugurated a new system known as the 'county health units', consisting of a full-time health service for each county, or group of two or three adjoining counties. At present 44 health units covering 54 counties have been organized, and new counties have asked for the same privilege. The former district health officers, reduced to 11, are in charge of all the counties not yet organized as county health units.

The services of all these officers and their staffs of nurses, sanitary inspectors, etc., are given in the form of consultations, public lectures, school medical inspections, baby clinics, travelling tuberculosis clinics, and investigations of all kinds on immunization, sanitation, etc.

In addition to an Administrative Division, the Ministry of Health maintains the following divisions: Laboratories, Sanitary Engineering, Demography, Mental Hygiene, Public Charities, Epidemiology, Health Units and Districts, Industrial Hygiene, Nutrition (includes maternal and child welfare), Venereal Diseases, and Tuberculosis.

The energies of the Ministry of Health are directed also toward the prevention of epidemics, more particularly tuberculosis and the more important causes of infant mortality. To this end, the Ministry has established 21 anti-tuberculosis dispensaries and 70 baby clinics, including those receiving government grants. During the year 1938-39, 35,544 people were examined in the anti-tuberculosis dispensaries and the travelling tuberculosis clinics. The various county health units have provided for the immunization of 50,385 children against diphtheria, which, with those previously immunized, make a total of 322,304.

Ontario.—The Department of Health of Ontario is under a Minister of the Government. In the direction of the departmental program, he is assisted by a Deputy Minister and a Chief Medical Officer of Health. The activites of the Department are divided into the following Divisions: Hospitals, Tuberculosis Prevention, Venereal Disease Prevention, Preventable Diseases, Laboratories, Maternal and Child Hygiene and Public Health Nursing, Oral Hygiene, Sanitary Engineering, Industrial Hygiene, and Nurse Registration including Inspection of Training Schools for Nurses.

The local health work is (1939-40) carried on by a Board of Health and a Medical Officer of Health in each of the 900 municipalities. Fourteen municipalities have full-time health officers.

Increased emphasis is being placed on the control of venereal disease. The governing legislation has been strengthened to ensure that all those affected shall secure the necessary treatment. More accurate reporting of cases, more effective enforcement of control measures, and an attempt to create an enlightened public opinion are old objectives that are receiving new emphasis. Newer methods of treatment are being studied carefully. In those centres in which government-sponsored clinics are not in operation, the Department assumes 75 p.c. of the cost of treatment of those suffering from either syphilis or gonorrhœa, when patients are not in a position to pay for such treatment.

The continued maintenance of public interest in the prevention of tuberculosis has justified the large measure of emphasis placed, during the past four years, on this phase of the program. The Administration pays the maintenance charges of all those suffering from tuberculosis who are unable to meet the cost and need sanatorium treatment. Diagnostic service in respect to tuberculosis, is made available to all physicians through travelling clinics working out from various centres throughout the Province.

The Department has continued its efforts to make both diagnosis and treatment of cancer possible for all. Seven cancer clinics are operating in well-chosen centres in the Province; each of these is substantially subsidized by the Department.

The Department assumes the responsibility for the free distribution of biological products used in the prevention and cure of preventable diseases. Insulin is distributed to those in need of such treatment on the recommendation of the local authorities; a percentage of the cost is contributed by the local municipalities.

An efficient bacteriological service, including the examination and classification of pathological tissue, is offered through the central laboratory and the seven branch laboratories, which are situated at appropriate centres throughout the Province.

Consultative service in the field of mental hygiene is made available through clinics that operate throughout the Province. A regular schedule is maintained by these clinics and the profession is urged to take advantage of the service offered.

Manitoba.—Manitoba has an organized Department of Health and Public Welfare. The Health and Public Welfare Act states that the Minister shall preside over and have the management and direction of the Department, and the Department shall have administrative jurisdiction over all matters in the Province that relate to health and public welfare. The various Divisions of the Department include those of: Disease Prevention (food and dairy inspection, public health nursing, sanitation, venereal disease prevention, communicable diseases, industrial hygiene, maternal and child hygiene, health education, and central tuberculosis registry); Provincial Laboratories; Vital Statistics; Hospitalization; Psychiatry (Selkirk and Brandon Hospitals for Mental Diseases, Manitoba School for Mentally Defective Persons at Portage la Prairie, Psychopathic Hospital at Winnipeg); Child Welfare; Administration of Estates of Mentally Incompetent Persons; Fiscal Supervision of Public Institutions; Social Assistance in Unorganized Territory; Supervision of Aged and Infirm Persons (being supported by public funds); and Supervision of Medical Service (supplied by the Province).

The previously established Board of Health and the Welfare Supervision Board have assumed an advisory capacity to the Minister of Health and Public Welfare; the Child Welfare Board is both advisory and administrative, being responsible for the administration of the Child Welfare Act as it pertains to mothers' allowances.

Saskatchewan.—The Department of Public Health has been organized since 1923 under a Minister and a Deputy Minister. The Public Health Act of Saskatchewan also provides for a Public Health Council, consisting of the Deputy Minister as Chairman, three medical practitioners, a veterinary surgeon, and a civil engineer. This Council acts in an advisory capacity to consider new health regulations and allied problems.

The Department is organized into seven Divisions. The Division of Administration, directly under the Deputy Minister who is also the Registrar General, co-ordinates the activities of the Department as a whole; directs the general policy in public health matters; supervises finances, legislation, hospital grants, municipal boards of health, and medical relief in certain unorganized territories. The Division of Public Health Nursing supervises maternity grants; organizes inspection of school children and home visits, and pre-school and preventive clinics in co-operation with local physicians; and conducts a public health nursing service throughout the Province. The Division of Communicable Disease deals with epidemiology in all its phases and administers the regulations governing cemeteries and care of the dead. Supervision of trachoma, venereal disease, and tuberculosis (other than the organization of the Anti-Tuberculosis League) also comes under this Division. The Division of Sanitation supervises food, water, milk, and ice supplies, sewerage systems, urban and rural sanitation, and the organization of union hospital districts. The Division of Laboratories includes in its organization bacteriology, serology, pathology, chemical analyses, and medico-legal work. The Office of the Registrar General (formerly the Division of Vital Statistics) administers the Vital Statistics Act and the Marriage Act. The system used in classifying vital statistics

has been decided upon in co-operation with other provinces and the Dominion Bureau of Statistics. The Mental Hygiene Act and the mental institutions established under its provisions in North Battleford, Weyburn, and Regina (psychopathic ward) are administered by the Department, and the internal operations of these institutions are supervised by the Commissioner of Mental Services.

Union Hospitals.—In Saskatchewan, in addition to the general hospitals, there exists a system known as the Union Hospital Organization, designed to furnish hospital accommodation in rural districts. Under the provisions of this plan, two or more municipalities may co-operate in building, equipping, and maintaining a hospital. Municipalities constituting a hospital district may enter into an agreement with the hospital board to provide free treatment for certain classes of patients, the cost being borne by the municipalities concerned.

Cancer Commission.—This Commission, created in 1930, consists of the Deputy Minister of Public Health as Chairman, together with two physicians as members, and a physician as secretary. Consultative diagnostic and treatment clinics have been established in Regina and Saskatoon, and 'radon' is manufactured at an emanation plant in Saskatoon. Close contact is maintained with current advances in the prevention, diagnosis, and treatment of cancer.

Health Services Board.—This Board consists of the Deputy Minister as Chairman, a representative of the Provincial College of Physicians and Surgeons, and a representative of the Association of Rural Municipalities. The Board is inquiring into the extent and administration of the various health services existing in the Province, collecting and studying data on the general situation regarding incidence of illness from all causes, considering methods for an equitable distribution of the costs of illness, and studying the needs of the people with respect to general health services and the necessity for co-ordination of those now existing. An advisory committee is associated with the Board, and consists of representatives of medical, hospital, and allied organizations.

Relief Medical Services Branch.—At the present time grants are paid to physicians, dentists, and approved hospitals, and arrangements have been made with the Red Cross Society and the Canadian National Institute for the Blind to provide, from government funds, drugs and optical supplies to residents of the drought area who are unable to pay for them. The medical officer in charge of the Relief Medical Services Branch, besides administering these grants, also supervises medical and allied services that come under the Bureau of Labour and Public Welfare and the Northern Settlers' Branch of the Department of Municipal Affairs.

Alberta.—The Department of Public Health, established by an Act of the Provincial Legislature in 1919, administers the following Acts: the Child Welfare Act, the Chiropody Act, the Department of Public Health Act, the Hospitals Act, the Sexual Sterilization Act, the Solemnization of Marriage Act, the Mental Diseases Act, the Mental Defectives Act, the Registered Nurses Act, the Public Health Nurses Act, the Public Health Act and Regulations, the Tuberculosis Act, the Optometry Act, the Mothers' Allowances Act, the Neglected Childrens Act, the Legitimation Act, the Maternal Welfare Act, the Chiropractic Act, the Poliomyelitis Sufferers Act, the Dental Association Act, the Municipal Hospitals Act, the Private Hospitals Act, the Medical Profession Act, the Alberta Pharmaceutical Act, the Venereal Diseases Prevention Act, the Vital Statistics Act, the Cemeteries Act, the Juvenile Delinquents Act, the University of Alberta Hospital Act, the Cancer Remedy Act, and the Cancer Treatment and Prevention Act.

The Department includes the following Divisions: Communicable Diseases; Sanitary Engineering and Sanitation; Public Health Education; Laboratory; Public Health Nursing; Municipal Hospitals; Hospital Inspection; Social Hygiene; Vital Statistics; Mental Hygiene; Dental Hygiene; Child Welfare and Mothers' Allowances. The following institutions are administered by the Department: Central Alberta Sanatorium; the Provincial Mental Hospital, Ponoka; the Provincial Training School, Red Deer; the Provincial Auxiliary Hospital, Claresholm; the Provincial Auxiliary Hospital, Raymond; and the Provincial Mental Institute, Edmonton.

Free clinics for venereal diseases are maintained in the principal cities and in the two provincial gaols. Educational work on social hygiene is carried on by means of lectures, moving pictures, bulletins, and radio talks.

Free treatment for infectious types of tuberculosis is provided for any bona fide resident, i.e., for any person who has resided in the Province for at least one year immediately preceding application for treatment in the sanatorium.

Under the authority of the Poliomyelitis Sufferers Act, 1938, provision is made for the free treatment in special hospitals of patients suffering from this disease. Provision is also made for academic instruction, vocational training, and rehabilitation of those suffering from paralysis resulting from this disease.

British Columbia.—The Provincial Health Officer, responsible to the Lieutenant-Governor in Council sitting as the Provincial Board of Health, administers the laws relating to public health in British Columbia. Five Divisions supply specialized services, namely: Tuberculosis Control, Venereal Disease Control, Laboratories, Sanitation, and Vital Statistics. Reorganization of the Division of Venereal Disease Control was completed during 1938. Government clinics for diagnosis and treatment are operated at Vancouver, Victoria, New Westminster, and Trail, while consultative service and free drugs are supplied to the private practitioners throughout the Province. Reorganization of the Division of Vital Statistics took place on Apr. 1, 1939, under the supervision of a Director, bringing this phase of public health work into line with the other services. The Division of Laboratories has extended its activities so that it supervises all branch laboratories throughout the Province, in addition to the central one in Vancouver. The Division of Tuberculosis Control has made further advances, and diagnostic and treatment services are extended to all parts of the Province. The Public Health Nursing Service is being constantly extended to include more rural areas of the Province, and particular attention is being given to public health education.

Section 2.—Institutional Statistics.*

Under authority granted by the Dominion Government in 1930, the Dominion Bureau of Statistics has, since that date, co-operated with the provincial authorities through the Census of Institutions, and now collects, on a Dominion-wide basis, statistics for the following types of institutions: (1) *Hospitals*—institutions primarily engaged in the prevention and cure of physical sickness and disease, such as hospitals for the sick, sanatoria, and institutions for incurables; (2) *Mental and neurological institutions*—such as asylums for the insane, institutions for the feeble-minded, epileptic, etc., devoted to the treatment and care of mental ailments; (3) *Charitable and benevolent institutions*—caring for the poor of both sexes and of all ages, such as

* The statistics of this section have been revised by J. C. Brady, Officer in Charge of Census of Institutions, Dominion Bureau of Statistics.

homes for the aged, county refuges, orphanages, etc.; and (4) *Penal and corrective institutions*—having for their purpose the reclamation of criminals and the reformation and training of delinquent boys and girls. Institutional statistics, as summarized in Table **1**, may, therefore, be regarded as dealing with the four main types of social pathology, viz., physical, mental, economic, and moral.

Historical.—A brief historical sketch of the origin and growth of the several classes of institutions in Canada is given at pp. 1006-1009 of the 1936 Year Book.

1.—Institutions Operating in Canada, by Provinces, 1938.

Type of Institution.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Population (in thousands)..	94	548	445	3,172	3,731	720	941	783	761	14	11,209
Hospitals (excluding mental)—											
Public—											
General	4	26	16	53	111	37	78	82	69	9	485
Women's	Nil	2	1	3	3	Nil	Nil	1	1	Nil	11
Pædiatric	"	1	Nil	3	2	1	1	1	2	"	11
Isolation	"	1	"	4	5	2	1	3	Nil	"	16
Convalescent	"	Nil	"	3	7	1	Nil	Nil	"	"	11
Red Cross	"	"	"	Nil	29	Nil	7	"	3	"	39
Incurable	"	"	1	3	8	1	2	4	1	"	20
Other	"	"	Nil	8	4	Nil	3	2	Nil	"	17
Totals, Public	*4*	*30*	*18*	*77*	*169*	*42*	*92*	*93*	*76*	*9*	*610*
Private	Nil	5	6	41	50	7	77	48	33	Nil	267
Dominion—											
Department of Pensions and National Health—											
War veterans	Nil	1	1	1	2	1	Nil	1	1	Nil	8
Quarantine and immigration	"	1	1	1	Nil	Nil	"	Nil	1	"	4
Leper	"	Nil	1	Nil	"	"	"	"	1	"	2
Marine	"	1	Nil	"	"	"	"	"	Nil	"	1
Department of Mines and Resources (Indians)	"	Nil	"	"	1	2	1	4	"	"	8
Department of National Defence	"	1	"	2	4	1	Nil	Nil	1	"	9
Totals, Dominion	*Nil*	*4*	*3*	*4*	*7*	*4*	*1*	*5*	*4*	*Nil*	*32*
Tuberculosis	1	3	3	10	14	4	4	1	1	Nil	41
Totals, Hospitals	**5**	**42**	**30**	**132**	**240**	**57**	**174**	**147**	**114**	**9**	**950**
Mental Institutions—											
Public hospitals	1	1	1	6	11	2	2	3	3	Nil	30
Training schools	Nil	1	Nil	1	1	1	Nil	1	Nil	"	5
Psychiatric hospitals	"	Nil	"	Nil	1	1	"	Nil	"	"	2
County and municipal institutions	"	14	"	"	Nil	Nil	"	"	"	"	14
Dominion hospitals	"	Nil	"	1	1	"	"	"	"	"	2
Private institutions	"	"	"	1	2	"	"	"	1	"	4
Totals, Mental	**1**	**16**	**1**	**9**	**16**	**4**	**2**	**4**	**4**	**Nil**	**57**

1.—Institutions Operating in Canada, by Provinces, 1938—concluded.

Type of Institution.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Charitable and Benevolent Institutions—											
Homes for adults	1	16	8	33	64	6	Nil	2	7	Nil	137
Homes for adults and children	1	7	10	48	15	3	1	1	2	"	88
Orphanages	2	10	7	39	28	14	4	6	8	"	118
Day nurseries	Nil	1	Nil	3	8	2	Nil	Nil	1	"	15
Children's aid societies	2	14	3	2	58	5	5	3	3	"	95
Juvenile immigration societies	Nil	1	1	1	2	Nil	Nil	Nil	1	"	6
Totals, Charitable, etc	**6**	**49**	**29**	**126**	**175**	**30**	**10**	**12**	**22**	**Nil**	**459**
Penal and Reformative Institutions—											
Penitentiaries	Nil	Nil	1	1	2	1	1	Nil	1	Nil	7
Corrective and reformative institutions	"	4	3	4	10	3	2	2	2	"	30
Male juveniles	"	*2*	*1*	*2*	*3*	*1*	*1*	*Nil*	*1*	"	*11*
Female juveniles	"	*Nil*	*Nil*	*1*	*1*	*Nil*	*Nil*	*1*	*1*	"	*4*
Male adults	"	"	"	*Nil*	*4*	"	*1*	*Nil*	*Nil*	"	*5*
Female adults	"	"	*1*	"	*1*	"	*Nil*	"	"	"	*2*
Female adults and juveniles	"	*2*	*1*	*1*	*1*	*2*	"	*1*	"	"	*8*
Totals, Penal, etc	**Nil**	**4**	**4**	**5**	**12**	**4**	**3**	**2**	**3**	**Nil**	**37**
Grand Totals	**12**	**111**	**64**	**272**	**443**	**95**	**189**	**165**	**143**	**9**	**1,503**

Subsection 1.—Statistics of Hospitals, Other Than Mental.

From Table 1 it is seen that, in 1938, in addition to 610 public hospitals, there were 267 private hospitals, and 32 hospitals operated by the Dominion Government. The latter were made up of: 8 for war veterans, 4 quarantine and immigration, 1 marine, and 2 leper hospitals under the direction of the Department of Pensions and National Health; 9 military hospitals under the Department of National Defence; and 8 hospitals for Indians under the Department of Mines and Resources.*

* A complete list of all hospitals in Canada, giving name, location, type, and bed accommodation for 1938, is obtainable on application to the Dominion Bureau of Statistics.

2.—Summary of Reporting Public and Private Hospitals in Canada, 1934-38.

NOTE.—Figures include hospitals and homes for incurables, but do not include Dominion or mental hospitals. Tuberculosis hospitals are also excluded for 1938.

Item.	1934.	1935.	1936.	1937.	1938.
	No.	No.	No.	No.	No.
Public Hospitals—					
Numbers reporting	602[1]	608[2]	610[2]	620[3]	610
Bed capacities[4]	58,535	59,832	59,909	63,229	56,327
Patients under treatment[5]	706,240	766,559	825,720	871,339	888,875
Total collective days' stay[6]	13,767,188	14,696,408	15,175,356	15,631,343	13,117,881
Private Hospitals—					
Numbers reporting	261	267	259	241	267
Bed capacities[4]	3,490	3,409	3,386	3,389	3,217
Patients under treatment[5]	30,180	32,363	35,707	36,425	31,487
Total collective days' stay[6]	412,461	410,890	423,239	433,912	417,724

[1] Seven public hospitals in Yukon and N.W.T. did not report. [2] Three public hospitals in Yukon and N.W.T. did not report. [3] One hospital in N.W.T. and 1 sanatorium in Quebec did not report.
[4] Includes beds, cribs, and bassinets. [5] Includes newborn. [6] Includes stay of newborn.

3.—Reporting Public and Private Hospitals, by Provinces, Showing Staff, Facilities, and Movement of Population, 1938.

NOTE.—Figures include hospitals and homes for incurables, but do not include Dominion, mental, or tuberculosis hospitals.

Item.	Public Hospitals.		Private Hospitals.	Public Hospitals.		Private Hospitals.
	General.	All Other.		General.	All Other.	
	PRINCE EDWARD ISLAND.			NOVA SCOTIA.		
	No.	No.	No.	No.	No.	No.
Hospitals reporting	4	Nil	Nil	26	4[1]	5
Approved schools of nursing	3	"	"	12	2	Nil
Staff—						
Salaried doctors	1	"	"	11	1	4
Interns	1	"	"	18	4	Nil
Graduate nurses	20	"	"	295	24	15
Student nurses	75	"	"	485	55	Nil
Totals, Personnel	**157**	"	"	**1,352**	**124**	**33**
Hospital Facilities—						
X-ray	4	"	"	26	1	1
Clinical laboratories	4	"	"	22	1	Nil
Physio-therapy	1	"	"	11	1	"
Movement of Population—						
Admissions	4,985	"	"	40,544	2,733	437
Live births	437	"	"	3,744	1,009	94
Totals, Under Treatment	**5,533**	"	"	**45,445**	**3,877**	**548**
Discharges	5,236	"	"	42,938	3,610	518
All deaths	162	"	"	1,210	112	13
Total collective days' stay	59,987	"	"	497,015	48,462	5,572
	NEW BRUNSWICK.			QUEBEC.		
Hospitals reporting	16	2[1]	6	53	24[1]	41
Approved schools of nursing	12	Nil	Nil	27	9	2
Staff—						
Salaried doctors	10	"	1	148	72	27
Interns	9	"	Nil	252	56	Nil
Graduate nurses	151	5	21	1,418	400	126
Student nurses	426	Nil	Nil	1,591	352	19
Totals, Personnel	**990**	**18**	**39**	**7,677**	**2,269**	**352**
Hospital Facilities—						
X-ray	15	Nil	4	50	11	20
Clinical laboratories	11	"	3	35	10	17
Physio-therapy	8	"	Nil	35	8	16
Movement of Population—						
Admissions	22,528	164	1,469	135,230	24,754	7,364
Live births	2,347	138	93	10,246	2,553	999
Totals, Under Treatment	**25,590**	**362**	**1,602**	**150,572**	**30,846**	**8,623**
Discharges	23,938	291	1,522	139,482	25,631	8,134
All deaths	896	15	48	5,749	1,268	234
Total collective days' stay	325,666	14,851	14,828	2,323,481	1,415,422	115,788
	ONTARIO.			MANITOBA.		
Hospitals reporting	111	58[1]	50	37	5[1]	7
Approved schools of nursing	60	4	Nil	15	3	Nil
Staff—						
Salaried doctors	125	41	23	49	12	3
Interns	228	30	Nil	63	10	Nil
Graduate nurses	1,917	394	140	358	71	10
Student nurses	3,180	179	Nil	806	79	Nil
Totals, Personnel	**10,619**	**1,872**	**356**	**2,139**	**524**	**36**
Hospital Facilities—						
X-ray	105	13	17	30	3	2
Clinical laboratories	66	11	10	19	2	2
Physio-therapy	51	6	13	12	3	2
Movement of Population—						
Admissions	218,530	26,106	7,997	56,168	4,724	817
Live births	28,277	4,252	1,629	7,869	20	207
Totals, Under Treatment	**255,408**	**32,634**	**9,985**	**66,037**	**5,273**	**1,048**
Discharges	235,753	29,329	9,407	61,911	4,525	1,001
All deaths	10,913	1,189	233	2,044	203	17
Total collective days' stay	3,238,372	801,574	116,428	744,763	204,642	10,285

[1] These institutions are classified in detail in Table 1.

3.—Reporting Public and Private Hospitals, by Provinces, Showing Staff, Facilities, and Movement of Population, 1938—concluded.

Item.	Public Hospitals.		Private Hospitals.	Public Hospitals.		Private Hospitals.
	General.	All Other.		General.	All Other.	
	Saskatchewan.			Alberta.		
	No.	No.	No.	No.	No.	No.
Hospitals reporting	78	14[1]	77	82	11[1]	48
Approved schools of nursing	10	Nil	Nil	10	1	Nil
Staff—						
Salaried doctors	13	2	1	26	3	10
Interns	25	Nil	Nil	33	Nil	Nil
Graduate nurses	541	31	46	606	32	44
Student nurses	645	Nil	Nil	778	3	Nil
Totals, Personnel	**2,220**	**101**	**152**	**2,765**	**126**	**134**
Hospital Facilities—						
X-ray	53	Nil	3	67	Nil	8
Clinical laboratories	31	"	3	39	1	3
Physio-therapy	24	"	1	14	1	6
Movement of Population—						
Admissions	66,895	1,605	2,649	78,912	1,086	1,865
Live births	7,871	534	997	9,639	390	499
Totals, Under Treatment	**76,708**	**2,450**	**3,727**	**90,864**	**1,778**	**2,439**
Discharges	72,946	2,011	3,527	85,821	1,352	2,319
All deaths	1,844	89	87	2,637	66	43
Total collective days' stay	914,924	118,288	43,083	975,082	95,669	32,502
	British Columbia.			Canada.[2]		
Hospitals reporting	69	7[1]	33	485	125[1]	267
Approved schools of nursing	8	1	Nil	157	20	2
Staff—						
Salaried doctors	65	2	6	452	133	75
Interns	52	1	Nil	681	101	Nil
Graduate nurses	891	30	57	6,218	987	459
Student nurses	781	13	Nil	8,767	681	19
Totals, Personnel	**3,660**	**138**	**127**	**31,651**	**5,172**	**1,229**
Hospital Facilities—						
X-ray	72	2	6	428	30	61
Clinical laboratories	36	2	2	266	27	40
Physio-therapy	22	2	3	179	21	41
Movement of Population—						
Admissions	79,629	916	3,060	704,551	62,088	25,658
Live births	9,632	517	266	80,150	9,413	4,784
Totals, Under Treatment	**92,453**	**1,705**	**3,515**	**809,950**	**78,925**	**31,487**
Discharges	85,856	1,412	3,141	755,040	68,161	29,569
All deaths	3,513	47	153	29,040	2,989	828
Total collective days' stay	1,193,574	98,733	79,238	10,320,240	2,797,641	417,724

[1] These institutions are classified in detail in Table 1. [2] Includes 9 general hospitals in Yukon and N.W.T. reporting 4 salaried doctors, 21 graduate nurses, 72 total personnel; 6 X-ray, 3 clinical laboratory, and 1 physiotherapy department; 1,130 admissions, 88 live births, a total of 1,340 under treatment, 1,159 discharges, 72 deaths, and 47,376 collective days' stay.

Out-Patient Departments.—Out-patient departments are operated in connection with hospitals or other institutions, and treat patients who do not occupy beds in the hospital. The extension of out-patient services to patients of modest means has far-reaching and beneficial effects. It may replace admission to a hospital, or may serve to secure necessary and beneficial hospitalization. As a general rule, out-patient departments are subsidized from the funds of the general hospital and separate records are not kept. Until a uniform system of accounting is adopted, it will not be possible to give the average cost per patient.

The statistics of Table 4 are rendered more complicated than is desirable because of lack of uniformity in the method of reporting patients and treatments. The majority of hospitals report both patients and treatments, but a considerable number report either patients or treatments, but not both.

4.—Statistics of Out-Patient Departments of Public Hospitals, by Provinces, 1938.

NOTE.—Figures of tuberculosis sanatoria and government and municipal clinics held in hospitals are not included.

Province.	Total Out-Patient Departments.	Reporting Both Patients and Treatments.			Reporting Patients Only.		Reporting Treatments Only.	
		No.	Patients.	Treatments.	No.	Patients.	No.	Treatments.
Prince Edward Island	Nil	–	–	–	–	–	–	
Nova Scotia	1	1	1,167	2,023	Nil	–	Nil	
New Brunswick	2	2	11,556	32,910	"	–	"	–
Quebec	28	18	293,667	872,071	4	31,160	6	92,988
Ontario	19	12	76,074	310,623	2	12,618	5	376,073
Manitoba	3[1]	3	22,927	64,935	Nil	-	Nil	–
Saskatchewan	2	1	605	1,148	1	704	"	–
Alberta	2	1	57	220	Nil		1	26,023
British Columbia	1[1]	1	10,616	53,509	"		Nil	–
Totals	**58**	**39**	**416,669**	**1,337,439**	**7**	**44,482**	**12**	**495,084**

[1] One hospital did not report.

Subsection 2.—Statistics of Mental Hospitals.

The Census of Mental Institutions of Canada for June 1, 1931, gave the number of patients in all mental institutions as 31,686, of whom 24,188 were insane, 7,006 mentally deficient, and 492 epileptic. The numbers of patients in mental institutions per 100,000 of the general population were: 305·4 on June 1, 1931; 316·5 on Dec. 31, 1932; 324·9 on Dec. 31, 1933; 335·6 on Dec. 31, 1934; 348·2 on Dec. 31, 1935; 359·5 on Dec. 31, 1936; and 373·5 on Dec. 31, 1937.

At Dec. 31, 1938, there were 42,687 patients in mental institutions in Canada, and 3,702 on parole, making a total of 46,389, whereas the normal bed capacity was only 38,671, showing a seriously overcrowded situation when the patient population on Jan. 1, 1938, and the admissions and separations during the year are considered. This overcrowded condition was specially marked in British Columbia, Manitoba, Saskatchewan, Ontario, and Quebec. Of the 42,687 resident patients in 1938, 33,290 were insane, 8,527 were mentally deficient, 672 were epileptic, and 198 mental cases were otherwise classified. The patients per 100,000 of population at the end of the year were 378·7.

5.—Capacity, Staff, Movement of Population, and Finances of Mental Institutions in Canada, by Provinces, 1938.

Item.		Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.
Institutions reporting	No.	1	16	1	9	16
Normal capacities	"	275	2,215	1,150	12,011	13,237
Staff—						
Doctors, full-time	"	3	4	5	58	108
Doctors, part-time	"	Nil	18	3	18	40
Graduate nurses	"	10	37	21	196	706
Other nurses	"	8	64	Nil	338	361
Totals, Staff[1]	"	**68**	**368**	**169**	**2,381**	**3,083**

[1] Includes other personnel.

5.—Capacity, Staff, Movement of Population, and Finances of Mental Institutions in Canada, by Provinces, 1938—concluded.

Item.		Prince Edward Island.	Nova Scotia.	New Brunswick.	Quebec.	Ontario.
Movement of Population—						
Admissions	No.	102	700	332	3,244	4,143
Totals, Under Treatment	"	**366**	**2,844**	**1,681**	**16,671**	**19,475**
Separations	"	100	640	308	2,703	3,692
Receipts—						
Government and municipal payments	$	113,230	571,066	324,391	3,004,428	4,649,839
Fees from paying patients	$	9,436	17,582	41,944	509,577	1,006,990
Received from other sources	$	Nil	16,481	7,300	446,798	353,389
Totals, Receipts	$	**122,666**	**605,129**	**373,635**	**3,960,803**	**6,010,218**
Expenditures—						
Salaries	$	40,586	225,888	124,517	1,387,389	3,093,941
Provisions	$	33,641	165,839	80,873	913,060	1,064,488
All other expenditures for maintenance	$	48,439	186,934	127,626	1,159,748	1,454,327
Totals, Expenditures for Maintenance	$	122,666	578,661	333,016	3,460,197	5,612,756
New buildings and improvements	$	Nil	24,925	40,619	630,778	364,452
Expenditures for other purposes	$	"	1,508	Nil	171,064	1,610
Totals, Expenditures	$	**122,666**	**605,094**	**373,635**	**4,262,039**	**5,978,818**

Item.		Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Total.
Institutions reporting	No.	4	2	4	4	57
Normal capacities	"	2,348	2,650	2,328	2,457	38,671
Staff—						
Doctors, full-time	"	19	14	11	19	241
Doctors, part-time	"	4	2	Nil	2	87
Graduate nurses	"	56	12	51	39	1,128
Other nurses	"	144	173	66	173	1,327
Totals, Staff[1]	"	**647**	**619**	**483**	**697**	**8,515**
Movement of Population—						
Admissions	"	712	756	893	992	11,874
Totals, Under Treatment	"	**3,560**	**4,084**	**3,447**	**4,630**	**56,758**
Separations	"	697	636	797	796	10,369
Receipts—						
Government and municipal payments	$	776,678	1,094,541	900,417	1,237,033	12,671,623
Fees from paying patients	$	78,425	93,365	75,140	262,237	2,094,696
Received from other sources	$	27,288	140,500	27,900	726	1,020,382
Totals, Receipts	$	**882,391**[2]	**1,328,406**	**1,003,457**	**1,499,996**	**15,786,701**
Expenditures—						
Salaries	$	378,425	653,885	437,989	586,993	6,929,613
Provisions	$	209,820	264,049	182,824	313,311	3,227,905
All other expenditures for maintenance	$	279,106	399,030	166,868	407,809	4,229,887
Totals, Expenditures for Maintenance	$	867,351	1,316,964	787,681	1,308,113	14,387,405
New buildings and improvements	$	Nil	11,442	215,172	189,253	1,476,641
Expenditures for other purposes	$	15,040	Nil	604	Nil	189,826
Totals, Expenditures	$	**882,391**[2]	**1,328,406**	**1,003,457**	**1,497,366**	**16,053,872**

[1] Includes other personnel. [2] Receipts and expenditures for the Manitoba Psychopathic Hospital are not included.

Subsection 3.—Charitable and Benevolent Institutions.

Statistics of institutions having the care of orphans, dependent or neglected children, and the aged and infirm are collected quinquennially, the latest figures available being those for June 1, 1936. The survey covered the following institutions and agencies: homes for adults only; homes for adults and children; orphanages;

provincial, county, and municipal houses of refuge; children's aid societies; juvenile immigration societies; and day nurseries. In recent years, there has been a decided trend from institutional to foster care for children, and, even where institutional care is given, the ultimate objective of observation and treatment is to train the children for life in the community.

Of the 459 institutions operating on June 1, 1936, 8·1 p.c. were under provincial control, 19·0 p.c. under county auspices, 5·0 p.c. under municipal or city control, 19·2 p.c. under lay corporations or private agencies, 2·6 p.c. under fraternal organizations, and 45·4 p.c. under religious organizations. On June 1, 1936, there were under care in all institutions 48,094 persons, of whom 14,681 were adults and 33,413 were children. Of the children under care, 17,058 or 51 p.c. were receiving care outside institutions under the control of public welfare organizations. The latest general summary of statistics for such institutions, by provinces, is for 1936 and appears at pp. 1045-1046 of the 1939 Year Book.

Subsection 4.—Corrective and Reformative Institutions.

On June 1, 1936, there were 38 reformative and corrective institutions in Canada with a total inmate population of 3,722, of which number 3,004 were males and 718 were females. Of the total number of institutions, 24 were for males and 14 for females. Detailed statistics of crime and delinquency (which are presented on an annual basis) as distinct from these institutional statistics are shown in Chapter XXVII.

Section 3.—The Victorian Order of Nurses.

The Victorian Order of Nurses, established in 1897, is a national nursing organization having as its object the care of the sick in their own homes on a visit basis regardless of race, creed, or economic status.

The primary function of the Victorian Order is bedside nursing and teaching of health in the homes visited. Three types of care are given by the nurses, viz., maternal and infant welfare, general nursing, and health education. During 1939, the Order had 350 nurses in the field and 89 branches distributed as follows: Nova Scotia, 15; New Brunswick, 6; Quebec, 5; Ontario, 49; Manitoba, 1; Saskatchewan, 3; Alberta, 2; and British Columbia, 8. During 1939, 741,134 visits were made to 85,249 patients, which was an increase in the work as a whole. The average number of visits per case was 8·7. Of the total visits made, 59 p.c. were free, while fully paid visits constituted 25 p.c. (of which 16 p.c. were insurance) and partly paid visits 16 p.c. Maternal and infant welfare cases constituted 52·4 p.c. of the total visits made.

The maternal death rate per 1,000 living births attended by Victorian Order nurses for the years 1933-38 inclusive, was 2·1.

Section 4.—The Canadian Red Cross Society.*

Closely allied with the Dominion and Provincial Governments, both in the prosecution of the War and in the promotion of the health of the people, is the Canadian Red Cross Society. Founded in 1896, its purposes are to furnish volunteer aid to the sick and wounded of armies in time of war, and, in time of peace, to carry on and assist in work for the improvement of health, the prevention of disease, and the mitigation of suffering.

* Revised by W. S. Caldwell, M.D., Assistant Director of the Ontario Division, the Canadian Red Cross Society, Toronto.

Immediately upon the outbreak of war on Sept. 3, 1939, the Canadian Red Cross Society prepared energetically to undertake its traditional war-time services. The peace-time organization was expanded rapidly until at the close of the year over 2,000 branches in every part of Canada, from the smallest hamlets to the largest metropolitan centres, were feverishly engaged in Red Cross service. Particular mention should be made of the thousands of voluntary women workers who have applied themselves industriously to the making of supplies. Hospital articles, surgical dressings, refugee clothing, bedding, and field comforts in great variety have been made in hundreds of thousands. These have been sent overseas for distribution, placed in military hospitals on this side, or, in keeping with the policy of the International Committee and with the precedence of the United States and French Red Cross in the War of 1914-18, distributed to soldiers in training in Canada.

To finance the work, a nation-wide appeal for funds was made to the Canadian people. This resulted in the magnificent contribution of cash and pledges of $5,118,086, a response that not only assured ample support for the work of the Red Cross, but one that was considered of great national significance throughout the Empire.

Before the close of the year 1939 much had been accomplished. By a grant of over $100,000, hospital and recreational accommodation and scores of thousands of articles of clothing were provided in Halifax for British, Canadian, and Allied seamen and sailors entering that port. Similar services were rendered to the British Navy and Merchant Marine in Britain through a grant of $100,000 to the British Navy League. An initial grant of an equivalent amount was made to the British Red Cross Society of which, at the outbreak of the War of 1914-18, the Canadian Red Cross had formed a part.

Through an excellent Overseas Advisory Committee headed by a former Prime Minister of Canada who has been active for years in Red Cross work, foundations were laid for many services to Canadian soldiers in England. Plans were completed and construction begun on a 600-bed Canadian Red Cross Base Hospital at Taplow. In London, the first Maple Leaf Club, a residential club for soldiers, was opened and is being operated by the Canadian Red Cross, which also initiated the establishment of the Beaver Club recreational centre. Committees were named to render personal services, to distribute field comforts, to visit patients in hospital, and to supervise the sending of parcels of food and clothing to prisoners of war.

Through close co-operation with the International Red Cross Committee and the League of Red Cross Societies at Geneva, assistance was sent to Red Cross Societies in Poland, Finland, Turkey, and France in the form of ambulances, hospital supplies, refugee clothing, bedding, and substantial cash contributions.

The prompt action of the Canadian Red Cross in initiating this war effort and the gratifying measure of work accomplished since the conflict began have been made possible by the organization that functioned during twenty years of peace. The more important phases of this peace-time work carried on by the Society are: the continuing care of sick and disabled ex-service men; the operation of Red Cross outpost hospitals; the promotion of Junior Red Cross and the treatment of crippled or otherwise disabled children; the maintenance of a disaster relief organization fully prepared for immediate action in any emergency; the organization of classes for the study of home nursing and nutrition; the care of immigrant women and children at the Port of Halifax; the training and supplying of visiting housekeepers for families when the homemaker is ill; co-operation with government departments

and voluntary organizations in the combating of disease, the promotion of child welfare, and the care of the physically defective—in general, provision for the needs of the distressed and destitute.

Since the inception of the peace-time program in 1920, the Red Cross Society has established outpost hospital service in 76 centres in Canada's northland. Twenty-four of these have been handed over to their communities, four have been found no longer necessary, and in 1939 there were 48 outposts operating under the emblem of Red Cross. In 1939, Red Cross outposts provided 99,608 days' care to patients in hospital. Without the aid of these outposts, thousands of our fellow-citizens who gain their livelihood on the fringes of the settled parts of Canada would lack any kind of skilled assistance in the event of sickness or injury.

Junior Red Cross, an organization for the pupils of elementary schools and the students of secondary schools, is devoted to the promotion of the principles of health, good citizenship, and international friendliness. Guided only by the teacher-director, the children work out their own program of personal and school hygiene, based on the twelve fundamental Junior Red Cross rules, community service, and interchange of portfolios with the Juniors of other lands. It is an educational movement, both in health and service. Since its inception, the Canadian Junior Red Cross has helped nearly 18,000 crippled or otherwise disabled children. Junior Red Cross now embraces a membership of over 19,000,000 children in 49 nations of the world. In the spring of 1940, there were over 17,000 Junior Red Cross branches in Canada, with a membership of over 500,000, and 1,010 Branches in Newfoundland with 33,014 members. Junior Red Cross in Newfoundland bears practically the same relation to the National Office as the nine provincial divisions in Canada.

Disaster relief services rendered, included rehabilitation of victims of the forest fire in northwestern Ontario, assistance to the families of a Nova Scotia fishing village that was badly damaged by a windstorm, and aid to the victims of an earthquake in Turkey.

The consolidated financial statement of the Society for 1939 showed total receipts of $4,895,662, of which $4,407,245 consisted of voluntary contributions, the greater part of which were collections from the National War Appeal made at the close of the year. Gross expenditures were $1,816,126, of which the major items were $613,950 on account of war services commitments, $452,593 for outpost hospitals and nursing stations, $134,592 for assistance to soldiers and their dependants, $64,286 for the treatment of crippled children, $76,894 for general and sickness relief, $86,281 for disaster relief, $57,403 for organization of Junior Red Cross.

CHAPTER XXVII.—JUDICIAL AND PENITENTIARY STATISTICS.*

CONSPECTUS.

	Page.
Section 1. General Analyses	1032
Section 2. Offences of Adults	1036
Subsection 1. Convictions of Adults for Indictable Offences	1037
Subsection 2. Summary Convictions of Adults	1043
Section 3. Juvenile Delinquency	1048
Section 4. Municipal Police Statistics	1051
Section 5. Penitentiary Statistics	1052

Canadian Criminal Law and Procedure.—An account of the development of the Criminal Code in Canada is given at pp. 1085-1087 of the 1934-35 edition of the Year Book. In that article a résumé of procedure and of the extent and jurisdiction of the various classes of judges and magistrates is given.

The statistics presented in the tables that follow, which are summarized from the "Annual Report of Statistics of Criminal and Other Offences", are collected directly from the criminal courts in the different judicial districts throughout the Dominion. There are 155 judicial districts, including 2 sub-districts, divided as to provinces as follows: Prince Edward Island 3, Nova Scotia 18, New Brunswick 15, Quebec 24, Ontario 47, Manitoba 6, Saskatchewan 21, Alberta 12, British Columbia 8, and Yukon 1. The figures for the Northwest Territories are obtained from the reports of the Royal Canadian Mounted Police.

Section 1.—General Analyses.

The collection and publication of criminal statistics now made by the Dominion Bureau of Statistics was initiated in 1876 (39 Vict., c. 13). All records of crime since that time are now available in publications of the Judicial Statistics Branch of the Bureau. The statistics relate to years ended Sept. 30, the latest report being for 1938. Beginning with the report for 1922, an enlargement of the classification of offences has been adopted, by which offences of juvenile offenders are compiled separately from those of adults.

Crime is divided into two definite classes, 'criminal' or 'indictable' offences, which include all serious crime covered by the Criminal Code (see pp. 1039-1040), and 'summary' or 'non-indictable' offences, which comprise breaches of municipal by-laws, traffic laws, and other less serious crimes (see p. 1044). Broadly speaking, indictable offences are triable by jury, although in certain cases the accused is accorded the right of election as to whether he be tried by jury or before a judge without the intervention of a jury, and in other cases the jurisdiction of the magistrate as to trial is absolute and does not depend upon the consent of the accused. Non-indictable offences are usually dealt with summarily by police magistrates under the Summary Convictions Act. The term 'indictable' applies to offences of adults, similar offences committed by juveniles† being termed 'major' offences; non-indictable offences of adults are termed 'minor' offences when attributed to juveniles.

In 1938 there were 465,662 cases of adult offenders handled by the courts, as compared with 464,180 in 1937. Of this total, 50,998 cases were of an indictable

* Revised by H. M. Boyd, Chief, Judicial Statistics Branch, Dominion Bureau of Statistics. The sixty-third "Annual Report of Statistics of Criminal and Other Offences", for the year ended Sept. 30, 1938, is obtainable from the Dominion Bureau of Statistics, Price 50 cents.

† The term 'juvenile' is restricted to persons under 16 years of age.

nature, while 414,664 were non-indictable. The corresponding figures for 1937 were 43,968 indictable and 420,212 non-indictable cases. In the case of juvenile offenders, 8,929 young persons were brought before the courts, of whom 1,894 were either dismissed or had their cases adjourned *sine die*.

Convictions for All Offences.—Total convictions in 1938 increased by 222, or 0·1 p.c. as compared with 1937. Of the total, 7,035 were cases in which juveniles were found guilty of major or minor delinquency, a decrease of 681 or 8·8 p.c. from 1937. The convictions of adults are treated in detail in Section 2 of this chapter and those of juveniles are shown in Section 3.

In using the statistics in Table 1, it should be remembered that, while the Criminal Code undergoes little change over periods of time, the figures of summary convictions are influenced very much by the changing customs of the people, and show a strong tendency to increase with the increasing urbanization of the population. Summary convictions, as a class, have generally increased in proportion to all offences, but the most significant figures in Table 1 are those of indictable offences per 100,000 population. Attention is drawn to the increase in the proportion of both indictable offences and summary offences to population in recent years.

1.—Convictions for All Offences (Juveniles Included), Showing Indictable and Summary (or Non-Indictable) Offences, Years Ended Sept. 30, 1886-1938.

NOTE.—Figures for intermediate years between 1886 and 1900 will be found at pp. 1050-1051 of the 1939 Year Book.

Year.	Indictable Offences.							Summary Offences, Total and Ratios.			Grand Total, Convictions.
	Offences Against—			Other Indictable Offences.	Total and Ratios of Indictable Offences.						
	The Person.	Property with Violence.	Property without Violence.								
	No.	No.	No.	No.	No.	P.C. of All Offences.	Per 100,000 Population.	No.	P.C. of All Offences.	Per 100,000 Population.	No.
1886...	735	268	2,111	395	3,509	10·3	77	30,365	89·7	663	33,874
1890...	876	288	2,490	280	3,934	10·0	82	34,606	90·0	724	38,540
1895...	1,108	483	3,506	377	5,474	14·5	109	32,111	85·5	639	37,585
1900...	1,235	431	3,702	400	5,768	13·8	109	35,885	86·2	677	41,653
1901...	1,189	493	3,568	388	5,638	13·4	105	36,510	86·6	679	42,148
1902...	1,329	419	3,541	371	5,660	13·0	103	37,876	87·0	690	43,536
1903...	1,602	562	3,853	504	6,521	12·9	115	43,862	87·1	776	50,383
1904...	1,603	565	4,060	526	6,754	12·3	116	48,192	87·7	827	54,946
1905...	1,609	670	4,316	1,029	7,624	12·2	127	54,935	87·8	915	62,559
1906...	1,618	649	4,651	1,174	8,092	11·4	133	62,811	88·6	1,030	70,903
1907...	1,849	684	5,672	905	9,110	11·5	142	70,060	88·5	1,092	79,170
1908...	2,413	914	6,960	1,048	11,335	12·8	171	77,299	87·2	1,167	88,634
1909...	2,441	852	6,828	1,328	11,449	12·7	168	78,503	87·3	1,154	89,952
1910...	2,632	945	6,994	1,129	11,700	11·4	167	91,203	88·6	1,304	102,903
1911...	2,442	978	8,014	1,193	12,627	11·1	175	100,633	88·9	1,396	113,260
1912...	3,486	1,196	9,346	1,539	15,567	10·6	211	130,960	89·4	1,773	146,527
1913...	4,256	1,478	10,868	1,718	18,320	10·5	240	154,818	89·5	2,028	173,138
1914...	4,428	1,810	13,248	1,952	21,438	11·7	272	161,597	88·3	2,051	183,035
1915...	3,975	2,242	12,882	1,526	20,625	13·4	258	132,430	86·5	1,659	153,055
1916...	3,443	1,484	9,805	4,428	19,160	15·4	239	104,631	84·6	1,308	123,791
1917...	2,526	1,322	8,694	3,017	15,559	13·6	193	98,452	86·4	1,221	114,011
1918...	2,526	2,051	9,851	2,942	17,370	14·1	213	105,899	85·9	1,300	123,269
1919...	2,605	2,608	10,281	2,902	18,396	14·1	222	111,623	85·9	1,343	130,019
1920...	2,901	2,313	10,350	2,879	18,443	11·3	215	144,265	88·7	1,684	162,708

1.—Convictions for All Offences (Juveniles Included), Showing Indictable and Summary (or Non-Indictable) Offences, Years Ended Sept. 30, 1886-1938.—concluded.

Year.	Indictable Offences.							Summary Offences, Total and Ratios.			Grand Total Convictions.
	Offences Against—			Other Indictable Offences.	Total and Ratios of Indictable Offences.						
	The Person.	Property with Violence.	Property without Violence.								
	No.	No.	No.	No.	No.	P.C. of All Offences.	Per 100,000 Population.	No.	P.C. of All Offences.	Per 100,000 Population.	No.
1921...	3,007	2,611	10,735	3,043	19,396	10·9	221	157,777	89·1	1,795	177,173
1922...	2,976	2,783	10,817	3,209	19,785	12·5	222	138,555	87·5	1,554	158,340
1923...	2,753	2,080	10,782	3,738	19,353	12·1	215	139,899	87·9	1,553	159,252
1924...	3,144	2,536	11,891	3,342	20,913	12·5	229	146,103	87·5	1,598	167,016
1925...	3,111	2,728	12,890	3,570	22,299	12·6	240	154,632	87·4	1,664	176,931
1926...	3,588	2,284	13,250	3,416	22,538	11·5	238	172,654	88·5	1,827	195,192
1927...	3,388	2,682	14,315	3,607	23,992	10·8	249	196,269	89·2	2,037	220,261
1928...	3,862	2,991	15,233	4,697	26,783	9·7	272	248,399	90·3	2,526	275,182
1929...	4,238	3,529	16,305	5,131	29,203	9·1	291	292,763	90·9	2,919	321,966
1930...	4,513	4,647	19,617	5,333	34,110	9·9	334	311,531	90·1	3,052	345,641
1931...	4,739	5,288	20,649	6,177	36,853	10·0	355	330,235	90·0	3,183	367,088
1932...	4,323	5,194	19,902	7,060	36,479	10·9	347	300,176	89·1	2,857	336,655
1933...	4,266	5,319	20,693	7,808	38,086	11·4	357	294,982	88·6	2,762	333,068
1934...	3,815	5,310	20,255	7,657	37,037	10·6	342	331,197	89·4	3,060	368,234
1935...	4,233	5,178	20,774	8,860	39,045	9·7	357	364,807	90·3	3,336	403,852
1936...	4,660	5,860	21,174	9,335	41,029	9·7	372	379,946	90·3	3,445	420,975
1937...	5,010	5,826	22,803	8,733	42,372	9·1	381	422,704	90·9	3,801	465,076
1938...	5,808	6,631	23,941	12,274	48,654	10·5	434	416,644	89·5	3,717	465,298

The recent trend of total convictions, including those of juveniles, and of sentences imposed is shown by provinces for the years 1932 to 1938 in Table **2.** Death sentences have shown a fairly steady decline over the period. In 1938 there were increases in the number of convictions in Prince Edward Island, Nova Scotia, Ontario, Manitoba, Alberta, and British Columbia.

2.—Convictions and Sentences for All Offences (Juveniles Included), by Provinces, Years Ended Sept. 30, 1932-38.

Province and Item.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island—							
Convictions	909	737	831	1,017	1,051	1,587	1,745
Sentences—							
Penitentiary	18	16	16	7	13	10	9
Gaol or fine	853	688	776	913	989	1,453	1,658
Reformatory	6	4	8	7	9	6	6
Death	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Other	32	29	31	90	40	118	72
Nova Scotia—							
Convictions	4,907	5,432	5,651	6,132	7,157	7,844	8,208
Sentences—							
Penitentiary	152	127	133	123	137	170	202
Gaol or fine	4,129	4,474	4,615	5,239	6,078	6,728	7,190
Reformatory	46	39	79	76	78	80	83
Death	1	3	2	1	Nil	1	Nil
Other	579	789	822	693	864	865	733
New Brunswick—							
Convictions	4,628	4,318	4,400	4,899	5,701	6,834	6,468
Sentences—							
Penitentiary	92	110	70	68	72	80	70
Gaol or fine	4,016	3,519	3,560	3,778	4,769	5,548	5,403
Reformatory	65	63	58	48	46	63	49
Death	Nil	1	1	Nil	2	Nil	3
Other	455	625	711	1,005	812	1,143	943

2.—Convictions and Sentences for All Offences (Juveniles Included), by Provinces, Years Ended Sept. 30, 1932-38—concluded.

Province and Item.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
	No.	No.	No.	No.	No.	No.	No.
Quebec—							
Convictions	121,191	127,416	125,533	130,337	122,932	109,552	102,035
Sentences—							
Penitentiary	803	659	683	761	741	545	825
Gaol or fine	97,702	108,031	108,885	111,752	96,531	87,250	82,695
Reformatory	268	280	229	271	293	225	315
Death	6	5	4	7	5	4	5
Other	22,412	18,441	15,732	17,546	25,362	21,528	18,195
Ontario—							
Convictions	146,393	140,256	175,083	206,169	221,263	254,886	258,238
Sentences—							
Penitentiary	775	826	740	869	901	1,143	1,146
Gaol or fine	95,631	94,968	129,695	150,758	175,738	208,524	215,716
Reformatory	531	261	393	548	2,657	2,622	3,137
Death	6	10	1	3	6	4	6
Other	49,450	44,191	44,254	53,991	41,961	42,593	38,233
Manitoba—							
Convictions	22,343	19,100	20,398	18,649	20,431	31,557	36,023
Sentences—							
Penitentiary	482	251	243	294	305	320	380
Gaol or fine	10,410	7,149	8,546	9,012	11,035	19,308	25,584
Reformatory	163	123	107	117	100	110	76
Death	4	3	3	1	2	Nil	6
Other	11,284	11,574	11,499	9,225	8,989	11,819	9,977
Saskatchewan—							
Convictions	9,687	8,564	8,292	8,007	8,182	10,994	9,909
Sentences—							
Penitentiary	90	54	58	92	171	180	179
Gaol or fine	8,101	7,345	7,124	6,865	6,976	9,569	8,455
Reformatory	21	22	42	42	36	41	40
Death	3	2	3	2	Nil	1	Nil
Other	1,472	1,141	1,065	1,006	999	1,203	1,235
Alberta—							
Convictions	10,853	12,538	11,077	11,202	12,364	14,947	15,032
Sentences—							
Penitentiary	187	152	177	194	371	434	356
Gaol or fine	8,017	9,672	8,513	8,595	9,512	11,603	12,194
Reformatory	8	10	9	15	22	17	18
Death	Nil	Nil	2	1	Nil	2	1
Other	2,641	2,704	2,376	2,397	2,459	2,891	2,463
British Columbia—							
Convictions	15,647	14,602	16,899	17,344	21,793	26,738	27,510
Sentences—							
Penitentiary	291	290	139	248	192	198	252
Gaol or fine	13,185	12,244	14,587	14,015	17,395	22,699	23,385
Reformatory	48	28	42	86	110	129	245
Death	2	Nil	3	Nil	7	Nil	1
Other	2,121	2,040	2,128	2,995	4,089	3,712	3,627
Yukon and N.W.T.—							
Convictions	97	105	70	96	101	137	130
Sentences—							
Penitentiary	2	Nil	1	Nil	2	Nil	Nil
Gaol or fine	84	87	57	81	94	120	113
Reformatory	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Death	1	"	"	"	"	1	"
Other	10	18	12	15	5	16	17
Canada—							
Convictions	**336,655**	**333,068**	**368,234**	**403,852**	**420,975**	**465,076**	**465,298**
Sentences—							
Penitentiary	**2,892**	**2,485**	**2,260**	**2,656**	**2,905**	**3,080**	**3,419**
Gaol or Fine	**242,128**	**248,177**	**286,358**	**311,008**	**329,117**	**372,802**	**382,393**
Reformatory	**1,156**	**830**	**967**	**1,210**	**3,351**	**3,293**	**3,969**
Death	**23**	**24**	**19**	**15**	**22**	**13**	**22**
Other	**90,456**	**81,552**	**78,630**	**88,963**	**85,580**	**85,888**	**75,495**

Appeals in Criminal Cases.—In the calendar year 1938 17·3 p.c. of appeals in criminal cases resulted in the convictions being quashed. In only 5·66 p.c. were new trials directed and 61·3 p.c. of appeals, were dismissed.

3.—Appeals in Criminal Cases, by Provinces, 1938.

Province.	Appeals Disposed of by Courts.	Method of Disposal.			
		Convictions Quashed.	Dismissed.	Varied.	New Trial Directed.
	No.	No.	No.	No.	No.
Prince Edward Island	1	1	Nil	Nil	Nil
Nova Scotia	12	3	8	1	"
New Brunswick	8	1	2	2	3
Quebec	54	4	48	1	1
Ontario	166	31	95	32	8
Manitoba	132	4	94	26	8
Saskatchewan	20	3	10	6	1
Alberta	79	35	29	11	4
British Columbia	47	9	32	4	2
Yukon and Northwest Territories	Nil	-	-	-	-
Supreme Court of Canada	11	1	7	Nil	3
Totals	530	92	325	83	30

Pardons.—The total number of cases in which the prerogative of mercy was exercised during 1938 was 1,555. Forty-eight of these were not imprisoned and received remission or reduction of fines, etc. The number released on ticket of leave was 644, with 888 released unconditionally; 14 previously on ticket of leave had their release made unconditional; 7 death sentences were commuted to life imprisonment; 21 were deported; and 49 fines were remitted or reduced.

Section 2.—Offences of Adults.

The statistics in Table 4 are comparable with those shown for juvenile offenders in Table 18. The separation between adult and juvenile offenders is available only for the years beginning with 1922, but totals of adult offences for the years 1922-32 may be obtained by subtracting those of Table 18 from those of Table 1.

4.—Convictions of Adults for Indictable and Summary Offences, by Class of Offence, Years Ended Sept. 30, 1934-38.

Class of Offence.	NUMBERS.				
	1934.	1935.	1936.	1937.	1938.
Indictable Offences—					
Offences against the person	3,588	3,985	4,457	4,824	5,624
Offences against property with violence	4,238	4,147	4,841	4,604	5,509
Offences against property without violence	16,337	16,600	17,514	19,085	20,267
Other indictable offences	7,521	8,799	9,247	8,635	12,199
Totals, Indictable Offences	31,684	33,531	36,059	37,148	43,599
Summary Offences—					
Gambling Acts	30,699	25,889	40,670	14,360	10,537
Liquor Acts	10,754	8,826	10,073	11,142	12,442
Traffic regulations	217,827	246,123	237,183	288,688	285,951
Vagrancy and loose, idle, and disorderly conduct	11,211	13,610	14,595	16,453	17,602
Drunkenness	20,764	25,643	28,433	34,606	36,894
Frequenting bawdy houses	2,618	2,674	2,725	3,598	3,518
Other summary offences	34,871	39,877	44,027	51,365	47,720
Totals, Summary Offences	328,744	362,642	377,706	420,212	414,664
Grand Totals	**360,428**	**396,173**	**413,765**	**457,360**	**458,263**

4.—Convictions of Adults for Indictable and Summary Offences, by Class of Offence, Years Ended Sept. 30, 1934-38—concluded.

Class of Offence.	PERCENTAGES OF TOTALS AND PER 100,000 OF POPULATION.									
	1934.		1935.		1936.		1937.		1938.	
	P.C. of Total.	Per 100,000 Pop.	P.C. of Total.	Per 100,000 Pop.	P.C. of Total.	Per 100,000 Pop.	P.C. of Total.	Per 100,000 Pop.	P.C. of Total.	Per 100,000 Pop.
Indictable Offences—										
Offences against the person	1·0	33	1·0	37	1·1	41	1·0	44	1·2	50
Offences against property with violence	1·2	39	1·1	38	1·2	44	1·0	41	1·2	49
Offences against property without violence	4·5	152	4·2	152	4·2	158	4·1	171	4·4	181
Other indictable offences	2·1	69	2·2	80	2·2	84	2·0	78	2·7	109
Totals, Indictable Offences	8·8	293	8·5	307	8·7	327	8·1	334	9·5	389
Summary Offences—										
Gambling Acts	8·5	283	6·5	237	9·8	369	3·2	129	2·3	94
Liquor Acts	3·0	99	2·2	81	2·4	91	2·4	100	2·7	111
Traffic regulations	60·4	2,010	62·2	2,251	57·4	2,151	63·1	2,596	62·4	2,551
Vagrancy and loose, idle, and disorderly conduct	3·1	104	3·4	124	3·5	132	3·6	148	3·8	157
Drunkenness	5·8	192	6·4	235	6·9	258	7·6	311	8·1	329
Frequenting bawdy houses	0·7	24	0·7	24	0·7	25	0·8	32	0·8	31
Other summary offences	9·7	322	10·1	364	10·6	399	11·2	463	10·4	426
Totals, Summary Offences	91·2	3,034	91·5	3,316	91·3	3,425	91·9	3,779	90·5	3,699
Grand Totals	**100·0**	**3,327**	**100·0**	**3,623**	**100·0**	**3,752**	**100·0**	**4,113**	**100·0**	**4,088**

Subsection 1.—Convictions of Adults for Indictable Offences.

The progress of a community, from a moral point of view, is often judged by the number of convictions for indictable offences, as these are less affected than non-indictable offences by extraneous circumstances and the varying methods of law enforcement in different areas and in different years. However, in the study of such statistics it is important to have comparable figures over a period of years, and these are set out by provinces for each year since 1911 in Table 5. Again, in Table 7 are shown the numbers of charges and convictions and the percentages of acquittals for the three years ended Sept. 30, 1936-38.

It may be stated that during the thirty-nine year period from 1900 to 1938 crimes increased from 5,768 to 43,599 or 655·9 p.c. The increase in the population during the same period was 111·5 p.c., revealing that the increase in the crime rate was nearly six times that of the population.

5.—Convictions of Adults for Indictable Offences, by Provinces, Years Ended Sept. 30, 1911-38.

NOTE.—For figures for 1900-10, see p. 1016 of the 1933 Year Book.

Year.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon.	N.W.T.	Canada.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1911.....	19	356	123	1,865	5,067	888	957	870	1,015	24	4	11,188
1912.....	11	657	107	2,052	5,456	1,121	1,204	1,513	1,532	26	7	13,686
1913.....	8	598	140	2,336	6,272	1,331	1,594	1,908	1,794	26		16,007
1914.....	18	669	179	2,918	7,479	1,284	1,889	2,235	2,112	27		18,810
1915.....	12	840	206	2,427	7,112	1,362	1,993	2,082	1,517	24		17,575
1916.....	11	519	241	3,166	6,023	914	1,711	1,895	1,503	20		16,003
1917.....	21	427	228	2,667	4,824	755	1,057	894	1,058	22		11,953
1918.....	12	563	230	2,916	6,111	811	1,067	886	659	11		13,266
1919.....	14	663	241	2,960	6,605	919	1,134	1,028	951	5	1	14,520
1920.....	4	580	375	2,517	6,707	987	1,467	1,233	1,212	6		15,088
1921.....	15	712	313	2,654	7,548	1,159	1,220	1,263	1,282	3		16,169
1922.....	27	701	322	2,885	7,021	1,188	1,391	1,171	1,004	10		15,720
1923.....	13	400	148	2,655	6,886	1,094	1,446	1,424	1,116	6		15,188
1924.....	25	595	224	2,729	7,180	1,160	1,647	1,423	1,265	10		16,258
1925.....	3	624	244	3,084	7,751	1,215	1,654	1,254	1,385	2	3	17,219
1926.....	14	752	222	3,053	7,248	1,383	2,052	1,463	1,252	3	6	17,448
1927.....	14	680	287	3,621	7,962	1,457	1,492	1,483	1,833	3	4	18,836
1928.....	43	891	365	4,299	9,052	1,672	1,761	1,701	1,931	5	Nil	21,720
1929.....	55	869	358	4,780	9,489	1,988	1,918	2,201	2,425	8	6	24,097
1930.....	59	875	354	5,540	11,774	2,272	2,355	2,525	2,694	6	3	28,457
1931.....	57	1,184	461	5,737	12,000	3,102	2,716	2,887	3,385	8	5	31,542
1932.....	78	1,072	514	7,086	12,428	2,982	1,893	2,241	3,072	6	11	31,383
1933.....	70	1,160	479	7,713	13,152	2,667	2,049	2,544	3,094	7	7	32,942
1934.....	88	992	525	7,687	11,761	2,571	2,396	2,708	2,946	3	7	31,684
1935.....	59	1,002	576	9,354	12,653	2,382	1,976	2,424	3,088	3	14	33,531
1936.....	75	1,147	744	9,497	13,594	2,631	2,194	3,138	3,021	8	10	36,059
1937.....	98	1,081	759	7,781	14,569	2,839	3,083	3,589	3,331	8	10	37,148
1938.....	225	1,269	912	10,277	17,248	3,041	2,555	3,619	4,443	7	3	43,599

[1] Included with Manitoba, since that part of the N.W.T. from which earlier returns were received was included in Manitoba by the Extension of Boundaries Act, 1912. Later figures are for the present area of the N.W.T.

Multiple Convictions.—The total number of convictions must not be confused with the total number of persons convicted in any one year since an increasing number of persons tried for indictable offences have been convicted for more than one offence at the same trial. The trend of such multiple convictions is interesting to students of sociology.

6.—Numbers of Persons Convicted of More than One Crime at the Time of Trial Compared with the Numbers Convicted of One Crime, Years Ended Sept. 30, 1934-38.

Persons Convicted of—	1934.	1935.	1936.	1937.	1938.
	No.	No.	No.	No.	No.
2 offences	1,281	1,507	2,179	2,177	2,546
3 "	412	406	505	528	624
4 "	211	214	272	296	285
5 "	132	110	146	122	172
6 "	76	76	89	73	107
7 "	63	37	42	77	59
8 "	32	40	23	44	44
9 "	20	16	24	28	23
10 "	14	17	19	15	17
11 to 20 offences	53	61	51	61	73
21 offences or over	4	12	21	18	14
Totals, Convicted of More Than One Crime	2,298	2,496	3,371	3,439	3,964
Totals, Convicted of One Crime	24,076	25,374	25,692	26,296	31,478
Grand Totals	**26,374**	**27,870**	**29,063**	**29,735**	**35,442**

In 1938, each province, with the exception of Saskatchewan and the Territories, showed an increase in the number of convictions for indictable offences.

7.—Charges, Convictions, and Percentages of Acquittals of Adults for Indictable Offences, by Provinces, Years Ended Sept. 30, 1936-38.

Province.	1936.		1937.		1938.		Percentages of Acquittals.		
	Charges.	Convictions.	Charges.	Convictions.	Charges.	Convictions.	1936.	1937.	1938.
	No.	No.	No.	No.	No.	No.			
Prince Edward Island	83	75	122	98	246	225	9·6	19·7	9·3
Nova Scotia	1,389	1,147	1,214	1,081	1,437	1,269	17·4	11·0	13·2
New Brunswick	806	744	826	759	1,013	912	7·7	8·1	11·1
Quebec	10,626	9,497	8,879	7,781	11,549	10,277	10·6	12·4	12·4
Ontario	16,639	13,594	17,896	14,569	21,114	17,248	18·3	18·6	22·4
Manitoba	3,106	2,631	3,428	2,839	3,593	3,041	15·3	17·2	18·1
Saskatchewan	2,491	2,194	3,445	3,083	2,838	2,555	11·9	10·5	11·1
Alberta	3,880	3,138	4,361	3,589	4,269	3,619	19·1	17·7	18·0
British Columbia	3,501	3,021	3,774	3,331	4,924	4,443	13·7	11·7	10·8
Yukon and N.W.T.	20	18	23	18	15	10	10·0	21·7	50·0
Canada	**42,541**	**36,059**	**43,968**	**37,148**	**50,998**	**43,599**	**15·2**	**15·5**	**17·0**

Classes of Indictable Offences and Analyses of Convictions.—Indictable offences are divided under the Canadian system into six main classes, as shown in Table 8. With the exception of Class IV, in which the decrease was slight, each of the classes showed an increase in 1938 over 1937. Convictions for indictable offences in 1938 numbered 43,599, being 17·4 p.c. higher than the 1937 figure of 37,148. Convictions for driving while drunk, which was formerly a non-indictable offence, accounted for 1,877 convictions of this increase; burglary, house- warehouse- and shop-breaking for 865; offences against gambling and lottery Acts 721; theft 707; and assault on and obstructing police 402.

8.—Indictable Offences of Adults, by Classes, Years Ended Sept. 30, 1936-38.

Class and Offence.	1936.		1937.		1938.	
	Charges.	Convictions.	Charges.	Convictions.	Charges.	Convictions.
Class I.—Offences Against the Person.	No.	No.	No.	No.	No.	No.
Abduction	40	17	27	18	33	22
Abortion and attempt	49	27	43	26	46	28
Assault, aggravated	1,476	929	1,408	965	1,558	1,074
Assault, common	2,044	1,577	1,920	1,475	2,012	1,565
Assault on females	131	93	143	101	125	81
Assault on wife	196	157	241	189	244	198
Assault, indecent	306	195	285	184	365	262
Assault on and obstructing police	714	647	1,070	963	1,510	1,365
Bigamy	46	40	71	56	43	34
Blackmail	30	19	26	22	33	28
Carnal knowledge	192	128	187	141	159	108
Cause injury by fast driving	45	28	51	24	51	29
Concealment of birth	8	6	16	15	20	17
Desertion and cruelty to children	16	13	6	2	24	21
Endangering life on railway	17	15	32	30	21	20
Incest	90	75	56	43	81	68
Libel	13	9	11	7	19	12
Manslaughter	126	59	148	44	139	46
Murder	47	22	35	13	45	22
Murder, attempt to commit	37	25	17	12	21	9
Non-support of family	319	194	404	304	601	410
Procuration	54	37	71	43	81	56
Rape	24	9	33	14	53	27
Rape, attempt to commit	12	12	8	7	18	10
Seduction	47	24	38	21	37	19

8.—Indictable Offences of Adults, by Classes, Years Ended Sept. 30, 1936-38 —concluded.

Class and Offence.	1936.		1937.		1938.	
	Charges.	Convictions.	Charges.	Convictions.	Charges.	Convictions.
Class I.—Offences Against the Person —concluded.	No.	No.	No.	No.	No.	No.
Shooting and wounding	144	90	153	99	115	86
Wife desertion	14	10	8	6	12	7
Other offences against the person	1	Nil	Nil	-	Nil	-
Totals, Class I	**6,238**	**4,457**	**6,508**	**4,824**	**7,466**	**5,624**
Class II.—Offences Against Property With Violence.						
Burglary, house- warehouse- and shop-breaking	4,982	4,487	4,690	4,215	5,632	5,080
Robbery and demanding with menaces	454	354	496	389	555	429
Totals, Class II	**5,436**	**4,841**	**5,186**	**4,604**	**6,187**	**5,509**
Class III.—Offences Against Property *Without* Violence.						
Bringing stolen goods into Canada	3	3	6	6	2	2
Embezzlement	180	120	261	190	116	85
False pretences	3,041	2,618	3,423	2,930	3,627	3,123
Feloniously receiving stolen goods	2,258	1,742	2,375	1,762	2,497	1,881
Fraud and conspiracy to defraud	485	395	499	403	681	544
Horse, cattle, and sheep stealing	217	181	180	145	178	138
Theft	12,791	11,026	13,838	11,905	14,635	12,612
Theft of mail	44	43	31	18	33	27
Theft of automobile	1,051	894	1,249	1,135	1,422	1,271
Totals, Class III	**20,070**	**17,022**	**21,862**	**18,494**	**23,191**	**19,683**
Class IV.—Malicious Offences Against Property.						
Arson	131	82	94	62	114	67
Malicious injury to horses and cattle and other wilful damage to property	532	410	658	529	682	517
Totals, Class IV	**663**	**492**	**752**	**591**	**796**	**584**
Class V.—Forgery and Other Offences Against the Currency.						
Offences against the currency	43	31	65	52	38	32
Forgery and uttering forged documents	1,118	1,063	1,259	1,190	1,376	1,287
Totals, Class V	**1,161**	**1,094**	**1,324**	**1,242**	**1,414**	**1,319**
Class VI.—Other Offences Not Included in the Foregoing Classes.						
Driving car while drunk	[1]	[1]	[1]	[1]	1,932	1,877
Breaches of the Trade Marks Act	41	37	31	31	15	12
Attempt to commit suicide	198	163	175	135	207	164
Carrying unlawful weapons	320	280	292	241	319	278
Criminal negligence	159	88	267	127	288	148
Conspiracy	222	143	236	139	415	270
Indecent exposure and other offences against public morals	172	160	224	193	266	241
Intimidation	180	122	143	93	172	121
Keeping bawdy houses and inmates thereof	1,747	1,661	1,934	1,877	2,335	2,248
Offences against gambling and lottery Acts	3,917	3,747	2,889	2,674	3,522	3,395
Offences against Opium and Narcotic Drug Act	184	149	226	209	212	174
Offences against revenue laws	484	453	520	479	747	695
Illicit stills	349	335	499	460	510	440
Perjury and subornation of perjury	166	97	161	107	221	162
Prison breach and escape from prison	245	233	184	180	179	162
Riot and affray	310	249	297	229	287	234
Sodomy and bestiality	159	136	163	134	189	137
Various other misdemeanours	120	100	95	85	128	122
Totals, Class VI	**8,973**	**8,153**	**8,336**	**7,393**	**11,944**	**10,880**
Grand Totals	**42,541**	**36,059**	**43,968**	**37,148**	**50,998**	**43,599**

[1] Classed as a non-indictable offence prior to 1938.

9.—Charges, Acquittals, Convictions, and Sentences in Respect of Indictable Offences, Years Ended Sept. 30, 1932-38.

Item.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
	No.	No.	No.	No.	No.	No.	No.
Charges	37,621	38,927	37,408	39,506	42,541	43,968	50,998
Acquittals	6,206	5,942	5,695	5,934	6,381	6,768	7,346
Persons detained for lunacy	32	43	29	41	101	52	53
Convictions	31,383	32,942	31,684	33,531	36,059	37,148	43,599
Males	28,181	29,465	28,539	30,195	32,689	33,365	39,423
Females	3,202	3,477	3,145	3,336	3,370	3,783	4,176
First convictions	23,841	24,576	22,805	23,844	24,109	24,291	28,536
Second convictions	2,895	3,584	3,219	3,163	3,864	4,273	4,974
Reiterated convictions	4,647	4,782	5,660	6,524	8,086	8,584	10,089
Sentences—							
Option of a fine	8,143	8,973	8,614	9,374	9,593	9,310	11,368
Under one year in gaol	9,307	10,128	10,492	10,631	11,319	12,224	15,115
One year or over in gaol	2,760	2,656	2,391	2,357	1,651	1,506	1,740
Indeterminate	7	4	Nil	Nil	Nil	Nil	Nil
Two years and under five in penitentiary	2,347	2,018	1,902	2,191	2,371	2,434	2,804
Five years or over in penitentiary	536	451	353	462	528	644	608
For life in penitentiary	9	15	5	3	6	2	7
Death	23	24	19	15	22	13	22
Committed to reformatories	376	168	297	467	2,572	2,519	3,122
Other sentences	7,875	8,505	7,611	8,031	7,997	8,496	8,813

Convictions of Females.—Over 9·6 p.c. of all convictions for indictable offences during 1938 were those of females. This is a slight decrease from the 10·2 percentage shown in 1937. Numerically, convictions of females increased from 3,783 in 1937 to 4,176 in 1938.

Convictions of women were a greater percentage of total convictions for 1938 than for 1937 in Prince Edward Island and in British Columbia. Figures for all other provinces showed declines, with the exception of those for Alberta which remained unchanged.

10.—Numbers of Females Convicted of Indictable Offences, by Provinces, Years ended Sept. 30, 1934-38.

Province.	Numbers of Convictions.					Percentages of Totals.				
	1934.	1935.	1936.	1937.	1938.	1934.	1935.	1936.	1937.	1938.
Prince Edward Island	Nil	2	1	5	15	..	3·4	1·3	5·1	6·7
Nova Scotia	66	67	67	78	71	6·7	6·7	5·8	7·2	5·6
New Brunswick	45	39	50	52	59	8·2	6·8	6·7	6·8	6·5
Quebec	1,240	1,533	1,466	1,652	1,880	16·1	16·4	15·4	21·2	18·3
Ontario	955	865	847	983	947	8·1	6·8	6·2	6·7	5·5
Manitoba	233	252	270	273	258	9·1	10·6	10·3	9·6	8·4
Saskatchewan	140	76	86	167	133	5·8	3·9	3·9	5·4	5·2
Alberta	214	140	229	246	246	7·9	5·8	7·3	6·8	6·8
British Columbia	252	362	354	325	567	10·1	11·7	11·7	9·7	12·8
Yukon and N.W.T.	Nil	Nil	Nil	2	Nil	..	..	..	11·1	..
Canada	**3,145**	**3,336**	**3,370**	**3,783**	**4,176**	**9·9**	**9·9**	**9·4**	**10·2**	**9·6**

11.—Convictions for Indictable Offences, Classified by Occupation, Conjugal Condition, Birthplace, Religion, etc., of Person Convicted, Years Ended Sept. 30, 1932-38.

Item.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
	No.	No.	No.	No.	No.	No.	No.
Occupation—							
Agriculture	2,026	2,087	2,267	1,935	2,531	3,286	3,198
Lumbering	101	119	92	85	98	136	194
Fishing	128	98	149	124	181	218	242
Mining	266	313	263	315	368	434	515
Manufacturing and construction	3,379	3,294	3,127	3,305	3,197	3,491	3,696
Transportation	804	786	769	827	1,406	1,424	1,779
Trade	3,221	3,603	3,991	4,875	6,003	5,052	6,112
Domestic service	4,034	4,311	3,436	3,858	3,777	4,187	3,862
Public service	[1]	[1]	[1]	[1]	445	415	376
Professional service	204	191	196	179	169	156	210
Labouring	11,072	10,911	10,077	11,773	13,470	14,325	16,400
Students	[1]	[1]	[1]	[1]	647	733	806
Unemployed	[1]	[1]	[1]	[1]	1,170	1,477	2,216
Not given	6,148	7,229	7,317	6,255	2,597	1,814	3,993
Totals	**31,383**	**32,942**	**31,684**	**33,531**	**36,059**	**37,148**	**43,599**
Conjugal Condition—							
Married	9,801	10,657	10,731	11,197	12,392	12,835	13,787
Single	17,464	17,424	16,074	18,710	20,759	22,061	25,017
Widowed	525	485	485	515	581	642	823
Divorced	12	11	9	7	23	33	23
Not given	3,581	4,365	4,385	3,102	2,304	1,577	3,949
Educational Status—							
Unable to read or write	595	485	378	369	375	332	487
Elementary	26,247	27,904	26,498	29,756	34,339	35,461	39,594
Superior	454	407	527	388	575	791	703
Not given	4,087	4,146	4,281	3,018	770	564	2,815
Age—							
16 years and under 21	6,718	7,050	6,130	6,097	6,875	7,503	8,492
21 years and under 40	16,419	19,445	16,496	18,180	19,244	20,446	22,751
40 years or over	5,008	5,657	5,667	6,058	6,948	7,215	8,019
Not given	3,238	790	3,391	3,196	2,992	1,984	4,337
Use of Liquors—							
Moderate	22,498	23,938	22,809	26,827	30,561	32,838	35,625
Immoderate	2,749	2,645	2,199	2,528	3,487	3,637	5,702
Not given	6,136	6,359	6,676	4,176	2,011	673	2,272
Birthplace—							
England or Wales	2,098	1,659	1,394	1,503	1,518	1,548	1,619
Ireland	412	456	382	393	368	449	477
Scotland	737	761	643	678	813	772	894
Canada	19,899	21,522	21,176	23,082	26,751	28,082	31,601
Other British possessions	122	145	273	140	132	147	206
United States	934	896	781	703	1,116	818	948
Other foreign countries	3,387	3,844	3,556	3,614	3,536	3,880	3,960
Not given	3,794	3,659	3,479	3,418	1,825	1,452	3,894
Religion—							
Baptist	780	705	679	856	837	1,045	1,081
Church of England	3,118	2,961	2,865	3,024	3,323	4,103	4,321
Jewish	687	606	622	807	538	486	646
Methodist[2]	442	449	377	346	268	254	Nil
Presbyterian	2,358	2,277	1,927	1,945	2,004	2,430	2,749
Roman Catholic	11,221	12,088	11,271	13,341	15,464	15,678	17,854
United Church	2,321	2,212	2,230	2,356	2,887	3,567	4,099
Other Protestant	3,943	4,528	4,447	4,684	4,747	3,724	4,464
Other denominations	2,489	2,806	2,373	2,555	3,129	4,040	4,179
Not given	4,024	4,310	4,893	3,617	2,862	1,821	4,206
Residence—							
Cities and towns	24,547	22,395	24,718	26,203	27,749	28,247	33,611
Rural districts	6,490	7,260	6,801	6,952	8,310	8,901	9,988
Not given	346	3,287	165	376	Nil	Nil	Nil

[1] Not reported separately prior to 1936. [2] Notwithstanding the fact that the United Church of Canada was completely organized in 1926, these persons still reported themselves as Methodists.

Recidivism.—The number of those offenders who relapse into crime after a first conviction has been steadily increasing. The number of first offenders convicted for indictable offences has decreased from 72·0 p.c. of the total convictions for this class of offence in 1934 to 65·5 p.c. in 1938.

12.—Numbers and Percentages of First Offences, Second Offences, and Reiterated Offences of an Indictable Nature, Years Ended Sept. 30, 1934-38.

Class of Offence.	Numbers of Convictions.					Percentages of Totals.				
	1934.	1935.	1936.	1937.	1938.	1934.	1935.	1936.	1937.	1938.
First	22,805	23,844	24,109	24,291	28,536	71·98	71·11	66·86	65·38	65·45
Second	3,219	3,163	3,864	4,273	4,974	10·16	9·43	10·72	11·50	11·41
Reiterated	5,660	6,524	8,086	8,584	10,089	17·86	19·46	22·42	23·12	23·14
Totals	**31,684**	**33,531**	**36,059**	**37,148**	**43,599**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**

Subsection 2.—Summary Convictions of Adults.

The following statistics relate to non-indictable offences committed by adults (persons 16 years of age or over) and disposed of by police magistrates or other justices of the peace, under authority of the Summary Convictions Act. Such convictions numbered 414,664 during the year ended Sept. 30, 1938, a decrease of 5,548, or 1·3 p.c., as compared with 1937. Decreases were shown in New Brunswick, Quebec, Saskatchewan, British Columbia and Yukon; each of the other provinces showed an increase.

13.—Summary Convictions of Adults, by Provinces, Years Ended Sept. 30, 1911-38.

NOTE.—For figures for 1900-10, see p. 1020 of the 1933 Year Book.

Year.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon.	N.W.T.	Canada.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1911..	375	5,306	2,766	17,729	34,871	12,366	7,317	9,350	10,380	145	28	100,633
1912..	437	5,920	3,022	24,335	42,104	13,985	9,184	15,254	16,472	163	84	130,960
1913..	443	6,353	3,136	29,714	51,396	16,513	11,711	17,513	17,882	157		154,818
1914..	498	6,613	2,872	30,563	56,874	14,840	11,854	16,806	20,481	196		161,597
1915..	346	5,774	2,833	24,152	49,942	11,266	9,650	12,331	15,993	143		132,430
1916..	405	5,924	2,664	20,767	41,732	7,826	9,287	9,526	6,344	156		104,631
1917..	323	4,700	2,564	22,560	42,655	7,065	6,007	5,726	6,768	84		98,452
1918..	209	4,794	1,611	25,374	46,448	7,298	6,536	6,744	6,821	64	1	105,899
1919..	236	5,533	2,447	30,881	44,587	8,128	6,180	5,961	7,638	32		111,623
1920..	340	5,790	3,405	40,801	55,049	11,093	6,523	7,219	13,996	49		144,265
1921..	373	4,639	2,680	45,042	63,874	9,563	6,137	8,571	14,460	37		155,376
1922..	309	3,332	2,281	31,441	63,015	9,530	6,876	7,766	11,720	52		136,322
1923..	321	3,033	2,179	27,563	64,639	11,377	8,346	8,359	11,639	37		137,493
1924..	232	3,355	2,499	22,803	73,768	11,189	7,274	8,342	13,508	29		142,999
1925..	235	2,790	2,417	25,364	79,470	10,724	8,020	7,840	14,875	29	61	151,825
1926..	345	3,568	2,418	24,428	90,061	13,913	8,614	8,142	18,337	45	42	169,913
1927..	392	4,362	2,565	28,732	101,345	16,420	8,243	8,801	22,292	54	34	193,240
1928..	662	4,499	3,031	29,302	146,586	19,921	9,108	10,927	21,598	72	57	245,763
1929..	783	6,231	4,032	51,099	153,385	26,536	11,413	13,939	22,499	94	32	290,043
1930..	906	6,299	4,072	60,098	163,913	26,879	11,574	12,904	21,989	86	39	308,759
1931..	838	5,324	4,533	99,381	153,451	22,625	10,691	13,113	17,671	80	71	327,778
1932..	825	3,573	3,841	112,132	131,374	18,218	7,538	8,180	12,148	55	25	297,909
1933..	655	3,922	3,483	117,433	124,589	15,396	6,355	9,698	11,051	68	23	292,673
1934..	733	4,216	3,598	115,313	160,895	16,985	5,680	7,896	13,369	28	31	328,744
1935..	924	4,818	3,968	118,499	190,763	15,685	5,749	8,398	13,759	41	38	362,642
1936..	956	5,593	4,691	111,254	204,744	17,476	5,750	8,810	18,349	58	25	377,706
1937..	1,438	6,249	5,706	99,404	237,309	28,500	7,580	10,910	22,997	62	57	420,212
1938..	1,497	6,552	5,299	89,443	238,224	32,748	7,113	10,973	22,695	60	60	414,664

[1] Included with Manitoba, since that part of the N.W.T. from which earlier returns were received was included in Manitoba by the Extension of Boundaries Act, 1912. Later figures are for the present area of the N.W.T.

The marked increase in the past nine or ten years has been due almost entirely to breaches of traffic regulations, which have risen from 96,340 in 1927 to 285,951* in 1938, or from 50 p.c. to nearly 69 p.c. of the total summary convictions. Drunkenness; offences against fishery and game Acts, Inspection and Sales Act, masters and servants Acts, railway Acts, revenue laws and liquor Acts; non-payment of wages; contributing to delinquency of children; and vagrancy, all showed increases in convictions in 1938 over 1937. Offences against gambling Acts, breaches of traffic regulations, and breaches of by-laws showed substantial decreases.

