

Three and a half Decades
of Progress

Canadian
Industry

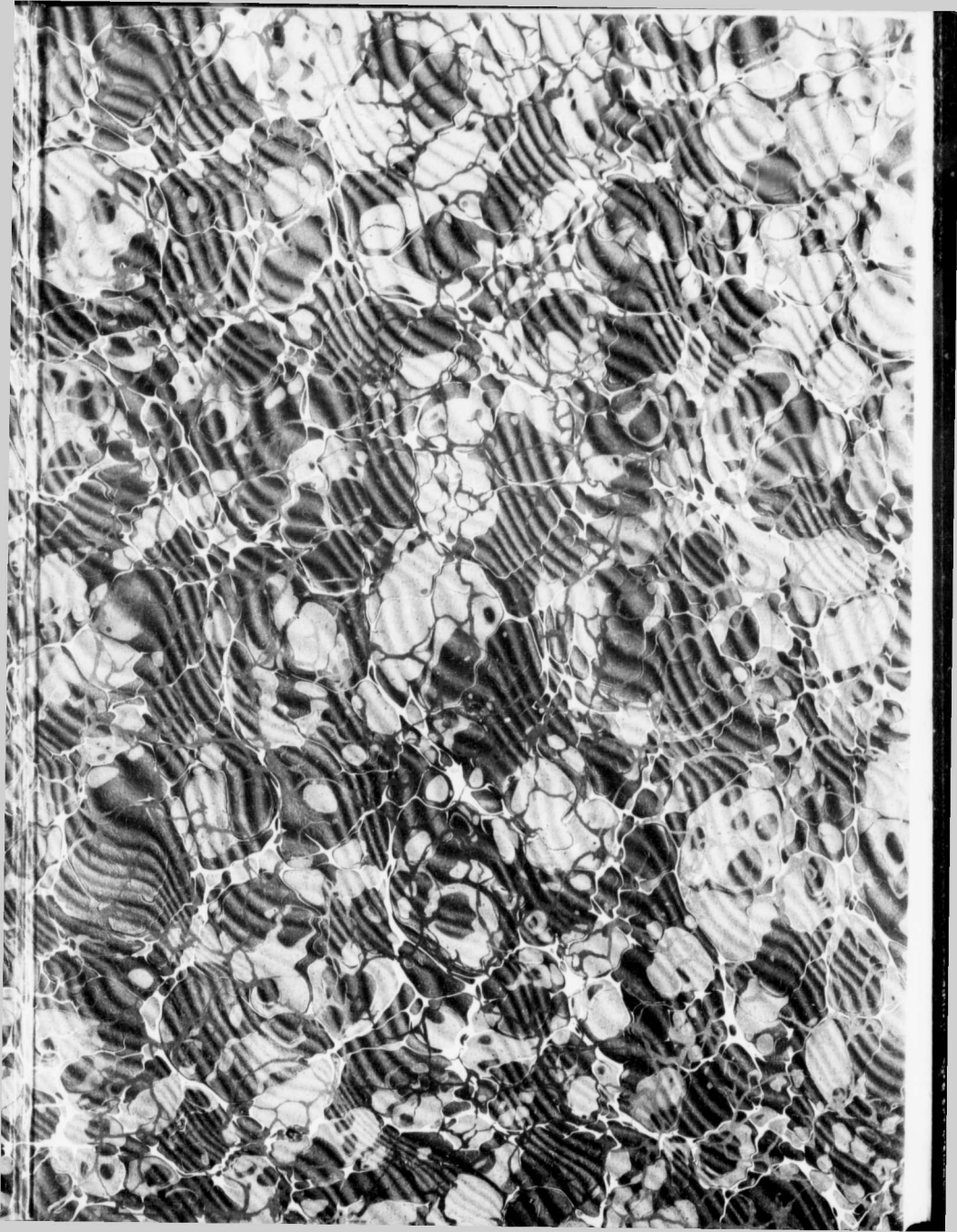
1878 - 1914

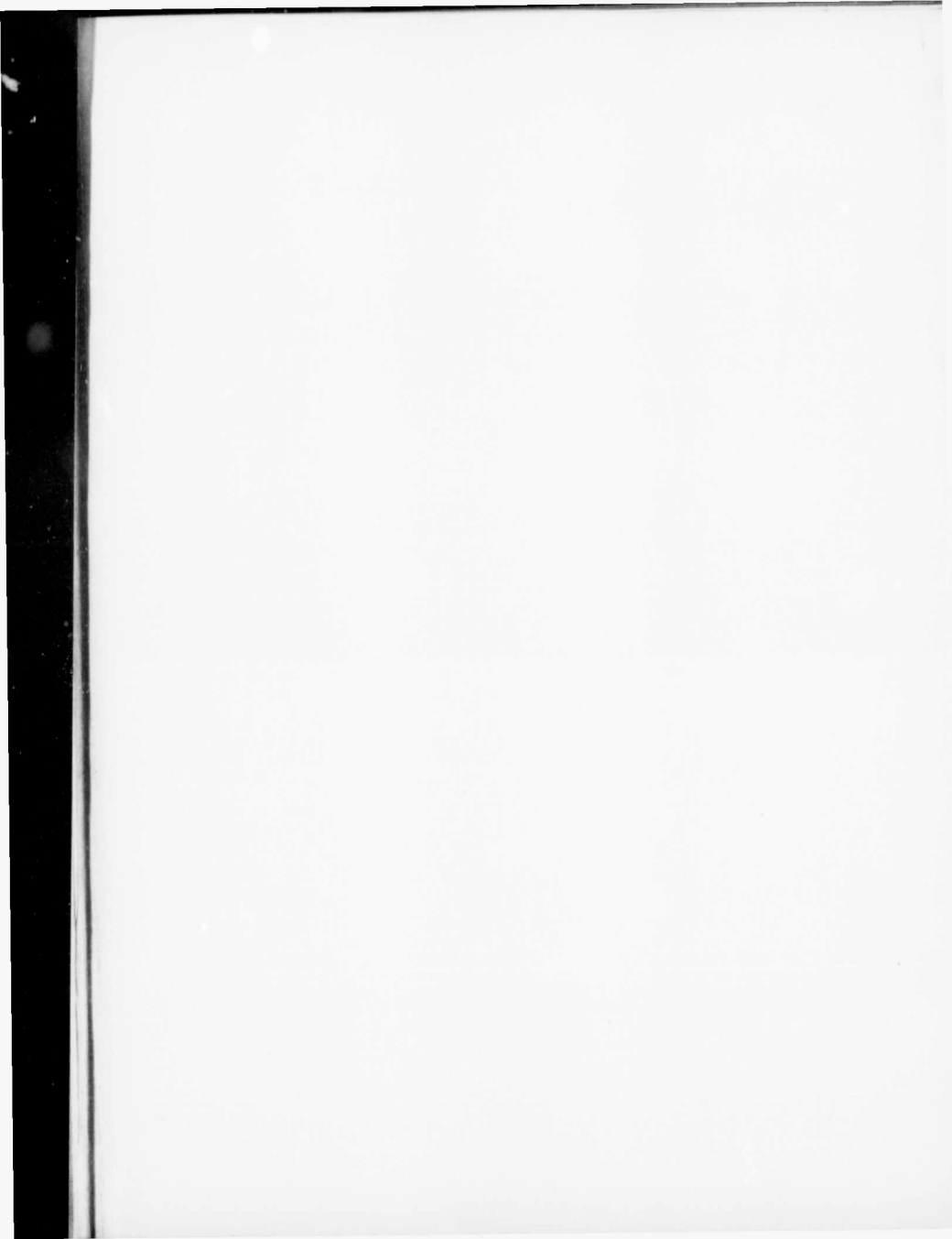
The background of the entire cover is a marbled paper pattern with a complex, organic, and somewhat cellular appearance, featuring various shades of grey, black, and white. A central vertical black band is divided into four sections by thin white horizontal lines.

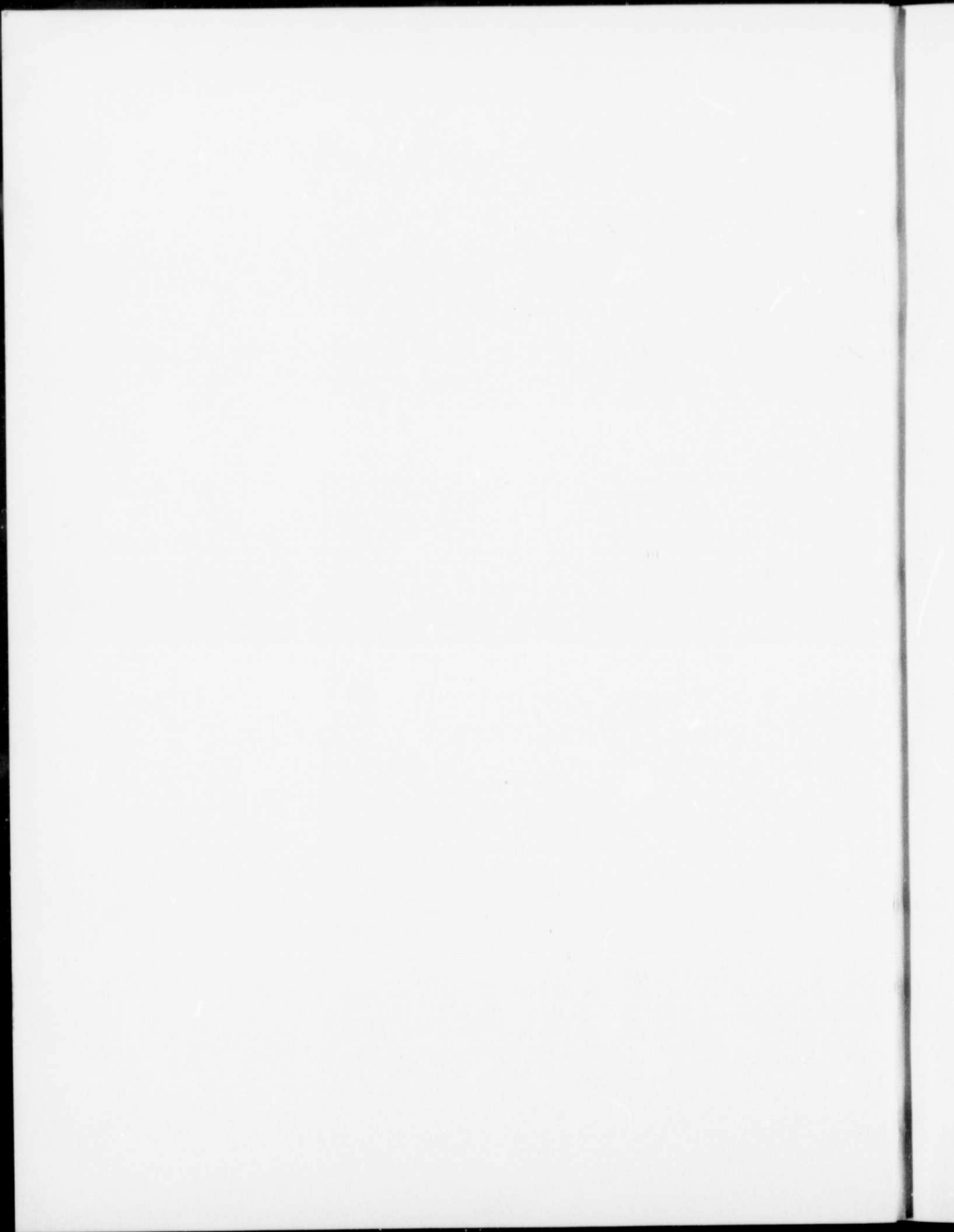
CANADIAN
INDUSTRY

1878-1914

THE INDUSTRIAL
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LIMITED











CANADIAN INDUSTRY

THREE AND ONE-HALF DECADES OF INDUSTRIAL PROGRESS

1878



1914

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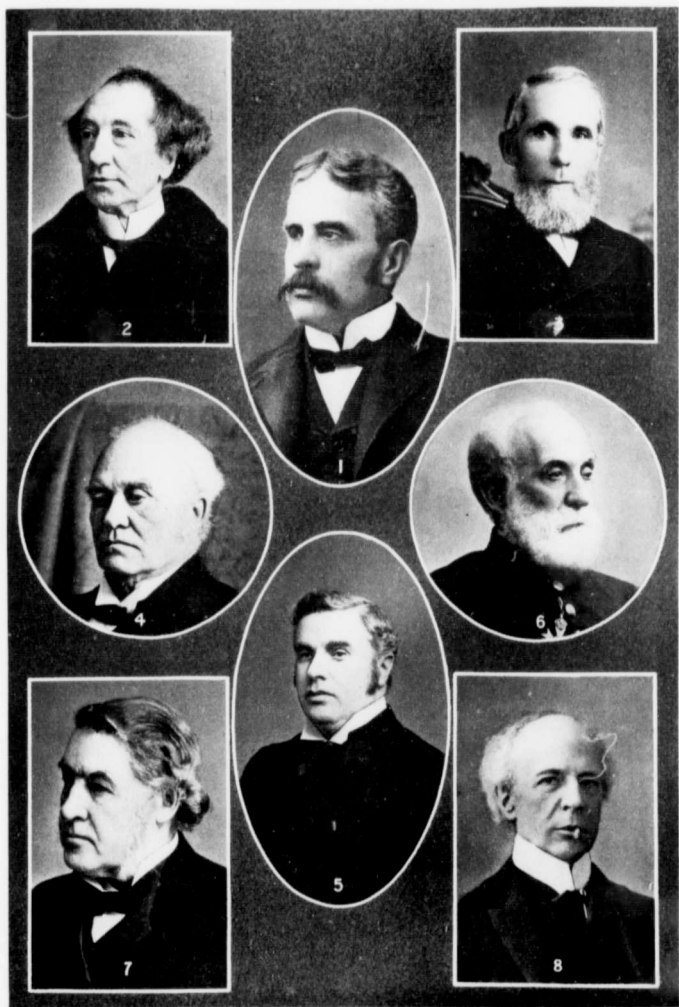
Governors-General Since Confederation.



