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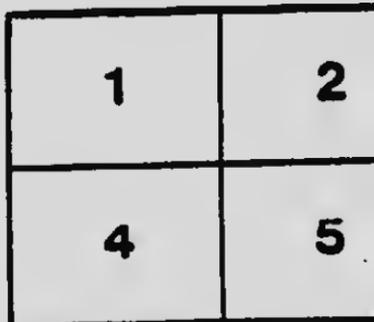
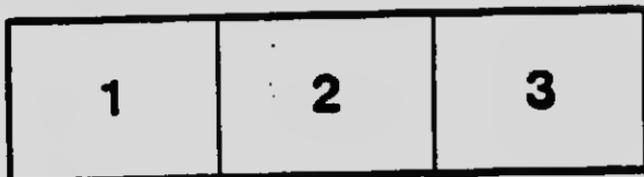
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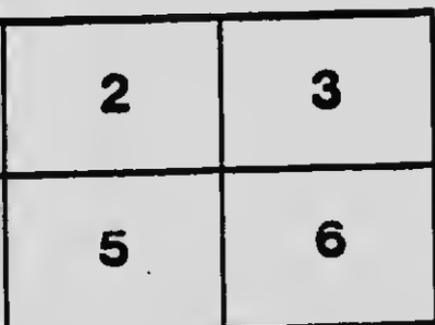
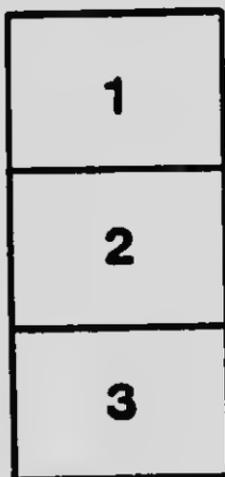