* Exclusive of 1,877 convictions for driving car while drunk. This offence, formerly included under breaches of traffic regulations, was, in 1938, classed as an indictable offence. (See Table 8.)

14.—Summary Convictions, by Type of Offence, Years Ended Sept. 30, 1934-38.

Offence.	1934.	1935.	1936.	1937.	1938.	Increase or Decrease 1937-38.
	No.	No.	No.	No.	No.	No.
Assault	3,777	3,690	3,433	3,508	3,236	−272
Carrying fire-arms and unlawful weapons	280	258	388	323	418	+95
Contempt of court	13	66	116	37	34	−3
Cruelty to animals	305	263	259	266	206	−60
Disturbing religious and like meetings	14	19	43	48	24	−24
Fishery and game Acts, offences against	1,442	1,724	2,149	2,500	2,704	+204
Gambling Acts, offences against	30,699	25,889	40,670	14,360	10,537	−3,823
Immigration Act, offences against	29	24	28	19	23	+4
Inspection and Sales Act, offences against	423	399	340	272	488	+216
Adulteration of food (food and drugs Acts)	202	244	201	321	100	−221
Weights and measures Acts, offences against	181	379	361	331	213	−118
Liquor, prohibition and temperance Acts, offences against	10,754	8,826	10,073	11,142	12,442	+1,300
Malicious or wilful damage to property	729	790	785	806	902	+96
Masters and servants Acts, offences against	205	224	292	353	845	+492
Non-payment of wages	1,246	1,540	1,385	1,489	1,718	+229
Breaches of traffic regulations	217,827	246,123	237,183	288,688	285,951[1]	−2,737[1]
Breaches of by-laws	15,098	17,646	20,456	25,414	21,914	−3,500
Non-support of family and neglecting children	1,435	1,415	1,607	2,062	1,574	−488
Contributing to delinquency of children	939	862	1,033	931	1,335	+404
Opium and Narcotic Drug Act, various offences against	69	29	32	11	9	−2
Profanation of the Lord's Day	994	869	1,087	1,426	978	−448
Railway Acts, various offences against	1,297	1,150	959	731	948	+217
Trespass on railway	565	713	588	565	522	−43
Stealing ride on railway	1,076	1,017	524	388	394	+6
Revenue laws, offences against	923	2,604	3,345	4,011	4,267	+256
Trespass	518	381	505	560	557	−3
Vagrancy	6,424	7,966	7,416	8,744	9,273	+529
Drunkenness	20,764	25,643	28,433	34,606	36,894	+2,288
Insulting, obscene, and profane language	163	180	347	144	126	−18
Frequenting bawdy houses	2,618	2,674	2,725	3,598	3,518	−80
Loose, idle, disorderly conduct and disturbing the peace	4,928[2]	5,777	7,515	8,623[2]	8,458	−165
Various other offences	2,807[2]	3,258	3,428	3,935[2]	4,056	+121
Totals	**328,744**	**362,642**	**377,706**	**420,212**	**414,664**	**−5,548**

[1] See footnote* at end of text above this table.

[2] Revised since the publication of the 1939 Year Book.

Convictions for Drunkenness.—The number of summary convictions for drunkenness in Canada in 1938 was 36,894, an increase of 6·6 p.c. over 1937. This was the highest point reached since 1929, when 38,826 convictions were recorded. Maximum figures were attained in the years 1913 and 1914; during the War of 1914-18 there was an appreciable reduction and since then, while figures have fluctuated, they have not approximated the former high levels.

15.—Convictions for Drunkenness, by Provinces, Years Ended Sept. 30, 1911-38.

NOTE.—For figures for 1900-10, see p. 1021 of the 1933 Year Book.

Year.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon.	N.W.T.	Canada.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1911.....	238	3,149	1,944	6,805	11,347	5,832	2,359	4,041	5,594	63	7	41,379
1912.....	309	3,693	2,116	9,863	12,785	6,925	2,462	6,657	8,275	72	14	53,171
1913.....	324	3,955	2,073	12,265	16,236	7,493	2,970	7,283	8,316	60	[1]	60,975
1914.....	342	3,999	1,765	12,776	17,703	6,193	2,142	5,710	9,376	61	[1]	60,067
1915.....	231	3,436	1,694	8,939	12,553	4,154	1,332	2,802	5,960	60	[1]	41,161
1916.....	219	3,614	1,696	7,108	11,728	3,114	1,062	1,809	2,327	53	[1]	32,730
1917.....	207	2,546	1,516	8,025	10,945	1,085	770	391	2,372	25	[1]	27,882
1918.....	96	2,435	704	6,680	7,932	1,123	434	825	778	19	[1]	21,026
1919.....	116	2,879	1,350	7,116	8,498	1,570	618	1,057	1,004	9	1	24,217
1920.....	120	3,140	1,882	11,863	15,021	2,330	919	1,536	2,948	10	[1]	39,769
1921.....	144	2,156	1,264	9,944	14,498	1,429	708	1,838	2,379	2	[1]	34,362
1922.....	162	1,492	1,088	7,103	10,063	1,623	816	1,608	1,081	12	[1]	25,048
1923.....	164	1,392	1,074	6,260	11,370	1,680	884	1,277	1,443	21	[1]	25,565
1924.....	94	1,456	1,176	6,146	12,993	1,948	505	1,464	1,545	11	[1]	27,338
1925.....	112	1,466	1,171	6,342	11,811	1,948	668	1,374	1,844	9	6	26,751
1926.....	168	1,898	1,234	5,364	13,752	1,871	487	1,413	2,114	6	10	28,317
1927.....	182	2,053	1,397	7,000	14,334	1,883	618	1,182	2,496	26	Nil	31,171
1928.....	263	2,176	1,285	6,362	15,931	1,863	1,014	1,538	2,758	34	"	33,224
1929.....	406	3,284	1,814	8,328	17,620	1,830	794	1,810	2,898	42	"	38,826
1930.....	393	3,236	1,706	7,649	15,970	1,392	674	1,551	3,183	35	"	35,789
1931.....	446	2,137	1,541	7,461	12,404	1,089	466	1,191	2,372	41	"	29,148
1932.....	355	1,402	1,142	5,913	10,388	1,023	319	908	1,195	19	"	22,664
1933.....	297	1,478	1,127	4,575	8,724	737	286	589	1,068	28	1	18,910
1934.....	401	1,486	1,505	4,776	9,060	826	304	609	1,781	12	4	20,764
1935.....	475	1,933	1,755	4,705	12,386	1,054	379	692	2,230	29	5	25,643
1936.....	558	2,221	2,187	5,332	13,049	1,125	418	785	2,734	21	3	28,433
1937.....	559	2,577	2,809	7,544	15,960	1,050	425	929	2,720	14	19	34,606
1938.....	595	2,628	2,730	7,220	17,585	1,286	848	922	3,053	17	10	36,894

[1] Included with Manitoba, since that part of the N.W.T. from which earlier returns were received was included in Manitoba by the Extension of Boundaries Act, 1912. Later figures are for the present area of the N.W.T.

Offences Against the Liquor Acts.—Until the War of 1914-18, alcoholic liquors were generally sold under specified conditions by licensed hotels or licensed shops. Offences against the liquor Acts usually represented a breach of the conditions of sale. During the War, prohibition was generally established but in more recent years the tendency has been for the Provincial Governments to take over the sale of liquor through commissions and derive revenue therefrom (see pp. 626-630). Eight of the nine provinces now have their liquor commissions, Prince Edward Island

being the only province in which prohibition prevails. In 1929, the number of convictions for offences against the liquor Acts reached the highest figure on record, viz., 19,327, but had decreased to 12,442 for 1938.

16.—Convictions for Offences Against the Liquor Acts, by Provinces, Years Ended Sept. 30, 1911-38.

NOTE.—For figures for 1900-10, see p. 1022 of the 1933 Year Book.

Year.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon.	N.W.T.	Canada.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1911.....	38	592	278	1,032	1,759	46	240	423	318	33	16	4,775
1912.....	36	551	361	859	2,117	85	366	605	625	40	26	5,671
1913.....	26	502	447	791	2,167	166	528	560	741	41		5,969
1914.....	72	660	365	882	2,328	166	404	551	394	49		5,871
1915.....	42	633	390	1,021	2,018	124	378	573	246	27		5,452
1916.....	75	646	352	1,015	2,002	172	967	713	295	11		6,248
1917.....	36	449	312	1,076	2,927	289	774	885	576	15		7,339
1918.....	42	412	288	1,155	3,410	230	422	678	812	23		7,472
1919.....	37	479	387	1,479	3,353	175	434	436	597	6	1	7,383
1920.....	23	394	585	1,975	4,385	380	452	618	1,427	8		10,247
1921.....	44	362	419	1,384	4,938	427	583	907	1,394	2		10,460
1922.....	28	267	366	954	3,246	392	708	1,043	1,503	12		8,519
1923.....	39	264	364	1,724	3,958	542	997	990	1,196	14		10,088
1924.....	29	293	375	1,549	4,678	452	966	817	1,286	4		10,449
1925.....	51	235	319	1,919	5,047	512	1,078	758	1,699	9	9	11,636
1926.....	53	499	393	2,104	6,362	786	1,231	737	1,345	2	Nil	13,512
1927.....	66	610	271	2,025	5,620	627	1,245	814	1,186	13	"	12,477
1928.....	69	688	478	2,096	7,812	598	1,174	944	1,350	22	32	15,263
1929.....	81	804	486	3,392	9,034	1,399	1,542	1,017	1,556	8	8	19,327
1930.....	98	532	469	3,043	8,995	1,180	1,392	970	1,432	14	7	18,132
1931.....	52	588	541	2,956	8,044	1,144	1,042	888	907	13	10	16,185
1932.....	50	353	489	2,379	6,057	900	629	557	790	14	8	12,226
1933.....	52	586	559	1,755	5,067	708	553	410	782	13	4	10,489
1934.....	80	750	622	2,325	4,324	826	543	452	820	3	9	10,754
1935.....	79	699	567	1,776	3,225	792	506	472	692	8	10	8,826
1936.....	37	698	610	1,252	4,185	940	570	784	965	24	8	10,073
1937.....	166	706	596	1,376	4,788	849	734	1,018	874	28	7	11,142
1938.....	333	794	487	1,837	5,873	886	606	810	793	16	7	12,442

[1] See footnote to Table 15, p. 1045.

Breaches of Traffic Regulations.—Convictions for breaches of traffic regulations (Table 17), which at the beginning of the century numbered only 185 in all Canada, have, as a result of the growing density and increasing use of motor vehicles, become the largest element in the non-indictable offences. Such convictions represented, in 1938, 69 p.c. of the total of 414,664 (see Table 14) summary convictions —a decrease of 2,737 as compared with 1937, largely accounted for by the fact that driving a car while drunk was, in 1938, classed as an indictable offence. Convictions for this offence, which in previous years were included under breaches of traffic regulations, numbered 1,877 in 1938.

17.—Convictions for Breaches of Traffic Regulations, by Provinces, Years Ended Sept. 30, 1911-38.

NOTE.—For figures for 1900-10, see p. 1023 of the 1933 Year Book.

Year.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon.	Canada.[1]
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1911.....	19	86	17	267	3,376	1,116	96	139	661	Nil	5,777
1912.....	8	97	24	1,806	5,928	1,778	215	838	1,768	"	12,462
1913.....	9	83	5	3,373	6,697	3,030	248	672	1,883	"	16,000
1914.....	7	176	69	2,643	4,717	2,419	410	754	2,051	"	13,246
1915.....	6	62	101	1,509	4,494	1,865	204	503	1,804	1	10,549
1916.....	7	228	57	2,146	5,577	1,043	321	380	615	7	10,381
1917.....	13	324	54	1,677	9,854	2,619	441	533	813	10	16,338
1918.....	17	523	80	3,505	12,206	2,700	418	736	995	1	21,181
1919.....	15	509	62	4,971	13,374	3,123	863	701	1,677	1	25,296
1920.....	129	600	49	11,499	19,708	4,987	744	1,673	3,780	1	43,170
1921.....	109	443	87	12,335	26,860	4,995	700	1,845	4,412	2	51,788
1922.....	38	289	315	3,344	31,813	4,968	1,112	1,996	4,101	1	47,977
1923.....	36	397	196	1,746	33,402	6,182	1,246	2,514	4,095	1	49,815
1924.....	49	350	237	3,818	40,530	6,412	1,282	2,301	5,084	Nil	60,063
1925.....	27	200	281	4,976	44,618	5,971	1,375	1,940	4,389	1	63,778
1926.....	64	263	180	5,534	52,727	8,588	1,730	2,059	6,882	Nil	78,027
1927.....	69	402	244	6,418	62,037	10,871	1,610	2,459	12,268	2	96,380
1928.....	228	462	516	6,273	101,356	14,099	2,100	3,481	12,976	2	141,493
1929.....	152	859	887	19,427	105,703	19,460	3,643	5,612	10,592	2	166,337
1930.....	212	831	757	28,633	115,073	20,672	3,727	4,903	10,776	Nil	185,584
1931.....	95	999	1,200	64,611	111,718	16,556	4,259	5,070	7,851	2	212,361
1932.....	174	643	842	70,253	94,188	13,251	2,811	2,755	5,743	Nil	190,660
1933.....	82	628	693	72,464	91,521	11,021	1,859	3,282	5,298	"	186,848
1934.....	57	638	528	64,429	128,604	12,725	1,624	2,819	6,403	"	217,827
1935.....	101	760	609	69,671	153,142	11,664	1,720	2,669	5,787	"	246,123
1936.....	77	1,099	720	46,464	162,951	12,900	1,839	2,817	8,315	1	237,183
1937.....	252	1,179	1,011	57,174	186,825	23,711	2,706	3,536	12,294	Nil	288,688
1938.....	200	1,572	835	52,395	185,709	26,682	2,939	4,068	11,550	1	285,951[2]

[1] No convictions were reported for the Northwest Territories. [2] Exclusive of 1,877 convictions for driving a car while drunk. This offence, formerly included under breaches of traffic regulations, was, in 1938, classed as an indictable offence. (See Table 8.)

For the year 1938, Ontario, which had 48 p.c. of the registrations of motor vehicles in Canada (see p. 665), had 65 p.c. of the total convictions; Quebec in the same year had 15 p.c. of the motor vehicles and 18 p.c. of the convictions; and Manitoba 6 p.c. of the motor vehicles and 9 p.c. of the convictions. In interpreting the figures in this way, however, it should be pointed out that traffic regulations are by no means uniform throughout Canada and no account is taken of the differences in the degrees of urbanization in the provinces. Thus, the above three provinces contain large centres of population, while in the Maritime Provinces, Saskatchewan, and Alberta, with lower degrees of urbanization, convictions were low in proportion to the number of motor vehicles registered.

Sex of Offenders.—Between 1926 and 1938 the numbers of females convicted of summary offences increased by 140·9 p.c. In proportion to the numbers of male offenders, however, they showed very small increase, only 6·4 p.c. of the offenders convicted summarily in 1938 being females, as against 6·1 p.c. in 1926. By sexes, the summary convictions appear as follows: 1926—males 159,528, females 10,385; 1927—males 182,392, females 10,848; 1928—males 232,554, females 13,209; 1929—males 274,977, females 15,066; 1930—males 292,557, females 16,202; 1931—males

312,111, females 15,667; 1932—males 281,318, females 16,591; 1933—males 275,229, females 17,444; 1934—males 311,542, females 17,202; 1935—males 339,494, females 23,148; 1936—males 355,772, females 21,934; 1937—males 395,699, females 24,513; 1938—males 389,648, females 25,016.

Section 3.—Juvenile Delinquency.

The terms 'indictable' and 'non-indictable' are applied only to offences of adults, similar offences committed by juveniles (persons under 16 years of age) being termed 'major' offences and 'minor' offences, respectively.

Table 18 shows the numbers of convictions of juveniles for all offences, classified as major and minor offences, for the judicial years 1922-38. No separation by class of offence is available for earlier years. The rates per 100,000 population in this table apply to the total population, estimates of population by age not being generally available for intercensal years. Between 1930 and 1938, a definite upward trend is discernible in the column of percentage of major offences to all offences, but, when studied in relation to population growth, both major offences and minor offences have shown definite improvement since 1930.

18.—Convictions of Juveniles for All Offences, Showing Major and Minor Offences, Years Ended Sept. 30, 1922-38.

NOTE.—In this table "Property Without Violence" includes Classes III and IV and "Other Major Offences" includes Classes V and VI of Table 8, p. 1040.

Year.	Major Offences.							Minor Offences, Total and Ratios.			Grand Total Delinquents.
	Offences Against—			Other Major Offences.	Major Offences, Total and Ratios.						
	The Person.	Property With Violence.	Property Without Violence.								
	No.	No.	No.	No.	No.	P.C. of All Offences.	Per 100,000 Pop.	No.	P.C. of All Offences.	Per 100,000 Pop.	No.
1922...	172	806	3,001	86	4,065	64·6	46	2,233	35·4	25	6,298
1923...	179	755	3,204	27	4,165	63·4	46	2,406	36·6	27	6,571
1924...	221	818	3,510	106	4,655	60·0	51	3,104	40·0	34	7,759
1925...	207	794	3,899	180	5,080	64·4	55	2,807	35·6	31	7,887
1926...	220	659	4,053	158	5,090	65·0	54	2,741	35·0	29	7,831
1927...	179	772	4,109	96	5,156	63·0	54	3,029	37·0	32	8,185
1928...	184	824	3,902	153	5,063	64·4	51	2,636	35·6	27	7,699
1929...	223	976	3,786	121	5,106	65·2	51	2,720	34·8	27	7,826
1930...	199	951	4,419	84	5,653	67·1	55	2,772	32·9	27	8,425
1931...	256	961	3,938	156	5,311	68·5	51	2,457	31·5	24	7,768
1932...	232	927	3,799	138	5,096	69·2	49	2,267	30·8	22	7,363
1933...	247	972	3,825	100	5,144	69·0	48	2,309	31·0	22	7,453
1934...	227	1,072	3,918	136	5,353	68·6	49	2,453	31·4	23	7,806
1935...	248	1,031	4,174	61	5,514	71·8	50	2,165	28·2	20	7,679
1936...	203	1,019	3,660	88	4,970	68·9	45	2,240	31·1	20	7,210
1937...	186	1,222	3,718	98	5,224	67·7	47	2,492	32·3	22	7,716
1938...	184	1,122	3,674	75	5,055	71·9	45	1,980	28·1	18	7,035

19.—Convictions of Juveniles for Major and Minor Offences, by Provinces and Sex, Years Ended Sept. 30, 1937 and 1938.

Province.	Major Offences.				Minor Offences.			
	Males.		Females.		Males.		Females.	
	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.
	No.	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island	44	20	2	1	4	2	1	Nil
Nova Scotia	328	262	16	21	148	79	22	25
New Brunswick	262	217	14	7	86	33	7	Nil
Quebec	1,350	1,319	42	38	683	661	292	297
Ontario	1,955	2,084	61	78	906	492	86	112
Manitoba	184	206	12	16	15	11	7	1
Saskatchewan	301	221	10	4	19	16	1	Nil
Alberta	332	286	12	12	97	136	7	6
British Columbia	287	257	12	6	93	85	18	24
Canada[1]	**5,043**	**4,872**	**181**	**183**	**2,051**	**1,515**	**441**	**465**

[1] No convictions were reported for the Territories.

While, officially, juveniles are persons under 16 years of age, public interest in the question of offences committed by 'young persons' has greatly increased in recent years, and, in response to this interest, the following table has been compiled, in which the convictions for indictable offences of persons aged 16 and under 21 have been added to the figures of juveniles found guilty of major offences. The rates per 100,000 population are the proportion of the offences committed by persons in any one age group, the figures of population being taken from the decennial censuses, except in the case of the two latest years, for which the population in each age group is the officially estimated population.

It will be observed that the age group 16 to under 21 years shows a much higher crime rate than the juvenile group (7 to under 16 years) or the total young persons group (7 to under 21 years). For 1911, the 16 to under 21 group shows a rate per 100,000 population of the same age which is 127 greater than that shown for juveniles and 83 greater than the general rate for young persons; for 1921, the proportion is 227 per 100,000 greater than the juvenile rate and 155 greater than the young persons rate; by 1931 the rate had increased to 359 greater than the juvenile rate and 236 greater than the young persons rate. In the three latest years the rate of this group continued to rise, reaching 523 convictions per 100,000 over the juvenile rate and 334 over the young persons rate in 1938.

20.—Convictions of Juveniles for Major Offences and of Adults Aged 16-21 for Indictable Offences, by Age Groups and Rates per 100,000 Population of the Same Ages, Years Ended Sept. 30, 1911, 1921, 1931, and 1936-38.

Year.	Convictions of Persons 7 to Under 16 Years of Age (Juveniles).	Convictions of Persons 16 to Under 21 Years of Age.	Total Convictions of Persons 7 to Under 21 Years of Age.	Rates per 100,000 Population.		
				7 to Under 16 Years.	16 to Under 21 Years.	7 to Under 21 Years.
1911	1,439	1,640	3,079	111	238	155
1921	3,247	3,288	6,535	192	419	264
1931	5,311	6,453	11,764	271	630	394
1936	4,970	6,875	11,845	247	664	389
1937	5,224	7,503	12,727	265	708	419
1938	5,055	8,492	13,547	263	786	452

Major Offences.—In Table **21** are shown the various major offences for which juvenile delinquents were convicted from 1931 to 1938. It will be observed that theft and receiving stolen goods; breaking, entering, and theft; and other wilful damage to property account for the great bulk of the offences; in 1938, 94 p.c. of the major offences were of this character.

21.—Juvenile Delinquents Convicted of Major Offences, by Type of Offence, Years Ended Sept. 30, 1931-38.

Offence.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
	No.	No.	No.	No.	No.	No.	No.	No.
Murder	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Manslaughter	1	"	1	"	"	1	"	"
Rape, carnal knowledge, and incest.	8	5	8	15	8	10	8	5
Indecent assault	42	34	28	24	29	31	32	41
Aggravated assault and wounding..	52	68	16	36	60	24	31	32
Common assault	119	104	139	115	98	102	83	68
Endangering life on railway	32	17	50	31	48	30	27	30
Other offences against the person...	2	4	5	6	5	5	5	8
Breaking, entering, and theft	948	914	957	1,071	1,022	1,015	1,204	1,110
Robbery	13	13	15	1	9	4	18	12
Theft and receiving stolen goods...	3,139	3,093	3,155	3,094	3,548	3,094	3,128	3,043
False pretences and fraud	11	9	9	20	14	12	14	19
Arson	39	19	24	28	13	15	10	10
Other wilful damage to property...	749	676	637	776	599	539	565	602
Forgery and offences against the currency	10	11	4	11	12	11	10	9
Immorality	109	85	72	73	35	52	48	45
Various other offences	37	44	24	52	14	25	41	21
Totals	**5,311**	**5,096**	**5,144**	**5,353**	**5,514**	**4,970**	**5,224**	**5,055**

Recidivism.—The number of juvenile delinquents who have previously appeared before a court has generally increased although the fluctuations between individual years are rather wide over the period for which figures are available. As shown in Table **22**, nearly a third of the juveniles convicted of major offences in 1938 had previously been found guilty, as compared with less than a fourth of those convicted of similar offences in 1929.

22.—Juvenile Offenders Convicted of Major Offences, and Number of Times Convicted, Years Ended Sept. 30, 1929-38.

Year.	Times Convicted.					Total Offenders.	Total 'Repeaters'.	P.C. of 'Repeaters' to Total Offenders.
	First.	Second.	Third.	Fourth.	Fifth or Over.			
1929	3,918	425	287	165	311	5,106	1,188	23·27
1930	4,354	527	296	169	307	5,653	1,299	22·98
1931	4,013	540	308	158	292	5,311	1,298	24·48
1932	3,660	597	323	199	317	5,096	1,436	28·18
1933	3,787	586	339	145	287	5,144	1,357	26·38
1934	3,907	617	357	177	295	5,353	1,446	27·01
1935	4,053	674	397	185	205	5,514	1,461	26·50
1936	3,446	721	353	203	247	4,970	1,524	30·66
1937	3,637	787	359	197	244	5,224	1,587	30·38
1938	3,537	767	357	144	250	5,055	1,518	30·05

Minor Offences.—From Table 23 it will be seen that there was a decrease of 22 p.c. in the number of convictions for minor offences in 1938 as compared with 1937.

23.—Convictions of Juveniles for Minor Offences, by Type of Offence, Years Ended Sept. 30, 1934-38.

Class of Offence.	NUMBERS.				
	1934.	1935.	1936.	1937.	1938.
Breach of traffic regulations	174	107	159	193	201
Disorderly conduct and disturbing the peace	567	312	476	428	312
Incorrigibility	574	495	530	702	677
Truancy	268	234	277	274	264
Vagrancy and wandering away from home	225	301	203	117	77
Other minor offences	645	716	595	778	449
Totals	**2,453**	**2,165**	**2,240**	**2,492**	**1,980**

	PERCENTAGES OF TOTAL AND PER 100,000 OF POPULATION.									
	1934.		1935.		1936.		1937.		1938.	
	P.C. of Total.	Per 100,000 Pop.	P.C. of Total.	Per 100,000 Pop.	P.C. of Total.	Per 100,000 Pop.	P.C. of Total.	Per. 100,000 Pop.	P.C. of Total.	Per 100,000 Pop.
Breach of traffic regulations	2·2	2	1·4	1	2·2	1	2·5	2	2·9	2
Disorderly conduct and disturbing the peace	7·3	5	4·1	3	6·6	4	5·5	4	4·4	3
Incorrigibility	7·3	5	6·4	5	7·4	5	9·1	6	9·6	6
Truancy	3·4	3	3·1	2	3·8	3	3·6	2	3·8	2
Vagrancy and wandering away from home	2·9	2	3·9	2	2·8	2	1·5	1	1·1	1
Other minor offences	8·3	6	9·3	7	8·3	5	10·1	7	6·4	4
Totals	**31·4**	**23**	**28·2**	**20**	**31·1**	**20**	**32·3**	**22**	**28·2**	**18**

Section 4.—Municipal Police Statistics.

Police statistics were collected in 1938 from the 160 cities and towns that had 4,000 population or over in 1931 (1936 for the three Prairie Provinces), aggregating a total of 4,435,472 persons. The total number of police was 5,596, which is an average of one policeman to each 793 persons in the population of those cities and towns.

The returns showed a total of 461,024 crimes known to have been committed; 111,622 arrests were made and 252,471 summonses issued. The prosecutions numbered 358,903 with 308,611 convictions.

Automobiles reported stolen numbered 7,771 during 1938, while stolen automobiles reported recovered numbered 7,875 (cars stolen in rural areas are frequently recovered in cities and towns); 12,702 bicycles were stolen with 8,255 or 65·0 p.c. recovered. The value of other goods reported stolen was $2,426,251 with $1,119,618 or 46·1 p.c. recovered. There were 42,145 automobile accidents reported to the police; 428 deaths and 14,797 injuries resulted from such accidents. Other accidents reported resulted in the death of 523 persons and injuries to 6,516.

24.—Police Statistics of Canadian Cities and Towns, by Provinces, 1937 and 1938.

Year and Province.	Cities and Towns.	Population.	Police.	Arrests.	Summonses.	Population per Policeman.	Arrests per Policeman.
1937.	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island..	1	12,361	8	571	288	1,545	71
Nova Scotia.....	13	176,444	146	5,380	2,192	1,215	37
New Brunswick.....	6	93,985	92	4,156	1,047	1,022	45
Quebec.....	43	1,435,170	2,248	39,090	56,536	638	17
Ontario.....	69	1,764,789	1,867	40,894	141,845	945	22
Manitoba.....	6	265,232	304	4,600	27,443	872	15
Saskatchewan.....	8	146,004	133	2,496	3,170	1,098	19
Alberta.....	4	192,296	205	4,215	4,583	938	21
British Columbia.....	10	349,191	499	20,558	7,238	700	46
Totals, 1937.....	**160**	**4,435,472**	**5,502**	**121,960**	**244,342**	**806**	**22**
1938.							
Prince Edward Island..	1	12,361	10	579	283	1,236	58
Nova Scotia.....	13	176,444	152	5,765	1,468	1,161	38
New Brunswick.....	6	93,985	92	3,815	722	1,022	41
Quebec.....	43	1,435,170	2,208	33,809	57,960	650	15
Ontario.....	69	1,764,789	2,006	44,484	141,798	880	22
Manitoba.....	6	265,232	292	5,125	28,538	908	18
Saskatchewan.....	8	146,004	132	2,966	3,246	1,106	22
Alberta.....	4	192,296	211	4,526	5,307	911	21
British Columbia.....	10	349,191	493	10,553	13,149	708	21
Totals, 1938.....	**160**	**4,435,472**	**5,596**	**111,622**	**252,471**	**793**	**20**

The Royal Canadian Mounted Police is dealt with in Chapter XXVIII—Miscellaneous Administration—at pp. 1071-1072.

Section 5.—Penitentiary Statistics.

The Penitentiaries Branch of the Department of Justice is charged with the administration of the various penitentiaries of Canada. Seven institutions are included in the system, the two largest of which are at Portsmouth, Ont., and St. Vincent de Paul, Que., while the other five are at Dorchester, N.B.; Prince Albert, Sask.; Stony Mountain, Man.; New Westminster, B.C.; and Collins Bay, Ont. During the fiscal year ended Mar. 31, 1939, the average daily population of these institutions was 3,618 and the total net cash outlay for the year was $2,593,764 or $1·96 per convict per diem, compared with 3,371 average daily population and $2,477,552 total net cash outlay or $2·01 per convict per diem for the year 1938.

The special penitentiary for Doukhobors on Piers Island, which was administered under the warden of the penitentiary at New Westminster, was in operation from 1932 to Mar. 28, 1935, when the 39 remaining inmates were transferred to New Westminster. The statistics of this special penal colony are included with those of the regular penitentiaries in the following tables, and the reader is referred to p. 1035 of the 1936 Year Book for details of the Piers Island colony, given by sex, age, race, and conjugal condition.

Female convicts are kept in the penitentiary at Portsmouth, Ont., a suburb of Kingston, where special quarters and staff are maintained for their detention and supervision. Female convicts in custody there on Mar. 31, 1939, numbered 34 compared with 36 in 1938, and 30 in 1937.

Movement of Population of Penal Institutions.—Penal institutions may be classified under four heads: (1) penitentiaries, with slow turnover, since prisoners have long sentences; (2) reformatories for boys; (3) reformatories for girls, also with rather slow turnovers, but more rapid in the case of boys than in that of girls; and (4) common gaols, where the turnover is extremely rapid. If the average population for the year be taken as the average of the inmates at the beginning and at the end of the year, and the number discharged be the turnover, the turnover in 1938 was: in penitentiaries, 41 p.c.; in reformatories for boys, 244 p.c.; in reformatories for girls, 68 p.c.; in gaols, no less than 1,418 p.c. Thus, the average time spent in gaol was about 3·7 weeks. In dealing with these figures it must be borne in mind that the common gaol population changes from day to day, and is partly made up of accused persons awaiting trial who may be liberated to-day or sent to a penitentiary or reformatory to-morrow.

25.—Population of Penal Institutions, 1936-38.

NOTE.—Penitentiary statistics until 1919 were supplied directly by each penitentiary and were for the calendar year. For 1920 and subsequent years they have been supplied by the Superintendent of Penitentiaries and are for the fiscal years ended Mar. 31. Commencing with the fiscal year 1937 they have been compiled by the Dominion Bureau of Statistics. For other institutions, the figures are for the years ended Sept. 30.

Year and Type of Institution.	In Custody, Beginning of Year.	Admitted during Year.	Discharged during Year.	In Custody, End of Year.
1936.	No.	No.	No.	No.
Penitentiaries	3,552	1,558	2,012	3,098
Reformatories for boys	2,823	7,222	6,577	3,468
Reformatories for girls	722	487	569	640
Gaols	3,419	53,752	53,223	3,948
Totals, 1936	**10,516**	**63,019**	**62,381**	**11,154**
1937.				
Penitentiaries	3,098	1,521	1,355	3,264
Reformatories for boys	3,468	8,374[1]	8,053	3,789[1]
Reformatories for girls	640	627[1]	524	743[1]
Gaols	3,948	60,397	59,933	4,412
Totals, 1937	**11,154**	**70,919[1]**	**69,865**	**12,208[1]**
1938.				
Penitentiaries	3,264	1,718	1,402	3,580
Reformatories for boys	3,789	9,894	9,596	4,087
Reformatories for girls	743	575	525	793
Gaols	4,412	66,760	66,243	4,929
Totals, 1938	**12,208**	**78,947**	**77,766**	**13,389**

[1] Revised since the publication of the 1939 Year Book.

Tables **26** to **28** give the more important penitentiary statistics as reported to the Bureau. The number of convicts in penitentiaries was 1,865 in 1910, rose to 2,118 in 1916 and declined to 1,468 in 1918. After demobilization and the depression of 1921, the number of convicts rose to 2,640 in 1922, declined to 2,225 in 1924, and then increased to 4,164 in 1932. The increase was particularly rapid after 1929, amounting to 1,395 or 44 p.c. in three years. The number of convicts in 1936, at 3,098, was lower than in any year since 1929, but in 1937 there was an increase of 5·4 p.c. with further increases of 9·7 p.c. in 1938 and 6·2 p.c. in 1939. The number of paroles, as shown in Table **26**, was 280 in 1939.

26.—Movement of Convicts in Penitentiaries, Fiscal Years 1935-39.

NOTE.—The classifications in this table have been revised since the publication of the 1939 Year Book.

Item.	1935.	1936.	1937.	1938.	1939.
	No.	No.	No.	No.	No.
In Custody, Beginnings of Years	**4,220**	**3,552**	**3,097**[1]	**3,264**	**3,580**
Received—					
From jails	1,221	1,364	1,332	1,457	1,696
By transfer	241	180	176	246	434
By cancellation of ticket-of-leave	11	8	12	4	4
By recapture	Nil	Nil	1	9	1
Revocation of licence	4	6	Nil	Nil	Nil
Escape—at large	Nil	Nil	"	2	"
Totals, Received	1,477	1,558	1,521	1,718	2,135
Discharged—					
By expiry of sentence	1,226	1,263	738	897	1,131
By transfer	241	182	178	247	438
By ticket-of-leave	554	431	351	187	280
By deportation	50	45	35	19	24
By unconditional release	Nil	Nil	Nil	Nil	16
By death	17	13	17	16	13
By pardon	49	76	34	18	7
By escape	2	Nil	1	12	2
Struck off register	Nil	"	Nil	Nil	1
By release on order of court	5	2	"	4	Nil
By conditional pardon	Nil	Nil	"	1	"
By revocation temporary licence, recommitted	"		"	1	"
By return to provincial authorities	1	"	"	Nil	"
Totals, Discharged	2,145	2,012	1,354	1,402	1,912
In Custody, Ends of Years	**3,552**	**3,098**	**3,264**	**3,580**	**3,803**

[1] This discrepancy between those in custody at the end of the fiscal year 1936 and the beginning of the fiscal year 1937 appears in the report of the Superintendent of Penitentiaries.

Table 27 shows the ages of convicts by groups. In 1939, of the total of 3,805, 11 p.c. were under 20 years of age; 45 p.c. between 20 and 30 years of age; thus 56 p.c. were under 30. In 1914, there were 2,003 convicts of whom 9·3 p.c. were under 20 and 44·4 p.c. between 20 and 30, a total of 53·7 p.c. under 30. In 1923, there were 2,486 convicts and 11·3 p.c. were under 20, 46·6 p.c. between 20 and 30, or 57·9 p.c. under 30 years of age. Detailed statistics of the race, nationality by place of birth, conjugal state, sex, social habits, and religion of convicts are presented in Table 28.

27.—Ages of Convicts in Penitentiaries, as at Mar. 31, 1932-39.

Age Group.	1932.	1933.[1]	1934.[1]	1935.	1936.	1937.	1938.	1939.
	No.	No.	No.	No.	No.	No.	No.	No.
Under 20 years	527	467	409	325	280	317	194	421
From 20 to under 30 years	1,908	2,052	1,916	1,677	1,471	1,515	1,632	1,714
From 30 to under 40 years	970	1,027	941	861	740	806	1,008	955
From 40 to under 50 years	487	574	538	433	361	378	431	423
From 50 to under 60 years	196	257	214	167	178	174	211	200
60 years or over	76	210	202	89	68	74	104	90
Totals	**4,164**	**4,587**	**4,220**	**3,552**	**3,098**	**3,264**	**3,580**	**3,803**

[1] See footnote 1, Table 28.

28.—Convicts in Penitentiaries, Classified by Race, Birthplace, Religion, etc., as at Mar. 31, 1932-39.

NOTE.—The statistics in this table were compiled by the Institutional Statistics Branch of the Dominion Bureau of Statistics.

Item.	1932.	1933.[1]	1934.[1]	1935.	1936.	1937.	1938.	1939.
	No.	No.	No.	No.	No.	No.	No.	No.
By Race—								
English								703
Irish								530
Scottish								372
French								1,207
German								117
Hebrew								65
Italian	[2]	[2]	[2]	[2]	[2]	[2]	[2]	92
Polish								88
Russian								55
Ukrainian								192
Other European								210
Asiatic								43
Indian								73
Negro								56
By Place of Birth—								
Canada								3,015
British Isles and possessions								312
Austria or Hungary								60
Italy	[2]	[2]	[2]	[2]	[2]	[2]	[2]	46
Poland								58
Russia								57
Other Europe								103
Asia								28
United States								124
By Conjugal State—								
Single	2,636	2,581	2,373	2,165	1,934	2,034	2,326	2,475
Married	1,352	1,777	1,647	1,227	1,008	1,039	1,078	1,059
Widowed	161	203	179	144	130	140	138	130
Divorced	15	26	21	16	26	51	38	139
By Sex—								
Male	4,116	4,261	3,907	3,512	3,068	3,232	3,541	3,768
Female	48	326	313	40	30	32	39	35
By Social Habits—								
Abstainers	1,076	1,682	1,560	999	884	873	990	1,012
Temperate	2,639	2,544	2,311	2,191	1,898	2,037	2,200	2,288
Intemperate	449	361	349	362	316	354	390	503
By Religion—								
Anglican	678	603	547	488	447	471	393	511
Baptist	173	168	169	172	136	129	157	171
Buddhist	61	58	34	19	4	2	3	5
Doukhobor	Nil	593	542	46	2	8	8	3
Greek Catholic	54	54	51	50	57	63	55	42
Jewish	89	80	83	72	53	55	61	63
Lutheran	97	96	90	75	66	87	85	88
Methodist[3]	96	82	73	58	42	34	19	17
Presbyterian	458	437	403	398	293	270	279	316
Roman Catholic	2,070	2,008	1,842	1,800	1,646	1,658	1,874	1,942
United Church	257	257	244	264	259	338	384	387
Others	131	151	142	110	93	149	262	258
Totals	**4,164**	**4,587**	**4,220**	**3,552**	**3,098**	**3,264**	**3,580**	**3,803**

[1] The unusually high figures for many items and the totals in 1933 and 1934 are due to the confinement of Doukhobors in the special penitentiary on Piers Island, B.C. (see p. 1052). [2] The classification of convicts by race and by place of birth was changed in 1939. For figures according to the previous classification for the years 1932-38, see p. 1073 of the 1939 Year Book. [3] These persons returned themselves as Methodists in spite of the union with Presbyterians and Congregationalists to form the United Church of Canada in 1925.

CHAPTER XXVIII.—MISCELLANEOUS ADMINISTRATION.

CONSPECTUS.

	Page.
Section 1. Public Lands	1056
Subsection 1. Dominion Public Lands	1057
Subsection 2. Provincial Public Lands	1059
Section 2. National Defence	1060
Section 3. Department of Public Works	1060
Section 4. The Indians and Eskimos of Canada	1061
Subsection 1. The Indians of Canada	1061
Subsection 2. The Eskimos of Canada	1064
Section 5. Pensions and Other Provision for War Veterans	1065
Section 6. Soldier Settlement of Canada	1067
Section 7. Department of the Secretary of State	1068
Section 8. Royal Canadian Mounted Police	1071
Section 9. The Civil Service of Canada	1072
Section 10. Supervision of Race-Track Betting	1076
Section 11. The Tariff Board	1077
Section 12. Dominion Trade and Industry Commission	1077
Section 13. Other Miscellaneous Administration	1078

Section 1.—Public Lands.

In Table 1, summarizing the land area of Canada, Items 3, 4, and 5 are obtained from Dominion Government sources and Items 1, 2, and 7 from Provincial Government sources. In the majority of cases the area of provincial lands (Item 6), as calculated by balancing the figures, agrees with the area as estimated by the provincial Departments concerned. Thus, any differences reported from year to year in the area of lands alienated or in process of alienation are compensated for by the adjustment of lands still remaining under the Crown in the right of the provinces concerned.

1.—Classification of Lands in Canada, by Tenure (*circa*) 1939.

NOTE.—The land area of Canada classified by surface resources is shown at p. 18.

Tenure.	P.E.I.	N.S.	N.B.	Que.	Ont.
	sq. miles.	sq. miles.	sq. miles.	sq. miles.	sq. miles.
1. Alienated, patented, granted, etc.	2,175	17,233[1]	16,420	38,881	40,219[1]
2. In process of alienation	Nil	–	559	5,998	–
3. Dominion lands other than National Parks and Indian Reserves	"	13	3	28	161
4. Dominion National Parks	7	390	Nil	Nil	12
5. Indian Reserves	2	29	58	306	2,072
6. Provincial lands, including leased lands and forest reserves, but not provincial parks	Nil	3,078	10,433	472,738	315,929
7. Provincial parks	"	Nil	Nil	5,583	4,889
Totals, Land Area[2]	**2,184**	**20,743**	**27,473**	**523,534**	**363,282**

Tenure.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada.
	sq. miles.	sq. miles.	sq. miles.	sq. miles.	sq. miles.	sq. miles.
1. Alienated, patented, granted, etc.	43,844	101,039	80,366	17,552	8	357,737
2. In process of alienation	277	3,648	6,009	6,691	Nil	23,182[3]
3. Dominion lands other than National Parks and Indian Reserves	3	47	103	161	1,459,927[4]	1,460,446
4. Dominion National Parks	1,148	1,869	20,937[5]	1,715	3,625[6]	29,703
5. Indian Reserves	867	2,005	1,915	1,248	3	8,505
6. Provincial lands, including leased lands and forest reserves, but not provincial parks	173,584	128,820	139,468	321,958	Nil	1,566,008
7. Provincial parks	Nil	547	2	9,954	"	20,975
Totals, Land Area[2]	**219,723**	**237,975**	**248,800**	**359,279**	**1,463,563**	**3,466,556**

[1] Includes lands in process of alienation. [2] Estimated by the Hydrographic and Map Service, Department of Mines and Resources. [3] For the provinces indicated only. [4] In Yukon and N.W.T., areas aggregating 380,542,080 acres have been set apart by Order in Council as game preserves and sanctuaries in which only native Indians and Eskimos may hunt, but have not been permanently dedicated to this purpose by Parliament and are not, therefore, regarded as parks. [5] Includes the Wood-Buffalo Park (which, though reserved by the Dominion, is not administered as a National Park) and the Tar Sands Reserve. [6] That portion of the Wood-Buffalo Park in the Northwest Territories.

Subsection 1.—Dominion Public Lands.*

The public lands under the administration of the Dominion Government comprise: lands in the Northwest Territories, including the Arctic Archipelago and the islands in Hudson Strait and Bay; lands in Yukon Territory; National Parks (see pp. 19-22) and historic sites; Indian reserves (see p. 1061); Ordnance and Admiralty lands; and, in general, all lands held by the several departments of the Dominion Government for various purposes connected with Dominion administration. The lands and other natural resources lying within the boundaries of the Provinces of Manitoba, Saskatchewan, Alberta, and British Columbia, that had formerly been administered by the Dominon Government, were transferred in 1930 to the administration of the provinces concerned. (See p. 1019 of the 1931 Year Book.)

The great bulk of the land areas under Dominion administration are those of Yukon and the Northwest Territories, amounting to about 936,680,000 acres or 42 p.c. of the land surface of Canada. In general the southern border of both Yukon and the Northwest Territories is 60° N. latitude. In Europe, Oslo, Stockholm, and Leningrad are near this line, and about three-fourths of Norway, two-thirds of Sweden, all of Finland, and a large proportion of Russia are north of it. This northern part of the national domain is under the administration of the Lands, Parks, and Forests Branch of the Department of Mines and Resources. The Royal Canadian Mounted Police maintain law and order throughout Yukon and the Northwest Territories.

The Northwest Territories.—The government of the Northwest Territories is vested in a Commissioner, a Deputy Commissioner, and a Council of five members appointed by the Governor General in Council, with Ottawa as the seat of government. The Territories are subdivided for administrative purposes into the provisional Districts of Mackenzie, Keewatin, and Franklin. The District of Mackenzie is the most widely known and developed, trading posts and settlements being located all along the great stretch of inland waterways known as the Mackenzie System.

The administrative headquarters for the Mackenzie District is located at Fort Smith on the Slave River, immediately north of the Alberta-N.W.T. boundary. From this point there is uninterrupted navigation to the Arctic Ocean, a distance of 1,300 miles, and along the Arctic Coast as far east as King William Island. When navigation conditions are favourable, it is possible to effect inter-communication between the Western and Eastern Arctic through Bellot Strait which separates Boothia Peninsula, the most northerly tip of the mainland, from Somerset Island.

The Administration provides a medical and nursing service, assists the Anglican and Roman Catholic missions in providing educational and hospital facilities, and cares for the general welfare of the population of the Territories. The population of the Territories at the time of the 1931 Census was 9,723.

Areas totalling approximately 583,997 square miles, comprising many of the finest hunting grounds of the natives, have been set aside as preserves wherein only resident Indians, Eskimos, and half-breeds may hunt and trap game. Included in this area is the new Mackenzie Mountains Preserve, which takes in all the land between the Mackenzie River, the Yukon boundary, and the Peel River Preserve.

* Prepared under the direction of R. A. Gibson, Director, Lands, Parks, and Forests Branch, Department of Mines and Resources, Ottawa.

With a view to conserving the game in the districts not included in the game preserves, licences to hunt and trap game may, under the regulations, be issued only to:—

1. Residents of the Northwest Territories as defined by these regulations who at the present time hold hunting and trapping licences and who continue to reside in the Northwest Territories.

2. The children of those who have had their domicile in the Northwest Territories for the past four years, provided such children continue to reside in the Northwest Territories.

The Wood-Buffalo Park in the vicinity of Fort Smith, which covers an area of 17,300 square miles (a portion of which is in Alberta), has been reserved specially for the protection of buffalo. The Thelon Game Sanctuary to the east of Great Slave Lake, which was set aside primarily to aid in the conservation of musk-oxen, provides sanctuary for all species of game. Under the Northwest Game Act, musk-oxen may not be killed anywhere in the Northwest Territories.

The Tar Sands Reservation comprises four areas amounting in all to 2,068 acres in the Fort McMurray District of Alberta. These areas were reserved in 1926 for the use of the National Parks Bureau, Department of Mines and Resources, to provide a supply of tar sands for road construction in the National Parks.

The reindeer industry, introduced into the Northwest Territories in 1935 by the importation of a herd of 2,370 animals from Alaska, is contributing to the welfare of the native population. The main herd of some 4,000 reindeer is maintained on the reserve of 6,600 square miles immediately east of the Mackenzie Delta, and a subsidiary herd of nearly 1,200 head has been established under native management near the Anderson River, about 150 miles east of the reserve.

In view of the great increase in the use of aircraft for mail and general transportation, the Administration is developing landing facilities at many points throughout the Mackenzie District. Winter landing fields have been provided at Fort Smith, Resolution, Providence, Wrigley, Simpson, and Norman. Floating docks, etc., have been constructed at several points for the use of seaplanes.

An excellent air-mail service is provided by the Post Office Department, while the Department of National Defence operates a system of radio stations linking up the chief settlements and mining centres of the Northwest Territories and the Yukon Territory with Edmonton, Alberta. Radio stations, exclusive of private commercial stations, are in operation at Fort Smith, Resolution, Simpson, Norman, Aklavik, Port Radium, Yellowknife, Dawson, Mayo, and Whitehorse. Direction-finding and meteorological stations are operated by the Department of Transport at Chesterfield, Nottingham Island, Resolution Island, and Coppermine.

Exploratory work has been carried on throughout the Territories and much aerial surveying has been done, particularly in the mineralized areas of Mackenzie District. Mineral prospectors are exploring new areas, the aeroplane being used as the chief means of transportation. The Precambrian Shield, which has proved so rich in valuable minerals in southern Canada, is continued into the Territories—that portion lying between Great Slave and Great Bear Lakes and Hudson Bay—and valuable discoveries have been made in this area. The rich native silver and high-grade pitchblende ores, discovered during the past few years near Great Bear Lake, are now under development. The oil wells near Norman on the Mackenzie River have been in active operation since 1932 and have been supplying the needs of the mines at Great Bear Lake. Shipments of oil to mining companies in the Yellowknife area commenced in 1938. In recent years much prospecting has

been carried on in the Great Slave Lake area where discoveries of gold have been made. Two mines are producing gold and others are expected to be in production shortly. The agricultural land of the Territories lies almost entirely in the extension of the central plain along the Mackenzie Valley.

It is known that there are many potential water-power sites throughout the Territories and one of them will probably be developed in the near future as a consequence of mining enterprises. Much of the Mackenzie Valley carries a forest cover that furnishes timber and fuel for local needs. Fishing, agriculture, and lumbering are engaged in to some extent, but the principal industry of the Territories is still the taking and exportation of furs, with mining rapidly increasing in importance. Many trading posts operate throughout the regions tributary to the Arctic Coast, Hudson Bay, and the great inland systems of waterways.

Yukon.—Yukon was created a separate Territory in June, 1898. Provision is made for a local Government composed of a chief executive classified as Controller, also an Elective Legislative Council with jurisdiction over local matters and composed of three members with a three-year tenure of office. The Controller administers the Government under instructions from the Governor General in Council or the Minister of Mines and Resources. The seat of government is at Dawson. The Territory has hospitals, schools, and other amenities of modern life, including wireless and telegraphic facilities. The population in 1931 was 4,230.

The usual route followed by travellers to the Yukon Territory is by steamer from ports on the Pacific Coast to Skagway, Alaska, from that point to Whitehorse by the White Pass and Yukon Railway, and thence by river boat to Dawson.

The use of aircraft for transportation purposes is increasing and landing fields have been conditioned at Dawson, Mayo, Whitehorse, and Carcross. A temporary licence has been issued for the field at Whitehorse which is becoming important because it is on the main route for international traffic. Some work has been done on emergency fields at Selkirk, Carmacks, McQuesten, and Minto.

Yukon has produced over $200,000,000 worth of gold since the Klondike rush, but the old placer claims, operated with cradle, pick, and shovel, have given place to consolidated holdings worked with hydraulic dredges and other modern machinery. The development of the silver-lead ores of the Mayo district has been one of the major factors in the growth of lode-mining enterprises. Copper, tungsten, and coal are also found in the Yukon Territory. There is a hydro-electric installation of 18,199 h.p. in Yukon, which is used to supply electric energy for placer-mining operations and for the City of Dawson.

Although fishing, agriculture (including fur farming), and some lumbering are carried on as auxiliary industries, the future of Yukon is inevitably bound up with mining development and the fur trade.

Subsection 2.—Provincial Public Lands.

In the Maritime Provinces and in Quebec, Ontario, and British Columbia (except the Railway Belt and the Peace River Block) the public lands have been administered by the Provincial Governments since Confederation. Since the transfer of the natural resources to the Prairie Provinces and British Columbia (see p. 1019 of the 1931 Year Book) public lands in all provinces have been under provincial administration. In Prince Edward Island, all the land is alienated and there are no provincial public lands.

Information regarding provincial public lands may be obtained from the following officials of the respective provinces: Minister of Lands and Forests, Halifax, N.S.; Deputy Minister of Lands and Mines, Fredericton, N.B.; Deputy Minister of Lands and Forests, Quebec, Que.; Deputy Minister of Lands and Forests, Toronto, Ont.; Director of Lands, Department of Mines and Natural Resources, Winnipeg, Man.; Director of Lands, Department of Natural Resources, Regina, Sask.; Director of Lands, Department of Lands and Mines, Edmonton, Alta.; Deputy Minister of Lands, Victoria, B.C.

Section 2.—National Defence.

In view of the rapidly changing conditions in the defence services owing to the present state of war, the descriptive material concerning the Royal Canadian Navy, the Canadian Militia, and the Royal Canadian Air Force usually appearing in this Section (see pp. 1078-1083 of the 1939 edition of the Year Book) has been omitted. A description of Canada's war effort will be found in the Introduction to this volume.

Section 3.—Department of Public Works.*

The constructing department of the Dominion Government, since before Confederation, has been known as the Department of Public Works. The work of the Department is divided into three principal branches, viz., the Engineering Branch, the Architect's Branch, and the Telegraph Branch.

Engineering.—The Engineering Branch conducts the construction and repair of wharves, piers, breakwaters, dams, weirs, bank and beach protection works; the improvement of harbours and rivers by dredging; the construction, operation, and maintenance of dredging plant and the construction, operation, and maintenance of graving or dry docks; the construction and maintenance of interprovincial bridges and approaches thereto, also the construction, operation, and maintenance of bridges with movable spans on certain highways; hydrographical and topographical surveys that are required for the preparation of plans, reports, and estimates; test borings for the purpose of ascertaining the nature of foundations; the testing of cements and materials of construction; the licensing of international and interprovincial ferries; and the control of works constructed in or over navigable waters by authority of the Navigable Waters Protection Act (R.S.C., 1927, c. 140).

Architecture.—The Architect's Branch constructs and maintains Government buildings, post offices, customs houses, examining warehouses, quarantine stations, immigration and experimental farm buildings, military hospitals, and telegraph offices. It also constructs armouries and drill halls and leases office accommodation as required for the various Departments.

Telegraphs.—The Telegraph Branch has control of the construction, operation, and maintenance of all Government-owned telegraph lines and cables. These lines are located in the Provinces of Nova Scotia, New Brunswick, Quebec, Ontario, Saskatchewan, Alberta, British Columbia, and Yukon (see also p. 715).

Graving Docks.—The Department has constructed five dry docks and is responsible for subsidies under the Dry Dock Subsidies Act, 1910 (9-10 Edw. VII, c. 17). A description of these docks is given in the Transportation Chapter, p. 682.

* Revised by J. M. Somerville, Secretary, Department of Public Works.

Section 4.—The Indians and Eskimos of Canada.

Subsection 1.—The Indians of Canada.*

The Indians of Canada, whose affairs are administered by the Indian Affairs Branch, Department of Mines and Resources, number about 118,406 (according to a departmental census taken in 1939). The popular notion that the race is disappearing is not in accordance with facts. Before they were subjected to the degenerating effects of European civilization and the devastating results of the many colonial wars, the numbers of the Indians were undoubtedly larger, but any reliable information as to the aboriginal population, during either the French or the early British régimes, is non-existent, and there is no adequate basis for a comparison between the past and present aboriginal populations. An interesting sketch of the progress of the Indians of Canada since Confederation will be found in the Report of the Department of Indian Affairs, 1927.

Administration.†—Reserves have been set aside for the various bands of Indians throughout the Dominion and the Indians located thereon are under the supervision of the local agents of the Department. The activities of the Department, as guardian of the Indians, include the control of Indian education and health, the development of agriculture and other pursuits among them, the administration of their lands, community funds, estates, and the general supervision of their welfare.

The local administration of the Indian bands on the reserves scattered throughout the Dominion is conducted through the Department's agencies, of which there are in all 114. The number of bands supervised by an agency varies from one to more than 30. The staff of an agency usually includes, in addition to the agent, various officers such as medical officer, clerk, farm instructor, field matron, constable, stockman, etc., according to the special requirements of the agency in question. The work of the agencies is supervised by the Department's inspectors, each inspector having charge of a certain number of agencies. Expenditures upon destitute Indians are made by the Dominion Government, either from public funds or from tribal funds of the Indians themselves.

The Indian Act provides for the enfranchisement of Indians. When an Indian is enfranchised he ceases to be an Indian under the law and acquires the full status of citizenship. In the older provinces, where the Indians have been longer in contact with civilization, many are becoming enfranchised. Great discretion, however, is exercised by the Government in dealing with this problem, as Indians who become enfranchised lose the special protection attached to their wardship, so that it is necessary to guard against premature enfranchisement.

Treaties.—In the older eastern provinces, the history of the Indians has been one of slow development with that of the community. In western Ontario, the Prairie Provinces, and the Territories the situation has been different. There, the rapid spread of civilization made it necessary to take prompt and effective measures to protect the moral claims of the Indians, which are recognized by the Government. Accordingly, treaties were entered into with the Indians whereby the latter ceded to the Crown their aboriginal title and interest in the country. In consideration of such cession the Crown agreed to: set aside adequate reserves;

* Revised by T. R. L. MacInnes, Secretary, Indian Affairs Branch, Department of Mines and Resources.
† For an outline of the early administration, see p. 937 of the 1932 Year Book.

make cash grants; provide per capita annuities; give assistance in agriculture, stock-raising, hunting, trapping, etc., as particular circumstances might require; provide education for the Indian children; and otherwise safeguard the Indians' interests. These treaties were made from time to time as occasion arose and as new tertitories were opened up. No treaty has been made with the Indians of British Columbia, except in the Peace River Block, but their welfare has received no less attention from the Government on that account.

Government Expenditure.—On Mar. 31, 1939, the capital of the Indian Trust Fund, which a year earlier had amounted to $14,081,905, had increased to $14,149,503. The amounts expended from the Consolidated Revenue Fund were as follows: voted by Parliament for the purposes of the Department, $4,895,138; annuities by statute, $253,189; and special supplementary, $38,000.

Population.—The Indian Affairs Branch takes a quinquennial census of the Indians under its control. The results of the latest of these censuses, taken in 1939, show a total of 118,406 Indians as compared with 112,510 in 1934 and 108,012 in 1929, an increase of 9·9 p.c. in ten years. Details are given in the Annual Report of the Department of Mines and Resources for 1939. The figures given in Table 2 are those of the seven Dominion decennial censuses since Confederation, and include some thousands of persons of Indian racial origin who are not on the reserves but are living as ordinary citizens of Canada.

2.—Indian Population of Canada at the Decennial Censuses of 1871-1931.

Province or Territory.	1871.[1]	1881.[1]	1891.[2]	1901.	1911.	1921.	1931.
Prince Edward Island	323	281	314	258	248	235	233
Nova Scotia	1,666	2,125	2,076	1,629	1,915	2,048	2,191
New Brunswick	1,403	1,401	1,521	1,465	1,541	1,331	1,685
Quebec	6,988	7,515	13,361	10,142	9,993	11,566	12,312
Ontario	12,978	15,325	17,915	24,674	23,044	26,436	30,368
British Columbia	23,000	25,661	34,202	28,949	20,134	22,377	24,599
Manitoba	56,000	56,239	51,249	16,277	7,876	13,869	15,417
Saskatchewan				26,304	11,718	12,914	15,268
Alberta					11,630	14,557	15,258
Yukon				3,322	1,489	1,390	1,543
Northwest Territories				14,921	15,904	3,873[3]	4,046
Canada	**102,358**	**108,547**	**120,638**	**127,941**[4]	**105,492**	**110,596**	**122,920**

[1] Census figures in the organized provinces and estimates for the rest of Canada. [2] Racial origin not taken in 1891; the figures have been taken from the report of the Department of Indian Affairs of that year. [3] The decrease in the Indian population of the Northwest Territories is due to the extension of the boundaries of Quebec, Ontario, and Manitoba in 1912. This also accounts for the increase in the 1921 Indian population of these provinces. [4] Includes 34,481 'half-breeds'.

Indian Education.—The educational work of the Department is now very extensive. In the fiscal year 1939, a total of 373 Indian schools were in operation, including 79 residential schools for Indians with an enrolment of 9,179, and 283 day schools for Indians with an enrolment of 9,329 Indian pupils, also 11 combined public and Indian schools, with 244 Indian pupils enrolled. The total enrolment of Indian pupils at school has increased from 12,799 in 1915-16 to 18,752 in 1938-39 and the average attendance from 8,080 to 14,508 (63·1 p.c. to 77·4 p.c. of the enrolment). Continuation and high school work is now being taught in several of the day and residential schools. The amount spent on Indian education in the fiscal year 1939, was $1,846,205.

3.—Enrolment and Average Attendance of Pupils at Indian Schools, Fiscal Years 1916-39.

Year.	Residential Schools.		Day Schools.		All Schools.		
						Attendance.	
	Enrolment.	Average Attendance.	Enrolment.	Average Attendance.	Enrolment.	Number.	P.C. of Enrolment.
	No.	No.	No.	No.	No.		
1916	4,661	4,029	8,138	4,051	12,799	8,080	63·1
1917	4,520	4,149	7,658	4,136	12,178	8,285	68·0
1918	4,692	4,081	7,721	3,797	12,413	7,878	63·5
1919	4,640	4,014	7,312	3,587	11,952	7,601	63·6
1920	4,719	4,133	7,477	3,516	12,196	7,649	62·7
1921	4,783	4,143	7,775	3,931	12,558	8,074	64·3
1922	5,031	4,360	7,990	4,308	13,021	8,668	66·6
1923	5,347	4,695	8,376	4,411	13,723	9,106	66·4
1924	5,673	4,856	8,199	4,332	13,872	9,188	66·2
1925	6,031	5,278	8,191	4,601	14,222	9,879	69·5
1926	6,327	5,658	8,455	4,940	14,782	10,598	71·7
1927	6,641	5,881	8,069	4,660	14,710	10,541	71·7
1928	6,795	6,043	8,223	4,823	15,018	10,866	72·4
1929	7,075	6,282	8,272	4,976	15,347	11,258	73·4
1930	7,302	6,476	8,441	5,103	15,743	11,579	73·6
1931	7,831	6,917	8,584	5,314	16,415	12,231	74·5
1932	8,213	7,400	8,950	5,707	17,163	13,107	76·4
1933	8,465	7,613	8,960	5,874	17,425	13,487	77·4
1934	8,596	7,760	8,852	5,592	17,448	13,352	76·5
1935	8,709	7,882	8,851	5,560	17,560	13,442	76·5
1936	8,906	8,061	9,127	5,788	18,033	13,849	76·8
1937	9,040	8,176	9,257	5,790	18,297	13,966	76·3
1938	9,233	8,121	9,510	5,978	18,743	14,099	75·2
1939	9,179	8,276	9,573	6,232	18,752	14,508	77·4

Economic Data.—Detailed statistics relating to the agricultural and stock-raising activities of the Indians, and to the value of their real estate and personal effects, will be found in the Annual Report of the Department of Mines and Resources.

4.—Acreages of Various Classes and Value of Indian Lands, by Provinces, as at Mar. 31, 1939.

Province or Territory.	Total Area of Reserves.	Area Under Wood.	Lands Cleared but Not Under Cultivation.	Lands Under Cultivation.	Value of Lands.
	acres.	acres.	acres.	acres.	$
Prince Edward Island	1,508	1,397	60	51	3,750
Nova Scotia	18,325	15,173	2,891	260	77,935
New Brunswick	37,404	35,591	1,583	230	76,478
Quebec	195,528	166,193	25,293	4,042	1,419,800
Ontario	1,326,172	1,173,076	113,095	40,000	4,306,817
Manitoba	554,605	364,043	180,407	10,155	2,817,869
Saskatchewan	1,283,311	518,890	722,363	42,059	13,724,948
Alberta	1,225,710	346,132	826,630	52,949	16,283,280
British Columbia	798,523	474,286	297,983	26,254	13,566,024
Yukon and N.W.T	2,084	1,861	117	106	9,578
Canada	**5,443,170**	**3,096,642**	**2,170,422**	**176,106**	**52,286,479**

5.—Values and Sources of Income of Indians, by Provinces, 1938.

Province or Territory.	Income Received from—					Wages Earned.	Total Income of Indians.[1]
	Farm Products, Including Hay.	Beef Sold or Used for Food.	Fishing.	Hunting and Trapping.	Other Industries.		
	$	$	$	$	$	$	$
Prince Edward Island	875	200	400	200	500	1,500	3,681
Nova Scotia	7,182	560	1,295	2,165	9,345	16,505	39,483
New Brunswick	6,625	220	1,390	1,775	2,980	12,245	28,221
Quebec	78,202	8,635	2,190	44,285	27,475	127,170	321,244
Ontario	385,716	22,420	209,185	246,270	204,755	483,380	1,984,018
Manitoba	141,011	19,410	32,730	112,150	35,725	69,705	516,303
Saskatchewan	257,642	53,796	21,710	48,494	37,847	55,916	634,559
Alberta	348,578	77,200	9,250	73,126	52,024	46,751	884,087
British Columbia	377,265	91,500	420,950	149,195	175,230	490,678	1,833,025
Yukon and N.W.T.	14,485	317	14,940	142,140	4,660	15,108	210,757
Canada	**1,617,581**	**274,258**	**714,040**	**819,800**	**550,541**	**1,318,958**	**6,455,378**

[1] Includes income received from timber and mining dues and from annuities earned as interest on Indian trust funds, but not money received from land rentals for which figures are not available by provinces.

Subsection 2.—The Eskimos of Canada.*

The Eskimos of Canada are found principally on the northern and Hudson Bay coasts 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 who subsist chiefly on caribou. The diet of the coast Eskimos is largely marine mammals and fish, varied at times by caribou obtained from the interior during the seasonal migrations of these animals. The skins of the caribou are used for winter clothing.

The wandering life of the Eskimos and the vast area over which they are scattered present great difficulties in ascertaining their exact numbers. The total for the entire Dominion, according to the latest returns, is about 6,500, located mainly in the Northwest Territories, with approximately 1,590 in Quebec, 85 in Yukon Territory, 62 in Manitoba, and 3 in Alberta.

The administrative care of Eskimos outside of the organized provinces devolves upon the Department of Mines and Resources which, by regulative measures (including the setting aside of game preserves where only natives may hunt, and the establishment of a reindeer herd), conserves the natural resources necessary to their subsistence. Contact with the Eskimos is maintained through permanent stations (at a number of which medical officers are located) in the Eastern, Central, and Western Arctic, by patrols of the Royal Canadian Mounted Police, and by means of the annual Canadian Eastern Arctic Patrol by steamship.

* Prepared under the direction of R. A. Gibson, Director, Lands, Parks, and Forests Branch, Department of Mines and Resources, Ottawa.

Section 5.—Pensions and Other Provision for War Veterans.*

The administration of returned soldiers' affairs is carried on by the Pensions Branch of the Department of Pensions and National Health. This Branch is also responsible, by direction of the Canadian Pension Commission, for certain administrative duties under the Pension Act and the Returned Soldiers' Insurance Act. The Representative of the Treasury is responsible for all payments under these Acts.

The Annual Report for the fiscal year 1939 shows an increase compared with the previous years in the number of ex-members of the Forces who received in-patient hospital treatment, the number being 12,453 as against 11,443 in 1937-38, and 11,742 in 1936-37. The Department maintains a hospital in each of eight cities throughout Canada.

One of the features of the activities of the Department is provision in a departmental institution for pensioners who, through age or infirmity, are unable to care for themselves. The number of such cases showed an increase during the year, the total on Mar. 31, 1939, being 407 as against 377 a year previously, 299 in 1937, and 286 in 1936. In the issue of orthopædic and surgical appliances there has been a slight decrease. The number of pensioners who were granted relief was 10,732 in 1938-39, as compared with 11,179 in 1937-38 and 12,322 in 1936-37. The expenditure on relief was $2,186,683 in 1938-39, $2,232,398 in 1937-38, and $2,435,285 in 1936-37.

The Department assumes responsibility in respect of accidents sustained by pensioners of 25 p.c. and upwards when engaged in industry. During the fiscal year under review, the number of claims was 455 as compared with 317 in 1937-38 and 260 in 1936-37. Expenditures, which are governed largely by the number of fatal and serious accidents, were $77,841 in 1936-37, $39,977 in 1937-38, and $18,590 in 1938-39.

The disbursements of the Department (including $994,812 for national health), amounted to $57,592,346 in the fiscal year 1938-39. Of this, $42,396,766 was paid as pensions, $5,335,299 as war veterans' allowances, and $2,198,944 as unemployment assistance. Detailed expenditures are shown in the Annual Report of the Department for 1938-39 at p. 25.

The Canadian Pension Commission.—By c. 45 of the Statutes of 1933, the Board of Pension Commissioners for Canada and the Pension Tribunal ceased to exist; their duties were taken over by the Canadian Pension Commission, which was formed by the Act referred to, and the personnel of the Commission was increased from three to not less than eight nor more than twelve.

The Commission is responsible for the adjudication and awarding of pensions in respect of disabilities connected with military service and the awarding of pensions to the dependants of those who die. It operates under the authority of the Pension Act. The large increase in disability pensioners from 1930 to 1933, inclusive, was due primarily to the reinstatement on pension of those who had commuted their pensions from 1920 onwards. This restoration was under the authority of an amendment to the Pension Act in 1930.

* Revised by F. H. Brown, Assistant Secretary, Department of Pensions and National Health. See also the 1930 Year Book, pp. 982-983.

6.—Pensions in Force, as at Mar. 31, 1918-39.

Year.	Dependants.		Disabilities.		Totals.	
	Pensions.	Liability.	Pensions.	Liability.	Pensions.	Liability.
	No.	$	No.	$	No.	$
1918	10,488	4,168,602	15,335	3,105,126	25,823	7,273,728
1919	16,753	9,593,056	42,932	7,470,729	59,685	17,063,785
1920	17,823	10,841,170	69,203	14,335,118	87,026	25,176,288
1921	19,209	12,954,141	51,452	18,230,697	70,661	31,184,838
1922	19,606	12,687,237	45,133	17,991,535	64,739	30,678,772
1923	19,794	12,279,621	43,263	18,142,145	63,057	30,421,766
1924	19,971	12,037,843	43,300	18,787,206	63,271	30,825,049
1925	20,015	11,804,825	44,598	19,816,380	64,613	31,621,205
1926	20,005	11,608,530	46,385	21,456,941	66,390	33,065,471
1927	19,999	11,419,276	48,027	22,811,373	68,026	34,230,649
1928	19,975	11,209,351	50,635	24,374,502	70,610	35,583,853
1929	20,002	11,090,158	54,620	26,095,150	74,622	37,185,308
1930	19,644	10,742,518	56,996	27,059,992	76,640	37,802,510
1931	19,676	10,985,518	66,669	29,226,208	86,345	40,211,726
1932	19,308	10,859,806	75,878	30,998,571	95,186	41,858,377
1933	18,745	10,624,775	77,967	31,124,543	96,712	41,749,318
1934	18,236	10,339,971	77,855	30,453,454	96,091	40,793,425
1935	18,241	10,372,607	78,404	30,406,414	96,645	40,779,021
1936	18,175	10,381,121	79,124	30,473,353	97,299	40,854,474
1937	18,186	10,417,158	79,789	30,365,865	97,975	40,783,023
1938	18,105	10,411,095	79,876	30,270,960	97,981	40,682,055
1939	17,896	10,318,775	80,104	30,094,890	98,000	40,413,665

The number of medical examinations for pension purposes carried out during the fiscal year 1939 was 18,385, being a decrease of 4,278 as compared with the previous year.

Pension Appeal Court.—During the fiscal year 1938-39, 1,048 decisions were rendered on appeals. At the end of the fiscal year there were 211 appeals remaining unheard.

Veterans' Bureau.—Pursuant to legislation passed in 1930, a Veterans' Bureau was organized as a branch of the Department and came into active operation on Oct. 1, 1930. The duties of the Bureau are set forth at p. 945 of the Canada Year Book, 1932. Briefly stated, the Bureau was created and is operated to assist applicants for pension in the preparation and presentation of their cases. There is a Chief Pensions Advocate with his staff at Ottawa, and Pensions Advocates have their offices in all the principal cities of Canada. The bulk of the applications for pension are being brought to finality by thorough preparation, without the necessity of local hearings.

War Veterans' Allowances.—The War Veterans' Allowance Act was enacted in 1930 to provide for the maintenance of veterans who, because of age or disability, are incapable of providing for themselves. The Act provides for the payment of allowances to veterans with the requisite service, at the age of 60 years, or at any age if so disabled as to be 'permanently unemployable'.

In addition to providing for the veteran of 60 and the permanently unemployable veteran, provision is made in the Act for a further group, as a result of the deliberations of a Parliamentary Committee in 1936. This group is referred to in the Act as "those having served in a theatre of actual war who have attained the age of 55 and who, in the opinion of the Board, are incapable of maintaining themselves because of pre-ageing, disability and general unfitness".

This amendment, therefore, provides for a border-line class to include those who, from a medical standpoint, cannot be classed as permanently unemployable and who, from an age standpoint, have not quite reached the age of 60.

An outline of the provisions of the original Act will be found at pp. 946-947 of the 1932 Year Book.

7.—Analysis of Awards and Reinstatements Made from Sept. 1, 1930, to Mar. 31, 1939.

Item.	Over 60.	Under 60.	Total.
	No.	No.	No.
Allowances approved and reinstated from Sept. 1, 1930, to Mar. 31, 1938	9,548	8,200	17,748
Awards, Apr. 1, 1938, to Mar. 31, 1939	1,482	6,018	7,500
Reinstatements, Apr. 1, 1938, to Mar. 31, 1939	103	114	217
Total awards and reinstatements to Mar. 31, 1939[1]	11,133	14,332	25,465
Cancellations for all reasons, by deaths, etc., from Sept. 1, 1930, to Mar. 31, 1939	[2]	[2]	5,455
Total Veterans in Receipt of Allowances, at Mar. 31 1939	–		20,010

[1] Includes 5,245 awards and 68 reinstatements made as a result of the 1938 amendments to the Act.
[2] Not available by age groups.

The annual liability in connection with the 20,010 cases in force at Mar. 31, 1939, amounted to $6,418,536.

Returned Soldier Insurance.*—The Returned Soldiers' Insurance Act is under the jurisdiction of the Canadian Pension Commission as agent for the Minister of Finance. Collections are made through the Department and payments by the Representative of the Treasury. After several extensions, the date to which applications could be received expired on Aug. 31, 1933.

8.—Operations Under the Returned Soldiers' Insurance Act, Fiscal Years 1936-39.

Item.		1936.	1937.	1938.	1939.
Policies reinstated	No.	1,557	444	1,051	907
Policies surrendered for cash	"	694	583	441	521
Policies in force	"	25,845	24,801	23,880	22,939
Amounts of insurance	$	55,326,246	52,802,684	50,677,796	48,450,034
Amounts of premium income	$	1,410,220	1,327,149	1,250,516	1,152,924
Expenditures	$	778,317	852,548	843,813	870,525
Death claims from commencement of operations	No.	3,776	4,085	4,361	4,654
Amounts of death claims	$	9,514,848	1,563,631	531,619	1,133,651
Balances on hand	$	14,676,572	15,765,227	16,826,686	17,783,544

Section 6.—Soldier Settlement of Canada.†

Towards the end of the War of 1914-18 the Canadian Government organized the Soldier Settlement Board to assist eligible returned soldiers to settle on the land. By the Soldier Settlement Act of 1919 the scope of the work was extended and the Board was authorized to purchase agricultural lands in any province for returned men. At pp. 29-35 of the 1920 Year Book and at pp. 809-810 of the 1921 Year Book the earlier proceedings of the Board are described. After 1924 settlement under the Soldier Settlement Act gradually diminished and placements and after care of settlers under contractual arrangement between the Soldier Settlement Board on behalf of the Canadian Government and the British Government became the most active features of the work of the Board. In 1924 the '3,000 British Family Scheme' was arranged, by which selected families, approved by both British and Canadian authorities and having demonstrated ability to operate

* Revised by D. S. Drew, Chief, Insurance Division, Department of Pensions and National Health.
† Revised by G. Murchison, Director of Soldier Settlement of Canada.

farms, were advanced £300 per family by the British Government and settled on Canadian farms under the direction of the Soldier Settlement Board. (See pp. 183 and 946-947 of the 1926 Year Book and pp. 7-8 of the Soldier Settlement Board Report for 1931.)

In 1927 a tripartite agreement was made between the Dominion Government, the Government of the Province of New Brunswick, and the United Kingdom Government, under which 500 British families were to be settled in the Province of New Brunswick; the Provincial Government to purchase the farms and the British Government to provide funds up to £300 per settler for establishment expenses. In more recent years the organization of the Board has taken care of applications of farmers for benefits under the Farmers' Creditors Arrangement Act, and the Supervision Staff of the Department has made land appraisals and reported on the applications of farmers under this legislation as well as under Soldier Settlement.

Under the Soldier Settlement Act of 1919, 25,001 soldier settlers were granted loans and established on the land. On Dec. 31, 1939, there were 8,646 soldier settlers and 6,071 civilian settlers who had taken over lands relinquished by former soldier settlers. At the end of 1939 the Soldier Settlement of Canada had 18,595 farm properties under administration, representing a net investment of $40,410,050. There were 2,240 farms on hand, of which 1,958 were leased; 4,088 settlers had repaid their loans in full in cash, and 2,682 properties had been transferred to municipalities and provinces under Sect. 21A of the Soldier Settlement Act.

Under the 3,000 British Family Scheme, 3,346 families came forward for settlement. Of these, 1,837 had withdrawn as at Dec. 31, 1939, 31 had repaid their loans, leaving 1,478 families still operating their farms. Under the New Brunswick Family Settlement Agreement, 359 families came forward; of these three had repaid their loans, 196 had withdrawn, and 160 remained on the land.

The following numbers of settlers had applied for the benefits of the Farmers' Creditors Arrangement Act; 3,881 soldier settlers, 1,642 civilian settlers, and 1,666 British Family settlers. Of these applications, 2,225 cases of soldier settlers had been disposed of, involving indebtedness of $8,686,115 and a reduction of $3,355,930; civilians—988 cases disposed of, debt $3,321,050, reduction $1,245,683; British Family settlers—978 cases disposed of, indebtedness $4,201,908, reduction $1,988,226.

To Dec. 31, 1939, 13,709 land appraisals and reports had been made in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, and the Maritime Provinces.

Other investigational services conducted were: for the Department of Mines and Resources; in rural districts with respect to applications under the War Veteran's Allowance Act of 1930; for the Department of Pensions and National Health and the Canadian Pension Commission with respect to applications for relief allowances and special investigations of pension cases in rural districts; and for the Dependants' Allowance Board.

Section 7.—Department of the Secretary of State.*

The Department of the Secretary of State was constituted in its present form in 1873, through the merging of the previously existing offices of the Secretaries of State for Canada and for the provinces. The Secretary of State is the official mouthpiece of the Government as well as the medium of communication between the Dominion and Provincial Governments, all correspondence between the Governments being conducted by him with the Lieutenant-Governors. He is also the

* Revised by E. H. Coleman, K.C., LL.D., Under Secretary of State, Department of the Secretary of State.

custodian of the Great Seal of Canada and the Privy Seal, as well as being the channel by which the general public may approach the Crown.

The Secretary of State is also the Registrar General, registering all proclamations, commissions, licences, warrants, writs, and other instruments issued under the Great Seal and the Privy Seal. He is further charged with the administration of the Boards of Trade Act, the Companies Act, the Canada Temperance Act, the Copyright Act, the Naturalization Act, the Patent Act, the Trade Unions Act, the Ticket of Leave Act, the Unfair Competition Act, the Bankruptcy Act, and with the collection and tabling of parliamentary returns. Other Acts and Regulations administered by the Secretary of State as a result of the declaration of war are: the War Charities Act, 1939; the Patents, Designs, Copyright and Trade Marks Emergency Order, 1939; and the Regulations respecting Trading with the Enemy, 1939. The Secretary of State also deals with the organization and administration of Internment Operations, the Prisoners of War Information Bureau, the Public Information Office, the Press Censorship Branch of the Censorship Co-ordination Committee, and the Voluntary Service Registration Bureau. Statistics regarding patents and copyrights appear under Chapter XVII at pp. 608-610.

Charters of Incorporation.—Statistics of companies incorporated under the Companies Act are given in Table 9.

9.—Numbers and Capitalizations of Companies Incorporated Under the Companies Act and Amending Acts, Fiscal Years 1926-39.

NOTE.—Statistics for the years 1900-25 will be found at p. 1061 of the 1938 Year Book.

Year.	New Companies.		Old Companies with— Increased Capitalization.		Old Companies with— Decreased Capitalization.		Gross Increase in Capitalization.[1]	Net Increase in Capitalization.[1]
	Number.	Capitalization.[1]	Number.	Amount.[1]	Number.	Amount.[1]		
		$		$		$	$	$
1926	801	353,342,800	48	33,303,500	47	43,797,780	386,646,300	342,848,520
1927	836	692,540,900	70	33,524,000	40	16,905,045	726,064,900	709,159,855
1928	1,102	538,595,570	82	179,167,100	31	37,123,580	717,762,670	680,639,090
1929	1,202	1,406,006,340	128	412,396,320	40	48,005,533	1,818,402,660	1,770,397,127
1930	1,280	1,346,133,367	127	293,496,800	35	46,955,000	1,639,635,167	1,592,680,167
1931	898	562,613,797	75	153,524,400	39	50,604,545	716,138,197	665,533,652
1932	760	294,770,312	43	27,981,750	44	52,773,618	322,752,062	269,978,444
1933	548	145,453,718	38	44,621,950	46	31,636,447	190,075,668	158,439,221
1934	531	175,239,320	38	62,615,060	61	86,810,799	237,854,380	151,043,581
1935	472	171,689,140	47	35,416,353	60	73,634,742	207,105,493	133,470,750
1936	371	141,237,550	41	54,073,000	76	79,640,610	195,310,550	115,669,940
1937	410	130,767,280	72	143,597,766	105	123,837,999	274,365,046	150,527,047
1938	358	104,401,299	47	22,571,383	60	33,229,414	126,972,682	93,743,267
1939	317	116,819,350	65	38,160,031	55	56,213,867	154,979,381	98,765,515

[1] Includes consideration of the amounts of capital received on the issue of shares without nominal or par value.

Naturalizations.—The naturalizations effected under the Naturalization Act (R.S.C., 1906, c. 77) for the calendar years 1908-17, inclusive, are given at p. 594 of the Year Book for 1919. Since Jan. 1, 1918, the only method of obtaining naturalization has been under what is known as the 'Imperial' Naturalization Act, which came into force on Jan. 1, 1915. This Act was known under the title of the Naturalization Act, 1914, until July 7, 1919, when it was repealed and the Naturalization Act, 1919, came into force. On July 1, 1920, the Naturalization Act, 1919, was repealed, and the Naturalization Act, 1914, was revived and amended under the title of the Naturalization Acts, 1914 and 1920. By an amendment passed by Parliament in 1923, the restriction by which persons of alien enemy birth were

ineligible to receive certificates of naturalization for a period of 10 years after the termination of the War was removed. All these Acts have been consolidated in R.S.C. 1927, c. 138. At the present time any alien may apply for naturalization, regardless of his nationality, but, according to Sect. 4, Part II of the Act, the granting of a certificate of naturalization to any alien is left entirely to the discretion of the Minister, who may, without assigning any reason, give or withhold the certificate as he thinks most conducive to the public good. Since Jan. 15, 1932, female British subjects, marrying aliens, retain British nationality, unless they, by marriage, acquire their husbands' nationalities, and the wives of aliens no longer become British subjects through their husbands' naturalization. They must apply to the Secretary of State.

Table **10** shows the number of naturalization certificates issued to single persons or heads of families under these Acts during the calendar years from 1929 to 1938. The total numbers of persons naturalized during the fiscal years 1938 and 1939, were 27,455 and 21,418, respectively, including (except as stated above) the wives and minor children of those to whom naturalization certificates were issued.

10.—Naturalizations in Canada, by Principal Nationalities, Calendar Years 1929-38.

NOTE.—Dashes in this table indicate that naturalizations were not reported under the corresponding stub items.

Nationality.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
Albanian	9	4	4	2	2	4	4	5	13	1
Argentinian	1	4	3	3	2	5	4	10	3	2
Austrian	890	1,004	1,050	1,057	659	804	1,015	996	1,069	750
Austro-Hungarian	5	4	5	3	5	Nil	3	4	6	Nil
Belgian	264	274	257	284	305	267	383	373	486	314
Brazilian	3	1	Nil	2	Nil	2	Nil	4	Nil	2
Bulgarian	64	41	37	44	30	37	46	53	72	44
Chinese	24	23	22	5	1	1	7	6	2	4
Costa Rican	–	–	–	–	–	–	1	Nil	Nil	Nil
Czechoslovak	287	287	646	1,078	964	910	1,052	1,080	1,364	991
Danish	208	217	249	285	390	418	677	771	686	327
Danziger	Nil	1	2	5	4	5	2	7	10	4
Dutch	112	143	203	229	197	181	356	434	442	262
Egyptian	1	1	Nil	Nil	2	Nil	1	Nil	2	Nil
Estonian	9	10	14	16	24	34	51	44	34	29
Finnish	288	276	319	329	359	410	601	601	687	624
French	118	119	154	127	126	103	154	219	277	195
German	288	420	449	530	675	899	1,495	2,079	1,851	997
Greek[1]	173	181	97	121	113	157	216	193	185	175
Hungarian	184	396	780	829	721	856	1,166	1,138	1,224	913
Icelandic	12	17	30	21	8	24	31	29	22	14
Italian	1,739	1,186	1,183	1,418	1,265	779	829	894	1,067	969
Japanese	18	33	7	Nil	1	10	49	49	41	16
Latvian	25	25	29	34	29	39	61	56	55	41
Lithuanian	55	46	130	192	275	332	427	514	396	286
Luxemburger	4	2	4	8	5	Nil	4	12	8	6
Memel (Territory)	.	–	.	–	.	–	1	Nil	Nil	Nil
Mexican	1	Nil	2	Nil	1	Nil	3	"	1	1
Montenegrin	–	–	–	–	–	–	2	"	2	Nil
Norwegian	424	381	412	453	498	521	687	737	724	395
Palestinian	6	6	4	1	5	10	15	11	9	8
Persian	1	4	1	4	3	Nil	3	4	2	6
Polish	1,295	1,218	2,623	4,240	3,749	4,279	6,113	6,302	6,949	5,104
Roumanian	671	588	614	781	720	852	1,195	1,157	1,087	848
Russian	1,687	1,940	2,527	2,936	1,970	1,807	2,178	2,256	2,216	1,475
Spanish	7	8	8	9	5	5	5	7	11	2
Swedish	295	310	442	375	385	444	638	704	681	376
Swiss	26	38	27	61	47	64	90	125	152	147
Syrian	–	–	53	86	77	60	69	55	80	70
Turkish[2]	160	174	56	40	30	33	54	28	31	29
United States	1,073	1,104	1,652	1,877	1,374	1,240	1,905	2,170	2,013	1,098
Yugo-Slav (Serb-Croat-Slovene)	295	404	646	1,018	1,160	979	882	888	845	686
All others	12	16	11	24	54	47	66	55	61	77
Totals	**10,734**	**10,906**	**14,752**	**18,527**	**16,240**	**16,618**	**22,541**	**24,070**	**24,866**	**17,288**

[1] Includes 1 Greek Macedonian for 1930.