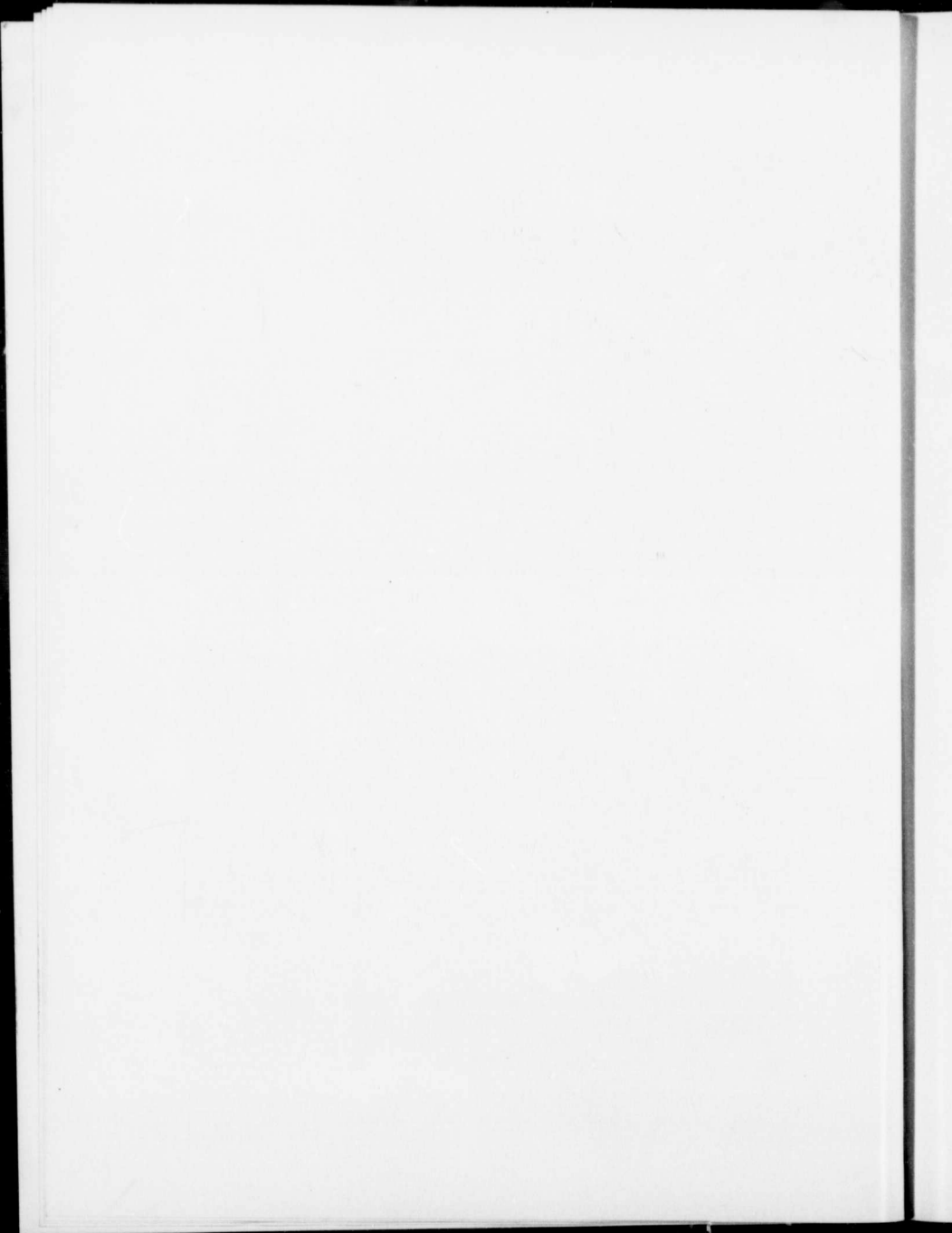
(1) The Right Hon. Viscount Monck, G.C.M.G., July, 1867. (2) The Right Hon. Lord Lisgar, G.C.M.G. (Sir John Young) February 7, '69.
 (3) The Right Hon. the Earl of Halifax, K.P., K.C.B., G.C.M.G., June 25, '72. (4) The Right Hon. the Marquis of Lorne, K.T.,
 G.C.M.G., Nov. 25, '78. (5) The Right Hon. the Marquis of Lansdowne, G.C.M.G., Oct. 23, '84. (6) The Right Hon. Lord Stanley
 of Preston, G.C.S., June 11, '88. (7) The Right Hon. the Earl of Aberdeen, K.T., G.C.M.G., Sept. 18, '90. (8) The Right Hon. the
 Earl of Minto, G.C.M.G., Nov. 12, '98. (9) The Right Hon. the Earl Grey, G.C.M.G., Dec. 18, 1904. (10) Field-Marshal, H.H.H.
 the Duke of Cornwall and Strathearn, P.C., K.C., K.T., K.P., G.C.B., G.C.S.I., G.C.M.G., G.C. I.E., G.C.V.O., Oct. 13, 1911.



Prime Ministers Since Confederation



(1) The Right Hon. Robert Laird Borden, K.C., P.C., M.P. (2) The Right Hon. Sir John Alexander Macdonald, P.C., K.C.M.G., M.P.,
 3. The Hon. Alexander Mackenzie, M.P. (4) The Hon. Sir John Abbott, K.C.M.G., M.P. (5) The Right Hon. Sir John
 Thompson, P.C., K.C.M.G., M.P. (6) The Hon. Sir Mackenzie Bowell, K.C., M.G., Senator. (7) The Right Hon. Sir Charles
 Tupper, Bart., P.C., G.C.M.G., C.B. (8) The Right Hon. Sir Wilfrid Laurier, D.C.I., P.C., G.C.M.G., M.P.



INTRODUCTION

In these pages an endeavor is made to give, in an illuminating and enduring form, some account of that remarkable commercial prosperity which the Dominion of Canada has enjoyed in an increasing degree for upwards of a third of a century. Great and gratifying as this prosperity has been, Canadians are justified in believing that it is but an earnest of still greater progress which the future—the not distant future—has in store for their country, for, as it was aptly put by Mr. Richard Grigg, British Trade Commissioner, in his report to the British Board of Trade in 1907, "In Canada, expansion is not an incident, but rather a permanent condition of economic life." Even in the oldest settled parts of the Dominion there are, still undeveloped and unexploited, vast stores and sources of wealth only awaiting the magic touch of wisely directed energy. The older provinces, Quebec and Ontario especially, have just awakened to the knowledge that, great as are the agricultural and mineral riches of their settled townships and counties, only the fringe has as yet been touched. They are only beginning to realize that they have each vast territories of which a generation ago little, if anything was known—hinterlands of enormous agricultural possibilities and of almost unthinkable mineral riches.

While the Maritime Provinces have less in the way of unexplored territory in which to seek for new sources of wealth, they too have much, in the way of hitherto unused natural resources and opportunities, yet to develop. The recent advances in fruit-growing and dairying give an indication of what may be done there by taking greater advantage of natural opportunities and commercial conditions. Nova Scotia has yet more than a million acres of land capable of being used as orchards, and in no other part of the world are better apples grown, if indeed any are quite

equal in quality. Taking into consideration the favorable climatic conditions, sufficient but not too plentiful rainfall, and ready access by water to the world's best markets, the prospects in all the Maritime Provinces for profitable agricultural development are exceedingly bright; neither is there any reason to doubt that, as elsewhere in Canada, there will be great progress in manufacturing industry. Nova Scotia long ranked first among the fish producing provinces of the Dominion, but of late years British Columbia has surpassed her. It is quite among the possibilities that when they shall have ready access by rail to the Hudson Bay, with its inexhaustible fishing grounds, Ontario and Manitoba may bid for precedence, but at present the eastern and western provinces are in the forefront.

In the newer provinces, Manitoba, Saskatchewan, and Alberta, though their progress has challenged the wonder of the world, only a beginning has yet been made. We are now speaking of them as the future granary of the Empire, but it requires no gift of prophecy to foretell that not grain growing chiefly and not agricultural pursuits alone will employ the energies and absorb the activities of the teeming millions who will yet people these vast areas. Busy manufacturing villages and towns will supply the needed home markets, without which mixed farming, that essential to successful agriculture, cannot be profitably carried on. The words of Horace Greely, when told that not manufactures but agriculture would be the future of the then opening American West, apply: "There will be many New Englands in the West." That prediction has been splendidly fulfilled, and a not less glorious industrial future awaits Canada's Northwest.

Older than some of her sister provinces, British Columbia is yet just beginning to find herself; only commencing to estimate with

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approximate accuracy the wonderful possibilities of her future in agriculture, in mining, in lumbering and in the fisheries. With her fine climate, fertile valleys, timber-clad mountains, inexhaustible mineral deposits, splendid harbors and unsurpassed fisheries, a bound can hardly be placed to the future industrial greatness of Canada's Pacific Province.

In the following chapters something is told of what is being done by the Dominion and by the several Provincial Governments, and of what they are undertaking and proposing to do in the way of aiding and directing the people to more and more scientifically and effectively wrest from the earth greater and yet greater returns for human labor, and also to assist the wealth-producers by improved means of transportation and in other ways, to reach their best markets. The world no longer accepts without question the doctrine of the political economic school of laissez faire, and it is becoming a more and more commonly accepted belief that to aid and assist the people in the production and distribution of wealth is a proper and legitimate governmental function, involving no interference with individual freedom of action.

That the record may rest upon positive and reliable data, the figures of the census reports are taken except in instances where other equally reliable official information is available. The story of industrial development is made to begin with the year 1878, for the reason that in that year the Canadian people had decided upon the adoption of tariff protection to native industry, and the policy was formally inaugurated in the following year. The merits of the policy may fairly be judged by results since 1879, if proper allowance be made for such industrial development as has not been influenced by the imposition of protective duties.

Canadians may differ in opinion as to the controlling causes and the principal reasons for the prosperity which the Dominion has enjoyed for the past three decades and more, and is still enjoying, but in the fact of that prosperity all alike rejoice. It is not intended in this work to discuss, academically or otherwise, the merits of the policy of seeking to aid native industry by means of protective tariffs; still less is it desired to give to either political party or to the adoption of any policy entire credit for Canada's industrial prosperity. The story of the progress which has been made in the several lines of industry is told as clearly, as accurately, and as fully as has been found possible,

and it is left to the reader to apply the story and deduce from it such arguments or lessons as he may. Taking the data of the census of 1880 as the starting point, the progress of each line of industry since then has been traced and an account given of the more important new industrial enterprises which have since been established.

Representative men in the several branches of industrial activities tell of what they have accomplished, and, when they have cared to do so, men qualified by personal knowledge and experience tell of how and to what extent the fiscal policy of the Dominion has helped or hindered the industries with which they are more intimately connected. In these instances the statements made and the opinions expressed rest upon the authority of those who make and offer them, and are neither criticized nor endorsed by the editor.

The record of its first decade and the position which the Dominion has achieved amply justify the claim that the Twentieth century is Canada's century, and the assured confidence with which Canadians face the future gives promise that the claim will be made good. During the decade which preceded the period with which these pages deal, the people of Canada were very far from having that confidence in the future of their country which has now become a national characteristic. Confederation was an accomplished fact—on paper. The Northwest had been acquired, and British Columbia had united with her sister provinces in the east—all more or less on paper. We had bound ourselves by solemn compact with the Pacific Province to build a railway from ocean to ocean, but the work had yet to be seriously commenced, and not a few who would not willingly allow themselves to be classed as pessimists were without belief in its practicability; some were even casting about for some way of escape from what they regarded as an improvident if not impossible bargain.