[2] Includes also Syrian, Armenian, Greek, Bulgarian, Palestinian, and Mesopotamian Turks.

Section 8.—Royal Canadian Mounted Police.*

The Royal Canadian Mounted Police is a constabulary maintained by the Dominion Government. It was organized in 1873, and was known as the North West Mounted Police, whose duties were confined to what were then known as the North West Territories. In 1904, its name was changed to Royal North West Mounted Police.

In 1905, when Alberta and Saskatchewan were constituted provinces, an arrangement was made whereby the Force continued to discharge its duties as formerly, each province making a contribution towards defraying the cost. This was continued until 1917. Soon after the close of the War of 1914-18, an extension of Governmental activities made it obvious that the enforcement of Dominion Statutes was assuming increasing proportions, and that it would soon be necessary to have a police force responsible therefor. In 1918, the Royal North West Mounted Police was assigned the duty of the enforcement of Dominion legislation for the whole of Western Canada west of Port Arthur and Fort William, and in 1920 for the whole of Canada.

In 1920, the name of the Force was changed to the Royal Canadian Mounted Police, and the former Dominion Police with headquarters at Ottawa, whose duties were connected largely with guarding public buildings in that city and the Canadian Government dockyards at Halifax, N.S., and Esquimalt, B.C., were absorbed by the Royal Canadian Mounted Police.

At the present time, the R.C.M. Police is responsible throughout Canada for the enforcement of the laws against smuggling by land, sea, and air. It enforces the provisions of the Excise Act, is responsible for the suppression of the traffic in narcotic drugs and for the enforcement of the Migratory Birds Convention Act, and assists the Mines and Resources, Fisheries, and several other Dominion Departments, in executing the provisions of their respective Acts and, in some cases, in administrative duties. It is responsible for the protection of government buildings and dockyards. It is the sole police force operating in the Yukon Territory and the Northwest Territories, and performs a variety of services in all provinces and both Territories for the Dominion Government.

Under the R.C.M. Police Act, any province may enter into an agreement with the Dominion Government for the services of the Royal Canadian Mounted Police, to enforce provincial laws and the Criminal Code, upon payment for its services. At the present time such agreements are in force with the Provinces of Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, and Alberta.

The Force is controlled and administered by a Minister of the Crown (at present the Minister of Justice) and may be employed anywhere in Canada. From a force of 300 in 1873, the strength on Dec. 31, 1939, was 3,875. Its means of transport at the latter date consisted of 150 horses, 538 motor vehicles, 271 sleigh dogs and 16 police dogs. The Force is organized into 13 divisions of varying strength distributed over the entire country. The term of engagement is five years for recruits, with re-enlistment for a period not exceeding five years. The Officers are commissioned by the Crown. Recruits are trained at Regina, Sask. The course

* Revised by Commissioner S. T. Wood, Royal Canadian Mounted Police.

of training is six months and consists of drill, both mounted and dismounted, and physical training, including instruction in wrestling, boxing, and ju-jutsu. Special attention is paid to police duties, both Dominion and provincial, and detailed lectures are given. Instructional courses for promotion are held, and, where practicable, an annual refresher course of training is given.

In 1937, a "Reserve" strength of 300 men was authorized by Parliament. Since that time, required reserves have been sought principally in large centres, such as Toronto and Winnipeg, where men can be congregated easily and where instruction can be given in the evenings.

As the duties of the Force have increased greatly since the outbreak of war in September, 1939, authority was granted the Commissioner to re-engage 500 ex-members of the Force and 2,500 special constables, if required. The Commissioner of the Royal Canadian Mounted Police is the Registrar General of Enemy Aliens in Canada, and the guarding of vulnerable points throughout the Dominion rests largely upon the Canadian Militia and the Royal Canadian Mounted Police. The Royal Canadian Mounted Police has furnished one Provost Company, comprising approximately 120 men, to the Canadian Active Service Force.

Section 9.—The Civil Service of Canada.

Organization.*—Prior to 1882, appointments to the Civil Service were made directly by the Government. In that year, a Board of Civil Service Examiners was appointed to examine candidates and issue certificates of qualification to those successful at examinations. Appointments, however, were still made by the Government of the day.

The Royal Commission of 1907, appointed to inquire into the Civil Service Act and its operation, reported in favour of the creation of a Civil Service Commission. This body was established in 1908; it consisted of two members appointed by the Governor in Council and holding office during good behaviour, but removable by the Governor General on address of the Senate and House of Commons. The Civil Service was classified into three divisions under the Deputy Heads of Departments, each division consisting of two subdivisions, each of these having its scale of salaries. The Commission was charged with: the organization of, and appointments to, the Inside Service (at Ottawa), certain appointments to be made after open competition and others after qualifying tests; and the holding of qualifying examinations for the Outside Service (the Service apart from Ottawa) to obtain lists from which selections could be made by the various Departments. All British subjects between 18 and 35 years of age who had resided in Canada for three years were eligible to try these examinations.

In 1918, a third member of the Civil Service Commission was appointed and, by the Civil Service Act of that year, the principle of appointment after open competition was applied to the Outside as well as the Inside Service. The Act also provided for the organization by the Commission of the various Government Departments, for a classification of all positions in the Service on a duties basis, for the establishment of new rates of compensation, and for the principle of promotion by merit wherever consistent with the best interests of the Service. Provision

* Revised by Miss E. Saunders, Secretary, Civil Service Commission, Ottawa.

was also made for preference, in the matter of appointment to the Service, to be given to qualified applicants who had served in the War of 1914-18.

Subsequent amendments have removed from the Commission's jurisdiction some branches of the Service, such as skilled and unskilled labour positions, and the staffs of certain units.

Civil Service Statistics.*—Since April, 1924, a monthly return of personnel and salaries has been made by each Department to the Dominion Bureau of Statistics, according to a plan that ensures comparability between Departments and continuity in point of time. The institution of this system was preceded by an investigation covering all years back to 1912.

From 1914 to 1920, (as will be seen from Table **11**) the number of employees increased very rapidly, as a result of the extension of the functions of government and of the imposition of new taxes, which necessitated additional officials as collectors. Such new services as the Department of Pensions and National Health and the Soldier Settlement Board were also created. The maximum was reached in January, 1920, when 47,133 persons were employed; this number has since decreased to 45,437 in January, 1939. It may be added that, out of 46,106 in March, 1939 (see Table **12**), 1,291 in the Income Tax Branch and 2,335 in the Department of Pensions and National Health, or 3,626 in all, were engaged in services of outstanding importance that had no existence before the War of 1914-18. Further, 12,518 persons were, in March, 1939, employed in the Post Office Department, performing services of an industrial rather than of a governmental type, and receiving their salaries out of payments made by the public for services immediately rendered rather than out of taxation.

* Revised by Col. J. R. Munro, Chief of the Finance Branch, Dominion Bureau of Statistics.

11.—Civil Service Employees (Permanent and Temporary), Together with Total Salaries, in January of the Years 1925-39.

NOTE.—These figures do not include persons in the "non-enumerated classes" whose numbers cannot be supplied monthly. Moreover, the figures shown below are not comparable with those for earlier years shown at p. 1100 of the 1939 Year Book because various classes of employees (part-time, seasonal, etc.) formerly omitted are now included.

Year.	Employees.	Salaries.	Bonuses.	Salaries and Bonuses.
	No.	$	$	$
1925	38,645	4,473,470	166,461	4,639,931
1926	39,097	4,699,076		4,699,076
1927	39,440	4,786,615		4,786,615
1928	40,740	5,161,558		5,161,558
1929	42,038	5,428,058		5,428,058
1930	43,525	5,543,749		5,543,749
1931	45,167	5,757,554		5,757,554
1932	43,784	5,653,169	Nil	5,653,169
1933	41,920	4,775,591		4,775,591
1934	41,346	4,698,536		4,698,536
1935	41,348	4,757,045		4,757,045
1936	40,813	5,000,539		5,000,539
1937	43,413	5,210,210		5,210,210
1938	43,859	5,505,877		5,505,877
1939	45,437	5,725,081		5,725,081

12.—Civil Service Employees and Total Expenditures on Salaries and Wages, by Departments and Principal Branches, March, 1938, and March, 1939.

NOTE.—Dashes in this table indicate that no information is available under the corresponding stub items. The numbers of persons in the "non-enumerated classes" are not included in this table, but their compensation is included under "Expenditure".

Department and Branch.	March, 1938.		March, 1939.	
	Employees.	Expenditure.	Employees.	Expenditure.
	No.	$	No.	$
Agriculture—				
Departmental Administration			101	17,631
Marketing Service			670	93,055
Production Service	–		1,233	174,966
Experimental Farms	–		456	115,541
Science Service	–		397	65,031
Prairie Farm Rehabilitation	–		265	55,515
Totals, Agriculture	2,926	502,631	3,122	521,739
Archives	74	11,621	67	12,035
Auditor-General	226	35,209	231	36,292
Chief Electoral Officer	5	820	15	2,267
Civil Service Commission	230	27,065	235	29,668
External Affairs—				
Prime-Minister's Office	26	3,256[1]	27	3,625[1]
Administrative and Passport	65	10,808	66	11,048
High-Commissioner's Office	41	7,096[1]	47	7,535[1]
Director Canadian Trade Publicity	4	538[1]	[2]	–
Canadian Legation, Washington, U.S.A.	19	4,423[1]	21	5,087[1]
Canadian Legation, Paris, France	12	2,782[1]	14	4,122[1]
Canadian Legation, Brussels, Belgium	[3]	–	2	2,443[1]
Canadian Legation, The Hague, Netherlands	[3]	–	1	568[1]
Canadian Legation, Tokyo, Japan	11	2,402[1]	9	2,014[1]
The League of Nations	7	2,080[1]	6	1,820[1]
Totals, External Affairs	185	33,385[1]	193	38,262[1]
Finance—				
Main Department	293	39,332	200	29,435
Comptroller of Treasury	1,034	144,704	1,073	150,026
Royal Canadian Mint	115	16,655	126	16,874
Superintendent of Bankruptcy	13	2,292	13	2,375
Tariff Board	20	6,015	20	6,027
Totals, Finance	1,475	208,998	1,432	204,737
Fisheries	301	68,374	325	71,219
Governor-General's Secretary[4]	12	2,760	14	2,900
House of Commons	568	71,780	516	72,046
Insurance	54	10,617	53	10,169
International Joint Commission	6	2,605	6	2,615
Justice—				
Main Department	46	9,590	53	10,537
Clemency Branch	12	1,927	14	2,091
Purchasing-Agent's Office	6	960	6	840
Penitentiaries	949	119,079	985	123,348
Supreme Court	21	3,938	24	3,996
Exchequer Court	10	2,017	9	1,777
Totals, Justice	1,044	137,511	1,091	142,589
Labour—				
Main Department	111	18,513	110	18,037
Annuities	45	17,059	53	22,020
Technical Education	1	192	1	192
Dominion Unemployment Relief	87	13,179	80	12,337
Totals, Labour	244	48,943	244	52,586

[1] Including living allowances. [2] Transferred to Department of Trade and Commerce. [3] Not established until 1939. [4] Salaries of A.D.C.'s are included, but not their number.

12.—Civil Service Employees and Total Expenditures on Salaries and Wages, by Departments and Principal Branches, March, 1938, and March, 1939—continued.

Department and Branch.	March, 1938.		March, 1939.	
	Employees.	Expenditure.	Employees.	Expenditure.
	No.	$	No.	$
Library of Parliament	25	4,881	27	4,793
Mines and Resources—				
Departmental Administration	63	11,912	70	13,452
Immigration	587	81,158	595	94,306
Indian Affairs	1,047	86,545	1,038	88,976
Lands, Parks, and Forests	527	66,141	558	69,733
Mines and Geology	460	84,254	437	83,516
Surveys and Engineering	422	78,220	449	81,598
Totals, Mines and Resources	3,106	408,230	3,147	431,581
National Defence—				
General Defence Administration	180	24,654	190	24,440
Militia Services	714	65,777	779	71,102
Naval Services	159	38,668	178	39,642
Air Services	88	9,893	104	11,206
Military Topographic Surveys	18	4,140	16	3,805
Royal Military College	91	11,753	89	12,053
Dominion Arsenal, Quebec, *inc. Ammun. Inspection*	56	63,055	68	75,300
Totals, National Defence	1,306	217,940	1,424	237,548
National Research Council	185	34,275	226	39,817
National Revenue—				
Main Department	4,523	667,799	4,415	739,786
Income Tax Division	1,261	170,186	1,291	181,670
Totals, National Revenue	5,784	837,985	5,706	921,456
Pensions and National Health—				
Pensions	1,776	217,991	1,819	224,983
Canadian Pension Commission	213	35,874	208	34,881
Health	259	51,649	269	45,438
Pensions Appeal Court	12	3,452	11	3,477
Veterans' Assistance Commission	28	3,815	28	3,465
Totals, Pensions and National Health	2,288	312,781	2,335	312,244
Post Office—[1]				
Civil Government	912	116,903	927	121,910
Outside Service	11,210	4,682,744	11,591	4,780,905
Totals, Post Office	12,122	4,799,647	12,518	4,902,815
Privy Council	18	3,822	19	4,057
Public Printing and Stationery	635	112,222	652	114,159
Public Works—				
Civil Government	260	46,910	271	49,135
Outside Service	3,767	357,864	3,853	428,527
Totals, Public Works	4,027	404,774	4,124	477,662
Royal Canadian Mounted Police	100	226,024	86	227,475
Secretary of State	324	50,368	346	52,589
Senate	143	18,607	145	19,332
Soldier Settlement Board	307	47,841	303	44,961
Trade and Commerce—				
Headquarters and Miscellaneous Branches	68	13,239	75	13,022
Board of Grain Commissioners	564	98,138	642	104,169
Dominion Bureau of Statistics	503	55,382	550	63,395
Weights and Measures	148	21,044	145	20,817
Electricity and Gas	101	17,158	104	17,697
Commercial Intelligence Service	101	47,000	99	51,041

[1] Statistics do not include the numbers of postmasters of non-revenue offices. It should also be noted that post-office expenditures are balanced by receipts from the public; see text at p. 1073.

12.—Civil Service Employees and Total Expenditures on Salaries and Wages, by Departments and Principal Branches, March, 1938, and March, 1939—concluded.

Department and Branch.	March, 1938.		March, 1939.	
	Employees.	Expenditure.	Employees.	Expenditure.
	No.	$	No.	$
Trade and Commerce—concluded.				
Motion Picture Bureau	26	4,237	27	4,443
Exhibitions	15	11,499	24	8,428
Canadian Government Elevators	81	12,471	128	18,377
Totals, Trade and Commerce	1,607	280,168	1,794	301,389
Transport—				
Main Department	4,725	515,045	5,613	568,696
Transport Commissioners	91	20,625	97	22,400
Totals, Transport	4,816	535,670	5,710	591,096
Grand Totals	**44,143**	**9,457,554**	**46,106**	**9,882,098**

Section 10.—Supervision of Race-Track Betting.

By an amendment to Sect. 235 of the Criminal Code, passed in 1920, the supervision of race-track betting, under the pari-mutuel system, was placed in the hands of the Minister of Agriculture; the system was operated for the first time during the racing season of 1921. The actual supervision is carried out by officers of the Royal Canadian Mounted Police. Statistics are available from the year 1924.

13.—Race-Track Betting in Canada, Fiscal Years 1924-38.

Year.	Associations.	Days Racing.	Amounts Wagered.	Pari-Mutuel Receipts Retained.	Prize Money.
	No.	No.	$	$	$
1924	30	354	52,600,633	3,496,891	2,023,665
1925	33	344	49,867,765	3,359,708	1,925,735
1926	32	322	44,346,672	3,018,358	1,807,780
1927	31	354	47,915,828	3,278,179	2,034,587
1928	32	350	45,960,928	3,154,644	1,973,730
1929	30	335	45,580,845	3,104,456	1,886,800
1930	30	332	36,007,146	2,657,059	1,802,095
1931	30	326	33,377,786	2,379,558	1,564,945
1932	29	315	28,695,438	2,066,672	1,285,563
1933	28	324	25,137,598	1,831,411	1,147,871
1934	26	295	20,976,498	1,548,848	986,128
1935	27	321	20,891,669	1,534,739	1,065,835
1936	27	300	20,951,710	2,182,112	1,002,795
1937	27	302	22,275,787	2,281,239	1,046,440
1938	24	281	23,115,252	2,390,128	1,034,970

14.—Race-Track Betting in Canada, by Provinces, Fiscal Year 1938.

Province.	Associations.	Days Racing.	Amounts Wagered.	Pari-Mutuel Receipts Retained.	Prize Money.
	No.	No.	$	$	$
Quebec	4	56	2,061,044	193,650	150,600
Ontario	7	98	13,883,997	1,420,743	532,100
Manitoba	2	28	2,332,251	244,257	98,700
Saskatchewan	2	12	327,596	67,515	22,200
Alberta	5	31	1,075,885	129,169	58,000
British Columbia	4	56	3,434,479	334,794	173,370
Totals	**24**	**281**	**23,115,252**	**2,390,128**	**1,034,970**

Section 11.—The Tariff Board.*

The Tariff Board was constituted by Act of Parliament in 1931 (c. 55, 21-22 Geo. V). It consists of three members (a Chairman, a Vice-Chairman, and a Member) and a secretary, all appointed by the Governor in Council.

The Board makes inquiry into and reports upon any matter in relation to goods that, if brought into Canada or produced in Canada, are subject to or exempt from duties of customs or excise and on which the Minister of Finance desires information. The investigation into any such matter may include inquiry as to the effect that an increase or decrease of the existing rate of duty upon a given commodity might have upon industry or trade, and the extent to which the consumer is protected from exploitation.

It is also the duty of the Board to inquire into any other matter in relation to the trade or commerce of Canada that the Governor in Council sees fit to refer to the Board for inquiry and report.

The Act provides that reports shall be made to the Minister of Finance, and tabled in the House of Commons. The principal commodities reported on are: wool textiles; boots and shoes; jute yarns and twines; fruits and vegetables; hookless fasteners (zippers); wooden doors; silver-bearing articles (toiletware); rabbit skins; brass, copper, and nickel-silver commodities; boiler tubes; skelp; hats and hoods; biscuits; cork boards, slabs, and planks; crude petroleum and its derivatives; artificial silk yarns, cotton yarns and fabrics; plastics of all kinds; steel wool; certain sporting goods, etc. In 1939 reports were made on the radio industry; animal and vegetable oils, fats, and greases; cigars; coke; worsted weaving yarn; cocoa-fibre mats and matting; starches and dextrines; automobiles and furniture.

The Board also hears and decides appeals from rulings made by the Department of National Revenue with respect to fair market value of goods for duty purposes, erroneous appraisals, and the rate of duty applicable to any class of goods. Under Order in Council the Board has authority and power: (1) to declare or find, with respect to any importation, whether the goods are "of a class or kind made or produced in Canada"; (2) to review the value for duty applied by the Customs to new or unused goods under provisions of Sect. 36 of the Customs Act and make its findings with regard thereto; (3) to determine and declare whether any and, if so, what drawback of Customs duty is payable under the provisions of Schedule B of the Customs Tariff.

Section 12.—Dominion Trade and Industry Commission.†

The Dominion Trade and Industry Commission was constituted by Act of Parliament in 1935 (c. 59, 25-26 Geo. V). It consists of three Commissioners, one of whom is the Chief Commissioner and another the Assistant Chief Commissioner. The Act provides that, for the time being, the members of the Tariff Board (see Sect. 11) shall be the Commissioners, and the Chairman and Vice-Chairman of the Tariff Board shall be the Chief Commissioner and Assistant Chief Commissioner, respectively. The administration of the Act is vested in the Minister of Trade and Commerce.

* Revised by James R. MacGregor, Secretary, Tariff Board.

† Revised by James R. MacGregor, Secretary, Dominion Trade and Industry Commission.

Duties of the Commission consist of: investigating and recommending the prosecution of offences against Acts of Parliament relating to commodity standards; preparation of draft specifications for commodity standards; application of the national trade mark "Canada Standard" to commodities that conform to specifications established under any Act of Parliament; investigation of complaints respecting unfair trade practices, and recommending the prosecution of offenders against any Dominion law prohibiting unfair trade practices; the convening of conferences for the purpose of considering commercial practices prevailing in industry, and determining what practices are unfair or undesirable in the interest of the industry or the public. Offences against Acts of Parliament or regulations relating to commodity standards and unfair trade practices are reported by the Commission to the Attorney General of Canada with a recommendation for prosecution.

In 1939, an amendment to the Act was passed making it possible to establish standards that were not then provided for by any existing Act of Parliament. Regulations for marking material content on hosiery were established and passed by Orders in Council, dated July 27 and Aug. 2, 1939. A request had been received from the Canadian Woollen and Knit Goods Manufacturers' Association for hosiery-content regulations and, after a full investigation by the Commission, standards were established. These standards came into force and were effective, in so far as manufacturers and importers of hosiery are concerned, on Feb. 1, 1940, and will be effective, in so far as jobbers, wholesalers, and retailers are concerned, on and after Feb. 1, 1941.

Section 13.—Other Miscellaneous Administration.

In previous editions of the Year Book this chapter has been brought to a close with outlines of Dominion Government administration as follows: the International Joint Commission; the Geodetic Survey of Canada; the Topographical Survey; the Dominion Observatories. These are not repeated in this edition.

The purpose of establishing the Department of Mines and Resources in 1936 was to correlate the efforts of the staffs of such older Departments as had, in the course of time, acquired overlapping features, or that could be administered more economically under one head without impairing the usefulness of necessary services.

New Departments and several special and administrative commissions have been organized as part of Canada's War Effort; in addition, new functions have been assumed by many of the older Departments. These are described in detail in the Introduction to the present volume.

Certain phases of Dominion Government activity, such as the operations of the International Joint Commission and certain specialized activities of the Department of Mines and Resources, were treated in the 1930 edition of the Year Book, as follows:—

International Joint Commission, pp. 1014-1015;
Geodetic Survey of Canada, p. 1015;
Topographical Survey, p. 1016;
Dominion Observatories, p. 1017.

CHAPTER XXIX.—SOURCES OF OFFICIAL STATISTICAL AND OTHER INFORMATION RELATIVE TO CANADA.

CONSPECTUS.

	Page.
Section 1. The Dominion Bureau of Statistics	1079
Section 2. Acts Administered by Dominion Departments	1093
Section 3. Publications of Dominion Departments	1095
Section 4. Publications of Provincial Governments	1101
Section 5. Reports of Dominion and Provincial Royal Commissions, together with a Selection of Reports of British Royal Commissions having a Bearing on Canada	1108

The chief source of information on the current state of the country is the Dominion Bureau of Statistics, organized as the central statistical bureau for Canada, and described in Section 1. Section 2 contains a list of the Acts of Parliament administered by the several Departments of the Dominion Government, and Section 3 a bibliography of the publications of these Departments. This is followed, in Section 4, by a bibliography of the publications of Provincial Governments, and by a list of Royal Commissions appointed by the Dominion or the provinces as well as British Royal Commissions concerned with Canada, given in Section 5.

Section 1.—The Dominion Bureau of Statistics.*

The Dominion Bureau of Statistics was set up by statute in 1918 as a central statistical department for Canada (8-9 Geo. V, c. 43).† The Act was a consolidation of all previous statistical legislation and was based on the report of a Commission on Statistics, appointed in 1912, which recommended (1) a series of specific reforms and enlargements in Canadian statistics, and (2) a policy of statistical co-ordination for the Dominion, under central direction. In 1915, following the recommendations in this report, the office of Dominion Statistician was created but, as stated, it was not until 1918 that the recommendations of the Commission were embodied in legislation. Among its many provisions the following are indicated:—

> 3. There shall be a bureau under the Minister of Trade and Commerce, to be called the Dominion Bureau of Statistics, the duties of which shall be to collect, abstract, compile and publish statistical information relative to the commercial, industrial, social, economic and general activities and condition of the people, to collaborate with all other departments of the Government in the compilation and publication of statistical records of administration according to the regulations, and to take the Census of the Dominion as hereinafter provided.
>
> . . . . .
>
> 9. (1) The Minister may enter into any arrangement with the government of any province providing for any matter necessary or convenient for the purpose of carrying out or giving effect to this Act, and in particular for all or any of the following matters:—
> (a) The execution by provincial officers of any power or duty conferred or imposed on any officer under this Act or the regulations;
> (b) The collection by any provincial department or officer of any statistical or other information required for the purpose of carrying out this Act; and,
> (c) The supplying of statistical information by any provincial department or officer to the Dominion Statistician.
>
> . . . . .

* A more complete account of the formation and activities of the Bureau of Statistics will be found at pp. 961-964 of the 1922-23 Year Book.

† Consolidated as the Statistics Act (c. 190, R.S.C., 1927).

15. (1) No individual return, and no part of an individual return, made, and no answer to any question put, for the purposes of this Act, shall, without the previous consent in writing of the person or of the owner for the time being of the undertaking in relation to which the return or answer was made or given, be published, nor, except for the purposes of a prosecution under this Act, shall any person not engaged in connection with the Census be permitted to see any such individual return or any such part of any individual return.

(2) No report, summary of statistics or other publication under this Act shall contain any of the particulars comprised in any individual return so arranged as to enable any person to identify any particulars so published as being particulars relating to any individual person or business.

. . . .

33. Subject to the direction of the Minister, the Bureau shall collect, abstract and tabulate annually, statistics in relation to all or any of the following matters: *(a)* Population; *(b)* Births, Deaths and Marriages; *(c)* Immigration and Emigration; *(d)* Agriculture; *(e)* Education; *(f)* Public and Private Finance; *(g)* any other matters prescribed by the Minister or by the Governor in Council.

As first established* the Bureau included, by transfer or absorption, the following divisions: (1) the Census and Statistics Office (covering the census, and also agriculture, general manufactures, and judicial statistics), (2) Fisheries Statistics, (3) Mining Statistics, (4) Forestry Statistics, (5) Dairying and Fruit Statistics, (6) Water- and Electric-Power Statistics, (7) the Railways and Canals Statistical Branch of the Department of Railways and Canals, (8) the Trade Statistical Branch (Exports and Imports), (9) Grain Trade Statistics, (10) Live-Stock Statistics, (11) Prices Statistics, and (12) Employment Statistics. In addition, four new branches were created, dealing, respectively, with Public Finance, Internal Trade, Vital Statistics, and Education.

Since its organization in 1918, the Bureau has created out of these many heterogeneous units a unified, nation-wide statistical system in which the correlation of the several subjects and their interpretation from a comprehensive national viewpoint has been the primary objective. By means of Dominion-Provincial statistical conferences held from time to time, a useful degree of co-operation and uniformity of statistical classification and method has been achieved and progress along these lines continues. These main advantages of statistical centralization have not only been substantially attained, but the treatment of statistics, not merely as aggregations of figures, but as primary data from which complex social and economic phenomena may be interpreted, has been emphasized. This view of a true national statistic as revealing the controlling economic forces that operate and their interplay, and the value of such a statistic in administrative planning along national lines, involves, of course, an added function of the Bureau, viz., its usefulness as a national laboratory for economic and social research. This is a development that, as yet, is in its infancy but the foundation of such a service, comparable with the increasing importance of Canada in the economic and political world, has already been laid.

As now organized, the Branches of the Dominion Bureau of Statistics are: I. Administration; II. Demography—Census and Vital Statistics; III. Agricultural Statistics; IV. Fisheries and Animal Products; V. Mining, Metallurgical and Chemical; VI. Forestry and Allied Industries; VII. General Manufactures; VIII. External Trade (Imports and Exports); IX. Internal Trade; X. Construction; XI. Transportation and Public Utilities; XII. Financial Statistics; XIII. Judicial Statistics; XIV. Education Statistics; XV. Census of Institutions; XVI. Census Analysis and Social Statistics. An organization chart showing the relationship of the Branches and the divisions of their work is given at pp. 1144-1145 of the 1934-35 Year Book.

* See the first Annual Report of the Dominion Statistician, for the fiscal year ended Mar. 31, 1919.

While primarily serving the Government, the Bureau realizes that, in a democratic community, every citizen is a part of the Government and should be well informed regarding the social and economic conditions of his country. Accordingly, the Bureau furnishes to all applicants answers to all manner of questions on all sorts of topics. In particular, it supplies to business men of all classes information regarding business conditions and statistics regarding production, imports, exports, prices, stocks, etc., of all kinds of commodities, thus enabling them to direct their operations more effectively to their own greater advantage and to the greater advantage of Canada. Special tabulations may be made, or other investigations carried out at a fee based only on the extra clerical costs to the Bureau.

Publications.—Items in the vote of the Bureau, passed by Parliament each year, provide limited funds for the printing and processing of reports and bulletins. Reports printed from type are set up by the King's Printer, but the Bureau itself operates its own contact printing presses and all processed reports and bulletins are completely printed as well as published by the Bureau of Statistics.

The present policy with regard to the distribution of publications is based on sales to the public at actual cost of paper and presswork only; compilation, editing, and other overhead costs are not included. The object is to extend the service to the public as widely as possible and so spread the compilation and overhead which are the big items in total costs. A special subscription rate of $30 per year entitles the payer to receive a copy of each publication as issued, with the exception of news bulletins. Other special rates are set for series of publications in related groups; these are referred to in the respective sections of the list following.

Applications for reports should be sent to the Bureau of Statistics; they should indicate the individual publication or series of reports in which the applicant is interested and include the necessary remittance in the form of a cheque or money order made payable to the Receiver-General of Canada, Ottawa.

ADMINISTRATION—

Annual Report of the Dominion Statistician. (Included in the Annual Report of the Department of Trade and Commerce, *Price 25 cents.)*

POPULATION—

I. CENSUS.

(A) Report of the Seventh Census of Canada, 1931:—

Vol. I. General—Administrative Report of the Seventh Census followed by a summary of the leading facts of the Censuses of Population and Agriculture, Institutions, Merchandising and Service Establishments, etc., and cross-analyses relating thereto. The Appendix gives a complete bibliography of census materials and reproduces the more salient figures for specified years, chronologically arranged, back to 1605. The volume also contains a series of life tables for the Dominion and each province. *Price, Cloth $1·50, Paper $1.*

Vol. II. Population by Local Subdivisions—Conjugal condition, racial origin, religion, birthplace, year of immigration, language, literacy, school attendance, etc. *Price, Cloth $1·50, Paper $1.*

Vol. III. Ages of the People—Classified by sex, conjugal condition, racial origin, religion, birthplace, language, literacy, year of immigration, naturalization, etc. *Price, Cloth $1, Paper 75 cents.*

Vol. IV. Birthplace, Racial Origin, and Year of Immigration of the People—Classified and cross-classified by conjugal condition, naturalization and citizenship, religion, language, literacy, school attendance. *Price, Cloth $1, Paper 75 cents.*

Vol. V. Earnings of Wage-Earners, Dwellings, Households, Families, Blind and Deaf-Mutes—Cross-classified by birthplace, conjugal condition, year of immigration, naturalization and citizenship, racial origin, religion, language, literacy, school attendance. *Price, Cloth $1, Paper 75 cents.*

Vol. VI. Unemployment—Classified by industry, occupation, cause, age, sex, conjugal condition, period of idleness, birthplace, racial origin, year of immigration. *Price, Cloth $1, Paper 75 cents.*

POPULATION—continued.

I. CENSUS—continued.

(A) Report of the Seventh Census of Canada, 1931—concluded.

Vol. VII. Occupations and Industries—Cross-classified by birthplace, race, age, sex, etc. *Price, Cloth $1, Paper 75 cents.*

Vol. VIII. Agriculture—Agricultural population, farm holdings and land area, tenure, value of farm property and farm products, acreage and yields of crops, live stock, mortgage indebtedness and farm expenses, farm machinery, facilities and roads, co-operative marketing, etc. *Price, Cloth $1, Paper 75 cents.*

Vol. IX. Institutions—Hospitals for the Sick—Type, bed capacity, facilities, movement of patient population, personnel, capital investment, maintenance, receipts and expenditures, etc.; Mental Hospitals—Movement of patient population and their psychoses, age, nativity, racial origin, economic condition, conjugal condition, environment, literacy, religion, administration and personnel, etc.; Charitable and Benevolent Institutions—Type, movement of population, finances, inmates, age, sex, administration and personnel, etc.; Penitentiaries and Corrective and Reformative Institutions—Inmates, offences, sentences, age, birthplace, citizenship, racial origin, previous employment, environment, educational status, conjugal condition, social habits, overseas service, administrative staff, receipts and expenditures. *Price, Cloth $1, Paper 75 cents.*

Vols. X and XI. Merchandising and Service Establishments—Retail merchandise trade cross-classified by kind of business, type of operation, size of business, employees, salaries and wages, capital investment, rent and other operating expenses, credit, etc.; wholesale trade cross-classified by type of establishment, kind of business, operating expenses, etc.; with special reports on retail trade in urban and rural areas, chain stores, food retailing, drug stores, hotels, moving picture theatres, co-operative marketing and purchasing, etc. *Price, Cloth $1, Paper 75 cents, each Volume.*

Vols. XII and XIII. Census Monographs—Consisting of a series of studies of outstanding Canadian problems as follows: (1) Population Growth; (2) Age Distribution of the Canadian People; (3) Fertility of the Population of Canada; (4) Racial Origins and Nativity of the Canadian People; (5) Illiteracy and School Attendance in Canada; (6) Rural and Urban Composition of the Canadian People; (7) The Canadian Family; (8) Housing and Rentals in Canada; (9) Dependency of Youth; (10) Occupational Structure of the Canadian People; (11) Unemployment; (12) Population Basis of Agriculture; (13) Canadian Life Tables, 1931. Nos. 4, 5, 6, 7, 9, 11, and 13 are already published as separates; the remainder are in course of preparation. *Price of each monograph, 35 cents, except Nos. 11 and 13, which are 50 cents each.*

AGRICULTURE.—
Farm population, areas, tenure, values, facilities and live stock; value of field crops, vegetables, fruits, and forest products: published separately for each province. *Price 25 cents each.*

(B) Bulletins of the Seventh Census of Canada, 1931:—

(1) POPULATION.—*Final Bulletins.*—(XI) Rural and Urban Population for Canada and Provinces. (XIII) Cities, Towns and Villages in Canada, by Provinces. (XVI) Ages, by Provinces. (XIX) Radio Sets in Canada, 1931. (XXVI) Age Distribution by Single Years of Age for Canada, by Provinces, 1931. (XXVII) Immigrant Population Classified by Sex, Country of Birth, Province of Residence, Years of Arrival in Canada, and Citizenship of the Foreign Born, 1931. (XXVIII) Gainfully Employed Ten Years of Age and Over, Classified According to Occupation and Sex for Cities of 30,000 and Over, 1931. (XXIX) Birthplace of the Population Classified According to Nativity of Parents for Canada and Provinces, 1931. (XXX) Canadians and Other Nationals. (XXXI) Gainfully Employed Ten Years of Age and Over for Canada and Provinces, 1931. (XXXII) Literacy, Language Spoken, and Conjugal Condition of the Population Ten Years of Age and Over, 1931. (XXXIII) Earnings Among Wage-Earners for Canada and Provinces, 1931. (XXXIV) Ages of the Gainfully Employed Ten Years of Age and Over, for Canada and Provinces, 1931. (XXXVII) Age Distribution by Five-Year Age Groups for Cities, Towns, and Villages of 5,000 Population and Over, 1931. (XXXVIII) Population of the Municipal Wards of Montreal City by Quinquennial Age Groups, Conjugal Condition, Birthplace, Racial Origin, Religion, School Attendance and Literacy, by Sex, 1931. (XXXIX) Houses and Dwellings. (XL) Population of the Municipal Wards of the Cities of Toronto, Vancouver, Winnipeg, Hamilton, Quebec, and Ottawa by Quinquennial Age Groups, Conjugal Condition, Birthplace, Racial Origin, Religion, School Attendance and Literacy, by Sex, Census of 1931. (XLI) Orientals, Ten Years of Age and Over, Gainfully Employed by Race, Occupation, and Sex, in British Columbia, 1931. (XLII) Persons Speaking Gaelic. (XLIII) Blind. (XLIV) Deaf Mutes. (XLV) Racial Origins of Gainfully

POPULATION—continued.

I. CENSUS—concluded.

(B) Bulletins of the Seventh Census of Canada, 1931—concluded.

Occupied, Ten Years of Age and Over for Canada and the Provinces. (XLVI) Birthplaces of Gainfully Occupied Ten Years of Age and Over, for Canada and the Provinces, 1931. (XLVII) Conjugal Condition of Gainfully Occupied Females, Fifteen Years of Age and Over, for Canada and the Provinces, 1931. Distribution of Occupations by Industry. Unemployment and Earnings Among Wage-Earners—(I) Saint John, N.B.; (II) Winnipeg, Man.; (III) Kitchener, Ont.; (IV) Ottawa, Ont.; (V) Vancouver, B.C.; (VIII) Toronto, Ont.; (IX) Montreal, Que. Occupational Trends in Canada, 1891-1931. *Reprints.*—Population 1871-1931. Age Distribution. Earnings of Wage-Earners.

[NOTE.—*For Census monographs on population, see under Vols. XII and XIII, p. 1082.*]

(2) AGRICULTURE.—*Final Bulletins.*—Animal Products on Farms, by Counties—(VII) Ontario; (VIII) Quebec; (IX) British Columbia. Live Stock on Farms, by Counties—(X) Prince Edward Island; (XI) Nova Scotia; (XII) New Brunswick; (XIII) Manitoba; (XIV) Saskatchewan; (XV) Alberta; (XVI) British Columbia; (XVII) Ontario. (XX) Stock Sold Alive, Stock Slaughtered, Young Animals Raised, 1930, and Pure-Bred Live Stock on Farms, 1931, by Counties or Census Divisions. (XXIV) Forest Products of Farms, by Counties or Census Divisions, 1930. (XXV) Condition of Farm Land, by Counties or Census Divisions, 1931. (XXVI) Area of Field Crops, by Counties or Census Divisions, 1931.

(C) Report of the Quinquennial Census of the Prairie Provinces, 1936:—

Vol. I. Population and Agriculture.

PT. I. POPULATION—Age, conjugal condition, birthplace, racial origin, immigrant population, citizenship, naturalization, language and mother tongue, years at school, literacy, school attendance.

PT. II. AGRICULTURE—Farm population, farm workers and weeks of hired labour, area and condition of occupied farm land, farm values and value of farm products, farm revenues, farm expenses, mortgages, liens and rates of interest, size of farm, tenure, field crops, crop failure, live stock, stock sold alive, stock slaughtered and animal products, type of farm, farm machinery, co-operative buying and selling, non-resident farms, vacant or abandoned farms, age of farm operator, years a farmer and years on present farm, birthplace of farm operator, racial origin of farm operator, immigrant farm operators and period of residence in Canada, apiaries.

Vol. II. Gainfully Occupied, Wage-Earners, Unemployment on June 1, 1936, Earnings and Employment during the Census year ended June 1, 1936, Buildings, Dwellings, Households and Families—Occupation, age, conjugal condition, birthplace, period of arrival of immigrants, racial origin, status, years at school, industry, retired males, cause of unemployment on June 1, 1936, duration of unemployment, relief, potential wage-earners (14-24 years), buildings, dwellings, all households, normal households, wage-earner households, tenure and sub-tenure, value of home, monthly rent, rooms occupied, kind of dwelling, size of household, families in household, lodgers, earnings of heads of households, all families, normal families, wage-earner families, female heads of families, earnings of heads of families.

[NOTE.—*Vols. I and II are published separately for each province, Price 50 cents each.*]

(D) Bulletins of the Quinquennial Census of the Prairie Provinces, 1936:—

(1) POPULATION.—*Final Bulletins.*—(XX) Final Population of Prairie Provinces, *Price 25 cents.* (XXI) Occupations and Industries of Gainfully Occupied for Cities of 10,000 Population and Over, *Price 25 cents.* (XXIII) Report on Population Classification by Provinces, *Price 25 cents.* (XXIV) Unemployment among Wage-Earners for Cities of 10,000 Population and Over, *Price 25 cents.* (XXVI) Earnings and Employment among Wage-Earners for Cities of 10,000 Population and Over, *Price 25 cents.* (XXVII) Occupations and Industries of Gainfully Occupied for the Provinces of Manitoba, Saskatchewan, and Alberta, *Price 25 cents.* (XXIX) Unemployment among Wage-Earners for the Provinces of Manitoba, Saskatchewan, and Alberta, *Price 25 cents.* (XXX) Unemployment and Earnings among Wage-Earners on and Not on Relief in Cities of 30,000 Population and Over, *Price 25 cents.* (XXXI) Earnings and Employment among Wage-Earners for the Provinces of Manitoba, Saskatchewan, and Alberta, *Price 25 cents.* (XXXII) Earnings of Wage-Earner Heads by Tenure and Size of Family for Cities of 10,000 Population and Over, *Price 25 cents.* (XXXIII) Occupations in Relation to Length of School Life for the Provinces of Manitoba, Saskatchewan, and Alberta, *Price 25 cents.* (XXXIV) Buildings, Dwellings, Households, and Rent by size of Dwelling for the Provinces of Manitoba, Saskatchewan, and Alberta, *Price 25 cents.*

(2) AGRICULTURE.—*Final Bulletins.*—(XXII) Manitoba—Preliminary Report on Agriculture, *Price 25 cents.* (XXV) Saskatchewan—Preliminary Report on Agriculture, *Price 25 cents.* (XXVIII) Alberta—Preliminary Report on Agriculture, *Price 25 cents.* (XXXV) Types of Farming, *Price 25 cents.*

POPULATION—concluded.

II. INTERCENSAL ESTIMATES OF POPULATION.

III. VITAL STATISTICS.

Annual Report on Vital Statistics of Canada by Provinces and Municipalities, *Price 50 cents;* Preliminary Annual Report on Vital Statistics of Canada, *Price 25 cents;* Preliminary Quarterly Report on Vital Statistics of Canada, *Price 50 cents per year;* Monthly Report of Births, Deaths, and Marriages registered in Cities, *Price 50 cents per year;* Special Report on Contributory Causes of Death, 1926; Order of Birth in the Registration Area of Canada, 1925; Manual of the International List of Causes of Death, Revision of 1929 (limited edition); Special Report on Mortality in Canada from Cerebral Hæmorrhage and Certain Diseases of the Heart, Arteries, and Kidneys, 1921-32; Special Report on Mortality in Canada According to Place of Residence, 1930-32; Special Report on Mortality from Tuberculosis in Canada According to Place of Residence, 1930-32; Circumstances of Accidental Deaths in Canada, 1937, published annually, *Price 25 cents;* Special Report on Births in Canada According to Place of Residence of Mother, 1930-32; Special Report on Mortality in Canada, 1921-32; Handbook on Death Registration and Certification, containing International List of Causes of Death (special distribution); Special Report on Mortality in Canada, 1921-35, *Price 25 cents;* Special Report on Occupational Mortality in Canada, 1931-32, *Price 25 cents;* Special Report on Deaths in Canada, Classified According to Residence of Decedents, 1935 (Parts I and II), *Price, each part, 25 cents;* Special Report on Births and Deaths in Canada, Classified According to Residence, 1936 (Parts I, II, and III), *Price, each part, 25 cents;* Special Report on Births and Deaths in Canada, Classified According to Residence, 1937-38 (Parts I, II, and III), *Price, Parts I and III, 25 cents each and Part II, 50 cents.*

PRODUCTION—

I. ANNUAL SURVEY OF PRODUCTION.

Including and differentiating gross and net values of—(1) Primary Production (agriculture, forestry, fisheries, trapping, mining, and electric power), (2) Secondary Production (general manufactures, custom and repair, and construction), and (3) Provincial and Per Capita Analyses, with explanation of method, *Price 25 cents.*

II. AGRICULTURE.

(1) Agricultural Production—Monthly Bulletin of Agricultural Statistics with Table of Contents and Index, *Price $1 per year.* (The official record of current statistical data relating to agriculture. Contains reports on crop conditions, prices, weather, etc.—estimates of areas, yields, quality, and value of field crops—value of farm lands—wages of farm help—number and values of farm live stock and poultry—dairying—fruit—eggs—tobacco—apiculture—maple products—clover and grass seed—miscellaneous crops—stocks of grain—annual summary of value of agricultural production—index numbers of agricultural prices, production, and values—international agricultural statistics.) Reprinted from the Monthly Bulletin of Agricultural Statistics: *(a)* The Fertilizer Trade in Canada; *(b)* Farm Expenditures in Alberta and Saskatchewan, 1934; *(c)* Fruit Statistics of Canada, 1926-35; *(d)* Production of Meat Animals and Consumption of Meats in Canada, 1920-38. Annual Statistics of Fruit, Nursery Stock and Floriculture, *Price 25 cents.* Handbook of Instructions to Crop Correspondents, and Summary of Annual Agricultural Statistics. Crop Reports—released on dates listed in the Crop-Reporting Program—covering: *(a)* Intentions to Plant Field Crops; *(b)* Winter-killing and Spring Condition of Fall Wheat, Fall Rye, and Hay and Clover Meadows; *(c)* Progress of Spring Seeding; *(d)* Acreage, Condition, Yield, Stocks on Hand, and Value of Field Crops; *(e)* Telegraphic Crop Reports, June-September, weekly for the Prairie Provinces, and every second week for all Canada, *Price $2 per year.* Monthly Condition Reports (seasonal) with preliminary estimates of Production for: *(a)* Fruit and Vegetables, *Price $1 per year; (b)* Tobacco, *Price $1 per year.*

(See also Census of Agriculture under "Population".)

(2) Grain and Grain Products—*(a)* Annual Report on the Grain Trade of Canada, *Price 50 cents; (b)* Monthly Review of the Wheat Situation, *Price $1 per year; (c)* Canadian Grain Statistics (weekly report on grain supplies and movements), *Price $2 per year; (d)* Canadian Milling Statistics (monthly), *Price 50 cents per year; (e)* List of Mills with Capacity, *Price 50 cents; (f)* The Grain Situation in Argentina (monthly), *Price $1 per year; (g)* World Trade in Barley, 1927-1937, *Price 50 cents; (h)* World Trade in Wheat Flour, 1926-1938, *Price 50 cents.*

(3) Live-Stock and Animal Products—*(a)* Annual Report on Live-stock and Animal Products Statistics, *Price 50 cents; (b)* Monthly Report on Cold Storage Holdings in Canada (1) Meat and Lard, *Price $1 per year,* (2) Fish, *Price $1 per year,* (3) Dairy and Poultry Products, *Price $1 per year,* (4) Canadian Fruit and Vegetables, *Price 50 cents per year; (c)* Monthly Reports on Stocks of Butter, Cheese, and Eggs in the

PRODUCTION—continued.

II. AGRICULTURE—concluded.

(3) Live-Stock and Animal Products—concluded.

Principal Cities of Canada, *Price 50 cents per year; (d)* Monthly Review of Dairy Production, *Price $1 per year; (e)* Annual Estimates of the Consumption of Meats, Poultry, Butter, Cheese, and Eggs, *Price 15 cents; (f)* Annual Report on Dairying Statistics of Canada, *Price 25 cents; (g)* Annual Surveys of Live Stock and Poultry at June 1 and Dec. 1, *Price 25 cents; (h)* Annual Report on Production of Poultry and Eggs, *Price 25 cents; (i)* Annual Summary of Cold Storage Holdings, *Price 25 cents; (j)* The Dairy Situation in Canada (quarterly), *Price $1 per year.*

(4) Other—Monthly Report on Raw and Refined Sugar (visible supply, meltings, shipments, exports, and imports), *Price $1 per year.* Annual Summary of Sugar Reports. Annual Reports on the Production and Value of Honey and Beeswax. Annual Report on Maple Products. Report of the Conference on Agricultural Statistics, Ottawa, Mar. 30-Apr. 2, 1936.

NOTE.—*Subscription price for all publications of the Agricultural Branch, $10 per year.*

III. FURS.

Advance Report on Fur Farms, *Price 10 cents.* Annual Report on Fur Farms, *Price 25 cents.* List of Companies, Firms, and Individuals Engaged in Fur Farming in Canada, *Price $5.* Advance Bulletin on Statistics of the Production of Raw Furs, *Price 10 cents.* Annual Bulletin on the Production of Raw Furs (comprising the pelts taken by trappers and those sold from fur farms), *Price 25 cents.*

IV. FISHERIES.

Annual Report on Fisheries Statistics, *Price 50 cents.* Advance Bulletins on Fish Caught and Marketed, by Provinces: Prince Edward Island, *Price 10 cents;* Nova Scotia, *Price 10 cents;* New Brunswick, *Price 10 cents;* Quebec, *Price 10 cents;* Ontario, The Prairie Provinces, and Yukon, *Price 10 cents;* British Columbia, *Price 10 cents;* Canada, *Price 10 cents.*

V. FORESTRY.

Annual Summary of the Value, etc., of Forest Production (includes operations in the woods for sawmills, shingle mills, pulp and paper mills, etc., production of mining timber, production of poles and cross ties, and farm production of firewood, posts, etc.), *Price 25 cents.*

[*See also Reports on Manufactures of Forest Products listed under "Manufactures", Section VII, Subsection (5).*]

VI. MINERAL PRODUCTION (MINING AND METALLURGY).

(1) General—(a) Annual Report on the Mineral Production of Canada. *Price 50 cents; (b)* Preliminary Report (semi-annual) on the Mineral Production of Canada, *Price 25 cents; (c)* Monthly Reports on Leading Minerals—reports on gold, petroleum-natural gas production, cement-clay products, *Yearly subscription $1 per report;* Reports on silver, gypsum, salt, asbestos, feldspar, *Yearly subscription 50 cents per report; (d)* Preliminary Estimate of Canada's Mineral Production, *Price 25 cents.*

(2) Coal—(a) Annual Report on Coal Statistics for Canada, *Price 50 cents; (b)* Monthly Summary Report on Coal and Coke Statistics for Canada, *Price $1 per year; (c)* Quarterly Report on Coal and Coke Statistics for Canada, *Price 50 cents per year.*

(3) Annual Bulletins on Mining—Metals—The Gold-Mining Industry in Canada (including alluvial gold mining, auriferous quartz mining, copper-gold-silver mining, and tables showing Canadian and world production of gold), *Price 50 cents.* The Silver-Mining Industry in Canada (including silver-cobalt-arsenic mining, silver-lead-zinc mining, and tables showing Canadian and world production of arsenic, cobalt, lead, silver, and zinc), *Price 25 cents.* The Nickel-Copper Mining, Smelting and Refining Industry (including Canadian and world production of nickel, platinum metals, and copper), *Price 25 cents.* The Production of Miscellaneous Metals (including aluminium, antimony, barium, beryl, bismuth, cadmium, calcium, chromite, lithium, magnesium, manganese, mercury, molybdenite, radium, selenium, tin, titanium, tungsten), *Price 50 cents.* The Non-Ferrous Smelting and Refining Industry, *Price 25 cents. The complete Mining Series of Reports (with the exception of Coal), Price $7.*

Non-Metals—Abrasives, *Price 15 cents;* Asbestos, *Price 25 cents;* Feldspar and Quartz, *Price 25 cents;* Gypsum, *Price 25 cents;* Iron Oxides, *Price 15 cents;* Mica, *Price 25 cents;* Natural Gas, *Price 25 cents;* Petroleum, Crude, *Price 25 cents;* Salt, *Price 25 cents;* Talc and Soapstone, *Price 15 cents;* Miscellaneous Non-Metallic Minerals (including actinolite, barytes, bituminous sands, fluorspar, graphite, magnesitic-dolomite, magnesium sulphate, bog manganese, mineral waters, peat, phosphate, silica brick, sodium carbonate, sodium sulphate, sulphur-pyrites), *Price 25 cents.*

PRODUCTION—continued.

VI. MINERAL PRODUCTION (MINING AND METALLURGY)—concluded.

(3) Annual Bulletins on Mining—concluded.

Structural Materials—The Cement Industry, *Price 25 cents;* Clay and Clay Products, *Price 25 cents;* Lime, *Price 25 cents;* Sand and Gravel, *Price 25 cents;* Stone, *Price 50 cents.*

[*See also Reports on Iron and Steel and Their Products, Manufactures of Non-Ferrous Metals, Manufactures of Non-Metallic Minerals, and Chemicals and Allied Products listed under "Manufactures", Section VII, Subsections (6), (7), (8), and (9).*]

NOTE.—*Subscription price for all Mining, Metallurgical and Chemical Reports [including Reports under groups (6), (7), (8) and (9), pp. 1087-1088] $15 per year.*

VII. MANUFACTURES.

(1) General—General Report on the Manufacturing Industries of Canada, *Price 50 cents.* Geographical Distribution of the Manufacturing Industries of Canada, *Price 50 cents;* also Reports for the Provinces and Leading Cities: Quebec, *Price 25 cents;* Ontario, *Price 25 cents;* British Columbia, *Price 25 cents;* Prairie Provinces, *Price 25 cents;* Maritime Provinces, *Price 25 cents.* Alphabetical List of Products (annual report); Quantity of Manufacturing Production in Canada, 1923-29; Weekly Earnings of Male and Female Wage-Earners Employed in the Manufacturing Industries of Canada, 1934-36, *Price 25 cents.*

(2) Manufactures of Vegetable Products—General Report on Manufactures of Vegetable Products, *Price 50 cents.* Annual bulletins as follows: *(a)* Coffee, Tea, Spices and Miscellaneous Foods, *Price 25 cents; (b)* Fruit and Vegetable Preparation, including Canning, Evaporating and Preserving, and Pickles, Sauces, Vinegar and Cider, *Price 25 cents; (c)* Flour and Grist Mill Products, *Price 25 cents; (d)* Bread and Other Bakery Products, *Price 25 cents; (e)* Biscuits and Confectionery, including Cocoa and Chocolate, *Price 25 cents; (f)* Macaroni and Vermicelli, *Price 15 cents; (g)* Distilled Liquors, *Price 25 cents; (h)* Breweries, *Price 25 cents; (i)* Wine, *Price 25 cents; (j)* Rubber Industry, *Price 25 cents; (k)* Prepared Breakfast Foods, *Price 15 cents; (l)* Sugar Refineries, *Price 25 cents; (m)* Tobacco Products, *Price 25 cents; (n)* Linseed Oil and Soya Bean Oil, *Price 15 cents; (o)* The Canned Foods Industry, *Price 25 cents; (p)* Ice Cream, *Price 15 cents; (q)* Pack of Fruits and Vegetables, (preliminary), *Price 10 cents; (r)* Stocks of Unmanufactured Tobacco on Hand, (quarterly report), *Price $1 per year; (s)* Stocks of Canned Fruits and Vegetables, (quarterly report), *Price $1 per year; (t)* Aerated and Mineral Waters, *Price 25 cents; (u)* Stock and Poultry Foods, *Price 25 cents.*

(3) Animal Products and Their Manufactures—Annual Report as follows: The Dairy Factory Industry, *Price 25 cents.* Annual bulletins: *(a)* Slaughtering and Meat Packing and Sausage and Sausage Casings, *Price 25 cents; (b)* Process Cheese, *Price 10 cents; (c)* Leather Tanneries, *Price 25 cents; (d)* Miscellaneous Leather Goods, Leather Belting, Leather Boot and Shoe Findings, *Price 25 cents; (e)* Leather Boots and Shoes, *Price 25 cents; (f)* Leather Gloves and Mittens, *Price 20 cents; (g)* Fur Goods and Fur Dressing, *Price 25 cents.* Monthly bulletin on Boot and Shoe Production, *Price $1 per year* (including annual). Monthly bulletin on Concentrated Milk Products, *Price $1 per year* (including annual report on the dairy factory industry).

(See also Reports on Live Stock, etc., listed under "Agriculture".)

(4) Textile and Allied Industries—General Report on the Textile Industries of Canada, *Price 50 cents.* Annual Bulletins as follows: *(a)* Cotton Textiles (cloth, yarn, thread, and waste), *Price 50 cents; (b)* Woollen Textiles (cloth, yarn, waste, carpets, and woollen goods, *n.e.s.*), *Price 50 cents; (c)* The Silk Industry, *Price 25 cents; (d)* Men's Factory Clothing, including men's furnishings, *Price 25 cents; (e)* Women's Factory Clothing, *Price 25 cents; (f)* Hats and Caps, *Price 25 cents; (g)* Hosiery and Knitted Goods, *Price 25 cents; (h)* Oiled Clothing and Waterproofs, *Price 15 cents; (i)* Cordage, Rope and Twine, *Price 15 cents; (j)* Corsets, *Price 15 cents; (k)* Cotton and Jute Bags, *Price 15 cents; (l)* Dyeing and Finishing of Textiles, *Price 15 cents; (m)* Awnings, Tents and Sails, *Price 15 cents.*

(5) Manufactures of Forest Products—Printed Reports, *Price 50 cents each: (a)* The Lumber Industry; *(b)* The Pulp and Paper Industry; *(c)* Wood-Using Industries; *(d)* Paper-Using Industries. Annual bulletins: *(a)* The Lumber Industry, *Price 35 cents; (b)* Lumber Distribution in Canada and the United States (biennial), *Price 35 cents; (c)* The Pulp and Paper Industry, *Price 30 cents; (d)* Wood-Using Industries (Summary), *Price 35 cents.* Annual Preliminary Reports on Wood-Using Industries: *(a)* Planing Mills, Sash and Door Factories, *Price 20 cents; (b)* Hardwood Flooring, *Price 15 cents; (c)* Furniture, *Price 15 cents; (d)* Boxes, Baskets and Crates, *Price 15 cents; (e)* Carriages, Sleighs and Vehicle Supplies, *Price*

PRODUCTION—continued.

VII. MANUFACTURES—continued.

(5) Manufactures of Forest Products—concluded.

15 cents; (f) Cooperage, *Price 10 cents; (g)* Coffins and Caskets, *Price 10 cents; (h)* The Wooden Refrigerator Industry, *Price 10 cents; (i)* Boat Building, *Price 10 cents; (j)* Lasts, Trees and Shoe Findings, *Price 10 cents; (k)* Handles, Spools and Woodturning, *Price 10 cents; (l)* Wooden-ware, *Price 10 cents; (m)* Excelsior, *Price 10 cents; (n)* Charcoal Manufacture, *Price 10 cents; (o)* Beekeepers' and Poultrymen's Supplies, *Price 10 cents; (p)* Miscellaneous Wood-Using Industries, *Price 10 cents.* Annual Preliminary Reports on Paper-Using Industries: *(a)* The Printing Trades (comprising the following industries: Printing and Publishing; Printing and Bookbinding; Lithographing; Engraving, Stereotyping and Electrotyping; Trade Composition; and Blue Printing), *Price 35 cents; (b)* Paper Boxes and Bags, *Price 25 cents; (c)* Roofing Paper, *Price 10 cents; (d)* Miscellaneous Paper Goods, *Price 10 cents.* Monthly bulletins: *(a)* Asphalt Roofing Production, *Price, 10 cents per copy, or 50 cents per year; (b)* Asphalt Roofing Sales, *Price, 10 cents per copy or 50 cents per year; (c)* Rigid Insulating Board, *Price, 10 cents per copy or 50 cents per year.*

NOTE.—*Subscription price for all Forestry Branch publications $5 per year.*

(6) Iron and Steel and Their Products—Biennial Report, *Price 50 cents.* Annual bulletins as follows: Preliminary Summary on the Iron and Steel Industry, *Price 15 cents—(a)* Primary Iron and Steel, *Price 25 cents; (b)* Castings and Forgings, *Price 25 cents; (c)* Heating and Cooking Apparatus, *Price 25 cents; (d)* Boilers, Tanks and Engines, *Price 25 cents; (e)* Farm Implements and Machinery, *Price 25 cents; (f)* Automobile Parts and Accessories, *Price 25 cents; (g)* Automobile Statistics for Canada, *Price 50 cents; (h)* Railway Rolling-Stock, *Price 25 cents; (i)* Wire and Wire Goods, *Price 25 cents; (j)* Sheet Metal Products, *Price 25 cents; (k)* Hardware, Tools and Cutlery, *Price 25 cents; (l)* Bridge Building and Structural Steel, *Price 25 cents; (m)* Machinery, *Price 25 cents; (n)* Bicycles, *Price 15 cents; (o)* Shipbuilding, *Price 15 cents; (p)* Aircraft, *Price 15 cents; (q)* Miscellaneous Iron and Steel Products, *Price 25 cents; (r)* Iron and Steel and Their Products (final summary), *Price 10 cents.* Commodity bulletins on the production of pig-iron, steel, washing machines, cream separators, warm air furnaces, galvanized sheets, wire nails, wire rope and cable, steel wire, wire fencing, stoves, etc. Monthly Reports: *(a)* Pig-Iron, Steel, and Ferro-Alloys, *Price $1 per year; (b)* Automobile Statistics for Canada, *Price $1 per year; (c)* Steel Ingots, *Price $1 per year.* Quarterly Report on Galvanized Sheets, *Price $1 per year.*

(7) Manufactures of Non-Ferrous Metals—Biennial Report, *Price 50 cents.* Annual bulletins as follows: *(a)* Aluminium Products, *Price 15 cents; (b)* Brass and Copper Products, *Price 25 cents; (c)* White Metal Alloys, *Price 25 cents; (d)* Jewellery and Silverware, *Price 25 cents; (e)* Electrical Apparatus and Supplies, *Price 50 cents; (f)* Miscellaneous Non-Ferrous Metal Products, *Price 15 cents; (g)* Non-Ferrous Smelting and Refining, *Price 25 cents; (h)* Manufactures of the Non-Ferrous Metals (final summary), *Price 10 cents.* Quarterly reports: Production and Sales of Radio Sets, *Price $1 per year*; Sales of Storage Batteries, *Price $1 per year.* Commodity bulletins on the production of batteries, silverware, vacuum cleaners, electric motors and generators, electric transformers, incandescent lamps, etc.

(8) Manufactures of Non-Metallic Minerals—Biennial Report, *Price 50 cents.* Annual bulletins as follows: Preliminary Summary on Manufactures of Non-Metallic Minerals, *Price 10 cents—(a)* The Asbestos Mining Industry and the Asbestos Products Industry, *Price 25 cents; (b)* The Cement Industry, *Price 25 cents; (c)* Coke and Gas, *Price 25 cents; (d)* Glass (blown, cut, and ornamental, etc.), *Price 15 cents; (e)* Gypsum Mining and Gypsum Products Industry, *Price 25 cents; (f)* Lime, *Price 25 cents; (g)* Petroleum Products, *Price 50 cents; (h)* Clay and Clay Products, *Price 25 cents; (i)* Salt, *Price 25 cents; (j)* Sand-Lime Brick, *Price 15 cents; (k)* Stone (primary, monumental, and ornamental), *Price 50 cents; (l)* Abrasives, *Price 15 cents; (m)* Miscellaneous Non-Metallic Mineral Products (including carbon electrodes—gypsum products—mica products—non-metallic minerals, *n.e.s.*), *Price 15 cents.* Non-Metallic Mineral Products (final summary), *Price 10 cents.* Special Report on the Consumption of Coke in Canada, *Price 25 cents.* Monthly Report on Coal and Coke Statistics, *Price $1 per year.*

(9) Chemicals and Allied Products—Biennial Report, *Price 50 cents.* Annual bulletins as follows: Preliminary Summary on Chemicals and Allied Products, *Price 15 cents—(a)* Coal Tar Distillation, *Price 15 cents; (b)* Acids, Alkalis and Salts, *Price 15 cents; (c)* Compressed Gases, *Price 15 cents; (d)* Fertilizers, *Price 15 cents; (e)* Medicinal and Pharmaceutical Preparations, *Price 25 cents; (f)* Paints, Pigments and Varnishes, *Price 25 cents; (g)* Soaps, Washing Compounds, and Cleaning Preparations, *Price 25 cents; (h)* Toilet Preparations, *Price 25 cents; (i)* Inks, *Price 15 cents; (j)* Adhesives, *Price 15 cents; (k)* Polishes and Dressings, *Price 15 cents; (l)* Hardwood Distillation,

PRODUCTION—concluded.

VII. MANUFACTURES—concluded.

(9) Chemicals and Allied Products—concluded.

Price 15 cents; (m) Miscellaneous Chemical Products (including boiler compounds—cellulose products—insecticides—sweeping compounds—disinfectants—matches—dyes and colours—chemical products, *n.e.s.), Price 15 cents.* Chemicals and Allied Products (final summary), *Price 10 cents.* Commodity bulletins on Sulphuric Acid, Ammonium Sulphate, etc. Special Reports—Fertilizer Trade in Canada, *Price 25 cents;* Directory of Chemical Industries in Canada as of Jan. 1, 1938, *Price $1;* Consumption of Chemicals in Municipal Waterworks in Canada, 1936 and 1937, *Price 25 cents.*

(10) Miscellaneous Manufactures—General Report, *Price 25 cents.* Annual Bulletins as follows: *(a)* Brooms, Brushes and Mops, *Price 15 cents; (b)* Musical Instruments (including pianos, organs and phonographs) and Musical Instrument Materials and Parts, *Price 15 cents; (c)* Buttons, *Price 15 cents; (d)* Bed Springs and Mattresses, *Price 15 cents; (e)* Sporting Goods, *Price 15 cents.*

(For statistics of water power and central electric stations, see under heading "Public Utilities", p. 1090.)

VIII. CONSTRUCTION.

Building Permits—Monthly and Annual Record; *Price $1 per year.* Annual Report on the Construction Industry in Canada, *Price 25 cents.* Preliminary Report on Construction, *Price 10 cents.*

EXTERNAL TRADE (IMPORTS AND EXPORTS)—

(1) Annual Report of the Trade of Canada, for the calendar year 1939 (showing summary historical tables, analyses of current trends, detailed tables by items, group analyses according to component material, origin and degree of manufacture, and purpose, and comparisons of the volume of trade), *Price $3.*

(2) Condensed Preliminary Report of the Trade of Canada, for the calendar year 1939, *Price 25 cents.*

(3) Monthly Report of the Trade of Canada (showing statistics of imports and exports by months and cumulative months), *Price $2·50 per year, single copies 75 cents.*

(4) Monthly bulletins on Trade Statistics as follows: *(a)* Abstract of Imports, Exports, and Duty Collected (by latest month, accrued period, and latest 12 months), *Price 75 cents per year; (b)* Summary of Canada's Imports (for latest month), *Price 75 cents per year; (c)* Summary of Canada's Exports (for latest month), *Price 75 cents per year; (d)* Canada's Imports from Principal Countries (for latest month and accrued period), *Price 75 cents per year; (e)* Canada's Domestic Exports to Principal Countries (for latest month and accrued period), *Price 75 cents per year. The complete series in this section (4) may be obtained for $2 per year.*

(5) Monthly Commodity Bulletins covering trade in specific Commodities for which there is need of timely statistical information. Particulars are available on application to the Dominion Bureau of Statistics.

(6) Special Trade Reports: *(a)* Trade of Canada with Pacific Countries (1932); *(b)* Canada-Belgium Trade, 1933; *(c)* Canada's Imports of Commodities not produced in Canada, 1929–1933; *(d)* Canada-Austria Trade, 1934; *(e)* Canada-Germany Trade, 1934; *(f)* Trade of Germany (1939); *(g)* Trade of Scandinavia (1940).

NOTE.—*Subscription price for all External Trade Branch publications $15 per year.*

INTERNAL TRADE—

1. RETAIL AND WHOLESALE TRADE (See Vols. X and XI under "*Report of the Seventh Census,*" p. 1082):—

(a) Census of Merchandising and Service Establishments, 1931:—

Final Reports (printed)—Retail trade for the Dominion and the provinces, showing number of establishments, kinds of business, types of operation, full-time and part-time employees and wages, operating expenses, size of business, credit sales, forms of organization, capital invested, and sales by commodities; details for cities with populations of 30,000 and over by kinds of business, and types of operation, and by kinds of business for counties or census divisions and incorporated places with populations of 1,000 and over. Retail Trade, Canada, *Price 50 cents;* Ontario, *Price 50 cents;* Quebec, *Price 50 cents;* similar reports for each of the other provinces, *Price 25 cents each.* Reports on wholesale trade similar in form and scope to the retail series. Wholesale Trade in Canada, *Price 25 cents;* similar reports for each of the five economic divisions of the

INTERNAL TRADE—concluded.

1. RETAIL AND WHOLESALE TRADE—concluded.

Final Reports (printed)—concluded.

country, *Price 25 cents each.* Census of Canada, 1931, Vol. X—comprises the merchandising statistics contained in the retail series together with an analysis of results and special tables showing commodity sales; Vol. XI—comprises (1) statistics on retail services contained in the retail trade series, (2) all statistics on wholesale trade, (3) special sections dealing with retail chains, hotels, and distribution of sales of manufacturing plants, (4) analysis of results. *Price, Cloth $1, Paper 75 cents for each volume.*

(b) *Annual Reports (processed)*—Estimates of the total retail and wholesale trade, by provinces and by kinds of business. Retail Trade in Canada, *Price 25 cents.* Separate reports for the five economic divisions, *Price 10 cents each.* Wholesale Trade in Canada and the Provinces, *Price 10 cents.* Miscellaneous Results on Retail Trade (stocks, payroll, accounts outstanding), *Price 10 cents.* Similar report on wholesale trade, *Price 10 cents.* Retail Chains in Canada, *Price 25 cents.* Food Chains in Canada, *Price 10 cents.* Motion Picture Theatres, *Price 25 cents.* Power Laundries and Cleaning and Dyeing Establishments, *Price 25 cents.* Sales of Farm Implements and Equipment, *Price 15 cents.* Sales of Motor Vehicles and Motor Vehicle Financing (summary of monthly series), *Price 25 cents.*

(c) *Monthly Reports*—Monthly Indexes of Wholesale Sales, Monthly Indexes of Retail Sales, Monthly Indexes of Country General Store Sales, Current Trends in Food Distribution, Monthly Financing of Motor Vehicle Sales, Monthly Sales of New Motor Vehicles. *Price $1 per year for each publication; the two last-named (together) $1·50 per year.*

(d) *Special Reports*—Consumer Market Data (summary report bringing together data on population, production, wholesale and retail trade, and other factors useful to the market investigator; figures given by counties or census divisions and, wherever possible, for places of 2,000 population or more), *Price 50 cents.* Summary of Monthly Indexes of Retail Sales, 1929-39, *Price 25 cents.* Summary of Monthly Indexes of Wholesale Sales, 1935-39, *Price 10 cents.* Special reports giving analyses of operating results for the following kinds of retail business: hardware stores, food stores, drug stores, clothing and shoe stores, filling stations and garages, country general stores, *Price 15 cents each.* Motor Vehicle Retailing, 1937 (showing number of new and used vehicles sold for counties and larger centres of population), *Price 25 cents.*

2. PRICES STATISTICS.

Annual Reports—Prices and Price Indexes [including commodity wholesale and retail price index data for Canada and other countries, securities (common stocks in Canada and United States, mining stocks, preferred stocks, bond prices and yields, and foreign exchange), prices and index numbers of street car rates, hospital charges, manufactured and fuel gas, electric light rates, telephone rates, and wholesale prices of imports and exports], *Price 25 cents.* Preliminary Summary of Price Movements, 1939.

Quarterly Report—Index Numbers of Wholesale Prices and Cost of Living in Canada, British Empire and Foreign Countries, *Price 25 cents per year.*

Monthly Report—Index Numbers of Wholesale Prices and Cost of Living in Canada—Security Prices—Exchange Rates, *Price $1 per year.*

Weekly Reports—Index Numbers of Wholesale Prices (including data for general wholesale prices, and industrial material prices), *Price $1 per year.* Security Prices and Foreign Exchange, *Price $1·50 per year, single copies 10 cents.*

Special Report—Index numbers of Canadian Farm Cost of Living, 1939, *Price 25 cents.*

Subscription price for the complete series of Prices Reports, $2.

3. BALANCE OF INTERNATIONAL PAYMENTS, CAPITAL MOVEMENTS, AND INTERNATIONAL INVESTMENTS.

(a) *Annual Reports*—The Canadian Balance of International Payments, 1926-1937 (current international transactions in goods, gold, and services, and movements of capital), *Price 25 cents.* The Canadian Balance of International Payments, Revised Statement, 1938, and Preliminary Statement, 1939, *Price 15 cents.* British and Foreign Capital Invested in Canada and Canadian Capital Invested Abroad, 1926-1936, *Price 25 cents.* British and Foreign Direct Investments in Canada and Canadian Direct Investments Abroad, 1937, *Price 50 cents.*

(b) *Monthly Report*—Sales and Purchases of Securities Between Canada and Other Countries, *Price $1 per year, single copies 10 cents.*

(c) *Special Report*—The Canadian Balance of International Payments—A Study of Methods and Results (printed), *Price $1.*

TRANSPORTATION, COMMUNICATIONS, AND PUBLIC UTILITIES—

(1) *Railways and Tramways.*—Annual Reports: *(a)* Railway Statistics, *Price 50 cents; (b)* Electric Railway Statistics, *Price 25 cents; (c)* Location of Railway Mileages, *Price 10 cents; (d)* Summary of Monthly Railway Traffic Reports, *Price 25 cents; (e)* Canadian National Railways, 1923-1938, *Price 20 cents; (f)* Canadian Pacific Railway, 1923-1938, *Price 20 cents.* Monthly Reports: *(a)* Railway Revenues, Expenses, Incomes, and Operating Statistics, *Price 50 cents; (b)* Freight Traffic of Railways, *Price 50 cents.* Weekly Report: Car Loadings of Revenue Freight, *Price $1·50 per year.* Special Report: Index Numbers of Railway Freight Rates, *Price 25 cents. Subscription price for all railway reports, $3 per year.*

(2) *Express.*—Annual Report on Express Statistics, *Price 25 cents.*

(3) *Telegraphs.*—Annual Report on Telegraph Statistics, *Price 25 cents.*

(4) *Telephones.*—Annual Report on Telephone Statistics, *Price 25 cents.*

(5) *Water Transportation.*—*(a)* Annual Report on Canal Statistics, *Price 25 cents; (b)* Monthly Report on Canal Statistics, *Price 50 cents.*

(6) *Shipping.*—Annual Report of Arrivals and Departures of Vessels for Canadian Ports, *Price 25 cents.*

(7) *Electric Stations.*—*(a)* Annual Report on Central Electric Stations in Canada, *Price 25 cents; (b)* Report on Index Numbers of Electric Light Rates, *Price 25 cents; (c)* Report on use of Electric Energy in Industries, *Price 25 cents; (d)* Monthly Report on Electric Energy Generated, *Price 50 cents. Subscription price for all central electric station reports, $1 per year.*

(8) *Motor Vehicles.*—*(a)* Annual Report on Motor Vehicle Registrations, *Price 10 cents; (b)* Annual Report on Highway Mileage Open for Traffic, Construction, and Expenditures on Construction and Maintenance, *Price 25 cents.*

(9) *Civil Aviation.*—Quarterly Report—Operating Statistics (starting 1940), *Price 10 cents.* Annual Report, *Price 25 cents.*

NOTE.—*Subscription price for all Transportation, Communications, and Public Utilities Branch publications, $5 per year.*

FINANCE—

THE PUBLIC DEBT OF CANADA, DOMINION, PROVINCIAL, AND MUNICIPAL, 1934, 1936, 1937 and 1938 (1935 out of print), *Price 25 cents.*

PROVINCIAL PUBLIC FINANCE.

(1) *Financial Statistics of Provincial Governments.*—*(a)* 1921 to 1937, including special summaries and analyses (1923, 1924, and 1927–31 out of print), *Price 25 cents; (b)* Bonded Indebtedness of Provinces—special analysis, 1916 to 1930 (out of print).

MUNICIPAL FINANCE.

(1) *Statistics of Cities and Towns.*—*(a)* Urban Municipalities Having a Population of 10,000 and Over, 1919 and 1920; *(b)* 1925 to 1937 (1925 and 1928 out of print). *Price 25 cents; (c)* Urban Municipalities Having Populations of 3,000 to 10,000, 1919; *(d)* Urban Municipalities Having Populations of 1,000 to 3,000, 1920; *(e)* Urban Municipalities Having Populations of 5,000 and Over, and 1,000 to 5,000, 1922.

(2) *Assessment Valuations; Analysis by Classes of Municipalities.*—*(a)* 1919 to 1923; *(b)* 1924 to 1937, *Price 25 cents.*

(3) *Bonded Indebtedness by Classes of Urban and Rural Municipalities.*—*(a)* 1919 to 1937 (1919-23 out of print), *Price 25 cents.*

(4) *Municipal Tax Levies and Receipts.*—Historical Analysis, 1913-37, *Price 25 cents.*

CIVIL SERVICE STATISTICS OF THE DOMINION GOVERNMENT.

(a) Numbers of Personnel and Salary Expenditure for the Month of January, 1912-1924 (Special Report—out of print); *(b)* Numbers of Personnel and Salary Expenditures by Months, *Price 25 cents*—(1) 1925-31; (2) 1932-34; (3) 1935-36; (4) 1937-39.

JUSTICE—

Criminal Statistics.—Annual Report (Covering convictions, sentences, prison statistics, police statistics, pardons, appeals, commutations, and executions), *Price 50 cents.*

EDUCATION—

Survey of Education in Canada (1921-36), includes a bibliography of Canadian studies in education and a directory of Dominion and provincial associations in the field of education (since 1932) and an index of Canadian education periodicals (since 1934), *Price 50 cents.*

EDUCATION—concluded.

Biennial Survey of Education in Canada, 1936-38, published as three separate volumes, viz.: (1) Elementary and Secondary Education in Canada, 1936-38, includes a directory, bibliography, and index of periodicals, 115 pp., *Price 50 cents.* (2) Higher Education in Canada, 1936-38, includes enrolment, graduates and staff for the years since 1921, scholarships in Canadian universities, supply and demand in the professions in Canada, bibliography on higher education in Canada, 98 pp., *Price 35 cents.* (3) Survey of Libraries in Canada, 1936-38, lists the public, university, college and professional school, government, technical society, hospital, and other special libraries with their addresses, size, etc., and includes a bibliography of "Recent Publications on Canadian Libraries", 98 pp., *Price 35 cents.*

Report of Dominion-Provincial Conference on School Statistics, 1920, 1936.—A statement of the recommendations for increased comparability and usefulness in school statistics, resulting from discussion among officials of the Provincial Departments of Education and the Dominion Bureau of Statistics. *Free.*

SPECIAL EDUCATIONAL BULLETINS.—

(1) Assistance to Schools from Museums and Art Galleries.—Describes the practice in Canada. *Price 15 cents.*

(2) Teachers' Salaries in Six Provinces, 1937.—Shows the salary distribution separately for rural, village, town, and city schools of each province, and for the larger cities individually. *Price 15 cents.*

(3) The Size Factor in One-Room Schools.—Compares differences in pupil progress, teachers, and costs in small and large schools. *Price 15 cents.*

(4) Museums in Canada.—A first report on Canadian museums, including art galleries. Includes a classified directory. *Price 25 cents.*

(5) University and College Revenues, 1921-39.—Summary statistics showing trends over the 19-year period. *Price 15 cents.*

(6) Teacher's Salaries and Qualifications in Eight Provinces, 1939.—"Qualifications" include certificates, experience, and tenure. *Price 25 cents.*

NOTE.—*Subscription price for all Education Branch publications, $1 per year.*

INSTITUTIONS—

(1) Annual Report on Mental Institutions, 1938, *Price 25 cents.* (2) Directory of Hospitals, 1938, *Price 25 cents.* (3) Annual Report on Hospitals for the Sick, 1938, *Price 25 cents.* (4) Report on Penitentiaries, 1939, *Price 25 cents.* (5) Report on Charitable Institutions, 1936, *Price 25 cents.* (6) Report on Tuberculosis Institutions, 1937, *Price 25 cents.*

GENERAL—

REGULAR REPORTS—

(1) National Wealth and Income.—Annual reports on: Estimates of the National Wealth of Canada, by Provinces, Industries, etc., *Price 25 cents;* Incomes Assessed for Income War Tax, *Price 25 cents.*

(2) Employment.—Monthly and Annual Reports on Employment (with Index Numbers of Employment by Economic Areas, Cities, and Industries), *Price $1 per year.*

(3) Commercial Failures.—Monthly and Annual Reports, *Price 50 cents per year.*

(4) Bank Debits.—Monthly and Annual Reports of Bank Debits to Individual Accounts at the Clearing-House Centres of Canada, Bank Clearings and the Equation of Exchange, *Price 50 cents per year.*

(5) Business Statistics.—The Monthly Review of Business Statistics—a statistical summary with charts, text, and tables covering 1,400 factors on current economic conditions in Canada, *Price $1 per year.* Special Supplements, *Price 25 cents each*—Twelve Years of the Economic Statistics of Canada, 1919-30; Monthly Indexes of the Physical Volume of Business in Canada, 1919-32; Original Monthly Statistics of Chief Economic Importance, 1919-33; Recent Economic Tendencies in Canada, 1919-1934. Economic Fluctuations in Canada During the Post-War Period. Business Conditions in Canada in Elapsed Months of Current Year (monthly), *Price $1 per year.*

(6) Divorce.—Annual Report, *Price 10 cents.*

(7) Liquor Control.—Annual Report on the Control and Sale of Liquor, *Price 25 cents.*

(8) Tourist Trade.—Annual Report, *Price 25 cents.*

GENERAL—concluded.

REGULAR REPORTS—concluded.

(9) The Canada Year Book.—The official statistical annual of the physiography, resources, history, institutions, and social and economic conditions of the Dominion, with a statistical summary of the progress of Canada, maps, diagrams, etc., *Price $1·50.*

Contents: I. Physical Characteristics of Canada (geographical features; geological formation; seismology; flora; fauna; natural resources; climate and meteorology). II. History and Chronology. III. Constitution and Government (constitution and general government of Canada; provincial and local government in Canada; parliamentary representation in Canada; representatives of Canada in other countries; representatives of other countries in Canada; Canada and the League of Nations). IV. Population (growth and distribution). V. Vital Statistics. VI. Immigration. VII. Survey of Production. VIII. Agriculture. IX. Forestry. X. Fur Resources and Fur Production. XI. Fisheries. XII. Mines and Minerals. XIII. Water Powers. XIV. Manufactures. XV. Construction. XVI. External Trade. XVII. Internal Trade. XVIII. Transportation and Communications (government control over transportation and communications; railways; road transportation; waterways; air navigation; wire communications; radio communications; the post office; the press). XIX. Labour and Wages. XX. Prices. XXI. Public Finance (Dominion public finance; provincial public finance; municipal public finance; national wealth and income). XXII. Currency and Banking; Miscellaneous Commercial Finance. XXIII. Insurance (and Government annuities). XXIV. Commercial Failures. XXV. Education and Research. XXVI. Public Health and Related Institutions. XXVII. Judicial and Penitentiary Statistics. XXVIII. Miscellaneous Administration (public lands; national defence; public works; etc.). XXIX. Sources of Official Statistical and Other Information Relative to Canada. XXX. The Annual Register (Dominion legislation; principal events of the year; extracts, *re* official appointments, commissions, etc., from the *Canada Gazette*). Appendices.

[Issues of the Canada Year Book for 1920, 1921, 1924, 1926, 1929, 1930, 1931, 1934-35, and 1939, are available.]

(10) Canada.—The Official Handbook of Present Conditions and Recent Progress (published annually), *Price 25 cents.*

(11) The Daily News Bulletin.—A mimeographed report summarizing the chief items of statistical importance in news-letter form, and listing the reports issued each day by the Bureau of Statistics, *Price $1·50 per year.*

(12) The Weekly News Bulletin.—A mimeographed report summarizing the chief items of statistical importance in news-letter form, and listing the reports issued each week by the Bureau of Statistics, *Price $1 per year.*

(13) A Fact a Day about Canada.—A monthly compilation of daily facts, particularly useful in school work, *Price 25 cents per year.*

SPECIAL REPORTS—

(1) The Prairie Provinces in Their Relation to the National Economy of Canada.—A statistical study of their social and economic condition in the twentieth century, *Price 50 cents.*

(2) Index Numbers of Farm Living Costs, 1913-1938, and Farm Living Expenditures, 1934, Price 25 cents.

(3) Comparison of Wage-Earner Family Expenditures in Twelve Cities, Price 10 cents. (Also separate releases for each of the twelve cities, *Price 10 cents each.)*

(4) Expenditures for Health Maintenance, Price 10 cents.

(5) Wage-Earner Family Composition in Relation to Expenditure, Price 25 cents.

(6) Wage-Earner Family Food Purchases for One Week (between October 3 and November 10, 1938), Price 25 cents.

(7) Housing Accommodation and Living Expenditures of Owner and Tenant Wage-Earner Families, Price 25 cents.

(8) Canadian Farm Family Living Expenditures, 1938, Price 15 cents.

(9) Nutritive Values of Wage-Earner Family Food Purchases, Price 25 cents.

NOTE.—*The complete service of all publications issued by the Bureau of Statistics (with the exception of news bulletins) may be obtained for a special rate of $50 per year.*

Section 2.—Acts Administered by Dominion Departments.