There were men of vision among Canada's public men of those days; men of faith, of courage, and of foresight; but their predictions of future industrial and commercial greatness and of permanent political union met with but little more general acceptance than did the reports of Joshua's spies on their return from across Jordan. Canadians had met with proper spirit the unfriendly blow which had been dealt by their southern neighbor in the repeal of the reciprocity treaty, involving consequent practical exclusion from the market which they had grown to regard as well-nigh indispensable to

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their prosperity. But the blow, to a country situated and circumstanced as Canada then was, was a staggering one, before which a people of less sturdy manhood would have quailed and might have surrendered. The farm, the forest, and the fisheries were almost Canada's only sources of wealth; her people had nearly reached the point where they were ready to accept as their natural and inescapable destiny the position of the producers of raw or at most partially manufactured materials. Manufactures were in their infancy, and the prosperity of most of them precarious, exposed, as they were, to the competition of rivals and competitors ready to "slaughter" their surplus products in the defenceless Canadian market. Denied the advantage of a diversity of employment at home, thousands of young Canadians expatriated themselves, seeking opportunities not to be found in a land of only raw materials or the crudest of manufactures. Among our publicists were not a few who did not hesitate nor yet blush to proclaim their belief that Canada could hope for and should not aspire to any higher or more worthy destiny than a sort of industrial and commercial helotage; producers of what unskilled and unintelligent labor might for peoples more highly developed industrially. It is not impossible—indeed, in the light of what we have seen since then, it seems highly probable—that, but for the repeal of the reciprocity treaty, this might have been Canada's pitiful status among the nations, if indeed she could have maintained any sort of independent autonomous position.

Both commercial and political considerations influenced the United States to repeal, in 1866, the reciprocity treaty which had been in operation since 1845. The manufacturers in that country, or many of them were dissatisfied because, while the treaty was in force, Canadian governments had increased the import duties on manufactured goods, sometimes avowedly for purposes of protection. There was nothing in the terms of the treaty forbidding this, but United States manufacturers averred that if not an infringement of the letter of the treaty, it was a violation of its spirit, and this was contended in spite of the fact that after all these advances the Canadian duties were less than those levied by the United States by at least twenty per cent. It is probably true that had the United States manufacturers supposed that Canadian duties would be raised during its continuance, they would have opposed the ratification of the treaty, and very little opposition would have ensured its defeat

It is also probably true that, so dire were the straits to which the British North American provinces had been reduced by the repeal of the corn laws, that they would not have refused to agree to bind themselves not to increase duties while the treaty should remain in force. But while commercial and business reasons had weight in bringing about the repeal of the treaty, it can hardly be doubted that political considerations had most to do with it; were indeed the determining cause. There was a very general and deep-seated belief among United States politicians of all parties that annexation was the manifest destiny of Canada, and that it was delayed only because Canadians had not been forced to realize how dependent they were, commercially, on the United States, and how really impossible their continued separate existence was. It was believed, even by some who have ranked as statesmen, that it was only necessary for the United States to adopt a policy of non-intercourse to open the eyes of their northern neighbors to the utter helplessness of their position. This belief was voiced by one of the members of Congress, Mr. Boutwell, when urging the repeal of the treaty: "The fact of the annexation of Canada to the United States, whether the event shall occur in a time near or remote, depends probably upon our action on reciprocity. Canada needs our markets and our facilities for ocean transportation, and as long as these advantages are denied to her she can never attain to a high degree of prosperity. The body of farmers, laborers and trading people will favor annexation ultimately should the policy of non-intercourse be adhered to on our part, and they will outnumber the office-holding class, and thus the union of the two countries will be secured." It probably came as a revelation to United States public men of the annexation-through-non-intercourse school, when the late Hon. Joseph Howe said in the course of his memorable speech at the Detroit convention: "I have heard it said since I came to the convention that if the reciprocity treaty is annulled the British provinces will be so cramped that they will be compelled to seek annexation to the United States. I know the feeling in the Lower Provinces, and I believe I am well enough acquainted with the Canadians to speak for them also when I make the assertion that no considerations of finance, no question of balance for or against them on the interchange of commodities can have any influence upon the loyalty of the inhabitants

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" of the British provinces, or tend in the slightest degree to alienate the affections of the people from their country, their institutions, their government and their Queen. There is not a man who dare, on the abrogation of the treaty, if such be its fate, to take the hustings and appeal to any constituency on annexation principles throughout the entire Dominion. The man who avowed such a sentiment would be scouted from society by his best friends. What other treatment would a man deserve who had turned traitor to his government and violated, for pecuniary advantages all obligations to the country that gave him birth!"

Whatever may have been the underlying thought and hope that actuated United States statesmen when they decided upon the denunciation of the reciprocity treaty, and however serious the immediately injurious effects upon Canadian business, there can now be no doubt that it was a most fortunate thing for Canadian nationhood. In the presence of, if not a common danger, at any rate of a common necessity, the hitherto scattered provinces were the more speedily drawn together, commercially as well as politically. Each being no longer able to seek its markets immediately south of what is now the common boundary, they soon began to find that in inter-provincial they had a good substitute for the inter-national trade they had lost. Gradually confidence grew out of what was thought likely to breed panic, and the commencement of the decade 1880-1890 found our people with a manly confidence in themselves and a wholesome belief in their country's future. A tariff policy had been adopted, by means of which it was hoped that manufacturing industries would be established on a sound and enduring basis, giving opportunities for diversified employment which had not hitherto existed, and securing for the agricultural population a home market for their products; thus placing the Dominion in a position of commercial and industrial independence. The work of connecting the East with the West by an all-Canadian line of railway was begun in earnest, and British Columbia saw that faith was to be kept with her.

There were still doubters and men of little faith; men made impotent by a "craven fear" of being great," but the people no longer gave ear to them. Canadians had set their faces towards the dawn and were fronting the future resolutely and unafraid. It is true that

the hopes founded upon the National Policy and the predictions of its more ardent advocates were disappointingly slow of fulfilment. This was owing, doubtless, to some want of certainty as to the permanence of the policy. Capital, proverbially timid, was slow to invest in enterprises whose success was seemingly dependent upon the continuance of a policy the stability of which appeared to depend upon the fortunes of party conflict. Foreign manufacturers—and this was particularly true of those of the United States—were slow to abandon the hope of being again free to exploit the Canadian markets, and they hesitated to establish the branch concerns for which the advocates of protection had hoped. Gradually, but with discouraging slowness, this hesitancy was being overcome, but it was not until a rearrangement of the pieces on the political chess board made it clear that Canada's commercial policy was a national one, not dependent for its permanence, as to essentials, upon the fortunes of political parties, that the Dominion began to feel the full impulse of that industrial development in which she now rejoices.

Since United States manufacturers have become convinced that Canada's National Policy is unlikely to be changed in any essential way, much less abrogated, not a few of them have established branch factories in the Dominion. Careful enquiry shows that, by the beginning of the year 1913, quite \$500,000,000 of American capital had been thus invested, or more than thrice the entire capital invested in Canadian manufactures when the National Policy was inaugurated. British capital to even a greater amount has been invested in Canada, but not to anything like the same extent in industrial enterprises, by far the greater amount having been placed in Government securities, municipal debentures and in the stocks and bonds of Canadian railways.

Signs are not lacking, however, that British manufacturers have learned as American manufacturers did that to have the benefit of Canada's markets it is the part of wisdom to establish branch factories here, and we may reasonably expect that many millions of British Capital will be invested, as American millions have, in manufacturing establishments in Canada. Indeed so great are Canada's natural advantages, so varied are her resources and so vast is her basic wealth that, humanly speaking, nothing can prevent or even seriously hinder her industrial progress.



DOMINION OF CANADA

The Rarest Gem in Britain's Crown

DAUGHTER IN HER MOTHER'S HOUSE; BUT
MISTRESS IN HER OWN

WHERE EXPANSION IS NOT AN INCIDENT, BUT
A PERMANENT CONDITION.

In area, in population, in actual and potential wealth, and in political importance Canada is quite beyond dispute the greatest of Britain's over-seas Dominions. More than twenty-nine times the size of the British Islands, eighteen times as large as France or Germany, it is capable of supporting, and that greater comfort than the people of the most prosperous European countries now enjoy, a population equal to

dian industries; lumbering and fisheries will continue to be important sources of national wealth and to give employment to thousands, but Canada's great mineral wealth; her enormous deposits of coal in some sections and her great water powers in others all make it equally certain that she will also be a great manufacturing country. Proud of their country and self-reliant as Canadians are they realize, however, that



DOMINION PARLIAMENT BUILDINGS

that of the whole of Europe. Yet Canada has only begun to find herself; her people are only awaking to an understanding of the possibilities of the vast domain that has been committed to their care. Men are still living who remember when Canadians had little hope that their country could ever be anything more than an agriculture country or at most a country of farmers, lumbermen and fishermen. Agriculture is and surely will continue to be the backbone of Cana-

great and vast as their country is it is a part of a yet greater empire and that its welfare and theirs is bound up in that Empire's future. Canada's area is vast, her natural resources almost limitless; she can produce everything necessary to man's physical happiness that can be produced within the temperate zone, but the empire embraces every zone, each part of it needing what the others produce. Canadians are beginning, and none too soon, to think Imperial-

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ly, and they are commencing to require that their statesmen shall frame and shape their economic policies upon Imperial lines. The very term "grainary of the Empire" implies that they who use it are thinking of a drawing together of the parts of an empire whose people need each other's products. This was the thought in the mind of Right Hon. R. L. Borden when, speaking at the banquet of the Royal Colonial Institute in July, 1912, he said:

"Ten years ago there was some doubt as to whether or not Canada would be able to supply the needs of the British Empire in its

Hon. Clifford Sifton, has stated that Canada possesses nearly one-half of the total available water-power of the world. As electrical power is rapidly superseding steam power, it will be readily seen that the Dominion has, in her unrivalled water powers, something approaching an absolute guarantee of future manufacturing supremacy. Nor are these splendid water-powers confined to any one province, or to any section of the Dominion. In almost unlimited volume, natural water-powers are to be found in every province, excepting only Prince Edward Island. Although more than a million



RIGHT HON. ROBERT LAIRD BORDEN, K.C., P.C., M.P.

"wheat production. The problem in Canada to-day is whether the wheat production and the other agricultural products of our country can find a sufficient market within the limits of the whole British Empire."

Perhaps Canada's greatest industrial asset is in her water-powers, developed and yet to be utilized. Although the great resources of the Dominion in water-power have only as yet been tapped, it has been estimated, after careful investigation by the Dominion Commission of Conservation that in 1910, 1,016,521 units of horse-power had been developed from water-power, and the Chairman of the Commission,

electric horse-power has already been developed, yet, as has been said, Canada's resources in water power have hardly been tapped. When the steadily increasing cost of coal production is considered and the consequent inevitable substitution for steam of water-power developed electrical energy, and when it is taken into account that Canada's water area is 125,000 square miles, as against 52,300 square miles in the United States, the conclusion is inevitable that the Canadian Dominion must take first rank on the continent in manufacturing industries, as it assuredly will in agriculture. Surely it only needs that Canada's business

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men and statesmen shall be equal to the task that is theirs; that our natural resources in land, in water power, in the mines, the forests and the fisheries shall be regarded as the heritage of the people, to be conserved and developed as a trust placed in our hands for the Canadians of the future; surely this only is needed to make certain the future industrial

greatness of the Dominion and the permanent prosperity of her people.

The following table, compiled from the census statistics, the reports of the Department of Trade and Commerce, and other Government returns, shows in a concrete way how steady and even rapid has been Canada's progress in the more important lines of business activity:

	1881.	1891.	1901.	1911.
Population	4,324,820	4,833,239	5,571,315	7,204,838
Dominion Revenue	\$29,635,298	\$38,597,311	\$52,516,333	\$117,780,410
Dominion Expenditure	\$33,796,642	\$40,793,208	\$59,982,866	\$87,774,198
Customs Duties	\$18,406,892	\$23,305,218	\$28,293,930	\$71,838,088
Imports Value	\$91,611,604	\$113,345,124	\$181,237,988	\$472,247,540
Exports Value	\$95,627,501	\$95,503,392	\$196,487,632	\$297,196,635
Bank Capital, paid up	\$59,534,977	\$60,700,697	\$67,035,618	\$101,065,306
Bank Deposits	\$94,346,481	\$148,396,968	\$349,573,327	\$874,672,408
Bank Clearings	(1893)	\$979,163,296	\$1,625,680,194	\$7,391,368,207
Deposits in Savings Banks	\$23,522,550	\$50,382,858	\$75,174,057	\$93,511,471
No. of Post Offices	5,935	6,061	9,834	13,324
Letters and P.O. Cards sent	57,810,000	118,275,000	218,492,000	553,546,000
Money Orders issued	\$7,725,212	\$12,478,178	\$17,956,258	\$70,614,862
Fire Insurance in force	\$462,210,968	\$579,602,191	\$1,038,687,619	\$2,034,276,740
Life Insurance in force	\$103,290,932	\$261,475,229	\$463,769,034	\$950,220,771
Miles Railway	7,331	13,838	18,140	25,400
No. Ry. Passengers	6,943,671	13,222,568	18,385,722	37,097,718
Ry. Freight, tons	12,065,323	21,753,021	36,999,371	79,881,282
Ry. Earnings	\$27,987,509	\$48,192,099	\$72,898,749	\$188,733,491
Vessels Navigat'g Canals, (1885)	21,107	21,019	26,494	33,955
Tonnage of Vessels	(1885) 3,229,077	3,978,570	6,462,538	27,403,817
Canals, Freight, tons (1885)	2,673,641	2,902,536	5,665,259	38,030,353
Wheat Production, bush	32,350,269	42,223,372	55,572,368	215,851,300
Mineral Production	(1886) \$10,221,255	\$18,976,616	\$65,804,611	\$103,220,994
Manufacturing Establishments	—	12,494	14,650	19,218
Capital Invested	\$165,302,623	\$296,350,316	\$441,063,060	\$1,247,583,609
Value of Products	\$309,675,068	\$359,082,636	\$452,775,577	\$1,165,975,629
No. of Employes	254,935	296,083	306,694	515,203
Wages Paid	\$50,429,002	\$78,492,345	\$88,143,472	\$197,228,701
Average Yearly Wage	\$193.84	\$265.10	\$287.39	\$382.81

The tide of Canadian prosperity shows no sign of abating, but on the contrary is steadily increasing in volume. The aggregate trade of the Dominion was greater in 1913 than in 1911 by upwards of 294 million, while the public revenue was nearly 51 millions more. The life insurance in force in 1913 exceeded that in the former year by more than 120 millions and the fire insurance by 645 millions. The deposits in the savings banks were greater by quite 987 millions. 3,201 more vessels passed through the Canadian canals, carrying 13,289,073 more tons of freight. The Canadian railways increased their earnings by upwards of 87 millions. The value of Canada's mineral output was greater

in 1912 than in 1911 by over 31 million dollars.

It is true that the apparent balance of trade is steadily against Canada, but this need cause no alarm in 1913 this adverse balance amounted to a little more than 309 millions, but against this must be reckoned the wealth brought in by immigrants and this, counting only those coming from the United States, amounted to over 202 millions. For the past five years the adverse balances of trade have aggregated \$851,509,417, while the wealth brought into Canada by United States settlers has in the same years totalled \$675,958,266. With a rapidly growing population all requiring houses, means of transportation, street improvements, lights, sewers, water

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PUBLIC WORKS OF CANADA

CANADIAN INDUSTRY

CANADIAN INDUSTRY

CANADIAN POST OFFICE SYSTEM

CANADIAN INDUSTRY

CANADIAN INDUSTRY

CANADIAN RAILWAYS AND CANALS

CANADIAN INDUSTRY

CANADIAN INDUSTRY

CANADIAN MARINE AND FISHERIES

CANADIAN INDUSTRY

CANADIAN INDUSTRY

CANADA'S LANDS, FORESTS AND MINES

CANADIAN INDUSTRY

CANADIAN INDUSTRY

DEPARTMENT OF AGRICULTURE

CANADIAN INDUSTRY

CANADIAN INDUSTRY

MILITIA SYSTEM OF CANADA

CANADIAN INDUSTRY

CANADIAN INDUSTRY

DEPARTMENT OF TRADE AND COMMERCE

CANADIAN INDUSTRY

CANADIAN INDUSTRY

DEPARTMENT OF LABOR

CANADIAN INDUSTRY



PRINCE EDWARD ISLAND

The Garden Province of Canada

SMALL IN AREA, BUT PRE-EMINENTLY AN
AGRICULTURAL COUNTRY

A BIT OF ENGLAND THIS SIDE THE ATLANTIC

Called "The Garden Province" and "The Emerald Isle of the New World," Prince Edward Island is an agricultural province, pre-eminently and almost exclusively. Taking all things into account there are few countries where farming can be more profitably carried on. The soil is remarkably fertile. The country is pleas-

antly maintained with ease. It is the land of the small farmer, there being nearly sixteen thousand farms of five acres and over and 865 of less than five in extent. Owing to the great natural fertility of the soil the Island is the most thoroughly cultivated portion of the North American continent.



HON. J. A. MATHESON, M.P.P., PREMIER AND PRESIDENT OF COUNCIL

antly undulating and all of it suitable for cultivation. The soil, which is well watered with numerous springs and rivers, is rich, light, and warm, with here and there somewhat richer clay areas. So great are the island's natural resources that it is said that twice its present population

An advantage which Prince Edward Island farmers possess over those of other provinces of Canada or of any American State is the availability of several natural fertilizers, the most important of which is the "mussel mud" or "oyster mud" found in many bays and river

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NOVA SCOTIA

The First Settled Canadian Province

LEADS IN NUMBER AND TONNAGE OF SHIPPING

RANKS SECOND AMONG THE FISH PRODUCING PROVINCES

Nova Scotia is the earliest settled part of the Canadian Dominion. Including the Island of Cape Breton which, though separated from the main land by the Cut of Canso, is part of the province, Nova Scotia has a total area of 21,428 square miles; this is inclusive of a water area of

and is the most moderate of all the Canadian Provinces. The climate, especially in its humidity, more nearly resembles that of England than does the climate of any other part of Canada, except, perhaps, Prince Edward Island; this is of course due to its insular position. In the neigh-



HON. G. H. MURRAY, M.P.P., PREMIER AND PROVINCIAL SECRETARY

360 square miles. Its length is about 300 miles and its breadth, which varies greatly, averages about 100. Owing to the influence of the ocean there are no great extremes of temperature, the average summer temperature being 45.6° and in winter 25° F. In winter the thermometer rarely reaches zero. The climate is remarkably healthy

and is the most moderate of all the Canadian Provinces. The climate, especially in its humidity, more nearly resembles that of England than does the climate of any other part of Canada, except, perhaps, Prince Edward Island; this is of course due to its insular position. In the neighborhood of five million acres of the land (almost one-half the Province) is capable of profitable cultivation, and, especially in the west where it has the advantage of the rich deposits left by the tides of the Bay of Fundy, the fertility of the soil is phenomenal. Here large tracts have been reclaimed by dykes and the lands thus reclaimed

CANADIAN INDUSTRY



NEW BRUNSWICK

The Eastern Gateway of the Dominion

HEALTHFUL CLIMATE, FERTILE SOIL AND GREAT
NATURAL WEALTH

LAND OF SUNSHINE WHERE CROP FAILURES ARE
UNKNOWN

Next to Nova Scotia, New Brunswick, is Canada's most important Maritime province, it is an irregular square about two hundred miles in length and breadth. Its total area is 27,985 square miles about 74 square miles being water. The North-West portion of the province, a rolling fertile country, is well suited for agriculture.

would seem to have warranted. A very large part of the province, the major part of it indeed, is covered with dense forests, spruce being the principle wood, though there is a great deal of very valuable white pine as well as other woods of commercial value such as cedar and hemlock.



HON. J. K. FLEMING, M.P.P., PREMIER AND ATTORNEY-GENERAL

Especially in the valleys the soil of the province is fertile, particularly at the head of the Bay of Fundy where the fertility is of a very high character. However, as lumbering has been the more profitable industry, agriculture has not made the progress which the fertility of the soil

The mineral resources of the province have not yet been extensively developed. There are known to be rich deposits of bituminous coal of good quality and copper, gypsum, iron, manganese and graphite are also found in considerable quantities. There are extensive areas of

CANADIAN INDUSTRY



QUEBEC

A Land of Enormous Potential Wealth

THE CRADLE OF FRENCH COLONIZATION IN
AMERICA

THE DOMINION'S OLDEST AND LARGEST
PROVINCE

Quebec is the Dominion's largest province; it is greater in extent than five United Kingdoms. With its newly added territory of Ungava it has 706,834 square miles of land and water. Just what proportion of this vast territory will be found to be of agricultural value cannot be accurately known until the newly acquired district

abound with fish. Salmon and cod are the most important, but herring, trout, halibut, mackerel, smelts and lobsters are also taken in considerable quantities. The "Malpeque" oysters found in the Gulf of St. Lawrence are highly regarded by epicures. In the last census year the total value of the Quebec fisheries was \$1,808,436. In 1912



HON. SIR LOMER GOUIN. M.P., PREMIER AND ATTORNEY-GENERAL

shall be thoroughly explored. Neither, until this new territory shall have been prospected, will its possibilities as a mineral country be ascertained. The Province has many rivers, lakes and bays, and these, as well as the Gulf of St. Lawrence upon which a large part of the province borders,

these figures were exceeded by sixty thousand dollars. The Province has extensive mineral resources, and these are being rapidly developed. In 1903 the total value was a little less than two and three-quarter millions, and this had increased in 1912 to upwards of eleven and a half mil-

CANADIAN INDUSTRY



ONTARIO

Canada's Banner Province

LEADS IN WEALTH AND POPULATION

FOREMOST IN AGRICULTURE, MANUFACTURES,
TIMBER AND MINERAL RESOURCES

Though not the oldest nor yet the largest, Ontario is the premier province of the Dominion. In population it is first, while in industrial activity it is indisputably the foremost. Other provinces are making gratifying progress and indeed giant forward strides, but Ontario is

combined product or three grain growing North-western provinces.

In actual extent Ontario falls short of Quebec by a little more than fifty million acres, but in land suitable for settlement its area is probably as great or perhaps greater, depending, as to



PARLIAMENT BUILDINGS, TORONTO

easily keeping the industrial lead. In manufactures its supremacy is unquestioned and in most other fields of industry it holds a foremost position. Great as has been the progress of the new prairie provinces in agriculture, even in this her leadership is not yet disputed. There are in the province something like one hundred and seventy-five thousand farms ranging in value from one to fifty thousand dollars, and the total value of lands, implements, buildings and stock is close upon one and a half millions. The last census showed the annual value of her field crops to be 40% of the entire yield of the Dominion and was fifty-seven millions greater than the

this, upon what an exploration of Quebec's newly added territory of Ungava shall show. The province is more than three times the extent of the British Islands and as large as France and Germany combined. With her agricultural lands, her fisheries, her lumbering, mining and manufacturing possibilities she could support a population as numerous as does the German Empire, and with greater comfort than the people of that country enjoy.

Ontario is peculiarly a British province. Its first settlers were United Empire Loyalists; a splendid stock upon which to found a new nation with British ideals and aspirations. Quite

CANADIAN INDUSTRY

fifty thousand of the Loyalists, driven from the United States by a persecution, so heartlessly cruel and brutal that the Edict of Nantes is almost its only historical parallel, settled upon the banks of the St. Lawrence and along the shores of Ontario and Erie. These were followed soon after by colonies from Pennsylvania of German extraction and German speaking for the most part. These were as well equipped for the laying of the foundations of a new state as were

splendid bodies of settlers from the British Isles all alike fired with the aspirations and ambitions of home builders. Ontario's early settlers were thus especially well fitted for making the most and best of a land in which nature, while generous, was yet exacting and austere; offering an abundant and sure reward for intelligently applied labor, but sternly demanding that the reward must be manfully won. It was a land that gave a welcome and generous reward to the



SIR JAMES P. WHITNEY, K.C.M.G., M.P.P., PRESIDENT OF COUNCIL AND PREMIER

the Loyalists; better indeed in some respects for the work of pioneers, since, while the Loyalists were the more versatile and skilled in a greater variety of handicrafts, the "Pennsylvania Dutch," as they and their descendants were and are proud to be known, were, almost to a man skilled and practical agriculturists. Besides, while the Loyalists, victims of persecution as they were and despoiled of all their possessions, came almost or altogether penniless, these settlers from Pennsylvania, were, most of them, fairly well to do and not a few of them possessors of considerable capital. Following these came

worker, but rejected the shirker and had no place for him.

To win their homes Ontario's early settlers had literally to hew them out of the wilderness. Unlike the settlers on the prairie to-day they could not turn the sod with the plow and look for a harvest the same season. The "bush" had to be "underbrushed," "felled," "logged" and burned, and the first few years cultivation had to be done among stumps. Reapers, mowers, seed drills, gang plows and such labor saving implements and tools were unknown and could not have been used if they had been. Markets

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were distant, and the roads but blazed trails in the woods. Many of the common necessities of to-day were almost unknown luxuries then. With each new day began another struggle for existence; a struggle which developed physical



HON. J. J. FOY, K.C., M.P.P., ATTORNEY-GENERAL.

and moral fibre, creating a strong and, in a very true sense, heroic manhood and womanhood.

Partly for the reason that the early settlers of Ontario were quick to realize that only by wisely directed methods of husbandry could the fertility of the soil be preserved and increased, and partly because of the exigencies of their situation, mixed farming was practiced from the beginning and the province has, in consequence, not now to tell the story of worn out and exhausted soils which so many of the American States have to relate. At first, when the land had become sufficiently cleared to permit of it, there might have been a too great readiness to grow wheat, but the repeal of the British corn laws tended to check this, and later, when the inflated prices caused by the Crimean War had somewhat overstimulated wheat growing, the commercial depression which followed again restrained it. Still later the repeal of the reciprocity treaty by the United States had a similarly salutary effect.

It has been fortunate for the soundness and permanence of Ontario's prosperity that the growth of villages and towns and the establishment of manufactures have kept fairly even pace

with the increase of the agricultural population. Thus the farmers have, with reasonable constancy, been assured of a market for their more perishable produce, and consequently have not been forced to exhaust their land by continuous cropping with grain. A fairly balanced system of farming has thus been established; grains and other field crops are grown in due proportions and a rotation of crops maintained; while by the raising of live stock and engaging in dairying the fertility of the soil is fairly conserved. To be sure all this does not eliminate the need for commercial fertilizers, and here again nature has been kind to the province providing stores of apatite or phosphates, and other raw materials for the manufacture of the fertilizers of commerce. Recently, too, processes have been discovered by which nitrogen can be obtained from the atmosphere by the application of electric energy, of which the extensive waterpowers of the province make an almost unlimited supply obtainable.