List of the Principal Acts of Parliament Administered by Departments of the Government of the Dominion of Canada, as Compiled from Information Supplied by the Respective Departments.

(Numbers within parentheses, unless otherwise indicated, denote chapters of the Revised Statutes of Canada, 1927—R.S.C., 1927.)

NOTE.—*Copies of individual Acts of Parliament may be obtained from the King's Printer at prices of from 10 cents to $1 per copy according to number of pages.*

Agriculture.—Department of Agriculture (4); Experimental Farm Stations (61); Dairy Industry (45); Cold Storage (25); Seeds (185); Feeding Stuffs (67); Live Stock Pedigree (121); Live Stock and Live Stock Products (120); Animal Contagious Diseases (6); Meat and Canned Foods (77); Destructive Insect and Pest (47); Fertilizers (69); Section 235, Criminal Code (Race-Track Betting) (36); Inspection and Sale (100); Maple Sugar Industry (1930, c. 30); Pest Control Products (5); Hay and Straw Inspection (1932-33, c. 26); Prairie Farm Rehabilitation (1935, c. 23); Fruit, Vegetables, and Honey (1935, c. 62).

Auditor General.—Consolidated Revenue and Audit (1931, c. 27).

Civil Service Commission.—Civil Service (22), as amended (1929, c. 38; 1932, c. 40; 1938, c. 7).

External Affairs.—Department of External Affairs Act (65).

Finance.—Appropriation; Bank (1934, c. 24); Bank of Canada (1934, c. 43; 1936, c. 22; 1938, c. 42); Bills of Exchange (16) and (1934, c. 17); Board of Audit (10); Canadian Farm Loan (66) and (1934, c. 46; 1935, c. 16); Canadian Fisherman's Loan (1935, c. 52); Canadian National Railways Refunding (1938, c. 22); Canadian National Railways Financing and Guarantee (1939, c. 38); Central Mortgage Bank (1938, c. 40); Civil Service Superannuation (24); Consolidated Revenue and Audit (1931, c. 27); Currency (40); Dept. of Finance and Treasury Board (71) and (1931, c. 48); Exchange Fund (1935, c. 60); Farmers' Creditors Arrangement (1934, c. 53; 1935, cc. 20 and 61; 1938, c. 47); Federal District Commission (1927, c. 55; 1928, c. 26); Home Improvement Loans Guarantee (1937, c. 11); Interest (102); Municipal Improvements Assistance (1938, c. 33); National Housing (1938, c. 49); Old Age Pensions (156) and (1931, c. 42; 1937, c. 13); Penny Bank (13) and (1932-33, c. 51); Provincial Subsidies (192); Quebec Savings Banks (14) and (1934, c. 39); Saskatchewan Seed Grain Loans Guarantee (1936, c. 9); Seed Grain Loans Guarantee (1937, c. 39; 1938, c. 13); Special War Revenue (in part) (179) and (1928, c. 50; 1934, c. 42); Gold Export (1932, c. 33; 1935, c. 21); Tariff Board (1931, c. 55); Winding-Up (213). Not regularly administered by the Department but under the jurisdiction of the Minister of Finance: Escheats (58); Money Lenders (135); Pawnbrokers (152); Satisfied Securities (184).

Fisheries.—Fisheries (1932, c. 42; 1934, c. 6; 1935, c. 5); Fish Inspection (72); Meat and Canned Foods (77) and (1934, c. 38; 1935, c. 31, so far as it relates to fish and shellfish); Deep-Sea Fisheries (74); Northern Pacific Halibut Fishery (Convention) (1937, c. 36); Pelagic Sealing (1938, c. 39); Customs and Fisheries Protection (43) so far as it relates to fisheries; Navigable Waters Protection (140, in part); Act respecting Sockeye Salmon Fisheries Convention (1930, c. 10). Salt Fish Board (1939, c. 51). The Fisheries Research Board Act (1937, c. 31) is also administered by the Minister of Fisheries.

Insurance.—Department of Insurance (1932, c. 45); Canadian and British Insurance Companies (1932, c. 46; 1932-33, c. 32; 1934, cc. 27, 45; 1936, c. 18; 1937, c. 5; 1938, c. 21; 1939, c. 10); Foreign Insurance Companies (1932, c. 47; 1934, c. 36; 1939, c. 18); Loan Companies (28) and (1934, c. 56); Trust Companies (29) and (1931, c. 57); Civil Service Insurance (23).

Justice.—Department of Justice (106); Solicitor General (107); Royal Canadian Mounted Police (160); Supreme Court (35); Penitentiary (154); Prisons and Reformatories (163); Ticket of Leave (197); Extradition (37); Debts due to the Crown (1932, c. 18); Official Secrets (1939, c. 49). Such administration as may prove necessary at the hands of a Dominion officer devolves upon the Ministry of Justice in respect of the following statutes: Administration of Justice in the Yukon (1929, c. 62); Admiralty (The Admiralty Act, 1934, c. 31); Canada Evidence (59); Criminal Code (36); Exchequer Court (34); Fugitive Offenders (81); Identification of Criminals (38); Judges (105); Juvenile Delinquents (1929, c. 46); Petition of Right (158); Tobacco Restraint (199); Marriage and Divorce (127); Divorce (Ontario, 1930, c. 14); Divorce Jurisdiction (1930, c. 15).

King's Printer and Controller of Stationery.—Public Printing and Stationery (162); The Publication of Statutes (2).

Labour.—Labour Department (111); Conciliation and Labour (110); Industrial Disputes Investigation (112); Fair Wages Resolution of the House of Commons, 1900; Fair Wages and Hours of Labour (1935, c. 39); Employment Offices Co-ordination (57); Technical Education (193) as amended (1929, c. 8; 1934, c. 9; 1939, c. 8); Vocational Education (1931, c. 59); Government Annuities (7) and (1931, c. 33); Combines Investigation (26) as amended (1935, c. 54; 1937, c. 23); White Phosphorous Matches (128); Unemployment Relief (1930, c. 1); Unemployment and Farm Relief (1931, c. 58); Unemployment and Farm Relief Continuance (1932, c. 13); Relief (1932, c. 36); Relief (1932-33, c. 18); Relief (1934, c. 15); Relief (1935, c. 13); Unemployment Relief and Assistance (1936, c. 15) as amended (1936, c. 46); Unemployment and Agricultural Assistance (1937, c. 44) Unemployment and Agricultural Assistance (1938, c. 25); Unemployment and Agricultural Assistance (1939, c. 26); Youth Training (1939, c. 35).

Mines and Resources.—Lake of the Woods Control Board (1921, c. 10); Explosives (62); Forest Reserves and Parks (78); Geology and Mines (83); Seed Grain (87); Seed Grain Sureties (88); The Immigration Act (93); The Chinese Immigration Act (95); Indian Act (98); Irrigation (104); Dominion Lands (113); Public Lands Grants (114); Ordnance and Admiralty Lands (115); Railway Belt (116); Dominion Lands Survey (117); Lands Titles (118); Manitoba Supplementary Provisions (124); Migratory Birds Convention (130); Northwest Game (141); Northwest Territories (142); Reclamation (175); Saskatchewan and Alberta Roads (180); Soldier Settlement (188); Dominion Water Power (210); Railway Belt Water (211); Yukon (215); Yukon Placer Mining (216); Yukon Quartz Mining (217); St. Regis Islands (1927, c. 37); An Act respecting certain Debts due the Crown (1927, c. 51); Domestic Fuel (1927, c. 52); Lac Seul Conservation (1928, c. 32); An Act respecting Water Power in Alberta, Saskatchewan, and Manitoba, (1929, c. 61); Alberta Natural Resources (1930, c. 3); Manitoba Natural Resources (1930, c. 29); National Parks (1930, c. 33); Railway Belt and Peace River Block (1930, c. 37); Saskatchewan Natural Resources (1930, c. 41); Refunds (Natural Resources) (1932, c. 35).

National Defence.—Department of National Defence (136); Naval Service (139); Naval Discipline; Militia (132); Militia Pension (133); Royal Military College (1928, c. 7); Official Secrets (1939, c. 49); Army; Regimental Debts; Aeronautics (3); Air Force; Visiting Forces (British Commonwealth), 1933 (1932-33, c. 21).

National Revenue.—Customs Tariff (44); Customs (42); Canada Shipping (in part) (186); Animal Contagious Diseases (in part) (6); Destructive Insect and Pest (in part) (47); Export (63); Copyright (in part) (32); Petroleum and Naphtha (159); Excise (60); Special War Revenue, 1915 (179); Income War Tax, 1917 (97); Pest Control Products (in part) (5); Customs and Fisheries Protection (in part) (43); Explosives (in part) (62); Fertilizers (in part) (69); Food and Drugs (in part) (76); Fruit, Vegetables, and Honey (in part) (1935, c. 62); Inspection and Sale (in part) (100); Meat and Canned Foods (in part) (77); Opium and Narcotic Drug (in part) (144); Precious Metals Marking (in part) (84); Patent and Proprietary Medicine (in part) (151); Quarantine (in part) (168); Seeds (in part) (185); Weights and Measures (in part) (212).

Pensions and National Health.—*Pensions:* Department of Pensions and National Health (Part I) (1928, c. 39); War Veterans' Allowance (1930, c. 48, and amendments); Veteran's Assistance Commission (1936, c. 47); Pension (157 and amendments); Returned Soldiers' Insurance (1920, c. 54, and amendments). The two latter Acts are adjudicated upon by the Canadian Pension Commission. *National Health:* Department of Pensions and National Health (Part II) (1928, c. 39); Quarantine (168); Public Works Health (91); Leprosy (119); Canada Shipping (Part V); Sick Mariners and Marine Hospitals (1934, c. 44); Proprietary or Patent Medicine (151); Opium and Narcotic Drug (1929, c. 49, and amendments); Food and Drugs (including honey) (76 and amendments).

Post Office.—Post Office (161); Special War Revenue (in part) (179).

Public Archives.—Public Archives (8).

Public Works.—Expropriation (64); Ferries (68); Government Harbours, Piers and Breakwaters (Section 5) (89); Navigable Waters Protection (Part I) (140); Public Works (166); Government Works Toll (167); Railway (Section 248) (170); Dry Dock Subsidies (191); Telegraphs (194); National Art Gallery (1913, c. 33); Act Regulating Vehicular Traffic on Dominion Property (1930, c. 47).

Secretary of State.—Companies (1934, c. 33) as amended; Naturalization (138); Patents (1935, c. 32); Copyright (32) as amended; Unfair Competition (1932, c. 38); Canada Temperance (196); Boards of Trade (19) as amended; Ticket of Leave (197) as amended; Trade Unions (202); Companies' Creditors Arrangement (1932-33, c. 36); Canadian Nationals (21); Department of State (189); Translation Bureau (1934, c. 25); Treaties of Peace; Timber Marking (198) and (1930, c. 45); Trade Mark and Design (201) and (1928, c. 10); Public Officers (164); Shop Cards Registration (1938, c. 41); Bankruptcy (11) as amended (1932, c. 39); War Charities (1939, c. 10); Regulations respecting Trading with the Enemy (1939); The Patents, Designs, Copyright and Trade Mark (Emergency) Order (1939).

Trade and Commerce.—Canada Grain (1930, c. 5; 1932-33, cc. 9, 24; 1934, c. 26); Electricity and Fluid Exportation (54); Electricity Inspection (55); Electric Units (56); Gas Inspection (82); Inland Water Freight Rates (208); Precious Metals Marking (84) and (1928 c. 40; 1929, c. 53); Statistics (190); Weights and Measures Inspection (212); Act to place Canadian Coal used in the Manufacture of Iron or Steel on a Basis of Equality with Imported Coal (1930, c. 6); Water Meters (209); Research Council (177); Canadian Wheat Board (1935, c. 53); Dominion Trade and Industry Commission (1935, c. 59); National Film (1939, c. 20); Grain Futures (1939, c. 31).

Transport.—Canada Shipping (1934, c. 44); Government Harbours and Piers (89); Live Stock Shipping (122); Maritime Conventions (126); Navigable Waters Protection (Part II) (140); Government Vessels Discipline (203); The Water-Carriage of Goods, 1936 (1936, c. 49); United States Wreckers (214); Belleville Harbour Commission (1889, c. 35); Hamilton Harbour Commission (1912, c. 98); North Fraser Harbour Commission (1913, c. 162); New Westminster Harbour Commission (1913, c. 158); Trenton, Ontario, Harbour Commission (1922, c. 50); Toronto Harbour Commission (1911, c. 26); Winnipeg and St. Boniface Harbour Commission (1912, c. 55); National Harbours Board (1936, c. 42); Canadian Broadcasting (1936, c. 24); Department of Transport (171) as amended (1936 c. 34); Government Railways (173); Intercolonial and Prince Edward Island Railways Employees' Provident Fund (1907, c. 22); National Transcontinental Railway (1903, c. 71); Canadian National Railways (172); Government Employees' Compensation (30); Canadian National Steamships (1927, c. 29); Maritime Freight Rates (79); Canadian National-Canadian Pacific (1933, c. 33) as amended (1936, c. 25); Railway (170); Trans-Canada Air Lines (1937, c. 43); Aeronautics (3); Transport, 1938 (1938, c. 53); Radio, 1938 (1938, c. 50); Carriage by Air, 1939 (1939, c. 12); An Act Respecting the Beauharnois Light, Heat and Power Co. (1931, c. 19); An Act to declare certain works of the Beauharnois Light, Heat and Power Company to be for the general advantage of Canada (1931, c. 20).

Section 3.—Publications of Dominion Departments.

List of Principal Publications of the Departments of the Government of the Dominion of Canada as Compiled from Information Supplied by the Respective Departments.

NOTE.—*A catalogue of the official publications of the Parliament and Government of Canada, stating prices, is issued regularly once a year, with supplements when required; copies may be obtained from the King's Printer, Ottawa.*

Agriculture.—Annual Reports of the Minister, the Veterinary Director General, and Progress Reports of the Dominion Agrostologist, 1934-36, Dominion Animal Husbandman, 1930-36, Dominion Apiarist, 1934-36, Dominion Bacteriologist, 1937, Dominion Botanist, 1935-37, Dominion Cerealist, 1934-37, Dominion Chemist, 1934-36, Dominion Field Husbandman, 1931-35, Dominion Horticulturist 1931-33, Dominion Poultry Husbandman, 1934-36, Economic Fibre Production, 1934-36, Illustration Stations, 1934-38. Divisions of the Experimental Farms Service. Progress Reports covering the work conducted on the Experimental Farms and Stations located at Agassiz, B.C., 1931-35, Brandon, Man., 1931-36, Beaverlodge, Alta., 1931-36, Cap Rouge, Que., 1933-36, Charlottetown, P.E.I., 1932-36, Farnham, Que., 1931-35, Fort Vermilion, Alta., 1931-38, Fredericton, N.B., 1931-36, Harrow and Delhi, Ont., 1932-36, Indian Head and Sutherland, Sask, 1932-36, Indian Head, Sask., 1931-36, Kapuskasing, Ont., 1931-36, Kentville, N.S., 1931-36, Lacombe, Alta., 1932-36, L'Assomption, Que., 1930-36, Lennoxville, Que., 1931-36, Lethbridge, Alta., 1931-36, Manyberries, Alta., 1927-36, Morden, Man., 1931-37, Nappan, N.S., 1932-36, Regina, Sask., 1931-36, Rosthern, Sask., 1931-36, Saanichton, B.C., 1932-36, Scott, Sask., 1931-36, Ste. Anne de la Pocatière, Que., 1931-36, Summerland, B.C., 1932-36, Summerside Fox Ranch, P.E.I., 1931-34, Swift Current, Sask., 1931-36, Windermere, B.C., 1931-36. Bulletins and circulars of the Experimental Farms Service and Science Service on a great variety of agricultural subjects, including publications of the following Divisions: Field Husbandry; Animal Husbandry; Horticulture; Cereal; Chemistry; Forage Plants; Botany; Entomology and Animal Pathology; Poultry; Tobacco; Economic Fibre; Bacteriology; Bees; and Illustration Stations. Bulletins and circulars from the various Divisions of the Production Service and Marketing Service including publications of the Dairy Products Division relating to the dairying and cold storage industries in Canada, the making of butter and cheese, dairying experiments, co-operation, etc. Reports, bulletins, circulars, etc., of the Live Stock and Live Stock Products Division on cattle, sheep, swine, and poultry, marketing of eggs, wool, etc. Bulletins of the Health of Animals Division with regulations as to: contagious abortion; rabies; sheep scab; actinomycosis; anthrax; glanders; hog cholera; tuberculosis; foot-and-mouth disease; quarantine; and meat inspection. Bulletins and reports of the Plant Products Division as to seed-testing, the production and use of seed grains, the Seed Control Act, the Feeding Stuffs Act, and the Fertilizers Act. Bulletins and circulars of the Plant Protection Division and instructions to importers of nursery stock. Bulletins and reports of the Fruit and Vegetable Division relating to the marketing of fruits and vegetables and their preservation, the Fruit and Honey Act, and the Maple Sugar Industry Act.

A pamphlet entitled "List of Publications" contains a list of the publications of the Department, numbering more than 300. These publications include reports, bulletins, and circulars on field crops, live stock, dairying, orchard and garden, animal, insect, and plant diseases, bee-keeping, poultry, and miscellaneous topics. With few exceptions, the publications of the Department are free on application to its Publicity and Extension Division.

Auditor General.—Annual Report.

Board of Transport Commissioners for Canada.—Annual Report. Pamphlet containing Judgments, Orders, Regulations, and Rulings, issued fortnightly.

Civil Service Commission.—Annual Report. Regulations of the Civil Service Commission. The Classification of the Civil Service of Canada. Examinations for Clerks, Stenographers, and Typists. Examinations for Customs Service. Examinations for Postal Service. Examinations for Junior Trade Commissioners. Positions exempted from the Civil Service Act. "Sample Examination Papers" may be obtained from the King's Printer for 25 cents.

External Affairs.—Annual Report. Annual Treaty Series. British and Foreign Government Representatives in Canada. Report of the Canadian Delegates to the Assembly of the League of Nations.

Finance.—Annual Report on the Public Accounts of the Dominion of Canada. Monthly Statements of the Chartered Banks of Canada. Estimates. Reprint of the Budget Speech of the Minister of Finance. Report on the Administration of Old Age Pensions in Canada. Report on the Operation of the Municipal Improvements Assistance Act, 1938.

Fisheries.—*(Publications marked * are available in both English and French editions.)* *Annual Report, including Fish Culture Report. Annual Statistical Report (contains both English and French sections). Fish Culture Report. Popular Account of a Number of Canadian Fishes—A. Halkett. *Canada's Fisheries. Map of the Atlantic Coast Provinces showing the Inshore and Deep-Sea Fishing Grounds. Statistics of the Haddock Fishery in North American Waters—A. W. H. Needler. Statistics of the Catch of Cod off the East Coast of North America, 1926—O. E. Sette. Statistics of the Mackerel Fishery off the East Coast of North America, 1804 to 1930—O. E. Sette and A. W. H. Needler. Discoloration, Smut or Blackening of Canned Lobsters—Harrison and Hood. Historical Account of the Lobster-Canning Industry—R. H. Williams. Fish Canning in Canada (non-technical), (French only). *Fisheries News Bulletin (monthly). *The Salmon Fishery of British Columbia. Report on Fisheries Investigations in Hudson Bay, 1930. *Summary of the Report by Messrs. Cockfield, Brown and Company, Limited, on the Marketing of Canadian Fish and Fish Products. *Oyster Farming on the Atlantic Coast of Canada. *Hardening Mud Bottoms for Oyster Culture (mimeographed). *Factors in the Shipment of Live Lobsters from Eastern Nova Scotia. Investigations into the Natural History of the Herring —Hjort. *The Life of the Atlantic Salmon. *Proceedings No. 1 of the North American Council on Fishery Investigations, 1921-30, *Proceedings No. 2, 1931-33, and *Proceedings No. 3, 1934-1936. *Report of the Royal Commission Investigating the Fisheries of the Maritime Provinces and the Magdalen Islands, 1927. The Storage of Oysters—A. W. H. Needler. Check List of the Fishes of the Dominion of Canada and Newfoundland, illustrated *($2)*—A. Halkett. *100 Tempting Fish Recipes (fish cooking hints and recipes). *Memoranda (mimeographed) dealing with some methods of fish processing. *Memorandum descriptive of some fish hatchery methods. Report on Markets for Dried and Pickled Fish—O. F. MacKenzie and F. Homer Zwicker.

NOTE.—*Publications of the Department of Fisheries are distributed at the discretion of the Department and applicants for any papers should indicate the purposes for which they are desired. In some cases charges may be made.*

Insurance.—Quarterly Statement showing List of Registered Insurance Companies. Annual Abstract of Statements of Registered Insurance Companies (subject to correction). Annual Reports of the Insurance Department, Vol. I (Fire and Miscellaneous), Vol. II (Life Companies and Fraternal Benefit Societies). Annual List of Securities held by Insurance, Trust and Loan Companies, with Department's Valuation thereof. Annual Abstract of Statements of Loan, Small Loan and Trust Companies (subject to correction). Annual Report of Loan and Trust Companies. Annual Report of Small Loan Companies. Classification of Fire Insurance Risks. Table of Bond Values. Statistical Report of Fire Losses in Canada.

Justice.—Annual Report of the Superintendent of Penitentiaries. Canadian Constitutional Decisions of the Judicial Committee, *Price $5.*

King's Printer and Controller of Stationery.—The Canada Gazette (published weekly, with occasional supplements and extras), *Price, in Canada and United States, $8 per annum payable in advance, single copies 20 cents each; other countries $10 per annum and 25 cents per single copy.* Judgments of the Board of Transport Commissioners, semi-monthly

$3 per annum, single copies, 20 cents. Canada Law Reports, published monthly, *Price $6 per annum.* Revised Statutes of Canada, 1927 (5 vols.), *$10.* Annual Statutes, 1928-39, *$5 each.* Acts, Public and Private, with Amendments to date, *10 cents to $1 per copy.* Canadian Postal Guide, *$1, including supplements additional 25 cents.* Parliamentary Debates, "Hansard", issued daily during session (French and English), *$3 per session each series for House of Commons and Senate Debates; single copies, 5 cents.*

NOTE.—*Prices of bluebooks are in nearly every case printed upon the front cover and are based practically on cost. They may be ordered direct from the King's Printer, Ottawa. A catalogue of official publications of the Parliament and Government of Canada is issued regularly once a year with supplements when required and copies may be obtained from the King's Printer, Ottawa.*

Labour.—*Monthly.*—The Labour Gazette (published in English and French), *Subscription price 20 cents per annum, postage prepaid, to subscribers in Canada, the United States of America, and Mexico, and $1 per annum, postage prepaid, to subscribers in all other countries. Annual.*—Report of the Department of Labour (separate reprints are issued of the chapters dealing with the administration of the following statutes: Industrial Disputes Investigation Act; Government Annuities Act; Employment Offices Co-ordination Act; Technical Education Act; Combines Investigation Act; Unemployment and Agricultural Assistance Act; Youth Training Act). Report on Wages and Hours of Labour in Canada. Report on Prices in Canada and Other Countries. Report on Strikes and Lockouts in Canada and Other Countries. Report on Labour Organization in Canada. Report on Labour Legislation in Canada (from time to time there are issued consolidated reports, the most recent of which reproduces the text or a summary of all Dominion and provincial labour legislation in existence at Dec. 31, 1937). *General Reports.*—Report on Industry, Commerce, and the Professions in Canada (the most recent issue is for the year 1937). Report of Judicial Proceedings Respecting Constitutional Validity of the Industrial Disputes Investigation Act, 1907, and Amendments of 1910, 1918, and 1920. The Employment of Children and Young Persons in Canada. Trade Union Law in Canada. Final Report of the National Employment Commission. Training Canada's Young Unemployed. *Reports of Investigations under the Combines Investigation Act.*—(1) Report of Commissioner on Alleged Combine in the Distribution of Fruit and Vegetables in Western Canada, 1925; (2) Report of Registrar on Alleged Combine Limiting Competition in the Marketing of New Brunswick Potatoes, 1925; (3) Report of Registrar on Alleged Combine in the Manufacture and Sale of Bread in the City of Montreal, 1926; (4) Report of Commissioner on Alleged Combine in the Distribution of Fruits and Vegetables Produced in Ontario, 1926; (5) Interim Report of Registrar on the Proprietary Articles Trade Association, an Alleged Combine of Wholesale and Retail Druggists and Manufacturers, Established to Fix and Maintain Resale Prices of Proprietary Medicines and Toilet Articles, 1926; (6) Report of Commissioner on the Proprietary Articles Trade Association, 1927; (7) Report of Commissioner on the Amalgamated Builders' Council and Related Organizations, an Alleged Combine of Plumbing and Heating Contractors and Others in Ontario, 1929; (8) Report of Commissioner on the Electrical Estimators' Association, an Alleged Combine of Electrical Contractors in the City of Toronto, 1930; (9) Report of Registrar on Alleged Combine in the Bread-baking Industry in Canada, 1931; (10) Report of Commissioner on Alleged Combine in the Motion Picture Industry in Canada, 1931; (11) Report of Registrar on Alleged Combine of Tobacco Manufacturers and Other Buyers of Raw Leaf Tobacco in Ontario, 1933; (12) Report of Registrar on Alleged Combine in the Importation and Distribution of British Anthracite Coal in Canada, 1933; (13) Report of Commissioner under the Inquiries Act on Anthracite Coal, 1937; (14) Report of Commissioner on Alleged Combine in the Distribution of Tobacco Products in Alberta and Elsewhere in Canada, 1938; (15) Report of Commissioner on Alleged Combine in the Manufacture and Sale of Paperboard Shipping Containers and Related Products, 1939; (16) Report of Commissioner on Alleged Combine of Wholesalers and Shippers of Fruits and Vegetables in Western Canada, 1939. *Bulletins in Industrial Relations Series.*—(1) Joint Councils in Industry; (2) Report of a Conference on Industrial Relations Held at Ottawa in 1921; (3) Report of Joint Conference of the Building and Construction Industries in Canada, 1921; (5) Canada and the International Labour Conference; (7) Canadian Railway Board of Adjustment No. 1, Second Report; (8) Report of National Conference Regarding Winter Employment in Canada, 1924; (9) Canadian Railway Board of Adjustment No. 1, Third Report; (10) Canadian Railway Board of Adjustment No. 1, Fourth Report; (11) Government Intervention in Labour Disputes in Canada; (12) Canadian Railway Board of Adjustment No. 1, Fifth Report; (13) Canadian Railway Board of Adjustment No. 1, Sixth Report; (14) Canadian Railway Board of Adjustment No. 1, Seventh Report.

Mines and Resources.—

NOTE.—*The Department of Mines and Resources has published a large number of reports and maps dealing with the natural resources of Canada and applications for publications, other than the Annual Report of the Department, should be addressed to the Director of the Branches concerned. Hereunder are listed the more important publications of the year 1939. Catalogues listing the complete series of reports will be furnished upon request.*

DEPARTMENTAL.—Annual Report of the Department of Mines and Resources for fiscal years.

MINES AND GEOLOGY BRANCH.—Annual Report Separate Mines and Geology Branch. *Bureau of Geology and Topography.*—Memoir 215: Fossil Flora of Sydney Coal Field, by W. A. Bell; Memoir 210: Rice Lake-Gold Lake Area, Southeastern Manitoba, by C. H. Stockwell; Memoir 217: Laberge Map-area, Yukon, by H. S. Bostock and E. J. Lees; Memoir 218: Mining Industry of Yukon, 1937, by H. S. Bostock. *National Museum of Canada.*—Bulletin 90: The Sarcee Indians of Alberta, by D. Jenness; Bulletin 91: Annual Report of the National Museum for the Fiscal Year 1937-38. *Bureau of Mines.*—Limestones of Canada, P. IV, Ont., by M. F. Goudge; Comparative Pulverized Fuel, by C. E. Baltzer and E. S. Malloch; Canadian Mineral Industry, 1937; Improving Properties of Clays and Shales. *Explosives Division.*—The Storage of Explosives; Report for the Calendar Year 1938.

LANDS, PARKS AND FORESTS BRANCH.—Annual Report Separate Lands, Parks and Forests Branch. *Bureau of Northwest Territories and Yukon Affairs.*—Game Ordinance and Fur Export Tax Ordinance; Canada's Reindeer Experiment. *National Parks Bureau.*—Jasper National Park—General Information Folder; Riding Mountain National Park; Guide to Fort Chambly; Kootenay, Yoho, Glacier, Mt. Revelstoke—General Information Folder; Banff National Park—General Information Folder; National Parks of Canada; Historic Sites of Canada (French); Catalogue of Motion Picture Films; Waterton Lakes National Park. *Forest Service.*—(No. 2) White Spruce; (No. 53) Brown Stain in Sugar Maple; (No. 91) Forests of New Brunswick; (No. 92) Economic Aspects of the Forests and Forest Industries of Canada; (No. 54) The Strength of Eastern Canadian Spruce Timbers in Sizes Shipped to the United Kingdom; (No. 56) The Preservative Treatment of Fence-Posts; (No. 95) The Penetration into Wood of Cooking Liquors and other Media; Forestry Lessons; Canada's Forests.

SURVEYS AND ENGINEERING BRANCH.—Annual Report Separate Surveys and Engineering Branch. *Dominion Observatories.*—Saturday Evening Program—July, August, September; Vol. XII, No. 18—Bibliography of Seismology, *Price 25 cents;* Vol. VII, No. 6—The Calculation of Rotating Factors for Eclipsing Binaries, *Price 40 cents;* Vol. XII, No. 19—Bibliography of Seismology, *Price 25 cents;* Vol. VII, No. 3—The Definitive Orbit of the Spectrographic Binary Beta Arietis, *Price 25 cents;* Vol. VII, No. 4—The Spectroscopic Orbit of H. D. 195986, *Price 60 cents;* Vol. VII, No. 5—One Hundred and Thirty-two New Variable Stars in Five Globular Clusters, *Price 50 cents;* Saturday Evening Program—October, November, December; Vol. XI, No. 4—Gravity Determinations in 1936, *Price 25 cents;* Vol. VII, No. 7—The Spectrographic Orbit of Boss 3511; Saturday Evening Program—January, February, March; Vol. XII, No. 20—Bibliography of Seismology, *Price 25 cents;* Saturday Evening Program—April, May, June. *Hydrographic and Map Service.*—Tide Tables for: Atlantic Coast, *Price 25 cents;* Prince Rupert; Halifax and Sydney; Saint John; Quebec and Father Point; Charlottetown; Vancouver and Sand Heads, *Price 10 cents each;* Pacific Coast, *Price 25 cents;* British Columbia Pilot, *Price $1;* Catalogue of Maps and Publications; Supplement No. 2—(St. Lawrence River Pilot). *Water and Power Bureau.*—Water Resources Paper No. 78—Pacific Drainage, 1932-33 and 1933-34. *Geodetic Service.*—No. 59—The Transfer of Geodetic Data from One Ellipsoid to Another, *Price $1·50;* Reports of International Association No. 75.

National Defence.—Annual Report; List of Officers, Defence Forces of Canada, Naval, Military, and Air Services; Canadian Navy List; Naval General Orders; General Orders, Militia; Militia Orders; Air Regulations; Air Force General Orders.

National Research Council.—A list of 773 publications issued by the National Research Council, 1918-38, is available for free distribution on request. Supplements to this list give the total number of publications issued to May, 1940 as 915. This list includes Annual Reports of the Council; Technical Reports Nos. 1-18; Bulletins Nos. 1-19; Mimeographed Reports not hitherto listed as Council publications; Papers reprinted from the Canadian Journal of Research which contain (i) Reports of experimental work carried on in the National Research Laboratories, (ii) Reports of work done elsewhere with financial assistance from the National Research Council. All of these reports have been arranged in chronological order of publication and numbered in sequence. This new series of publications is preceded by the letters "N.R.C. No."

The Canadian Journal of Research has not been included in the N.R.C. No. series. Established as a medium for the publication in Canada of the results of original scientific research carried on in the Dominion, the Canadian Journal of Research is now published in four sections: A—Physical Sciences; B—Chemical Sciences; C—Botanical Sciences; D—Zoological Sciences. The Journal has a wide circulation and is to be found in the leading scientific libraries of the world. From its inception in May, 1929, to the end of Volume 12 in June, 1935, the Journal was issued in a single volume each month. *Copies of these 12 volumes unbound are available at $1·50 each. An index of volumes 1-12 is available at $1.* From July, 1935, the Journal has been published in four sections as noted above. Each section is paged separately. Sections A and B are bound in one cover each month and Sections C and D are likewise bound together. The issues from July to December, 1935, were included in Volume 13 *(Price $2).* Volume 14 contains the Journals issued in 1936 and one volume has been published each year since then. *Single numbers of the Journal are priced at 50 cents each: the yearly subscription for Sections A and B is $2·50; Sections C and D, $2·50; the four Sections complete $4.*

Additional information regarding Council publications and reports of Council activities may be obtained from the Officer-in-Charge, Research Plans and Publications Section, National Research Council, Ottawa, Canada.

National Revenue.—Annual Report, containing statements relative to Imports, Exports, Excise, and Income. National Revenue Review (monthly).

Pensions and National Health.—(1) Sanitation—Sewage Treatment for Isolated Houses and Small Institutions where Municipal Sewage System is not available; (2) The Canadian Mother's Book; (3) Infantile Paralysis; (17) Wells; (18) Home Treatment, Rural Water Supplies; (19) Athletes' Foot; (21) Housing; (22) A Survey of Vitamins; (23) Air Conditioning and Heating in Relation to Health; (24) Information for Men—Syphilis and Gonorrhœa; (25) Information for Young Women about Sex Hygiene; (26) Information for Parents—Teaching Sexual Hygiene to Children; (27) Prevention of Blindness in Babies; (29a) Goitre—Facts for the General Public; (30) How to Build Sound Teeth; (31) What You Should Know about Tuberculosis; (32) Smallpox and Vaccination; (34) The Rat Menace; (35) Middle Age—Your Arteries and Heart; (36) The Common Cold; (100) Hay Fever and Asthma; (101) Artificial Respiration (Poster); (102) Holiday Health—A Guide for Campers and Cottagers; (103) Typhoid Fever; (104) Health Axioms; (105) Sleep; (107) Posture; (108) Prevention of Diphtheria.

Post Office.—Annual Report of the Postmaster General. Official Postal Guide. Regulations as to Rural Mail Delivery. Booklet of Postal Information.

Public Archives.—*Annual Reports.*[1]—1914-15 *(60 cents);* 1921 *(30 cents);* 1923 *(55 cents);* 1926 *(10 cents);* 1928 *(25 cents);* 1929 *(50 cents);* 1930 *(50 cents);* 1931 *($1);* 1932 *($1);* 1933 *($1);* 1934 *(10 cents);* 1935 *($1);* 1936 *($1);* 1937 *($1);* 1938 *($1);* 1939 *(50 cents).*

Numbered Publications.—No. 9, Early Canadian Northwest Legislation—Oliver (2 Vols.) (1914-15), *$2;* No. 12, Reports on the Laws of Quebec, 1767-70—Kennedy and Lanctot (1931), *$1;* No. 13, Vol. I, Catalogue of Pamphlets,[2] 1493-1877—Casey (1931), *$1;* Vol. II, Catalogue of Pamphlets,[2] 1878-1931—Casey (1932), *$1.*

Special Publications.—(h) Documents—Constitutional History of Canada, 1759–91—Shortt and Doughty, 2 ed. (2 Vols.), (1918), *$2; (i)* Catalogue of Pictures, etc.,[3] Part I, Sect. 1—Kenney (1925), *$2·50; (j)* Documents—Canadian Currency, Exchange, etc., during the French Period[4]—Shortt (2 Vols.), (1925-26), *$3; (l)* The Kelsey Papers[5] (Hudson Bay Co. Journals, 1683-1722)—Doughty and Martin (1929), *$2; (m)* Documents—Currency in Nova Scotia,[6] 1675-1758—Shortt, Johnston, Lanctot (1933), *$2; (n)* Documents—Constitutional History of Canada, 1819-28—Doughty and Story (1935), *$2; (o)* The Elgin-Grey Papers,[7] 1846-52—Doughty (4 Vols.) (1937), *$5.*

[1] Contain texts, calendars, and catalogues of documents as well as reports on the administrative work of the Divisions. [2] Title page and introduction in English and French, same volume; titles of pamphlets as in original; index in English. [3] Title, preface, and introduction in English and French in same volume; notes in English; titles of pictures exact. [4] Complete volumes, including index in English and French in same volume. [5] Title and introduction in English and French in same volume; notes and index in English; texts of journals exactly as in original (English). [6] Title and foreword in English and French, otherwise in English. [7] Title and introduction in English and French, otherwise in English.

Public Works.—Annual Report.

Secretary of State.—Annual Report. The Arms of Canada. The Canadian Patent Office Record, *Annual subscription $10, single numbers 10 cents.* Annual Report of the Commissioner of Patents, *Price 10 cents.*

Trade and Commerce.—Annual Report of the Department of Trade and Commerce, *Price 25 cents;* Annual Report of the Board of Grain Commissioners for Canada, *Price 25 cents;* Annual Report of Electricity and Gas, *Price 25 cents;* Annual Report of Dominion Grain Research Laboratory, *Price 10 cents;* List of Licensed Elevators, etc., *Price 50 cents;* Motion Pictures (catalogue of), *Free.*

NOTE.—*Requests for the above publications (except for the last-named which should be addressed to the Canadian Government Motion Picture Bureau), should be addressed to the King's Printer.*

Commercial Intelligence Service.—Commercial Intelligence Journal, published weekly in English and French, containing reports of Trade Commissioners and other commercial information, *Annual subscription, Canada, $1, outside Canada, $3·50.*

NOTE.—*Publications of the Commercial Intelligence Service are compiled with a view to furnishing Canadian exporters with information respecting the possibilities for the sale of Canadian goods abroad, the nature of the competition to the encountered, Customs requirements, etc., and are not intended for general distribution. The publications available include leaflets giving Invoice Requirements and a series on Points for Exporters, both covering countries included in the territories assigned to Trade Commissioners. From time to time special reports are issued separately, which subscribers to the Commercial Intelligence Journal are entitled to receive free of charge. In all other cases their distribution is controlled by the King's Printer, who fixes a price therefor.*

89187—70½

Dominion Bureau of Statistics.—(For the publications of the Dominion Bureau of Statistics see pp. 1081 to 1092.)

Transport.—Annual Report of the Department of Transport, *Price 50 cents. Canal Services.*—Canals of Canada, *Price 10 cents.* The Trent Canal System, *Price 10 cents.* Canal Rules and Regulations, *Price 10 cents.* Churchill and the Hudson Bay, *Price 10 cents.* Welland Ship Canal, 1934, *Price 10 cents.*

(Obtainable from the Assistant Deputy Minister and Secretary, Department of Transport, Ottawa)—The Quebec Bridge, 2 Vols., *Price $5.* The Welland Ship Canal, 1913-33, *Price $10.* St. Lawrence Waterway Project, Report of Joint Board of Engineers, with plates, *Price $5.* Report of Conference of Canadian Engineers on the International Rapids Section, *Price $2·50.* Report of Joint Board of Engineers (reconvened), *Price $2·50.* A Statutory History of the Steam and Electric Railways of Canada, 1836–1937, compiled by Robert Dorman, *Price $3.*

Marine Services.—International Convention Respecting Load Lines, etc., *Price 50 cents.* International Convention for the Safety of Life at Sea, *Price 25 cents.* Regulations for the Examination of Seamen and Others for Certificates of Efficiency of Life-boatmen, *Price 10 cents.*

(Obtainable from the King's Printer, Ottawa)—Regulations, Government Wharves in Canada (French and English), *Price 10 cents.* Rules and Regulations Relating to the Examination of Masters and Mates of Foreign-Going Ships (French and English), *Price 25 cents.* Rules and Regulations Relating to the Examination of Masters and Mates of Home Trade, Inland and Minor Waters Vessels (French and English), *Price 25 cents.* Rules of the Road, International (French and English), *Price 10 cents.* Rules of the Road, Great Lakes (French and English), *Price 10 cents.* River St. Lawrence Ship Channel, including Tide Tables (French and English), *Price 25 cents.* Regulations for the Loading and Carriage of Grain Cargos, *Price 10 cents.* Expedition to Hudson Bay, N. B. McLean, Director in Charge, 1927-28, *Price 50 cents.* Inspection of Boilers and Machinery of Steamships (French and English),. *Price 10 cents.* Rules for Life-Saving Appliances (French and English), *Price 10 cents.* Rules for Inspection of Hulls and Equipment (English only), *Price 10 cents.* Rules for Motor Engineers' Certificates (English only), *Price 10 cents.* Rules for Examination of Engineers on Steamships (French and English), *Price 10 cents.* Rules for Fire Extinguishers on Steamships (English only), *Price 10 cents.* Instructions as to the Inspection of Boilers and Machinery of Steamships (French and English), *Price 10 cents.* Regulations respecting Life Saving Appliances (French and English), *Price 10 cents.* Regulations relating to the Inspection of Hulls and Equipment of Steamboats (French and English), *Price 10 cents.* Regulations relating to the Issue of Motor Engineer Certificates (French and English), *Price 10 cents.* Regulations relating to the Examination of Engineers (French and English), *Price 10 cents.* Regulations respecting Fire Extinguishing Equipment (French and English), *Price 10 cents.* Loadline Rules for Ships Making Voyages on Lakes or Rivers, *Price 10 cents.* General Loadline Rules, *Price 10 cents.* Regulations for the Protection Against Accident of Workers Employed in Loading or Unloading Ships, *Price 10 cents.* General and Special Regulations (French and English), *Price 10 cents.* List of Canadian Shipping, *Price 50 cents.* List of Lights, etc., in Canada: *(a)* Pacific Coast, *Price 15 cents; (b)* Atlantic Coast, *Price 35 cents; (c)* Inland Waters, *Price 25 cents.*

(Obtainable from the King's Printer, Ottawa)—International Tele-communication Convention of Madrid, 1932, together with Radio Communication Regulations (Revision of Cairo, 1938) annexed thereto, *Price 25 cents.* Radiotelegraphy Requirements for Ships registered in Canada and engaged on international voyages in accordance with the Safety of Life at Sea and Loadline Conventions Act, 1931, and the Regulations issued thereunder, *Price 10 cents.* Bulletin No. 2 (1932) Radio Inductive Interference, *Price 35 cents.* Supplement "A" (1934) to Bulletin No. 2, *Price 15 cents.* Navigation Conditions on the Hudson Bay Route from the Atlantic Seaboard to Fort Churchill, seasons of navigation 1929-38, *Price 10 cents.* Hudson Bay Report, 1927, *Price 25 cents.*

Air Services.—(Obtainable from the Chief of Air Services, Department of Transport, Ottawa)—Air Regulations, Canada, *Free.* The Air Regulations 1938, *Free.* Information Circulars to Civil Air Pilots and Aircraft Owners—revised annually, *Free.* Information Circulars to Air Engineers and Aircraft Owners—revised annually, *Free.* Sequence of Flying Instruction 1938—a special edition of the R.C A.F. publication, published through the courtesy of the Chief of the Air Staff, *Free.* Training for Civil Aviation, *Free.* Air Engineers' Certificates, Conditions of Issue and Instructions to Applicants, *Free.* Aerial Navigation, *Free.* Airways Bulletin No. 1—a description of Airports, Intermediate Aerodromes, Seaplane Ports and Anchorages in the Dominion of Canada, *Free.* Map Showing Radio Stations Operated as Aids to Navigation, 1935, *Price 25 cents.* British Postmaster General's Handbook for Wireless Telegraph Operators, *Price 25 cents.* Kilocycle-Metre Conversion Chart, *Price 10 cents.* The Radio Act, 1938 and Regulations issued thereunder, *Price 10 cents.* Pamphlet containing Extracts from the Radio Act, 1938, and Regulations issued thereunder with reference to Amateur Experimental Stations, *Free.* Notice to Mariners, Radio Aids to Navigation, 1939, *Free.* Pamphlets containing Examination Procedure for Certificates of Proficiency in Radio for Commercial Operators, *Free.*

[*Obtainable from the Meteorological Office, 315 Bloor Street West, Toronto (5), Ontario*]—Monthly Record of Meteorological Observations in Canada and Newfoundland, *Price, single copies 10 cents, yearly subscription $1.* Monthly Weather Map, *Price, single copies 10 cents, yearly subscription $1.* Daily Weather Map—Toronto edition, *Yearly Subscription, $4.* Annual Reports (1895-1915), *Price $1.*

(Obtainable from the Meteorological Office, 1178 Grain Exchange Building, Winnipeg, Manitoba)—Daily Weather Map—Winnipeg edition (includes weekly bulletin during agricultural season), *Yearly Subscription, $4.*

Canadian Travel Bureau.—Canada Calls You; How to Enter Canada; Canada (recreational folder); Sport Fishing in Canada; Canada's Game Fields; Canoe Trips in Canada; Canoe Trips to Hudson Bay; Sport and Travel in Canada; Trans-Canada Automobile Trip; Canada and United States Road Map, General, Eastern, Central and Western sheets.

Section 4.—Publications of Provincial Governments.

PRINCE EDWARD ISLAND.

Journal of the Legislative Assembly. Statutes. Royal Gazette. Annual Reports of the Provincial Auditor on Public Accounts, Education, Agriculture, Falconwood Hospital (for the insane) and Provincial Infirmary, Vital Statistics and Public Health. Comparative Statement of Public Finance, 1925–1938.

NOVA SCOTIA.

Royal Gazette. Statutes, Journal and Proceedings of the House of Assembly. Journal of Education. Manual of the Public Instruction Acts and Regulations of the Council of Public Instruction. *Annual Reports.*—Public Accounts; Public Health (including Vital Statistics, Humane Institutions, Penal Institutions, Child Welfare, Nova Scotia Training School for Mental Defectives, Victoria General Hospital, Nova Scotia Hospital, Nova Scotia Sanatorium, Mothers' Allowances, Old Age Pensions); Education; Fire Marshal; Mines; Provincial Museum and Science Library; Public Archives; Legislative Library; Provincial Secretary (including Rural Telephone Companies, Credit Unions, Board of Censors); Department of Agriculture; Department of Highways and Public Works; Department of Lands and Forests; Department of Labour (including Minimum Wage Board, Employment Service Offices, Inspection of Factories, Unemployment Relief); Statistics of Incorporated Cities, Towns and Municipalities; Printing; Transient Poor; Public Utilities Board; Workmen's Compensation Board; Power Commission; Liquor Control Commission; Nova Scotia Housing Commission; Royal Canadian Mounted Police (Nova Scotia section). *Special Reports.*—Milk and Cream Inquiry; Franchise Inquiry; Investigation into workings of Compensation Board; Submission by the Government of Nova Scotia to the Royal Commission on Dominion-Provincial Financial Relations; Economic Council, Vols. I, II, III, and IV.

NEW BRUNSWICK.

Royal Gazette. Statutes. Annual Reports of the Comptroller General, of the Board of Health, of the Department of Education and Agriculture (including Horticulture). Annual Reports on Public Works, Crown Lands, the Hospital for the Insane; Report of the Jordan Memorial Tuberculosis Sanatorium at River Glade; Report of Women's Institutes; Report of the Workmen's Compensation Board; Report of Public Utilities Commission; Report of New Brunswick Hydro-Electric Power Commission; Boys' Industrial Home, Saint John, Report; New Brunswick Liquor Control Board Report; Old Age Pensions Board Report; New Brunswick Fire Prevention Board Report; Motor Carrier Board Report; Department of Federal and Municipal Relations Report; and Report of Fair Wage Board.

QUEBEC.

NOTE.—*The titles of publications available in the English language are printed in English.*

Attorney General.—Annual List of Public Officers of the Province of Quebec.

Executive Council.—*Tourist Bureau.*—[*Publications marked are: (1) bilingual; (2) French; (3) English.*]

(1) Official Highway and Tourist Map (yearly); (3) Roaming and Rambling in La Province de Quebec, Canada—historic, romantic, picturesque (64 pp. guide, illustrated); (3) Hunting and Fishing in La Province de Quebec; (2) La Province de Quebec—pays de l'histoire, de la legende et du pittoresque (32 pp. guide, illustré); (3) Romantic Quebec, Gaspe Peninsula (20 pp. guide, illustrated).

Municipal Affairs, Trade and Commerce.—Annual Report of the Minister of Municipal Affairs; List of Municipal Corporations (annual); Statistical Year Book; Education Statistics; Financial Statistics of School Corporations; Municipal Statistics (annual); Meteorological Bulletin (monthly); Butter and Cheese Production (monthly); Agricultural Statistics reports; Co-operative People's Banks and Agricultural and Co-operative Societies. Statistiques des hotelleries, 1938.

Health and Provincial Secretary.—Annual Report of the Secretary and Registrar; Annual Report of the Department of Health; the Quebec Official Gazette, bilingual (weekly); The Statutes of the Province (annual); Revised Statutes of the Province (1925); Rapport de l'Archiviste (annual); Monuments commémoratifs de la province de Québec—P.-G. Roy; Report of the Director of Public Charities.

Treasury.—Annual Statement of Public Accounts; Annual Estimates; Annual Budget Speech; Annual Report on Insurance Companies; Annual Report on Mutual Benefit Associations; Annual Report on Trust Companies.

Bureau of Revenue.—Annual Report of the Quebec Liquor Commission; Annual Report of Motor Vehicle Registrations; Statistics of Automobile Accidents.

Lands and Forests.—Annual Report of the Minister; Circular No. 1, La rouille vesiculaire du pin blanc—G.-C. Piché; Nomenclature of the Geographical Names in the Province of Quebec, Quebec Geographical Commission; Dictionnaire des lacs et rivières; Annual Report of the Quebec Streams Commission; Notes on the Forests of Quebec—G.-C. Piché; Rapport du service de protection; Tableau des forces hydrauliques concédées de 1867 à 1923 (Supplément 1923 au 7 avril 1930); Forests and Waterfalls; Quebec, Natural Resources.

Agriculture.—*Annual Reports.*—Department of Agriculture; *Bulletins.*—(55) Poultry Raising in Towns and Villages; (40) How to Plant your Fruit Trees; (44) Vegetable Culture; (89) The Drainage of Farm Lands; (90) Experiments with Grain Crops; (92) The Corn Borer; (95) Farm Account Book; (100) Soils Drainage; (103) Les mauvaises herbes; (115) Vegetable Garden; (118) Guide de la protection des cultures; (122) Culture du tabac; (123) Cueillette et emballage des pommes; (124) Arrosage du verger commercial (French and English); (125) Culture de la tomate, du piment et des aubergines; (127) Plantation d'un verger commercial; (135) Les arrosages du verger; (137) Polyarthrite du poulain; (138) L'exploitation du troupeau laitier; (139) A.B.C. du fermier laitier; (140) La volaille et les oeufs; (142) Production of Milk-fed Calves; (143) Plans de porcherie; (144) L'élevage du porc à bacon. *Circulars.*—(42) Sélection des troupeaux de volailles; (117) Recettes, viande de lapin; (125) Guide des cercles de fermières; (65) Common Weeds and their Control; (66) Alfalfa Growing in Quebec. *Miscellaneous.*—(221) Poultry-house Plans; (224) Farm Account Book, *Price 15 cents;* (293) The Maple, Pride of Quebec.

Highways.—Annual Report of the Minister of Highways (bilingual); An Act Respecting the Roads Department (1934) (separate French and English editions).

Mines and Fisheries.—Extracts from Reports on the District of Ungava—T. C. Denis (1929); Geological Sketch and Economic Minerals of the Province of Quebec (1924); Annual Reports on Mining Operations in the Province of Quebec; Annual Reports of the Quebec Bureau of Mines, years 1928 to 1936; The Laurentide National Park.

Colonization.—Annual Report of the Minister; Le Guide du Colon, 1932; Quebec Ready Reference.

Labour.—Minister's Report; Workmen's Compensation Act; Annual Report of the Workmen's Compensation Commission; Report of the Quebec Social Insurance Commission; Statistics of Old Age Pensions.

Public Works.—Minister's Report; Statistics of Fire Losses in the Province.

Public Instruction.—Code scolaire (1927); The Education Act (1911); Regulations of the Catholic Committee (1936); Regulations of the Protestant Committee (1921); Memoranda of Instructions to Teachers for Intermediate and High Schools (1934); Annual Report; Financial Statement of the Superintendent of Public Instruction (annual); Mon premier livre (1st and 2nd parts) (1900), a new edition of which is printed every year; l'Enseignement primaire; Educational Record; Yearly circulars containing Instructions to School Boards and School Inspectors; Course of English and French for English Catholic Schools (1926); Manual respecting the course of study in the Protestant Elementary Schools; List of authorized text books.

Legislative Council.—Agenda Paper of the Legislative Council; Votes and Proceedings of the Legislative Council; Journals of the Legislative Council; Rules and Regulations of the Legislative Council.

Legislative Assembly.—Agenda Paper of the Legislative Assembly; Votes and Proceedings of the Legislative Assembly; Journals of the Legislative Assembly; Sessional Papers, Departmental Reports and Returns to Orders and Addresses of the Legislative Assembly; Report of the Clerk of the Crown in Chancery on Elections (published after every general election); Report of the Librarian of the Legislature; Annotated Rules and Standing Orders of the Legislative Assembly of Quebec; Private Bills in the Legislative Assembly of Quebec (a manual containing the rules relative to); Government and Legislature; List of the Chairmen and Members of the Committees of the Legislative Assembly.

ONTARIO.

Agriculture.—*Annual Reports.*—Minister of Agriculture; Agricultural College and Experimental Farm; Stallion Enrolment Board; Agricultural Statistics; Vegetable Growers' Association; Entomological Society; Agricultural Societies; Horticultural Societies; Annual Report of Ontario Veterinary College. *Bulletins.*—FRUITS.—(342) Fire Blight (1929); (355) The Raspberry and Blackberry (rev. 1938); (356) Insects Attacking Fruit Trees (1930); (383) Peach Yellows and Little Peach; (391) The Grape in Ontario (1938); (392) Pruning the Tree Fruits (1938); (403) The More Important Fruit Tree Diseases (1939). GENERAL FARMING.—(218) Birds of Ontario in Relation to Agriculture, *Price 25 cents:* (296) Sweet Clover (1938); (326) Farm Barns (1927); (327) Knots and Splices; Rope on the Farm (1937); (331) Public Speaking and Debate (1933); (348) Amateur Dramatics (1929); (349) Grain Smuts; (360) Farm Underdrainage (1931); (364) Manures and Fertilizers (1931); (370) Testing Milk, Cream, and Dairy By-Products on the Farm and in the Factory (1936); (371) Buttermaking on the Farm (1936); (372) Soft Cheese Making and Farm Dairy Cheddar Cheese (1936); (385) Cheese Mites and Their Control (1937); (397) Mushrooms in Ontario (1939), *Price 10 cents;* (398) Farm Water Supply (1939); (399) Plumbing and Sewage Disposal for the Farm Home (1939); (405) Painting on the Farm (1939); (406) Producing Hay of Higher Feeding Value (1939); (407) Soybeans in Ontario (1940); (408) Home Canning of Fruit and Vegetables (1940); (409) Weeds of Ontario (1940); (410) Profits from Fertilizing Farm Crops. LIVESTOCK.—(304) Infectious Abortion of Cattle (rev. 1938); (337) Parasites Injurious to Sheep (1928); (350) The Warble Flies (1934); (367) Pork on the Farm (1940); (378) Bot Flies and Their Control (1934); (380) Parasites Injurious to Swine (rev. 1938); (387) Swine Diseases and Their Prevention; Swine Feeding (1937); (396) Mastitis or Garget in Cows (1938); (401) Feeding and Management of the Work Horse (1939); (402) Breeding and Management of the Draft Horse (1939). POULTRY.—(363) Parasites Injurious to Poultry (1931); (394) Diseases of Poultry (1938); (395) Farm Poultry (1938); (400) Turkey Production (1939). VEGETABLES.—(358) The European Corn Borer (1931); (386) Diseases of Vegetables (1937); (388) Vegetable Gardening; (393) Insects Attacking Vegetables (1938); (404) The Quality Production of Tomatoes in Eastern Ontario (1939). BEES.—(384) Bee Diseases (1937). *Specials.*—An Economic Analysis of Cheese Factory Operations in Ontario; Destruction of Wolves; Farm Account Book, *Price 25 cents;* Fruits of Ontario, *Price 25 cents;* Probable Causes and the Remedies for Defects in Second Grade Cream; Soil Management and Fertilizer Recommendations; Birds of Ontario, *Price 25 cents;* The Value of Birds to Man; Tobacco Soils in Norfolk County. *Acts.*—Ditches and Water Course Act; Weed Control Act.

Attorney General.—Reports of Inspector of Legal Offices; Insurance; Loan and Trust Corporations; Annual Report of the Fire Marshal.

Education.—*Reports.*—Annual Report of the Minister; Staffs of Public and Separate Schools; Staffs of Collegiate Institutes, Vocational Schools, etc.; Committee of Enquiry into Cost of Education in Ontario (1938); Superannuation Fund. *Acts.*—Reprints of 15 Acts dealing with education and public libraries, *Price 25 cents each. Regulations.*—Twenty-four administrative regulations are published. *Courses of Study.*—Nine programs or courses are published dealing with various grades and classes of the educational system. *Text Books.*—Seven lists include teachers' manuals, supplementary reading and upper-school requirements in modern languages. *Miscellaneous.*—General Announcement of Summer Courses; School Year and Holidays; Selected Scripture Readings; Teachers Library for Rural Public and Separate School Teachers (1938); Health Handbook for Teachers in Public and Separate Schools (1938).

Titles of all publications are shown in the Annual Report of the Minister, or may be obtained from the Department.

Game and Fisheries.—Annual Report, Department of Game and Fisheries; The Game and Fisheries Act and Regulations; Summary of the Game and Fisheries Act and Regulations; Report of the Special Fish Committee, 1928-30; Report of the Special Game Committee, 1931-33; The Small Mouthed Black Bass and its Conservation; The Maskinonge and its Conservation; Monthly Bulletin of the Department.

Health.—*Acts.*—The Public Health Act; The Vaccination Act; The Venereal Diseases Prevention Act; The Cemetery Act; The Public Hospitals Act; The Private Hospitals Act; The Sanatoria for Consumptives Act; The Maternity Boarding House Act; The Mental Hospitals Act, 1935; The Private Sanitarium Act; Registration of Nurses Act;

Milk Control Act, 1934; The Bedding Act. *Regulations.*—Regulations for the Control of Communicable Diseases; Regulations Respecting Venereal Diseases; Regulations Respecting the Manufacture of Non-Intoxicating Beverages, Distilled and Mineral Water, and the Manufacture of Syrups, Wines and Brewed Beer; Regulations for the Sanitary Control of Lumber and Mining Camps; Regulations Governing the Construction and Management of Swimming Pools; Regulations *re* Cross Connection of Water Supplies; Regulations pursuant to the Mental Hospitals Act, 1935; Regulations pursuant to the Public Hospitals Act; Regulations regarding Private Hospitals; Rules and Regulations relating to the Registration of Nurses; Regulations for the Use of Hydrocyanic Acid or Cyanide Compounds for Fumigation; Regulations *re* Bedding; Regulations *re* Milk and Pasteurization Plants; Regulations under the Sanatoria for Consumptives Act; Regulations respecting X-ray Examination and Tuberculin Tests for Nurses in Sanatoria and Public Hospitals; Regulations respecting Receptacles for Disposal of Manure and respecting Slaughter Houses. *Publications.*—Annual Report upon the Public Hospitals, Private Hospitals, Hospitals for Incurables, Convalescent Hospitals, and Sanatoria for Consumptives; Annual Report of the Department of Health; Annual Report upon the Ontario Hospitals for the Mentally Ill, Mentally Sub-normal, and Epileptic. *(Pamphlets upon various subjects relating to Health may be obtained from the Department of Health, Parliament Buildings, Toronto.)*

Highways.—Annual Report, Department of Highways; The Highway Traffic Act, 1937, with Amendments and Regulations; The Commercial Vehicle Act, 1937, with Amendments and Regulations; The Public Vehicle Act, 1937, with Amendments and Regulations; The Highway Improvement Act, 1937, with Amendments; The Gasoline Tax Act, 1937, with Amendments and Regulations; the Gasoline Handling Act, 1937, with Amendments and Regulations; Province of Ontario Road Map, *Free on application;* County Road Maps, *Price 10 cents per map;* Official Weekly Road Bulletin of Ontario, *Free on application.*

Labour.—*Legislation.*—Department of Labour Act; Factory, Shop and Office Building Act; Steam Boiler Act; Canadian Interprovincial Regulations for the Construction and Inspection of Boilers, Tanks and Appurtenances; Operating Engineers Act and Regulations Governing the Issuance of Certificates; Employment Agencies Act and Regulations Governing Employment Agencies; Apprenticeship Act and General Regulations Governing the Training of Apprentices in Designated Trades and Trade Regulations concerning each trade designated; Regulations Respecting the Protection of Persons Working in Compressed Air; Regulations Respecting the Protection of Persons Working in Tunnels or Open Caissons; Minimum Wage Act; Minimum Wage Orders; Industrial Standards Act and Schedules of Wages and Hours approved by Order in Council. *Reports.*—Annual Report of the Department of Labour, including the reports of the Ontario Government Offices of the Employment Service of Canada; Factory Inspection Branch; Boiler Inspection Branch; Board of Examiners of Operating Engineers; Industry and Labour Board; Apprenticeship Branch; Minimum Wage Branch; Industrial Standards Branch and Conciliation and Negotiation Branch. *Text Books.*—Why Certificates for Stationary and Hoisting Engineers; Boilers; Engines, Turbines, Condensers, Pumps; Refrigeration and Air Compression; Combustion; Beginners Book on Power Plant Operation; Steam Plant Accessories.

Lands and Forests.—Annual Report; Pamphlet on Summer Resort Lands; Forest Trees for Distribution; Forest Tree Planting; Settlers' Lands; Gathering Pine Cones; List of Townships; Forest Resources of Ontario.

Mines.—The Mining Act (R.S.O., 1937, c. 45, with amendments to date); Handbook—Ontario's Mines and Mineral Resources (sixth edition, 1936), Vol. XLVII, Part I, 1938; Report of the Mineral Production of Ontario in 1937; Report of Royal Ontario Nickel Commission, 1917, *Price $5;* Report of Ontario Iron Ore Committee, 1923, *Price $2;* Volume XXX, Part II, Ontario Gold Deposits; Volume XXXIII, Part II, 1924, Porcupine Gold Area, *Price $2;* Final Report of Joint Peat Committee, 1925, *Price $1;* Volume XXXVII, Part II, 1928, Kirkland Lake Gold Area, *Price $2;* Bulletin No. 25, List of Publications (third edition) with Supplements; Bulletins Nos. 80 and 93, Money and the World Crisis; Prospector's Guide to Ontario Mining Fields (fourth edition, 1936); The Mining Tax Act; The Natural Gas and Petroleum Acts and Regulations; The Unwrought Metal Sales Act; Vol. XLVIII, Part I, 1939, Annual Report for 1938; Bulletin 126, Mineral Production in 1939; Bulletin 129, Mining Accidents in 1939; Map 1939-a, Index to Geological Maps; The Study of Minerals and Rocks.

Premier.—Reports of the Liquor Control Board of Ontario and the Temiskaming and Northern Ontario Railway Commission; Tourists' Handbook; Report of the Niagara Parks Commission; Ontario Research Foundation Report; Hydro-Electric Power Commission's Report.

Provincial Secretary.—*Annual Reports.*—Prisons and Reformatories, including Ontario Board of Parole; Annual Report of the Secretary and Registrar of the Province of Ontario (this report is presented to the Legislative Assembly each year, but has not been printed for several years); Annual Report of Births, Marriages and Deaths; The Companies Act,

including the Extra-Provincial Corporations Act; The Mortmain and Charitable Uses Act; The Companies Information Act and the Corporation Securities Registration Act; The Marriage Act; The Vital Statistics Act; Physicians' Pocket Reference to the International List of Causes of Death.

NOTE.—*The Physicians' Pocket Reference to the International List of Causes of Death is published by the Dominion Bureau of Statistics, but copies are kept by this Branch for purposes of distribution.*

Public Works.—Annual Report of the Minister, with reports of the Deputy Minister, Architect, Engineer, Secretary, and Accountant.

Treasury.—Annual Statements; Estimates of Expenditure; Public Accounts; Budget Address of Treasurer delivered in the Legislative Assembly; Auditors' Report; Report of the Board of Censors of Motion Pictures.

MANITOBA.

Agriculture.—*Booklets.*—Annual Crop and Live Stock Reports. *Bulletins and Circulars.*—Sweet Clover; Making Silage in Manitoba; The Canada Thistle; Leafy Spurge; Hoary Cress or Perennial Peppergrass; Noxious Weeds Act; Great Ragweed; Annual Forage Crops for Manitoba; Dog Mustard; Stinkweed and Common Wild Mustard; The Russian Thistle; ABC of Manitoba Weeds; Dodder; False Ragweed; The Gopher Pest in Manitoba; Sow Thistle Control; Control of Wild Oats; Preparing Grain for Exhibition Purposes; Production of Cereals in Manitoba; Forage Crop Calendar; How to Kill Couch Grass; Growing Better Potatoes; Producing the Best Cream; Farm Butter-Making; Cheese-Making on the Farm; The Cream Separator on the Farm; Brooding and Rearing Chicks; Poultry Houses for Manitoba; Sheep in Manitoba; Manitoba Rations for Animals and Poultry; Have You Dehorned your Market Cattle?; Asparagus Growing in Manitoba; Annual Flowers for Outdoor Sowing; Growing and Using Tomatoes; Manitoba Fruit List; Growing Raspberries in Manitoba; Growing and Using Gooseberries; Growing Strawberries in Manitoba; Making and Caring for Lawns; Use of Bulbs for Winter Bloom; Grafting and Budding Tree Fruits; The Gladiolus; Shrubs for Manitoba; Varieties of Vegetables for Manitoba Gardens; Vegetable Insects and their Control; Growing Better Rhubarb; The Beef Ring; Helps for the Home Dressmaker; Fitting and Alteration of Dress Patterns; First Lessons in Sewing; Stain Removal and Dyeing; The Preparation of Whitewash; Canning, Pickling and Preserving; Facts about Manitoba; Purslane; Field Bindweed; Weed Poster (in colours); Feeding for Milk Production; Raising Dairy Calves; Mineral Requirements of Live Stock; Piggery Plans; The Brood Sow; Breeding or Gestation Table; Poultry Rations and Feeding Methods; Field Insects and Their Control; Handbook of Manitoba Women's Institute, *Price 20 cents*, or *6 for $1*; Herbaceous Perennial Flowers and Their Use; Starting Early Vegetables; Growing Raspberries in Manitoba; Manitoba Fruit List; Shelter Belts and the Farm Woodlot; Mechanical Spreader for Grasshopper Bait.

Education.—Annual Report; Program of Studies, Elementary and Senior; Public School Act; Regulations; Beautification of School Grounds; Summer School Calendar; Attendance Act; Department of Education Act.

Municipal Commissioner.—Statistical information respecting the Municipalities of the Province, and list of names and addresses of Administrative and Health Officials of each Municipality; Manitoba Tax Commission.

Public Works.—Annual Report, included in Sessional Papers; Report of Insurance.

Attorney General.—Annual Report; Government Liquor Commission; Workmen's Compensation Board; Annual Report of Manitoba Telephone System.

Provincial Treasurer.—Public Accounts; Estimates; Budget Speech; Report of Manitoba Farm Loan Association.

Provincial Secretary.—Manitoba Gazette; Journals and Sessional Papers; Statutes of the Province.

Mines and Natural Resources.—Annual Report; Manitoba Mines and Minerals, 1928; A Guide for Prospectors; Fishing is Good in Manitoba; Mining Maps; Sectional Land Maps; Shelterbelts and the Farm Woodlot (1938); "The Whiteshell"

Health and Public Welfare.—Annual Report; Monthly Pre-natal and Post-natal Letters; Manitoba Baby; Manitoba Child; Child Study Material for Small Community Groups; Patterns for Infants' Layettes, *Price 10 cents;* Regulations *re* Boarding Homes for Children, Maternity Homes, and Day Nurseries; Quarantine Regulations; The Common Cold; Measles; Scarlet Fever; Diphtheria; Diphtheria Immunization; Whooping Cough; Trachoma; Typhoid Fever; Health Training Material for Teachers.

Publications issued by the Dominion Department of Pensions and National Health, The Canadian Council on Child Welfare, The Canadian National Institute for the Blind, also used in educational service.

SASKATCHEWAN.

Agriculture.—Annual Report of the Department of Agriculture; Annual Reports of Branches, etc.: Dairy, Live Stock, Field Crops, Statistics, Co-operation and Markets, Bee Division; Report of Extension Department of College of Agriculture; Commission Marketing Reports; Live-Stock Marketing; Bulletins and leaflets on Live Stock, Field Crops, Dairying, Tillage Methods, etc.

Other Publications.—*Annual Reports.*—Bureau of Labour and Public Welfare; Department of Education; Department of Highways and Transportation; Department of Municipal Affairs; Department of Public Works; Bureau of Child Protection; Department of Public Health; Department of Telephones; Department of Natural Resources; Local Government Board; Public Accounts; Cancer Commission; Mental Hospital; The Saskatchewan Gazette. *By Bureau of Publications.*—Weekly News Bulletin; Pamphlets relating to tourist attractions, highway maps, natural resources, industries, etc.; of Saskatchewan; Legislation Affecting Women and Children.

ALBERTA.

Agriculture.—Weekly Dept. of Agriculture Notes; Alberta Agricultural Report (Fortnightly, May to September); Annual Report; Statistical Summary of Production for previous year; Calendar of Provincial Schools of Agriculture; Farm Women's Week (circular); Farm & Home Week (circular). *Bulletins.*—Turkey Production in Alberta; Brooding and Rearing of Chicks; Poultry Diseases in Alberta; Planning and Beautifying Home Grounds; Flowers Beautify the Home; Equine Encephalomyelitis; Warble Fly Control; Care, Feeding and Management of Swine; Beekeeping in Alberta; The Production of Milk for Cheese Making; Tentative Suggestions for the use of Fertilizer in Alberta; Weeds of Alberta; Leaflets on Weed Control; Destruction of Gophers; Preservation of Fruits, Vegetables and Meats; Home Laundry Hints; Report on the Rehabilitation of the Dry Area; Anæmia in Suckling Pigs; Annual Report of the Game Branch; Game Regulations.

Education.—Annual Report; Program of Studies for the Elementary School; Promotion Tests for Grade VIII; Departmental Examinations for Grades IX-XII; Pamphlets on Picture Study, Architecture and Sculpture; Summer School Announcement; Normal School Announcement; Program of Studies for Technical High Schools (revised 1932 and 1937); Regulations of the Department of Education governing the course of study in Grades VII, VIII and IX; High School Correspondence Courses; Suggested Time-table for One-Room Schools; Instructions Concerning the Teaching of French in the Elementary Schools; Supplement to the Program of Studies for the Elementary School—Selections for Reading; Suggestions for Seat Work in Junior Grades; Five-Figure Logarithmic Tables; Regulations of the Department of Education Relating to the Program of Studies and Annual Examinations for High Schools; Price List and Requisition Form—School-Book Branch; What Is and What Might Be in Rural Education in Alberta; Regulations of the Department of Education Relating to the Program of Studies and Annual Examinations for Commercial Schools (revised 1932 and 1937); Bulletins and Regulations covering School Buildings in Rural and Village School Districts; Series of Plans and Specifications for Teachers' Residences; Series of Plans for One- and Two-Roomed Schools, with Specifications; Annual Announcement of the Provincial Institute of Technology and Art; Courses of Study for Technical High Schools; School Act; Physical Education for Rural Schools; Physical Education for Secondary Schools; Report of Legislative Committee on Rural Education; Rural Education in Alberta; High School Civics; Instructions *re* Conduct of Examinations; Special Instructions to Presiding Examiners; Special Instructions to Presiding Examiners *re* Commercial Examinations.

King's Printer—Alberta Gazette, *Price $2 per year.*

Lands and Mines.—Annual Report; Annual Report of the Mines Branch; Annual Oil Review; History of Alberta Oil; Alberta Minerals.

Municipal Affairs.—Annual Report of Department; List of Alberta Municipalities.

Public Health.—Annual Report of Department; Annual Report on Vital Statistics. Bulletins issued by the Department on various health subjects. Pamphlets regarding all communicable diseases—12 in number; Alberta Mothers' Book; What you should know about Cancer (book); General Information regarding Tonsils; Health Rules for School Children; Goitre; Facts about Flies; In Times Like These (booklet on nutrition); History and Organization of Department and Boards of Health; Hospitals and Sanatoria; Protecting the

Community's Food Supply; Protecting the Community's Milk Supply; Sanitary Disposal of Garbage and Sewage in the Community; Diseases Communicated by Intestinal Discharges; District Health Units; Combating Early Syphilis: Sulfanilamide Treatment of Social Disease. *Food Bulletins.*—(1) Preparing the Less Tender Cuts of Meats; (2) The School Lunch; (3) Salads.

Public Works.—Annual Report; Annual Road Map.

Trade and Industry.—Labour Legislation.

Treasury.—Budget Speech containing extracts from Public Accounts and other financial statements; Public Accounts; Estimates of Revenue and Expenditure.

Other Publications.—Annual Reports are also issued by the following Departments, Branches, and Boards: Provincial Secretary (Insurance Branch), Board of Public Utilities, Board of Industrial Relations, Workmen's Compensation Board. *Alberta Marketing Board.*—Directory of Alberta Manufacturers; Catalogue of Farm Machine Parts. *Social Credit Board.*—Annual Report; various other publications. *Price Spreads Board.*—Weekly Summary. *Statistics Branch.*—Monthly and Annual Summaries. *Publicity Bureau.*—Travel Book; Facts About Alberta; other publications.

BRITISH COLUMBIA.

Agriculture.—*Dairying.*—(5) Varying Butter-Fat Test; (71) Butter-Making on the Farm; (3) Cottage Cheese; (2) Farm Cheese; (1) Starters for Farm Cheese-making; (12) Rules Governing Cow-testing Associations in B.C.; (4) Clotted Cream; (17) The Story of Feed Unit; (20) First List of Dairy Sires; (22) Second List of Dairy Sires; (25) Third List of Dairy Sires; (27) Fourth List of Dairy Sires; (29) Fifth List of Dairy Sires; (32) Sixth List of Dairy Sires; (24) First Studies in Mendelism; (6) Care of Milk and Cream; (28) Certified Milk and Butter-Fat Records, 1934; (1) Ropy Milk in B.C.; (13) A Farm Dairy Sterilizer; (9) Dairy Farm Sterilizing Equipment. *Diseases and Pests.*—(45) Anthracnose; (39) Apple Aphides; (44) Apple-Scab; (34) Woolly Aphid of the Apple; (38) The Lesser Appleworm; (32) Cabbage-Root Maggot; (37) The Imported Cabbage-Worm; (2) Colorado Potato-Beetle in B.C.; (35) Current Gall-Mite; (73) Diseases of Cultivated Plants; (66) Fire-Blight; (63) Locust Control; (61) Making Lime-Sulphur at Home; (36) The Onion-Thrips; (41) The Oyster-Shell Scale; (31) Peach-Twig Borer; (72) Pests of Cultivated Plants; Field Crop and Garden Spray Calendar; Fruit Spray Calendar; (40) Soap Solutions for Spraying; (71) Dust Sprays; (33) Strawberry-Root Weevil. *Field Crops.*—(6) The Jerusalem Artichoke; (10) Cereal Smuts; (8) Field Corn; (12) Crop Rotation; (14) Farm Drainage; (3) Kale and Rape Crops; (15) Potato Diseases; (86) The Potato in B.C.; (7) Root-Seed Production; (98) Roots and Root-Growing; (11) Soil Fertility; (13) Soiling and Annual Hay Crops; (5) Soils, Peat and Muck; (106) Weeds and their Control; (4) Noxious Weeds. *Fruits and Vegetable Growing.*—(57) Blackberry Culture; (69) Cantaloupe-Growing in B.C. Dry Belt; (70) Celery Culture; (56) Currant and Gooseberry Culture; (43) Gardening on a City Lot; (54) Loganberry Culture; (51) Orchard Cover Crops; (53) Selection of Orchard Sites and Soils; (62) Planting Plans and Distances; (60) Pruning Fruit Trees; (55) Raspberry Culture; (67) Rhubarb Culture; (58) Strawberry Culture; (65) Tomato-Growing in B.C.; (42) Top-working of Fruit-Trees and Propagation; (64) Varieties of Fruit recommended for Planting in B.C. *Live Stock.*—(67) Care and Feeding of Dairy Cattle; (53) Feeding Farm Live Stock in B.C.; (64) Goat-Raising in B.C.; (60) Swine-Raising in B.C.; (99) Care and Management of Sheep; (40) Some Causes of Variation in Percentage of Fat in Milk. *Poultry.*—(27) Breeding-Stock Hints; (32) Fattening Young Ducks; (15) Profitable Ducks; (25) Hints on Egg Hatching; (35) The Use of Feathers; (12) Management of Geese; (36) The Green Feed Deficiency in Fowls; (33) Management and Rearing of Guinea Fowls; (39) Natural and Artificial Incubation and Brooding; (63) Poultry-House Construction; (11) Poultry-Keeping on a City Lot; (34) Care of Poultry Manure; (49) Market Poultry; (26) Practical Poultry-Raising; (19) Poultry Rations for Chicks and Layers; (80) Fur-Bearing and Market Rabbits; (28) Rabbit Recipes; (30) Sod-House Construction; (4) Management of Turkeys. *Miscellaneous.*—(92) Bee Culture in B.C.; (52) Better Farming Suggestions; (85) Clearing Bush Lands in B.C.; (50) Exhibition Standards of Perfection; Farm Account Book; (45) Judging Home Economics and Women's Work; List of Publications; (83) Preservation of Food; (66) Silos and Silage. *Reports.*—Agricultural Statistics; Climate of B.C.; Department of Agriculture Reports.

King's Printer.—British Columbia Gazette.

Lands.—*Forest Branch.*—The Forest Resources of British Columbia; *Circulars:* How to Obtain a Timber Sale; Grazing Regulations.

Mines.—Comprehensive annual reports, special bulletins, preliminary reports, etc.

British Columbia Government Travel Bureau.—Visit British Columbia; Alluring British Columbia; Picturesque Highways of British Columbia; Hunting Game and Fishing in British Columbia; British Columbia, Canada; Synopsis of Hunting and Fishing Regulations; British Columbia Map Folder. *Lands Series of Bulletins.*—(1) How to Pre-empt Land; (2) Some Questions and Answers regarding British Columbia; (3) British Columbia—Northern and Central Interior District; (5) British Columbia—Southern Interior District; (6) British Columbia Coast, Howe Sound to Toba Inlet; (7) British Columbia Coast, Toba Inlet to Queen Charlotte Strait; (8) British Columbia Coast, Queen Charlotte Strait to Milbanke Sound; (9) British Columbia Coast, Milbanke Sound to Portland Canal; (10) Crown Lands, Purchase and Lease; (11) Cariboo Land Recording District; (12) Kamloops and Nicola Districts; (13) Similkameen Land Recording District; (14) Vancouver Island; (15) Queen Charlotte Islands; (17) Yale Land Recording District; (18) Osoyoos Land Recording District; (20) Nelson and Slocan Land Recording District; (21) Revelstoke and Golden Land Recording District; (22) Prince Rupert Land Recording District; (23) Stikine and Atlin Land Recording District; (24) Smithers Land Recording District; (25) Peace River Country; (26) Omineca District, Nation Lakes, etc.; (27) New Westminster Land Recording District; (28) Francois-Ootsa Lakes; (29) Nechako and Endako Valleys; (30) Stuart and Babine Lake District; (31) Vicinity of the Pacific Great Eastern Railway (Squamish to Clinton); (32) Vicinity of the Pacific Great Eastern Railway (Clinton to 52nd Parallel); (33) Lillooet Land Recording District; (34) The Chilcotin Plateau; (35) Fort George Land Recording District, Central and Western Portions; (36) South Fork of the Fraser and Canoe River Valleys; Mount Robson Park; Strathcona Park, Vancouver Island.

Section 5.—Reports of Dominion and Provincial Royal Commissions, Together with a Selection of Reports of British Royal Commissions Having a Bearing on Canada.*

DOMINION ROYAL COMMISSIONS.

NOTE.—*Reports of Important Royal Commissions back to 1870 have been included, but only those reports where a price is quoted are in print; these may be obtained from the King's Printer, Ottawa. For pre-Confederation Commissions, see also "A Finding-list of Royal Commission Reports in the British Dominions", A. H. Cole., Comp., Harvard U.P., 1939 (p. 87+).*

Royal Commission on the Improvement of the Inland Navigation of the Dominion of Canada, 1870. Report, with appendices. 190 p. Supplementary return, 9 p. Sess. pa. 54. Royal Commission on the Arrangements *re* the Finances Advanced for the Construction of a Railway to the Pacific: Report (in Journals of the House of Commons, Appendix 1, 1873), 227 p. Royal Commission for Investigating the Books, Accounts and Vouchers of the Northern Railway Company of Canada, 1877. Report with evidence. Sess. pa. 10. Report of the Canadian Pacific Railway Royal Commission, 1882, Ottawa, S. Stephenson and Co. 3 v., V. 1 and 2 Evidence, V. 3 Conclusions. Royal Commission on Chinese Immigration, 1884. Royal Commission on Railways: Report with appendices, 1888, 41 p. Royal Commission on the Leasing of Water Power, Lachine Canal, 1888. Sess. pa. 30 *(not printed).* Royal Commission to Inquire into Losses in the North-West Territories during the Rebellion, 1888. Sess. pa. 40 *(not printed).* Royal Commission on the Relations of Capital and Labor in Canada: Evidence, Quebec, Ontario, Nova Scotia, New Brunswick, 1889, 4 v. Royal Commission Appointed to Inquire into Certain Matters Relating to the Civil Service of Canada, 1892, 733 p. Royal Commission in Reference to Certain Charges made against Hon. Sir P. A. Caron: Report, 1893, 602 p. Royal Commission on the Liquor Traffic in Canada: minutes of evidence, 1893-95. 5 v. in 6. Sess. pa. 21, V. 1. Report with appx. and fold maps, 1,003 p., V. 2 Index of subjects, 171 p. Royal Commission on the Shipment and Transportation of Grain, 1900: Report, Sess. pa. 81A. Royal Commission on Chinese and Japanese Immigration, 1902: Report. Royal Commission *re* the Alleged Combination of Paper Manufacturers and Dealers, 1902. Report of Commissioners and Other Documents Connected with the Commission, 242 p. Sess. pa. 53. Royal Commission on Transportation, 1903: Report, 67 p. (Sup. to Report of Minister of Public Works). Royal Commission (on the) Tobacco Trade, 1903. Report. 10 p. Sess. pa. 62. Royal Commission on Industrial Disputes in the Province of British Columbia: Report and minutes of evidence, 2 pts., 1903-04. Royal Commission on the Alleged Employment of Aliens in Connection with the Surveys of the Proposed Grand Trunk Pacific Railway, 1905. Royal Commission Appointed to Inquire into the Immigration of Italian Labourers to Montreal and the Alleged Fraudulent Practices of Employment Agencies, 1905. *(Dept. of Labour)* 41+173 p. Sess. pa. 36b. Royal Commission *re* the Alleged Employment of Aliens by the Père Marquette Railway Company of Canada, 1905. Report of Commissioner *(issued by Dept. of Labour)* 2 v. in 1 (also Sess. pa. 36c and 36d) 36+121 p. Royal Commission on the Grain Trade of Canada. Sess. pa. 59, 1906. Royal Commission on Transportation.

* Revised by Miss Grace S. Lewis, Librarian, Dominion Bureau of Statistics.