As has been said the growth of Ontario villages and towns has fairly kept pace with her agricultural advancement, and nearly all of



HON. I. B. LUCAS, M.P.P., TREASURER OF THE PROVINCE.

these maintain manufacturing establishments of greater or lesser importance and extent. In manufactures as in agriculture Ontario is foremost of the Canadian provinces. In the last census year of the nineteen thousand and odd

CANADIAN INDUSTRY

manufacturing establishments in the Dominion, eight thousand were in Ontario. Of one and a quarter billions of dollars invested, Ontario investments represented nearly six hundred millions. Almost half of the five hundred thousand



HON. J. S. HENDRY, C.V.O., M.P.P., MINISTER
WITHOUT PORTFOLIO

and more persons employed were in Ontario factories. Ontario workers only came short by less than three millions of receiving half of the two hundred and forty millions paid in wages; while of the total value of products, \$1,165,975,639, Ontario factories produced more than half by nearly fifteen millions. Ontario manufacturers have been somewhat at a disadvantage owing to the absence of coal deposits in the Province, but this drawback is being rapidly and satisfactorily overcome by the distribution of electrical energy under a system of public ownership.

Ontario, situated as she is between the great lakes and the Hudson Bay and extending from the forty-second to the fifty-sixth degrees of north latitude, has necessarily a great variety of climate. The part of the province lying along Lake Erie and including the Niagara Peninsula has, perhaps, on the whole, the better climate. Here Indian corn, tobacco and the more tender fruits of the temperate zone, such as peaches, apricots and delicate varieties of the grape, are grown with great success. In the rest of old Ontario between the part just spoken of and the Laurentian range, though the climate is a little

less favorable, all kinds of cereals can also be successfully grown—Indian corn with somewhat less certainty—together with vegetables in great variety. The apples and other fruits grown here are of better quality—kind for kind—than those grown farther south. Indeed the rule seems to be fairly well established that all kinds of grain, vegetables and fruits attain their highest perfection at the northern limit of growth. Beyond the Laurentian plateau where the streams flow to the Hudson Bay the climate is colder, being fairly comparable with that of Manitoba. Here is the great northern clay belt, only beginning to be known and properly valued. Naturally rich, well watered and with wonderful agricultural possibilities it requires no gift of prophetic vision to foresee that this Northern or New Ontario will ere long be the home of many thousands of prosperous tillers of the soil. Of the newly added district of Patricia little is certainly known as yet. It has been traversed by but few white men, and they were more intent on a search for big game and fur-bearing animals than curious to discover possibilities for agriculture.

In so large a territory the soil must necessarily greatly vary in quality and capacity for



HON. DR. R. F. PRESTON, M.P.P., MINISTER
WITHOUT PORTFOLIO

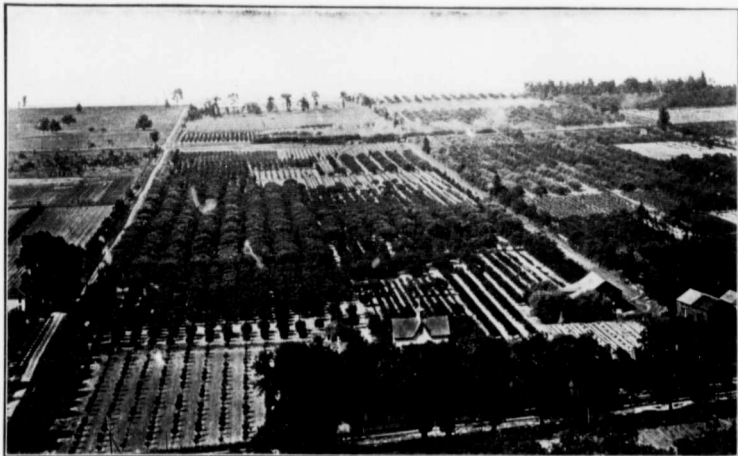
productiveness. In old Ontario, while there are occasional sandy and rocky sections, the soil is mainly either sandy loam or clay loam. The figures of crops already given are sufficient evidence of its fertility and productiveness. In

CANADIAN INDUSTRY

New Ontario, not included in the northern clay belt, the country is mainly rocky, but here, too, there are tracts of rich lands, the more extensive ones being in the Rainy River and Lake of the Woods districts.

What would be an accurate estimate of Ontario's forest wealth it would be a little difficult to tell. Each new survey in the north of the province discloses new tracts of timber varying in variety and in merchantile value. White pine has been and will continue to be her most valuable timber, but spruce, of which she has an almost unlimited supply, is every year becoming increasingly important commercially, and it has an important social as well as economic value

the forest to transform it into farms, and if they thought little, if at all, of forest conservation they are hardly to be blamed. Still, when we see that to-day we must import our supplies of such valuable hard woods, as walnut, cherry, hickory, oak, sycamore, etc., one must regret that so many millions of feet of these valuable woods were destroyed. If somewhat late, however, Ontario has awakened to the importance of conserving her forest wealth. The Government has permanently withdrawn about thirteen millions of acres of forest from settlement, forming forest reserves, and these with the National Algonquin Park make a total of more than twenty thousand square miles of permanent forest. Considerable



A SCENE IN ONTARIO'S FRUIT GARDEN

for the reason that it furnishes to the settlers in the Northern Clay Belt a most valuable "first crop," thus greatly facilitating the speedy settlement of Ontario's hinterland. Both in the quantity of lumber cut and in its commercial value Ontario leads all the other provinces, almost doubling the cut of British Columbia, the next province in importance of forest production, in quantity and nearly trebling it in value. It is greatly to be regretted that Ontario's first settlers were so blinded to the economic value of the forests they destroyed. It is proverbially easy to be wise after the event, and these early pioneers were less blameworthy than we of today may think. They were home-seekers clearing

attention is also being paid to afforestation, and by giving judicious aid to farmers desiring to plant trees, there is good reason to hope that not only has the era of wanton forest destruction ceased, but that a move in the other direction has seriously commenced.

Ontario stands only fourth among her sister provinces in the importance of her fisheries. British Columbia, Nova Scotia and New Brunswick all surpassing her in the proportion, respectively of five, four and two to one. Yet Ontario's fisheries are very far from being of negligible importance, the value of the yearly catch aggregating upwards of two millions of dollars. Altogether nearly three thousand men are

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employed in the fishing industry, and the total value of the fishing apparatus is somewhat in excess of one and a quarter million dollars. For the present of course her fisheries are freshwater, though when railway connection with Hudson Bay, with its half million square miles of water abounding with fish shall be established, great salt water fisheries will doubtless be operated, and these Ontario will share with Manitoba. The great lakes furnish Ontario's main fish supply, though there are also valuable fisheries in some of the inland lakes and rivers. The value of the great lakes fisheries have unfortunately been pretty steadily decreasing, owing mainly to the failure of the neighboring states to second Ontario's efforts to protect them. Salmon trout and white fish have almost disappeared from Lake Ontario, and also from Lake Erie principally for this reason. Blue backed and eiscoe herring, as well as pickarel, have, for the same cause, greatly diminished in numbers. The introduction of German carp with their spawn devouring habits has also seriously interfered with fish propagation in the lower great lakes. Salmon, which were once abundant in the streams emptying on the north shore of Lake Ontario have entirely disappeared, having been driven from their spawning grounds by the emptying of sawdust into the streams. With all this, however, Ontario fisheries are still valuable, and with proper and adequate means for fish protection and propagation, in which we may now hope for the co-operation of our neighbors, can be made increasingly so.

With the single exception of coal every metallic and non-metallic mineral of economic importance is found in Ontario, iron, copper, silver and nickel are found in abundance. In nickel the province has practically a monopoly of the world's commercial supply. Of silver Ontario supplies one-seventh of the world's output. It mostly comes from the Cobalt region, where the first discovery was made in 1903. In the following year the shipments totalled a little less than one hundred and twelve thousand dollars in value. The increase since then has been rapid and constant, the value up to 1912 totalling eighty-two millions. The dividends paid to shareholders in the several Cobalt mines up to the year 1910 amounted to more than twenty-five and a half millions. The production of gold is

not great as yet, though great hopes are centred on the Porcupine field of comparatively recent discovery. Although Ontario leads the Dominion in the production of iron ore, this important branch of industry lags greatly. Something has been done by successive Dominion governments to foster the manufacture of iron and steel, but the problem can hardly be said to have been courageously grappled with. More or less extensive and valuable deposits of galena, graphite and molybdenite have also been found. The province is exceedingly rich in valuable non-metallic minerals of economic value. Shales and clays suitable for the manufacture of brick, tile, sewer pipe and pottery of various kinds abound. Marbles, granite, free stone and other building stones are plentiful in various localities. Limestones and marls suited for the making of lime and cement are abundant, and so in some sections are salt, petroleum, natural gas, tale asbestos, mica, feldspar, corundum and so on.

Water power available for the production of electric energy is one of Canada's chiefest heritages, and of this a very generous share falls to Ontario. Without taking into account what may be done by way of adding to available water powers by means of artificial storage systems it is estimated that the province has, upon the basis of horse power calculated on the mean low-water discharge something like four and three-quarter million horse power. And it is the declared policy of the government—a policy with which public opinion is in entire accord—that this immense potential power shall be held for the whole people and not be permitted to become "the sport and prey of capitalists," to quote the words of Premier, Sir James Whitney.

Ontario has excellent transportation facilities. The Grand Trunk and its branches, the Grand Trunk Pacific (Transcontinental), the Canadian Pacific with its branches, the Canadian Northern, the Canada Southern (Michigan Central), the Lake Erie and Huron and the Teniskaming and Northern (publicly owned), fairly well supply its needs in the way of steam railways. There are also a number of electric railways and an extensive system of provincially owned and operated radial Electric railways is being projected by the Hydro-Electric Commission.

All in all, not only is Ontario prospering, but its future prosperity seems well assured.

CANADIAN INDUSTRY

ONTARIO PUBLIC WORKS



HON. DR. J. O. REAUME, M.P.P., MINISTER OF
PUBLIC WORKS

CANADIAN INDUSTRY

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ONTARIO PROVINCIAL INSTITUTIONS



HON. W. J. HANNA, M.P., SECRETARY AND
REGISTRAR OF PROVINCE

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ONTARIO'S MINES AND FORESTS



HON. W. H. HEARST, M.P., MINISTER OF LANDS
AND MINES

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EDUCATION IN ONTARIO



HON. R. A. PYNE, M.D., LL.D., M.P.P., MINISTER OF
EDUCATION

CANADIAN INDUSTRY

AGRICULTURE IN ONTARIO

Agriculture has been called Canada's most bonused industry, and considering the money expended by the Dominion and Provincial Governments for its advancement it assuredly is. Why not? It has been, is, and is certain to continue to be the most important industry and the one upon whose prosperity the welfare of all others is dependant. Ontario leads the other Provinces in expenditure for the advancement of agriculture. Irrespective of which political party may



HON. JAMES DUFF, M.P.P., MINISTER OF AGRICULTURE

have been in office, the wisdom and expediency of judicious, even though lavish, expenditure of this kind has never been questioned. It is generally conceded that money expended for the maintenance of such institutions as the Ontario Agricultural College and experimental farm, the Macdonald Institute, the experimental stations, the demonstration farms, etc., and in other similar ways, has been money well and wisely spent, not alone in the interests of the farming community, but for the general advantage.

It would be impossible to state in terms of dollars and cents the value to the whole community of the educational work done by the Agricultural College at Guelph, the Macdonald Institute, the Ontario Veterinary College and by the graduates of the first named institution who have gone over the province giving advice and instruction to the farmers. In the college and the institute young men and young women are given a thoroughly practical education, the men in scientific and practical agriculture and the women in domestic science. Everything that a farmer or a farmer's wife need know is taught by thoroughly competent instructors in these institutions. In the college the students are taught not only how to cultivate the soil in the most effective and scientific way, but also what varieties of grains, etc., are best adapted to the varying soils and climatic conditions in the several sections of the province. Thus they not only learn what to do, but, what is of perhaps of greater economic importance, what to refrain from doing. The students obtain a working knowledge of agricultural chemistry, and the use and treatment of fertilizers. Entomology and the combatting of scales and other insect pests is practically taught, as well as botany and the treatment of fungus diseases. Practical and scientific dairying and the testing of milch cows and of milk, and in a word every subject connected with husbandry in its various branches is included in the curriculum. The regular courses are arranged to occupy thirty weeks divided into two terms—September to December (ten weeks) and January to April or May (fourteen to twenty weeks). By this arrangement the students are able to be at their homes for seed time, haying and harvest. In addition to the regular courses there are short courses of from two to four weeks' duration, which are taken advantage of by hundreds of farmers. The Experimental Farm is visited every year by thousands of farmers who carry away with them much valuable information, and a great deal of useful and instructive literature is distributed free throughout the Province.

The Macdonald Institute which is conducted in connection with the college is a veritable boon to the daughters of Ontario farmers, who here receive practical instruction in domestic science,

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ie., the various branches of house-keeping, cooking, sewing and laundry work. The daughters of the people of the towns and cities can also avail themselves of the privileges of the institute, but in case of crowding the preference is given to the daughters of farmers.