Report (Sup. to An. Rept. Minister of Public Works, 1903) 1906, 63 p. Sess. pa. 19a. Royal Commission on a Dispute Respecting Hours of Employment Between the Bell Telephone Company of Canada, Ltd., and Operators at Toronto, Ont., 1907, 102 p. Royal Commission on (Life) Insurance: Evidence, 4 v.: Report, 1907, 204 p. Royal Commission on the Civil Service: Report with minutes of evidence, 1908, 1,387 p. Royal Commission Quebec Bridge Inquiry: Report, 1908, 2 v. 206+p.: List of plans accompanying the report, 1-37. Royal Commission Appointed to Inquire into the Methods by which Oriental Labourers have been Induced to Come to Canada, 1908. Report, King's Printer, 81 p. Royal Commission to Inquire into Industrial Disputes in the Cotton Factories of Quebec: Report, 1909, 32 p. Royal Commission on Alleged Chinese Frauds and Opium Smuggling on the Pacific Coast, 1910-11. Report with evidence and exhibits, 1911. Sess. pa. 207 *(not printed)*. Royal Commission of Inquiry in the Matter of the Farmers Bank of Canada: Proceedings, 1913, 717 p. Royal Commission on Industrial Training and Technical Education: Commissioners' Report, 1913, 4 v. *($2)*. Royal Commission on Coal Mining Disputes on Vancouver Island. Report issued by authority of the Minister of Labour, 1913. 43 p. Royal Commission on the Law Respecting Pilotage and its Administration in the Pilotage Districts of Montreal and Quebec, 1913. Sess. pa. 191c. *(not printed)*. Royal Commission to Inquire into Alleged Complaints Relating to Weighing of Butter and Cheese in Montreal, 1913. Report, 17 p. Sess. pa. 153b. Royal Commission on Penitentiaries: Report, 1914, 44 p. *(10 cents)*. Royal Commission Appointed to Inquire into the State of the Records of the Public Departments of the Dominion of Canada, 1914. Report, 16 p. Royal Commission Appointed to Investigate Construction of the National Transcontinental Railway, 1914. Report, with exhibits, 2 v. Sess. pa. 123. Royal Commission on the Loss of the British Steamship *Empress of Ireland* of Liverpool (0·123972) through Collision with the Norwegian Steamship *Storstad*, 1914. Report, with minutes of evidence, 615 p. Sess. pa. 21b. Royal Commission on Cost of Living, 1915. 2v. V. 1, 955 p., V. 2, 1,108 p. John McDougald, C. C. James, R. H. Coats, Commrs. Royal Commission *re* Parliament Buildings Fire at Ottawa, 1916 *(10 cents)*. Royal Commission to Inquire into Railways and Transportation in Canada, 1917 (Drayton-Acworth Comm.) *(15 cents)*. Royal Commission Appointed to Inquire into the Purchase by and on behalf of the Government of the Dominion of Canada of Arms, Munitions, Implements, Materials, Horses, Supplies, and Other Things for the Purpose of the Present War and as to the Expenditures and Payments Made or Agreed to be Made Therefor, 1917. Report of the Commissioner Concerning Purchase of Submarines. 25 p. Royal Commission Concerning Purchase of War Supplies and Sale of Small Arms Ammunition. Report of the Hon. Sir Charles Davidson, Kt., 1917. 3 pts. Pt. 1—Concerning Military Cloth (Auburn Woollen Mills Co.) 35 p. Pt. 2—Concerning Small Arms Ammunition, 56 p. Pt. 3—Evidence, 2,740 p. Royal Commission on Delivery of Cargoes of Coal to Coasting Vessels, etc. 1917. Report, Sess. pa. 142 *(not printed)*. Royal Commission on Indian Affairs on the Kitsilano Indian Reserve, 1917. Report Sess. pa. 85 *(not printed)*. Royal Commission on the High Cost of Living, 1917. W. F. O'Connor, K.C., Commr. Reports: *re* Sugar, 39 p. *re* Anthracite Coal, 34 p. *re* Cold Storage, 63 p. Sess. pa. 189, 190, and 210a. Royal Commission appointed to Inquire into and Report upon the Pilotage System and its Administration at the Port of Halifax, N.S. Report, 1918. Sess. pa. 99 *(not printed)*. Royal Commission of Inquiry into the Ship-Yards Trouble in Vancouver: W. E. Burns, E. A. James, and James McVety, Commissioners *(Statement issued by Department of Labour)*. Royal Commission of Inquiry into the Civic Strike in Winnipeg, 1919 *(Statement issued by Department of Labour)*. Royal Commission on Industrial Relations 1919: Report together with a minority report, 26 p. *(20 cents)*. Royal Commission on Conditions in the Pilotage Districts of Vancouver, Victoria, Nanaimo, and New Westminster, 1919. Report, 13 p. Sess. pa. 105. Royal Commission on the Pilotage Districts of Miramichi, Sydney, Louisburg, Halifax, Saint John, Montreal, and Quebec, 1919. Report, 27 p. Sess. pa. 104. Royal Commission on Racing Inquiry: Report, 1920 *(10 cents)*. Royal Commission on Affairs of Indians in British Columbia, 1920. Report. Sess. pa. 66 *(not printed)*. Royal Commission Appointed by Order in Council, May 20, 1919, to Investigate the Reindeer and Musk-ox Industries in the Arctic and Sub-Arctic Regions of Canada, 1922. Report, 99 p. Sess. pa. 162. Royal Commission on Lake Grain Rates: Report, 1923 *(10 cents)*. Royal Commission on Pensions and Re-Establishment, 1923: First interim report, 1923 *(10 cents)*: Second interim report, 1924 *(25 cents)*; Final report, 1924 *($1)*. Royal Commission on Pulpwood: Report, Ottawa, July, 1924, 298 p. *($1)*. Royal Grain Inquiry Commission: Interim report, 1924, 32 p. Royal Commission Appointed to Inquire into the State of the Records of the Public Departments of the Dominion of Canada (in 1912) 1924. Report, 15 p. Royal Commission Regarding Industrial Unrest of Steel Workers at Sydney, N.S.: Report (Sup. to *Labour Gazette*, Feb., 1924) 1924, 24 p. Sess. pa. 39. Royal Commission to Inquire into and Report upon Affairs of the Home Bank of Canada and in the Matter of the Petition of the Depositors in the said Home Bank of Canada, 1924. Interim report, 26 p. Sess. pa. 100d. Hearing and evidence, 18 v. Reports 1-18 (except 2 and 4) 844 p. Royal Commission to Investigate Grand Trunk Railway Officials' Gratuities, 1924. Report and minutes of evidence. Sess. pa. 99 *(not printed)*. Royal Grain Inquiry Commission: Report, 1924, 217 p. *($1)*. Royal Commission on Maritime Claims: Report, 1926, 45 p. (Duncan Comm.) *(25 cents)*. Royal Commission on Election in Athabasca, 1926-27. Sess. pa. 69 *(not printed)*. Royal Commission Investigating the Fisheries of the

Maritime Provinces and the Magdalen Islands, 1928, 125 p. *(50 cents)*. Royal Commission on Customs and Excise: Interim reports 1-10, 119 p.: Final report, 1928, 24 p. *(25 cents)*. Royal Commission on Reconveyance of Land to British Columbia, 1928, 57 p. *(25 cents)*. Royal Commission Appointed to Investigate Charges of Political Partisanship in the Department of Soldiers' Civil Re-establishment. Report, 1928, 31 p. Royal Commission on Illegal Warfare Claims and for Return of Sequestrated Property in Necessitous Cases, 1928. Report, 2 v. in 1. Index, 24 p. Preliminary report *(in French)* 1931, 172 p. Special report. 12 p. 1931. Supplementary report, 38 p. 1932. Further report, 217 p. 1933. Royal Commission Appointed to Inquire into Pilotage in British Columbia Waters, 1929, 10 p. *(10 cents)*, Royal Commission on Radio Broadcasting: Report (Aird Comm.), 1929, 59 p. *(25 cents)*. Royal Commission on the Transfer of the Natural Resources of Manitoba: Report, 1929, 46 p. *(25 cents)*. Royal Commission on Technical and Professional Services: Report (Beatty Comm.) 1930, 60 p. *(15 cents)*. Royal Commission to Inquire into Trading in Grain Futures: Report (Stamp Comm.), 1931, 90 p., chart *(25 cents)*. Royal Commission to Inquire into Railways and Transportation in Canada, 1931-32 (Duff Comm.), 115 p., maps, chart *(75 cents)*. Royal Commission on Banking and Currency in Canada, 1933 (Macmillan Report), 119 p. *(50 cents)*. Royal Commission on Price Spreads, 1935: Report (Stevens Comm.), 30+506 p. *($2)*. Royal Commission on the Natural Resources of Alberta, 1935, 42 p. *(25 cents)*. Royal Commission on the Natural Resources of Saskatchewan, 1935, 68 p. *(25 cents)*. Royal Commission on Financial Arrangements Between the Dominion and the Maritime Provinces, 1935: Report (White Comm.), 24 p. *(10 cents)*. Royal Commission on Activities of the Canadian Performing Rights Society, Limited, and Similar Societies, 1935: Report, 49+p., Judge James Parker, Commr. Royal Commission to Investigate Conditions in the Relief Camps of British Columbia. Report, 1935. Hon. W. A. Macdonald, Mr. C. T. McHattie, Rev. E. D. Braden, Commrs. Commission to Investigate the Best Means of Dealing with Unemployment in the Ranks of Ex-Service Men. Hon. J. D. Hyndman, Col. C. Basil-Price, Mr. W. B. Woods, Commrs. Report, 1935. Commission to Investigate Circumstances with Regard to the Construction of a Post Office at Waterloo, Que., Report, 1935. Hon. Alfred Forest, Commr. Royal Commission to Investigate Charges Against Certain Members of the Royal Canadian Mounted Police Force in New Brunswick, Report, 1935. Hon. J. B. M. Baxter, Commr. *(not printed)*. Commission on Political Partisanship in the Civil Service; Report 1937-38. Albert Gordon, Commr. *(not printed)* (Can. An. Rev. 1937-38, p. 91). Royal Commission to Investigate Illegal Fishing and Canning of Lobsters and Illegal Fishing of Smelts in Lobster Fishing Districts Nos. 7 and 8. Mr. Justice A. T. LeBlanc, Commr. Report, 1938, Royal Commission on Anthracite Coal: Report, 1937, 120 p. *(25 cents)*. Royal Commission on the Textile Industry: Report, 1938, 308 p. *(English and French editions), (75 cents)*. Royal Grain Inquiry Commission: Report, 1938, 264 p. *($1)*. Royal Commission to Investigate the Penal System of Canada, 1938: Report, 6+418 p. *($1)*. Royal Commission on the Bren Machine Gun Contract, 1939: Report, 52 p. *(25 cents)*. Royal Commission on Dominion-Provincial Relations (Rowell-Sirois Comm.) *(A check-list of briefs submitted by provincial and municipal governments and other Canadian organizations, available in the Library of the Royal Bank of Canada, 1939, 4 p. rotopr.)*: Report. 3 v. Book I, Canada; 1867-1939. 261 p. Book II, Recommendations. 295 p. Book III, Documentation. 219 p. (3 v. *$1*). Appendix I. A.—Dominion of Canada and Canadian National Railways, Comparative Statistics of Public Finance, 1913, 1921, 1925 to 1937, 74 p. *($5)*. B.—Province of Prince Edward Island, 29 p. *($5)*. C.—Province of Nova Scotia, 33 p. *($5)*. D.—Province of New Brunswick, 38 p. *($5)*. E.—Province of Quebec, 40 p. *($5)*. F.—Province of Ontario, 47 p. *($5)*. G.—Province of Manitoba, 51 p. *($5)*. H.—Province of Saskatchewan, 43 p. *($5)*. J.—Province of Alberta, 43 p. *($5)*. K.—Province of British Columbia, 45 p. *($5)*. Summary of Dominion and Provincial Public Finance Statistics, *($2)*. Appendix 2. D. G. Creighton: British North America at Confederation, 104 p. *(50 cents)*. Appendix 3. W. A. Mackintosh: The Economic Background of Dominion-Provincial Relations, 102 p. *(50 cents)*. Appendix 4, D. C. MacGregor, J. B. Rutherford, G. E. Britnell, J. J. Deutsch. National Income, 97 p. *(50 cents)*. Appendix 5. Esdras Minville: Labour Legislation and Social Services in the Province of Quebec, 97 p. *(50 cents)*. Appendix 6. A. E. Grauer: Public Assistance and Social Insurance, 98 p. *(50 cents)*. Appendix 7. J. A. Corry: Difficulties of Divided Jurisdiction, 44 p. *(50 cents)*. Appendix 8. L. M. Gouin and Brooke Claxton: Legislative Expedients and Devices Adopted by the Dominion and the Provinces, 72 p. *(50 cents)*. *Mimeographs.*—J. A. Corry: Growth of Government Activities Since Confederation, 174 p. *(50 cents)*. A. E. Grauer: Labour Legislation, 292 p. *(50 cents)*. Public Health, 120 p. *(50 cents)*. Housing, 78 p. *(50 cents)*. Finance.—Stewart Bates: Financial History of Canadian Governments, 309 p. *(50 cents)*. H. C. Goldenberg: Municipal Finance in Canada, 128 p., *(50 cents)*. F. A. Knox: Dominion Monetary Policy (1929-1934), 93 p. *(50 cents)*. W. J. Waines: Prairie Population Possibilities, 77 p. *(50 cents)*. S. A. Saunders: Economic History of the Maritime Provinces, 148 p. *(50 cents)*. W. Eggleston and C. T. Kraft: Dominion-Provincial Subsidies and Grants, 200 p. *(50 cents)*. R. A. C. Henry; Railway Freight Rates in Canada, 290 p. *(50 cents)*. (Except for Appx. 1, pts. A-K, King's Printer, Ottawa.)

PROVINCIAL ROYAL COMMISSIONS.

NOTE.—*In many instances it is not possible to say whether the date given applies to the date of the appointment of the Royal Commission or to the date of the Report, but where possible the date of the Report is the one shown.*

Prince Edward Island.—Copy of an Address to Her Majesty Adopted by the House of Assembly of Prince Edward's Island on the 9th day of May, 1859, *re* Appointment of a Commission to Inquire into the Existing Relations of Landlord and Tenant in that Colony: and copy of extracts of the subsequent correspondence of the Secretary of State for the Colonies with the Governor of Prince Edward's Island and landowners and others of that Colony, relating to the same subject, 1864, 147 p. (528) v. 41. Correspondence relative to the land tenure question in Prince Edward Island, 1875, 84 p.—c. 1351—v. 53. Commission for Carrying out the Purpose of the Land Purchase Act of 1875, Report, 1876, 46 p.—c. 1487—v. 53. Report of the Royal Commission on Education, 1930, 55 p. H. F. McPhee. Brief for the Province of Prince Edward Island for Readjustment of Financial Arrangements with the Dominion Government and Full Implementation of the Report of the Royal Commission on Maritime Claims, August, 1934, 30 p. The Case of Prince Edward Island: Submission Presented to the Royal Commission on Dominion-Provincial Relations by the Government of Prince Edward Island, Charlottetown, Irwin Pr. Co., 1938, 4+66 p.

Nova Scotia.—Report of Commission appointed under c. 10, Acts 1907, Entitled "An Act Respecting Old Age Pensions and Miners' Relief Societies", 1908. Report of the Shipbuilding (Royal) Commission, 1918, 16 p. Royal Commission *re* Expenditures in Connection with the Construction of Certain Federal Aid Roads by the Provincial Highway Board: Report, 1921, 20 p. Report of the Royal Commission Respecting the Coal Mines of the Province, 1925, 59 p., chart. Report of Provincial Royal Commission on Coal Mining Industry in Nova Scotia, 1926, 31 p. Province of Nova Scotia: a Submission of Its Claims with Respect to Maritime Disabilities Within Confederation as Presented to the Royal Commission, Halifax, N.S., July 21, 1926, 178+4 p. Royal Commission on Ratings of the Lunenburg Fishing Fleet and Lumber Industries as Applied by the Workmen's Compensation Board, Nova Scotia: Report and findings, 42 p., 1927. Royal Commission on the Mentally Deficient Persons in Nova Scotia, 1927: Report, 4 p., 1928. Report of the Royal Commission Investigating the Apple Industry of the Province of Nova Scotia, 1930, 71 p. Report of the Royal Commission Respecting the Coal Mines of Nova Scotia, 1932, 32 p., charts. Report of the Royal Commission Concerning Jails, 1933, 115 p. Royal Commission of Economic Inquiry: a Submission on Dominion-Provincial Relations and the Fiscal Disabilities of Nova Scotia Within the Canadian Federation, 1934, 263 p.: Report, 238 p., bibl., Appendices, 133 p. The Jones Report on Nova Scotia's Economic Welfare within Confederation. A digest prepared by the Government of Nova Scotia, 1934. 27 p. (Royal Commission of) Inquiry, Nova Scotia Franchise: Report, 1934, White Commission, 92 p. Report of Royal Commission on Distribution and Consumption of Milk and Cream in Halifax, 1935, 24 p. Report of the Royal Commission on Transportation, 1936, 21 p. Royal Commission on Workmen's Compensation, 1937, 21 p. Hon. J. A. Hannay, K.C., Chairman, Dr. W. D. Forrest, Mr. Howard Cunningham, Commrs. Commission to Investigate the Moose River Mine Tragedy of Apr. 1936. Mr. Justice W. F. Carroll, Commr. Parl. Comm. to study reallocation of coal areas in Nova Scotia, make an exam. of gold resources and possibility of developing other metal ores, Apr. 8, 1937. Deputy Min. Mines, Dr. A. E. Cameron, (Can. An. Rev., 1937-38, p. 255). Submission on Behalf of the Union of Nova Scotia Municipalities, to the Royal Commission on Dominion-Provincial Relations, 1938, 37 p. Submission by the Government of the Province of Nova Scotia to the Royal Commission on Dominion-Provincial Relations, 1938, 141 p., Appendices, 22 p. Submission by the City of Halifax to the Royal Commission on Dominion-Provincial Relations, 1938, 42 p. Report of Royal Commission on Acadia Coal Company, 1937-38, Mr. Justice W. F. Carroll, Chairman, F. H. Sexton, A. S. McKenzie, Commrs. 113 p., charts, 1939. Royal Commission on the Larger School Unit. Report . . . 1940. Dr. H. F. Munro, Chairman; B. A. Fletcher, R. D. Crawford, H. M. MacDonald, L. A. d'Entremont, Andrew Fraser, Commrs. Halifax Dept. of Education, 1940, 46 p.

New Brunswick.—Royal Commission, issued under Act of Assembly 5 Edward VII, c. 20, entitled "An Act to Investigate Certain Charges Made against the Restigouche Boom Company": Report, 1906. Royal Commission Concerning St. John and Quebec Railway Company Charges: Report (N.B. pa. Sup. Appx., p. 116-147, 1915). Report of the Royal Commission in Respect to the Lumber Industry, 1927, 15 p. Report of the Royal Commission to Investigate Working of Compensation Act in Respect to Lumber Industry, 1927, 10 p. Royal Commission to Inquire into the Taxation by Cities, Towns, and Municipalities, of Non-residents, 1928, 28 p. The Harrison Special Brief for New Brunswick, for Readjustments of Financial Arrangements with Dominion Government, and Further Implementation of the Recommendations of the Royal Commission on Maritime Claims, 1934, 27 p. Commission to Investigate Civic Government in Saint John (Can. An. Rev. 1935-36, p. 445). Commission to Investigate the Saint John (Civic) Hydro-Electric Commission. Report, 1935. Submission made to the Royal Commission on Dominion-Provincial relations by

the Province of New Brunswick, 1938. Supplementary submission... Royal Commission to Investigate the System of Secondary Education in Saint John County. F. B. Schofield, Hon. J. B. M. Baxter, J. L. O'Brien, Commrs.

Quebec.—Royal Commission Appointed to Hold an Investigation into the Administrative Details of the Constitution, Working, and Sale of the Quebec, Montreal, Ottawa and Occidental Railway, as well as the Final Settlement of Accounts and Other Facts Relating to the Railway, 1885 (Dom. An. Reg., 1885, p. 182). Royal Commission on Lunatic Asylums of the Province of Quebec: Report, 1888, 182 p. Royal Commission of Inquiry into the Baie des Chaleurs Railway Matter. Proceedings of the Commission and depositions of witnesses, 1,071 p. 1891. Reports, proceedings of the Commission and depositions of witnesses, appendices and indices, 1892, 192 p. Royal Commission to Make Inquiry into Different Matters and Things Concerning the Good Government of (the) Province: Minutes of proceedings and evidence of witnesses, 1892, 269 p. Commission to study a system of social insurance for the province. Prof. Edouard Montpetit, Commr., 1930. Report of the Electricity Commission of the Province of Quebec (Lapointe Comm.) to the Prime Minister of the Province, Jan. 21, 1935, 48 p. Provincial Taxation Revision Commission, Prof. Edouard Montpetit, Commr., 1937. Commission for the abolition of Seigniorial Rents, 1938. Submission made to the Royal Commission on Dominion-Provincial Relations by the Province of Quebec, 1938.

Ontario.—Royal Commission on Certain Charges Against the Warden of the Central Prison: Report and Evidence of Wardens of Prisons in the United States and Canada; 1883, 181+63 p. Report of the Royal Commission on the Mineral Resources of Ontario and Measures for their Development, 1890. Report of the Royal Commission on Forest Reservation and National Park, and Papers and Reports upon Forestry, Forest Schools ... 1893. Return of Royal Commissions since Confederation, together with the dates, subjects, etc., 1894, 7 p. Royal Commission on Forestry Protection in Ontario, 1899. Report, 29 p. fold. map. Sess. pa. 35, 1900. Royal Commission on the Financial Position of the Province of Ontario: Report, 1901, 29 p. Report of the Royal Commission on the Gamey Charges, Toronto, 1903, 952+98+48 p. Royal Commission on Railway Taxation: Report, 1905. Archibald Blue, Chmn. 219 p. Royal Commission on the University of Toronto: Report, 1906, 60+268 p. Royal Commission on laws relating to the liability of employers to make compensation to their employees for injuries received in the course of their employment, which are in force in other countries. Interim report, with the evidence taken and the brief of Mr. Wegenast, submitted on behalf of the Canadian Manufacturers' Association. 478 p. Final report, and second interim report, with draft of An Act to Provide for Compensation to Workmen for Injuries Sustained and Industrial Diseases Contracted in the Course of their Employment, 58 p. Final report, with appendices, 20+733 p. Sir William Ralph Meredith, C.J., C.P., Commissioner, Toronto, K.P. 1913. Report of the Ontario Commission on Unemployment; J. S. Willison, Chairman. Toronto, K.P. 1916. 8+334 p. In the Matter of a Royal Commission to Inquire into the Administration, Management, and Welfare of the Ontario School for the Blind: Report and recommendations, 1917, 35 p. Royal Ontario Nickel Commission: Report and appendix, 1917. Royal Commission on University Finances: Report, 1921, 160 p. Royal Commission on the Best Mode of Selecting, Appointing, and Remunerating Police Magistrates. Interim report, respecting Sheriffs, 37 p. tables. Interim report, respecting Issuers of Marriage Licences, 7 p. 1921, Sess. pa. 62, 1921. Interim report, respecting Police Magistrates, 21 p. Interim report, respecting Coroners, 10 p. Sess. pa. 63 and 80, 1921. Interim report, respecting Toronto Police Court, 28 p. Interim report, respecting Toronto and York Registry Offices, 6 p., 1921. Reports of Commission appointed to Inquire into Hydro-Electric Railways; containing majority and minority reports and appendices. R. F. Sutherland, Chairman; C. H. Mitchell, A. F. Macallum, W. A. Amos, Commrs., 1921, 234 p. Interim report respecting Extension of Land Titles System in Northern Ontario, 6 p. Interim report respecting Osgoode Hall, 5+28 p., tables, 1922. Royal Commission on Hydro-Electric Power Commission to "inquire into and report upon all estimates submitted from time to time to the Hydro-Electric Power Commission of Ontario for the Chippewa Power Development and also all estimates for the said work submitted by the said Commission to the Government of Ontario", etc., Report. 1924, Sess. pa. 62 *(not printed)*. Royal Commission on Automobile Insurance Premium Rates: Interim Report on Compulsory Insurance and Safety Responsibility Laws, 1930, 85 p. Royal Commission on Public Welfare: Report, 1930, 111 p. Royal Commission to Investigate the Advisability of Amending the Workmen's Compensation Act (Can. An. Rev., 1930-31 p. 143). Sess. pa. 37, 1932. Royal Commission Appointed to Inquire into Certain Matters Concerning the Hydro-Electric Power Commission of Ontario: Report, 1932, 11 p. Royal Commission on the Use of Radium and X-rays in the Treatment of the Sick, 1932, 171 p. Royal Commission of Inquiry into "the circumstances surrounding the arrest and sentencing to five years in the Kingston Penitentiary of Albert Dorland in April, 1930, for carrying offensive weapons in the course of an alleged attempt to hold up the Royal Bank of Canada Branch at Church and Wellesley Streets, Toronto", Aug. 2, 1933 *(not printed)*. Royal Commission of Inquiry into Alleged Cruelty and Unsatisfactory Management at the Children's Shelter at Windsor, Ontario, 1933-34, (Can. An. Rev., 1934, p. 173-4). Royal Commission to Inquire into the Conduct, Management and Administration

of the Children's Aid Society of York County: Report presented 1934 (Can. An. Rev., 1934, p. 173-4). Royal Commission to Inquire into the Purchase by the Henry Government, in March, 1933, of the subsidiary company of the Abitibi Power and Paper Company and the Ownership at the time of some of the Company's Bonds both by the Hon. George S. Henry and the Rt. Hon. Arthur Meighen ... July 12, 1934, (Can. An. Rev., 1934, p. 188) *(not printed)*. Commission of Inquiry into the Operations of the Ontario Athletic Commission: Report, 1935. C. S. Walters, Commr. Royal Commission of Inquiry into the Collapse of the Manufacturers Finance Corporation. Report, 1935. J. M. Godfrey, Commr. Royal Commission to Investigate Charges Made during the Ontario General Election Campaign of 1934 ... in connection with the Operation of the Liquor Control Board. Report, 1935. Judge Duncan Ross, Commr. Royal Commission to Investigate Charges Against Certain Members of the Toronto Police Force, 1935-36. Royal Commission of Investigation into Charges of Mismanagement and Impropriety Against Officials at Matheson, under the Northern Development Department. Report, 1936. W. B. Common, Commr. Commission of inquiry into the Medical Administration of Burwash Reformatory. Report, 1936. C. F. Neelands and Dr. J. B. Heaslip, Commrs. Commission of inquiry into matters at the Ontario Reformatory at Guelph. Report, 1937. Commission of inquiry into the Financial Affairs of the Corporation of Collingwood, 1937. W. D. Roach, K.C., Commr. *(not printed)*. Royal Commission on Matters at the Ontario Reformatory at Guelph, 1937. Financial Affairs of the Corpn. of Collingwood *(not printed)*. W. D. Roach, K.C., Commr., J. G. Hood, Counsel. Report of the Survey of Ontario's Hospital System, 1937. The Government of Ontario, Statement to the Royal Commission on Dominion-Provincial Relations, 1938. Book 1, Prime Minister's Statement, 30 p. Book 2, General Statement, 80 p. Book 3, Appendix and tables, 22+34 p. Royal Commission on the Operation of the Homewood Sanitarium at Guelph. Report, 1938. Royal Commission on the Administration of the Mental Hospitals of Ontario. Report, 1938. Royal Commission for the Investigation of Remedies for Cancer, 1938. Mr. Justice Gillanders, Chairman, Dr. Robert Wallace, E. A. Collins, Dr. G. S. Young, Dr. W. J. Deadman, Dr. T. H. Callahan, Dr. R. E. Valin, Commrs. Report of the Royal Commission on Transportation, Province of Ontario, 1939, 293 p.

Manitoba.—Royal Commission on the Financial Affairs of the Province: Report (Man. pa. 21, p. 389-538, 1900). Agricultural College Commission, 1902. Report (Man. pa. 1903, p. 491-502). Beef Commission to Inquire into the Purchase and Sale of Cattle, Hogs, Sheep, and Meat in the Provinces of Manitoba and Alberta: Report (Man. pa. 1908, p. 369-402). Royal Commission upon the University of Manitoba: Report (Man. pa. p. 397-492, 1910). Royal Commission on the Compensation to be Allowed to Workmen for Accidental Injuries Received in the Course of their Business (Sess. pa. 24, 1910, 21 p.). Royal Commission on Technical Education and Industrial Training: Report (Man. pa. p. 281-356, 1912). Royal Commission to Examine and Inquire into all Matters Relating to the Manitoba Telephone System: Interim report (Sess. pa. 19, 1912, 2 p.). Royal Commission to Investigate and Inquire into and Report upon the Escape of One John Krafchenko from the Custody of the Police Officers of the City of Winnipeg (Sess. pa. 16, 1913-14.) *(not printed)*. Royal Commission Appointed to Investigate the Charges Made in the Statement of C. P. Fullerton, K.C.: Report, 1916, 17 p. Royal Commission on the New Parliament Buildings: Report, 1916, 85 p. Special Commission on the Gaol and Prison Farm of the Eastern Judical District of Manitoba. Report (Man. pa. 21, p. 1125-57, 1916). Royal Commission on all Expenditure for Road Work during the Year 1914: Report, 1917, 60 p. Royal Commission on all Matters Pertaining to the Manitoba Agricultural College: Interim report (Man. pa. 17, p. 1161-1205, 1917). Fallis Commission on Workmen's Compensation, 1918 *(not printed)*. Commission on Status and Salaries of Teachers, 1919, 24 p. Public Welfare Commission. First interim report *(not printed)*. Second interim report, 1919, 154 p. Third and final report, 1920, 51 p. Royal Commission on the Winnipeg General Strike, 1919, 31 p. Drainage Commission, 1921, 24 p. Commission on "The Rural Credits Act", 1923, 22 p. Royal Commission on Education: Interim report, 62 p. Reports on the College of Agriculture and the University of Manitoba Submitted by the Royal Commission and the Carnegie Foundation for the Advancement of Teaching, 1924, 140 p. Royal Commission on the Better Adaptation of the Elementary and Secondary Schools to the Needs of the Communities which they Serve, 1926. Interim report of the committee on the review of the program of studies *(Printed by Dept. of Education)* 61 p. Royal Commission Appointed to Inquire into the Administration of the Child Welfare Division of the Department of Health and Public Welfare, 1929, 54 p., chart. Royal Commission *re* Allegations as to the Seven Sisters Falls Power Site Agreement, 1929 (pub. in Man. Free Press, May 1 and 7, 1929). Royal Commission to Inquire into All Matters Appertaining to the Welfare of Blind Persons Within the Provinces of Manitoba and Saskatchewan: Report, Mar. 3, 1931. 45 p. Dr. O. H. Burritt, Commr. Royal Commission to inquire into charges against Manitoba Pool Elevators: Report, 1931, 75 p. Royal Commission Appointed to Inquire into the (misappropriation) of funds belonging to the University of Manitoba and to Heber Archibald ... , 1932. Royal Commission on Impairment of University of Manitoba Trust Funds, 1932-33, (Sess. pa. 50, 1932-33). Commission to Investigate the Fishing Industry in Manitoba, 1934. Pt. I, 1933, 30 p., chart. Pt. II, 1934. Report under the Fair Trade Practices Act Regarding Bread in

Greater Winnipeg, 1936, 51 p. Commission on Land Drainage Arrangement, 1936, 67 p. chart. Manitoba's Case: A submission presented to the Royal Commission on Dominion-Provincial Relations by the Government of the Province of Manitoba, 1937: 9 parts—(1) Introduction, 6 p.; (2) The constitutional relations of the Dominion and the provinces. 43 p.; (3) The effects of federal monetary policy on western Canadian economy, 40 p.; (4) The effects of federal tariff policy on Western Canadian economy, 40 p.; (5) The effects of declining income, 32 p.; (6) The financial problems of municipalities and school districts, 26 p.; (7) Analysis of Manitoba's treasury problem, 96 p.; (8) Manitoba's case: summary and recommendations, 58 p.; (9) An examination of certain proposals for the readjustment of Dominion-Provincial financial relations, 29 p. Royal Commission on the Municipal Finances and Administration of the City of Winnipeg, 1939. Report. 23+567 p. charts; H. C. Goldenberg, M.A., B.C.L., Chairman; A. L. Crossin, J. T. Thorson, K.C., M.P., Commrs. W. J. Waines, M.A., Sec'y. Interim report on Crop Insurance, 1939 (Sess. pa. 78) 41 p. Final report, 1940 (Sess. pa. 43), 74 p. Report of the Government Commercial Enterprises Survey; H. C. Goldenberg, Commr. (Winnipeg, K.P.) 1940, 12+313 p. War-Time Committee on Agriculture, first report, 1940, 3v., 183 p. Royal Commission to Inquire into the Operation of the Police Force of the City of Winnipeg (in progress).

Saskatchewan.—Royal Commission *re* Grain Growers' Association, 1910. Royal Commission of Inquiry into Agricultural Credit, 1913: Hon. George Langley, Mr. Haslam, C. A. Dunning, E. H. Oliver, Commrs. Report. 32 p. Royal Commission on Grain Trade on the European Markets, 1913. Royal Commission Concerning Common Gaol at Prince Albert, 1913. Royal Commission *re* Sale of Farm Machinery and Requisites of the Farm, 1914. Royal Commission *re* Live Stock Industry in S. West of Province, 1914. Royal Commission on Grain Markets, 1914: Report, 150+3 p. 2 fold. diags. Royal Commission on Battleford Asylum, 1914. Royal Commission *re* Marketing of Live Stock and Live Stock Products, 1915. Royal Commission on the Sale of Farm Machinery, 1914: Report (typ.) 41 p. Minutes of evidence, 19 v. (Sess. pa. 23, 1915). Royal Commission on the System of Liquor Dispensaries in South Carolina under State Control: Original report only (typ.) 95 p. (Sess. pa. 5, 1915) *(not printed)*. Bribery and Liquor Commission, 1916, (Can. An. Rev., 1916, p. 705) *(not printed)*. Highway Frauds Commission, 1916. E. L. Wetmore, W. E. Mason, H. G. Smith, Commrs. *(not printed)*. Royal Commission to Inquire into Public Matters *re* R. J. Lecky Construction Co., 1916. McGuire-Parker (Royal) Commission *re* Executive Council Meeting under "New Rural Credit Act", 1916. Buildings and Telephone Commission, 1916-17. Royal Commission *re* Farming Industry in Western and S. West of Province, 1920. Royal Commission to Inquire into Equalization of Assessments in Municipalities—Urban and Rural, 1921. Royal Commission of Inquiry into Farming Conditions, 1921: Report, 70 p., fold. map. Royal Commission to Inquire into Tuberculosis in Saskatchewan, 1921. Commission of Inquiry Respecting the Public Revenues Tax. Synopsis of report, 13 p. (Sess. pa. 19, 1921-22). Royal Commission *re* Regina Gaol, 1924. Royal Commission *re* Wolseley Home for Infirm, 1925. (Royal) Power Resources Commission, 1927. Royal Grain Inquiry Commission: Reports, 1928, 157 p. Royal Commission *re* Labour Conditions, 1928. Bryant (Royal) Commission in Regard to Conduct of the Civil Service of this Province, 1929. Royal Commission *re* Mental Hygiene, 1929. Royal Commission Appointed to Inquire into Workmen's Compensation for Saskatchewan, 1929. Saskatchewan Royal Commission on Immigration and Settlement: Report, 1930, 206 p. Royal Commission *re* Inquiry into Disposition of Property under the United Church of Canada Act: Original report (typ.) 31 p. Evidence (minutes of) (Sess. pa. 46, 1930). Royal Commission *re* Welfare of the Blind, 1930. Royal Commission *re* Public Works and Member for Prince Albert, 1930. Royal Commission of Inquiry *re* Liquor Board, etc., 1930. Royal Commission in regard to Drought Conditions in Province, 1931. Royal Commission *re* Relieving Distress and Providing Employment, 1931. Royal Commission *re* Estevan Coal Fields: Dispute between Miners and Mine Owners, 1931. Royal Commission to Inquire into Statement Made in Statutory Declarations and Other Matters *re* Bryant Charges, 1931: Report, 180 p., Return *re* witnesses before commission *re* Bryant charges (typ.), [Sess. pa. 88 (Report) and 70 (Return), 1931]. Corrigenda to report (Sess. pa. 4, 1932). Royal Commission *re* Bank Act, 1932. Royal Commission Appointed to Investigate into Mining Conditions in the Province of Saskatchewan, 1932. E. R. Wylie, Commr. *(not printed)*. Royal Milk Inquiry Commission: Report, 1933, (mimeo), 42 p. Royal Commission *re* Coal Mining Industry in Saskatchewan, 1934. Mr. Justice W. F. A. Turgeon, Commr. Royal Commission *re* Regina Riot—To Investigate and Report *re* Announced Trek to Ottawa of So-called Relief Camp Strikers, 1935. Royal Commission of Inquiry into Provincial and Municipal Taxation: Report with tables, 1936, 196 p. Neil H. Jacoby, Chairman. Royal Commission *re* Standardization of Legal Forms (Martin), 1937. Submission by the Government of Saskatchewan to the Royal Commission on Dominion-Provincial Relations, 1937, 4+434 p. Committee on School Administration, interim report ... to the Minister of Education, February, 1939; The Hon. Mr. Justice W. M. Martin, Chairman; R. H. Heane, W. F. Hargarten, L. F. Titus, Adrien Dorion, Commrs., 82 p. mimeo. Commission to Inquire into the Shortages and Administration of the Saskatchewan Canteen Fund. Report. Mr. Justice Donald MacLean, Commr., (*Regina Leader-Post*, May 7, 1940, p. 9, 16).

Alberta.—Royal Commission *re* Calgary Natural Gas Company, 1919. Royal Commission *re* Joe Cameron and Reward Offered for Capture of, 1919. Royal Commission *re* Coal Mining Industry, 1919. Royal Commission *re* Conditions in Southern Alberta (Drought Area), 1921. Royal Commission *re* Banking Conditions, 1922. Royal Commission *re* Natural Gas, 1922. Royal Commission *re* the Handling and Marketing of Grain in Canada, 1923. Royal Commission *re* Coal Mining Industry, 1924. Royal Commission *re* Ponoka Hospital Sewage System, 1924. Royal Commission *re* Hanna Hospital, 1925. Royal Commission *re* Lethbridge Gaol, 1925. Royal Commission *re* Manville Hospital, 1925. Royal Commission *re* King's Printer's Office, 1925. Royal Commission *re* District between Red Deer and South Saskatchewan Rivers, East of Range 10, 1926. Royal Commission *re* Church Properties (Presbyterian Church, United Church), 1926. Royal Commission *re* Factories Act—Establishment of Forty-eight-hour Working Week, 1926. Royal Commission *re* Mine Disaster—McGillivray Creek Coal and Coke Company, Ltd., Coleman, 1927. Royal Commission *re* Innisfail Hospital, 1927. Royal Commission *re* Coronation Hospital, 1927. Royal Commission *re* Innisfail Hospital, 1928. Royal Commission *re* Provincial Mental Hospitals, 1928. Royal Commission *re* Cost of Funerals, 1930. Royal Commission *re* Trade Schools, 1931. Royal Commission *re* Municipal District of Inga No. 520, 1931. Royal Commission *re* Alberta Provincial Police Pension Fund, 1932. Royal Commission *re* O. B. Lassiter and Henry Wise Wood, Jr., and Administration of Justice, 1934 *(not printed)*. Royal Commission *re* Half-breed Population, 1934. Royal Commission to investigate the explosion in a coal mine of the Lethbridge Collieries, Ltd., at Coalhurst. Report, 1935. Hon. H. W. Lunney, Commr., 15 p. Royal Commission respecting the Coal Industry, 1935. Rt. Hon. Sir Montague Barlow, Bart., P.C., K.B.E., Commr. 103 p. Royal Commission *re* Imperial Mine Disaster, 1936. Royal Commission *re* Irrigation Development in Alberta, 1936, Hon. A. F. Ewing, Chmn. Commission of inquiry into the various phases of irrigation development in Alberta: Report, 1936, Hon. A. F. Ewing, Chmn., 33 p. Royal Commission *re* Hours of Work of Turner Valley Oil Well Workers, 1937. Royal Commission *re* Hours of Work and Conditions of Labour of Employees in Meat Packing and Laundry Industries—Edmonton, 1937. Royal Commission *re* Conditions and Practices Prevailing in the Fluid Milk and Cream Industry, 1937. Royal Commission *re* Edmonton-Wetaskiwin and Edmonton-Jasper Highways, 1937. Royal Commission *re* Affairs of the Town of Beverly, 1937. Royal Commission *re* Production, Refining, Transportation, and Marketing of Petroleum and Petroleum Products in Alberta, and the Cost and Prices thereof, 1938. Royal Commission *re* Eastern Irrigation District, 1939. Royal Commission on Alberta Oil Industry: Report, 1940. (McGillivray Comm.)

British Columbia.—Royal Commission for Instituting Inquiries into the Acquisition of Texada Island: Papers (B.C. pa., p. 181-246, 1875). Kootenay Royal Commission: Proceedings (B.C. pa., p. 141-156, 1879), 1880. Royal Commission concerning the Genuineness of an Alleged Transfer, dated the 23rd day of June, 1884, from certain Indians to one J. M. M. Spinks: Report, 1885, 22 p. Royal Commission on the Conduct of the Affairs of the Municipal Council of Victoria: Report (B.C. pa., p. 481-512, i-cxli, 1892). Royal Commission *re* Smallpox Matters, 1892: Report, 11 p. Royal Commission on the Management of the Provincial Lunatic Asylum at New Westminster: Report (B.C. pa., p. 503-574, 1894). Royal Commission on Charges Preferred against Captain N. Fitzstubbs: Report, 1894, 2 p. Royal Commission of Inquiry on Timber and Forestry: Interim report, 2 p.; Final report, 1909-10, 116 p. Royal Commission on Municipal Government, 1912: Report, 18 p., 1913. Royal Commission on Taxation: Synopsis of report and full report, 1912, 38 p. Royal Commission on Matters Relating to the Sect of Doukhobors in the Province: Report, 1913, 66 p. Royal Commission on Milk Supply: Report, 1913, 29 p. Royal Commission on Agriculture: Report, 1914, 9+42 p.: Full report, 1914, 9+398 p. Royal Commission *re* Coal in British Columbia, 1914: Report, 30 p. Royal Commission on Labour: Report, 1914, 28 p. Royal Commission *re* Albert Richard Baker, Chairman of Game Conservation Board: Report, 1922, 5 p. Royal Commission on the Pacific Great Eastern Railway: Report, 1924, 21 p. Royal Commission on Mental Hygiene: Report and final report, 2 pts., 1927-28. Royal Commission Investigating the Fruit Industry (and Interrelated Conditions) of the Districts Territorially Known as the Okanagan, Kootenay, and Kettle River of the Province of British Columbia: Report, Part I, 1930, 23 p. Part II, 1931, 29 p. Royal Commission on State Health Insurance and Maternity Benefits: Progress report, 1930, 30 p., Final report, 1932, 63 p. Royal Commission on Chiropractic and Drugless Healing: Report, 1932, 11 p. Municipal Taxation Commission: Report, 4+90 p. (mimeo), 1933. Royal Commission on Coal and Petroleum Products: Report, 1936, 2 v. Hon. Mr. Justice M. A. Macdonald, Commr. British Columbia in the Canadian Confederation: Brief presented to the Royal Commission on Dominion-Provincial Relations by the Government of the Province of British Columbia, 37 p., 1938: Submission Presented to the Royal Commission on Dominion-Provincial Relations by the Government of the Province of British Columbia, pts., 376 p., 1938.

BRITISH ROYAL COMMISSIONS CONCERNED WITH CANADA.

Royal Commission on Crofter Colonization, 1888. Reports of H. M. Commissioners: 15 reports, 1890, 1890-91, 1892, 1893-94, 1894, 1895, 1896, 1897, 1899, 1900, 1901, 1902, 1903, 1904, 1906. Royal Commission on trade relations between Canada and the West Indies: Report and minutes of evidence. 4 pts. 1910. Pt. 1. Report. 60 p. (Cd. 5369) Pt. 2. Minutes of evidence taken in Canada, and appendices. 179 p. (Cd. 4991). Pt. 3. Minutes of evidence taken in the West Indies, and appendices. 337 p. (Cd. 5370). Pt. 4. Minutes of evidence taken in London, and appendices. 124 p. (Cd. 5371) Lond. H. M. Stationery Office. Royal Commission on the Natural Resources, Trade and Legislation of Certain Portions of H. M. Dominions, 1912: Reports and minutes of evidence, 1st interim report, 1912, 3 p.; 5th interim report (Canada), 1917, 6+61 p.; final report, 1917, 9+199 p.—Minutes of evidence, pt. 1, Migration, 1918, 293 p., pt. 2, Natural Resources, Trade, 1912, 3+432 p.: Minutes of evidence taken in Maritime Canada in 1914, 1915, 5+191 p.: Minutes of evidence taken in Central and Western Canada in 1916, pt. 1, 1917, 12+464 p. ; pt. 2, 1917, 7+462 p. West India Royal Commission, 1938-39. Recommendations (Cmd. 6174), 30 p. 6d.

CHAPTER XXX.—THE ANNUAL REGISTER.

Section 1.—Dominion Legislation, 1939.

Legislation of the Fourth Session of the Eighteenth Parliament, Jan. 12, 1939, to June 3, 1939.

Finance and Taxation.—Three Appropriation Acts, applying to the fiscal year ended Mar. 31, 1940, were passed during the session, viz., cc. 1, 27, and 53. C. 1, the Appropriation Act, No. 1, 1939, granted: a sum not exceeding $45,095,590·78 towards defraying the several charges and expenses of the public service, being one-sixth of the amount of each of the several items to be voted set forth in the Main Estimates; $567,471·83, being one-third of the amount set forth in Schedule A to this Act; $212,500, being one-half of the amount of each of the several items to be voted set forth in Schedule B; $20,389,783, being one-sixth of the amount set forth in the Special Supplementary Estimates. C. 27, the Appropriation Act, No. 2, granted: a sum not exceeding $45,095,590·78 towards defraying the several charges and expenses of the public service, being one-sixth of the amount of each of the several items to be voted set forth in the Main Estimates; $20,389,783, being one-sixth of the amount set forth in the Special Supplementary Estimates; $24,308,853·91, set forth in the Schedule to this Act, to be chargeable to the fiscal year ended Mar. 31, 1939 (with provision that it may be paid any time before May 22, 1939). C. 53 granted: a sum not exceeding $179,602,391·32 towards defraying the several charges and expenses of the public service, being the amount of each of the items set forth in Schedule A to this Act less amounts voted on account for said items in Appropriation Acts Nos. 1 and 2, 1939; $81,559,131·99, being the amount of each of the items set forth in Schedule B to this Act less amounts voted on account for said items in Appropriation Acts Nos. 1 and 2, 1939; $9,559,604·89, being the amount set forth in Schedule C to this Act. Under Sect. 5 of this chapter, the Governor in Council is empowered to raise a loan not in excess of $200,000,000 for public works and general purposes, the principal and interest being chargeable to the Consolidated Revenue Fund. All borrowing powers authorized by Appropriation Act No. 3, 1938 (c. 54, 1938) expire on the coming into force of this legislation.

C. 40 is the Central Mortgage Bank Act and provides that on a date to be fixed by proclamation there should be established under the Minister of Finance, a body politic and corporate having capacity to contract, to sue, and to be sued. This Central Bank may enter into Membership Agreements with mortgage, loan, trust, or insurance companies for the purpose of adjusting all mortgages on farms in Canada that were entered into before the first day of January, 1939, and those on non-farm homes entered into before Jan. 1, 1936, that do not exceed $7,000 for single-family homes and $12,000 for two-family homes. Mortgages made under the Dominion Housing Act, 1935, or Part I of the National Housing Act, 1938, are excepted. Particulars as to the adjustments that are to be made in regard to principal, interest, amortization, etc., are detailed in Sect. 16. The constitution and organization of the Bank, including the appointment of directors, executive committee, bank staff, and capital are laid down, as well as the method of making appraisals, the issuance of debentures to member companies in respect of amounts written off, adjusted mortgages, and other relative matters. (The Act was proclaimed in effect from July 14, 1939.)

C. 45 is the Gold Clauses Act, 1939. By this statute the Gold Clauses Act, 1937 (c. 33, 1937), is repealed, though its main intent is re-affirmed in the new legislation. It provides that obligations that give the creditor a right to require payment in gold or gold coin are contrary to public policy, and such provisions shall be interpreted as if it contained a covenant to pay its nominal or face amount in currency that is legal tender in the country in the money of which the obligation is payable, or its equivalent in Canadian currency. The Act specifically applies its provisions to obligations incurred in connection with works and undertakings that are subject to the legislative authority of the Parliament of Canada. Any payment in respect of a gold-clause obligation made before the commencement of this Act, but which meets with the requirements laid down in this legislation, shall be deemed to have discharged the obligation.

By c. 48, the Loan Act, 1939, the Governor in Council may raise, by the issue and sale or pledge of securities of Canada, such sums as may be required, not to exceed $750,000,000, for paying or redeeming loans or obligations of Canada and for purchasing or withdrawing from circulation unmatured securities of Canada, and for public works and general purposes. Principal and interest shall be a charge upon and payable out of the Consolidated Revenue Fund.

National Revenue.—Schedules A and B to the Customs Tariff (c. 44, 1927, and amendments) are amended by c. 41 by striking out certain items enumerated in Sects. 1 and 2 and substituting Schedules A and B of this Act. This Act applies to all goods mentioned in the schedules imported or taken out of warehouse for consumption on or after Apr. 26, 1939, and to goods previously imported for which no entry for consumption was made before that date.

C. 43 amends the Excise Act (c. 52, 1934, and amendments). The excise duty on spirits used in the production of vinegar is raised from twenty-seven cents to sixty cents per gallon from Apr. 26, 1939.

The Income War Tax Act (c. 97, R.S.C. 1927, and amendments) is further amended in a number of respects by c. 46. The definition of "taxpayer" is changed to include any person, even though such person be not liable to pay tax, and the definition of what constitutes "personal and living expenses" is given. Dividends paid to a company incorporated in Canada by a company that has never paid a tax by reason of Sects. 89 and 90 are exempt from taxation (Sect. 89 deals with metalliferous mines; Sect. 90 with capital expenditure allowance). The exemption of $1,000, which applies to all persons *not* covered by other classes set out in Sect. 5, no longer applies in the case of associations, estates, and trusts. Associations, estates, and trusts are thus placed on the same footing as corporations in this respect. In computing profits or gains to be assessed on Canadian companies, deduction is not permitted for salary, bonus, director's fee, or other like remuneration in excess of $14,000 paid by a Canadian company to a non-resident unless such non-resident pays tax thereon. Expenses incurred by a corporation to earn non-taxable income shall not be deducted and the Minister shall have power to apportion general expenses between taxable and non-taxable income.

Deduction of the amount of tax paid to the United Kingdom or a foreign country in respect of income derived from sources therein shall not exceed the same proportion of the tax otherwise payable under this Act as that which the taxpayer's net income from such country bears to his net income from all sources, without taking into account certain exemptions provided by this Act.

When the total income earned by a personal corporation since its incorporation has been taxed against and received by its shareholders, further dividends declared and paid out of capital are not liable to taxation in the hands of the shareholders. Where unreasonable price, rental, royalty, or other payments are made to non-resident affiliations for use of any property or for any right, such payments may be adjusted, for purposes of the income tax, by the Minister. Transfer by a person to any *relative* of his of the right to income without transferring ownership of the property producing such income does not exempt the transferor from taxation on the said income as if the transfer had not been made. Under Part IV—Capital Expenditure Allowance—it is provided that a taxpayer shall be entitled to deduct (in a manner provided by this Act) from taxes otherwise payable under the Act an amount up to 10 p.c. of his capital costs, incurred and paid between May 1, 1939, and Apr. 30, 1940. Certain enumerated capital costs are definitely excluded under s-s. 4 of Sect. 90. The determination of such capital costs shall be included shall rest with the Minister. Other minor provisions, such as regulations, penalties, etc., are laid down. Sect. 18 fixes the dates of coming into force of various sections of the chapter.

C. 52 amends the Special War Revenue Act (c. 179, 1927) in relation to the numbers of matches contained in packages on which taxes of three-eighths of one cent and three-sixteenths of one cent per package are charged. The tax of 3 p.c. on duty-paid value of goods imported into Canada payable by the importer or transferee who takes the goods out of bond for consumption is confined to goods subject to entry under the General Tariff. Under Schedules III and V of the Act, changes have been made in a number of items, particularly: certain classes of books and printed matter, nicotine, agricultural machinery, surgical instruments, and scientific instruments.

Agriculture.—By c. 7, the Prairie Farm Rehabilitation Act (c. 23, 1935) is extended to permit the Minister to enter into agreements with any of the Provinces of Manitoba, Saskatchewan, or Alberta, or any city or other municipality within the said Provinces or with any person, firm, or corporation, with respect to the development, promotion, construction, operation, and maintenance of any project undertaken under the Act or that may be deemed necessary or desirable for the conservation of water. The Minister is also given authority, subject to the approval of the Governor in Council in certain cases, to purchase, lease, or otherwise acquire, and to sell, lease, or otherwise dispose of lands, premises, machinery, only, or equipment in connection with any such project.

C. 13 is the Cheese and Cheese Factory Improvement Act, and provides, subject to the regulations laid down, for the payment of grants up to 50 p.c. of the amount actually expended for constructing, reconstructing, equipping, or enlarging cheese factories eligible for a subsidy under this Act. The Act also provides for the payment of a premium of one and two cents per pound on highest quality cheese.

The appointment of an Advisory Committee to consider conditions and problems affecting the dairy industry and to advise the Minister and the industry in that connection is provided for by c. 15.

By c. 21 the title of the Act to regulate the sale and inspection of agricultural economic poisons (c. 5, R.S.C. 1927) is revised to read "An Act to Regulate the Sale of Products used in Controlling Agricultural Pests" and the Act itself is broadened accordingly. The statement of information to accompany an application for

registration of a pest control product is amended and the fee for renewal of registration number is reduced from $20 to $5. Any pest control product manufactured from an unsolicited prescription countersigned by an inspector and submitted by the purchaser, or prepared by a retail druggist from an unsolicited prescription submitted by the purchaser, and not purchased for resale in Canada, is excepted from the provisions of this Act. Any pest control product advertised, offered, or held in possession for sale, or sold in Canada contrary to the provisions of this Act or regulations may be seized. Other minor amendments are also made.

For the purpose of assisting and encouraging co-operative marketing of agricultural products, it is provided by c. 28 that, should the average sale price received under a co-operative plan by a selling agency for such agricultural products as are defined under this Act be less than the sum paid to the producer at the time of delivery pursuant to a co-operative plan—that sum being a percentage not over 80 p.c. (approved by the Governor in Council on the recommendation of the Minister) of the average wholesale price for such products over the preceding three years—the difference as fixed by an agreement previously made between the selling agency and the Minister, with the approval of the Governor in Council, shall be paid by the Minister of Agriculture to the selling agency. No agreement is to be made under this Act unless the Minister is of opinion that the marketing of an agricultural product under the co-operative plan will benefit the primary producer in the geographical area concerned. Regulations under the Act are made by the Minister of Agriculture, with the approval of the Governor in Council. Provision is made for the inspection and auditing of the books and accounts of every co-operative association and selling agency to whom an agreement relates. (The Act was proclaimed in effect from July 1, 1939.)

C. 31, the Grain Futures Act, 1939, vests in the Board of Grain Commissioners, the supervision and regulation of trading in grain futures. The Board is authorized to make regulations concerning the co-operation of members of the Winnipeg Grain Exchange and the Winnipeg Grain and Produce Exchange Clearing Association Limited, and to take such steps, laid down in the Act, as are necessary to prevent any condition prejudicial to the public interest arising from speculation or from transactions in grain futures. The Board shall have jurisdiction to hear appeals from a committee of the Winnipeg Grain Exchange in connection with disputes regarding grain futures contracts. An appeal from the Board may be made to the Minister of Trade and Commerce. Penalties for breaches of the provisions of this Act are laid down.

It is provided by c. 34, for the purpose of encouraging the co-operative marketing of wheat, that the Minister of Agriculture may, with the approval of the Governor in Council, by agreement with any selling agency, undertake that if the average sale price of all wheat of any grade is less than the sum per bushel fixed by the agreement (in the case of No. 1 Manitoba Northern, in store at Fort William, such sum is to be sixty cents), there shall be paid to the selling agency by the Minister of Agriculture the amount, if any, by which the amount (called the initial payment) paid to the primary producer at the time of delivery plus storage, carrying and transportation charges, and operating expenses exceeds the average sale price. It is provided, however, that the initial payment shall not, in the case of wheat of any grade, exceed the sum guaranteed per bushel aforesaid, and that the maximum that may be paid shall not exceed the difference between the average sale price and the sum guaranteed per bushel fixed by the agreement for such grade of wheat. The average

sale price shall be computed after the sale prices realized by the selling agency have been adjusted according to the regulations, as if the wheat had been sold in store at Fort William. All regulations concerning this Act are to be made by the Governor in Council, who may also appoint such officers and employees as may be deemed necessary for its administration. The books and accounts of each selling agency and co-operative association are subject to inspection and audit by an approved chartered accountant. (The Act was proclaimed in effect from July 3, 1939.)

The Grain Act (c. 5, 1930) is amended by c. 36. Officers under the control of the Board of Grain Commissioners are no longer required to be bonded and any loss suffered through failure in performance of duty shall be paid out of the Government Officers' Guarantee Fund. Other amendments are made with respect to the duties and powers of the Board and in respect to: the grading and sampling of grain; grain appeal tribunals; carriage of grain, by which no railway shall deliver wheat to any country elevator except on permission of the Board; licences, including an amendment by which the Board has power to grant only one kind of elevator licence to any elevator; also a manager of a licensed elevator shall have a lien on grain in his possession for handling, storage, or carriage charges properly incurred under the Act and such grain may be sold by auction or public tender to cover such charges if in arrears for more than one year. Other amendments are made in respect to the functions of and restrictions on various classes of elevators. Schedules 1, 2, and 3 of the Act are repealed and new schedules substituted therefor.

Under an amendment (c. 39) to the Canadian Wheat Board Act, 1935 (c. 53, 1935), a proviso is added to the stipulation that the Board may buy wheat from producers only, to the effect that the Board may purchase from any one person entitled as landlord, vendor, mortgagee, or otherwise, by contract or operation of law, wheat to which such person is entitled grown by another producer, the aggregate of which purchases of wheat grown on any one farm or group of farms operated as a unit shall not exceed 5,000 bushels in any one crop year. A maximum of 5,000 bushels to be bought from any one producer in any one crop year is also fixed for purchases from producers. Any producer who sells, directly or indirectly, more than that amount to the Board is guilty of an offence and liable to a fine of ten cents per bushel on all wheat sold by him to the Board. It is further provided that the amount per bushel payable to producers shall be on basis in store at Fort William-Port Arthur or Vancouver and shall, in the case of No. 1 Manitoba Northern, be seventy cents. The provisions of the Canadian Wheat Board Act shall apply to wheat produced in the Eastern Division.

C. 47 is the Live Stock and Live Stock Products Act, 1939. Part I deals with stockyards. No proprietor of a stockyard shall buy or sell live stock on his stockyard or, except on written authority of the Minister of Agriculture, operate as a commission merchant. A proprietor has authority to prescribe the conditions of carrying on business on his stockyard and shall not permit persons suspended or expelled from membership in the live-stock exchange to operate thereon. Co-operative associations, commission merchants, or dealers engaged in business at stockyards at the date of the passing of this Act shall be permitted to continue subject to the regulations of the stockyards as approved by the Minister. Every proprietor shall file with the Department of Agriculture information concerning operations on his stockyard and shall submit to the Minister for approval all rules and regulations to be adopted thereon. The Minister may declare certain markets where live stock is bought and sold to be stockyards. Live-stock exchanges, whose rules and regulations

do not contravene any provision of the Act or regulations thereunder or the rules and regulations of the stockyard, may continue to function, and any farmer or drover may sell his own stock at a stockyard on his own account. Every stockyard and packer's yard shall be subject to inspection at all times. Under Part II all live stock and live-stock products shall be made available for inspection and grading as required by regulations. Offences are enumerated and penalties therefor laid down. Part III deals with poultry production. A Dominion Poultry Improvement Program, for the improvement of poultry stock and the eradication of disease therein, shall come into force in any specified province upon proclamation of the Governor in Council and in any province where not proclaimed the Program or any part thereof or policy thereunder may operate on a voluntary basis as prescribed by the regulations. No person may operate a hatchery in a province in which the Dominion Hatchery Approval Policy has been proclaimed without a permit, and every hatcheryman operating in such a province must submit to the Department of Agriculture for approval all advertising material intended for use by him. Only chicks produced and labelled under the Hatchery Approval Policy may be shipped from any place in Canada into any province in which such Policy has been proclaimed, and any chicks or poultry produced, packed, shipped, or imported in violation of this Act or regulation are subject to seizure. Powers of inspectors and penalties for the infraction of this Part or regulations are laid down. (The Poultry Improvement Program was proclaimed in effect in Alberta from Apr. 6, 1940, and in New Brunswick and Saskatchewan from Apr. 20, 1940.)

The Prairie Farm Assistance Act (c. 50 of the Statutes) provides for emergency relief and crop failure assistance to prairie farmers. *Emergency.*—An emergency year is defined as a crop year in which the average price of wheat (No. 1 Manitoba Northern in store at Fort William) is less than 80 cents per bushel and which has been declared by the Governor in Council as an emergency year under this Act. Certain specified amounts are to be paid to farmers in such years, computed according to yield per acre and in some circumstances in proportion to part of the amount by which the average price is less than 80 cents per bushel. The crop year 1939 is deemed to be an emergency year. *Crop Failure.*—If in each of not less than 135 townships in Saskatchewan or 100 in each of the provinces of Alberta and Manitoba, the average yield is found by the Minister to be five bushels per acre or less, such provincial area may be declared by the Governor in Council to be a crop-failure area and each farmer in a crop-failure area may receive $200, or a sum not exceeding $2·50 per acre with respect to half the cultivated acreage, not to exceed 200 acres, whichever is the greater. All regulations in connection with this Act are to be made by the Minister of Agriculture with the approval of the Governor in Council. It is also provided that, after deduction of freight, elevation, inspection, etc., charges, a levy of 1 p.c. shall be deducted from the purchase price of all grain purchased by licensed elevators and licensed buyers and dealers. Records of the levy must be kept by each licensee and returns made to the Board. All revenue in this connection is to be credited to the Prairie Farm Emergency Fund out of which the awards shall be paid. No farmer is to receive both emergency assistance and crop failure assistance in the same crop year. Every award is payable in two instalments and is protected from any attachment and is not assignable either at law or in equity. The offences and penalties in connection with this Act are laid down.

Fisheries.—The Fisheries Act (c. 42, 1932) is amended by c. 44. Authority is granted to the Minister of Fisheries to assess against owners or occupiers of obstructions, which it is not feasible to overcome by the provision of an efficient

fishway or canal, lump sums or annual sums of money for the purpose of constructing, operating, and maintaining such complete hatchery establishments as will, in the opinion of the Minister, meet the requirements for maintaining the annual return of migratory fishes.

The Salt Fish Board is created by c. 51 to investigate and make recommendations concerning the marketing of salt fish in the export trade with a view to improving conditions and bringing greater returns to the primary producer and the exporter, and to study and report upon methods of preparing, curing, and packing salt fish and providing for inspection thereof. The Board is empowered to give, with the approval of the Governor in Council, assistance to exporters on such terms and conditions as may be deemed necessary to ensure that such assistance reaches the fishermen-producers. The Board shall consist of three members appointed by the Governor in Council, the chairman to be an officer of the Department of Fisheries and the other two members to be appointed as representatives of the fishermen-producers, whether co-operative or otherwise. With the approval of the Governor in Council, the Board may appoint advisory committees to advise in connection with the marketing of fish, each committee to consist of three members two of whom shall represent the fishermen-producers and the other the dealers or exporters. Regulations necessary for the carrying out of this Act may be made by the Board with the approval of the Governor in Council. (This Act was proclaimed in effect from June 6, 1939.)

Insurance, Trust, and Loan Companies.—A section is added by c. 4 to the Loan Companies Act (c. 28, 1927) by which every loan company, whose incorporation is subject to the legislative jurisdiction of the Parliament of Canada, is declared to have possessed, since the date of its incorporation, the power to provide for the creation of a staff pension and insurance fund.

C. 9 adds a similar section to the Trust Companies Act (c. 29, 1927).

The Second Schedule of the Canadian and British Insurance Companies Act (c. 46, 1932) is amended by c. 10, which adds to the list of assets that may be vested in trust by any British company for the purposes of the Act, equipment trust obligations or certificates issued to finance the purchase of transportation equipment for a railway company incorporated in Canada, and securities of certain public bodies in Great Britain and the Dominions.

C. 18 makes a similar addition to Schedule I of the Foreign Insurance Companies Act (c. 47, 1932).

In order to prevent money-lenders from making undue charges against borrowers, the result of which increase the cost of loans without increasing the nominal rate of interest, c. 23 of the Statutes enacts the Small Loans Act, 1939. Part I provides that no money-lender shall, in respect of small loans as defined in the Act, charge or receive, directly or indirectly, more than 2 p.c. per month on the amount actually advanced to the borrower and monthly balances thereof from time to time outstanding for a loan for a period of fifteen months or less, or more than 1 p.c. and in addition thereto such proportion of 1 p.c. per month as fifteen is of the period of the loan expressed in months for a loan for more than fifteen months. Such loans shall be repayable in approximately equal instalments of principal or of principal and cost of the loan at intervals of not more than one month each, subject to the provisions laid down in Sect. 6. All money-lenders, with certain exceptions, must be licensed, such licences to be renewable annually or for any term less than a year

and the form of which shall be determined by the Minister of Finance. It is also provided that the chief place of business of every licensee shall be inspected at least once a year by the Superintendent of Insurance (or a duly qualified member of his staff) who has also authority to inspect the business of any unlicensed money-lender. Each licensee shall be assessed annually, in accordance with the provisions of the Department of Insurance Act (c. 45, 1932), for the purpose of meeting the expense incurred in connection with the administration of this Act. Part II applies to all incorporated small loans companies as defined by the Act, which may buy, sell, deal in, and lend money on security and may lend money in sums not exceeding $500 subject to conditions identical with those laid down in Part I in connection with money-lenders. The provisions of Part I respecting licences, inspection, and assessment apply also to small loans companies. Such companies have power to borrow money or mortgage their real or personal property but shall not issue securities nor accept deposits. (The Act came into force on Jan. 1, 1940.)

Justice.—By c. 6, the Penitentiary Act (c. 154, R.S.C., 1927, and amendments) is repealed and the Penitentiary Act 1939 enacted. Under this Act the Minister of Justice and, under his direction and control, a Penitentiary Commission consisting of three commissioners, shall have control and management of all penitentiaries and all prisoners and other persons confined therein and over all matters connected therewith. Such assistant commissioners, not exceeding three, as may be required to assist the Commission may be appointed by the Governor in Council. The staff of the Penitentiary Branch shall be transferred to the Commission and the appointment of wardens and other executive officers, guards and other officers is provided for. It is provided that the Kingston, Ontario; St. Vincent de Paul, Quebec; Dorchester, New Brunswick; Stoney Mountain, Manitoba; New Westminster, British Columbia; and Prince Albert, Saskatchewan penitentiaries, and all lands appertaining and all buildings and property belonging to them are to continue as penitentiaries of Canada. The Commission or any commissioner or, under the direction of the Commission, assistant commissioners shall have free access to penitentiaries and have power to assume control and to investigate the conduct of any employee. The warden of a penitentiary shall have the entire executive control and management of all its concerns, subject to the regulations duly established, and the written instructions of the Commission. Regulations are laid down with respect to: gratuity in the case of retirement or death of an officer and perquisites allowable to officers; conveyance, removal, and confinement of prisoners; documents and certificates respecting prisoners; transfer of incorrigible juveniles to a penitentiary from a reformatory, and of juvenile convicts susceptible of reformation from a penitentiary to a reformatory; insane prisoners; treatment of convicts; discharge or death of convicts; trespassing on penitentiary property. The provision made under the Appropriation Act 1939-40 for the Penitentiary Branch of the Department of Justice shall be interpreted as applying to the Commission. This Act is to be brought into force by proclamation.

By c. 14 the term of office of the Chief Justice of Canada is extended for a period of three years from Jan. 7, 1940, notwithstanding the proviso of the Supreme Court Act (c. 35, 1927) stating that each judge shall cease to hold office upon attaining the age of seventy-five years. The provision for an annuity equal to the salary of the office upon retirement continues to apply in this case.

The Criminal Code (c. 36, 1937) is amended by c. 30. Provisions concerning, among other matters, incitement to mutiny in His Majesty's forces, desertion, fraud

in connection with the sale of military stores, or buying or receiving military clothing or provisions are amended to apply to the air service as well as to the naval and military services. Any employer who refuses to employ or dismisses from employment any person for the sole reason that such person is a member of a lawful trade union or prevents workmen from belonging to such a union is liable to fine or imprisonment. By Sect. 12 (see also c. 23) the whole cost of a loan to a borrower shall not exceed 2 p.c. per month on the amount actually advanced and monthly balances thereof from time to time outstanding for a loan for fifteen months or less or 1 p.c. per month and in addition thereto such proportion of 1 p.c. per month as fifteen is of the period of the loan expressed in months for a loan for over fifteen months. Any money-lender who enters into a transaction to charge or receive directly or indirectly a sum in excess of such amount is guilty of an indictable offence. Other amendments are also made.

Labour.—C. 8 amends the Technical Education Act by extending the time during which the unexpended balance shall be carried forward for another five years from Mar. 31, 1939.

The alleviation of unemployment and agricultural distress is the object of c. 26. The preamble to this Act, the Unemployment and Agricultural Assistance Act, 1939, states that it is in the national interest that the Dominion should continue to support and supplement the measures of the provinces and other bodies to establish certain unemployed persons in gainful occupations, to train other unemployed persons for like establishment, and to assist those in need and thereby lessen provincial and municipal burdens consequent upon unemployment and agricultural distress. The Act authorizes the execution of such undertakings as the Governor in Council may determine to be in the general interest of Canada and requisite for the purposes of the Act, and the employment thereon of competent persons who are in receipt of relief is to be provided for, so far as it may be, in the opinion of the Governor in Council, practicable and consistent with reasonable efficiency and economy to do so. All contracts for undertakings carried out under provincial jurisdiction but to which the Dominion Government is contributing shall be approved by the Minister of Labour and the work thereunder supervised by the Dominion Government, unless otherwise provided by agreement. The Government may enter into agreements with any of the provinces respecting alleviation of unemployment conditions and of agricultural distress and may, where necessary, grant financial assistance to any province by way of loan, advance, or guarantee for the purpose of assisting the province to pay its share of the expenditures for such purposes. Agreements may be entered into with corporations, or partnerships, or individuals engaged in industry respecting expansion of industrial employment. No financial assistance by way of loan, advance, or guarantee shall be granted to any province unless certified statements as to the province's financial position, as the Dominion Government may require, are furnished. No financial assistance shall be granted to any province unless the province agrees to furnish such information and permit such examination and audit to be made as the Dominion may deem necessary.

C. 35, the Youth Training Act, 1939, provides for the payment out of the Consolidated Revenue Fund of Canada of $1,500,000 during each of the fiscal years ending Mar. 31, 1940, 1941, and 1942, to be used for the purpose of promoting and assisting in the training of young people to fit them for gainful employment. The amount payable to any province under the provisions of this Act shall be determined

by the Governor in Council, and payments shall be conditional upon an agreement being entered into between the Minister of Labour and the government of the province concerned, and such agreements shall be subject in all cases to the approval of the Governor in Council. The Governor in Council may appoint a supervisor of youth training and may make all such orders and regulations as are necessary for the carrying out of this Act.

National Defence.—C. 42, cited as the Defence Purchases, Profits Control, and Financing Act, 1939, establishes a Defence Purchasing Board to control the awarding and performance of contracts for the purchase or manufacture of defence equipment and the construction of defence projects, to limit costs and control profits in respect of such contracts, and authorizes the raising by way of loans of such sums of money as may be required for the payment of expenditures of the Department of National Defence, which in the appropriations provided by Parliament for the Department are chargeable to capital account. The Board is to consist of a Chairman (who shall not, after his appointment as Chairman, be an officer or director of any industrial corporation or company) and not more than three other members, all to be appointed by the Governor in Council. The Board may, with the approval of the Governor in Council, employ such technical and professional officers as are necessary and fix their remuneration. Upon requisition made by the Minister of National Defence, the Board may negotiate, recommend to the Minister of Finance, and, subject to the approval of the Governor in Council, execute a contract and shall have the exclusive power to superintend and enforce the performance of all contracts as defined by the Act. Tenders shall be called for all contracts, except where deemed impracticable, in which cases it is the duty of the Board to ensure that the contracts be secured at a fair and reasonable cost to the Government without unfair profit to the contractor. Proposed contracts for the purchase of defence equipment outside of Canada must be reported by the Board to the Minister of Finance and by the latter to the Governor in Council, with a clear statement of the reasons why any such defence equipment is not to be purchased in Canada. If the net profit received in respect of any contract exceeds 5 p.c. per annum of the average amount of capital employed in the performance of the contract, the contractor shall be taxed by the amount by which the net profit exceeds said 5 p.c. The amount of capital employed, the net profit, and the tax payable, shall be determined by the Board on the basis set forth in the Act. All proposed contracts shall be submitted by the Board to the Minister of Finance, who shall submit them, with his recommendation, to the Governor in Council for approval. (The Act was proclaimed in effect from July 3, 1939.)

Under the Official Secrets Act (c. 49) any person is guilty of an indictable offence who, for any purpose prejudicial to the safety or interests of the State, approaches, inspects, passes over, or is in the neighbourhood of, or enters any prohibited place, makes sketches or plans, or obtains or communicates to another person information useful to a foreign power; or who unlawfully communicates, uses, retains, or fails to guard secret official documents or information in his possession or to which he has access; or who without lawful authority receives, retains, or allows others to have possession of such official information; or who, for any purpose prejudicial to the interests of the State makes unauthorized use of official uniforms or uses or has in his possession without lawful authority any die, seal, or stamp of any Government Department or diplomatic, naval, military, or air force authority, or any die, seal, or stamp so nearly resembling any such die, seal, or stamp as to be calculated to

deceive; or makes false statements or omissions, forges passports, or other official documents, or falsely represents himself to be a person holding office under His Majesty; or who has unlawful dealings with such dies, seals, or stamps as aforesaid; or who interferes in the vicinity of any prohibited place with officers of the police or members of His Majesty's forces; or who knowingly harbours any person whom he knows, or has reasonable grounds for supposing to be a person who is about to commit or who has committed, an offence under this Act; or who attempts to or incites others to commit offences against the Act. The Minister of Justice may require (by warrant under his hand) any person who owns or controls any telegraphic cable or wire, or any apparatus for wireless telegraphy, used for the sending or receipt of telegrams to or from any place out of Canada, to produce the originals and transcripts of all or of certain telegrams sent to or received from any place out of Canada and all other papers relating to any such telegram; and any person who, on being required to produce any such original or transcript or paper as aforesaid, refuses or neglects to do so shall be guilty of an offence prosecutable by summary conviction and shall be liable to imprisonment, or a fine, or to both. It is also provided that any person who is suspected of having committed or of being about to commit an offence against this Act may be arrested without a warrant, but no further proceedings may be taken without the consent of the Attorney General. Except in cases deemed to be of great emergency by an officer of the R.C.M.P. not below the rank of Superintendent, a warrant must be obtained from a justice of the peace for the searching of premises or persons found therein. If a corporation or company is found guilty of an offence against this Act, every officer and director of such corporation or company is guilty of the same offence unless he proves that the act or omission constituting the offence took place without his knowledge or consent. Penalties in connection with these offences are laid down, and Sects. 85 and 86 of the Criminal Code (c. 36, R.S.C. 1927) as well as the Official Secrets Act, 1911, of the United Kingdom, in so far as it is part of the law of Canada, dealing with information illegally obtained or communicated, are repealed.

Pensions.—The Pension Act (c. 157, R.S.C. 1927 and amendments) is further amended by c. 32. Appeal Boards of the Commission are established in lieu of the Pension Appeal Court. The power vested in the Canadian Pension Commission to cancel awards shall not extend to awards of entitlement granted by an Appeal Board of the Commission. Before a pension is cancelled or reduced, however, due to change in the basis of entitlement, a pensioner shall be afforded an opportunity of appearing before such an Appeal Board instead of a quorum of the Commission as previously. Quorums of the Commission having power to hear and adjudicate upon applications are replaced by Appeal Boards of the Commission, each consisting of three members. The decision of an Appeal Board is final and all appeals undisposed of by the Pension Appeal Court prior to July 1, 1939, when this Act comes into force, shall be heard and determined by Appeal Boards, no member of which shall adjudicate upon any case if he has previously been a member of the Commission. It is provided that the person now holding the office of Registrar of the Pension Appeal Court be appointed as a permanent employee of the Department of Pensions and National Health. The time for application for pension is extended to Jan. 1, 1942, for members of the forces who saw service in a theatre of actual war. Other amendments are also made.

Trade and Commerce.—The Food and Drugs Act (c. 76, R.S.C. 1927 and amendments) is further amended by c. 3. The definition of "drug" is revised to include cosmetics and any material that may be used for disinfection or control of

vermin in premises in which food is manufactured, prepared, or kept. "Medicine", "cosmetics", and "manufacture" are defined in paragraphs added to Sect. 2 of the Act. Regulations concerning the labelling of food and drugs and designating certain officers as Dominion analysts have been modified. The powers of the Governor in Council to make regulations are extended to the licensing of manufacturers of cosmetics, the prohibition of the sale of any substance injurious to health when used as a food or drug, exemptions from the requirements of the Act, and false or misleading claims for food or drugs. All regulations made under the Act are to be published in the *Canada Gazette*. The Department may order that the manufacturer of any article of food or drug shall furnish a declaration that the article has been made in accordance with the requirements of this Act and regulations thereunder, and customs entry of such an article shall be refused if duly certified copies of such a declaration are not included with the shipping papers. Any person who in any way advertises any food or drug in a manner that is misleading shall be guilty of an offence, and responsibility for the advertisement shall rest upon the person who causes it to be issued and not upon the printer, publisher, or other party who issues such advertisement in good faith. Under Part III (which is added to the Act) it is provided that the provisions of this Act shall not apply to packaged food or drugs not manufactured or sold for consumption in Canada, marked with the word "Export" and being the subject of a certificate that the package and its contents do not contravene any known requirement of the law of the country to which it is or is about to be consigned. This Act is to be brought into force by proclamation. (Portions of the Act were proclaimed in effect from Aug. 1, 1939.)

By c. 17 an addition is made to the Dominion Trade Industry Commission Act (c. 59, 1935) whereby the Governor in Council, upon the advice of the Trade and Industry Commission, may, for any commodity not subject to regulation under any other Act, prescribe standards of quality, establish grades, and prescribe the words by which the material content of the commodity shall be represented by marking on such commodity or on the package in which it is to be marketed, together with the manner and form in which it is to be offered for sale. Penalties for offences against this Section are laid down.

The definition of "can" and "canned fish or shellfish" as given in the Meat and Canned Foods Act (c. 77, R.S.C., 1927) is revised by c. 19 to include lobster meat cooked for sale, fresh or frozen, and packed in a can, bottle, or other container, but not preserved to keep. The labels on all cans of fish or shellfish imported into Canada must be marked in a plain and conspicuous manner.

By c. 29, the Trade Agreement entered into between Canada and the United States of America, a copy of which is set forth in the Schedule to the Act, is approved, and the Governor in Council is authorized to make such orders and regulations as are necessary to carry out the provisions of this Act and the Agreement. From the date of the coming into force of this Act, which date shall be fixed by Proclamation, the Canada-United States of America Trade Agreement Act, 1936 (c. 3, 1936), shall be repealed. (The Act was proclaimed in effect from June 17, 1939.)

Transportation.—By c. 2, independent auditors for the year 1939 are appointed to make a continuous audit of the accounts of the national railways, notwithstanding the provisions of Sect. 13 of the Canadian National-Canadian Pacific Act, 1933.

C. 11 is an Act to ratify and confirm the Agreement (published as Schedule to the Act) between the Canadian Pacific Railway Company and the Midland Railway

Company of Manitoba covering the joint use of certain tracks and premises belonging to the Canadian Pacific Railway Company at Winnipeg, Manitoba.

The Carriage by Air Act, 1939, is enacted by c. 12. It gives effect to a Convention for the unification of certain rules relating to International Carriage by Air, signed at Warsaw on Oct. 12, 1929, and makes provision for applying the rules contained in the said Convention, subject to exceptions, adaptations, and modifications, to carriage by air which is not international carriage within the meaning of the Convention.

C. 16 amends the Department of Transport Stores Act (c. 28, 1937). That part of Sect. 5 setting forth the bases upon which advances are made to the Minister is repealed, and the sole provision retained in that section is the one to the effect that such advances shall at no time exceed $1,000,000. The inventory of stores at the end of each fiscal year, which formerly were not to exceed the amount of such stores at Apr. 1, 1937, are now limited to $1,250,000.

By the Toronto Harbour Commissioners' Act, 1939 (c. 24), the Toronto Harbour Commissioners are empowered to construct and operate an airport on Toronto Island and an airport in the township of Toronto near the village of Malton, Ontario. The provisions of the Toronto Harbour Commissioners' Act, 1911, relating to the jurisdiction of the Toronto Harbour Commissioners shall apply to these airports. All previous Acts and Agreements relating to the establishing, constructing, or operating of the said airports, including the Agreement with the City of Toronto set forth in Schedule A to the Act, are validated and confirmed. The Toronto Harbour Commissioners are given certain powers in regard to the enforcement of regulations made by the Minister of Transport for the purpose of providing unobstructed air space for the landing and taking off of aircraft at the said airports.

C. 25 ratifies and confirms the transfer of certain parcels of land, situated in the City of Toronto and described in Schedules A, B, and C to the Act, from the Canadian National Railway Company, the Ontario and Quebec Railway Company, and Canadian Pacific Railway Company to the Toronto Terminals Railway Company. Such lands are declared to be vested in the Toronto Terminals Railway Company freed and discharged from all trusts and restrictions and from all claims whatsoever. Any claims against the said lands may be asserted for compensation against the conveying company and the compensation shall be fixed by arbitration under the Railway Act.

The Canadian National-Canadian Pacific Act, 1933 (c. 33 of the Statutes of 1932-33 as amended in 1936) is again amended by c. 37. A schedule is added, of which the chief provisions are: Every employee who is deprived of employment owing to co-operative agreements between the C.N.R. and the C.P.R. shall be allowed, for a specified period, a monthly compensation, based on length of service, equivalent to 60 p.c. of his average monthly compensation during the last twelve months of his employment. Such allowance shall cease before the expiration of its prescribed period if the employee returns to work or fails without good cause to return to work when recalled, or in case of resignation, death, retirement on pension, or on account of age, disability, or dismissal. The employee who is eligible to receive an adjustment allowance has the option of resigning and accepting in a lump sum a separation allowance determined by length of service. It is also provided that if an employee who is continued in employment is, within five years of the effective date of such co-operative arrangement, placed in a worse position because of the arrangement, he shall receive monthly a displacement allowance

of the amount by which the compensation he receives in each month in his current position after the arrangement is less than the average monthly compensation received before the arrangement. An employee who, by reason of such arrangement, is transferred from one place to another or from the service of one railway to another shall not be deprived of his pension rights and may continue to contribute to the pension fund of the company by which he was formerly employed, and upon retirement shall be entitled to receive his pension from that company. An employee who is required to change his place of residence as a direct result of such arrangement shall be compensated for all reasonable travelling and moving expenses, working time lost, or financial loss suffered through the sale of his home or the holding of an unexpired lease. A permanent Committee of Adjustment shall be formed for the purpose of enquiring into all matters in connection with and settling any disputes arising from the interpretation, application, or enforcement of this schedule. In case a dispute is not settled for thirty days it is to be referred to a Board of three arbitrators whose decision shall be final. The costs and expenses of the Board shall be borne equally by the parties of the proceedings.

C. 38 authorizes the provision of moneys to meet certain capital expenditures made and capital indebtedness incurred by the Canadian National Railways during the calendar year 1939. The Canadian National Railway Company is empowered, subject to the provisions laid down, to issue securities for the retirement of maturing obligations and the payment of sinking funds to the extent of $8,152,707 and for capital improvements to the extent of $17,669,000.

Miscellaneous.—Under c. 5 the agreement of Mar. 30, 1920, with the City of Ottawa for certain payments in lieu of part of rates and taxes for civic services and water, and in settlement of certain claims, which has been extended annually, may be further extended for another year as from July 1, 1938, by agreement between the Minister of Public Works, on behalf of His Majesty the King, and the Corporation of the City of Ottawa.

A National Film Board is created by c. 20 (which is the National Film Act, 1939) to discharge such duties as the Governor in Council may request it to undertake, and particularly to review film activities in Government Departments and to advise the Governor in Council in connection therewith. The Board is to consist of the Minister of Trade and Commerce as Chairman, another member of the King's Privy Council for Canada, three officials of the permanent Civil Service or of the Civil or Defence Services of Canada, and three persons outside the Civil Service. A Government Film Commissioner, who shall be the chief executive officer of the Board and responsible to it, will be appointed by the Governor in Council on the recommendation of the Board at such salary as may be determined by the Governor in Council. His duties shall be to advise upon the making and distribution of national films designed to help Canadians to understand the ways of living and the problems of fellow-Canadians living in other parts of Canada, and to advise as to the distribution of Government films in other countries, as to the methods of securing quality, economy, efficiency, and effective co-operation in the production, distribution, and exhibition of Government films and as to all departmental expenditures in connection therewith, to co-ordinate national and departmental film activities, act as intermediary between Departments and the Bureau, represent the Board in its relations with commercial and non-commercial film organizations and advise upon and approve production, distribution, and exhibition contracts in connection with Government film activities. All processing and production of films by and

for Government Departments is to be undertaken by the Government Motion Picture Bureau except where the Commissioner agrees that the work can be done through officers of other departments or where the Board considers the use of commercial films advisable in the public interest, and the Director of the Bureau shall act as advisory officer in the purchase, maintenance, and use of all film apparatus by Government departments and shall approve the terms of such purchase. The Act also provides for the establishment of a Central Government Film Distribution Service.

C. 22, the Seals Act, 1939, makes provision for the sealing of Royal Instruments. Under this Act any royal instrument may be issued by and with the authority of His Majesty the King and passed under the Great Seal of Canada or any other approved Royal Seal. Orders and regulations in respect of royal seals, the use thereof, royal instruments, and documents under the Sign Manual may be made by the Governor in Council subject to the approval of His Majesty the King.

The convention providing for the emergency regulation of the level of Rainy Lake and the level of other boundary waters in the Rainy Lake watershed, as set forth in the Schedule to the Act, is approved by c. 33. The International Joint Commission may determine the existence of emergency conditions and adopt measures of control that shall be binding upon all persons and authorities within Canada.

Legislation of the Fifth Session of the Eighteenth Parliament, Sept. 7, 1939, to Sept. 13, 1939.

A Special Session of Parliament was called, between Sept. 7 and Sept. 13, 1939, after war had been declared on Germany by the United Kingdom on Sept. 3, to define Canada's position and pass the necessary legislation to enable the Government to implement any obligations assumed. Ten Acts were passed at this, the Fifth Session of the Eighteenth Parliament; the purport of these is summarized hereunder.

Finance and Taxation.—C. 9 (the War Appropriation Act, 1939) authorizes the appropriation, out of the Consolidated Revenue Fund and apart from the ordinary grants of Parliament, of a further $100,000,000 for national defence, security, peace, order and welfare, including any measure deemed necessary or advisable by the Governor in Council in consequence of the existence of a state of war; for the conduct of naval, military, and air operations in or beyond Canada; and for promoting the continuance of trade, industry, and business communications. Six Special Warrants issued by the Government immediately preceding the convocation of Parliament, as urgently and immediately required for the public good under Sect. 25 of the Consolidated Revenue and Audit Act, 1931, (c. 27, 1939) are to be met out of the sum thus appropriated. The Government is empowered to raise by way of loan such sums up to $100,000,000 as may be required for the purposes of this Act.