The Veterinary College at Toronto is one of the most famous of the kind on the continent. It is the pioneer in America and has done much to advance veterinary science. Its students have

various kinds are also bred in order that animals of pure breeds and of the strains found to be the most suitable may be distributed throughout Northern Ontario. Experiments made at this farm have demonstrated the desirability of New Ontario as a grain and vegetable growing and stock raising district.

One of the most practical and useful of the activities of the Agricultural Department is the appointment of District Agricultural Represen-



ONTARIO AGRICULTURAL COLLEGE

gone, not only to every Canadian province, but to every American State, where they have won distinguished positions in their profession.

The Experimental Stations which have been established by the Ontario Department of Agriculture have been of incalculable value in testing various kinds of fruit and ascertaining their suitability in different localities. As these stations have served their purposes they have been abandoned and now only three are maintained,

tatives. These gentlemen are graduates of the Agricultural College and, as officials of the department, are distributed among the farming community at convenient centres. It is their duty to give practical assistance and advice to the farmers with a view to raising the standard of agriculture. They give instructions in cow testing and for the improvement of live stock. They conduct orchard and crop demonstrations; test commercial fertilizers; manage exhibits at



MACDONALD INSTITUTE AND MACDONALD HALL

the most important one being at Vineland in the County of Lincoln.

The Department operates a Demonstration farm at Monteith, Northern Ontario, eight hundred acres in extent, of which sixty-five are under cultivation. Here grains, roots and vegetables are tested with a view to ascertaining the varieties best suited for that northern locality, and seed of the most desirable varieties are sold to the settlers at moderate prices. Live stock of

fairs and arrange competitions in judging live stock. They endeavour to create and develop a progressive county spirit of emulation. Among their duties is to aid in the organization of Farmer's Clubs, Co-operative Societies and other like associations; attend Farmers' Institute meetings and co-operate with the institutes by holding short courses in judging stock and seed. They address public meetings and distribute bulletins in thousands as well as newspaper articles. They

CANADIAN INDUSTRY

give agricultural instruction in high schools, with laboratory illustrations, thus doing much to popularize agricultural education in the public schools. In a word the District Representative system of agricultural education is in many respects superior in effectiveness to the demonstration farm. It has been quite properly called "the gospel of the production of double returns from the ordinary farm."

Partly by reason of the encouragement given by the Department of Agriculture, but mainly because of their own progressiveness the farmers of Ontario are very actively and efficiently organized. The dairymen, cattle breeders, sheep raisers, horse breeders, poultrymen, fruit growers, bee keepers, horticulturists and vegetable growers all have their special associations. To all these the legislature gives substantial, finan-

live stock and animal products and into dairy products, before marketing. Their own and their hired labor is thus more profitably and better employed, their farms yield a better cash return and the fertility of the land is preserved. Three branches of farming, dairying, stock raising and fruit growing, have gradually developed into the positions of principal importance. Climate, soil and other causes, such as market facilities and the like have caused one or other of these to be attracted to different localities. Thus, in the Niagara Peninsula, often called the Garden of Canada, including the counties of Wentworth, Lincoln, Welland, Haldimand, Norfolk, Elgin, Kent and Essex, the more tender fruits can best be grown. The accompanying engraving of a hot house variety of grape outdoors, illustrates the peculiarly favorable nature of the cli-



HOT HOUSE GRAPE GROWN OUTDOORS

cial aid, and they are under the supervision of the department. The annual reports of the conventions of these associations, which are published by the department, contain much valuable information. Besides these associations, there are unions, institutes and clubs all interested in the dissemination of information of especial interest to the farmers.

As has been said already, Ontario farmers have from the beginning practiced mixed farming. In contradistinction to the tillers of the soil of some other provinces they may be said to be farmers; not grain growers. With them, speaking in general terms, the growing of grain is merely an incident in their business. Experience and observation have taught them that it is more profitable to transform grain, roots and fodder crops into

mate of the Niagara Peninsula. The vine is a Black Hamburg, and was grown at Niagara-on-the-Lake by the late Mr. Henry Paffard. The original cutting was taken from the famous vine at Hampton Court, London, said to have been planted in the reign of Henry VIII by Cardinal Wolsey. Grapes from this vine were shown by Mr. Paffard at the Colonial and Indian Exhibition in 1886. Tobacco and Indian corn (maize) are best suited to this region. In the counties fronting on Lake Ontario and the St. Lawrence and in Central Ontario as well, all kinds of fruits except the most tender kinds do well.

Except where attention is paid almost exclusively to fruit growing, stock raising is general all over Old Ontario, while dairying is somewhat less general, being specialized in some localities.

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A conservative estimate of the value of Ontario's dairy products in 1912 places it at thirty-six million dollars, but it is still capable of enormous expansion if only that it shall be able to supply the rapidly increasing home demand.

Ontario is unquestionably the Premier Province in the raising of high class live stock, nor is it equalled in this respect by any state in the American Union. Climate, soil, plenty of pure water, abundance of nutritive grasses, grains and roots as well as the character of the people engaged in the industry have combined to give the province this commanding position, and these also give assurance that the leading position

can apiarist admitted that the exhibit made by Ontario bee-keepers at the Ontario Horticultural Exhibition in Toronto in 1912 excelled the combined exhibits of six American States at Madison Square Gardens, New York, the same year. This industry, though prosperous and creditable, is capable of enormous extension without overtaking the demand.

Fruit growing in Ontario is becoming more important year by year. It is but a few years since "the orchard" was regarded as about the least important part of the farm. It consisted of a few apple trees, not many of them grafted varieties, an odd pear of uncertain lineage, a few plum and cherry trees in which black knot



ONE HUNDRED BUSHELS OF APPLES PICKED FROM FIVE TREES

which has been won will be maintained. Not only at Canadian fairs and exhibitions have Ontario live stock exhibitors usually come off victorious, but they have made conquests at nearly all the exhibitions of importance in the United States as well.

In poultry raising the Province stands well, but her farmers are hardly yet awake to the importance of this branch of their industry. At the National Exhibition at Toronto and at the Guelph Winter Fair, especially at the latter, splendid poultry exhibits are made, and Ontario fanciers secure many prizes at the principal American poultry shows.

No state in the American Union can compare with Ontario in bee-keeping. A leading Ameri-

can apiarist admitted that the exhibit made by Ontario bee-keepers at the Ontario Horticultural Exhibition in Toronto in 1912 excelled the combined exhibits of six American States at Madison Square Gardens, New York, the same year. This industry, though prosperous and creditable, is capable of enormous extension without overtaking the demand.

was quite as conspicuous as the fruit, with here and there a grape vine which no one knew how to prune. But the day of the orchardist and the vine dresser has dawned, and now we see fruit farms and vineyards splendidly cultivated and carefully tended and producing hundreds of bushels of apples, pears, peaches, apricots, plums, cherries and quinces and tons of grapes, which variety for variety, no other part of the world can surpass and very few can equal in quality. This industry, though already of great importance, is destined to become greatly more so; Canada's rapidly growing cities and towns and the speedily settling prairies of the North-West will assuredly afford a market which it will tax even Ontario's fruit growing capacity to supply,

CANADIAN INDUSTRY

PROVINCIAL HYDRO ELECTRIC POWER SYSTEM



HON. ADAM BECK, M.P., CHAIRMAN HYDRO
ELECTRIC POWER COMMISSION

CANADIAN INDUSTRY



MANITOBA

First and Still Foremost of Prairie Provinces

HAS A SPLENDID AGRICULTURAL AND
MANUFACTURING FUTURE

THE GATEWAY TO THE EMPIRE'S FUTURE
GRAINARY

When dealing with the resources and possibilities of Canada's first prairie province, a writer must restrain himself. Even half the truth, though told with caution, must appear like exaggeration; so great is the fertility of the soil, so favorable for agriculture are the seasons and

of new territory to the North and North East, from 73,732 square miles to 255,732 and Manitoba became Canada's only prairie Maritime province. This act of justice was over long delayed, and the delay was owing to partizan reasons rather than to any statesmanlike considera-



HON. SIR R. P. ROBLIN, K.C.M.G., M.P.P., PREMIER
COMMISSIONER OF RAILWAYS, COMMISSIONER OF PROVINCIAL LANDS

so vast are the as yet only partially developed resources. Until 1912 Manitoba was called the "Postage Stamp" province, not that its area was even then small, for it was larger than Scotland, Wales and Ireland combined, but it was small by comparison with its sister provinces. In 1912 the area was increased, by the addition

tions. The addition of territory gives the province two seaports on the Hudson Bay and with the completion of the Hudson Bay Railway—should the hopes as to the commercial practicability of that route to even approximately realized—the farmers of Manitoba will be nearer by some eight hundred miles to their ultimate mar-

CANADIAN INDUSTRY



SASKATCHEWAN

The Central Province of the Golden West

WHERE MILLIONS OF ACRES WANT HANDS

PRODUCES IN EVER INCREASING QUANTITY
"THE KING OF CEREALS."

Pre-eminently Saskatchewan, the central prairie province, is the wheat growing province of the Dominion. In 1912 the value of the wheat crop of the Province came within about five and three quarter million of being one-half of the entire yield of the Dominion, and she stood second

Alberta showed as marked an increase. While Saskatchewan will almost certainly maintain her foremost position as a wheat raising province it is unlikely that the proportionate difference between her and her sister provinces will continue to be as great, since, wisely, her farmers are de-



HON. WALTER SCOTT, M.P.P., PREMIER
PRESIDENT OF COUNCIL AND MINISTER OF EDUCATION

among her sister provinces in the value of total field crop, being exceeded only by Ontario. As yet she is behind Ontario in the value of live stock, but in this branch of industry she is making great progress. Indeed while the rest of the Dominion showed a somewhat alarming falling off in 1912 in live stock Saskatchewan and

voting more and more attention to mixed farming. New settlers in a prairie country quite naturally give primary attention to wheat raising. It is easy and results are speedier than with any other crop. The temptation to continue cropping with wheat is great, especially when the land is so naturally rich as to seem inexhaust-

CANADIAN INDUSTRY



ALBERTA

The Sunny Province Where Wheat is King

WHERE TEEMING PLENTY IS THE REWARD OF
HONEST TOIL.

GREAT POTENTIALITIES IN LAND AND MINERAL WEALTH

It would be a bold man who would undertake to predict the future of this magnificent province; a bolder who would venture to set a bound to what its future greatness may be. If any of her sister provinces shall ever challenge Ontario's right to be classed as the premier pro-

cultural province, but as the home of a great manufacturing community is seemingly assured. Its possibilities are only beginning to be understood, but enough is already positively known to fill its people with optimism.

Roughly speaking and without pretending to



HON. A. L. SIFTON, M.P.P., PREMIER
MINISTER OF RAILWAYS AND TELEPHONES

vince it will be Alberta. With a wonderful climate; soil of almost phenomenal productivity; coal deposits which are not surpassed, if indeed they are equalled, by any in the world; natural gas in seemingly inexhaustible quantities; salt, asphaltum and other minerals of great economic value, the future of Alberta not only as an agri-

accuracy of division the province may be divided into three sections. The northern comprising the basins of the Peace and Athabasca rivers. The central district extending from the watershed of the Athabaska southward to the Red Deer River, and the southern district embracing the rest of the province to the United States

CANADIAN INDUSTRY



BRITISH COLUMBIA

Canada's Pacific Province

UNSURPASSED FOR RICHNESS, INTEREST AND
BEAUTY

A LAND OF FRUIT AND FLOWERS. THE ORCHARD
OF THE EMPIRE.

Canada's Pacific province is beyond question or dispute fabulously rich in natural resources. For the time being its timber production does not equal in value that of Ontario, but when the extent and value of its forests and the kind and quality of its timber is taken into account there

ders in the way of mineral production, but it must be remembered that more than a quarter of a million square miles of its mineralized lands have not yet been even prospected. He would be a bold man or a reckless one who would venture to set a bound as to what British Columbia's



HON. SIR RICHARD McBRIDE, M.P.P.
PREMIER AND MINISTER OF MINES

is every reason to believe that it will soon equal if it does not surpass that province in this particular industry. It now leads the dominion in the value of its fisheries, and if it does not now stand first in fruit production it is due to want of market and not to inferiority of either soil or climate. The province has already done won-

riches in coal alone may yet amount to. Of all the Canadian provinces this is the one that has most to expect from the opening of the Panama Canal. Until now despite its wondrous mineral resources; its fabulous timber wealth and its agricultural and fruit producing possibilities it has been handicapped by distance from and diffi-

CANADIAN INDUSTRY

FLOUR MILLING INDUSTRY

Whether wheat has ever been found growing in an actually wild state, as the somewhat unreliable Strabo and the Chaldean priest Berosus, and some travellers as well have averred; whether it was a direct and especial gift from Heaven to men, as Chinese legend tells; or whether by centuries of cultivation and by selection, or hybridization, sometimes chance and at times intentional, it has been changed, improved and developed from a grass to a grain, as botanists now pretty generally agree, might form an entertaining subject for scientific discussion—more interesting, possibly, than edifying. Perhaps it would be quite as profitless if a little more illuminating to speculate, as to in what land and by what race of men wheat was first grown as a crop for food. The earliest histories of the Mongolian and Caucasian peoples, and, indeed, the legendary folk lore that preceded history tell of a grain which it is now generally agreed was wheat. The lake dwellers of ancient Switzerland certainly grew a kind of wheat, differing greatly from any variety now grown, but true wheat nevertheless. Three centuries at least before our Christian era began it was cultivated in China, and, without placing any reliance upon "Mummy wheat" fables, there is abundant evidence that the ancient Egyptians and the people of old Mesopotamia cultivated it pretty extensively. It does not appear to have been known in America, either North or South before the Columbian discovery. Neither the Mexicans nor Peruvians in the days of Cortez and Pizarro had any knowledge of what has been aptly and appropriately called the King of Cereals.