The Government of Canada is also authorized to act as the agent of any British or foreign country allied with His Majesty for any purpose that will aid in the prosecution of the War and the Governor in Council is vested with power to make such orders and regulations as are necessary to carry out the Act. These shall have the full force of law but may be varied, extended, or revoked by subsequent orders or regulations.

The Income War Tax Act (c. 97, R.S.C. 1927) is amended by c. 6. A war surtax of 20 p.c. is made on the rates previously applicable to persons other than corporations and joint stock companies. The ordinary corporation rate is raised from 15 p.c. to 18 p.c. and that of consolidated corporations from 17 p.c. to 20 p.c. Deductions and exemptions from income are allowed up to 50 p.c. of the net taxable income actually paid to, and receipted for as such, by any approved patriotic organization in Canada.

By c. 4, the Excess Profits Tax Act, a tax is imposed on every person resident in Canada or who, not being resident, is carrying on business in Canada. Such tax is on profits derived from trade or business operations and according to the Schedule of Rates appended to the Act. Certain deductions and exemptions are allowable and details of how returns are to be made and taxes paid are laid down. The Act applies to the profits of the year 1940 and all periods ending therein after Mar. 31, 1940, and to subsequent periods.

National Revenue.—Schedule A of the Customs Tariff (c. 44, R.S.C. 1927), is amended by c. 2 by the imposition of additional specified rates of duties on certain kinds or grades of imported spirits, wine, beer, tobacco, cigarettes, tea, and other items. C. 5 amends the Excise Act, 1934 (c. 52, 1934) in relation to the duties on spirits, beer, malt and malt syrup, and tobacco, cigars, and cigarettes. Duties are raised on beer brewed from any substance other than malt, screened malt, and malt syrup produced in or imported into Canada, and on manufactured tobacco of all descriptions except cigarettes and on cigarettes weighing not more than 3 pounds per thousand.

The Special War Revenue Act (c. 179, R.S.C. 1927) is amended by c. 8 as regards the excise taxes on wines and sparkling wines sold by the Canadian manufacturer but not exported. In the former case the tax is increased from 7½ cents to 15 cents per gallon and in the latter from 75 cents to $1·50 per gallon. A tax of 2 cents per pound is imposed on carbonic acid gas and similar preparations used for aerating non-alcoholic beverages.

Administration.—The organization of a Department of Munitions and Supply, under a Minister, is provided for by c. 3. The Minister is vested with full authority for carrying out the powers and duties set forth. The Minister shall examine into and organize the resources of Canada contributory to, the sources of supply of, and the agencies available for the supply of munitions of war and war supplies and for the execution of defence projects, and shall explore and estimate the present and prospective needs of the Government and the community in respect thereto, and generally take steps to mobilize, conserve, and co-ordinate the economic and industrial facilities available in respect of munitions, supplies, and defence projects for the prosecution of the war. Where there has been refusal to enter into contract, the Minister may enforce fulfilment of contracts to deliver supplies and may commandeer storage space or supplies on such terms as he deems fair and reasonable and arbitration is allowed for through a panel of arbitrators appointed by the Minister. By c. 7 the salary of the Minister of Munitions and Supply is fixed at $10,000. (The Act was proclaimed in effect from Apr. 9, 1940.)

Miscellaneous War Legislation.—The Canadian Patriotic Fund is incorporated by c. 1. The objects of the Corporation are to promote co-ordination and co-operation between existing organizations and to provide, if any need shall arise, for the assistance of needy wives, children, and dependants, resident in Canada,

of officers and men on active service. Conditions are prescribed governing the organization of the corporation, property vested in the corporation, investments, and audit.

C. 10 is an Act relating to war charities. All funds having for their objects, or among their objects, the supplying of needs or comforts, or the relief of suffering and distress, for the personnel of the armed forces of Canada, their families or dependants, or for any other sufferers from the present war, or any other charitable purpose connected with the war, must be registered. The Secretary of State for Canada (or other Minister charged with the administration of the Act) is authorized to grant such registration upon certain conditions being fulfilled to his satisfaction. No such charity is permitted to solicit or make appeal to the public for donations, or to raise funds by means of bazaars, sales, entertainments, etc., unless registration has been effected. When registration has been effected, it is still an offence to make any collection unless authorization in writing, as stipulated in Sect. 4 of the Act, has been obtained. Certain conditions must be complied with, such as the maintenance of proper records and accounts, and the Secretary of State may make regulations prescribing the forms of registers, lists, and returns to be kept or made. A penalty of $500 may be imposed upon summary conviction for an offence against the Act.

Section 2.—Principal Events of the Year.

NOTE.—The review of economic and financial conditions, formerly treated in this chapter, will now be found in the Introduction to this volume.

The Outbreak of War.—A record of the principal events of the War, to Dec. 31, 1939, will be found at pp. 36-40 of this volume. Happenings from Jan. 1, 1940, to the date of going to press will be found in Appendix I, at pp. 1143-1148. A review of Canada's war effort is given in the Introduction to this volume, pp. xxiv-xliii.

The Royal Family.—The death of H.R.H. Princess Louise, Duchess of Argyle, occurred at London, Eng., on Dec. 3, 1939.

The Governor General.—The Dominion mourned the loss of His Excellency the Right Honourable the Baron Tweedsmuir of Elsfield, P.C., G.C.M.G., G.C.V.O., C.H., who died on Feb. 11, 1940. On Apr. 3 it was announced that Major-General the Earl of Athlone, K.G., P.C., G.C.B., G.C.M.G., G.C.V.O., D.S.O., had been appointed as His Majesty's representative for Canada. His Excellency arrived at Halifax on June 19, 1940, and was sworn in at Ottawa on June 21.

Diplomatic Appointments.—The personnel of Canadian diplomatic representatives abroad and of British and foreign envoys to Canada, as at the end of January, 1940, will be found at pp. 64-67 of this volume. Since the sending to press of Chapter III—Constitution and Government—the President of the French Republic has appointed M. Réné Ristelhueber as Minister of France to Canada. M. Ristelhueber presented his credentials to His Excellency the Administrator on June 3, 1940. The United States Minister to Canada, having resigned his appointment, left Ottawa on May 16, 1940, and on May 28 it was announced that the President of the United States appointed Mr. Jay Pierrepont Moffat as the new United States Minister to Canada. Hon. Mr. Moffat presented his credentials to His Excellency the Governor General on June 13, 1940.

Trade Agreements.—Information regarding trade agreements entered into during the year will be found in the External Trade Chapter, under Subsection 2, Tariff Relationships with Other Countries, pp. 483-494. Since that Chapter went

to press, an Exchange of Notes between Canada and Paraguay of May 21, 1940, effective one month later, granted the Canadian Intermediate Tariff to Paraguay in return for most-favoured-nation treatment in tariff matters of Canadian products imported into Paraguay. The tariff of Paraguay consists of a single column of duties, but provision exists for increasing duties by 50 p.c. against imports from countries adopting measures considered as prejudicial to Paraguayan commerce.

Dominion-Provincial Relations.—The report of the Royal Commission on Dominion-Provincial Relations was laid before Parliament on May 16, 1940. Recommendations include the definite division of the taxation field as between the Dominion and the Provinces, the assumption by the Dominion of the net provincial debts and of the costs of relief. Compensation to the provinces is provided by the recommendation that "national adjustment grants" take the place of the present Dominion subsidies to the provinces. The Report proper consists of three volumes entitled: (1) Canada, 1867-1939; (2) Recommendations; (3) Documentation, and may be obtained from the King's Printer, Ottawa, at a price of $1 for the three volumes. A list of printed and mimeographed appendices, with their prices, will be found at p. 1110. A summary of the Report will be found in Appendix V at the end of this volume.

Dominion General Election.—A general election was held on Mar. 26, 1940, when the Liberal Government of the Rt. Hon. W. L. Mackenzie King was returned to power by a large majority. A list of the new Members of the House of Commons, showing the number of voters on the list and votes polled in each constituency, together with the party allegiance of each member, will be found in Appendix III, at p. 1150.

Provincial General Elections.—A general election took place in Quebec on Oct. 25, 1939, when the Union Nationale Government of Hon. Maurice Duplessis was decisively defeated by the Liberals led by M. Adelard Godbout.

In New Brunswick, on Nov. 20, 1939, the voters returned the Liberal administration of Hon. A. A. Dysart to power, although with a reduced majority.

A general election in Alberta, on Mar. 21, 1940, resulted in the return to power of the Social Credit Government of Hon. Wm. Aberhart.

Section 3.—Obituary.

1939.—(See also pp. 1162-1163 of the 1939 Year Book.) July 22, J. Lambert Payne, Ottawa, Ont., former Comptroller of Railway Statistics, Dept. of Railways and Canals. July 29, Hon. P. H. Laporte, M.D., Edmundston, N.B., Minister of Health and Labour for New Brunswick. July 30, Sir Charles B. Gordon, G.B.E., Montreal, Que., President of the Bank of Montreal. Aug. 19, Major N. B. McLean, Belœil, Que., Chief Engineer, St. Lawrence Channel, Dept. of Transport. Aug. 20, Hon. H. G. Carroll, Quebec, Que., former Lieutenant-Governor of Quebec. L. L. Jenkins, Charlottetown, P.E.I., former Speaker of the P.E.I. Legislature. Aug. 21, Hon. Frank P. O'Connor, Toronto, Ont., Senator for Scarborough Junction, Ont. Aug. 24, Jos. H. Grisdale, D.Sc.A., B.Agr., Iroquois, Ont., former Deputy Minister of Agriculture. Aug. 26, T. D. Cumberland, Victoria, B.C., former Manitoba Judge. Sept. 15, Hon. John S. McLennan, Ottawa, Ont., Senator for Sydney. Sept. 17, Ven. John MacPherson Almond, M.A., D.C.L., C.M.G., C.B.E., V.D., Montreal, Que., former Director General of Chaplain Services. Oct. 12, Alonzo H. Guiou, Ottawa, Ont., former Chief, Marine Records Branch, Department of

Marine and Fisheries. Oct. 19, Alexander M. I. MacGregor, New Glasgow, N.S., former M.P. for Pictou. Oct. 24, Dr. Henry E. Young, Victoria, B.C., Medical Health Officer for British Columbia and former Minister of Education and Provincial Secretary. Oct. 28, A. E. MacLean, Summerside, P.E.I., M.P. for Prince. Nov. 3, Hon. Hugh Guthrie, P.C., K.C., Ottawa, Ont., Chief Commissioner of the Board of Transport Commissioners and former Minister of Justice. Nov. 5, R. H. Jenkins, Calgary, Alta., former M.P. for Queen's, P.E.I. Dr. W. H. Rehfuss, Bridgewater, N.S., former N.S. Cabinet Minister. Nov. 12, Major-General the Hon. A. H. Macdonell, Rothesay, N.B., Senator for South Toronto. Nov. 22, William F. Cockshutt, Brantford, Ont., former M.P. for Brantford. Dec. 4, George B. Rothwell, B.S.A., Ottawa, Ont., Director of Production Service, Dept. of Agriculture. Dec. 6, Herbert H. Acorn, Charlottetown, P.E.I., M.L.A. for 1st King's District. Dec. 20, Hon. James A. Macdonald, Victoria, B.C., former Chief Justice of the British Columbia Court of Appeal. Dec. 22, Hon. H. J. Palmer, Charlottetown, P.E.I., former Premier and Attorney-General of P.E.I. Dec. 25, Hon. Mr. Justice Lawrence Cannon, A.D., I.C.C., LL.D., Ottawa, Ont., Judge of the Supreme Court of Canada. **1940.**—Jan. 1, Mr. Justice F. G. Taylor, Winnipeg, Man., Judge of the Manitoba Court of King's Bench. Jan. 5, Frank T. Shutt, C.B.E., M.A., D.Sc., Ottawa, Ont., former Dominion Chemist and Assistant Director, Dominion Experimental Farms. Joseph P. Turcotte, K.C., Quebec, Que., former M.P. for Quebec. Jan. 7, W. O. Sealey, Dundas, Ont., former M.P. for Wentworth. Jan. 17, George F. Hodgins, Ottawa, Ont., former M.P. for Pontiac. Jan. 18, Hon. Archibald B. Gillis, Whitewood, Sask., Senator for Saskatchewan. Jan. 28, Harlan I. Smith, Ottawa, Ont., former Dominion Archæologist. Jan. 31, Sir Herbert M. Marler, P.C., K.C.M.G., Montreal, Que., First Canadian Minister to Japan. Feb. 1, Ernest Rhoades, B.S.A., Ottawa, Ont., Chief, Administrative and Editorial, Publicity and Extension Division, Dept. of Agriculture. Feb. 5, William A. Clarke, Palmerston, Ont., former M. P. for Wellington North. Feb. 11, Baron Tweedsmuir of Elsfield, P.C., G.C.M.G., G.C.V.O., C.H., Montreal, Que., Governor General and Commander-in-Chief of the Dominion of Canada. Feb. 13, Lt.-Col. John A. Amyot, C.M.G., Ottawa, Ont., former Deputy Minister of National Health. David Spence, Toronto, Ont., M.P. for Toronto-Parkdale. Feb. 17, Alfred K. Blackadar, M.A., LL.D., Toronto, Ont., former Actuary, Dept. of Insurance. Feb. 23, Judge John C. McIntosh, Port Alberni, B.C., Judge of the County Court of Nanaimo and former M.P. for Nanaimo. Feb. 29, Dr. T. E. Kaiser, Oshawa, Ont., former M.P. for Ontario. Mar. 3, Air Vice-Marshal J. L. Gordon, D.F.C., Montreal, Que., former Director, R.C.A.F. Mar. 8, Isaac B. Lucas, Toronto, Ont., former Attorney-General and Provincial Treasurer of Ontario. Mar. 19, Hon. George Lynch-Staunton, Senator for Hamilton. Mar. 22, William A. Found, D.Sc., Ottawa, Ont., former Deputy Minister of Fisheries. Charles A. Robertson, Auburn, Ont., M.L.A. for Huron-Bruce. Apr. 1, Very Rev. Walter George Brown, M.A., B.D., Ottawa, Ont., member-elect for Saskatoon City. Apr. 9, Dr. A. B. Hyndman, Carp, Ont., member-elect for Carleton, Ont. Apr. 20, Roland D. Craig, F.E., Ottawa, Ont., Chief, Forest Economics Division, Dominion Forest Service, Dept. of Mines and Resources. Dr. Alfred Thompson, Vancouver, B.C., former M.P. for Yukon. Apr. 30, Angus MacPhee, Charlottetown, P.E.I., M.L.A., for 2nd Queen's district. May 2, James Bowman, Brussels, Ont., former M.P. for Huron North. May 5, John M. Bryan, Lynn Creek, B.C., M. L. A. for Mackenzie, B.C. May 11, George Y. Thomas, Truro, N.S., M.L.A. for Colchester. May 12, Major-General Harold H. Matthews, Ottawa, Ont., Adjutant-General of

the Canadian Militia. May 15, Hon. Charles Bourgeois, Three Rivers, Que., Senator for Shawinigan. May 23, Hon. W. B. Nantel, St. Jérôme, Que., former Minister of Inland Revenue and Deputy Chief Railway Commissioner. May 25, Hon. E. M. Macdonald, P.C., Pictou, N.S., former Minister of National Defence. May 28, Charles V. Gallagher, Toronto, Ont., M.L.A. for Cochrane South. Arthur G. Troop, K.C., Ottawa, Ont., former Law Clerk of the House of Commons. May 30, William A. Baird, Toronto, Ont., M.L.A. for Toronto High Park. June 1, Brig.-Gen. William St. P. Hughes, D.S.O., V.D., Ottawa, Ont., former Superintendent of Penitentiaries. June 4, Dr. William E. Harper, Victoria, B.C., Director, Dominion Astrophysical Observatory. June 8, Capt. C. W. E. Meath, Ottawa, Ont., Chief Inspector of Employment Services, Dominion Dept. of Labour. June 10, Hon. Norman McLeod Rogers, P.C., M.P., Newtonville, Ont., Minister of National Defence. June 27, James H. Fleming, Toronto, Ont., Honorary Curator of Ornithology, National Museum of Canada. July 1, Henry A. K. Drury, Ottawa, Ont., former Assistant Chief Engineer, Board of Railway Commissioners.

Section 4.—Extracts from the Canada Gazette—Official Appointments, Commissions, etc.*

Lieutenant-Governors, 1939.—Sept. 11, Hon. Bradford W. LePage, Charlottetown, P.E.I.: to be Lieutenant-Governor of the Province of Prince Edward Island, effective Oct. 1, 1939. Dec. 14, Major-General, Sir Marie Joseph Eugène Fiset, K.B., C.M.G., D.S.O., M.D., Rimouski, Que.: to be Lieutenant-Governor of the Province of Quebec, effective Dec. 30, 1939. **1940.**—Mar. 5, William George Clark, Esq., Fredericton, N.B.: to be Lieutenant-Governor of the Province of New Brunswick. May 31, Frederick Francis Mathers, Esq., K.C., Halifax, N.S.: to be Lieutenant-Governor of the Province of Nova Scotia.

Privy Councillors, 1940.—Feb. 12, Pierre François Casgrain, Esq., K.C., B.A., LL.M., Speaker of the House of Commons during the 18th Parliament: to be a member of the King's Privy Council for Canada.

Cabinet Ministers, 1939.—Sept. 6, Col. the Hon. James Layton Ralston, P.C., K.C., C.M.G., D.S.O., LL.D.: to be Minister of Finance. Sept. 19, Hon. Charles Gavan Power, P.C.: to be Postmaster General, *vice* Hon. Norman Alexander McLarty. Hon. Ian Alastair MacKenzie, P.C.: to be Minister of Pensions and National Health, *vice* Hon. Charles Gavan Power. Hon. Norman McLeod Rogers, P.C.: to be Minister of National Defence, *vice* Hon. Ian Alastair Mackenzie. Hon. Norman Alexander McLarty, P.C.: to be Minister of Labour, *vice* Hon. Norman McLeod Rogers. **1940.**—Apr. 9, Hon. Clarence Decatur Howe, P.C., Minister of Transport: to be Minister of Munitions and Supply. May 9, Hon. James Angus MacKinnon, P.C.: to be Minister of Trade and Commerce, *vice* Hon. William Daum Euler. Hon. Pierre François Casgrain, P.C.: to be Secretary of State for Canada. May 23, Hon. Charles Gavan Power, P.C.: to be Minister of National Defence for Air.

Senators, 1940.—Jan. 29, J. Fernand Fafard, L'Islet, Que., Hon. John Campbell Elliott, P.C., London, Ont., Arthur Lucien Beaubien, St. Jean-Baptiste, Man., John J. Stevenson, Regina, Sask., Dr. Aristide Blais, Edmonton, Alta., Donald MacLennan, K.C., LL.B., Inverness, N.S. Feb. 9, Charles Benjamin Howard,

* This list is in continuance of that at pp. 1163–1167 of the 1939 Year Book.

Sherbrooke, Que., Elie Beauregard, Montreal, Que., Louis Athanase David, Montreal, Que., Edouard Charles St-Père, Montreal, Que., Salter Adrian Hayden, M.A., Ph.M., Toronto, Ont., Norman McLeod Paterson, Fort William, Ont. Feb. 15, William James Hushion, Westmount, Que., Lieut.-Col. Joseph James Duffus, Peterborough, Ont. May 9, Hon. William Daum Euler, Kitchener, Ont.

New Members of the House of Commons, 1939.—Sept. 18, Douglas George Leopold Cunnington, elected for Calgary West, Alta. Dec. 11, Arthur Lisle Thompson, elected for Kent, Ont. Dec. 18, Eugène Durocher, elected for St. James (Island of Montreal), Que. Elphège Marier, elected for Jacques Cartier (Island of Montreal), Que. Walter George Brown, elected for Saskatoon City, Sask. **1940.**—Jan. 2, Hon. James Layton Ralston, elected for Prince, P.E.I.

Official Appointments, 1939.—July 12, Dr. Donovan Bartley Finn, Director of the Halifax Station of the Fisheries Research Board of Canada, to be Chairman; Burke McInerney, Esq., Halifax, Secretary of the United Maritime Fishermen, to be Vice-Chairman; and William Deal, Esq., Lunenburg, Captain of a Lunenburg Fishing Vessel, to be a member of the Salt Fish Board. Robert C. Vaughan, Esq., Montreal, Que., to be Chairman; Clifton W. Sherman, Esq., Hamilton, Ont., Charles E. Gravel, Esq., Montreal, Que., and Howard B. Chase, Esq., Montreal, Que.: to be members of the Defence Purchasing Board. James Alexander Northey, Esq., Toronto, Ont.: to be a Director of the Canadian National Railway Company for the term expiring Sept. 30, 1939, *vice* James Young Murdock, resigned. Hon. J. E. P. Prendergast, Chief Justice of Manitoba: to be Administrator of the Government of the Province of Manitoba during the absence of the Lieutenant-Governor of the said Province, from July 12 to Aug. 14, 1939. July 26, Rt. Hon. Ernest Lapointe, Minister of Justice: to be Acting Secretary of State for Canada. Aug. 12, Capt. Charles Edward Robinson, Goderich, Ont.: to be a Member of the Lighthouse Board of Canada. Aug. 26, Harry Bray, Esq., Toronto, Ont.: to be a Member of the Canadian Pension Commission for a period of seven years from Sept. 1, 1939. Aug. 31, To be members of the National Film Board: Hon. W. D. Euler, Minister of Trade and Commerce, Chairman; Hon. T. A. Crerar, Minister of Mines and Resources; Walter C. Murray, Esq., Saskatoon, Sask., for a period of one year; Edmond Turcotte, Esq., Montreal, Que., for a period of two years; Charles G. Cowan, Esq., Ottawa, Ont., for a period of three years; R. S. Hamer, Esq., General Executive Assistant, Dept. of Agriculture, for a period of one year; V. I. Smart, Esq., Deputy Minister of Transport, for a period of two years; and J. G. Parmelee, O.B.E., Deputy Minister of Trade and Commerce, for a period of three years. Sept. 3, Brigadier S. T. Wood, Commissioner of the Royal Canadian Mounted Police: to be Registrar General of Alien Enemies. Walter S. Thompson, Esq., Montreal, Que.: to be Chairman of the Censorship Co-ordination Committee. Hector B. McKinnon, Esq., Commissioner of Tariff; David Sim, Esq., Commissioner of Excise; Fred Alexander McGregor, Esq., Commissioner of the Combines Investigation Act; Alexander Malcolm Shaw, Esq., Director of Marketing Service, Dept. of Agriculture; Charles P. Hebert, Esq., Member of the Tariff Board: to be Members of the War-Time Prices and Trade Board, Hector B. McKinnon to be Chairman. Sept. 6, Hon. John Babington Macaulay Baxter, Chief Justice of New Brunswick: to be Administrator of the Government of the Province of New Brunswick during the illness of the Lieutenant-Governor from Aug. 31 to Sept. 30, 1939. Sept. 18, E. H. Coleman, Esq., K.C., LL.D., Under-Secretary of State, to be Chairman; Major J. F. Cummins, Dept. of National Defence, to be Vice-Chairman; Miss E. E. Saunders, M.A., of the Civil Service Commission, and Major

M. F. Gregg, V.C., to be Members; Major G. W. Ross, of the Post Office Dept., and J. F. Delaute, Esq., of the Dept. of the Secretary of State, to be Joint Secretaries of the Voluntary Service Registration Bureau. David C. Dick: to be Wool Administrator. Sept. 21, Hon. Frank Mitchell MacPherson, Cranbrook, B.C., Minister of Public Works for the Province of British Columbia: to be a member of the Board of Transport Commissioners for Canada. Sept. 29, Samuel James Hungerford, Esq., Railway Executive, Montreal, Que.: to be again a Director and the Chairman of the Board of Directors, Canadian National Railway Company; James Alexander Northey, Esq., Toronto, Ont., and Wilfrid Joseph Théophile Gagnon, Esq., Montreal, Que.: to be again Directors of the said company each for a term of three years from Oct. 1, 1939. Oct. 5, Madame Pierre F. Casgrain, Montreal, Que.: to be a Member of the Dominion Council of Health, *vice* Madame S. D. Simard, effective from Oct. 10, 1939. Oct. 26, Dr. O. Maass Macdonald, Professor of Physical Chemistry and Head of the Department of Chemistry, McGill University, Montreal: to be a member of the National Research Council for a term of three years, expiring Mar. 31, 1942. Gordon Smith, Esq., Winnipeg, Man.: to be Assistant Chief Commissioner of the Canadian Wheat Board, effective Oct. 27, 1939, *vice* Robert C. Findlay, Esq. Nov. 2, Charles Jost Burchell, Esq., K.C.: to be High Commissioner for Canada in the Commonwealth of Australia as of and from Nov. 1, 1939. Réné Morin, Esq., Montreal, Que., General Manager: to be again a Governor and Vice-Chairman of the Canadian Broadcasting Corporation for a further term of three years from Nov. 2, 1939. Mrs. Nellie McClung, Victoria, B.C.: to be again a Governor of the Canadian Broadcasting Corporation for a further term of three years from Nov. 2, 1939. Nov. 28, Professor E. C. Hope, M.Sc., University of Saskatchewan, Dr. T. W. Grindley, Dominion Bureau of Statistics, A. L. Stevenson, Esq., Dept. of Agriculture: to be a Committee of Review for the year 1939 under the Prairie Farm Assistance Act, Professor Hope to be Chairman of the said Committee. Dec. 8, Colonel Maurice A. Pope, Dept. of National Defence: to be Chairman of the Censorship Co-ordination Committee. Dec. 28, Edward Joseph Garland, Esq.: to be Secretary of the Office of the High Commissioner for Canada in Dublin, as of and from Feb. 1, 1940. **1940.**—Jan. 18, Major-General L. R. LaFlèche, D.S.O.: to be Military Attaché at the Canadian Legation in Paris. Group Captain (Temporary Air Commodore) W. R. Kenny, D.F.C.: to be Air Attaché at the Canadian Legation in Washington. Jan. 26, Hon. Sir Joseph Chisholm, Chief Justice of Nova Scotia: to be Administrator of the Government of the Province of Nova Scotia during the absence, on account of illness, of the Lieutenant-Governor of the said Province from Jan. 26 to Feb. 27, 1940. Jan. 23, Réné Morin, Esq., Montreal, Que., General Manager, a Governor of the Canadian Broadcasting Corporation and Vice-Chairman thereof: to be Chairman of the said corporation. Brigadier General Victor Wentworth Odlum, broker, Vancouver, B.C., a Governor of the Canadian Broadcasting Corporation: to be Vice-Chairman of the said Corporation. Feb. 9, Rev. James Sutherland Thomson, M.A., D.D., Saskatoon, Sask., President of the University of Saskatchewan: to be a Governor of the Canadian Broadcasting Corporation for the unexpired portion of the three-year period ending Nov. 1, 1942. Feb. 13, Frederick L. C. Pereira, Esq., O.B.E.: to be Deputy of His Excellency the Administrator for the purpose of signing Warrants of Election, Proclamations, Writs for the election of members of the House of Commons and Letters Patent of Dominion and other lands. Feb. 15, Dr. Donovan Bartley Finn, Chairman of the Salt Fish Board: to be Deputy Minister of Fisheries. Feb. 20, Col. James Albert Cross, D.S.O., K.C., Regina, Sask.: to be a member of

the Board of Transport Commissioners for Canada and Chief Commissioner of the Board. Feb. 23, Hon. Sir Joseph Chisholm, Chief Justice of Nova Scotia: to be Administrator of the Government of the Province of Nova Scotia during the absence of the Lieutenant-Governor of Nova Scotia, on account of illness, for a further period of two months from Feb. 27, 1940. Feb. 28, Messrs. C. A. Ayre, G. D. W. Cameron, H. I. Edwards, J. L. Thomson, and H. J. R. Trochu, Members of the technical staff of the Department of Pensions and National Health: to be Dominion Analysts under the Food and Drugs Act. Hon. Horace Harvey, Chief Justice of Alberta: to be Administrator of the Government of the Province of Alberta during the absence of the Lieutenant-Governor of the said Province, from Feb. 24, 1940, to Mar. 18, 1940, both dates inclusive. Mar. 14, Hon. W. F. A. Turgeon, Chief Justice of Saskatchewan: to be Administrator of the Government of the said Province of Saskatchewan during the absence or absences of the Lieutenant-Governor in the month of March, 1940. Hon. Robert Spelman Robertson, Chief Justice of Ontario: to be Administrator of the Government of the said Province of Ontario during the absence of the Lieutenant-Governor from Mar. 30, 1940, to Apr. 24, 1940. Mar. 25, Arnold Danford Patrick Heeney, Esq., Advocate, Principal Secretary to the Prime Minister: to be Clerk of the Privy Council (*vice* Ernest J. Lemaire, Esq., C.M.G., retired on superannuation) and Secretary to the Cabinet, to take effect on Mar. 23, 1940. Hector B. McKinnon, Esq.: to be Chairman of the Tariff Board, *vice* Mr. Justice Sedgewick, deceased. Watson Sellar, Esq., Comptroller of the Treasury: to be Auditor General of Canada, *vice* Georges Gonthier, Esq., retired. W. L. Clairmont, Esq., Dominion Fire Commissioner: to be an officer to discharge the duties placed upon an officer in the service of His Majesty by Subsection 4 of Section 515 of the Criminal Code, R.S.C. 1927, c. 36, as enacted by Section 13 of Chapter 30 of the Statutes of 1939, *vice* Mr. J. Grove Smith, deceased. Apr. 3, Dr. R. E. Monteith, Balcarres, Sask.: to be again a Member of the Dominion Council of Health, effective Apr. 1, 1940. Apr. 9, Bernard G. McIntyre, Esq.: to be Comptroller of the Treasury. Apr. 11, James Stuart Duncan, Esq., manufacturer, Toronto, Ont.: to be Associate Acting Deputy Minister of National Defence, effective from Apr. 11, 1940. George Kingsley Sheils, Esq., Toronto, Ont.: to be Deputy Minister of Munitions and Supply. Benjamin J. Miller, W. H. Bosley, and Thomas Rennie: to be again members of the Toronto Harbour Commission to fill the vacancies caused by the expiration of their terms of office on June 27, 1939. Apr. 12, Hon. Thibaudeau Rinfret, Puisne Judge of the Supreme Court of Canada: to be Deputy Administrator of the Government of Canada. Apr. 25, Hon. Sir Joseph Chisholm, Chief Justice of Nova Scotia: to be Administrator of the Government of the Province of Nova Scotia for a further period, from Apr. 27, 1940, to May 18, 1940. May 7, Hon. Oswald Smith Crocket, Puisne Judge of the Supreme Court of Canada: to be Deputy Administrator of the Government of Canada. May 8, Lieutenant-General Sir Richard Turner, V.C., K.C.B., K.C.M.G., D.S.O.: to be again a member of the Canadian Pension Commission for a further period extending from Oct. 1, 1940, to July 25, 1941. May 9, Hon. Georges Parent, K.C., a Member of the Senate and a Senator for the Division of Kennebec, Que.: to be Speaker of the Senate. May 16, Hon. Sir Joseph Chisholm, Chief Justice of Nova Scotia: to be again the Administrator of the Government of the Province of Nova Scotia, during the illness of the Lieutenant-Governor of Nova Scotia, for a further period beginning May 18, 1940, and ending on June 1, 1940. May 21, To be members of the National Research Council for a term of three years, as provided by the Research Council Act, and expiring Mar. 31, 1943: Sir Frederick Banting, Professor

of Medical Research, University of Toronto, Toronto, Ont.; Dr. E. F. Burton, Professor and Head of the Department of Physics and Director of the McLennan Laboratory, University of Toronto, Toronto, Ont.; W. R. Campbell, Esq., President and Treasurer, Ford Motor Company of Canada, Limited, Windsor, Ont.; Professor R. H. Clark, Professor and Head of the Department of Chemistry, University of British Columbia, Vancouver, B.C.; Dean E. P. Fetherstonhaugh, Faculty of Engineering and Architecture, University of Manitoba, Winnipeg, Man. Robert Knowlton Smith, Esq., K.C., Ottawa, Ont., Director of Marine Services, Department of Transport: to be a Member and Chairman of the National Harbours Board for a term of ten years commencing June 1, 1940, in place of Ralph Osborne Campney, Esq., K.C., resigned. John Stanley Gill, Esq., Victoria, B.C.: to be Deputy Registrar of the Exchequer Court of Canada on its Admiralty side for the Admiralty District of the Province of British Columbia. May 27, Nathan Lewis Nathanson, Esq., a Governor of the Canadian Broadcasting Corporation: to be Vice-Chairman of the said Corporation for the unexpired portion of the three-year term dating from the second day of November, 1937, in place of Brigadier-General Victor Odlum, who has vacated the said position. June 22, Sir Shuldham Redfern, K.C.V.O., Ottawa, Ont., and Frederick L. C. Pereira, Esq., O.B.E., Ottawa, Ont.: to be Deputies of His Excellency the Governor General for the purpose of signing Warrants of Election, Proclamations, Writs for the election of Members of the House of Commons and Letters Patent of Dominion and other lands.

Judicial Appointments, 1939.—July 22, Sergeant Joseph Unsworth Eddy, of the Dawson Detachment of the Royal Canadian Mounted Police: to be a Justice of the Peace in and for the Yukon Territory with the powers and authorities of two Justices of the Peace under any law or ordinance, civil or criminal, in force in the said Territory. Oct. 18, Hon. John Babington Macaulay Baxter, Chief Justice of New Brunswick: to be Judge of the Court of Divorce and Matrimonial Causes for the Province of New Brunswick. Nov. 28, Réné A. Danis, Esq., Cornwall, Ont., barrister-at-law: to be a Judge of the District Court for the Provisional Judicial District of Cochrane in the said Province and also a Local Judge of the High Court of Justice for Ontario. **1940.**—Jan. 4, Otto K. Klein, Esq., K.C., Walkerton, Ont.: to be First Junior Judge of the County Court of the County of York in the said Province and a local Judge of the High Court of Justice for Ontario. J. Ambrose Shea, Esq., K.C., Kingston, Ont.: to be Fifth Junior Judge of the County Court in the said Province and a local Judge of the High Court of Justice for Ontario. Jan. 26, Oscar L. Boulanger, Esq., K.C., Quebec, Que.: to be a Puisne Judge of the Superior Court in and for the Province of Quebec. Jan. 29, George W. McPhee, Esq., K.C., Yorkton, Sask.: to be Judge of the District Court of the Judicial District of Moose Jaw in the said Province. Feb. 9, J. N. Francoeur, Esq., K.C., Quebec, Que.: to be a Puisne Judge of the Court of King's Bench in and for the Province of Quebec. Robert Taschereau, Esq., K.C., Quebec, Que.: to be a Puisne Judge of the Supreme Court of Canada. Feb. 12, John Charles Alexander Cameron, Esq., K.C., Belleville, Ont.: to be a Judge of the County Court for the County of Hastings, Ont., and a Local Judge of the High Court of Justice for Ontario. Feb. 23, James Aubrey Simmons, Esq., Collector of Customs, Whitehorse, Yukon: to be a Justice of the Peace in and for the Yukon Territory with the powers and authorities of two Justices of the Peace under any law or ordinance, civil or criminal, in force in the said Territory. Acting Corporal Andrew Mason-Rooke, R.C.M.P.: to be a Justice of the Peace in and for the Yukon Territory with the powers and authorities of two Justices

of the Peace under any law or ordinance, civil or criminal, in force in the said Territory. Feb. 28, Ralph O. Campney, Esq., Ottawa, Ont., Barrister-at-law and Chairman of the National Harbours Board: to be one of His Majesty's Counsel learned in the law. Mar. 9, John H. McDonald, Esq., K.C., North Bay, Ont.: to be Judge of the District Court for the Provisional Judicial District of Algoma in the said Province and a Local Judge of the High Court of Justice for Ontario, to be effective on and after Mar. 15, 1940. Mar. 14, A. Allison Dysart, Esq., K.C., Fredericton, N.B.: to be Judge of the County Court for the Counties of Kent and Westmoreland in the said Province. Mar. 19, Joseph Henry McFadden, Esq., K.C., Estevan, Sask.: to be Judge of the District Court of the Judicial District of Arcola in the said Province. Apr. 25, His Honour Paul Phillipps Harrison, Junior Judge of the County Court for the County of Nanaimo in the Province of British Columbia: to be Judge of the said Court and also a Local Judge of the Supreme Court of British Columbia during his tenure of the said office. L. Arnold Hanna, Esq., Alberni, B.C.: to be Junior Judge of the County Court for the County of Nanaimo in the said Province and also a Local Judge of the Supreme Court of British Columbia, during the tenure of the said office. May 15, Hon. Malcolm A. Macdonald, a Justice of Appeal of the Court of Appeal for the Province of British Columbia: to be Chief Justice of British Columbia. May 16, Hon. Malcolm A. Macdonald, Chief Justice of the Province of British Columbia: to be District Judge in Admiralty of the Exchequer Court in and for the Admiralty District of the Province of British Columbia. May 21, To be Justices of the Peace in and for the Northwest Territories with powers and authorities of two Justices of the Peace: John Paul Harvey, Esq., Physician at Fort Norman, N.W.T.; Wallace Arthur Macoun Truesdell, Esq., Physician at Fort Simpson, N.W.T.; Leslie David Livingstone, Esq., Aklavik, N.W.T.; Alexander Clarence MacPhee, Esq., Physician at Port Radium, N.W.T.; John Melling, Esq., Physician at Chesterfield, N.W.T.; Thomas John Orford, Esq., Pangnirtung, N.W.T.; Henry Asbjorn Larson, Esq., Sergeant, R.C.M.P., aboard R.C.M.P. Schooner *St. Roch*, within N.W.T.

Commissioners, 1939.—Aug. 11, Kenneth Porter Kirkwood, Second Secretary of the Canadian Legation at The Hague, in the Netherlands: to be a Commissioner to administer oaths and to take and receive affidavits, declarations, and affirmations in the Netherlands for use in the Supreme and Exchequer Courts of Canada. Paul Emile Renaud, Second Secretary of the Canadian Legation at Brussels, Belgium: to be a Commissioner to administer oaths and to take and receive affidavits, declarations, and affirmations in Belgium for use in the Supreme and Exchequer Courts of Canada. Sept. 14, Henry Laurence Eddey Priestman, Esq., Canadian Trade Commissioner at Kobe, Japan: to be a Commissioner to administer oaths and to take and receive affidavits, declarations, and affirmations in Japan for use in the Supreme and Exchequer Courts of Canada. John Hascall Frederick English, Esq., Canadian Trade Commissioner at Johannesburg, South Africa: to be a Commissioner to administer oaths and to take and receive affidavits, declarations, and affirmations in the Union of South Africa, Northern Rhodesia, Southern Rhodesia, Portuguese East Africa, Mozambique, and Nyasaland for use in the Supreme and Exchequer Courts of Canada. Oct. 11, Hon. Louis Arthur Audette, former Judge of the Exchequer Court of Canada, Ottawa, Ont.; H. Aldous Aylen, Esq., K.C., Ottawa, Ont.; and Lee A. Kelley, Esq., K.C., Ottawa, Ont.: to be a Commission under the provisions of the Naturalization Act, c. 138, R.S.C., 1927 and of Part I of the Inquiries Act, c. 99, R.S.C., 1927, to inquire into and report upon the

revocation of naturalization certificates. **1940.**—Mar. 29, Arnold Danford Patrick Heeney, Esq., M.A., B.C.L., Clerk of the King's Privy Council for Canada: to be a Commissioner, *per dedimus potestatem*, to administer oaths to any person who now holds or who may hereafter hold any office or place of trust or profit. May 1, Messrs. George E. Britnell, Clement Stubbs, and Garfield Graham: to be a Commission to inquire into and determine the amounts, if any, to be paid by way of a cost-of-living bonus to employees of the Coal Mine Operators of the Provinces of Alberta and British Columbia; the said George E. Britnell to be Chairman of the Commission. May 15, Hon. James D. Hyndman, former Judge of the Supreme Court of Alberta, Ottawa, James Francis, Esq., Assistant Superintendent of Bankruptcy, Ottawa, and Phileas Thibault, Esq., Remissions Registrar, Department of the Secretary of State, Ottawa: to be a Commission under the provisions of the Naturalization Act, c. 138, R.S.C. 1927, and of Part I of the Inquiries Act, c. 99, R.S.C. 1927, to inquire into and report upon the cases referred to it regarding the revocation of naturalization certificates; the said Hon. James D. Hyndman to be Chairman and presiding officer of the said Commission. May 16, Hon. Maynard Brown Archibald and Hon. John Stanley Smiley, Puisne Judges of the Supreme Court of Nova Scotia: to be Commissioners *per dedimus potestatem* to administer oaths within the Province of Nova Scotia. Jean Desy, Esq., Canadian Minister to the Netherlands and to Belgium: to be a Commissioner to administer oaths, etc., in the Netherlands and Belgium for use in the Supreme and Exchequer Courts in Canada. June 7, Rolland Legendre, Esq., Barrister, Quebec, Que: to be a Commissioner, pursuant to Part I of the Inquiries Act, to investigate such charges of political partisanship against Government employees in the Province of Quebec as may be referred to him.

Day of General Thanksgiving.—Monday, Oct. 9, 1939, was appointed by proclamation as a "day of general thanksgiving to Almighty God for the bountiful crop and other blessings with which Canada has been favoured".

Days of Humble Prayer and Intercession.—Sunday, Oct. 8, 1939, and Sunday, May 26, 1940, were appointed by proclamation as days of Humble Prayer and Intercession to Almighty God on behalf of the cause undertaken by the United Kingdom, by Canada, and by other Dominions of the British Commonwealth of Nations, and by Allied and Associated Powers and all those who are offering their lives for our cause and for a speedy and enduring peace founded upon justice and understanding.

APPENDIX I.

Special War Chronology, 1940.

(This chronology is in continuance of that at pp. 36-40 of this volume.)

Jan. 3, Finnish success near Lake Kianta.

Jan. 4, Britain announced the requisitioning of all deep-sea shipping as from Feb. 1.

Jan. 5, Reorganization of British Cabinet. Britain sent military supplies to Sweden. Finns defeated Russians at Salla, 125 miles north of Lake Kianta. Russia and Bulgaria concluded a 3-year trade agreement.

Jan. 7, Hon. C. D. Howe, in a radio address, announced a large shipbuilding program for Canada to cost $17,000,000, and that orders had been placed for 4,367 aeroplanes.

Jan. 8, Recruiting resumed for Canadian Active Service Force. Britain started rationing of butter, bacon, ham, and sugar. Foreign observers reported that Russians had suffered 130,000 casualties in Finnish War to date. Russians defeated by Finns southeast of Suomussalmi.

Jan. 9. British air squadrons in France placed under a unified air command. Defensive alliance between Hungary and Italy reported.

Jan. 14, Belgium and Holland evacuated civilians from border provinces facing Germany.

Jan. 15, Canada's first publicly offered war loan placed on the market. United Kingdom notified the American republics that she could not respect the American 'neutrality belt' except under stringent conditions designed to prevent German warships from using the belt as a sanctuary.

Jan. 20, United States protested delays to U. S. shipping in the Mediterranean caused by the British contraband control at Gibraltar.

Jan. 22, The Ministers of Defence and Transport announced details of the British Commonwealth Air Training Plan, and stated that 25,000 Canadians had already volunteered for service in training schools. Lloyds reported that 268 merchant ships of 1,003,651 tons had been sunk since the outbreak of war. British losses were 131 ships of 493,634 tons; French, 11 ships of 55,581 tons; Polish, 1 ship of 14,294 tons; German, 24 ships of 140,595 tons plus 19 ships of 88,128 tons captured. Neutral losses were 101 ships of 299,547 tons.

Jan. 24, The Minister of Transport announced details of Canada's $30,000,000 program of war expenditure. The first contingent of 71 British officers and 200 airmen arrived in Canada in connection with the Commonwealth Air Training Plan.

Jan. 26, British ham and bacon ration doubled.

Jan. 29, Largest German air attack to date on 14 British and neutral ships on the east coast of Britain.

Feb. 1, The President of Finland offered to negotiate an "honourable peace" with Russia. Formation of the War-time Fisheries Advisory Board announced.

Feb. 2, Russians launched heavy attacks on the Mannerheim Line at Summa, on the Karelian Isthmus.

Feb. 7, The Minister of Defence announced that Canada had under arms 70,000 men in the C.A.S.F., 9,000 in the R.C.A.F., and 6,000 in the R.C.N.

Feb. 8, Third Canadian contingent arrived in the United Kingdom. France announced the concentration of 275,000 troops in the Near East. Turkey seized the Krupp shipyards on the Golden Horn. Russia claimed the capture of 13 forts near Summa.

Feb. 9-11, Renewed heavy Russian attacks on the Mannerheim Line.

Feb. 12, Australian and New Zealand troops landed at Suez. Russians claimed successes in attacks on Mannerheim Line.

Feb. 14, Germany announced that the American safety zone plan was not practicable.

Feb. 16, H.M.S. *Cossack* rescued 300 British prisoners from the German fleet auxiliary ship *Altmark* in Norwegian waters. Russians captured towns of Leipasuo and Kamara, on Viipuri-Leningrad railway, together with much war material.

Feb. 25, First R.C.A.F. squadron landed in England. Mr. Sumner Welles, United States Under-Secretary of State, arrived in Rome on a fact-finding tour for the President of the United States, in the course of which he visited the capitals of all the belligerent countries.

Feb. 27, British First Lord of the Admiralty announced that, since the outbreak of war, 63,000 tons of British warships had been destroyed and 200,000 tons of merchant shipping, that at least 35 German submarines had been lost, and that 2,000 British merchant vessels had been defensively armed. The Finnish North Arctic army retreated to Nautsi. Fall of Koivisto fortress acknowledged.

Feb. 29, First Canadian-built aeroplanes arrived in England.

Mar. 5, Massing of fresh German troops on Netherlands border reported.

Mar. 6, German aeroplanes commenced night bombing of shipping off the English and Scottish coasts.

Mar. 7, Finns repulsed Russian attack on Viipuri.

Mar. 11, Mr. Sumner Welles, U. S. Under-Secretary of State, was received by the King and also interviewed the Prime Minister and the Foreign Secretary.

Mar. 13, R.C.A.F. establishment increased to 30,400. Finland and Russia signed peace treaty. Field Marshal Baron Mannerheim estimated Russian dead at 200,000 and Finnish dead at 45,000.

Mar. 16, Canadian Active Service Force voters commenced to poll their ballots for the Nineteenth Dominion General Election.

Mar. 18, Herr Hitler and Signor Mussolini held conference at Brennero.

Mar. 19, Mr. Sumner Welles left Rome for the United States. R.A.F. bombed Sylt air base for 7 hours.

Mar. 21, French Cabinet under M. Daladier resigned and new government formed by M. Paul Reynaud.

Mar. 24, The United States agreed to permit the Allies to purchase her latest types of aeroplanes.

Mar. 26, Nineteenth Dominion General election. Liberal party under Rt. Hon. W. L. Mackenzie King returned to power.

Mar. 28, Allied Supreme War Council announced the tightening of the blockade against Germany and the extension of the Anglo-French alliance for the post-war period of reconstruction.

Apr. 3, Reorganization of the British Cabinet, with Rt. Hon. Winston Churchill in charge of all armed services.

Apr. 4, Brig.-Gen. Odlum appointed to command Canada's second overseas division.

Apr. 7, Britain learned that a large German naval force was proceeding along the Norwegian coast.

Apr. 8, The Allies announced the mining of 3 areas in Norwegian territorial waters to prevent their use by German shipping. Trade agreement between the United Kingdom and Holland went into effect.

Apr. 9, The Canadian Government announced the formation of the Department of Munitions and Supply. Germany invaded Denmark and Norway. Engagement between H.M.S. *Renown* and German battle cruiser *Scharnhorst* off Norway.

Apr. 10, British destroyers inflicted heavy damage on German ships at Narvik, but were forced to withdraw. German cruisers and troopships sunk by the Royal Navy in the Skagerrak.

Apr. 12, Britain announced the laying of a 420-mile-long minefield from the Dutch to the Norwegian coasts.

Apr. 13, Second British naval attack on Narvik with heavy losses to German warships.

Apr. 14, British troops landed at Namsos, north of Trondheim.

Apr. 14, British troops landed at Narvik.

Apr. 17, British troops landed at Andalsnes, south of Trondheim. Germans established control of the Trondheim railway to the Swedish border. Royal Navy attacked German air headquarters at Stavanger, Norway.

Apr. 19, Members of British and French colonies left Budapest, in fear of a German invasion. The Netherlands placed under martial law.

Apr. 22, Fierce fighting between Allies and Germans at Stiklestad, north of Trondheim. Admiralty statement showed British losses of 18 warships, including submarines, since the outbreak of

hostilities, against 24 German ships, exclusive of a large number of submarines.

Apr. 24, German forces reached Roros and Ringebir through the Osterdal and Gudbrandsdal valleys.

Apr. 26, Allied forces forced to withdraw south of Dombas.

Apr. 28, Allies repulsed heavy German attacks in the Gudbrandsdal valley. Fresh Allied troops landed at Namsos.

Apr. 30, Order in Council transferred foreign exchange of the Bank of Canada and of private owners to the Foreign Exchange Control Board. All British merchant shipping diverted from the Mediterranean.

May 2, Allied forces withdrawn from southern Norway. Mr. Chamberlain summarized naval losses in Norway as: German, 3 or 4 cruisers, 11 destroyers, 5 submarines and 30 transports and supply ships; British, 4 destroyers, 3 submarines, 1 sloop, 5 trawlers, and 1 supply ship.

May 3, Franco-British battle fleet arrived at Alexandria, Egypt. Large-scale concentration of Italian naval, army, and air units in the Dodecanese Islands reported.

May 5, Bulgarian sources reported 50,000 Turkish troops massed on Turco-Greek frontier. A Canadian National War Savings Committee appointed.

May 6, German overland expedition to Narvik reached Mo. Further arrivals of Allied cruisers at Alexandria. Egypt enforced new precautionary measures. British and French troops from Norway arrived in Britain. Italo-Yugoslav frontier incidents. Italian troop concentrations north of Fiume.

May 7, British reinforcements landed at Narvik. Mr. Chamberlain explained the Norwegian campaign to the House of Commons. Two German columns reported advancing on the Netherlands from Bremen and Düsseldorf. All Netherlands military leave cancelled. Germany reported to have requested permission to send troops through Hungary.

May 8, British House of Commons voted confidence in the Chamberlain Government by 281 to 200, out of a total of 615 members. Mr. Churchill announced the taking of the airport at Narvik.

May 9, German reinforcements landed by parachute at Narvik.

May 10, Germany invaded Belgium, Holland, and Luxemburg. Air raids on aerodromes and open towns in Belgium, Holland, and France. British forces occupied Iceland. Rotterdam partly occupied by Germans. Allied forces came into contact with Germans in Luxemburg. Rt. Hon. Neville Chamberlain resigned and Rt. Hon. Winston Churchill became Prime Minister of the United Kingdom. Reorganization of Dominion Cabinet. Allied air forces attacked Germans holding Netherlands aerodromes.

May 11, Britain landed 20,000 troops in Holland.

May 12, Mr. Churchill and new all-party Cabinet sworn in. Germans crossed the Maas and Ijssel Rivers in Holland; reached Waremme in Belgium; and launched a widespread attack between Forbach and the Vosges. Heavy concentrations of German and Italian troops reported on the Swiss border. United Kingdom interned all German and Austrian males of 16 to 60 living in the eastern part of Great Britain.

May 13, German advance checked in the Liège sector, but reached the Zuider Zee in Holland. The Netherlands Government vacated The Hague and Queen Wilhelmina and the Royal Family sought refuge in England. Great battle between French and German tanks near St. Trond.

May 14, Netherlands troops capitulated except in Zeeland. Strong German attack near Sedan checked by French.

May 15, Communist Party in Canada declared an illegal organization. French counter-attack launched at Sedan, British engaged at Louvain. R.A.F. delivered low-level bombing attacks on German troop concentrations.

May 15-June 4. "BATTLE OF FLANDERS"—*May 15*, Germans broke through French lines on a 60-mile front along the Meuse, from Namur to Sedan. *May 17*, Germans advanced to Avesnes and Vervins. General Gamelin issued his "conquer or die" order. *May 19*, Gen. Gamelin superseded by Gen. Weygand as Allied Commander-in-Chief. *May 21*, Germans occupied Arras and Amiens and reached Abbeville. *May 22*, Allies temporarily checked German advance on a 200-mile front along the Somme and

Aisne. *May 23*, Germans reached Boulogne, Allies counter-attacked at Cambrai and Amiens and repulsed an attack on the Aisne. *May 24*, Germans advanced towards Calais. *May 25*, British launched attacks near Baupaume and on the Scheldt and Allied troops pressed on the Valenciennes-Cambrai front. *May 26*, Germans captured Boulogne and launched heavy attacks on Belgian front from the sea to Menin. British troops advanced to aid of Belgians. *May 28*, King Leopold of the Belgians ordered his army to surrender, thus leaving the British left flank exposed. Belgian Government repudiated the King's action. British and French forces retreated towards Dunquerque. French attacked on the Somme to relieve pressure on Flanders front, and registered some gains. *May 29*, French engaged Germans at Lille, covering retreat of Allies to Dunquerque. Germans took Calais. *May 30*, First Allied troops withdrawn from Flanders embarked at Dunquerque, under protection of R.N. and R.A.F., and landed in England. Dunquerque and Yser Valley flooded to halt German advance. *June 4*, Allies abandoned Dunquerque, after having evacuated 335,000 troops. Six British destroyers and 23 minor craft lost in evacuation.

May 16, Greece reinforced troops on the Albanian border. British counter-attack at Louvain. Swiss-German Rhine frontier closed. Belgian Government moved to Ostend.

May 17, Netherlands forces abandon the Islands of Beveland and Walcheren. British withdrew to west of Brussels. R.A.F. delivered heavy attacks on German positions and bases.

May 18, In Belgium, Germans advanced to Antwerp and Namur.

May 19, R.A.F. bombed oil tanks at Bremen, Hamburg, and Hanover. Germans reached St. Quentin and Laon. Belgian Government moved from Ostend to Saint-Adresse, near Le Havre, France.

May 20, Prime Minister King announced the intention to form a Canadian Corps in the field and the raising of a Third Division. Canada's war outlay estimated at $700,000,000 in the current year. Strength of the R.C.N. reported as 6,000, of the military forces as 100,000, and the R.C.A.F. as 12,000. Ninety war vessels were reported as under construction.

May 21, Canada ordered two destroyers in England.

May 22, Canadian Ministry of Defence for Air set up. Canadian and Allied war contracts in Canada totalled $300,000,000 to date. British Parliament enacted the Emergency Powers Defence Act, conscripting all persons and property in the United Kingdom. Roumania completed mobilization.

May 23, Leading British Facists arrested. R.A.F. attacked heavily, reaching Leipzig. Canadian Veterans Home Guard authorized.

May 24, H.M. the King broadcasted a message of encouragement to the peoples of the Empire.

May 26, Reorganization of British commands at home.

May 28, Dept. of Munitions and Supply announced the extension of Canada's facilities for the making of shells. Narvik captured by Allies.

May 29, Second R.C.A.F. contingent arrived in Britain. Dominion Parliament passed war appropriation of $700,000,000, and passed Air Force Act. Second B.E.F. landed in France and joined French on the Somme.

May 30, R.C.M.P. commenced to arrest members of the National Unity party. Border guards strengthened in the Windsor, Ont., area. R.A.F. brought down 77 German aeroplanes. Women and children ordered evacuated from entire southeast coast of England.

May 31, French repulsed heavy attempts of Germans to cross the Aisne and open the Marne plain from the northeast. Allied troops pursued Germans retreating eastward from Narvik.

June 1, Composition of units of Third and Fourth Canadian Divisions announced. German losses since May 10 computed at 500,000 men. Air raids on Lyons and Marseilles.

June 3, Admiralty announced the blocking of Zeebrugge and other channel ports. Between 250 and 300 German aeroplanes bombed Paris, 1,050 bombs dropped, 254 persons killed and 652 wounded, 17 German machines brought down.

June 5–June 25, "BATTLE OF FRANCE"—*June 5*, German advance on a 150-mile front along the Somme reported held by new "Weygand System". Reorganization of French

Cabinet involving resignation of M. Daladier. *June 6*, Germans advanced along the coast to Bresle River, but later were forced to retire towards Abbeville. On the east, Germans advanced six miles to the Aisne heights. *June 7*, Allied advance guards withdrew all along the Somme, but German units crossing the Aisne east of Soissons were repulsed. *June 8*, German pressure diminished on the lower Bresle but increased west of the Oise between Aumale and Noyon and east of the Oise Germans reached the heights south of Aisne. *June 9*, Germans attacked with 1,800,000 men from the Argonne Forest to the sea. Advanced units reached Rouen and moved on Gisors, 35 miles northwest of Paris. *June 10*, French Government left Paris for Tours. *June 11*, French fell back across the Marne. *June 12*, Germans crossed the Marne at Château Thierry with heavy fighting at Reims. Three main German thrusts formed semicircle about Paris. Heavy British reinforcements sent to French. Czecho-Slovak units joined Allies at the front. *June 13*, Premier Reynaud made final appeal to President Roosevelt for "clouds" of aircraft. Paris declared open city. Germans crossed Seine at Louviers, Les Andelys, and Vernon. *June 14*, Germans reached Paris. French retired to the Loire. Seat of French Government moved to Bordeaux. German frontal attack on Maginot Line repulsed. Britain sent all possible aid to France and expanded her war purchases. *June 16*, French withdrew from Maginot Line to strengthen field armies as Germans broke through in Champagne and reached Gray, 40 miles from Swiss frontier. In central France Germans reached the Yonne River. Britain offered to conclude a "solemn act of union" with France. The offer was refused. Resignation of Reynaud Government and appointment of Marshal Pètain as Premier and General Weygand as Minister of National Defence. *June 17*, French Government requested an "honourable peace" with Germany. Germans crossed the Loire and took Orleans. Heavy fighting in the Jura Mountains with 300,000 French Lower Maginot Line troops retreating to a line on the Lower Jura. British troops withdrawn from France. *June 18*, French armies, broken into four sections, continued to resist German advance. Meeting of Herr Hitler and Signor Mussolini at Munich to consider terms of peace with France. Germans reach Cherbourg and Rennes. Mr. Churchill appealed to the French people to continue fighting; in London, the French General de Gaulle appealed to all Frenchmen in England to rally to the support of Britain. *June 19*, German advances continued towards Nantes, the Cher River, and Lyon. Air raids at Bordeaux killed 150 civilians. *June 20*, French and German delegates met to discuss peace terms. *June 21*, Franco-German peace delegates met in Forest of Compiègne where Herr Hitler announced Germany's terms and arrangements for a Franco-Italian peace. French troops in Vosges repulsed enemy assaults. *June 23*, British Ministry of Information disclosed Franco-German peace terms as including complete French demobilization, German occupation of more than half of France, including all the Atlantic coast, surrender of all weapons (including the Navy and Air Force), and non-participation of French colonies in further military operations. United Kingdom extended formal recognition to French National Committee in London. Italian Government handed armistice terms to French delegates at a meeting near Rome. *June 25*, Italian peace terms announced. Occupation of a border belt in the Alps, demilitarization of French colonial outposts in North Africa, and full rights over Jibuti added to German terms. France ceased hostilities.

June 5, Canada declared 16 disruptive organizations to be illegal bodies. Italy proclaimed a 12-mile danger zone around her coastal waters.

June 6, United States Government made 50 aeroplanes available to the Allies. United States passport requirements extended to all North American and West Indian countries and colonies.

June 7, Immediate construction of 300 tanks in Canada announced. All Italian ships ordered off the high seas.

June 9, Naval encounter off Narvik, H.M. aircraft carrier *Glorious*

and other British vessels sunk. Norwegian resistance terminated as Allied forces withdrew from Narvik. King Haakon and the Norwegian Government moved to London.

June 10, Italy declared war on Britain and France. Canada declared that a state of war existed with Italy.

June 11, R.A.F. bombed Italian air bases in Libya and Eritrea. Italian air attacks on Malta. South African Air Force bombed objectives on Kenya-Ethiopian frontier. Sending of Canadian supplies to Greenland announced. H.R.H. Princess Juliana of the Netherlands arrived in Canada.

June 14, Spaniards occupied International Zone at Tangier.

June 15, H.M.S. *Calypso* reported sunk.

June 16, Russia occupied Lithuania and demanded rights of passage for her troops in Latvia and Estonia.

June 18, Prime Minister King announced the setting-up of a Department of National War Services and that Canadian troops were on duty in Newfoundland and Iceland. German air raids on east coast of England.

June 20, Formation of reserve companies to Veteran's Home Guard announced from Ottawa. Australian and New Zealand troops landed in England.

June 21, Dominion Parliament passed an Act authorizing the Government to organize the economic resources and man-power of the country. Severe German air raids on southern and eastern England. R.A.F. bombed Berlin. Reorganization of Roumanian Government on totalitarian lines. Further Canadian troops arrived in England. National Unity Party and Technocracy, Inc., declared illegal organizations, with 11 members of former party interned. Order in Council provided for state seizure of all property of organizations declared illegal.

June 24, Canada's War Budget presented in the House of Commons, levying new taxes estimated to realize $280,100,000 per annum. Widespread air raids over Britain, extending as far as Wales. Clashes reported on Russo-Roumanian border.

June 25, Japanese warships despatched to Haiphong, French Indo-China. Combined British naval, military, and air forces raided points on west coast of France.

June 26, French fleet left Gibraltar for Casablanca and Algiers.

June 27, Roumania agreed to Soviet demand for cession of Bessarabia and North Bukowina and control of certain ports, and moved troops to Hungarian border in anticipation of Hungarian attempt on Transylvania. Turkish fleet moved to Black Sea.

June 28, German air raids over demilitarized Channel Islands. Canadian destroyer *Fraser* reported sunk in collision, with 45 dead or missing. British Government formally recognized General Charles de Gaulle as "the leader of all free Frenchmen".

June 30, Russia requested permission of Turkey to participate in defence of Dardanelles.

July 1, First arrival of German prisoners of war in Canada announced. Germans occupied Channel Islands. Vice-Admiral Muselier appointed as commander of "all free French naval forces"

July 2, First evacuated British children arrived in Canada. Hungary continued to mobilize. Establishment of Wartime Industries Control Board announced at Ottawa. Extension of British blockade to French ports announced.

July 3, S. S. *Arandora Star*, loaded with German and Italian internees torpedoed off Iceland with loss of about 1,000 lives.

July 4, Britain took control of French fleet in British ports. Action off Oran, Algeria, resulted in loss of 1 French battleship, with 2 others damaged, 1 seaplane carrier, and 2 destroyers. New Roumanian Government announced its foreign policy as an "honest adaptation to the system created by the Rome-Berlin axis"

July 5, Compulsory military training in all Canadian universities announced.

July 6, France broke off diplomatic relations with the United Kingdom. Franco-Italo-German air forces bombed Gibraltar.

July 7, British authorities in Egypt announced demilitarization of the French East Mediterranean fleet. Herr Hitler and Count Ciano conferred at Berlin.

July 8, Canada instituted a separate Department of National Defence for Naval Affairs. Britain refused Japan's request to close the "Burma road" to China. Successful action by British against the French battleship *Richelieu* at Dakar, West Africa

APPENDIX II.

External Trade of Canada in the Calendar Year 1939.

Preliminary figures of the external trade of Canada for the calendar year 1939 show a grand total trade of $1,686,977,247, as compared with a figure of $1,526,135,487 in the preceding year, or an increase of $160,841,760. The increase in the imports was $73,604,180. Domestic exports increased by $87,342,187 while foreign exports decreased by $104,607. Figures by industrial groups are given in the following table. Statistics of external trade will be published in future on a calendar year basis, and the figures given in this Appendix are, therefore, not comparable with the fiscal year figures at pp. 526 and 534-535 of this volume.

Imports and Exports of Canada, Calendar Year 1939.

Industrial Group.	Value.
Imports.	$
Agricultural and vegetable products	127,835,146
Animals and animal products	32,757,666
Fibres, textiles, and textile products	100,866,078
Wood, wood products, and paper	33,703,149
Iron and its products	183,159,650
Non-ferrous metals and their products	42,108,374
Non-metallic minerals and their products	132,823,892
Chemicals and allied products	43,705,905
Miscellaneous commodities	54,095,674
Total Imports	**751,055,534**
Total Dutiable Imports	427,470,633
Total Free Imports	323,584,901
Duty Collected	103,282,895
Exports.	
Agricultural and vegetable products	220,118,056
Animals and animal products	131,803,706
Fibres, textiles, and textile products	14,427,669
Wood, wood products, and paper	242,541,043
Iron and its products	63,102,432
Non-ferrous metals and their products	182,890,103
Non-metallic minerals and their products	29,332,099
Chemicals and allied products	24,263,342
Miscellaneous commodities	16,447,654
Total Domestic Exports	924,926,104
Total Foreign Exports	10,995,609
Total Exports	**935,921,713**
Grand Total External Trade	**1,686,977,247**

APPENDIX III.

1.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Nineteenth General Election, Mar. 26, 1940.

NOTE.—This information, except the populations of constituencies and party affiliations, has been supplied by the Chief Electoral Officer, Ottawa. The figures of voters on the list and votes polled are subject to revision.

Province and Electoral District.	Population, 1931.	Voters on List.	Votes Polled.	Name of Member.	Party Affiliation.	P.O. Address.
	No.	No.	No.			
Prince Edward Island— (4 members).						
Kings	19,147	11,461	9,126	Grant, T. V.	Lib.	Montague, P.E.I.
Prince	31,500	19,481	14,418	Ralston, Hon. J. L.	Lib.	Montreal, Que.
Queens	37,391	24,538	39,192[1]	Douglas, J. L. MacMillan, C.	Lib. Lib.	Charlottetown, P.E.I.
Nova Scotia— (12 members).						
Antigonish-Guysborough	25,516	16,126	11,945	Kirk, J. R.	Lib.	Antigonish, N.S.
Cape Breton North-Victoria	31,615	19,125	13,428	MacLean, M.	Lib.	Sydney Mines, N.S.
Cape Breton South	65,198	42,036	32,808	Gillis, C. O.	C.C.F.	New Aberdeen, N.S.
Colchester-Hants	44,444	30,147	22,514	Purdy, G. T.	Lib.	Truro, N.S.
Cumberland	36,366	23,838	17,697	Black, P. C.	Cons.	Amherst, N.S.
Digby-Annapolis-Kings	50,859	35,250	24,775	Ilsley, Hon. J. L.	Lib.	Kentville, N.S.
Halifax	100,204	68,422	90,037[1]	Macdonald, W. C. Isnor, G. B.	Lib. Lib.	Halifax, N.S.
Inverness-Richmond	35,768	21,609	16,297	McGarry, M. E.	Lib.	Margaree Forks, N.S.
Pictou	39,018	25,311	19,059	McCulloch, H. B.	Lib.	New Glasgow, N.S.
Queens-Lunenburg	42,286	28,076	18,091	Kinley, J. J.	Lib.	Lunenburg, N.S.
Shelburne-Yarmouth-Clare	41,572	17,454	25,633	Pottier, V. J.	Lib.	Yarmouth, N.S.
New Brunswick— (10 members).						
Charlotte	21,337	14,899	10,571	Hill, B. M.	Lib.	St. Stephen, N.B.
Gloucester	41,914	22,622	15,992	Veniot, C. J.	Lib.	Bathurst, N.B.
Kent	23,478	13,636	8,707	Leger, A. D.	Lib.	Grandique, N.B.
Northumberland	34,124	19,581	13,100	O'Brien, J. L.	Cons.	Parish of Nelson, N.B.
Restigouche-Madawaska	54,386	28,731	17,623	Michaud, Hon. J. E.	Lib.	Edmundston, N.B.
Royal	31,026	20,786	15,322	Brooks, A. J.	Cons.	Sussex, N.B.
St. John-Albert	69,292	47,035	30,534	Hazen, D. K.	Cons.	Saint John, N.B.
Victoria-Carleton	35,703	21,236	15,423	Hatfield, H. H.	Cons.	Hartland, N.B.
Westmorland	57,506	36,600	26,918	Emmerson, H. R.	Lib.	Dorchester, N.B.
York-Sunbury	39,453	26,912	20,423	Hanson, Hon. R. B.	Cons.	Fredericton, N.B.
Quebec— (65 members).						
Argenteuil	19,379	12,485	9,461	McGibbon, J. W.	Lib.	Lachute, Que.
Beauce	51,614	25,920	15,735	Lacroix, M. E. E.	Lib.	St. Georges de Beauce, Que.
Beauharnois-Laprairie	42,104	22,596	14,901	Raymond, M.	Lib.	Outremont, Que.
Bellechasse	27,480	14,510	9,023	Picard, L. P.	Lib.	Quebec, Que.
Berthier-Maskinongé	35,545	20,902	13,561	Ferron, J. E.	Lib.	Louiseville, Que.
Bonaventure	36,184	20,509	15,287	Poirier, J. A.	Lib.	Bonaventure, Que.
Brome-Missisquoi	32,069	19,894	10,983	Hallé, M.	Lib.	East Farnham Twp., Que.
Chambly-Rouville	39,648	25,842	18,542	Dupuis, V.	Lib.	Longueuil, Que.
Champlain	37,526	20,913	14,838	Brunelle, H. E.	Lib.	Cap de la Madeleine, Que.
Chapleau	24,328	19,572	12,616	Authier, H.	Lib.	Amos, Que.
Charlevoix-Saguenay	55,594	29,646	20,472	Casgrain, Hon. P. F.	Lib.	Westmount, Que.
Châteauguay-Huntingdon	24,412	14,501	7,887	Black, D. E.	Lib.	St. Jean Chrysostome, Que.
Chicoutimi	55,724	31,748	22,551	Dubuc, J. E. A.	Lib.	Chicoutimi, Que.
Compton	31,858	18,199	9,695	Blanchette, J. A.	Lib.	Chartierville, Que.
Dorchester	27,156	13,904	10,370	Tremblay, L. D.	Lib.	St. Malachie, Que.

[1] Each voter could vote for two members.

1.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Nineteenth General Election, Mar. 26, 1940—continued.

Province and Electoral District.	Population, 1931.	Voters on List.	Votes Polled.	Name of Member.	Party Affiliation.	P.O. Address.
	No.	No.	No.			
Drummond-Arthabaska	53,338	34,192	23,172	Cloutier, A.	Lib.	Drummondville, Que.
Gaspe	47,160	26,429	21,120	Roy, J. S.	Ind.-Cons.	Gaspe Village, Que.
Hull	49,196	28,060	22,453	Fournier, A.	Lib.	Hull, Que.
Joliette-L'Assomption-Montcalm	56,444	32,997	17,734	Ferland, C. E.	Lib.	Joliette, Que.
Kamouraska	30,853	16,257	9,156	Lizotte, L. P.	Lib.	Riviere-du-Loup, Que.
Labelle	36,953	19,464	14,831	Lalonde, M.	Lib.	Mont Laurier, Que.
Lake St. John-Roberval	50,253	26,800	21,502	Sylvestre, A.	Lib.	Roberval, Que.
Laval-Two Mountains	26,224	15,261	11,057	Lacombe, J. R. L.	Lib.	Ste. Scholastique, Que.
Lévis	28,548	15,915	13,238	Bourget, M.	Lib.	Lauzon, Que.
Lotbinière	38,546	21,704	13,703	Lapointe, H.	Lib.	Quebec, Que.
Matapedia-Matane	39,977	22,288	15,870	Lapointe, A. J.	Lib.	Priceville, Que.
Mégantic-Frontenac	44,440	23,691	16,885	Lafontaine, J.	Lib.	Thetford Mines, Que.
Montmagny-L'Islet	30,869	17,283	10,308	Laflamme, J.L.K.	Lib.	Montmagny, Que.
Nicolet-Yamaska	39,219	21,451	15,077	Dubois, L.	Lib.	Gentilly-Nicolet, Que.
Pontiac	43,045	48,995	30,557	McDonald, W. R.	Lib.	Chapeau, Que.
Portneuf	37,383	21,163	14,988	Gauthier, P.	Lib.	Deschambault, Que.
Quebec East	58,145	38,222	30,580	Lapointe, Rt.Hon.E.	Lib.	Quebec, Que.
Quebec South	33,441	28,050	20,023	Power, Hon. C. G.	Lib.	Quebec, Que.
Quebec West and South	43,617	26,580	20,554	Parent, C.	Lib.	Quebec, Que.
Quebec-Montmorency	40,274	24,210	18,284	Lacroix, W.	Lib.	Quebec, Que.
Richelieu-Verchères	35,901	21,212	14,323	Cardin, Hon.P.J.A.	Lib.	Ste. Anne de Sorel, Que.
Richmond-Wolfe	36,568	20,672	12,961	Mullins, J. P.	Lib.	Bromptonville, Que.
Rimouski	40,208	24,487	15,823	d'Anjou, J. E. S. E.	Lib.	Rimouski, Que.
St. Hyacinthe-Bagot	42,820	28,183	15,964	Fontaine, T. A.	Lib.	St. Hyacinthe, Que.
St. Johns-Iberville-Napierville	32,259	20,441	16,206	Rhéaume, M.	Lib.	St. Jean, Que.
St. Maurice-Laflèche	45,450	27,081	19,466	Crête, J. A.	Lib.	Grand'Mère, Que.
Shefford	28,262	18,336	11,588	Leclerc, J. H.	Lib.	Granby, Que.
Sherbrooke	37,386	26,573	18,823	Gingues, M.	Lib.	Sherbrooke, Que.
Stanstead	25,118	15,774	10,048	Davidson, R. G.	Lib.	Katevale, Que.
Témiscouata	42,679	21,907	13,336	Pouliot, J. F.	Lib.	Rivière-du-Loup, Que.
Terrebonne	38,940	24,343	17,555	Bertrand, L.	Ind.-Lib.	Ste. Thérèse de Blainville, Que.
Three Rivers	44,223	28,887	18,824	Ryan, R.	Lib.	Three Rivers, Que.
Vaudreuil-Soulanges	21,114	12,650	9,159	Thauvette, J.	Lib.	Vaudreuil Village, Que.
Wright	27,107	19,802	10,820	Leduc, R.	Lib.	Maniwaki, Que.
Montreal Island—						
Cartier	61,280	40,655	21,261	Bercovitch, P.	Lib.	Montreal, Que.
Hochelaga	78,353	48,809	32,134	Eudes, R.	Lib.	Montreal, Que.
Jacques-Cartier	42,671	27,078	16,001	Marier, E.	Lib.	Pointe Claire, Que.
Laurier	68,784	45,757	26,158	Bertrand, E.	Lib.	Westmount, Que.
Maisonneuve-Rosemont	64,845	38,877	24,590	Fournier, S.	Lib.	Montreal, Que.
Mercier	66,651	39,447	24,239	Jean, J.	Lib.	Pointe-aux-Trembles, Que.
Mount Royal	65,012	53,832	35,610	Whitman, F. P.	Lib.	Montreal West, Que.
Outremont	46,136	33,980	22,574	Vien, T.	Lib.	Outremont, Que.
St. Ann	38,673	21,844	16,530	Healy, T. P.	Lib.	Montreal, Que.
St. Antoine-Westmount	50,009	38,570	24,286	Abbott, D. C.	Lib.	Westmount, Que.
St. Denis	76,930	49,793	30,175	Denis, A.	Lib.	Montreal, Que.
St. Henry	78,127	46,236	31,282	Bonnier, J. A.	Lib.	Montreal, Que.
St. James	89,374	64,823	35,587	Durocher, E.	Lib.	Montreal, Que.
St. Lawrence-St. George	40,213	29,416	18,545	Claxton, B.	Lib.	Montreal, Que.
St. Mary	77,472	49,874	30,289	Deslauriers, H.	Lib.	Montreal, Que.
Verdun	63,144	40,555	28,033	Côté, P. E.	Lib.	Verdun, Que.

1.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Nineteenth General Election, Mar. 26, 1940—continued.

Province and Electoral District.	Population, 1931.	Voters on List.	Votes Polled.	Name of Member.	Party Affiliation.	P.O. Address.
Ontario—(82 members).	No.	No.	No.			
Algoma East	27,925	16,460	10,362	Farquhar, T.	Lib.	Mindemoya, Ont.
Algoma West	35,618	22,454	16,577	Nixon, G. E.	Lib.	Sault Ste. Marie, Ont.
Brant	21,202	12,980	9,229	Wood, G. E.	Lib.	Cainsville, Ont.
Brantford City	32,274	21,605	15,762	Macdonald, R.	Lib.	Brantford, Ont.
Bruce	29,842	19,369	12,717	Tomlinson, W. R.	Lib.	Port Elgin, Ont.
Carleton	31,305	20,716	14,481	Hyndman, A. B.[1]	Cons.	Carp, Ont.
Cochrane	58,284	44,554	26,726	Bradette, J. A.	Lib.	Cochrane, Ont.
Dufferin-Simcoe	27,394	19,319	10,840	Rowe, Hon. W. E.	Cons.	Newton Robinson, Ont.
Durham	25,782	17,094	12,254	Rickard, W. F.	Lib.	Newcastle, Ont.
Elgin	43,436	30,219	20,902	Mills, W. H.	Lib.	Sparta, Ont.
Essex East	51,718	30,222	21,541	Martin, P.	Lib.	Riverside, Ont.
Essex South	31,970	20,066	13,196	Clark, S. M.	Lib.	Harrow, Ont.
Essex West	75,350	46,455	29,178	McLarty, Hon. N. A.	Lib.	Windsor, Ont.
Fort William	34,656	20,792	17,259	McIvor, D.	Lib.	Fort William, Ont.
Frontenac-Addington	26,455	17,083	12,272	Aylesworth, W. R.	Cons.	Cataraqui, Ont.
Glengarry	18,666	11,514	7,437	MacDiarmid, W. B.	Lib.	Maxville, Ont.
Grenville-Dundas	32,425	22,323	12,941	Casselman, A. C.	Cons.	Prescott, Ont.
Grey-Bruce	35,736	23,300	16,209	Harris, W. E.	Lib.	Markdale, Ont.
Grey North	35,407	23,359	15,818	Telford, W. P.	Lib.	Owen Sound, Ont.
Haldimand	21,428	13,900	10,300	Senn, M. C.	Cons.	Caledonia, Ont.
Halton	26,558	18,374	14,082	Cleaver, H.	Lib.	Burlington, Ont.
Hamilton East	66,771	43,705	30,110	Ross, T. H.	Lib.	Hamilton, Ont.
Hamilton West	56,305	36,014	25,323	Gibson, C. W. G.	Lib.	Hamilton, Ont.
Hastings-Peterborough	27,160	16,855	10,735	White, G. S.	Cons.	Madoc, Ont.
Hastings South	39,327	25,423	18,848	Stokes, G. H.	Cons.	Belleville, Ont.
Huron North	26,095	17,496	11,902	Cardiff, L. E.	Cons.	Brussels, Ont.
Huron-Perth	22,661	14,742	9,137	Golding, W. H.	Lib.	Seaforth, Ont.
Kenora-Rainy River	39,834	27,271	19,242	McKinnon, H. B.	Lib.	Kenora, Ont.
Kent	50,994	32,703	22,758	Desmond, C. E.	Cons.	Ridgetown, Ont.
Kingston City	26,180	19,381	17,297	Rogers, Hon. N. M.[2]	Lib.	Kingston, Ont.
Lambton-Kent	34,686	21,760	14,994	MacKenzie, H. A.	Lib-Prog.	Watford, Ont.
Lambton West	32,601	22,009	16,671	Gray, R. W.	Lib.	Sarnia, Ont.
Lanark	32,856	21,865	16,079	Soper, B. H.	Lib.	Smiths Falls, Ont.
Leeds	35,157	23,438	18,637	Fulford, G. H.	Lib.	Brockville, Ont.
Lincoln	54,199	37,685	28,955	Lockhart, N. J. M.	Cons.	St. Catharines, Ont.
London	59,821	43,951	32,388	Johnston, J. A.	Lib.	London, Ont.
Middlesex East	34,788	23,605	16,389	Ross, D. G.	Lib.	Lucan, Ont.
Middlesex West	23,632	15,191	9,923	McCubbin, R.	Lib.	Strathroy, Ont.
Muskoka-Ontario	35,513	23,407	15,197	Furniss, S. J.	Lib.	Brechin, Ont.
Nipissing	88,597	64,220	38,633	Hurtubise, J. R.	Lib.	Sudbury, Ont.
Norfolk	31,359	22,415	15,272	Taylor, W. H.	Lib.	Scotland, Ont.
Northumberland	30,727	19,717	15,555	Fraser, W. A.	Lib.	Trenton, Ont.
Ontario	45,139	29,111	20,320	Moore, W. H.	Lib.	Dunbarton, Ont.
Ottawa East	51,667	37,357	37,421	Pinard, J. A.	Lib.	Ottawa, Ont.
Ottawa West	78,656	61,322	47,751	McIlraith, G. J.	Lib.	Ottawa, Ont.
Oxford	47,825	32,665	19,397	Rennie, A. S.	Lib.	Tillsonburg, Ont.
Parry Sound	26,198	15,798	10,877	Slaght, A. G.	Lib.	Parry Sound, Ont.
Peel	28,156	20,149	16,234	Graydon, G.	Cons.	Brampton, Ont.
Perth	47,816	30,948	21,531	Sanderson, F. G.	Lib.	St. Marys, Ont.
Peterborough West	37,042	25,189	19,295	Fraser, G. K.	Cons.	Lakefield, Ont.
Port Arthur	35,313	25,928	19,213	Howe, Hon. C. D.	Lib.	Ottawa, Ont.
Prescott	24,596	14,134	10,350	Bertrand, E. O.	Lib.	L'Orignal, Ont.
Prince Edward-Lennox	28,697	18,074	15,568	Tustin, G. J.	Cons.	Napanee, Ont.
Renfrew North	27,230	16,360	11,523	Warren, R. W.	Lib.	Eganville, Ont.
Renfrew South	26,986	16,572	11,537	McCann, J. J.	Lib.	Renfrew, Ont.
Russell	26,899	15,079	9,102	Goulet, A.	Lib.	Bourget, Ont.
Simcoe East	36,572	21,575	15,592	McLean, G. A.	Lib.	Orillia, Ont.
Simcoe North	29,224	19,825	13,190	McCuaig, D. F.	Lib.	Barrie, Ont.
Stormont	32,524	23,010	16,556	Chevrier, L.	Lib.	Cornwall, Ont.
Timiskaming	37,594	32,631	32,639	Little, W.	Lib.	Kirkland Lake, Ont.
Victoria	31,841	21,784	16,001	McNevin, B.	Lib.	Omemee, Ont.
Waterloo North	53,777	36,654	22,712	Euler, Hon. W. D.[3]	Lib.	Waterloo, Ont.
Waterloo South	36,075	19,808	16,086	Homuth, K.	Cons.	Preston, Ont.
Welland	82,731	52,356	36,972	Damude, A. B.	Lib.	Fonthill, Ont.

[1] Dr. Hyndman died Apr. 9, 1940. [2] Hon. Mr. Rogers died June 10, 1940. [3] Hon. Mr. Euler was appointed to the Senate, May 9, 1940.

1.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Nineteenth General Election, Mar. 26, 1940—continued.