Whatever may have been its origin, however, and whichever of the races of men may have first cultivated it, wheat is now the main staff

of life among all civilized peoples, and Canada seems destined to become and remain the most important and most reliable source of the world's wheat supply; if indeed Canadians do not, by unwise and improvident cropping, rob the land of the plant food necessary for wheat production. With a soil of exceptional wheat growing capacity, and a climate peculiarly adapted to the production of the best qualities, Canadians will be themselves to blame if they do not build up a great and permanently prosperous milling industry, and upon whether they do this or not will depend the question of whether Canada shall become and continue to be the world's most important wheat grainary. Vast and rich as are the wheat lands of the North Western provinces, they are not inexhaustible. By unwise husbandry they can be made to become incapable of profitable wheat production, as has happened in the province of Quebec, and unless Canadians prove wise and foresighted enough to plan for the grinding as well as the growing of wheat in their own country, soil exhaustion is inevitable. True patriotism will regard preventable exhaustion of the soil as a national crime, and wise statesmanship will plan to prevent it. In so far as they operated to retard the too continuous cropping of the land with wheat, the repeal of the corn laws by Britain and the abrogation of the reciprocity treaty by the United States, may be regarded as having been providential for Canada; evil and disastrous as their immediate effects appeared at the time to be.

Of late years the expansion of the Canadian milling industry has been great and gratifying. The products of our mills are finding their way with ever increasing acceptance and popularity into nearly all countries. The almost phenomenal growth of the industry has been owing prin-

CANADIAN INDUSTRY

cipally and primarily, of course, to the opening up of the great grain areas of the North West, and to the improved transportation facilities; facilities which, if they have not quite kept pace with the country's growing need, have yet been enormously extended and improved. In considering the expansion and growth of the milling industry in Canada, however, the effects of the encouragement given to it by the tariff of 1879 must not be left out of the calculation; for it is extremely doubtful if the industry could have long survived the want of policy, which had therefore been characteristic of parliamentary action or want of action regarding it.

From beginnings of the most modest and primitive character the Canadian milling industry has grown to its present position of importance. If we leave out of account such crude and primitive contrivances, hardly to be spoken of as mechanical at all, as the "Brach" brought by settlers from the Scottish Highlands, a specimen of which may be seen preserved among the curiosities in the museum of the Toronto Canadian Institute, the old-fashioned windmill may be regarded as the progenitor of the splendid roller mills of to-day. Under the hindering and hampering influence of the old system of Seigneurial Tenure which there prevailed, that old inefficient contrivance continued to exist in the present province of Quebec long after water power and steam mills had displaced it elsewhere. Still some continued to linger until a few decades ago in the other provinces. The revolving sails of what was probably the last of the wind mills might have been seen as late as the early sixties in what is now the busy, thriving city of Berlin. The custom grist mill, driven by water power, with its burr-stones and more or less—more often less than more—efficient bolting machinery succeeded the windmill, and later on steam grist mills sprung up. In a small way—small by comparison with the great establishments of to-day—Merchant mills began to be erected about the beginning of the last century. One of these which was the nucleus of the extensive Ogilvie interests of to-day, was in operation on the Island of Montreal in 1802, just one century before the incorporation of the present gigantic Ogilvie Flour Mills Company. Its capacity was something like ten barrels of flour per day, while the present company grinds some seventeen thousand barrels.

The old grist mills were fitted only to supply the needs of their immediate localities; grinding their "grists" for the farmers, who patronized them, and selling the product of the "tolls" which fell to the millers' share to the other set-

ters. Often these "grist" mills were operated in connection with other "infant industries"; more commonly custom carding and fulling mills. An example of this grouping of small industries was at Crooks' Hollow, near the Village of West Flamborough in the County of Wentworth, where the late Hon. James Crooks made the ambitious venture of establishing a grist mill, a paper mill, a saw mill, a foundry and machine shop, a woolen mill and a distillery; all, except the saw mill, which was steam driven, being operated by water power. Such were the humble beginnings of what is now one of the greatest and most important of all Canadian industries. The pioneers of Canada's milling industry played no minor or unimportant part in the making of Canada; their part was as honorable, and perhaps somewhat more really useful than that played by some who have been advertised as the makers of Canada.

Although, as has been said, wheat is now the main staff of life throughout the civilized world the varieties and qualities in different countries vary greatly, being influenced largely by climatic conditions and the forwardness or backwardness of agriculture. Thus Russia in Europe and Asia grows a dark, hard grain, strong and thin; Indian wheat is hard and dry, of fair strength and good color, but poorly harvested, and objectionably dirty; the grain of Australian wheat is plump, mellow, and of good color, though rather soft. Egypt, Persia and neighboring countries produce a grain of poor quality and undesirable by reason of its starchiness and its dirtiness; the quality of South American wheat is variable and uncertain; British grown wheat is weak, soft and too moist, needing to be artificially hardened and dried. The Northern United States produces a better wheat than South America or any country in the old world, though, perhaps, not quite equal in some respects to the splendid wheats of the Canadian North West; indeed, it requires the addition or mingling of "Manitoba hard" to produce a really high quality of flour; a flour which could compete with the product of Canadian mills in the British markets. A shrewd understanding of this fact on the part of American millers and a blindness to its significance on the part of some Canadian politicians and wheat growers underlies much of the agitation for duty free entry of Canadian wheat to United States markets.

Great Britain is, and will long continue to be, the great market for Canadian wheat and wheat products. What proportions of the total crop will cross the Atlantic as wheat and as flour will depend greatly upon the wisdom or unwisdom

CANADIAN INDUSTRY

of Canadian statesmen. Unless our statesmen blunder the balance will lean towards flour in an increasing degree, for it only requires that our natural opportunities be taken due advantage of.

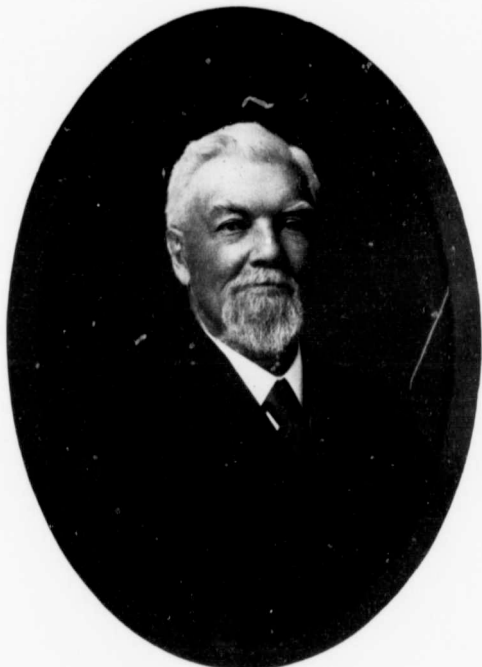
The Canadian miller has exceptional advantages, as compared with his British contemporary and competitor. The latter having to import his grain from many countries to supply the needs of the "tight little island" has to solve the problem of how to produce a standard quality of flour by blending and mixing wheats of varying qualities. He must mix, and that in the right proportions, strong, dark wheats with weak, gold colored ones to make a flour which will rightly combine the qualities of both. Then all his wheat except a small supply of home-grown requires careful management and thorough ventilation after its long sea voyage, to overcome dampness and other effects of water transportation. He must have wet and dry cleaning plants and provide a complicated system of scouring, turning, steaming, washing, soaking, rinsing, whizzing, drying, aspirating, conditioning and blending. Some wheats, too hard and brittle, must have moisture added; others, too soft, must have some of their surplus moisture removed. Objectionable tastes and odors must be eliminated. Indian wheat has an earthy taste; some from South America have an animal smell; some Eastern wheats have an aromatic scent, not perhaps disagreeable in itself, but objectionable in

flour. All this must be contended with and overcome, involving great expense and much technical knowledge and skill. Indeed, the preparation of his wheat by the British miller calls for even greater skill and more scientific knowledge than does the grinding of the grain.

Very few of these difficulties confronts the Canadian miller. For the most part his wheat comes to him clean and fairly uniform in quality. Skill and experience he must have, to be sure, and these count here as everywhere, but he does not face the multiplicity of difficulties with which his British contemporary must grapple, and which he has to overcome. The millers of Canada cannot afford to lag behind; their plants and appliances must be up-to-date, and of the best. Here as elsewhere, the miller must keep abreast of the times. The manufacture of flour everywhere has become a scientific business. The proper conditioning of wheat before grinding must be carefully attended to, and both wheat and flour must be frequently submitted to chemical tests. Canadian millers must keep themselves informed as to new processes and new appliances, for competition is keen, and at the best the profits of the business not great enough to permit of neglect or wasteful ways. If they have been successful, as most of them have been, it has been because they have never slept at their posts, but have ever been alert to the requirements of their business.



CANADIAN INDUSTRY



The Late Mr. James Goldie, Founder of The James Goldie Co.

THE PEOPLE'S MILLS, GUELPH

Operated by the James Goldie Company, Limited

Though not to be ranked among the most extensive of Canadian mills the People's Mills at Guelph, owned and operated by the James Goldie Company, Limited, is one of the best equipped and most up-to-date. The mills have a capacity of seven hundred barrels per day, and are kept running pretty nearly up to the full capacity. They are very advantageously located as regards railway facilities and are operated partly by water power and partly by Hydro-Electric power, a branch of the River Speed furnishing the former.

The business was started by the late Mr. James Goldie in 1860, when he built the Speedvale Mill

about a mile above the site of the present mill. The capacity of the Speedvale Mill was only about one hundred and fifty barrels per twenty-four hours. The wheat supply was obtained mainly in the local market; supplemented later on as the needs of the growing business demanded, by grain purchased by buyers at outlying points.

In 1867 Mr. Goldie sold the Speedvale mill and moved to the present site, where the People's Mills were erected with a daily capacity of three hundred and fifty barrels. Like its predecessor the new mill was a burr-stone one, but in 1882 the old mill stones were discarded and a

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complete modern roller process plant was installed. The change from hurr stones to rolls has necessitated the employment of more scientific methods of preparing wheat before grind-



The Speedvale Mill

ing. The miller of to-day must have chemical knowledge as well as mechanical skill, for wheat and flour must be carefully tested chemically to ensure uniformity of quality. Proper conditioning of the grain prior to grinding is now recognized as a matter of prime necessity, and the mill-

Up till about twenty-five years ago the wheat used in the Peoples' Mill was all Ontario grown, but then the company began to use Manitoba wheat, at first in a smaller and later on to a greater percentage, until now about seventy-five per cent. of the entire output is ground from Manitoba or North-West wheat. The market for the major part of the product of the mill is found in Ontario, Quebec and the Maritime Provinces, where the uniform excellence and reliability of the flour has secured and maintains a steady demand. A considerable quantity also finds its way to the West Indies, to South America and to the British Islands.

In common with Canadian millers generally this company suffered greatly and found successful operation of their mill difficult under the conditions which were due to the tariff prior to 1879. Since the adoption as the national trade policy of the principles embodied in the tariff of that year, and with the encouragement and fair play which that tariff gave them, Canadian millers have prospered and in that prosperity the Peoples' Mill has shared.

Mr. James Coddie, the founder of the business, died in November, 1912, at the ripe age of eighty-eight, and the business is now carried on under



The People's Mills, Guelph, Ont.

er has thus, to even a greater extent than formerly, become the ally and co-partner of the farmer, promoting his success and prosperity to a degree that he hardly realizes or appreciates.

the same company name by his sons, James O., Lincoln and Roswell, who hold in the company, respectively, the offices of President, Vice-President and Secretary.

CANADIAN INDUSTRY

CANADIAN INDUSTRY

BREWING AND MALTING

The art of brewing, that is obtaining from grain by a process of fermentation an exhilarating and more or less intoxicating beverage, is almost as old as humanity itself. There is evidence, fairly positive, that all the great parent stems from which the various branches of the race have sprung, with the possible exception of the Malay or Peloponnesian, had knowledge of the art. For our first information as to this we must go to the philologist rather than the historian for the knowledge of brewing would seem to have long antedated written language. That the ancient Egyptians and the Semitic peoples brewed beer we know from their records, and the words "barley," "bread" and "beer" all come from the common root word, which, with others, prove the common Aryan ancestry of the Indo-Germanic peoples. The bearded barley of the Himalayan mountains, the cradle of the Aryan race, was their common food—their staff of life. From it they made their bread and porridge and brewed their beer, and when they began their westward and north westward migrations the Aryan bands carried with them the knowledge of the art of brewing, and beer in some of its forms became the common beverage of the nations which they founded. Scientific discovery indicates with reasonable probability that the pile dwellers or lake dwellers who preceded the Aryans, and perhaps even the cave dwellers knew how to obtain liquor by fermentation and the relics which have been found of the Etruscans show that, while wine was their principal beverage, they also brewed and drank some kind of beer.