Province and Electoral District.	Population, 1931.	Voters on List.	Votes Polled.	Name of Member.	Party Affiliation.	P.O. Address.
	No.	No.	No.			
Ontario—concluded.						
Wellington North	27,677	16,251	10,052	Blair, J. K.	Lib.	Arthur, Ont.
Wellington South	35,856	23,642	17,427	Gladstone, R. W.	Lib.	Guelph, Ont.
Wentworth	66,943	45,447	31,110	Corman, E. H.	Lib.	Hamilton, Ont.
York East	66,194	51,544	34,422	McGregor, R. H.	Cons.	Toronto, Ont.
York North	43,323	29,117	19,644	Mulock, W. P.	Lib.	Armitage, Ont.
York South	60,350	49,012	33,873	Cockeram, A.	Cons.	Foresthill Village, Ont.
York West	55,881	39,995	28,962	Adamson, R.	Cons.	Toronto Twp., Ont.
City of Toronto—						
Broadview	57,523	38,653	25,261	Church, T. L.	Cons.	Toronto, Ont.
Danforth	41,824	29,243	21,000	Harris, J. H.	Cons.	Toronto, Ont.
Davenport	57,039	40,119	26,310	MacNicol, J. R.	Cons.	Toronto, Ont.
Eglinton	54,859	48,399	34,368	Noblitzell, F. G.	Lib.	Toronto, Ont.
Greenwood	57,296	37,302	25,775	Massey, D.	Cons.	Toronto, Ont.
High Park	52,971	37,165	26,386	Anderson, A. J.	Cons.	Toronto, Ont.
Parkdale	51,398	37,485	26,372	Bruce, H. A.	Cons.	Toronto, Ont.
Rosedale	53,081	36,072	24,232	Jackman, H. R.	Cons.	Toronto, Ont.
St. Paul's	62,283	49,279	30,900	Ross, D. G.	Cons.	Toronto, Ont.
Spadina	82,127	56,944	38,233	Factor, S.	Lib.	Toronto, Ont.
Trinity	60,806	39,113	28,062	Roebuck, A. W.	Lib.	Toronto, Ont.
Manitoba—						
(17 members).						
Brandon	40,483	23,083	17,798	Matthews, J. E.	Lib.	Brandon, Man.
Churchill	32,133	18,377	13,485	Crerar, Hon. T. A.	Lib.	Ottawa, Ont.
Dauphin	37,703	22,554	17,218	Ward, W. J.	Lib.	Dauphin, Man.
Lisgar	30,547	15,681	9,560	Winkler, H. W.	Lib.	Morden, Man.
Macdonald	34,948	20,283	14,977	Weir, W. G.	Lib.-Prog.	Carman, Man.
Marquette	37,468	21,312	16,993	Glen, J. A.	Lib.	Russell, Man.
Neepawa	28,346	17,165	13,921	MacKenzie, F. D.	Lib.	Neepawa, Man.
Portage la Prairie	25,569	15,764	12,413	Leader, H.	Lib.	Portage la Prairie, Man.
Provencher	32,613	18,101	12,348	Jutras, R.	Lib.	Letellier, Man.
St. Boniface	31,289	19,790	15,505	Howden, J. P.	Lib.	St. Boniface, Man.
Selkirk	52,222	29,263	22,028	Thorson, J. T.	Lib.	Winnipeg, Man.
Souris	25,094	13,955	11,269	Ross, J. A.	Cons.	Melita, Man.
Springfield	42,350	24,017	17,940	Turner, J. M.	Lib.	Winnipeg, Man.
Winnipeg North	74,762	42,959	32,525	Booth, C. S.	Lib.	Winnipeg, Man.
Winnipeg North Centre	59,004	40,754	27,720	Woodsworth, J. S.	C.C.F.	Winnipeg, Man.
Winnipeg South	51,518	34,971	28,180	Mutch, L. A.	Lib.	Winnipeg, Man.
Winnipeg South Centre	64,090	47,358	36,277	Maybank, R.	Lib.	Fort Garry, Man.
Saskatchewan—						
(21 members).						
Assiniboia	41,036	18,624	15,245	Tripp, J. P.	Lib.	Oxbow, Sask.
Humboldt	41,172	21,770	16,447	Fleming, H. R.	Lib.	Humboldt, Sask.
Kindersley	39,632	16,773	13,014	Henderson, C. A.	Lib.	Dodsland, Sask.
Lake Centre	42,532	20,226	16,517	Diefenbaker, J. G.	Cons.	Prince Albert, Sask.
Mackenzie	46,171	28,117	20,410	Nicholson, A. M.	C.C.F.	Hudson Bay Jct., Sask.
Maple Creek	42,428	19,169	13,540	Evans, C. R.	Lib.	Piapot, Sask.
Melfort	40,687	28,063	21,220	Wright, P. E.	C.C.F.	Tisdale, Sask.
Melville	48,910	25,005	21,159	Gardiner, Hon. J. G.	Lib.	Lemberg, Sask.
Moose Jaw	43,668	23,104	17,307	Ross, J. G.	Lib.	Moose Jaw, Sask.
North Battleford	41,513	25,667	18,520	Nielsen, Mrs. D. W.	Unity	Norbury, Sask.
Prince Albert	39,869	23,038	18,229	King, Rt. Hon. W. L. M.	Lib.	Ottawa, Ont.
Qu'Appelle	38,015	19,520	15,107	Perley, E. E.	Cons.	Wolseley, Sask.

1.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Nineteenth General Election, Mar. 26, 1940—concluded.

Province and Electoral District.	Population, 1931.	Voters on List.	Votes Polled.	Name of Member.	Party Affiliation.	P.O. Address.
Saskatchewan—concluded.	No.	No.	No.			
Regina City	53,209	36,445	30,788	McNiven, D. A.	Lib.	Regina, Sask.
Rosetown-Biggar	40,512	18,897	15,061	Coldwell, M. J. W.	C.C.F.	Regina, Sask.
Rosthern	43,885	19,326	13,132	Tucker, W. A.	Lib.	Rosthern, Sask.
Saskatoon City	47,362	28,968	22,661	Brown, W. G.[1]	U.R.	Saskatoon, Sask.
Swift Current	46,447	21,149	15,601	Graham, R. I.	Lib.	Swift Current, Sask.
The Battlefords	45,064	23,691	17,268	Gregory, J. A.	Lib.	North Battleford, Sask.
Weyburn	44,710	19,569	16,400	Douglas, T. C.	C.C.F.	Weyburn, Sask.
Wood Mountain	44,558	19,615	15,451	Donnelly, T. F.	Lib.	Kincaid, Sask.
Yorkton	50,405	25,717	20,366	Castleden, G. H.	C.C.F.	Melfort, Sask.
Alberta—(17 members).						
Acadia	37,423	14,706	8,402	Quelch, V.	N.D.	Morrin, Alta.
Athabaska	39,102	23,456	12,838	Dechene, J. M.	Lib.	Bonnyville, Alta.
Battle River	41,881	21,976	12,372	Fair, R.	N.D.	Paradise Valley, Alta.
Bow River	44,491	23,597	16,026	Johnston, C. E.	N.D.	Three Hills, Alta.
Calgary East	44,745	30,515	21,487	Ross, G. H.	Lib.	Calgary, Alta.
Calgary West	41,418	27,074	19,994	Edwards, M. J.	Lib.	Calgary, Alta.
Camrose	42,717	22,505	12,989	Marshall, J. A.	N.D.	Bashaw, Alta.
Edmonton East	46,086	30,816	20,701	Casselman, F. C.	Lib.	Edmonton, Alta.
Edmonton West	39,712	30,688	21,873	MacKinnon, Hon. J. A.	Lib.	Edmonton, Alta.
Jasper-Edson	47,394	29,962	16,751	Kuhl, W. F.	N.D.	Sprucegrove, Alta.
Lethbridge	44,708	21,505	15,716	Blackmore, J. H.	N.D.	Cardston, Alta.
Macleod	44,325	23,497	16,895	Hansell, E. G.	N.D.	Vulcan, Alta.
Medicine Hat	40,986	21,586	15,134	Gershaw, F. W.	Lib.	Medicine Hat, Alta.
Peace River	43,761	25,380	15,742	Sissons, J. H.	Lib.	Grand Prairie, Alta.
Red Deer	39,758	26,152	15,306	Shaw, F. D.	N.D.	James River, Alta.
Vegreville	47,168	23,209	14,224	Hlynka, A.	N.D.	Edmonton, Alta.
Wetaskiwin	45,330	26,737	15,774	Jaques, N.	N.D.	Mirror, Alta.
British Columbia—(16 members).						
Cariboo	26,094	16,668	13,591	Turgeon, J. G.	Lib.	Vancouver, B.C.
Comox-Alberni	28,379	19,477	14,304	Neill, A. W.	Ind.	Alberni, B.C.
Fraser Valley	31,377	20,163	15,944	Cruickshank, G. A.	Lib.	Clayburn, B.C.
Kamloops	29,249	16,211	13,592	O'Neill, T. J.	Lib.	Kamloops, B.C.
Kootenay East	25,662	14,314	12,531	MacKinnon, G. E. L.	Cons.	Cranbrook, B.C.
Kootenay West	32,556	21,362	17,428	Esling, W. K.	Cons.	Rossland, B.C.
Nanaimo	45,767	32,402	25,513	Chambers, A.	Lib.	Saanich, B.C.
New Westminster	59,170	42,709	34,936	Reid, T.	Lib.	Newton, B.C.
Skeena	30,391	11,860	9,567	Hanson, O.	Lib.	Smithers, B.C.
Vancouver-Burrard	59,583	43,427	33,257	McGeer, G. G.	Lib.	Vancouver, B.C.
Vancouver Centre	65,683	43,887	31,748	Mackenzie, Hon. I. A.	Lib.	Vancouver, B.C.
Vancouver East	58,921	39,841	29,295	MacInnis, A.	C.C.F.	Vancouver, B.C.
Vancouver North	48,906	36,272	27,906	Sinclair, J.	Lib.	Vancouver, B.C.
Vancouver South	63,122	49,102	38,343	Green, H. C.	Cons.	Vancouver, B.C.
Victoria	48,599	35,360	26,750	Mayhew, R. W.	Lib.	Victoria, B.C.
Yale	40,804	28,313	22,940	Stirling, Hon. G.	Cons.	Kelowna, B.C.
Yukon Territory—(1 member).						
Yukon	4,230	1,976	1,720	Black, G.	Cons.	Dawson, Y.T.

[1] Rev. Mr. Brown died Apr. 1, 1940.

The statistics of Table 2 are supplementary to those of Table 9, p. 57 of this volume, where similar information is given for the general elections of 1925, 1926, 1930, and 1935.

2.—Voters on List and Votes Polled at the General Elections, 1940.[1]

Province.	Voters on the List.	Votes Polled.
	No.	No.
Prince Edward Island[2]	55,480	62,736
Nova Scotia.[2]	327,394	292,284
New Brunswick	252,038	174,613
Quebec	1,800,047	1,189,204
Ontario	2,336,122	1,646,384
Manitoba	425,387	320,157
Saskatchewan	482,453	373,443
Alberta	423,361	272,224
British Columbia	471,368	367,645
Yukon	1,976	1,720
Totals	**6,575,626**	**4,700,410**

[1] All figures are subject to revision. [2] Each voter in the double constituencies of Queens, P.E.I., and Halifax, N.S., had two votes.

3.—The Dominion Cabinet, as Reorganized July 8, 1940.

Prime Minister, President of the Privy Council, Secretary of State for External Affairs: Rt. Hon. W. L. Mackenzie King.
Minister Without Portfolio: Hon. Raoul Dandurand.
Minister of Justice and Attorney General of Canada: Rt. Hon. Ernest Lapointe.
Minister of Public Works and Transport: Hon. P. J. A. Cardin.
Minister of National Defence: Hon. J. L. Ralston.
Associate Minister of National Defence: Hon. C. G. Power.
Minister of Pensions and National Health: Hon. Ian Mackenzie.
Minister of National Defence for Air: Hon. C. G. Power.
Minister of Finance: Hon. J. L. Ilsley.
Minister of Fisheries: Hon. J. E. Michaud.
Minister of Munitions and Supply: Hon. C. D. Howe.
Minister of Agriculture and Minister of National War Services: Hon. J. G. Gardiner.
Minister of Labour: Hon. N. A. McLarty.
Minister of Trade and Commerce: Hon. J. A. MacKinnon.
Minister of Mines and Resources: Hon. T. A. Crerar.
Secretary of State: Hon. P. F. Casgrain.
Minister of National Revenue: Hon. C. W. Gibson.
Minister of National Defence for Naval Affairs: Hon. A. L. Macdonald.
Postmaster General: Hon. W. P. Mulock.

APPENDIX IV.

Survey of Production, 1937-38.

Despite a recession of 7 p.c. in wholesale prices, the decline in the net value of production during 1938 from the preceding year was limited to 0·6 p.c. Advances in agriculture, fisheries, and electric power nearly counterbalanced declines in manufacturing, forestry, and trapping. Mining, construction, and custom and repair were well maintained in 1938.

In the provincial analysis gains were shown in only three of the nine areas, notably in Saskatchewan and Prince Edward Island, where agriculture predominates.

1.—Gross and Net Values of Production in Canada, by Industries, 1937[1] and 1938.

Division of Industry.	1937.[1]		1938.		Percentage Change in Net Value 1938 from 1937.	Percentage of Net Value to Total Net Production, 1938.
	Gross.[2]	Net.[2]	Gross.[2]	Net.[2]		
	$	$	$	$	p.c.	p.c.
Agriculture	1,039,492,000	678,953,000	1,062,645,000	742,020,080	+ 9·3	24·94
Forestry	494,344,383	284,492,827	425,019,266	244,564,571	−14·0	8·22
Fisheries	51,155,513	34,439,481	53,182,700	35,593,009	+ 3·3	1·20
Trapping	10,477,096	10,477,096	6,572,824	6,572,824	−37·3	0·22
Mining	662,630,976[3]	372,796,027	653,781,836[3]	374,415,674	+ 0·4	12·59
Electric power	143,546,643	140,963,914	144,331,627	142,320,725	+ 1·0	4·78
Totals, Primary Production	2,401,646,611	1,522,122,345	2,345,533,253	1,545,486,803	+ 1·5	51·95
Construction	351,874,114	176,029,679	353,223,285	176,661,077	+ 0·4	5·94
Custom and repair[4]	145,511,833	98,484,982	146,399,500	99,086,100	+ 0·6	3·33
Manufactures[5]	3,625,459,500	1,508,924,867	3,337,681,366	1,428,286,778	− 5·3	48·01
Totals, Secondary Production[6]	4,122,845,447	1,783,439,528	3,837,304,151	1,704,033,955	− 4·5	57·28
Grand Totals	**5,693,610,700**	**2,992,336,288**	**5,431,756,699**	**2,974,673,454**	**− 0·6**	**100·00**

[1] Revised figures are given here for 1937 which were not available when Chapter VII—Survey of Production—went to press. [2] See Chapter VII for explanation of gross and net value of production. [3] Gross value comprises industrial mineral production shown in Chapter XII, Table 1, plus the value of ores, etc., of the smelting industry. [4] Revised upward owing to the inclusion of certain groups formerly classified as manufacturing and service. [5] The item "Manufactures" includes dairy factories, sawmills, pulp and paper mills, etc., which are also included in other headings above. This duplication, amounting in 1937 to a gross of $830,881,358 and a net of $313,225,585, and in 1938 to a gross of $751,080,705 and a net of $274,847,304, is eliminated from the grand total. [6] Secondary production includes the above-mentioned duplication. The percentage of net manufactures, less duplication, to the total net production in 1938 was 38·8.

2.—Gross and Net Values of Production in Canada, by Provinces, 1937[1] and 1938.

Province.	1937.[1]				1938.			
	Gross Value.	Net Value.			Gross Value.	Net Value.		
		Amount.	Per-centage.	Per Capita.[2]		Amount.	Per-centage.	Per Capita.[2]
	$	$		$	$	$		$
P.E.I.	18,480,008	9,429,799	0·32	101·40	20,458,390	11,832,958	0·40	125·88
N.S.	182,212,155	102,891,083	3·44	189·84	168,300,064	99,158,589	3·33	180·95
N.B.	136,595,211	71,136,855	2·38	161·67	126,852,056	70,047,728	2·35	157·41
Que.	1,507,712,591	764,517,559	25·55	243·87	1,450,142,356	764,189,933	25·69	240·92
Ont.	2,595,646,912	1,329,953,078	44·44	358·38	2,429,302,024	1,292,574,329	43·46	346·44
Man.	303,844,094	176,680,688	5·90	246·42	263,484,363	145,101,719	4·88	201·53
Sask.	178,407,583	75,836,421	2·53	80·76	231,430,092	136,980,819	4·60	145·57
Alta.	311,106,844	206,987,784	6·92	266·05	308,419,193	208,382,832	7·01	266·13
B.C. and Yukon-N.W.T.	459,605,302	254,903,021	8·52	333·21	433,368,161	246,404,547	8·28	317·94
Totals	**5,693,610,700**	**2,992,336,288**	**100·00**	**269·09**	**5,431,756,699**	**2,974,673,454**	**100·00**	**265·38**

[1] Revised since the compilation of the figures shown in Table 2, Chapter VII. [2] Based on estimates of population given on p. 103.

APPENDIX V.

The Report of The Royal Commission on Dominion-Provincial Relations.

The Royal Commission on Dominion-Provincial Relations was appointed on Aug. 14, 1937, to re-examine the economic and financial basis of Confederation and the distribution of legislative powers in the light of the economic and social developments of the past seventy years. The Commissioners were instructed more particularly to inquire into the constitutional allocation of revenue sources in relation to the governmental burdens borne by the Dominion and Provincial Governments; to investigate the effects of taxation in relation to constitutional limitations and financial and economic conditions; to examine generally public expenditures and public debts, in order to determine whether the present division of the burdens of government is equitable; and to investigate the question of Dominion subsidies and grants to Provincial Governments. Sittings of inquiry were opened at Winnipeg on Nov. 29, 1937.

The Commissioners appointed were: the Hon. Newton W. Rowell, LL.D., Chief Justice of the Supreme Court of Ontario (Chairman); the Hon. Thibaudeau Rinfret, Justice of the Supreme Court of Canada; John W. Dafoe, LL.D., Winnipeg, Man.; Robert Alexander MacKay, Ph.D., Professor of Government, Dalhousie University, Halifax, N.S.; and Henry Falls Angus, M.A., B.C.L., Professor of Economics, University of British Columbia, Vancouver, B.C. Owing to ill health, the Hon. Thibaudeau Rinfret tendered his resignation as Member of the Commission on Nov. 18, 1937, and Joseph Sirois, LL.D. of the City of Quebec, Notary Public, Professor of Constitutional and Administrative Law at Laval University, was appointed in his place. On Nov. 22, 1938, Dr. Joseph Sirois was appointed Chairman, vice the Hon. Newton Wesley Rowell, LL.D., resigned.

In framing the recommendations it was the aim of the Commission to make proposals which, if implemented, would place jurisdiction over social and governmental services in the hands of the governments most likely to design and administer them, not merely with the greatest economical and technical efficiency, but with regard for the social, cultural, and religious outlook of the various regions of Canada. The financial proposals, which are basic to the other recommendations made, are designed, in the view of the Commission, to enable each province in Canada to have sufficient revenue at its command under all circumstances—in years of adversity as in years of prosperity—to carry out the important functions entrusted to it in other sections of the Report. They are framed to produce this result and at the same time to leave the fiscal powers of the Dominion as wide in fact as they have always been in law, so that the central government may be free to direct the wealth of the nation as the national interest may require.

In the first place the Commission points to three functions of government that can be more equitably and efficiently performed on a national than on a regional or provincial basis.

(1) **The Maintenance of Those Unemployed who are Employable and of their Dependants.**—In this connection the Commission merely confirms conclusions that had been reached by earlier Commissions (such as the National Employment Commission of 1936-38). But so firmly is the Commission convinced that this should be a Federal function that, even if its main recommendations should not be implemented, it has proceeded on the assumption that this function should be a Dominion affair.

(2) **Assistance to Primary Industries (e.g., Agriculture).**—In this regard the Commission states that when relief is on a small scale, responsibility can be borne without difficulty by a province. But in the event of widespread disaster with which the province is unable to cope without assistance from the Dominion, or in the event that the Dominion has already established effective control of the industry, the Commission recommends that the Dominion should assume direct administration and financial responsibility rather than render indirect assistance in the form of advances to the provinces so affected.

(3) **The Payment of Non-Contributory Old Age Pensions.**—In this matter it is pointed out that the Dominion Government is already paying as high a proportion of their cost as it can reasonably be expected to pay without assuming control of the administration. The Commission is convinced that it is more satisfactory for the provinces to continue to administer non-contributory old age pensions and, therefore, does not recommend any further financial help to the provinces in this connection. If non-contributory old age pensions were to be superseded or supplemented by a contributory system, the Commission feels that the whole should, for various reasons, be under the control of the Dominion.

The Financial Proposals of the Report.

The financial proposals, made by the Commission on the basis of a comprehensive study of the comparative statistics of all governments (see Appendix VI), are designed to enable the Dominion and Provincial Governments to carry out their responsibilities under the new distribution of powers recommended. They thus form the basis of a structure that will, in the opinion of the Commission, characterize a healthy Federal system in Canada in terms of the economic life of 1939. The broad question of financial adjustments is dealt with under the following heads.

(A) **Provincial Debts.**—This is an important financial burden of which the Provincial Governments can be relieved without any sacrifice of autonomy. The burden taken up by the Dominion, if it were to assume the dead-weight costs of the provincial debt services, would, it is held, be less than the burdens of which the provinces were relieved because, as maturities occurred, the debts could be refunded more advantageously by the Dominion than by the provinces. The Commission has, therefore, recommended that the Dominion should assume all provincial debts (both direct and guaranteed) and that each province should pay over to the Dominion an annual sum equal to the interest that it now receives from its investments. The reason for this proviso is that it would not be expedient for the Dominion to take over liabilities for a debt that represents a self-liquidating investment retained by the province. Conditions concerning future provincial borrowers are laid down in detail in the Report.

In the case of the Province of Quebec the recommendation with regard to debt service carries an important modification. The per capita debt of this Province is low in comparison with that of other provinces, and is an unusually low fraction of the combined municipal and provincial debt of the province, due to the policy of imposing on municipalities onerous functions that are performed elsewhere by Provincial Governments. The Commission, therefore, recommends that the Dominion take over the larger of either the provincial net debt service or 40 p.c. of the combined provincial and municipal net debt service.

(B) **Provincial Subsidies.**—If, in accordance with the above recommendation, the provinces are relieved of the burden of their debt, it is felt that they should surrender to the Dominion the cash subsidies they now receive from the

Dominion. Prince Edward Island alone would give up subsidies more than equivalent to the cost of its debt, but this apparent loss is made up in other ways. It is held that the abolition of the provincial subsidies would be in itself no inconsiderable reform, for their history is long and tortuous. The subsidies have been based on no clear principles and it has been impossible to say whether or not different provinces have received equal treatment in the past.

(C) **Adjustments in the Field of Taxation.**—In order to compensate the Dominion for the very onerous burdens it would thus undertake, the Report of the Commission provides that the Dominion take over, absolutely, certain sources of revenue that the provinces have hitherto tapped, in order to enable it to carry the new burdens. There could, of course, be no question of increasing the legal taxing powers of the Dominion, since these are already unlimited, but the provinces, in return for the benefits they would receive, should, it is felt, be prepared to renounce some of the taxes that they are entitled to raise at present. On the other hand, the Dominion should be able and willing to refrain from competing with the provinces in respect of sources of revenue finally left to them, and should leave the provinces free to collect such revenues in whatever way appears to them most efficient, even if the method of indirect taxation should be involved. There are several taxes of such a nature that, if they were under unified control, would produce a revenue as great as that obtained at present with less hardship to the taxpayer, and a reorganization of these taxes is possible only if they are under unified control. Such a reorganization could remove many hindrances that in the recent past have been detrimental to the expansion of the national income, which expands as a result of greater efficiency in taxation. The following three taxes are specifically mentioned:

(i) *Taxes on Personal Incomes.*—Not all provinces impose these taxes. It is pointed out that those that get most revenue from them are often taxing incomes that other provinces think they should have a share in taxing, because they are, in part at least, earned therein even though received in the provinces where the individuals live or in which large corporations have their head offices. The Report states that the general equity of the whole Canadian tax system requires that the tax on personal incomes, which is one of the very few taxes capable of any desired graduation, should be used to supplement other taxes and should be uniform throughout Canada.

(ii) *Corporation Taxes.*—The Commission recommends that the provinces should forego those taxes imposed on corporations that individuals or partnerships carrying on the same business as such corporations would not be required to pay and taxes on those businesses that only corporations engage in. The Commission states that provincial corporation taxes have been particularly vexatious to the taxpayer and very detrimental to the expansion of the national income. It is admitted, however, that to ask the provinces to give up the entire revenue they now derive from taxing corporations would not be equitable inasmuch as the Dominion would receive taxes on income that, in part, represented the depletion of irreplaceable natural wealth. So far as a separation can be made, such revenue should be used for developmental work, which will compensate for the resources of a province that have been used. It is, therefore, recommended that the Dominion should pay over to the province concerned 10 p.c. of the corporate income derived from the exploitation of mineral wealth.

Bona fide licence fees are not included in such taxes as fall under (i) and (ii). Power to impose these would remain with the provinces.

(iii) *Succession Duties.*—In this regard it is recommended that the provinces should forego the collection of various forms of succession duty. In this particular the departure is more marked than in the case of income taxes, since succession duties have not hitherto been used by the Dominion as sources of revenue, but they are taxes to which the Dominion might at any time be compelled to resort. The Report states that the use made of them by the provinces has given rise to bitter complaints because the provinces have not made equitable arrangements with one another so as to tax each item in an estate in one province only. It is held that the differences in rates between provinces and the danger of double taxation seriously distort investment in Canada and the potential competition between provinces desirous of attracting wealthy residents has made it impossible to use these delicate instruments of taxation as a means for giving effect to social policies.

(D) **The National Adjustment Grant.**—The Commission realizes that after the provinces had been relieved of the cost of unemployment relief and of the dead-weight burden of their debt and had, on the other hand, given up their right to impose personal income taxes, corporation taxes, and succession duties, they would find themselves with far less variable expenditures than in the past and also with less variable revenues, and the size of the probable surplus or deficit that would result has been worked out in each case. Naturally if a province were left with a prospective annual deficit, it would be unable to provide for the reasonable needs of its citizens on a par with standards in other provinces unless it could increase its revenue or reduce its expenditures. The Commission is not concerned so much with the services that each province is at present providing as with the average Canadian standard of services that the province must be put in a position to finance. In working out data for each province adjustments have been made for the cost of developmental services appropriate to each province and for the weight of taxation in each case. As a result, the Commission has made a recommendation as to the amount each individual province should receive annually from the Dominion to enable it to provide normal Canadian services on a Canadian standard with no more than normal Canadian taxation. Peculiar difficulties were encountered in the case of Quebec because of the extent to which educational and social services in the Province are provided, not by taxation but by the Church; such difficulties are met in as fair a way as possible. The Commission recommends that each province found to be in need of such a payment should receive an annual National Adjustment Grant from the Dominion of Canada. This grant as originally fixed would be irreducible, but such grants should, it is felt, be re-appraised every five years. Since it would be undesirable to fix the annual grant in perpetuity on the basis of conditions that are transitory, or to fail to provide for serious emergencies, special provisions should be made. The Commission recommends the establishment of a small permanent commission (which may be called the Finance Commission), assisted by an adequate technical staff, to advise upon all requests for new or increased grants and to re-appraise the system of grants every five years. The Commission believes that these provisions will permit of the necessary elasticity in the financial relations between the provinces and the Dominion that has been lacking under the subsidy system.

(E) **Municipal Finance.**—The Commission was made fully aware of the seriousness of the problem of municipal finance and of the burdens hitherto placed upon real estate throughout Canada. The position, however, is peculiar inasmuch as municipalities are definitely the creatures of the provinces in which they are situated, and their financial powers are such as the provinces choose to confer on them. The Commission has not felt it to be within its province to make specific recommendations in regard to the various municipalities, but the financial plan that has been described has taken municipal expenditures and taxation into account as part of the provincial picture and the recommendations made in connection with the provinces will, it is felt, have very important indirect effects on municipal finance. They will relieve the municipalities of their share in providing relief for unemployed and their dependants, and will put every Provincial Government in a better position to extend such aid as it thinks fit to its municipalities, either by relieving them of the costs of services they now perform or by financial contributions to such costs. In each province the way would be cleared for dealing (if the province so desired) with municipal debts generally in the same way that is recommended for provincial debts. This would facilitate much needed reforms, particularly in the great metropolitan areas. It is emphasized, however, that the future of the municipalities lies in the hands of the provinces.

Other Matters Considered by the Commissioners.

Certain considerations not so closely related to the main financial questions but very important to the well-being of the nation are also dealt with in the Report of the Commission. These are:

(A) **Marketing Legislation.**—It has been pointed out that in the past great difficulty has been experienced in framing Dominion and provincial legislation, even when the wishes of the Dominion and the provinces were identical. The Commission recommends that the Dominion and the provinces should have concurrent legislative powers to deal with the marketing of a named list of natural products, to which additions may be made from time to time by common consent.

The principle of such delegation of power should form part of provincial and Dominion relations, and it is recommended that this should be quite general and that the Dominion should be able to delegate any of its legislative powers to the provinces and that the provinces should also be able to delegate any of their legislative powers to the Dominion. This would provide a convenient means of dealing with specific questions as they may arise without placing any limitation on the power of either the Dominion or the provinces.

(B) **The Transportation Problem.**—This is recognized as a problem that cannot be solved without close collaboration between the Dominion and the provinces. The Commission confines itself to discussing the issues that will have to be faced before the problem of jurisdiction is clarified. Great advantage might be derived from a Transport Planning Commission, which would be concerned with planning transportation developments in a broad way and with facilitating co-operation between the Dominion and the provinces.

(C) **Machinery to Facilitate Closer Co-operation between the Dominion and the Provinces.**—While new governmental machinery should be kept at a minimum, it is considered that special provision should be made to facilitate co-operation between the Dominion and the provinces. In the early days, when the

functions of government were relatively few and administrative organization relatively simple, it may have been possible for Dominion and Provincial Governments to operate independently of each other. But, with the great expansion of governmental functions and the growing complexity of administration, it is no longer possible to do this without serious loss of efficiency and economy. Co-operation between the autonomous governments of the Federal system is to-day imperative, and to facilitate this the Commission recommends that Dominion-Provincial Conferences, which have hitherto met at infrequent intervals, should be regularized and provision made for frequent meetings, say once a year. It urges further that the Conferences should be provided with an adequate and permanent secretariat for the purpose of serving the Conference directly and to facilitate co-operation between the Dominion and the provinces in general.

(D) **The Civil Service and the Re-Allocation of Functions.**—If the Report is implemented, there will be many interests that will be affected by substantial re-allocation of the functions of government. Members of Dominion and Provincial Civil Services will have their present positions and future prospects jeopardized unless suitable action is taken to safeguard them. The Commission feels that every effort should be made to find suitable positions for efficient servants of the State who may be deprived of their present employment by the changes recommended. In most cases the same or similar functions that have been performed will be continued by one or other unit of government and the policy outlined, by protecting the legitimate interests of efficient Civil Servants, will act in the interest of government by retaining the services of able and experienced men and women. This recommendation is particularly important when questions of language are involved, and the Commission states that the performance of functions of the Dominion Government in Quebec should always be in the hands of officials with knowledge both of the French language and of local conditions and customs in the Province.

(F) **Education.**—The Royal Commission on Dominion-Provincial Relations recommended that the field of education should be left with the provinces as defined under the British North America Act. The Commission pointed out that the fiscal needs of all provinces under the recommendations made had been framed to include within those needs provision for the education of the young and the placing of every province in a position to discharge its responsibilities for education on a suitable scale within the means of the people of Canada as it chose to do so. It is stated in the Report that a generous provision for the education of the children of the nation should not depend on "any arbitrary constitutional provision alone but on the persistent conviction of the mass of the people that they must be ready to deny themselves some of the good things of life in order to deal fairly by their children". On these grounds it was not felt to be wise or appropriate for the Dominion to make grants to the provinces specifically ear-marked for the purposes of general education.

Grants to universities, made contingent on the maintenance over a period of years of provincial grants to the same institutions and on the preservation of certain high academic standards, were favoured. Small Dominion annual grants divided among the provinces in rough proportion to their populations might, it is thought, play a peculiarly useful part in the national life. Such funds should preferably be spent at the discretion of the universities to provide scholarships and bursaries, which would bring opportunity within the reach of poor but able students. The Commission commends the educational work that the Dominion Government has

done through the co-operation of the National Research Council and the Canadian universities in the organization of scientific research in the physical sciences.

(G) **Social Services.**—Under this heading, the Royal Commission recommends that research work analogous to what is being done by the Dominion Bureau of Statistics in the economic field might be organized through a Social Science Research Council that would co-ordinate and in some degree direct the research work in these sciences now being done in Canadian universities and elsewhere. It is pointed out that there is a real need for some such institution and it could serve a most useful purpose in analysing the social problems with which current legislation is designed to deal.

It is also recommended that, with the exception of unemployment relief, existing social services remain with the provinces, but if contributory old age pensions should be introduced they should, for various reasons, be on a Dominion-wide scale and under the control of the Dominion Government. To avoid rigidity in the matter of jurisdiction, it would seem desirable to provide for concurrent jurisdiction between the Dominion and the Provinces in other forms of social insurance.

Conclusion.

The aim of the Commission has been to adjust the Dominion-Provincial relations in terms of the economic life of 1939 along much the same lines as the British North America Act established them in terms of the economic life of 1867.

The Dominion assumed the provincial debts in 1867 as the Commission recommends it to do to-day. In 1867 the Dominion was expected to exercise the chief taxing powers of that time (customs and excise), and under the Commission's proposals it is expected to exercise other chief taxing powers of to-day, such as the tax on personal incomes, corporation taxes, and succession duties. The Dominion was to pay subsidies in 1867 to enable the provinces to perform functions entrusted to them without having to resort to oppressive taxation. Under the Commission's proposals, the Dominion would pay National Adjustment Grants for precisely the same purpose. The different measure of the amount to be paid contained under the recommendation is more apparent than real for it arises from the inequalities of wealth that have developed as between provinces. While equal per capita subsidies did conform in some rough approximation with the fiscal needs of 1867, they do so no longer. The methods employed for calculating the appropriate adjustment grants are aimed at accomplishing what the per capita formula was intended to achieve in 1867, the aim being the maintenance of Provincial Governments that can provide the necessary Canadian standard of service for the people.

APPENDIX VI.

Balance Sheet and Revenue and Expenditure Statistics of All Governments.

In Part A of Book III—Documentation—of the Report of the Royal Commission on Dominion-Provincial Relations, a comprehensive study of the comparative statistics of all Governments in Canada—Dominion, Provincial, and municipal—has been made. Certain summary tables showing the combined balance sheets for the years 1913, 1921, 1926, 1930, and 1937, and the combined revenue and expenditure statements for the same years are reproduced below and will supplement the information given in the introduction to the Public Finance chapter, pp. 826-842.

1.—Combined Balance Sheet of All Governments, for Their Respective Fiscal Years Ended Nearest to Dec. 31, 1913, 1921, 1926, 1930, and 1937.

NOTE.—Dashes in this table indicate that the corresponding stub items did not apply in those years.

Item.	1913.	1921.	1926.	1930.	1937.
Assets.	$'000	$'000	$'000	$'000	$'000
Cash and other liquid assets	59,622	248,768	255,885	353,645	415,811
Railways	762,514	2,059,244	2,369,992	2,650,051	3,089,313
Public utilities	163,171	427,888	576,414	674,100	658,956
Harbour commissions	30,332	46,389	82,354	137,067	174,455
Highways, bridges, and streets	193,940	364,575	517,989	744,551	1,105,428
Canals, harbours, and river improvements	149,170	229,063	296,036	373,792	413,222
Other public works	241,685	431,939	556,782	669,569	766,414
Loans, Partial or Non-Interest Bearing—					
Colonization, agricultural aid and development	5,161	119,892	159,468	185,998	253,002
Other	3,875	20,561	16,861	13,989	20,158
Direct relief	–	–	264	7,784	623,248[1]
Other Non-Recoverable Expenditures—					
War		1,688,046	1,673,092	1,658,885	1,646,427
Merchant marine	–	–	9,476	24,951	23,708
Shipbuilding		57,288	55,763	55,043	54,268
Wheat bonus and stabilization	–	–	–	–	27,834
Other	23,151	29,247	35,565	58,845	80,529
Totals, Other Non-Recoverable Expenditures	23,151	1,774,581	1,773,896	1,797,724	1,832,766
Totals, Assets	**1,632,621**	**5,722,900**	**6,605,941**	**7,608,270**	**9,352,773**
Surplus and Reserve Accounts	334,646	840,103	1,141,139	1,434,481	1,490,042
Net Total Assets, Accounting for Outstanding Debt	**1,297,975**	**4,882,797**	**5,464,802**	**6,173,789**	**7,862,731**
Liabilities.					
Funded debt, less sinking funds	1,149,121	4,525,276	5,093,970	5,678,762	7,059,291
Treasury bills	10,750	165,333	62,063	91,183	252,900
Floating debt	138,104	184,645	305,158	393,025	507,911
Guaranteed bank loans	–	7,154	3,343	10,270	40,106
Other contingent liabilities		389	268	549	2,523
Totals, Outstanding Debt	**1,297,975**	**4,882,797**	**5,464,802**	**6,173,789**	**7,862,731**

[1] In addition $65,347,000 charged by municipalities to current account.

2.—Current Account Revenues and Expenditures of All Governments, as Adjusted for Comparative Purposes, for Their Respective Fiscal Years Ended Nearest to Dec. 31, 1913, 1921, 1926, 1930, and 1937.

NOTE.—Dashes in this table indicate that the corresponding stub items did not apply in those years.

Item.	1913.	1921.	1926.	1930.	1937.
Revenues.	$'000	$'000	$'000	$'000	$'000
Taxes—					
Customs import duties[1]	104,691	105,687	141,969	131,209	112,077
Excise taxes[2]	21,452	36,755	48,513	57,747	52,037
Manufacturers taxes	–	6,639	11,053	10,474	17,185
Sales taxes		61,273	81,196	20,147	144,360
Corporation Taxes—					
Income and business profits	138	64,119	32,952	48,653	84,964
Other	3,352	11,051	14,581	15,828	20,780
Income taxes on persons	157	40,379	22,838	32,642	64,351
Succession duties	3,611	9,724	15,304	20,780	35,757
Gasoline taxes	–	–	6,411	23,487	38,906
Real property taxes	92,067	199,376	228,640	263,826	250,811
Amusement taxes	–	3,032	4,910	4,525	2,838
Other taxes	8,199	25,295	32,701	27,825	30,733
Totals, Taxes	233,667	563,330	641,068	657,143	854,799
Licences, Permits, and Fees—					
Motor vehicles, automobile licences	470	8,381	16,014	19,907	25,937
Other licences, permits, and fees	12,580	17,646	20,824	23,310	21,024
Totals, Licences, Permits, and Fees	13,050	26,027	36,838	43,217	46,961
Public domain	14,466	18,328	23,686	19,334	23,619
Liquor control[3]	2,248	7,856	17,592	30,985	29,798
Sale of commodities and services	2,633	4,260	6,651	7,075	13,409
Other current revenues	10,707	20,263	24,982	31,168	26,627
Totals, Current Revenues	**276,771**	**640,064**	**750,817**	**788,922**	**995,213**
Expenditures.					
Net debt service, excluding debt retirement	34,794	202,475	190,958	232,522	271,339[4]
National defence	13,781	17,249	14,454	23,256	33,614
Pensions and aftercare	94	53,688	44,503	55,341	54,437
Public Welfare—					
Relief	–	916	168	11,753	126,627
Other	15,121	35,218	43,294	72,129	124,383
Education	37,515	88,057	107,231	119,191	108,899
Highways and transportation	56,663	80,747	63,838	99,570	73,750
Public domain	12,820	17,298	20,045	29,236	24,258
Agriculture	5,583	9,424	9,944	15,248	14,287
Other current expenditures	76,836	131,333	138,682	177,849	164,456
Totals, Current Expenditures, Excluding Debt Retirement	**253,207**	**636,405**	**633,117**	**836,095**	**996,050**
Surplus (+) or deficit (—), excluding debt retirement	+23,564	+3,659	+117,700	−47,173	−837
[1]Includes customs import duties on liquor.	9,935	10,574	16,433	20,094	6,786
[2]Includes excise duties and taxes on liquor.	11,211	10,994	23,258	23,154	20,351
	21,146	21,568	39,691	43,248	27,137

[3]Provincial; see footnotes [1] and [2].
[4]Does not include unpaid interest, Alberta, estimated at $3,400,000.

INDEX.

NOTE.—This Index does not include references to special articles published in previous editions of the Year Book. These are listed at pp. vii–x.

PAGE.

Aborigines—see "Indians" and "Eskimos"
Acadian Forest Region 244
Accidents, aircraft 714
— fatal industrial 775–6
—— causes of 776
— motor vehicles 672–3
— on electric railways 660
— on steam railways 656–7
Acts of Dominion Legislature 1117–33
— of Parliament administered by Dominion Government Depts. 1093–5
Aeronautical radio stations, routes served .. 725
Age distribution of the population 84–5
Agricultural assistance by Government 180–90
— colleges 190–7
— co-operation in Canada 797–800
— implements, exports and imports 544, 560
—— manufacture of 416
— irrigation 234–6
— lands 18
—— values of 203
— legislation of 1939 .....181–5, 1119–22
— prices 228–30
— production by main groups and provinces 200–10
—— and farm capital, value of 200–3
— products, co-operative marketing Act, 1939 181–2
— products, exports and imports 536–9, 548–53
— schools 197
— statistics of the 1936 Census 230–4
Agriculture 180–243
— crop failure assistance 183
— *Dominion Marketing Board* 186–7
—— research in 986–92
— Farm Loan Board 185–6
— irrigation projects 234–6
— legislation *re* 181–5, 1119–23
— Prairie Farm Assistance Act 182–3
— Provincial Gov't colleges and schools ... 190–7
—— Departments of 187–90
— statistics of 197–243
— the Government in relation to 180–97
— types of farming in Prairie Provinces 230–4
— Wheat Co-operative Marketing Act, 1939 182
Aids to navigation 675–6
Aircraft, civil, manufacture of 711
— number of licensed 711
— operations of 713
Air Force, Royal Canadian .....xxviii–xxx
— harbours 709–10
— mail services 738–9
—— weight carried and mileage flown 739
— navigation 703–14
—— employees in 712
—— finances of 711–2
— service, administration of .....xxix, 707–8
—— expenditure *re* 711–2
—— Provincial Government 708
—— transatlantic 705–7
—— use of by R.C.M.P. 707
— traffic 712–4
— Training Plan, British Commonwealth ...xxix
Airports and aircraft 708–11
Airway development 703–7
— facilities, modern 703–4
— Trans-Canada 703–5
Alberta Agricultural College 195–6
— agricultural production of 202, 205, 209–10
— area and description of 6, 9
— assets and liabilities 869
— *births* 108, 116, 141
— Board of Public Utility Commissioners . 382–3
— central electric stations 373, 384
— coal occurrences and resources in 343–4
— deaths 141

PAGE.

Alberta, debt, bonded 868, 869
— Department of Agriculture 189
—— of Trade and Industry 746
— divorces 121
— Dominion lands in 1056, 1060
— education—see "Education".
— electric energy generated in 366, 371
— farm loans approved in 186
— fishery products, value of 290
— flour-mills, equipment and capacities ... 408
— fur farms, number and value of 279
— Government publications of 1105–7
— honey production 227
— hospitals, summary statistics of all 1026
— immigrants to 155–7
— irrigation in 234–5
— judicial convictions—see "Judicial".
— labour legislation 749
— lands and buildings, farm investments in 203
—— classification of 18, 1056
— leading industries of, statistics of 461
— Lieutenant-Governors and the Ministry . 62
— live stock, farm investments in 203
—— number of 212
— lumber, production of 274
— manufactures 398–9, 448–62
—— of cities and towns, statistics of 467
— manufacturing establishments, number of 414
—— industries, statistics of, by size of establishment 456
— marriages 119, 141
— *mineral occurrences in—see individual minerals.*
—— production of 320–3
— mining laws of 313
— mothers' allowances 806–7
— motor-vehicle regulations 664
— mountain peaks of 10
— police statistics 1052
— population of 70–1, 94
— production, survey of 173–9, 1156
— products of manufacturing, value of 448–54
— public finance of 864–70
—— health 1021–2
— representation in the House of Commons 51, 56
—— in the Senate 50
— Research Council 1009
— revenues and expenditures 865–7
— savings bank 913
— timber, estimated stand of 250
— water powers of 358, 364, 365
— wealth of 878
— Workmen's Compensation Board 780
Alcoholic beverages, control and sale of 626–30
—— taken out of bond 844–5
Alfalfa 205, 206–10
Aliens, immigration of 154
All-Canadian Congress of Labour 770, 773
Allowances, mothers' 803–7
Alumina, bauxite, cryolite, imports for manufactures 533
Aluminium, exports and imports 544, 562
— production for war purposes 306
— products, manufacture of 418
American Federation of Labor 771
Animal products, consumption of 604–6
—— exports and imports 538–41, 552–5
—— manufacture of 409–10, 414–5
—— marketing of 600–6
—— prices of 228–30
Animals, farm, numbers and values of 212–4
— fur-bearing, on farms 278–81
Annuities, Government 954–6

PAGE.

Annuities, Government, contracted for, and purchase money received..... 955
—— valuation of contracts..... 956
Anthracite coal—see "Coal".
Apiculture..... 226-7
Apples, exports..... 536
— production and value of..... 221
Appointments, judicial, 1939-40..... 1140-1
— official, 1939-40..... 1137-40
Appropriation Acts, 1939-40.....1117-9, 1131-2
Apricots, production and value of..... 221
Archives, Dominion, publications of..... 1099
Arctic drainage basin and islands..... 14-6
Area and density of population of Canada.. 76-80
— and yield of field crops of Canada..... 203-10
— and yield of field crops of the world.... 237-41
— of Canada, and by provinces..... 1-9
—— land, by tenure.....18, 1056
Army, the Canadian.....xxvi-xxviii
Asbestos, exports and imports.....546, 562
— manufacture of..... 418
— production and occurrence of.....316, 322, 349
—— for war purposes..... 307
Assessment valuations of municipalities.... 872-3
Assets, Dominion Government..... 832
— of Provincial Governments.....869, 870
Assurance, life..... 936-49
Atlantic fishing grounds..... 285
Australia, gold, silver, and coal production of.....336, 346
— High Commissioner for Canada in..... 65
—— in Canada..... 66
— trade with.....517, 524, 574, 575, 577
Automobile accidents..... 672-3
— insurance.....950, 951
Automobiles, apparent consumption of..... 666-7
— exports.....544, 666
— imports.....560, 666
— laws and regulations *re*..... 662-4
— manufacture of.....412, 416-7
— registration of..... 665-6
— retail trade in..... 622-4
— revenue from..... 669-70
— sales of..... 622-4
— supplies, manufacture of.....412, 416-7
— value of, in 1929 and 1933..... 877
Aviation, accidents..... 714
— administration..... 707-8
— airports and aircraft..... 708-11
— civil, summary statistics of..... 708-9
— commercial..... 708
— development of..... 703-7
— employees..... 712
— finances..... 711-2
— investments of provincial governments for..... 711
— military .....xxviii-xxx
— revenues and expenditures for..... 712
— salaries and wages for..... 712
— traffic..... 712-4
—— commercial, by provinces..... 713
— transatlantic air service..... 705-7
— trans-Canada airway..... 703-5

Bacon and hams, exports..... 540
Balance of international payments..... 584-9
—— insurance as it affects..... 952-4
— sheets of the Dominion.....832-3, 1164-5
Bank debits at clearing-house centres..... 905-6
— insolvencies and absorptions..... 897
— Montreal City and District, deposits in. 914
— of Canada..... 882-6
—— Act and its amendments..... 882-4
—— gold held under earmark by..... 585
—— liabilities and assets of..... 885
—— notes..... 893-4
—— denominations of..... 894
—— operations of the..... 885-6
—— relation to Canadian financial system. 884
—— reserves.....885, 895
—— securities guaranteed by Dominion Government.....861, 863

PAGE.

Bankers' Association, Canadian..... 882
Banking and currency..... 882-925
— business, historical summary of 882, 896, 899-900
— commercial..... 896-8
— system of Canada.....882-6, 896-903
Bankrupt estates, administration of..... 963-4
Bankruptcy, Dominion Act..... 957
Banks, amalgamations and insolvencies... 897-8
— assets and liabilities of....885-6, 899-902, 907-8
— branches, by provinces..... 909-10
—— in other countries..... 911
— capital and reserve funds of..885, 895-6, 901,907
— chartered.....894-6, 898-911
—— Canadian cash reserves..... 896
—— clearing-house transactions of..... 904-6
—— combined statistics of..... 898-906
—— deposits and loans of..... 903
—— developments of banking business..... 899-900
—— dividend rates paid by..... 909
—— earnings of..... 909
—— exchanges of clearing houses of..... 904-5
—— individual statistics of..... 906-11
—— assets and liabilities of..... 907-8
—— branches in each province and outside Canada..... 910
—— legislation *re*..... 894-5
—— note circulation of..... 894-5
—— profits of..... 909
—— reserves of.....895-6, 901, 907
— Co-operative People's, in Quebec..... 797
— government and other savings..... 911-4
— penny..... 913-4
—— of Ontario, assets and liabilities of.... 913
Banting Research Foundation..... 1010-1
Barbados, trade with.....523, 573, 574, 575
Barley, crop distribution of..... 596
— exports..... 536
— inspections of.....595, 598
— prices of.....228, 230
— production in Canada of.....204, 206-10
— receipts and shipments of..... 599
— stocks in Canada of..... 211
— world production of..... 239
Bauxite, alumina, cryolite, imports for manufactures..... 533
Beacons, number in use..... 676
Beans, production of..... 206-10
Beaver skins, number and value taken.....281, 283
Beef, consumption of..... 604
— exports..... 540
— stocks in cold storage..... 607
Bee-keeping industry..... 226-7
Bees, hives of, number..... 211
Beeswax, production and value..... 227
Beetroot sugar, production of..... 224-5
Beets, sugar, production of....206, 208, 210, 224-5
Belgium, trade with.....523, 573, 574, 576, 577
Belleville, Ont., building permits for..... 477
— gross postal revenue of..... 734
— manufactures of..... 466
— population of..... 96
Benevolence, public health and..... 1013-31
Benevolent institutions, number of....1024, 1028-9
Bermuda, trade with.....523, 574, 575, 577
Berries, production of.....220, 221, 222
Betting, race-track..... 1076
Beverages, alcoholic, exports and imports..536, 550
—— control and sale of..... 626-30
— manufactures of..... 414
Bicycles, manufacture of..... 416
Birth rates in Canada, by provinces.107-8, 141, 143
—— in various countries..... 116-7
Birthplaces of the population..... 89-90
Births, illegitimate..... 115-6
— multiple, in Canada..... 110-1
— sex of..... 107-8
— statistics of..... 106-17
Biscuits, manufacture of..... 414
Bituminous coal—see "Coal".
Blind and deaf-mutes..... 101
— pensions for..... 802-3

PAGE.

Board of Grain Commissioners..... 592
— of Transport Commissioners..... 633–5
—— publications of..... 1096
— Tariff..... 1077
Boiler insurance.....949, 950, 951
Boilers and engines, imports..... 560
— manufacture of..... 416
Bond yields, index numbers of..... 824–5
—— long-term, by months..... 825
Bonds, sales of Canadian..... 920–2
—— by class of bond and country of sale. 921–2
Bookbinding industry.....416, 421, 426
Books and printed matter, exports and imports.....542, 558
Boot and shoe industry.....410, 414–5
Boots and shoes, leather, imports..... 552
—— rubber, exports..... 536
Boreal forest region..... 245–6
Boundaries of Canada..... 1
Boundary, International, length of..... xiii
Bounties, fishing..... 287–8
— on production of commodities..... 608
—— expenditure re..... 608
Bradstreet, statistics of commercial failures 957
Brandon, Man., building permits for..... 478
— gross postal revenue of..... 735
— population of..... 96
Brantford, Ont., building permits for..... 477
— gross postal revenue of..... 734
— manufactures..... 466
— population of..... 95
Brass products, exports and imports.....544, 562
— manufacture of..... 418
Bread, manufacture of.....408–9, 414
Breakwaters, administration of..... 1060
Breweries..... 414
— excise licences..... 844
Brick and tile production....317, 322–3, 350–1, 418
Bridges, operating revenues and expenditures of, under National Harbours Board..... 690
Britain—see "United Kingdom".
British capital invested in Canada.....879–80, 881
British Columbia Agricultural College..... 196–7
—— agricultural production of.....202, 205, 210
—— area and description of..... 6–7, 9
—— births.....108, 116, 141
—— central electric stations.....373, 384
—— deaths..... 141
—— debt, bonded.....868, 869
—— Department of Agriculture..... 189–90
—— experiments in agriculture..... 189–90
—— Department of Labour..... 749
—— divorces..... 121
—— education—see "Education".
—— electric energy generated in.....366, 371
—— employment in..... 758
—— farm loans approved..... 186
—— fishery products, value of..... 290
—— flour-mills, equipment and capacities. 408
—— forest resources of..... 18, 259
—— fruit, production and value of..... 222
—— fur farms, number and value of..... 279
—— Government publications of..... 1107–8
—— honey production..... 227
—— hospitals, summary statistics of..... 1026
—— irrigation projects..... 235–6
—— judicial convictions—see "Judicial".
—— lands and buildings, farm investments in..... 203
—— lands, classification of.....18, 1056
—— leading industries of, statistics of..... 462
—— Lieutenant-Governors and the Ministry..... 63
—— live stock, farm investments in..... 203
—— number of..... 212
—— lumber, production of..... 274
—— manufactures.....398–9, 462
—— of cities and towns, statistics of..... 467
—— manufacturing establishments, number of..... 414

PAGE.

British Columbia, industries, statistics of, by size of establishment..... 456
—— marriages.....119, 141
—— mineral occurrences in—see individual minerals.
—— production of..... 320–3
—— mining laws of..... 314
—— mothers' allowances..... 807
—— motor-vehicle regulations..... 664
—— mountain peaks of..... 10
—— police statistics..... 1052
—— population of.....70–1, 94
—— production, survey of.....173–9, 1156
—— products of manufacturing, value of... 448–54
—— public finance of..... 864–70
—— health..... 1022
—— Public Utility Commission..... 383
—— representation, House of Commons...51, 56–7
—— in the Senate..... 50
—— timber, estimated stand of..... 250
—— tobacco, production and value of..... 225
—— water powers of.....358, 364, 365
—— wealth of..... 878
—— Workmen's Compensation Board..... 780–1
— East Africa, trade with.....573, 574, 575, 577
— Empire, imports from.....573, 574, 575
—— exports to.....575, 576, 577
—— trade with.....511–3, 573, 574, 575, 576, 577
—— representative years, 1886-1939..... 513
— Govt., diplomatic representation..... 64–5
— Guiana, trade with.....517, 573, 574, 575, 577
— India, trade with.....517, 573, 574, 575, 577
— preferential tariff..... 512–3
—Royal Commissions concerned with Canada, reports of..... 1116
— South Africa, trade with...517, 573, 574, 575, 577
— Straits Settlements, trade with 517, 573, 574, 575, 577
— West Indies, trade agreement with..... 486
Broadcasting Corporation, Canadian..... 727–32
— conduct during war time..... 727–8
— regulations..... 727
Brockville, Ont., gross postal revenue of... 734
— manufactures..... 466
— population of..... 96
Bronze, monetary use of..... 887
Buckwheat, production of.....204, 206–10
Building construction industries, index numbers of..... 479
—— employment in..... 479
—— value of, by provinces and cities..... 477–8
—— in thirty-five cities..... 479
— materials, manufacture of..... 422
— permits..... 477–9
— trades, wages in.....472–3, 785, 786
Bullion, exports.....528, 544
— and coinage issued..... 888
Buoys, number in use..... 676
Bureau of Statistics, Dominion..... 1079–92
—— publications of the..... 1081–92
Bureaus of Labour, provincial..... 746–7
Burglary insurance.....950, 951
Business colleges..... 973
— failures..... 957–64
— physical volume of..... xlii
— profits war tax, total receipts from..... 845
Butter- and cheese-making industry 217, 409–10, 414
— consumption of.....218, 605
— exports and imports.....219–20, 540, 554, 605
— production of.....217, 409–10, 414
— stocks in cold storage..... 607
— value of..... 218

Cabinet, Members of Dominion.....44, 1136, 1155
Cablegrams..... 715
Cables, submarine telegraph..... 716
Calgary, Alta., building permits for..... 478
— gross postal revenue of..... 735
— live stock marketed at..... 600
— manufactures..... 467
— population of..... 95

PAGE

Calves, marketed....601, 602
—— prices of....228-9
Canada, area, land and water....9, 18, 1056
— chronological history of....25-36
— climate of....24
— constitution and government of....41-68
— *Gazette*, extracts from....1136-42
— geographical description of....1-16
— Grain Act....592
— manufacturing industries, value of products of....448-54
— monetary system of....882-4
— physical characteristics of....1-16
— political subdivisions of....1-9
— public debt of....826-7
— resources of, lands, scenic, and game....17-23
— Shipping Act....674
— -South Africa trade agreement, Imp. Conference, 1932....486
— -Southern Rhodesia trade agreement, Imp. Conference, 1932....486
— timber resources of....251
— trade, by continents....516
—— external....480-589
—— internal....590-630
— wealth and income of....876-81
Canadian Broadcasting Corporation....727-32
—— conduct during war-time....727-8
— exchange, recent movements in....923-5
— Farm Loan Board....185-6
— Federation of Labour....770
— fishing grounds....285
— Forestry Association....262
— Government Merchant Marine....685
—— Trade Commissioners....495-6
— national parks and reserves....19-22
—— Railways....641, 644, 645-51, 653
——— capital revision of....648
——— consolidation and organization of....647
——— finances of....645-51
——— funds received and expended....650
——— investment in....641, 642
——— loans by Dominion Government to....646
——— mileage....641, 653
——— operating finances of....647-8
——— train traffic statistics....653-4
—— Steamships....685-6
—— telegraphs....715-6
— Northern Railway....637, 647
— Pacific Railway....636, 641, 644, 646
—— irrigation projects....235
—— telegraphs....716
— Pension Commission....1065-6
— preference on imports from Empire countries....512-3
— railways....631-62
—— expenditure *re*....641-3
— Red Cross Society....1029-31
— Shield, physiography....11
— shipping registry....674-5
— trade, geographical distribution of, by continents and countries....516-7
— Wheat Board....592
Canada's war effort....xxiv-xxxvii
Canal, Panama....699-700
Canals, Canadian systems....677-8
—— principal commodities carried through....697
— expenditure and revenue *re*....687-9
— traffic of....696-700
—— by direction and origin....698
—— by nationality of vessels....696
—— by origin of freight....696
—— tonnage of, by canals....696
——— by classes of products....696
— under Department of Transport....677
——— length and lock dimensions of....677
Capital, farm....202-3
— invested in Canada, British and foreign....879-81
—— in fisheries....293-5

PAGE.

Capital, invested in manufactures, summary by provinces....398-9, 414-5, 455-62
——— by individual industries and groups....414-9
——— by provinces and industrial groups, 1917-38....398-401
—— in mining....324-5, 327-30
— movements....584-5
— of chartered banks....899-900
— punishment....1034-5
Cargo, water-borne....701-2
Casualties, shipping....685
Catholic Workers Federation of Canada....770
Cattle, exports....538
— marketing of....601, 602
— numbers, etc., in Canada....211-4
—— in world....242-3
— prices of....228-9
Cement, manufacture of....317, 323, 351
— Portland, production, imports, exports, and apparent consumption of....351
Census (see population, pp. 69-103).
— of agriculture....230-4
— records, microphotography as applied to....75
— results of 1931....74-5
— statistics of employment and unemployment....750-1
— year 1931, earnings in....787
Central electric stations....366-85
——— equipment of....370
——— farm service, furnished by....371-2
——— historical and general statistics *re*....367-72
——— main-plant equipment of, by provinces....370
——— public and private ownership of....372-84
——— in Quebec and Ontario....372
——— summary statistics of, 1917-38....369
Cereals, prices of....228
— production of....204-10
— world production of....237-41
Ceylon, trade with....573, 574, 575, 577
Chain stores....620-2
—— retail, sales of, compared with total sales....621-2
Charitable and benevolent institutions....1024, 1028-9
Charlottetown, P.E.I., building permits for....477
— gross postal revenue of....734
— manufactures....464
— population of....96
— shipping....693
Chartered banks, legislation *re*....894-5
—— reserves, cash....896
Charters of incorporation granted....1069
Chatham, Ont., building permits for....477
— gross postal revenue of....734
— manufactures....466
— population of....96
Cheese, consumption of....218, 605
— and Cheese Factory Improvement Act, 1939....184-5
— exports and imports....220, 540, 554
— factories....414
— production of....217, 409-10, 414
— stocks in cold storage....607
— value of production....218
Chemical products, exports and imports....546, 564-6
—— manufacture of....413, 418-9
Cherries, production and value of....221
Chickens, number and value of....211-4
Child-caring institutions....1024, 1028-9
China, trade with....573, 574, 576, 577
Chinaware, imports....562
Chinese immigration....161, 162-3
Chronology, 1497-1940....25-40
— special war....36-40, 1143-8
Cigars and cigarettes, consumption of....844-5
—— excise tariff....843
—— manufacture of....409, 414-5

	PAGE.
Circulation of bank and Dominion notes	893–5
— of French language publications	742
— of newspapers, daily	741–2
—— weekly and semi-weekly	741–2
— of silver, nickel, and bronze coin	887
Cities, bank clearings of	904–5
—— debits of	906
— births in	108–9
— building permits for	477–8
— deaths in	128–30
— finances of	875–6
— gross postal revenue of	734–6
— infantile mortality in	134–5
— manufactures	463–7
—— statistics of, by provinces	464–7
— populations of	95–7
Citizenship and naturalization	90–1
Civil aviation	703–14
— Service Act	1072–3
—— Commission	1072–3
—— publications of	1096
—— personnel of	1073–6
Clay products, exports and imports	546, 562
—— production of	317, 322–3, 350–2
Clearing-house transactions	904–6
Clothing, exports and imports	540, 554, 556
— family expenditures on, by income groups	821
— index numbers of prices of	817–8
— manufacture of	411, 416
Clover and hay, production of	205, 206–10
Coal, bounty on	608
— consumption of	345–6
— exports and imports	344–5, 546, 562
— mining industry	326, 329
— occurrence, by provinces	321, 343–4
— prices of	344
— production of	316, 321, 343–7
—— for war purposes	306
— resources of Canada	343
— tar distillation	418
— world production of	346–7
Coast radio stations	723–4
Coasting trade	693, 695
— vessels, entered and cleared	695
Cobalt ore, production of	316, 321, 331
—— as a war mineral	306
Cobourg, Ont., gross postal revenue of	734
— manufactures	466
— population of	97
— shipping	694
Cocoa and chocolate, imports	550
— manufacture of	414
Codfish, exports	538
— production of	291, 292
Coffee, imports	550
— manufacture of	414
Coffins and caskets, manufacture of	416
Coin and bullion, exports and imports	528, 544
—— issued	888
— circulation of	887
Coinage at Royal Canadian Mint	888–92
— Canadian, current in 1940	887
Coke, exports and imports	546, 562
— manufacture of	413, 418
Cold-storage stocks	607
— warehouses, number and capacity of	606
—— by provinces	606
—— stocks of food on hand in	607
Colleges—see "Education"	
— agricultural	190–7
Colonization activities	166
Combinations in restraint of trade, legislation re	794–5
Combines Investigation Act	794–5
—— investigations in 1939	795
Commerce—see "Trade".	
Commercial banking	896–911
— failures	957–64
— finance, miscellaneous	915–25
— Intelligence Service	494–6
—— abroad	495–6
—— organization at Ottawa	494–5
—— Journal	496
Commissioner, British High	66
— High, for Canada	64
Commissioners, appointments of	1141–2
— Board of Grain	592
—— Transport	633–5
— Canadian trade	495–6
Commissions, Reports of Royal	1108–16
Commodities hauled as freight on steam railways	654–5
— principal, imported and exported	518–22
—— in water-borne cargo, inward and outward, by ports	701–2
— wholesale prices of	809–16
Commons, House of	50–7
—— members of	52–7
—— representation in	51–7
Communications, radio	719–32
— transportation and	631–742
— wire	715–9
— wireless	719–32
Companies, incorporations of	1069
— life insurance	946–7
— railway	635–8
— small loans	919–20
— steam railway, earnings of	641–2
— trust and loan	915–9
Compensation, workmen's	776–81
Condensed milk, manufacture of	414
Confectionery, manufacture of	414
Confederation of Catholic Workers of Canada	770
Congress of Labour, All-Canadian	770
Conjugal condition of population	83–4
Consolidated Fund, expenditure	835–40
—— receipts	834, 840–2
Constitution and Government of Canada	41–68
Construction	468–79
— annual census of	471–5
— building permits	477–9
—— value of, by province and city	477–8
— contracts awarded	475–6
—— value of	475
—— by provinces and types	476
— Dominion Housing Act	468
— employment in	474–5, 479
— expenditures of maintenance of way by steam and electric railways	472
—— by telegraph and telephone systems	472
— Government Home Improvement Plan	470–1
— in Canada, description, classification and value of	474
— industrial statistics of	472–5
— industry, principal statistics of	472
—— by groups and provinces	473
—— value of work performed by, by groups and provinces	473
— National Housing Act	468–70
— wage-earners and remuneration in, by groups and months	474
—— by provinces	475
Consumers' co-operation	796
Control of spirituous liquors	626–30
Convictions for various offences	1033–4
— multiple	1038
Convicts, number, etc	1052–5
Cooperage, manufacture of	416
Co-operation, agricultural, in Canada	797–800
— consumers'	796
— producers'	797–800
Co-operative credit in Quebec	797, 914
— Marketing Act, 1939, the Agricultural	181–2
— movement in Canada	795–800
— organizations, farmers'	800
— Peoples Banks in Quebec, progress of	797
— Union, statistics of retail societies affiliated with	796
Copper, bounty on	608
— exports and imports	544, 562
— manufacture of	418
— occurrence, by provinces	331
— production of	316, 321, 332
—— as a war mineral	303–4
— world production of	332

PAGE.

Copyrights, trade marks, etc. 608-10
—— registered in Canada 610
Cordilleran region 9-10, 355-6
Corn, imports 548
— inspection of 598
— production of 206-10
— world production of 240-1
Corporation, Canadian Broadcasting 727-32
Corporation dividends 922
Corrective and reformative institutions 1024
Cost of living, expenditures by income groups 821
—— wage-earners, index numbers of 817-8
Cotton products, exports and imports 540, 554
—— manufacture of 410-1, 414, 416
— raw, imports 533, 554
— yarn and cloth, manufacture of 411, 416
Counties, area and population of 77-8
County municipalities 871
Cows, milk, number and value of 211-4
Credit, co-operative in Quebec 797, 914
Criminal and judicial statistics 1032-55
—— breach of traffic regulations 1046-7
—— charges, convictions and acquittals 1041
—— classifications of persons convicted 1042, 1055
—— death sentences 1034-5
—— drunkenness 1045
—— juvenile delinquency 1048-51
—— offences against liquor laws 1045-6
—— population of penitentiaries 1053
—— summary convictions 1043-8
Crop-reporting service 197
Crops, cereals and potatoes, in chief countries 237-41
— distribution of wheat and oat 595-7
— field, etc., area, yield, and value 203-11
— grain, of Prairie Provinces 208-10
— root and fodder, area, yield and value 204-10
Crown Lands—see "Public Lands"
Cryolite, alumina, bauxite imports 533
Cuba, trade with 523, 574, 576, 577
Currency and banking 882-925
— Canadian 886-92
—— historical sketch of 882
— legislation *re* 894-5
Customs and Excise, Dept. of—see "National Revenue"
— tariffs, development of 480-94
Cutlery and hardware, exports and imports 544, 560
Cyanamid, exports 546

Dairy factories, stocks of food on hand in 607
— production 216-20
Dairying statistics 216-20
Deaths and death rates, by provinces 125, 129-30
— by cause 125-8
— by place of residence 129
— by sex 123
— infantile 131-7
—— by causes 131-3
—— in various cities 134-5, 136-7
—— in various countries 136
— maternal, by age and cause 137-9
— of public men 1134-6
— rates in various countries 130
— violent 126-8
Debt, bonded, of Provincial Governments 868, 869
— interest-bearing with interest thereon 859
— municipal 874-6
— net 832, 854-5
— public, Dominion 826, 853-63
—— aggregate 826
—— assets held against 854-5
—— charges 835, 838
—— funded 855-6, 857-8
—— interest on 854-5
—— summary of 854-5
Deciduous forest region, the 245
Defectives, mental 1027-8
—— hospitals for 1027-8
Defence, national xxvi-xxxi

PAGE.

Density of population 76-80
Departments, Dominion—see individual depts.
Departments of agriculture, provincial 187-90
Deportation of immigrants 160
Deposits, bank 885, 899-900, 902
—— classification of, by size 903
Diplomatic appointments 64-6, 1133
— representation abroad 65-6
—— in Canada 67
Disbursements, Dominion 833-42
Disputes, industrial 744, 781-4
Distances, table of *facing page* vii
Distillation, licences, fees, etc. 844
Distribution of grain crop 595-7
Districts, electoral 52-7
Dividends, corporation 922
— tax on 849
Divorces 120-1
Docks, graving 682
Dominion and Provincial Departments of Agriculture 181-90
— lands, classification of 18, 1056
— Bureau of Statistics, publications of the 1081-92
— Departments, publications of 1095-1101
— elections 51-7
— finance 828-63
— franchise 57
— Fuel Board 343
— Housing Act 468, 1117
—— loans approved under, by provinces 469
— legislation 1117-33
— Marketing Board 186-7
— ministries 43-4
— notes, circulation of 893-4
— Observatories, research in 997-8
— Parliaments 42-57
— sessions of 46-7
— public lands 1056
—— revenue from 834
— relations with provinces 1134
— Royal Commissions 1108-10
— steamers, receipts of 689
— Trade and Industry Commission 1077-8
Douglas fir 247
Drainage basins, description of 14
Drayton-Acworth report 637-8
Drought relief 765
Drugs and medicinal preparations, exports and imports 546, 564
— Food and, Division of 1016
Drydocks, number, cost, etc 682
Ducks, number and value of 211-4
Dun, statistics of commercial failures 958-9
Duties, customs, on exports and imports 483-94, 529
—— average rates 532
Dwellings and households 101
Dyes, analine and coal tar, imports 564

Earnings of employees in manufactures 436-40
—— average, by provinces and industrial groups 436-7
—— in forty leading industries 437-8
—— in recent years 439
East Indian immigrants 161, 163
Economic review, 1939-40 xxxvii-xliii
Edmonton, Alta.: building permits for 487
— College of Agriculture 195-6
— gross postal revenue of 735
— live stock marketed at 600
— manufactures 467
— population of 95
Education 965-1012
— adult 966-7
— attendance 101, 960
— business colleges 973
— colleges 973-8
— elementary 973
— enrolment 968, 973
— higher 973-8

PAGE.

Education, Indian 1062–3
— private schools 973
— provincially controlled schools 969–72
— pupils, age distribution of 970
— salaries 971
— secondary 973
— scientific research 979–1012
— technical 970–1
— universities 973–8
—— degrees granted 975–8
—— revenues 974–5
Eggs, exports and imports 540, 554, 605
— production and consumption of 215–6
— stocks in cold storage 607
— value of 215
Elections, Dominion 51–7, 1134
—— dates of 46–7
—— votes polled 52–7, 1150–5
— provincial 1134
Electoral districts 52–7, 1150–5
Electric energy exported 385
—— generated, by class of station and by provinces 366
——— in central electric stations 371
—— generation of 362
—— provincial distribution of 371
—— transmission of 362–3
—— used in pulp and paper industry 365
— light and power plants, number of 369
—— inspection, Dominion receipts from 611
— power, export of 384–5
— railways—see "Railways".
Electrical apparatus, exports and imports 546, 562
—— manufacture of 413, 418
Electricity and gas inspection 611–3, 834
— meters in use 612
Elevations of lakes 12–3
— of places ..... *facing page* 11
Elevators, grain, number and capacity of 597–8
— operating revenues and expenditures of 690
Emigration from Canada 163–6
Empire, British, trade with 511–3, 573, 574, 575, 577
—— trade preferences in 483–6
Employees, by sex, in manufactures, by individual industries 414–9, 432, 433
— distribution of, in 1937 431–2
— in manufacturing industries 431
— in mineral industries 325, 327–30
——— on salaries and wages, by sex, provinces, and groups 437
——— percentages on salaries and wages by provinces and groups, for each sex 432
— real earnings in recent years of 439
Employers' liability 776
Employment and unemployment 750–60
—— statistics, census 1931 750
— applications for 758
— as reported by employers 751–6
——— by industrial groups 756
——— in economic areas as at first of each month 753–4
——— in leading cities 755
— bureaus, legislation *re* 757
— by economic areas 753–4
— by industries 755–6
— Commission, National 760–1
— in central electric stations 369
— in construction industries 474–5, 756
— in fisheries 295
— in leading cities 754–5
— in manufactures 397, 398–401, 403, 430–6, 756
—— by industries 414–9
—— by provinces 398–9, 448–62
—— monthly record of 432–3
— in mining 327–8, 329–30, 756
— in trade 756
— in woods operations 264, 756
— of wage-earning population 750–1
— Offices Co-ordination Act 743, 757
—— operations of 757
— on electric railways 658–9

PAGE.

Employment on steam railways 643
— Service of Canada 757
——— operations of 757–9
——— placements effected by 758
——— reduced railway fares 757–8
— the trend of 753
— variations in, for main industrial groups 408
— war-time industrial 758–9
——— registration of workers for 758–9
Engines and boilers, imports 560
—— manufacture of 416
Engraving industry 416
Ermine skins, number and value taken 281, 283
Eskimos 1084
Estimates of population, annual 102–3
Events of the year, principal 1133–4
Exchange, foreign 923–5
— quotations at Montreal, monthly averages of 924–5
— recent movements in 923–4
Excise duties 843
—— collected, details of 844
—— revenue from 843–4
— licences issued 844
— revenue 844
— tariff 843
— taxes, receipts from 844
— War taxes, receipts from 849–50
——— by commodities and provinces 849–50
Executive authorities, legislative and 42–64
Expenditures, Dominion 835–42
—— details of 835–7
—— per head of population 841–2
—— principal items of 838–9
— family, by income groups 821
— municipal 875–6
— provincial 866–7
—— per head of population 842
——— by principal items 842
Export trade, analysis of 509–11
— valuations 521–2, 526, 536–47
Exports, bullion 528
— by classes of merchandise, with values and percentages 534
— by continents 504, 516, 523–4
— by countries 507–8, 517, 523–4
— by degree of manufacture 523–4
— by origin 570–1
— by purpose 572
— detailed, of Canadian produce 536–47
— dutiable 569
— duties collected on 529
— free 569
— leading domestic, by individual commodity 521–2
— of Canadian and foreign produce 526
— of merchandise the produce of Canada 530
—— values of 574–5
— of non-monetary gold 501
— of principal commodities 518–22
— percentage of total domestic, to leading countries 517
— principal, of Canada 520–2
— ratio to imports 527
— to principal countries 517
— values per capita of 527
— via the United States 514–5, 577
——— values and percentages of 577
— volume, comparison of 577–81
— wholesale price index numbers of 816
Express companies, earnings and business of 661–2
—— mileage of 661
—— operating expenses of 661
—— operations of 660–2
—— revenues, expenses, and mileage, by companies 661
External trade, aggregate 526, 479–581
—— by degree of manufacture 570–1
—— by main groups, according to origin 570–1
—— by purpose 572
—— comparison of the values and volumes of, by main groups 579

PAGE.

External trade, current trends in 524–77
—— historical sketch of 480–3
—— statistics 497–581
Extracts from the *Canada Gazette* 1136–42

Fabrics, imports 554, 556
Factory legislation 743–50
— trades, wages in 785, 786
Failures, commercial 957–64
—— and industrial, from private sources 958–60
—— from administrations under Dominion legislation 960–2
—— by classes and provinces 958–9
—— by divisions of industry 959
Fair Wages and Hours of Labour Act 745
—— Branch 744–5
Family living expenditures 819–21
——— distribution of, by income groups 821
——— investigation, summary of results of 820–1
Farm capital 202–3
— help, wages 787
——— and board, by provinces 787
— implements, exports and imports 544, 560
—— manufacture of 416
— lands, value of 202–3
— live stock and poultry 211–6
— Loan Board, Canadian 185–6
— loans, applications, amounts approved and paid out under 186
——— by provinces 186
— origin, exports and imports of goods of 570–1
— service, by central electric stations 371–2
— tools, exports and imports 544, 560
Farmers' co-operative business organizations, 1939 800
——— by province and function 800
Farming in Prairie Provinces, types of 230–4
Farms, number and area of 230
Fatal accidents 656–7, 660, 672–3, 685, 775–6
—— industrial 775–6
—— motor vehicle 672–3
Federation, Catholic Workers of Canada 770
— of Labour, American 771
Females, convictions of 1041
— minimum wages for 788–91
Fertility rates of married women 110
Fertilizers, manufacture of 418
Fibres and textiles, exports and imports 540, 554–7
Field crops, area, yield, etc 203–10
—— index numbers of farm prices of 230
Film Board, National 1130–1
Films, exports and imports 546, 566
Finance Department, publications of the 1096
— Dominion 828–63
— miscellaneous commercial 915–25
— municipal 870–6
— provincial 864–70
— public 826–81
— and taxation, legislation *re* 1117–9, 1131–2
Fines and forfeitures, Dominion receipts 834
Finishing trades 411
Fir, Douglas 247
Fire brick, production of 317, 323
— clay, production of 317, 323
— insurance 927–36
— losses, in Canadian forests 252, 270
Fires, forest, protection from 261–2
Fish-canning and -curing establishments, by provinces 293
——— employees, salaries, and wages in 295
— culture 286
— curing industry 293–5, 410, 414
—— plants 293–5
— exports and imports 296–7, 538, 552
— hatcheries 286
— quantities, values, and percentages of chief commercial 291, 292
Fisheries, the 285–97
— capital invested in 294
— conservation 286
— Dept. of, research in 998–1001

PAGE.

Fisheries, Dominion expenditure *re* 835
—— revenue from 834
— early 285
— Government bounties (Halifax Award) 287–8
—— in relation to 285–8
— indexes of production 292
— international problems of the 286–7
— manufacturing establishments 293–5
— modern industry 288–97
— persons employed in 295
— production of 288–92
——— by provinces 290
— scientific research *re* 286, 998–1001
— statistics of 288
— trade 296–7
Fishing grounds, Canadian, the 285
— vessels, etc. and establishments, numbers and values of 294
Flax products, imports 554
— production of 200, 201, 226
Flaxseed, crop distribution 595, 597
— inspections of 597
— prices of 228, 230
— production of 204, 206–10, 226
— receipts and shipments of 599
— stocks in storage 211
Floriculture 223
Flour, exports and imports 242, 536, 595
— milling industry 408
—— in 1938 600
—— summary statistics of 414
— mills of Canada, equipment and capacities, by provinces 408
— production of 408, 414
Fodders, production of 206–10
Fog alarms, number of 676
Food and Drugs Division 1016
— exports and imports 536, 548, 550
— family expenditures on, by income groups 821
— index numbers of prices of 817–8, 821
— manufacture of 414, 420, 421, 422
— stocks in cold storage 607
Foreign-born population, citizenship of 90–1
— capital invested in Canada 879–80, 881
— countries, trade with 514–5
— currencies, Canadian life insurance in 946–8
— exchange 923–5
—— Control Board ..... xxxvi-xxxvii
— exports 526
Forest administration 258–63
— conservation 261–2
— depletion and increment 251–3
— fire protection 261–2
— growth, main types of 244–7
—— important tree species of 247–9
— industries, other 275–6
— lands under Dominion control 259
—— under Provincial control 259–61
— products, exports and imports 542, 556, 558
—— laboratories 993, 994–5
—— Canadian, world markets for 253–7
— regions 244–7
— reserves and parks 259
— resources 249–50
—— Canadian, their relation to war effort 251–8
— Service, Dominion 263
— stand, accessible, estimate of 249–50
— utilization 263–76
Forestry 244–76
— scientific 262–3
Forests, lumber production of 273–5
— woods operations in 263–5
Forfeitures, Dominion receipts from 834
Fort William, Ont., building permits for 477
— grain shipments at 599
— gross postal revenue of 734
— manufactures 466
— population of 95
— shipping of 694
Fox skins, number and value taken 283

PAGE.

France, coal production of 347
— exports to 517, 523, 576, 577
— imports from 517, 523, 573, 574
— trade treaty with 489
Franchise, the Dominion 57
Franklin District, area of 9
Fraternal societies, insurance business of 942-4
Fredericton, N.B., building permits for 477
— gross postal revenue of 734
— manufactures 465
— population of 96
Free goods, imports 568-9
Freight, commodities hauled as, on steam railways 654-5
French language periodicals, number and circulation of 742
Fruit and vegetable canneries 409, 414
— commercial production and value by kind 221-2
— exports and imports 536, 548
— farming 220-3
— production, value of by provinces 222
— nursery industry 222-3
Fuel control 343
— exports and imports 344-5, 546, 562
— family expenditures on, by income groups 821
— index numbers of prices of 817-8, 821
— power generated from 390-3
— used in manufacturing and mining industries by provinces and groups 391-3
—— by individual industries, 1937 414-9
Fuels 343-8
Funded debt of Canada 855-6, 857-8
Fur dressing industry 414
— farms of Canada 278-9
—— number and value of, by provinces 279
— pelts, purchased 281
— production 277-84
—— statistics of 281-3
— resources 277-84
—— conservation of 278
— trade 277-8, 283-4
—— history of 277
—— modern industry 277-8
— bearing animals on fur farms, numbers of by kind 279
—— values of by kind 280
Furnishings, men's, industry 416
Furniture, manufacture of 416
Furs, exports and imports 283-4, 538, 552
— values of 281-3

Gainfully employed in Canada 102, 750
— occupied, by groups and economic areas 750
Galt, Ont., building permits for 477
— gross postal revenue of 734
— manufactures 466
— population of 96
Game and scenery, resources of 17-23
Gaol sentences 1034-5
Garment manufacture 416, 420
Gas industry, illuminating and fuel 413, 418
— inspection, revenue from 612, 834
— meters in use, by kinds of gas consumed 612
— natural, production of 316, 347
— sold, by kinds 613
Gasoline, consumption of 671
— imports 564
— sales of, by provinces 671
— tax, revenue from, by provinces 670, 865-6
Geese, number and value of 211-4
General elections, Dominion and provincial 1134
Geographical features of Canada 1-16
Germany, gold, silver, and coal production of 336, 347
— trade agreement with 489-90
Glace Bay, N.S., gross postal revenue of 734
— population of 96

PAGE.

Glass and glassware, imports 564
— plate, imports 564
—— insurance 949, 950, 951
Gloves and mitts, manufacture of 416, 422
Gold bullion, movement of, 1868-1939 528
— exports of in trade statistics 499-501, 521, 522, 544
— held under earmark by Bank of Canada 585
— monetary use of 886, 887, 889-92
— occurrence, by provinces 333
— production of 316, 321, 334-6
—— in relation to war effort 307-8
— trade in coin and bullion 528
— treatment of in trade statistics 499-501
Government aid to housing 468-71
— annuities 954-6
—— contracted for and purchase money received 955
—— fund statements 956
— bounties paid to fishermen 288
— control over transportation, etc 632-5
— home improvement plan 470-1
— legislation, Dominion 1117-33
— local, in Canada 42
— Merchant Marine 685
— of Canada, constitution and 41-68
— of provinces 58-64
— relation to agriculture 180-97
—— to fisheries 285-8
— savings banks 911-4
Governors General of Canada, appointment of 42-3, 1133
Grain Commissioners, Board of 592
— crops of Prairie Provinces 204-10
—— value and yield of 206-10
—— world statistics of 237-41
— distribution of 595-7
— elevators, number of, etc 597-8
— exports and imports 536, 548
— for distillation, quantity of 844
— handled at Eastern elevators 599
— hay, production of 206-10
— inspection of 598
— movement of, by ports 599
— prices of 228, 230
— receipts of 599
— shipments of, by vessels from Fort William and Port Arthur 599
—— by lake and all-rail routes 599
— stocks in store 211
— storage and inspection of 597-9
— trade 592-600
—— governmental agencies regulating or co-operating with 592
Grand Trunk Pacific Railway 636-7, 647
—— Railway 636, 647
Grapes, production and value of 222
Graphite, production of 316, 322
Gravel and sand, production of 317, 323, 351-2
Graving docks of Dominion Government 682
—— dimensions of 682
—— subsidized 682
—— dimensions and cost of 682
Great Britain—see "United Kingdom".
— lakes, area, elevation, and depth of 12
—— -St. Lawrence forest region 245
Greece, trade with 574, 576
Grist-mills 408
Guaranteed securities, Dominion 861-3
Guelph, Ont., Agricultural College 193-4
— building permits for 477
— gross postal revenue of 734
— manufactures 466
— population of 96
Gulf of Mexico drainage basin 14
Gypsum, production and occurrence of 316, 322, 349-50

Haddock, production of 291
— quantities, values, and percentages of 291, 292
Hail insurance 950, 951

PAGE.

Hake, production of 291
Half-breeds 1062
Halibut, production of 291
— quantities, values, and percentages of 291, 292
Halifax, N.S., building permits for 477
— gross postal revenue of 734
— manufactures 464
— population of 95
— shipping 693
Hamilton, Ont., building permits for 477
— employment record of 754, 755
— gross postal revenue of 734
— infantile mortality of 135
— manufactures 464, 465
— population of 95
Hams and bacon, exports 540
Harbour Commissions 678
—— loans guaranteed by Dominion 861, 863
— masters 681-2
— traffic 700-2
Harbours 678-82
—— Board, National 679-81
—— facilities operated and controlled by 681
— commodities shipped through 701-2
— expenditures on 687, 688-9, 690
— facilities of principal 678
— pilotage 683
— public 681-2
— revenues from 689, 690
Hardware, cutlery, and tools, manufacture of 416
Hatcheries, fish, number of, etc 286, 998
Hay, production of 205, 206-10
Health, Dominion Department, administration of 1014-7
—— Dominion expenditure *re* 835
—— publications of 1099
— provincial departments 1017-22
— public, and related institutions 1013-31
—— administration of 1013-22
—— hospitals 1024-7
—— mental 1027-8
—— institutions 1022-8
Hemp, bounty on 608
Hens, number and value of 211-4
Herring, production of 291
— quantities, values, and percentages of 291, 292
High Commissioners within the British Commonwealth of Nations 64-5
Highway mileage, classification of 665
Highways and roads 664-5, 667-8
— provincial funded debt for and charges thereon 669
— recent development of 664
— rural, capital, maintenance, and expenditures on 668
Historic sites, National 20
History and chronology 25-40
— chronological 25-40
— of external trade 480-3
— of fur trade 277
— of manufactures 394-5
— of mining 298
Hogs, marketed 601, 603
—— prices of 228-9
Home improvement plan, Government 470-1
Homes, benevolent 1024, 1028-9
— for incurables 1023
Honey, production of 226-7
—— by provinces 227
Hong Kong, trade with 524, 573, 574, 577
Horses, number and value of 211-4
— in principal countries 242-3
Horticulture 220-3
Hosiery, manufacture of 411, 416-7
Hospitals, administration of, etc 1013-22
— average daily charges of 819
— Dominion Government 1023
— mental 1027-8
— number and types of 1023
— out-patient departments of 1026-7
— statistics of 1024-8

PAGE.