The ancient Egyptians gave to their fermented drink the name of "Zythum," while the Latin peoples called it "Cerevesia," but the

Teutonic peoples kept and perpetuated the Aryan name, and it was they who preserved and perfected the brewing art. As they extended their migrations northward into colder climates, and as they mingled with peoples of Celtic origin spirituous liquors became more commonly used by them, but the Germanic peoples may, in the main, be said to have remained beer drinkers. Though the Saxon tribes when they came to Britain probably brewed the same kind of beer as the other Teutonic tribes the ale and porter of modern Britain differs greatly from the lager of the Germany of to-day. What was the nature of the favorite potations of the Norse Vikings is largely a matter of conjecture, though could we believe that there is any foundation for the legend of the challenge of the Giants which Thor accepted, we would conclude that it would scarcely have pleased the palate of a modern connoisseur. As the legend tells the Giants challenged Thor to drain their famous drinking horn at a draft. Thor failed to lower it more than three feet, but the Giants confessed their astonishment at his feat since they had trickily connected the bottom of the horn with the sea and the Norse god had lowered the ocean by a yard. However, since Macaulay was not the only historian nor yet the first to regard accuracy of statement as of less importance than elegant diction and pleasing narrative we are not obliged to believe that the potato tasted no better than brine, nor yet that Thor's capacity was greater than his taste was nice.

The Pilgrim fathers brought with them from England the knowledge of brewing and so did the Cavalier settlers in Virginia and the immigrants who came with Penn to Pennsylvania. Penn himself and Roger Williams, the founder

CANADIAN INDUSTRY

of Rhode Island were both interested in the brewing industry, and so were Adams and Washington.

The Dutch settlers in New Amsterdam brewed their beer, though "Schnaps" was their more common drink. In New England at first rum and other ardent spirits was in more common use, but in time it was thought wise in the interest of temperance to encourage the brewing and drinking of beer. Immunity from taxation and money rewards were offered for this purpose to any brewer who in one year would brew more than five hundred barrels of "honest beer." Avowedly this was done for the purpose of affording a better home market for the farmers, supplying the people with a beverage of milder form and so "add much to the temperance and good order of Massachusetts colony." With great unanimity the early statesmen of the Republic appear to have regarded beer and ale as promotive of temperance among the people, and the encouragement of its use as desirable for this reason. Madison expressed the "hope that the brewing industry would strike deep root in every state in the union." Jefferson declared that "no nation is sober where the dearness of fermented drink substitutes ardent spirits as a common beverage." Jefferson and Hamilton, though antagonistic on almost every thing else, appear to have been in agreement on this.

In Canada, as in New England, the brewing of beer was first begun as a temperance measure. The first brewery was erected at Quebec by the Intendant Talon in 1670, not at all as a commercial or business venture, but as a measure of public policy and for the promotion of sobriety among the people. Noting the general and increasing use among the people of New France of ardent spirits—rum mainly—imported from the West Indies, the Intendant conceived the idea that this could be best and most effectively checked by furnishing the people with a milder and less harmful beverage and he applied to his sovereign Louis IV for funds wherewith to erect a brewery. Fortunately for the Intendant's scheme the Great Colbert was then the French Prime Minister and he warmly and strongly supported it, saying, in a letter to Talon: "The vice of drunkenness would thereafter cause no more scandal by reason of the cold nature of beer, the vapors whereof rarely deprive men of the use of judgment." Parkman, the historian, tells us: "The brewery was accordingly built to the great satisfaction of the poorer Colonists." The building has had a somewhat varied history. Under the government

of Frontenac, it was converted into a prison. Then after being repaired and extended it was changed into a palace for the Intendant de Meulles, and also as a meeting place for the Sovereign Council and the Courts of Justice. The vaults were used for storing the Archives and a part of the edifice was used as a jail for criminals. In after years, after the conquest, the building, not greatly changed, again became a brewery and malt house under the ownership of Messrs. Boswell and Brother.

Though the brewing industry of Canada had its commencement in Quebec, Ontario now leads among the Canadian provinces, both in the number of its breweries and their output, and also in the amount of capital invested. The pioneer of the brewing industry in Ontario was John Farr, who established in 1822 in Toronto what in after years and until 1890 became known as Cornell's Brewery. The beginning of the industry in Nova Scotia antedates Ontario's first brewery by two years, the first brewery having been erected in Halifax in 1820. The industry was first begun in Prince Edward Island in 1830 and in New Brunswick in 1879. The first brewery in what is now Manitoba was started in 1860 a few miles below Fort Carry, while yet the Fort, though a somewhat important trading post, gave little promise of being the nucleus of a great metropolitan city.

Until 1845 Canadian brewers confined themselves to the brewing of ale and in lesser quantities of porter, but in that year the lager brewing industry began, the first lager beer brewery being started in Preston by Peter Barnhardt where, though it was once for a short time discontinued, it is now in successful operation. The second lager brewery was established at New Hamburg by a Mr. Frank. This is still a profitable going concern and is known as Rau's Brewery. As Canada's population of German extraction multiplied, which to the great advantage of the Dominion it has rapidly done, the demand for lager has increased and a number of breweries have been established to meet it. Nearly all the important ale and porter concerns have also added lager of various brands to their output. Today Canada produces almost every variety of beer from ale and stout as "mighty" as any to be found in Britain to "temperance" beers so mild as to resemble the potation of which the English tenants complained, because with it they found it impossible "to get no farther." Whether the fact is to be credited to the excellence of the quality of the barley which favorable soil and climatic conditions and skillful husbandry enable

CANADIAN INDUSTRY

Canadian farmers to produce, or to the care and skill of Canadian brewers, a fact connoisseurs and epicureans declare it to be that Canadian porters, ales and lagers equal in quality the malt beverages brewed in any other country. Of late years a somewhat local demand has arisen for a beer even less strong than lager, and this demand has been met by some brewers by producing "temperance beers" so called. These contain the lowest percentage of alcohol compatible with wholesomeness and keeping qualities. Whether this somewhat artificial demand will increase or even continue remains to be seen.

Some idea of the importance of the brewing and malting industry to the Canadian farmers may be formed, when it is stated that in the past five years 599,025,411 pounds of barley have been placed in steep and 461,184,728 pounds of malt manufactured. The industry, too, has an important relation to the revenues of the Dominion, as it has contributed thereto in the past five years in license fees and duty \$116,218. Those who are disposed to regard the increased consumption of beer as compared with spirits as something to be welcomed in the interests of general sobriety find satisfaction in the fact that, while the per capita consumption of malt liquors in Canada has increased from 2,490 gals. in 1871 to 6,598 gals in 1912, the consumption of ardent spirits has fallen off from 1,578 gals in 1871 to 1,030 in 1912. They urge, too, that, but

for the conditions which obtain in prohibition or local option areas, there would in all probability have been a greater increase in the quantity of malt liquors and a correspondingly greater diminution in the consumption of spirituous liquors. This contention is at least seemingly borne out by the Inland Revenue statistics of both Canada and the United States, which show that coincident with the extension of local option or prohibition areas there has been an increase in the per capita consumption of ardent spirits. Though there has also at the same time been an increase in the consumption of malt liquors, this increase has not been proportionate to the greater sale of more potent and more intoxicating beverages. Whether this greater proportionate consumption of distilled liquors has been the outcome and result of the enactment and attempted enforcement of prohibitory legislation or whether it is to be otherwise accounted for will probably continue to be the subject of controversy. But, however it is to be explained or accounted for, official returns certainly show that whereas while the license system remained generally in force there was, both in Canada and the Republic, a steady and pronounced falling off in the annual consumption of the product of the still, accompanied by an increasing consumption of less intoxicating beverages, there has been, since the license system has been largely displaced by local prohibition, a pronounced tendency in the opposite direction.

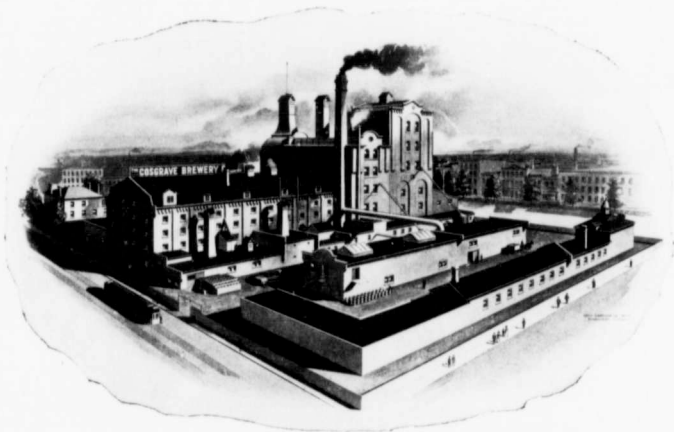


THE COSGRAVE BREWERY CO. OF TORONTO

In the early sixties the brewing business in Canada was very far from being uniformly successful. Some were prosperous; some were barely holding their own and others were not even doing that. Practically all were dependent for their market upon their immediate neighborhood, and besides, like many other infant industries, they had to encounter a prejudice, common in all new countries, in favor of imported goods. Among the less successful breweries of that time was the "West Toronto," located where the old

took on new life and started on the upward road to prosperity.

Mr. Cosgrave, dying in 1881, the business passed into the hands of his sons, John and Lawrence J., who had been admitted by him to partnership in 1871 and 1880 respectively. In 1882 the brothers formed the business into a joint stock company under the name of Cosgrave & Company, and by skillful management and painstaking attention to every detail of the business they fully maintained the reputation which



THE COSGRAVE BREWERY COMPANY OF TORONTO

Garrison Creek crossed Queen St. West. "West" would be somewhat of a misnomer if applied to that locality to-day, but in those days Torontonians thought of it as they do to-day of Hamilton or Oakville.

Mr. Patrick Gosgrave, then a business partner of Mr. Eugene O'Keefe, purchased the West Toronto Brewery in 1863. At first alone and afterwards with his sons he conducted the business for twenty years when he passed to the great majority. Under his management the business

the Cosgrave ales and porters had won. They realized that if they would attain and maintain success they must not only brew good liquor, but, with the popular prejudice in favor of imported beers, their product must be so good that even the most fastidious would be forced to admit its excellence; only thus could the prejudice alluded to be overcome. Accordingly they determined that the output of their brewery should be as pure, as wholesome, and as perfect in flavor as skill and science, with the most modern appli-

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ances and using none but the best and purest materials could make it. Doubtless it is to the fact that this determination has been strictly adhered to and the ideal then set up rigidly maintained that the success of the company and the universal popularity of their beverages has been due. The business was now a paying one and was firmly established, and the brothers appeared to be assured of a prosperous business career. Unfortunately, John, the elder brother, died in

capacity of Assistant Brewer, thus gaining inside knowledge, qualifying him for his present responsible position.

As far back as 1887 the business had increased far beyond the capacity of the original West Toronto Brewery, though considerable additions had been made to it. In that year a more commodious and better equipped building was erected, the malting capacity being increased to five thousand bushels annually. In 1910 the in-



L. J. COSGRAVE
President

PATRICK COSGRAVE
Founder of Company
JAS. F. COSGRAVE
Business Manager

JAS. COSGRAVE
Sec.-Treas.

1894, deeply regretted by a large circle of friends. Mr. L. J. Cosgrave being left with the sole management of the business, changed the name to "The Cosgrave Brewery Company of Toronto, Limited." Since then he has held the office of President of the Company and has had the entire management, his cousin, James, being Secretary and Treasurer. In 1913, Mr. James F., son of Mr. L. J., became Business Manager. He had previously, since 1906, acted in the

creasing demand for bottled beer and porter necessitated the abandonment of the malting part of the business, in order to allow of the whole establishment being devoted to brewing and bottling. The entire malt house is now used for bottling, and the ale and porter in casks is stored in a stock cellar one hundred and fifty long, thirty-five feet wide and eighteen feet high. In this one hundred and fifty thousand gallons can be stored. This cellar, which extends under

CANADIAN INDUSTRY

IRON AND STEEL INDUSTRIES

CANADIAN INDUSTRY

TEXTILE INDUSTRIES

CANADIAN INDUSTRY

PRINTING AND PUBLISHING

CANADIAN INDUSTRY

MUSICAL INSTRUMENTS

CANADIAN INDUSTRY

ENGINES AND MACHINERY

CANADIAN INDUSTRY

ELECTRICAL DEVELOPMENT

CANADIAN INDUSTRY

THE AUTOMOBILE INDUSTRY

CANADIAN INDUSTRY

FURNITURE MANUFACTURE

CANADIAN INDUSTRY

FARMING AND DAIRYING

CANADIAN INDUSTRY

FRUIT GROWING

CANADIAN INDUSTRY

THE CANNING INDUSTRY

CANADIAN INDUSTRY

HORSE BREEDING

CANADIAN INDUSTRY

CATTLE RAISING

CANADIAN INDUSTRY

CANADIAN RAILWAY SYSTEM

CANADIAN INDUSTRY

SUGAR REFINING

CANADIAN INDUSTRY

CLAY PRODUCTS