Hours of labour, by trades 784, 786
House of Commons, constitution, powers of, etc 50-7
—— members of 52-7, 1150-5
—— representation in the 51-2
— rents 817-8, 821
Housing Act, Dominion 468
—— loans approved under, by provinces 469
—— National 468-70
— Government aid to 468-71
Hudson Bay railway, expenditure *re* 641, 646
Hull, Que., gross postal revenue of 734
— manufactures 465
— population of 95
Hydraulic power, problems in development of 361-3
— turbine horse-power installed by provinces 364
Hydro-Electric Power Commission of Ont. 377-80
—— of Manitoba 380-1
—— of New Brunswick and Nova Scotia 373-6
—— of Saskatchewan 381-2
Hydro-electric power, public ownership of 377
—— problems in development of 361-3
—— production 373-83
Hygiene, laboratory of 1016

Ice, artificial, manufacture of 418
Illegitimate births 115-6
Immigrant population 90-1
— arrivals 147-8, 156-7
Immigrants, assimilation of 144-6
— Chinese 161, 162-3
— conjugal condition of 148-50
— countries of birth of 153
— deportations of 160
— destinations of 155, 156-7
— East Indian 161, 163
— effect on population 145-6
— Japanese 161, 163
— juvenile 160-1
— languages of 150-1
— nationalities of 154
— occupations of 155-8
— Oriental 161-3
— ports of arrival of 155
— prohibited 158-9
— racial origins of 151-2
— rejections of 159
— sex of 148-50, 156-7
Immigration, Canadians returning 163-6
— expenditure *re* 146
— growth of 147-8
— hospitals 1015, 1023
— statistics of 144-66
Implements, agricultural, exports and imports 544, 560
—— manufacture of 416
Import valuations 519-20, 526, 548-67
— duties 483-94, 529
—— amounts collected 529, 568-9
—— rates of 532
Imports, by continents 504, 516, 523-4
— by classes of merchandise, with values and percentages 535
— by countries 507-8, 517, 523-4, 573-5
— by degree of manufacture 523-4, 570-1
— by origin 570-1
— by purpose 572
— by tariff rates 573
— by values, entered under general, preferential, and treaty tariffs 573
— comparison of the volume of 577-81
— dutiable, by main classes 568
— duties collected on 529
— entered for home consumption 531
— free, by main classes 568
— from principal countries 516-7
— leading, of Canada 520
— of bullion 528

PAGE.

Imports, of merchandise, values of..... 574–5
— of principal commodities.....518–20, 548–67
— of raw materials for manufactures..... 533
— per capita and ratio to exports..... 527
— percentages of into Canada from leading countries..... 517
— through the United States.....514–5, 577
—— values and percentages of..... 577
— trade, general analysis..... 509–11
— wholesale price index numbers of..... 816
Income, agricultural..... 200–2
— assessed for Income War Tax, by provinces..... 846
—— by individuals and corporations..... 846
— national..... 878
— tax receipts.....834, 846–9
—— by incomes of taxpayers..... 847
—— by occupations of taxpayers..... 848
—— by provinces..... 847
—— from special five per cent tax..... 849
— War Tax Act..... 830
Incomes assessed, by provinces..... 846
Incorporation, charters granted..... 1069
Incurables, hospitals for..... 1023
Index numbers of agricultural prices..... 229–30
—— of bond yields..... 824–5
—— of common stocks..... 822–3
—— by months..... 822–3
—— of cost of living..... 817–8
—— of employment.....753–4, 756
—— of hospital charges..... 819
—— of import and export values..... 816
—— of mineral production..... 319
—— of mining stocks..... 823–4
—— of preferred stocks..... 823
—— by months..... 823
—— of rates of wages..... 785
—— of retail prices..... 817–8
—— sales..... 616–9
—— of security prices..... 822–4
—— of wholesale prices.....809, 810, 812–6
—— sales..... 625
India, gold, silver, and coal production of..336, 346
Indian Affairs Branch, administration of..... 1061
—— expenditure of..... 835
— lands..... 1063
— population..... 1062
— treaties..... 1061–2
Indians, education of..... 1062–3
— farm live stock of..... 1064
— field crops of..... 1063
— income of..... 1064
— legislation *re*..... 1061
Indictable offences, numbers of..... 1036–42
Indies, West, trade agreement with..... 487
Industrial accidents..... 775–81
—— fatal, by industries..... 776
— designs..... 610
— disputes..... 781–3
—— causes and results of..... 783–4
— Disputes Investigation Act..... 744
— equipment manufactures..... 420–2
— failures..... 958–60
— groups, production of..... 407–13
— materials, prices of..... 810–1
— research.....979–1012
Industries—see "Manufactures".
— principal statistics of 40 leading, ranked according to gross value of products..... 426–7
— workers engaged in..... 430–6
Infantile mortality..... 131–7
Information, official, sources of.....1079–1116
Inland fisheries..... 285
— revenue..... 843–50
— shipping.....692–3, 695
— waters..... 912–3
Insane, hospitals for the.....1023, 1027–8
Insolvency legislation..... 957
Inspection of gas and electricity.....611–3, 834
— of grain..... 598
— of steamboats..... 683–4
Institutional statistics..... 1022–9

PAGE.

Institutions, charitable and benevolent..... 1028–9
— corrective and reformative..... 1029
Instruction, public—see "Education".
Insurance Act, Dominion..... 927
— accident.....949, 950, 951
— as it affects the balance of international payments..... 952–4
— automobile.....950, 951
— aviation.....950, 951
— burglary.....950, 951
— companies, Canadian, abroad, investments of..... 880
—— Dominion tax, revenue from..... 834
—— movements of funds between Canada and other countries..... 954
—— by classes of companies..... 954
— death rates in Canada..... 939
— Department, publications of..... 1096
— employers' liability..... 776
— fire..... 927–36
—— British companies, assets and liabilities in Canada of..... 930–1
—— income and expenditure of..... 931–2
—— net losses p.c. of net premiums by, by classes of risks..... 933–4
—— net premiums written and net losses incurred by, by provinces..... 932
—— Canadian companies, assets and liabilities of..... 930–1
—— income and expenditure of..... 931–2
—— net losses p.c. of net premiums by, by classes of risks..... 933–4
—— net premiums written and net losses incurred by, by provinces..... 932
—— *Dominion licensees*..... 935
—— foreign companies, assets and liabilities in Canada of..... 930–1
—— income and expenditure of..... 931–2
—— net losses p.c. of net premiums by, by classes of risks..... 933–4
—— net premiums written and net losses incurred by, by provinces..... 932
—— losses paid..... 935–6
—— by provinces..... 936
—— percentages covered by insurance..... 936
—— premiums received..... 929
—— provincial licensees..... 935
—— summary statistics of.....928–9, 935
— forgery.....950, 951
— government annuities.....950, 951
— *guarantee*.....949, 950, 951
— hail.....950, 951
— inland transportation.....950, 951
— inspection, Dominion revenue from..... 834
— legislation *re*..... 1123–4
— *life*..... 936–49
—— British companies, assets and liabilities of..... 940–1
—— cash income and expenditure of, by principal items..... 941–2
—— Canadian companies, assets and liabilities of..... 940–1
—— cash income and expenditure of, by principal items..... 941–2
—— outside Canada..... 945–9
—— claims paid.....938, 939
—— currencies other than Canadian..... 946–8
—— Dominion licensees..... 945
—— and provincial, by class of licensee and type of company..... 945
—— foreign companies in Canada, assets and liabilities of..... 940–1
—— cash income and expenditure of, by principal items..... 941–2
—— fraternal benefit societies..... 942–4
—— statistics of..... 943–4
—— in force out of Canada by Canadian companies..... 945–8
—— of Dominion registration, in currencies other than Canadian..... 946–7
—— by currencies..... 947–8

PAGE.

Insurance, life, on the assessment plan.... 942-4
—— policies, ordinary and industrial..... 939
—— premiums received.....938-9, 941
—— progress of, under Dominion registration..... 938-9
—— provincial licensees..... 945
—— returned soldiers'..... 1067
—— summary of business of Canadian companies abroad..... 948-9
—— in Canada, 1938..... 944-5
— live-stock.....950, 951
— miscellaneous..... 949-51
— other than fire and life, premiums and losses..... 950
—— in Canada, Dominion and provincial 951
—— income and expenditure, assets and liabilities of companies..... 950
— plate glass.....949, 950, 951
— sickness.....950, 951
— sprinkler leakage.....950, 951
— steam boiler.....949, 950, 951
— title.....950, 951
— tornado.....950, 951
— weather.....950, 951
Intercolonial Railway, construction of, etc.. 636
Interest on debt, expenditure *re*.....835, 838
— on investments, Dominion.....835, 840
— payments and receipts, international.... 589
—— provincial..... 870
Interest-bearing debt..... 859
Interior Continental Plain—see "Orography"
— Plains Region..... 356-7
Internal trade..... 590-630
International Boundary, length of..... xiii
— labour organization..... 773-5
— payments, balance of..... 584-9
—— Canadian..... 586-7
—— estimated, 1937 and 1938..... 589
—— in recent years..... 588-9
—— the geographical distribution of transactions in..... 585-7
— statistics of agriculture..... 237-43
Interprovincial trade..... 590-2
Intra-Imperial trade agreements..... 483-7
Investments, British and foreign in Canada. 879-81
— Canadian, abroad..... 881
— of Canadian insurance companies operating abroad..... 880
— interest on Dominion.....834, 840
Investors index numbers of common stocks. 822-3
Ireland, High Commissioner for Canada in 65
—— in Canada..... 66
— trade agreement with..... 485
—— with.....523, 573, 574, 575, 577
Iron and steel, bounty on..... 608
— manufacture of.....412, 416
— occurrence..... 337-8
— ore, imports.....533, 558
—— shipments..... 337
— production of.....316, 322, 337
—— as a war mineral..... 305
— products, exports and imports.....544, 558-61
Irrigation, agricultural..... 234-6
Islands of Canada..... 15-6
Italy, gold and silver production of..... 336
— treaty with..... 490

Jail sentences..... 1034-5
Jamaica, trade with.....523, 573, 574, 575
Japan, exports to.....517, 524, 576, 577
— imports from.....517, 524, 573, 574
— mineral production of.....332, 336, 347
— trade agreement with..... 490-1
Japanese immigration.....161, 163
Judicial appointments..... 1140-1
— statistics..... 1032-55
—— appeals in criminal cases..... 1036
—— breaches of traffic regulations..... 1046-7
—— convictions for all offences..... 1033-5
—— for drunkenness..... 1045
—— for indictable offences..... 1036-42

PAGE.

Judicial statistics, convictions of females... 1041
—— summary..... 1043-8
—— juvenile delinquency..... 1048-51
—— municipal police..... 1051-2
—— pardons..... 1036
—— penitentiaries..... 1052-5
—— recidivism.....1043, 1050
—— reduction of sentences..... 1036
Justice, cost of administration of..... 835
— legislation *re*..... 1124-5
Jute fabrics, imports..... 554
Juvenile delinquency..... 1048-51
— immigration..... 160-1

Kamloops, B.C., building permits for..... 477
— gross postal revenue of..... 735
— population of..... 97
Keewatin District, area of..... 9
King's Printer and Controller of Stationery, publications of..... 1096-7
— Privy Council, members of.....45, 1136
Kingston, Ont., building permits for..... 477
— gross postal revenue of..... 734
— manufactures..... 466
— penitentiary (Portsmouth)..... 1052
— population of..... 96
— shipping at..... 694
Kitchener, Ont., building permits for..... 477
— gross postal revenue of..... 735
— manufactures..... 465
— population of..... 95
Knitted goods, manufacture of.....411, 416

Labour, All-Canadian Congress of..... 770
— and wages..... 743-807
—— provincial..... 746-50
— bodies, Canadian central, with branches and memberships..... 773
— Canadian Federation of..... 770
— Dominion Department of..... 743-6
—— publications of..... 1097
— farm..... 787
— *Gazette*..... 745-6
— Government in relation to..... 743-50
— groups, main..... 770
— international organization of..... 773-5
— legislation *re*.....746, 747-50, 1125-6
—— Dominion..... 746
—— provincial..... 747-50
— organizations..... 769-75
— organized, total reported membership of. 769-70
— Provincial Departments and Bureaus of. 746-7
— strikes and lockouts..... 781-4
Labourers, earnings of.....785, 786, 787
— wage rates in building trades.....785, 786
Lachine, Que., canal.....677, 687, 688, 689
— manufactures..... 465
— population of..... 96
Lake ports, wheat movement via..... 599
Lakes and rivers..... 12-5
— area of..... 12-3
— by provinces..... 13
— elevations of..... 12-3
— Great..... 12
Lands, classification of (agricultural, forested, etc.)..... 17-8
—— by tenure..... 1056
— Dominion public..... 1056-9
—— revenue from..... 834
— occupied and improved..... 18
— provincial public..... 1059-60
— railway grants..... 644
— resources..... 17, 18
— scenic and game resources..... 17-23
— timber, administration of..... 258-61
— unoccupied, occupied, improved, etc.... 18
Language spoken and mother tongue..... 91-2
Languages, official..... 91-2
Laths, production of..... 273

PAGE.

Lead, bounty on 608
— occurrence 338
— production of 316, 321, 338-9
—— as a war mineral 304
—— of world 339
— products, exports and imports 544, 562
League of Nations, Canada and the 67-8
—— membership of 68
Leather products, exports and imports 540, 552
— manufacture of 410, 414
— tanneries 410, 414
Legislation, Dominion 1117-33
—— agricultural 181-5, 1119-22
—— employment 743-5, 746, 747-50
—— expenditure *re* 835
—— finance and taxation 1117-9, 1131-2
—— Indians 1061
—— insurance 1123-4
—— justice 1124-5
—— labour 743-5, 746, 1125-6
—— miscellaneous 1130-1
—— Parliamentary representation 50-1, 1136
—— pensions 1127
—— railways 1128-30
—— respecting combinations in restraint of trade 794-5
——— trade and commerce 1127-8
——— transportation 1128-30
— provincial labour 747-50
Legislative Assemblies 58
— and executive authorities 42-64
Lemons, imports 548
Leprosy 1015
Lethbridge, Alta., building permits for 478
— gross postal revenue of 735
— manufactures 467
— population of 96
Letters patent granted 608-9
Lévis, Que., population of 96
Liabilities of Provincial Governments 869
Licences, excise, and distillation 844
Lieutenant-Governors of provinces 59-64
Life insurance—see "Insurance".
Light, heat and power equipment industry 422
Lighthouses, number in operation 676
Lightships, number in operation 676
Lignite coal—see "Coal"
Linen, manufacture of 416
— yarns, bounty on 608
Liquor control and sale 626-30
—— boards, sales by 627
——— sales and profits of 628
—— total net revenue from 628
— consumption of 627-8, 629-30
Literacy of population 100-1
Lithographing industry 416
Live stock, exports and imports 538, 552
—— grading of 602-3
—— marketed through stockyards, packers, etc., by provinces 601
——— according to grade 602-3
—— marketing of 600-6
—— number of 211-3
—— of the world 242-3
—— prices of 228-9
—— products, marketing of 600-6
——— export and import trade in 606
—— receipts and disposition of, at principal markets 600-1
—— slaughtered at inspected establishments, by months 604
—— value of 214
Living, index numbers of cost of 817-8
Loan and trust companies, assets and liabilities of 915-9
——— Dominion, operations of 916
——— functions of 915
——— legislation *re* 1123-4
——— provincial, operations of 916
— Board, Farm, Canadian 185-6
— companies, small 919-20
——— assets and liabilities of 920

PAGE.

Loan flotations, Dominion, expenditure *re* 835
Loans, bank 903
— Dominion Housing Act 469
— Government Home Improvement Plan 470-1
— National Housing Act 469
— on insurance policies 940
— to provinces 852-3
— to Provincial Governments, under the Relief Acts, by provinces 852
——— on account of housing 853
Lobsters, exports 538
— production of 291
— quantities, values, and percentages of 291, 292
Lockouts and strikes 781-4
Logs, exports and imports 542, 556
— production of 264
London, Ont., building permits for 477
— gross postal revenue of 735
— infantile mortality of 135, 137
— manufactures 466
— population of 95
Lumber, exports and imports 274-5, 542, 556
— industry (sawmills) 273-5, 416
— production of 273-5
— shingles and lath, production of 273
——— by provinces 274
— trades, wages, in logging and sawmilling 785

Macaroni and vermicelli, manufacture of 414
Machinery, exports and imports 544, 560
— manufacture of 416
Mackenzie District, area of 9
Mackerel, production of 291
Magazines and newspapers, imports 558
Magnesite, production of 316, 322
—— for war purposes 307
Mail service, rural 733
— services, air 708, 738-9
—— subsidized 690-1
— subsidies, Dominion expenditure *re* 690-1, 835
— transportation 733
— weight carried by air and mileage flown 739
Males, births of 107-8
— deaths of 123, 124
Malt, excise tariff on 843
— liquor, consumption of 628, 630, 845
—— manufacture of 414
—— taken out of bond for consumption 845
Manila fibre, bounty on 608
Manitoba Agricultural College 194
——— experiments of 194
— agricultural production of 202, 205, 208-9
— area and description 5, 9
— births 108, 116, 141
— central electric stations 373, 384
— deaths 141
— debt, bonded 868, 869
— Dept. of Agriculture 188
—— of Labour 748-9
— divorces 121
— education—see "Education".
— electric energy generated in 366, 371
— farm loans approved 186
— fishery products, value of 290
— flour-mills, equipment and capacities 408
— fur farms, number and value of 279
— Government publications of 1105-6
— honey production 227
— hospitals, summary statistics of 1025
— Hydro-Electric Power Commission of 380-1
— judicial convictions—see "Judicial".
— lakes 13
— lands and buildings, farm investments in 203
— lands, classification of 18, 1056, 1060
— leading industries of, statistics of 461
— Lieutenant-Governors and the Ministry of 61
— live stock, farm investments in 203
—— number of 212
— lumber, production of 274

PAGE.
Manitoba, manufactures.....398-9, 449-56, 461
—— of cities and towns, statistics of..... 467
— manufacturing establishments, number of..... 414
—— industries, statistics of, by size of establishment..... 456
— marriages.....119, 141
— mineral occurrences in—see individual minerals.
—— production of..... 320-3
— mining laws of..... 312
— mothers' allowances..... 806
— motor-vehicle regulations..... 663
— police statistics..... 1052
— population of.....70-1, 94
— production, survey of.....173-9, 1156
— products of manufacturing, value of..... 448-54
— public finance of..... 864-70
—— health..... 1020
— representation in the House of Commons.....51, 55-6, 1153
—— in the Senate..... 50
— timber, estimated stand of..... 250
— water powers of.....358, 364, 365
— wealth of..... 878
— workmen's compensation..... 779
Manufactured products, by industries..408-19, 425-7
—— by provinces.....398-9, 448-67
—— consumption of.....402, 404
—— exports and imports.....522-4, 570-1
—— prices of..... 814-6
—— proportions of trade in..... 522-4
—— value and volume of..... 404-7
Manufactures..... 394-467
— of cities and towns, by provinces..... 464-7
— power equipment installed in.....387-9, 390
— summary statistics of, by provinces and industrial groups..... 398-401
—— representative years, 1917-38..... 403
— variations in employment, wages, values of products..... 408
— wood and paper..... 275-6
Manufacturing, by groups.....400-1, 407-19
— by industries..... 414-9
— by origin of materials..... 422-5
—— principal statistics of, 1924-37..... 423-5
— by provinces, cities, and towns....398-9, 448-67
— by purpose of products..... 420-2
— capital employed in.....403, 414-9, 428-9
—— forms of, by provinces and industrial groups..... 429
—— percentage distribution of, by provinces and industrial groups..... 428
— effects of the depression on.....397, 407
— efficiency of production..... 431
— employees in.....403, 414-9, 430-6
— establishments, by size..... 440-6
—— according to number of employees.. 441-2
—— according to value of products..... 441
—— by province and industrial group..... 414-9
—— in leading industries, percentage importance of..... 442
— finishing trades..... 411
— gross production for cities and towns, by provinces..... 463
— growth of..... 396-404
— historical summary statistics of..... 396-407
— industries, by purpose..... 420-2
—— principal statistics of, 1922-37..... 420-2
—— Canadian, the evolution of..... 394-5
—— forty leading.....426-7, 437-8
—— in each province, statistics of, by size of establishment..... 455-6
—— in six leading cities, statistics of..... 464
—— ten leading, compared as to rank..... 425
—— twenty-five leading, statistics of..... 443-6
—— size of establishments in..... 443-6
—— value of products of, by provinces, groups, and industries..... 448-54
—— values of products of..... 414-9
— localization in cities and towns..... 463-7
PAGE.
Manufacturing, materials, cost of..... 414-9
— power and fuel used for.....387-93, 403, 414-9
— principal statistics of, by individual industries, 1937..... 414-9
—— by industrial groups, 1917-38..... 400-1
—— by provinces, 1917-38..... 398-9
— production, indexes of volume of.....405, 406
—— principal factors in..... 428-47
—— provincial and local distribution of.... 448-67
—— volume of.....404-7, 431
— provincial distribution of..... 448-67
— real earnings of employees..... 439
— salaries and wages in....403, 408, 414-9, 436-40
— textile.....400-1, 410-1, 414-7
— wage-earners in, by months for each sex. 433
Maple sugar, exports..... 536
—— production and values by provinces... 224
— syrup, production and values by provinces..... 224
Marine, Canadian Government Merchant. 684
— danger signals..... 676
— hospitals.....1015, 1023
— origin, exports and imports of products of 571
— radio stations of Dept. of Transport..... 723-4
—— areas served by..... 723-4
— services and operations of the Dominion Government..... 682-6
Mariners' Fund, Dominion receipts from... 834
Maritime Freight Rates Act..... 653
—— expenditure on..... 836
— Provinces, area of..... 2-3, 9
—— employment in..... 753-4
—— manufactures in.....398-9, 456-7
—— statistics of leading industries of..... 457
Marketing Board, Dominion 186-7
— of live stock and animal products..... 600-6
— Act, Co-operative Wheat..... 182
Markets for Canadian forest products, world..... 253-7
Marriage, age at..... 117-8
— nativity of persons married..... 118-9
— rates in various countries..... 120
Marriages as affecting racial composition.. 145-6
— number and rates.....119, 120, 141
Marten skins, number and value taken..... 283
Masculinity of the population of various countries..... 82
Maternal mortality..... 137-9
Measures, weights, etc., administration of. 610-1
—— inspection of..... 611
—— receipts from..... 611
Meat, cold storage..... 607
— consumption of..... 604-6
— exports and imports.....540, 552, 604-6
— packing industry.....409, 414, 426, 427, 603-4
— production of..... 604-6
Medical preparations and drugs, exports and imports.....546, 564
—— manufactures of..... 418
Medicine Hat, manufactures..... 467
— population of..... 96
Members of the House of Commons, votes polled, and voters on list.....52-7, 1150-5
— of the King's Privy Council..... 45
— of the Senate..... 49-50
Men's furnishings, manufacture of.....416, 426, 427
Mental defectives and institutions for.... 1027-8
Merchandise, exports and imports.....536, 548
Merchandising and service establishments. 613-26
—— annual statistics *re*..... 613-4
—— monthly statistics *re*..... 614
— retail and services..... 616-26
— wholesale and other bulk..... 614-7
—— by provinces..... 614
Merchant Marine, Canadian Government.. 685
Metallurgical industries..... 324-30
Metals—see "Minerals".
— non-ferrous, exports and imports... 544, 546, 558, 560, 562
—— smelting and refining.....413, 418
—— summary statistics of.....400-1, 414, 416, 418

PAGE.

Meters, electric and gas, in use 612
Mexico, gold, silver, and copper, production of 332, 336
— trade with 523, 573, 574, 576, 577
Mica production for war purposes 307
Microphotography as applied to census records 75
Migratory Birds Treaty 20, 1071
Military College, Royal, receipts from 834
— forces ..... xxvi-xxviii
Militia, appropriations for 835, 1131-2
— expenditure *re* 835
— pensions, revenue from 834
Milk, condensed, production of 414
— consumption of 218-9
— manufacture of 216-20
— production of 216-7
—— farm value of 217
— and its products, exports and imports 540, 554
— used fresh, value of 218
Mineral industries, principal factors in 324-6
—— their relation to present war effort 303-9
— lands administration 309-14
—— Dominion, laws and regulations *re* 309-10
—— provincial, laws and regulations *re* 310-4
— occurrences in provinces 320-3
— origin, exports and imports of 571
— production, percentages, quantity and value 314-23
—— provincial distribution of 319-23
— resources in relation to war effort, the development of 298-309
(See individual minerals.)
Minerals, exports and imports 544-7, 558-65
— general production of 314-23
—— value of 314-23
— manufacture of 412, 413
— metallic, production of 316, 321, 330-43
— non-metallic, exports and imports 546-7, 562-5
—— manufacture of 413, 418-9
—— production of 316-7, 321-2, 343-50
— produced for present war 299-300
— provincial production of 320-3
— structural materials and clay products 317, 322-3, 350-2
— trends in production 300-3
— volume of production 318-9
— war, produced in Canada 303-7
Miners in coal mines, wages rates of 785
Mines and minerals 298-352
— and Resources, Dept. of, expenditure *re* 835
—— publications of 1097-8
—— research in 992-8
Minimum wage legislation 788-94
Mining industry, employees in 325, 327-30
— growth of in recent years 326-8
— power equipment installed in 389-90
—— principal statistics of, by groups and provinces 327-8
—— by industries 329-30
— legislation *re* 309-14
—— provincial 310-4
— purchase of commodities and services 325-6
— regulations, placer 309, 310, 314
—— quartz 309-10
— stocks, index number of prices of 823-4
Minister to France 65
— to Japan 65
— to the Netherlands and Belgium 65-6
— to the United States 65
Ministries and Lieutenant-Governors of provinces 59-64
— of the Dominion 44
Ministry, the 43-4
Mink skins, number and value taken 283
Mint, Royal Canadian, coinage at 888-92
—— coinage methods used at 891-2
—— history of 888-9
—— organization of the 889
—— Royal Canadian, precautions observed at 892

PAGE.

Mint, refining procedure at the 889-91
Molybdenum, production of for war purposes 306
Moncton, N.B., building permits for 477
— gross postal revenue of 734
— manufactures 465
— population of 96
Money order system 736-8
—— operations of the 737
—— statistics, by provinces 737-8
Montreal, Que., births and deaths 108, 129-30
— building permits for 477
— clearings, bank 905
— debits, bank 906
— employment record of 754, 755
— gross postal revenue of 734
— live stock marketed at 600-1
— manufactures, statistics of 464, 465
— opening and closing of navigation at 676
— population of 95
— shipping at 694
Moose Jaw, Sask., building permits for 478
—— gross postal revenue of 735
—— live stock marketed at 601
—— manufactures 467
—— population of 96
Mortality, by causes 125-8
— general 122-30
— infantile 131-7
— maternal 137-9
Most-favoured-nation treatment 487
—— rates of 804-5
Mothers' allowances 803-7
Motion picture statistics 625-6
Motor cycles, registration of 666
—— vehicle accidents 672-3
—— by provinces 672
—— by status of person 673
—— Acts and Regulations 662-4
—— breaches of traffic regulations 1046-7
—— sales, financing of 624
—— vehicles, apparent consumption of 666-7
—— exports and imports 544, 560, 666
—— manufacture of 416
—— new, comparison of sales and financing of 624
—— provincial revenue from taxation of 670
—— registration of, by provinces 665
—— retail sales of 622-4
—— revenue from taxation of 670
—— types registered, by provinces 666
—— used, retail sales of 623-4
Motors, electric, imports 562
Mountain peaks and ranges 10
Mounted Police, Royal Canadian, administration of 1071-2
—— Dominion expenditure *re* 835
Moving picture films, exports and imports 546, 566
Municipal police statistics 1051-2
— public finance 870-6
— revenue from taxation 871-2
Municipalities, assessment of 872-3
—— by provinces 873
— bonded indebtedness of 874
— by provinces and classes 871
— liabilities and assets of 875-6
— manufactures 463-7
— numbers of 871
— population of rural and urban 92-100
— tax receipts of, by provinces 872
Munitions and Supply, Dept. of xxxii
Musical instruments, manufacture of 418
Muskrat skins, number and value taken 283
Mutton, consumption of 605
— in cold storage 607

Narcotic drugs, control of 1016
—— charges and convictions 1040, 1044
National debt 853-63
— defence ..... xxvi-xxxi
— Defence Department, publications of 1098

PAGE.

National defence, expenditure *re*..... 835
— Electricity Syndicate..... 377
— Employment Commission.....470-1, 760-1
— Film Board..... 1130-1
— Forestry Program..... 764
— Harbours Board..... 679-81
—— revenues and expenditures under.... 690
— historic sites..... 20
— Housing Act..... 468-70
— income..... 878
— parks of Canada..... 19-22
— railways..... 631-60
— registration of persons on material aid.. 760-1
— Research Council..... 980-5
—— publications of..... 1098-9
— Revenue Dept., expenditure *re*..... 835
—— publications of..... 1099
—— receipts of..... 834
—— legislation *re*..... 1132
— wealth and income..... 876-81
—— of Canada, by provinces..... 878
Natural increase of population..... 139-43
— gas, occurrence of..... 347
—— production of.....316, 321, 347
—— sales of..... 613
Naturalization Act..... 1069-70
— and citizenship.....90-1, 1069-70
Naval Service..... xxx-xxxi
—— expenditure *re*..... 835
Navigation, air (see also "Air Service" and "Aviation").....703-14
— and miscellaneous works, aids to..... 675-6
— financial statistics of..... 686-91
— Government aid to..... 687-9
—— expenditures for maintenance and operation of..... 688-9
—— revenues from operation of..... 689
— inland water.....677-8, 692-3, 695
— ocean..... 691-2
— opening and closing of..... 676
— revenue derived from..... 689
Navy, Royal Canadian..... xxx-xxxi
New Brunswick, agricultural production of 201, 205, 207
— area and description of..... 3, 9
— births.....107, 116, 141
— central electric stations.....373, 384
— deaths..... 141
— debt, bonded.....868, 869
— Dept. of Agriculture..... 187
— divorces..... 121
— education—see "Education".
— electric energy generated in.....366, 371
— Electric Power Commission of..... 375-6
— farm loans approved..... 186
— fishery products, value of..... 290
— flour-mills, equipment and capacities... 408
— forestry, administration of..... 259
— fruit production, value of..... 222
— fur farms, number and value of..... 279
— Government publications of..... 1101
— honey production..... 227
— hospitals, summary statistics of....1023-4, 1025
— judicial convictions—see "Judicial".
— labour legislation..... 748
— lands and buildings, farm investments in..... 203
—— classification of.....18, 1056, 1060
— leading industries of, statistics of..... 457
— Lieutenant-Governors and the Ministry of..... 60
— live stock, farm investments in..... 203
—— number of..... 213
— lumber, production of..... 274
— manufactures.....398, 399, 456, 457
—— of cities and towns, statistics of..... 465
— manufacturing establishments, number of..... 414
—— industries, statistics of, by size of establishment..... 455
— maple sugar and syrup, production of... 224

PAGE.

New Brunswick, marriages.....119, 141
— mineral occurrences in—see individual minerals.
—— production of..... 320-3
— mining laws of..... 311
— motor-vehicle regulations..... 663
— police statistics..... 1052
population of.....70-1, 94
— production, survey of.....173-9, 1156
— products of manufacturing, value of.... 448-54
— public finance of..... 864-70
—— health..... 1018
— representation in Dominion Parliament. 51, 52
—— in the Senate..... 49
— timber, estimated stand of..... 250
— water powers of.....358, 364, 365
— wealth of..... 878
— Workmen's Compensation Board..... 777
New Westminster, building permits for.... 478
— gross postal revenue of..... 736
— manufactures..... 467
— population of..... 96
New York City, infantile mortality..... 137
New Zealand, High Commissioner for Canada in..... 65
— production of gold, silver, and coal.....336, 346
— trade agreement with..... 485-6
—— with.....524, 573, 574, 575, 577
Newfoundland, trade with.523, 573, 574, 575, 577
Newspapers and magazines, imports of.... 558
— daily, weekly and semi-weekly, circulation of..... 740-2
Newsprint paper, exports from chief countries..... 272
— production of..... 269-71
—— world..... 271
Niagara Falls, Ont., building permits for.. 477
— gross postal revenue of..... 735
— manufactures..... 466
— population of..... 96
Nickel, exports and imports.....544, 562
— monetary use of..... 887
— occurrence..... 339
— production of.....316, 321, 339
—— as a war mineral..... 305
— world production of..... 339
Non-ferrous metals, manufactures of.....413, 418
—— smelting and refining.....413, 418
North Bay, gross postal revenue of..... 735
— population of..... 96
Northwest Territories, administration of.. 64
—— area of..... 8-9
—— fur production of..... 282
—— labour legislation..... 750
—— lakes..... 13
—— lieutenant-governors..... 64
—— population of.....70-1, 94
—— Territorial Council..... 64
Norway, trade with.....523, 573, 574, 576, 577
Notes, bank, circulation of..... 894-5
—— reserves..... 895-6
— chartered bank..... 894-5
— circulation in the hands of the public.... 895
— Dominion, circulation and issue of..... 893-4
— postal, issue of..... 738
Nova Scotia, Agricultural College of..... 190-1
— agricultural production of.....201, 205, 207
— area and description of..... 2, 9
— births.....107, 116, 141
— central electric stations.....373, 384
— deaths..... 141
— debt, bonded.....868, 869
— Dept. of Agriculture..... 187
— Dept. of Labour..... 747
— divorces..... 121
— education—see "Education".
— electric energy generated in.....366, 371
— farm loans approved..... 186
— fishery products, value of..... 290
— flour-mills, equipment and capacities.... 408
— forestry, administration of..... 259
— fruit production, value of..... 222

PAGE.

Nova Scotia, fur farms, number and value. 279
— Government publications of 1101
— honey production 227
— hospitals, summary statistics of 1023, 1025
— *judicial convictions—see "Judicial"*
— lakes 13
— lands and buildings, farm investments in 203
—— classification of 18, 1056
— leading industries of, statistics of 457
— Lieutenant-Governors and the Ministry of 59
— live stock, farm investments in 203
—— number of 212
— lumber, production of 274
— manufactures 398, 399, 456, 457
—— of cities and towns, statistics of 464
— manufacturing establishments, number of 414
—— industries, statistics of, by size of establishment 455
— maple sugar and syrup, production of 224
— marriages 119, 141
— mineral occurrences in—see individual minerals.
—— production of 320-3
— mining laws of 311
— mothers' allowances 805
— motor-vehicle regulations 663
— police statistics 1052
— population of 70-1, 94
— Power Commission of 373-5
— production, survey of 173-9, 1156
— products of manufacturing, value of 448-54
— public finance of 864-70
—— health 1017-8
— representation in House of Commons 51, 52
—— in the Senate 49
— timber, estimated stand of 250
— water powers of 358, 364, 365
— wealth of 878
— Workmen's Compensation Board 776-7
Nursery stock, floricultural and ornamental 222-3
Nurses, *Victorian Order of* 1029
Nutrition and family living expenditures 819-21

Oats, area, yield, and value of 204, 206-10
— crops, distribution of 596
— exports 536
— inspection of 598
— prices of 228, 230
— receipts of 599
— shipments of 599
— stocks in store 211
— world production of 238
Obituary 1134-6
Observatories, Dominion, research in 997-8
Ocean shipping 692, 693-4, 695
Occupations of immigrants 155-8
— of persons convicted for indictable offences 1042
Offences, indictable, charges, and convictions 1036-42
— juvenile 1048-51
— non-indictable 1043-8
Official appointments 1137-40
— languages 91-2
— publications 1081-92, 1095-116
Oils, fish, etc., imports 554
— mineral, exports and imports 546, 564
— vegetable, imports 550
Oka Agricultural Institute 192
Old age pensions 801-2
Ontario Agricultural College 193-4
—— experiments of 193-4
— agricultural production of 201, 205, 208
— area and description of 4-5, 9
— births 108, 116, 141
— central electric stations 373, 384
— deaths 141
— debt, bonded 868, 869

PAGE.

Ontario, Dept. of Agriculture 188
—— of Labour 748
— divorces 121
— education—see "Education"
— electric energy generated in 366, 371
— farm loans approved 186
— fishery products, value of 290
— flour-mills, equipment and capacities 408
— forestry, administration of 260
— fruit production, value of 222
— fur farms, number and value of 279
— Government publications of 1103-5
— honey production 227
— hospitals, summary statistics of 1023, 1025
— Hydro-Electric Power Commission of 377-80
—— growth of the 379
— judicial convictions—see "Judicial"
— lakes 13
— lands and buildings, farm investments in 203
—— classification of 18, 1056
— leading industries, statistics of 460
— Lieutenant-Governors and the Ministry of 61
— live stock, farm investments in 203
—— number of 212
— lumber, production of 274
— manufactures 398-9, 459-60
—— of cities and towns, statistics of 465-7
— manufacturing establishments, number of 414
—— industries, statistics of, by size of establishments 455
— maple sugar and syrup, production of 224
— marriages 119, 141
— *mineral occurrences in—see individual minerals.*
—— production of 320-3
— mining laws of 311-2
— mothers' allowances 805
— motor-vehicle regulations 663
— police statistics 1052
— population of 70-1, 94
— production, survey of 173-9, 1156
— products of manufacturing, value of 448-54
— public finance 864-70
—— health 1019-20
— representation in the House of Commons 51, 54-5
—— in the Senate 50
— Research Foundation 1009-10
— *savings banks of* 913
— timber, estimated stand of 250
— tobacco, production and value of 225
— water powers of 358, 364, 365
— wealth of 878
— wood-pulp, production of 269
— Workmen's Compensation Board 748, 778
Oranges, imports 548
Ordnance lands, Dominion receipts from 834
Ore, iron, production of 337-8
— silver-cobalt 331, 340-2
Organized labour in Canada 769-75
Oriental immigration 161-3
Origins of exports and imports 570-1
— of the people 85-7
Orography 9-12
Orphanges 1024
Oshawa, Ont., building permits for 477
— gross postal revenue of 735
— manufactures 465
— population of 96
Ottawa, Ont., building permits for 477
— employment record of 754, 755
— gross postal revenue of 735
— manufactures 466
— population of 95
— Rideau River canals, and 677, 687, 688, 689
—— traffic through 696, 697, 698
Outremont, Que., population of 95
Owen Sound, Ont., building permits for 477
— gross postal revenue of 735

PAGE.

Owen Sound, Ont., manufactures 466
— population of 96
Oysters, catch of 291

Pacific cable 716
— drainage basin 14
— ports, wheat movement via 593
Paints, manufacture of 418
— varnishes, etc., exports and imports 546, 564
Panama canal 699–700
—— Canadian traffic via 700
—— commercial traffic through 700
Paper, exports and imports 542, 558
— industry, the pulp and 265–73
— manufacture of 275–6, 411–2, 416
— production of 269–71
—— by products 270
—— by provinces 271
Pardons granted 1036
Parks, national 19–22
— provincial 23
Parliament, Dominion, composition, powers, etc 42–57
—— duration and sessions of 46–7
Parliamentary representation in Canada 47–57, 1150
Patent fees, Dominion receipts from 609
— Medicines Division 1015–6
—— manufacture of 418
Patents, administration of 608–10
— applied for, granted, etc 609
Patients in hospitals 1025–6, 1027–8
Payments, balance of international 584–9
Peace River Block 1059
Peaches, production and value of 221
Pears, production and value of 221
Peas, production of 206–10
Pelts sold from fur farms, values of 281, 282
Penitentiaries, Dominion expenditure *re* ... 835
— revenue from 834
Penitentiary statistics 1032–55
Penny banks 913–4
—— of Ontario, assets and liabilities of 913
Pension Appeal Court 1066
— Commission, Canadian 1065–6
Pensions Act, administration of 1065
—— Old Age, 1927 801–2
— and National Health, Dept. of 1075
——— publications of 1099
—— expenditure *re* 835
—— hospitals 1015, 1023
— appeals in connection with 1066
— expenditure *re* 802, 803, 835, 1065
— for the blind 802–3
—— financial summary of, by provinces ... 803
— legislation *re* 1127
— numbers in force 1066
— old age 801–2
—— expenditure *re* 802, 835
—— financial summary of, by provinces ... 802
—— number in force 802
Permits, building, issued 477–9
——— value of, by province and city 477–8
Peterborough, Ont., building permits for .. 477
— gross postal revenue of 735
— manufactures 466
— population of 96
Petroleum, bounty on 608
— crude, imports 533
— exports and imports 546, 564
— occurrence 348
— production of 316, 321, 348
—— for war purposes 307
— refining industry 413, 418
Physiography of Canada 1–24
Pickerel, production of 291
— quantities, values, and percentages of 291, 292
Piers, maintenance of 688
— iron, production of 337–8
Pigs, number and value of 211, 212–4

PAGE.

Pilchards, production of 291
— quantities, values, and percentages of ... 291, 292
Pilotage 683
— details of, by districts 683
Placer mining regulations 309
Places, elevations of ..... *facing page* 11
Plate glass, insurance 949, 950, 951
Platinum, production of 316, 321, 339–40
— metals, occurrence and production of 339–40
—— as a war mineral 305–6
Poles, telegraph, exports 542
Police, Royal Canadian Mounted, administration of 1071–2
—— expenditure *re* 835
—— strength and distribution of 1071
— statistics, municipal, by provinces 1052
Political subdivisions 1–9
Pollock, production of 291
Population, age distribution of 84–5
— and area of the British Empire 103
—— of the world 103
— annual estimates of 102–3
— area and density of 76–80
— births 106–17, 141, 143
— birthplaces 89–90
— blind and deaf mutes 101
— Canadian-born 89
— census statistics of 70–81
— centres of 75–6
— cities, towns, and villages 95–100
— citizenship and naturalization of 90–1
— conjugal condition of 83–4
— deaths 121–39, 141
— density of 76–80
— divorces 120–1
— dwellings and family households 101
— educational status of 965
— electoral districts 52–7
— elements of growth of 80–1
— estimated for each year, 1900–39 103
— foreign-born, citizenship of 90–1
— growth and distribution of 70–81
— immigrant, statistics of 147–63
— increase of 69–81
— Indian 1061–4
— infantile mortality of the 131–7
— language spoken and mother tongue 91–2
— literacy of 100–1
— marriages 117–20, 141
— natural increase of 139–43
— occupations of 102
— of provinces and territories 70–1
— racial origins of 85–7
— religions of 87–9
— rural and urban 92–100
— school attendance 101
— sex distribution of 81–3
— summary of births, deaths, natural increase, and immigration 81
— urban and rural 92–100
Pork, consumption of 605
— stocks in cold storage 607
Port Arthur, Ont., building permits for 478
— grain shipments from 599
— gross postal revenue of 735
— manufactures 466
— population of 96
— shipping 694
Portland cement, production, imports, and exports of 351
Ports, shipping entered and cleared 693–4
Portugal, trade with 574, 576
Post Office, the 732–9
——— Department, administration of 733
——— auxiliary services 736–8
——— expenditure *re* 736, 835
——— money order service 737–8
——— number of offices 733
——— publications of 1099
——— revenue of 734–6, 834
——— rural mail delivery 733
——— savings bank 911–2
——— stamp issue 736

PAGE.

Post Office, history of 732-3
—— mail subsidies 690-1
—— transportation 733
— Offices in operation by provinces 733
—— gross postal revenues of, by post office. 734-6
Postage stamps sold 736
Postal notes issued 736-7, 737-8
Potatoes, exports and imports 536, 538, 548
— production of 205, 206-10
— world production of 237-41
Poultry, consumption of 606
— exports 606
— farm live stock and 211-6
— number of 211, 212-3
— production of eggs 215
— stocks in cold storage 607
— values of 214
Power Commissions, Hydro-Electric 372-83
— equipment, evolution of 385-90
— generated from fuel 390-3
— generation and utilization in Canada 353-93
— in industry 387-90
— installed in manufactures 388-9
—— in manufacturing and mining industries 388-90
—— by individual industries, 1937 414-9
— merchandising of, the 363-4
Prairie Provinces, agricultural production of 202, 208-10
—— census of 102
—— emergency fund 183-4
—— grain crops of 208-10
—— leading industries of, statistics of 461
—— manufactures 398-9, 460-1
—— population of 70-1
—— types of farming in 230-4
—— value of farm production 202, 208-10
— Farm Assistance Act, 1939 182-3
Precambrian region 354-5
Preferential tariff 483, 487, 512-3
—— imports under 573
Preferred stocks, index numbers of 823
Premiers of the provinces 59-63
Premium and discount, Dominion expenditure *re* 835
—— receipts from 834
Press in Canada, the 739-42
—— publications, by frequency of issue 740
—— statistics of 740-2
Prices, agricultural, index numbers of 229-30
— agricultural produce 228-30
— commodity 809-16
— farm products 810
— forest products, effect of War of 1914-18 on 257
— general 808-25
— historical review of 809
— industrial materials 810
—— monthly price index numbers of 811
— live stock 228-9
— services 818-9
— retail 817-21
— wholesale 809-16
—— annual index numbers of 809
—— according to origin and degree of manufacture 814
—— according to purpose 813
—— by chief component material 812
—— general, monthly weighted index numbers of 810
—— index numbers of principal exports and imports 816
Prime Ministers of Canada 44
Prince Albert, Sask., gross postal revenue of 735
— live stock marketed at 601
— manufactures 467
— population of 96
Prince Edward Island, agricultural production of 201, 205, 206
— area and description of 1, 9
— births 107, 116, 141
— central electric stations 373, 384

PAGE.

Prince Edward Island, deaths 141
— debt, bonded 868, 869
— Dept. of Agriculture 187
— education—see "Education".
— electric energy generated in 366, 371
— farm loans approved 186
— fishery products, value of 290
— flour-mills, equipment and capacity 408
— fur farms, number and value 279
— Government publications of 1101
— honey production 227
— hospitals, summary statistics of 1023, 1025
— judicial convictions—see "Judicial"
— labour legislation 747
— lands and buildings, farm investments in 203
—— classification of 18, 1056
— leading industries of, statistics of 457
— Lieutenant-Governors and the Ministry of 59
— live stock, farm investments in 203
—— *number of* 212
— lumber, production of 274
— manufactures 457
— manufacturing establishments, number of 414
—— industries, statistics of, by size of establishment 455
— marriages 119, 141
— motor-vehicle regulations 663
— police statistics 1052
— population of 70-1, 94
— poultry, number of 212
— production, survey of 173-9, 1156
— products of manufacturing, value of 448-54
— public finance of 864-70
—— health *1017*
— representation in the House of Commons 51, 52, 1150
—— in the Senate 49
— timber, estimated stand of 250
— water powers of 358, 364, 365
— wealth of 878
Principal events of the year 1133-4
Printing industry 418
— trades, wages in 785, 786, 787
Privy Council, members of 45, 1136
Producers' co-operation 797
— materials, manufacture of 422
Production, agricultural 197-243
— branches of 168-72, 174-9
— *construction* 468-79
— fisheries 285-97
— forestry 244-76
— fur 277-84
— general survey of 167-79, 1156
— grain 204-10
— hydro-electricity 353-93
— by industrial groups and individual industries 407-27
— manufactures 397-401, 407-27
— manufacturing, for cities and towns 463
—— principal factors in 428-47
—— provincial and local distribution of 448-67
—— volume of 431
— mining 314-23
— provincial 181-6, 1156
— summary of 167-79, *1156*
Products, live-stock, consumption of 604-6
— forest, world markets for 253-7
— of manufacturing industries, value of, by provinces, groups, and industries. 448-54
Property, farm, value of 202-3, 877
— urban, value of 877
Proprietary medicine division 1015-6
Prospectors, laws concerning 309-10
Protective tariff for manufactures 483-94
Provinces, general elections in 1134
— government of 58-64
— interest payments and receipts 870
— loans by Dominion to 852-3
— mineral production of 319-23
Provincial and local government 58-64
— agricultural colleges and schools 190-7

PAGE.

Provincial debts and assets..... 868-70
—— bonded..... 868-9
— departments of agriculture..... 187-90
— fiscal years..... 866
— government savings banks..... 912-4
— governments, health activities of..... 1017-22
—— publications of..... 1101-8
—— revenues and expenditures of..... 866-7
— labour legislation..... 747-50
— legislatures and ministries..... 59-64
— life insurance companies..... 948-9
— liquor control and sales.....626-30, 866
— motor-vehicle regulations 662-4
— parks..... 23
— public finance..... 864-70
—— lands.....18, 1056, 1059-60
— Royal Commissions..... 1111-5
— taxation, gasoline.....670, 865-6
—— growth of..... 865-6
—— licences and permits.....670, 626-30
Public accounts, finance..... 826-81
—— changes in..... 833-4
— debt.....826, 853-63
— finance, Dominion..... 828-63
—— municipal..... 870-6
—— provincial..... 864-70
— health activities of the Dominion Government..... 1014-7
—— of the Provincial Governments..... 864-70
— and related institutions..... 1013-31
—— institutional statistics..... 1022-9
— hospitals.....1023, 1024-8
—— mental..... 1027-8
— lands.....18, 1056-60
— ownership of hydro-electric power..... 372-83
— schools—see "Education".
— Works Department..... 1060
—— expenditure and revenue.....834, 835
—— graving docks.....682, 1060
Publications by frequency of issue..... 740
— daily circulations of, by provinces..... 741
— French language..... 742
—— circulation by provinces..... 742
— number and circulation of..... 740-2
— of Bureau of Statistics..... 1081-92
— of Dominion departments.....1095-1101
— of Provincial Governments..... 1101-8
— weekly and semi-weekly, circulations of, by provinces..... 741
—— by principal cities..... 741-2
Pulp and paper industry.....265-73, 416
—— electric energy used in.....365, 416
—— machinery, imports..... 560
—— statistics of..... 272-3
— exports and imports.....269, 542, 558
— production of..... 267-9
—— mechanical and chemical..... 267
Pulpwood, production, consumption, exports and imports.....266, 268, 542, 558

Quarantine..... 1015
Quartz mining regulations..... 309-10
Quebec City, building permits for..... 477
—— employment record of..... 754-5
—— gross postal revenue of..... 734
—— manufactures..... 465
—— population of..... 95
—— shipping at..... 694
— agricultural colleges..... 191-3
—— experiments of..... 191-3
—— production of.....201, 205, 207-8
— area and description of.....3-4, 9
— births, deaths.....108, 116, 141
— central electric stations.....373, 384
— debt, bonded.....868, 869
— Department of Agriculture..... 187-8
— Department of Labour..... 748
— divorces..... 121

PAGE.

Quebec, education—see "Education"
— electric energy generated in.....366, 371
— farm loans approved..... 186
— fishery products, value of..... 290
— flour-mills, equipment and capacities... 408
— forestry in.....250, 260, 265, 274
— fruit production, value of..... 222
— fur farms, number and value of..... 279
— Government publications of..... 1101-3
— honey production..... 227
— hospitals, summary statistics of.....1023, 1025
— judicial convictions—see "Judicial".
— lakes..... 13
— lands and buildings, farm investments in..... 203
—— classification of.....18, 1056
— leading industries of..... 458
— Lieutenant-Governors and Ministry.... 60
— live stock, farm investments in..... 203
—— number of..... 213
— lumber, production of..... 274
— manufactures.....398-9, 457-8
—— of cities and towns, statistics of..... 465
— manufacturing establishments, number of..... 414
—— industries, statistics of, by size of establishment..... 455
— maple sugar and syrup, production of... 224
— marriages.....119, 141
— mineral occurrences in—see individual minerals.
—— production of..... 320-3
— mining laws of..... 311
— mothers' allowances..... 805
— motor-vehicle regulations..... 663
— National Electricity Syndicate..... 377
— opening and closing of navigation at..... 676
— police statistics..... 1052
— population of.....70-1, 94
— production, survey of.....173-9, 1156
— products of manufacturing, value of.... 448-54
— Provincial Electricity Board..... 377
— public finance of..... 864-70
—— health..... 1018-9
— representation, House of Commons.....51, 53-4
—— in the Senate..... 49-50
— Streams Commission..... 376-7
— timber, estimated stand of..... 250
— tobacco, production and value of..... 225
— water powers of.....358, 364, 365
— wealth of..... 878
— wood-pulp, production of..... 269
— Workmen's Compensation Board.....748, 777-8
Quotations, exchange, monthly averages of..... 924-5

Race-track betting..... 1076
Racial composition, effect of immigration on..... 145-6
— origins of population..... 85-7
Radio, administration of..... 720-3
— Aeronautical Service..... 725
— Canadian Broadcasting Corporation.... 727-32
—— administration of the..... 727-8
—— conduct in war time of..... 727-8
—— facilities..... 728-9
—— finances..... 731-2
—— national network and stations..... 729
—— operations..... 728-31
—— programs, classification and percentage distribution of..... 729-31
— communications..... 719-32
—— operation of..... 723-7
— control..... 720-1
— interference, investigations of..... 722-3
— licensing..... 721-2
— private receiving station licences issued, by provinces..... 721
— receiving sets..... 721

PAGE.

Radio stations, Government..... 723-6
—— revenue from..... 722
—— in operation, by class..... 721
—— marine, service performed and areas served by..... 723-4
—— operated by Dept. of Mines and Resources..... 726
—— by Dept. of National Defence..... 726-7
—— by Dept. of Public Works..... 726
—— private..... 726-7
—— provincial..... 726
Radiotelegraphy..... 723-4
Radiotelephony..... 724
Radium and uranium, production of..... 340
Railroad ties, exports and imports.....542, 556
Railway, Canadian Northern..... 637
— Canadian Pacific.....636, 641, 644, 646
— cars, manufacture of..... 416
— Commission..... 633-5
— debt..... 648-50
— Grand Trunk..... 636
—— Pacific..... 636-7
— Intercolonial..... 636
— revenue freight traffic movement, by provinces..... 591-2
— securities guaranteed by Dom. Govt... 645
Railways..... 635-62
— and Canals, Dominion expenditure *re*... 836
— Canadian Government..... 645-6
—— National.....641, 644, 645-51
—— assets of..... 646
—— balance sheet, reconciliation between public accounts and..... 651
—— capital structure and debt of..... 648-9
—— consolidation and organization of... 647
—— funds received and expended by.... 650
—— mileage and traffic of..... 653-4
—— operating finances of..... 647-8
—— revenues, expenses, fixed charges, and deficits of..... 647-8
—— train traffic statistics..... 653-4
—— West Indies steamships..... 685-6
— electric, accidents..... 660
—— capital and earnings of.....658, 659
—— employees, number of.....658, 659
—— financial statistics of..... 658-9
—— freight and passenger traffic on..... 659-60
—— history of..... 657-8
—— mileage and equipment of..... 658
—— by railways..... 659
—— operating expenses of.....658, 659
—— passengers, employees, and others killed or injured on..... 660
—— salaries and wages of.....658, 659
—— statistics of operations..... 660
—— wage rates of employees.....785, 786
— express companies..... 660-2
— Government, capital expenditure *re*..... 645-6
—— expenses of and revenue from..... 647-8
—— investments in..... 650
—— ownership of..... 645-6
— legislation in 1939..... 1128-30
— steam..... 635-57
—— accidents..... 655-7
—— aid to, by Government..... 644
—— bonds, guaranteed by Dominion and Provincial Governments..... 645
—— capital of.....641, 642
—— liability of..... 640
—— by individual steam railways..... 641
—— commodities hauled, by groups and individual products..... 654-5
—— consolidation of.....635-8, 647
—— earnings of..... 641-2
—— by individual steam railways..... 641
—— per mile of line and per train mile... 642
—— employees, wages and salaries of..... 643
—— equipment and mileage..... 638-9
—— finances of..... 640-51
—— freight and passenger traffic on..... 651-2
—— Government, finances of..... 645-51

PAGE.

Railways, steam, history of..... 635-8
—— investment in.....641, 642
—— land granted to, by type of grant..... 644
—— by railways..... 644
—— liability of..... 640-1
—— mileage of.....638-9, 641
—— by individual steam railways..... 641
—— operated, by provinces..... 639
—— record of, 1835-1938..... 638
—— operating expenses of.....641-2, 647-8
—— by individual steam railways..... 641
—— distribution of..... 643
—— per mile of line and per train mile... 642
—— passengers, employees, and others killed or injured on..... 656
—— persons killed on, by class of person and description of accident..... 656-7
—— road and equipment of, capital invested in..... 642
—— rolling-stock of.....412, 416, 639
—— Royal Commission of 1931..... 638
—— salaries and wages..... 643
—— subsidies, cash, granted to railways, by railways..... 645
—— land..... 644
—— traffic..... 651-7
—— passenger and freight..... 651-2
—— wage rates, index numbers of..... 785
Raw materials, exports and imports.....522-4, 533
—— used in manufactures, cost of 398-401, 403, 414-9, 420-2, 423-5
R.C.M.P., administration of..... 1071-2
— air operations..... 707
Receipts and disbursements of Canada.... 833-42
— per capita, by principal items..... 842
— principal items of, and total..... 840-1
— revenue, details of..... 834
Recidivism.....1043, 1050
Reciprocity treaty of 1854..... 481-2
Red Cross Society..... 1029-31
Reduced railway fares..... 757-8
Re-exports of foreign produce..... 497-8
Refineries, sugar.....224, 414, 422
Reformative institutions..... 1024
Regina, Sask., gross postal revenue of..... 735
— manufactures..... 467
— population of..... 95
Register, annual.....1117-1142
Registration, national, of persons on material aid..... 760-1
—— for military service..... xxviii
Registry, vessels on the..... 674-5
Regulations *re* broadcasting..... 727-31
— *re* motor vehicles and traffic..... 662-4
Relief legislation, disbursements by Dominion under..... 769
— settlement..... 766-7
— unemployment.....763-9, 1125-6
—— and Agricultural Assistance Act..... 763
—— persons on urban and agricultural aid.. 762
— works..... 763-5
Religions of the population..... 87-9
Rents, family expenditures on, by income groups..... 821
— index numbers of prices of..... 817-8
Representation Act.....47-9, 50-1
— in the House of Commons..... 52-7
— in the Senate..... 49-50
— Parliamentary..... 42-64
— readjustments in..... 51
— unit of..... 51-2
Representatives of Canada abroad..... 64-6
— of other countries in Canada..... 66-7
Research Council, National, publications of 1098-9
— Councils, provincial..... 1009-10
— financial assistance for..... 983
— scientific and industrial.....979-1012
—— Banting Foundation..... 1010-1
—— Rockefeller Foundation..... 1011-2
Reserves, monetary..... 895-6
Resources, forest..... 249-50
—— Canadian, their relation to war effort.. 251-8

PAGE.

Retail merchandise trade 617–26
—— by provinces 620
—— total sales and indexes of sales by provinces and kinds of business 616–9
— merchandising and services 613–26
— prices and cost of living 817–21
—— index numbers of 817–9
— sales, monthly indexes of 625
— trade, annual statistics of 618–20
Returned soldiers' insurance 1067
Revenue, agricultural 200–2
— Dominion 833–4, 840–50
— excise duties 844
— from taxation, analysis of 843–50
— inland 843–50
— motor vehicles 669–70, 865
— municipal 871–2, 875–6
— provincial 669–70, 865–70
—— liquor control 866
— War tax 845, 846, 849–50
Rivers and lakes 12–5
— and tributaries 15
— systems 14
Roads and highways, finances of 667–70
—— mileage of 665
— expenditures *re* 667–8
— rural, maintenance of 668
— traffic on 670–3
— transportation 662–73
—— finances of 667–70
Rockefeller Foundation 1011–2
Rocky Mountains 9–10
Rolling-mill industry, manufactures of 412, 416
— products, exports and imports 544, 558
— stock of steam railways 639
Royal Canadian Air Force ..... xxviii–xxx
—— Mounted Police, administration of 1071–2
—— air service 707
—— officers' pensions, Dominion receipts from 834
—— Navy ..... xxx–xxxi
— Commission of 1931 638
— Commissions, British 1116
—— Dominion 1108–10
—— Provincial 1111–5
— Military College, organization of ....
—— revenue from 834
Rubber, crude, imports 533, 550
— goods, manufacture of 409, 414
— products, exports and imports 536, 550
Rugs, woollen (carpets), imports 556
Rural and urban population 92–100
— mail delivery 733
Russia (Soviet Union), gold and silver production of 336
— trade with 575, 576
Rye, crop distribution of 596
— exports 536
— inspections of 598
— prices of 228, 230
— production of 204, 206–10
— receipts and shipments of 599
— stocks in store 211
— world production of 240

Sailing vessels arrived and departed 695
St. Boniface, Man., building permits for 478
— gross postal revenue of 735
— manufactures 467
— population of 96
St. Catharines, Ont., building permits for 478
— gross postal revenue of 735
— manufactures 466
— population of 95
St. Hyacinthe, Que., gross postal revenue of 734
— manufactures 465
— population of 96
Saint John, N.B., building permits for 477
— gross postal revenue of 734
— manufactures 465
— population of 95

PAGE.

Saint John, N.B., shipping 694
— vital statistics of 108, 129, 135, 142
St. Lawrence canals 677
—— expenditures on 687, 688
—— revenue from 689
—— traffic 696–7, 698, 699
— Great Lakes traffic on St. Lawrence, Welland, and Sault Ste. Marie Canals 699
— River system 15
— Ship Channel, season of open navigation in 676
St. Thomas, Ont., building permits for 478
— gross postal revenue of 735
— manufactures 466
— population of 96
Salaries and wages in individual manufacturing industries 414–9, 436–40
—— in forty leading industries 438
—— in manufacturing, average, by provinces and groups 437
—— percentages of, to net values of production 440
—— percentages of employees on, by provinces and groups, for each sex 432
—— variations in, for main industrial groups 408
Sales, motor vehicle, financing of 624
— bond 920–2
Salmon, exports 538
— production of 291
Salt, imports 564
— production and occurrence of 317, 322, 350
Sand and gravel, production of 317, 323, 351–2
—— by principal purposes 352
Sanitary engineering 1015
Sardines, production of 291
Sarnia, Ont., building permits for 478
— gross postal revenue of 735
— manufactures 466
— population of 96
Sash and doors, manufacture of 416
Saskatchewan Agricultural College 194–5
— agricultural production of 202, 205, 209
— area and description of 5–6, 9
— births 108, 116, 141
— central electric stations 373, 384
— deaths 141
— debts, bonded 868, 869
— Dept. of Agriculture 188–9
— Dept. of Labour 749
— divorces 121
— education—see "Education".
— electric energy generated in 366, 371
— farm loans approved 186
— fishery products of 290
— flour-mills, equipment and capacities 408
— forestry resources and products of 250, 265, 274
— fur farms, number and value of 279
— Government publications of 1106
— honey production 227
— hospitals, summary statistics of 1023, 1026
— judicial convictions—see "Judicial"
— lakes 13
— lands and buildings, farm investments in 203
—— classification of 18, 1056
— leading industries, statistics of 461
— Lieutenant-Governors and Ministry 62
— live stock, farm investments in 203
—— number of 212
— lumber, production of 274
— manufactures 448–54, 456, 461
—— of cities and towns, statistics of 467
— manufacturing establishments, number of 414
—— industries, statistics of, by size of establishment 456
— marriages 119, 141
— mineral occurrences in—see individual minerals.
—— production of 320–3
— mining laws of 312–3

PAGE.

Saskatchewan, mothers' allowances..... 806
— *motor-vehicle regulations*..... 663
— police statistics..... 1052
— population of.....70–1, 94
— Power Commission..... 381–2
— production of, agricultural.....202, 205, 209
— survey of.....173–9, 1156
— products of manufacturing, value of..... 448–54
— public finance of..... 864–70
—— health..... 1020–1
— representation in the House of Commons. 51, 56
—— in the Senate..... 50
— timber, estimated stand of..... 250
— water powers of.....358, 364, 365
— wealth of..... 878
— Workmen's Compensation Board..... 779–80
Saskatoon, Sask., building permits for..... 478
— gross postal revenue of..... 735
— manufactures..... 467
— population of..... 95
Sault Ste. Marie, Ont., building permits for 478
— canal.....677, 688, 689, 696–9
— gross postal revenue of..... 735
— manufactures..... 466
— population of..... 96
— shipping..... 694
Savings banks..... 911–4
—— Dominion Government..... 911–2
—— Post Office, financial business of..... 912
—— Provincial Government..... 912–3
Sawmill products, exports..... 274–5
Sawmilling industry..... 273–5
Scenery and game, resources of..... 17–23
Schools—see "Education".
— of agriculture..... 197
Scientific and industrial research.....979–1012
— equipment, imports..... 566
—— manufacture of..... 418
Seal, Great, of Canada..... 1131
Seamen, shipped and discharged at Canadian ports..... 685
Secondary education..... 973
Secretary of State, Department of..... 1068–70
—— publications of..... 1099
Security prices, index numbers of..... 822–4
Securities guaranteed by Dominion..... 861–3
Seeds, exports and imports.....538, 552
Senate, composition, powers of, etc..... 47–50
— members of and representation in..... 49–50
Service establishments..... 613–26
Services, employment in..... 755–6
— prices of..... 818–9
Settlement, relief..... 766–7
— Soldier, of Canada..... 1067–8
Settlers' effects, exports and imports.....546, 566
Sewing machines, exports and imports.....544, 560
Sex distribution of the population..... 81–3
Shawinigan Falls, Que., building permitsfor 477
— gross postal revenue of..... 734
— manufactures..... 465
— population of..... 96
Sheep, marketing of.....601, 603
— *numbers and values of*.....211, 212–5
—— in world..... 242–3
Sheet metal industry, manufactures of..... 416
Sherbrooke, Que., building permits for..... 477
— gross postal revenue of..... 734
— manufactures..... 465
— population of..... 95
Shingles, production of..... 273
Shipbuilding industry, manufactures of..... 416
Shipping and navigation, casualties..... 685
— Act, the Canada..... 674
— Board, Canadian..... xxxiv
— coastal.....693, 695
— entered and cleared, by ports.....6,... 693–5
— inland.....677–8, 692–3, 695
— marine danger signals..... 676
— ocean.....691–2, 693–5
— steamboat inspection..... 683–4
— subsidies..... 690–1

PAGE.

Shipping, trade, grand total..... 695
— *vessels registered*..... 674–5
—— sea-going, entered and cleared, by province and principal ports..... 693–4
— water-borne cargo..... 701–2
— wrecks and casualties..... 685
Ships on the registry..... 674–5
——— numbers and net tonnages of, by provinces..... 675
— built, and sold to other countries.....546, 675
Shipwrecks, number of..... 685
Shoes and boots, imports..... 552
— manufacture of.....410, 414
Sickness insurance.....950, 951
Silk, exports and imports.....540, 556
— manufacture of.....411, 416
— raw and artificial, imports..... 533
Silver, exports and imports.....544, 562
— monetary use of..... 887
— occurrence..... 341
— production of.....316, 321, 340–2
—— in relation to war effort..... 308
— world production of.....336, 342
Sirens, number of..... 676
Skins and hides, exports and imports.....540, 552
— number taken and value..... 283
Slaughtering industry.....409, 414, 603–4
Small loans companies..... 919–20
Smelting industry..... 329–30
Smelts, production of..... 291
Soap, exports and imports.....546, 566
— manufacture of..... 418
Socks and stockings, exports and imports..540, 556
Soldier Settlement of Canada..... 1067–8
Soldiers' insurance..... 1067
— pensions..... 1065–7
Sources of official information.....1079–1116
South Africa, Union of, trade agreement with..... 486
Southern Rhodesia, trade agreement with. 486
Soviet Union—See "Russia".
Spices, imports..... 550
Spirits, consumption of.....628, 629, 845
— excise revenue..... 844
—— tariff..... 843
— exports and imports.....536, 550
— provincial revenues from.....628, 629
Sporting and amusement goods, imports... 566
——— manufacture of.....418, 422
Spruce..... 248
Stamps, postage, value of..... 736
— revenue from excise..... 849
State, Department of the Secretary of, administration of..... 1075
Statistics, Dominion Bureau of, activities. 1079–92
——— publications of..... 1081–92
Statute of Westminster..... 41
Steam railways—see "Railways".
Steamship inspection, administration of... 683–4
— subventions, expenditure *re*..... 690–1
Steel industry.....412, 416
— exports and imports.....544, 558
— products, manufacture of..... 416
Stereotyping industry..... 416
Stillbirths..... 116
Stock, live, in Canada..... 211–4
—— prices of..... 228–9
—— world..... 242–3
Stocks of grain in Canada..... 211
— index numbers of common..... 822–3
——— of mining..... 823–4
——— of preferred..... 823
Stockyards, marketing at.....601, 602–3
Stone, production of.....317, 323, 351–2
— products, manufacture of..... 418
Stratford, Ont., building permits for..... 478
— gross postal revenue of..... 735
— *manufactures*..... 466
— population of..... 96
Strawberries, production and value of..... 221

PAGE.

Strikes and lockouts 781–4
—— by industries 783
—— in coal mining, other, and all industries 782
—— workers involved, and time loss, by provinces 782
Structural materials, production of 350–2
Submarine cables 716
Subsidies, mail 690–1
— to provinces 850–3
— to railways 645
Subventions and mail subsidies 690–1
Succession duties 864
Sugar beets, production of 206, 208, 210, 224–5
—— world production of 225
— maple, exports 536
—— production of 224
— raw imports 533
— refining industry 224, 414
Suicides 126, 128
Sulphate, ammonium, exports 546
Surgical instruments, imports 566
Survey of production 167–79, 1156
Swine, marketing of 600–1, 603
— numbers and values of 211–4
—— in world 242–3
Sydney, N.S., building permits for 477
— gross postal revenue of 734
— *manufactures* 464
— population of 96
— shipping at 693
Syrup, maple, production of 224

Tanneries 410, 414
Tariff Board 1077
— Canadian excise 843
— historical sketch of the 480–3
— policy since Confederation 482–3
— relationships with British and foreign countries 483–94
Tariffs, development of 480–94
Tax, business profits 845
— gasoline, by provinces 669–70, 865–6
— Income, War 829, 834, 845, 846
Taxation, Dominion revenue from 833–4, 840–50
—— analysis of 843–50
— legislation *re* 1117–9, 1131–2
— modifications in system 830–1
— motor vehicles 669–70, 865
— per capita 841–2, 867
— provincial, growth of 865–6
Tea, imports 550
Teachers, salaries of 971
Technical education 970–1
Telegraphs, Canadian system 715–6
— coast wireless stations 723–4
— companies, statistics of, by company 716
— Dominion Government, statistics of 715
— radio stations 723–4
— submarine cables 716
Telephones, companies, finances and operations of 717–9
— equipment 717–8
— imports 562
— in use, by class 717
—— by provinces 718
— local and long-distance calls 719
— mileages of pole line and wire 717
— systems of 717
— wireless 723–4
Textile exports and imports 540, 554, 556
— machinery, imports 560
Textiles, manufacture of 410–1, 414–7
Thanksgiving Day, proclamation of 1142
Theatres, motion picture, number of, by provinces 626
—— employees in and salaries and wages 626
Thread, manufacture of 416
Three Rivers, Que., building permits for 477
— gross postal revenue of 734
— manufactures 465

PAGE.

Three Rivers, Que., population of 95
Tile, production of 317, 323
Timber, estimated stand of, by type, size, provinces 250
— exports 275, 542
— industry 273–5
— lands 18, 244–50
—— Dominion and Provincial administration of 258–61
— resources, Canada's 251
— standing, volume of 249–50
Tin products, imports 562
Titanium, production of 316, 321
Tobacco, consumption of 844–5
— excise, revenue from 844
—— tariff 843
— exports and imports 538, 552
— leaf, production of by provinces and main types 225–6
— manufacture of 409, 414
— raw, imports 533
Toronto, Ont., building permits for 478
— employment record of 754, 755
— gross postal revenue of 735
— live stock marketed at 600
— manufactures, statistics of 464, 465
— population of 95
— shipping 694
Tourist highways, development of 764–5
— expenditures in Canada 582, 583
—— and of Canadians abroad 583
— trade 582–3
Town municipalities 871
Towns, assets and liabilities of 875–6
— expenditures and revenues of 875–6
— gross postal revenue of 734–6
— manufactures 463–7
—— statistics of, by provinces 464–7
— population of 95–100
Toys, imports 566
Trade, aggregate external 526
— agreements with various countries 483–94
— analysis of current 509–11
— and Commerce Department 494–6, 1075–6
—— employees of 1075–6
—— expenditure *re* 835
—— publications of 496, 1099–1100
— and Industry Commission, the 1077–8
— by groups of commodities 502
— Canadian, historical statistics of 508–9
— coasting 693, 695
— Commissioners, list of 495–6
— disputes 781–4
— external 480–589
— geographical distribution of Canadian 503–5
—— of world 503–5
—— by continents and countries 516–7
— grain 592–600
— *historical sketch* 480–3
— in certain staple products 503
— in furs 283–4
— in raw and manufactured products 522–4
— internal 590–630
— interprovincial 590–2
— legislation *re* 1127–8
— marks, administration of 608–10
—— *registered in Canada* 610
— of Canada, by main groups, summary of 510
— retail merchandise 617–26
— statistics, explanation *re* 497–9
—— treatment of gold in 499–501
— tourist 582–3
— unions, international, operating in Canada 771–3
—— with numbers of branches and *memberships* 771–2
—— membership of 769–73
—— organization of 769–73
— value and quantum of world 501–8
—— and volume of, by main groups 579–81
— via United States 514–5
— wholesale and other bulk 614–7

PAGE.

Trade, with principal countries.....516-7, 523-4
— with United States and other foreign countries..... 514-5
——representative years, 1886-1939..... 515
— world, value and quantum of..... 501-8
NOTE.—*For trade by class or commodity, refer to the class or commodity.*
Trades and Labour Congress.....770, 773
Trading establishments, census of..... 613-26
Traffic, railway, electric..... 659-60
—— steam..... 651-7
— regulations, breaches of..... 1046-7
— road..... 670-3
— water-borne.....674, 691-702
Train miles run..... 652-4
Transatlantic air service..... 705-8
Trans-Canada Airway..... 703-5
—— construction and operations..... 704-5
Transport, Dept. of, expenditures *re*..... 836
—— publications of..... 1100-1
— Commissioners, Board of..... 633-5
Transportation and communications..... 631-742
—— employment in..... 756
— government control over..... 632-5
— legislation *re*..... 1128-30
— of wheat..... 599
— road..... 662-73
—— finances of..... 667-70
Trapping, production from..... 175-9
Treasury bills sold in Canada..... 857
Treaties, Indian..... 1061
— trade..... 483-94
Treaty rate tariffs, imports under..... 573
— reciprocity with United States..... 492-3
Tree nurseries..... 222-3
— species, forest..... 247-9
Trinidad and Tobago, trade with 523, 573, 574, 575
Trout, production of.....291, 292
— quantities, values, and percentages of...291, 292
Trust and loan companies..... 915-9
——— assets and liabilities..... 916-9
— companies, estates, trust, and agency funds..... 919
—— functions of..... 915-6
—— legislation *re*..... 1123-4
Tullibee, production of.....291, 292
Turkeys, number and value of..... 211-4
Turnips production of..... 206-10
Turpentine, imports..... 552
Tweeds, imports..... 556
Typewriters, exports and imports.....544, 560

Umbrellas, manufacture of..... 418
Unemployed, measures for the relief and training of the..... 760-9
— older, rehabilitation of..... 766
— persons, single..... 765-6
Unemployment and Agricultural Assistance Act..... 763
— as reported by trade unions..... 759-60
— in trade unions, percentages of, by provinces..... 760
— of wage-earners, estimated..... 759
— relief.....763-9, 1125-6
—— drought..... 765
—— material aid..... 763
—— municipal improvement projects..... 763-4
—— persons on urban and agricultural aid.. 762
——— by months and sex 762
—— re-establishment of settlers..... 766
—— registration of persons on material aid 760-2
—— settlement..... 766-7
——— settler families and individuals approved and settled under..... 767
—— statistics of persons on aid..... 761-2
—— works..... 764-5
—— youth training..... 767-9
— statistics of the Census of 1931..... 750-1
Union of South Africa, accredited representative in Canada..... 66

PAGE.

Union of South Africa, agricultural statistics of.....238, 239, 241
—— coal, production of..... 346
—— gold and silver, production of..... 336
—— High Commissioner for Canada in.... 65
—— trade agreement with..... 486
—— trade with.....524, 573, 574, 575, 577
— Co-operative of Canada..... 795-6
Unions, trade, membership of..... 769-75
—— organization of..... 769-75
United Kingdom, agricultural statistics of.. 237, 238, 239, 241
— Kingdom-Canada Trade Agreement.... 484
— Kingdom, coal production of..... 346
—— High Commissioner for Canada in..... 64
——— in Canada..... 66
—— imports from, percentages of..... 532
—— total Canadian trade with.511-3, 530-1, 536-67
—— world trade of.....507, 508
United States, Canadian emigrants returned from..... 164-5
—— capital invested in Canada..... 881
—— imports from, percentages of..... 532
—— tariffs and Canadian trade..... 492-3
—— total Canadian trade with 514-5, 530-1, 536-67
—— trade agreement with..... 492-3
—— trade via.....514-5, 577
—— world trade of.....507, 508
Universities—see "Education".
Uranium, production of..... 340
Urban and rural population..... 92-100
— municipalities, financial statistics of.... 875-6

Value and quantum of world trade..... 501-8
— volume of trade..... 577-81
Vancouver, B.C., building permits for..... 478
— employment record of.....754, 755
— gross postal revenue of..... 736
— manufactures, statistics of.....464, 467
— population of..... 95
— shipping..... 694
Varnishes, paints, etc., exports and imports.546, 564
—— manufacture of..... 418
Veal, production, consumption, etc..... 604
Vegetable oil imports..... 533
Vegetables, by classes, exports and imports.536, 548
— products, exports and imports.....536-9, 548-52
—— manufacture of.....408-9, 414
Vehicles, exports and imports.....544, 560, 666
— manufacture of.....412, 416, 425, 426
Veneers, wood, imports..... 556
Verdun, Que., population of..... 95
Vermicelli and macaroni, manufacture of.. 414
Vessels entered and cleared with details, by provinces..... 695
— rehabilitation of..... 416
— on the registry..... 674-5
— sea-going, entered and cleared at Canadian ports..... 692
——— by province and port..... 693-4
Veterans' Bureau..... 1066
— Home Guards..... xxvii
Victoria, B.C., building permits for..... 478
— gross postal revenue of..... 736
— manufactures..... 467
— population of..... 95
— shipping..... 694
Victorian Order of Nurses..... 1029
Village municipalities..... 871
Villages, populations of..... 97-100
Vital statistics..... 104-43
—— births and birth rates..... 106-17
——— multiple..... 110-1
—— collection of..... 104-17
—— deaths and death rates..... 121-39
—— divorces..... 120-1
—— infant and maternal mortality..... 131-9
—— marriages and marriage rates..... 117-20
—— natural increase..... 139-43
Vocational education..... 970-1

PAGE.

Volume of business xliii
Voluntary Service Registration Bureau.... xxxiv
Voters and votes polled, for each member, general elections 52-7, 1150-5

Wage-earners actually employed 751
— cost of living of 439, 817-8, 821
— hours worked in month of highest employment, by provinces and groups .. 434-5
— in manufacturing industries, by months, for each sex 433
—— *average yearly earnings of* 439
—— cost of living and wages of 439
Wage-earning population, estimates of employment of 750-1, 759
—— occupations of 750
Wages and hours of labour 784-7
—— obligatory in certain provinces 793-4
— and salaries, percentages of employees on, by provinces and groups, for each sex 432
—— variations in, for main industrial groups 408
— building trades (trades specified) 786
— coal-mining 785
— electric railway trades (trades specified) 786
— farm 787
— female employees, minimum 788-9, 790-1
— index numbers of, by class of labour 785
— labour and 743-807
— legislation *re* 788-94
— manufacturing, by individual industries, 1937 ..... 414-9, 436-40, 785
— metal trades (trades specified) 786
— minimum, regulations *re* 788-94
— mining 327-8, 329-30, 785
— on steam railways 785
— printing trades (trades specified) 786
— rates of 784-7
—— in various trades 786
— real, in manufacturing 439
— unskilled factory labourers, in certain cities 786
War and demobilization, expenditure *re* ... 839
— business profits tax 845
— chronology, special 36-40, 1143-8
— effort, Canada's ..... xxiv-xxxvi
—— financing of ..... xxiv-xxxvi
—— general organization of ..... xxiv-xxv
— legislation *re* 1132-3
— organization chart ..... *facing page* xxxii
— outbreak of 1133
— Savings certificates xxxvi
— Special Revenue Act 849
— tax, itemized revenue from 834, 842, 845
—— revenues received by the Receiver General 845
— -time Prices and trade board ..... xxxii-xxxiv
— Veterans' Allowances Act 1066-7
Washing compounds and soap, manufacture of 418
Washington, appointment of Minister at ... 65
Watches and clocks, imports 562
Water area of Canada 9
— power, developed, in Canada 365
—— distribution of, by provinces and industries 365
—— development in Canada 353-66
—— historical statistics of 364-6
—— progress of 358
—— energy generated for export 384-5
—— installed, provincial distribution of ... 357
—— resources and their utilization 353-64
—— available and developed 357-9
—— by provinces 358
—— developed and potential, by continents 359
—— by countries 360
—— of Canada compared with those of other countries 359-61
—— used in central electric stations 365
—— used in pulp and paper industry 365

PAGE.

Water traffic and services 691-702
Waterproof clothing, manufacture of 416
Waterways of Canada 673-702
— equipment and facilities of 674-86
— financial statistics of 686-91
— Government aid to 686-91
— capital expenditures on 687
— revenue from 689-90
Wealth, agricultural 200-3
— national 876-8
Wearing apparel, cotton, imports 554
—— index numbers of prices of 817-8
—— woollen, *exports and imports* 540, 556
Weights and measures, administration of .. 610-1
—— Dominion receipts from 611
—— inspections of 611
Welfare, child 806
Welland canal 677, 687, 688, 689, 696-9
West Indies steamships, Canadian National 685-6
— trade agreement with 486
Westmount, Que., building permits for 477
— population of 96
Wharves, maintenance of, etc 1060
Wheat consumption of 595
— Co-operative Marketing Act, 1939 182
— crop movement of 593-5
—— distribution of 595-6
— and flour, exports and imports 242, 536, 595
— imports of, in relation to population 595
— inspection of 598
— marketing of 596, 599
— per capita consumption 595
— prices of 228, 230
— production, quantity and value of 204, 206-10
— receipts of 599
— shipment of 599
— stocks in store 211
— world production of 237-8
— world exports and imports 242
Whisky, exports and imports 536, 550
Whitefish, production of 291, 292
Wholesale prices, index numbers of .. 809, 810, 812-6
— sales, index numbers of 615-6
— statistics, annual 614-5
—— by provinces and kinds of business .. 615
— trade, census of 614-7
—— in Canada, 1930 614
Wild life origin, goods of, exports and imports 571
Windsor, Ont., building permits for 478
— employment record of 754, 755
— gross postal revenue of 735
— manufactures, statistics of 464, 465
— population of 95
Wine, consumption of 628, 630
— imports 550
— industry 414
Winnipeg, Man., building permits for 478
— employment record of 754, 755
— gross postal revenue of 735
— live stock marketed at 600
— manufactures, statistics of 464, 467
— population of 95
Wire communications 715-9
— manufacture of 416
Wireless apparatus, imports 562
— communications 719-32
— stations 720-7, 729
Wood distillation industry 418
— for pulpwood, statistics of 266
— manufacture of 275-6, 411-2, 416
— products, exports and imports 542, 556, 558
—— statistics of manufacture of 416
Wood-pulp, exports and imports 542, 558
— from leading countries 269
— production of 267-9
—— in Canada, by chief provinces 269
Woods, Canadian 244-9
— operations 263-5
—— quantities of wood cut in 264
—— values of, by products 264

PAGE.

Woodstock, Ont., manufactures..... 466
— population of..... 96
Woodworking industry..... 416
Wool, production..... 214–5
— products, exports and imports.....540, 556
— waste, manufacture of..... 416
Workmen's Compensation Board, Alberta. 780
—— accidents reported by..... 780
—— British Columbia, compensation paid by..... 780–1
—— legislation *re*.....748, 749, 750, 776–81
—— Manitoba, compensation and aid given..... 779
—— New Brunswick, compensation paid by..... 777
—— Nova Scotia, compensation and aid given..... 776–7
—— Ontario, compensation paid by..... 778
—— Quebec, compensated and cost paid by..... 777–8
—— Saskatchewan, compensation and aid given..... 779–80
—— Yukon..... 750
Works of art, imports..... 566
World cereal, and potato production of the.. 237–41
— gold and silver production..... 334–6
— markets for Canadian forest products... 253–7
— statistics of farm live stock..... 242–3
— trade, Canada's position in..... 507–8
—— factors influencing..... 505–7
—— geographic distribution of..... 503–5
—— groups of commodities in, price and quantum movements of..... 502
—— of principal countries, percentages, prices, and quantum of..... 507–8
—— percentage distribution of, by continents..... 504
—— by political groups..... 504
—— value and quantum of..... 501–8
— wheat and flour, exports and imports of. 242
Wrecks, shipping, number..... 685

PAGE.

Yarn, cotton, imports..... 554
—— manufacture of..... 416
—— woollen, imports..... 556
—— manufacture of..... 416
Year, principal events of the, 1939–40..... 1133–4
Yields of field crops..... 203–10
Youth training..... 767–9
Yukon and Northwest Territories, lands, classification of.....18, 1056
— area and description of..... 7–8, 9
— central electric stations.....373, 384
— Commissioners of the..... 63
— farms, number and value of..... 279
— fishery products, value of..... 290
— fur production of..... 282
— labour legislation..... 750
— manufactures..... 398–9
— manufacturing establishments, number of..... 414
— mineral occurrences in—see individual minerals.
—— production of.....320, 332, 334, 344
— motor-vehicle regulations..... 664
— mountain peaks in..... 10
— production, survey of.....173–9, 1156
— population of.....70–1, 94
— publications *re*—see Dept. of Mines and Resources publications.
— representation in Parliament..... 51, 57
— Territorial Council..... 63
— water powers of.....357, 365
— Workmen's Compensation Ordinance... 750

Zinc, bounty on..... 608
— exports and imports.....546, 562
— occurrence..... 342
— production of.....316, 321, 343
—— as a war mineral..... 304
— spelter, exports of..... 546