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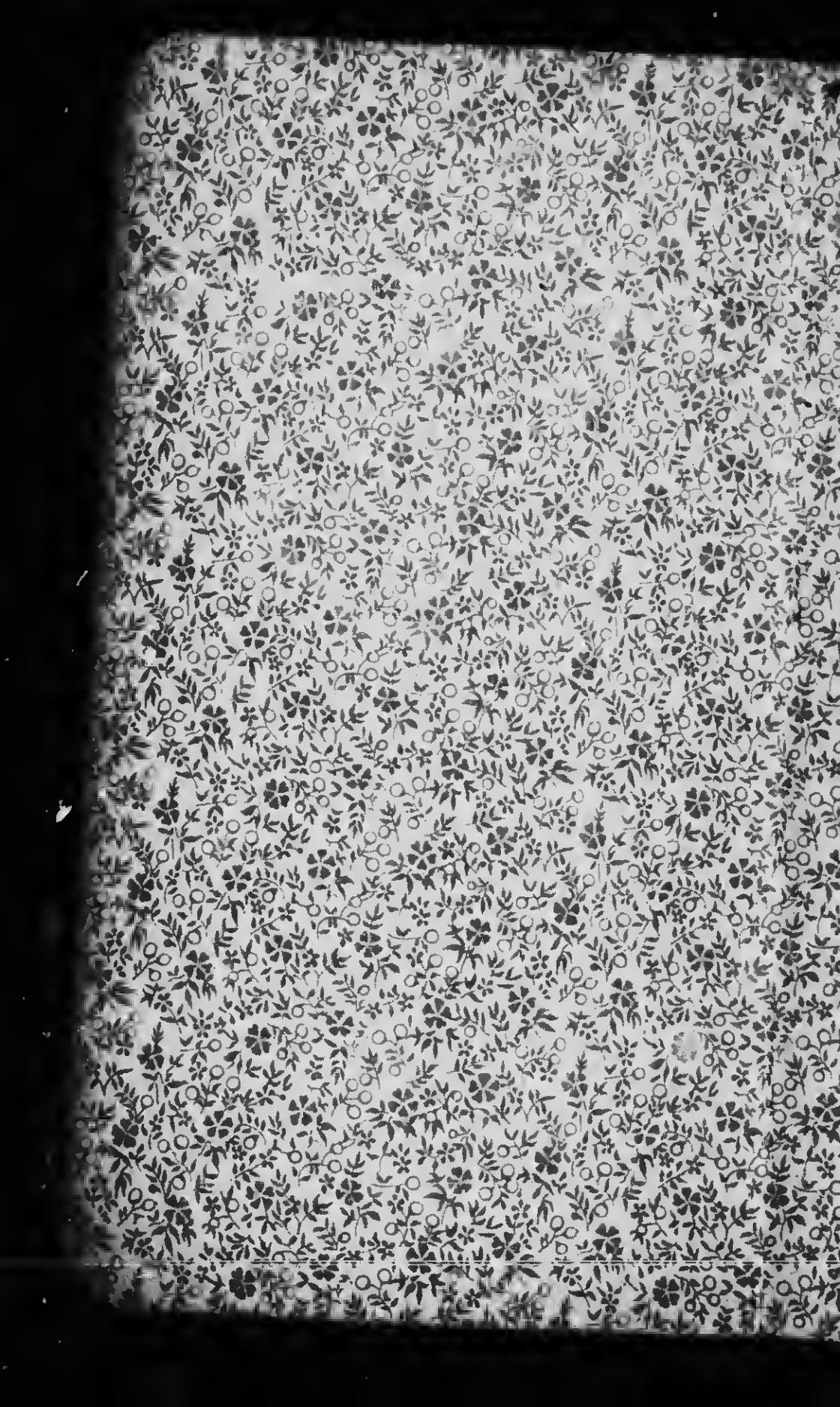
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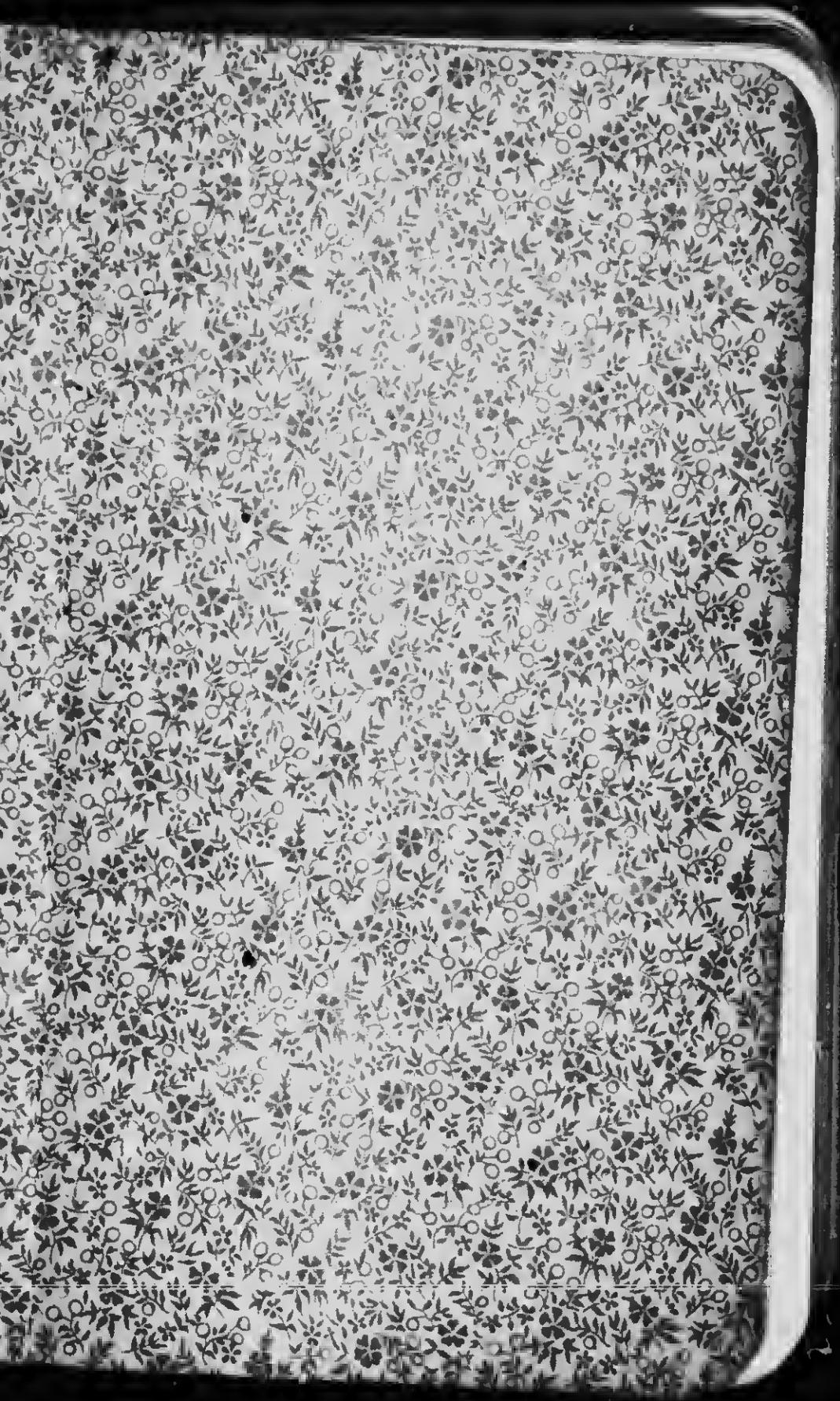
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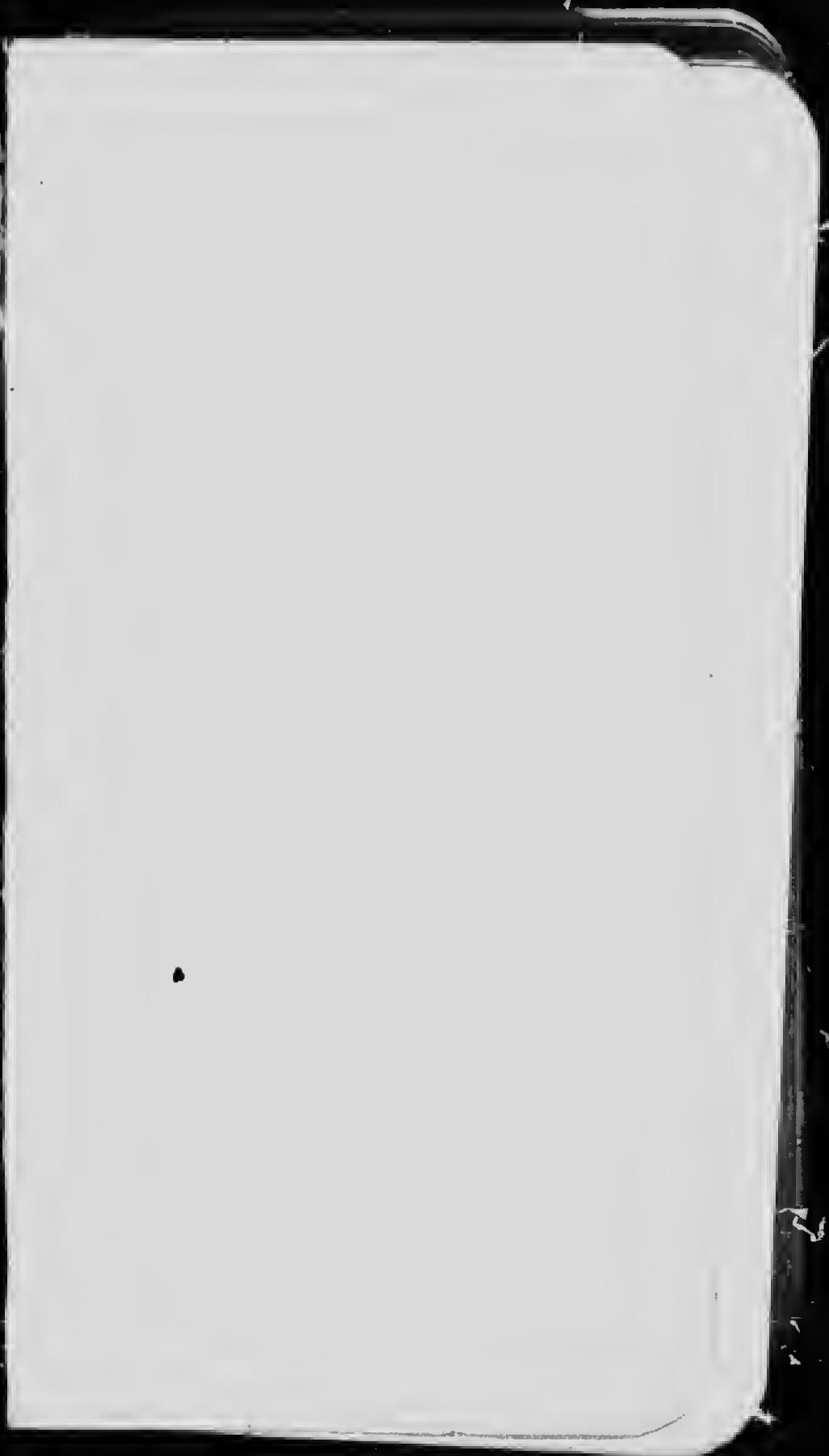


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HANDBOOK
OF THE
DOMINION OF CANADA

**PRESENTED BY THE CANADIAN COMMITTEE OF ARRANGEMENTS
TO DELEGATES TO**

**THE FIFTH CONGRESS OF CHAMBERS
OF COMMERCE OF THE EMPIRE**



HELD IN MONTREAL, AUGUST 17TH TO 20TH

1903

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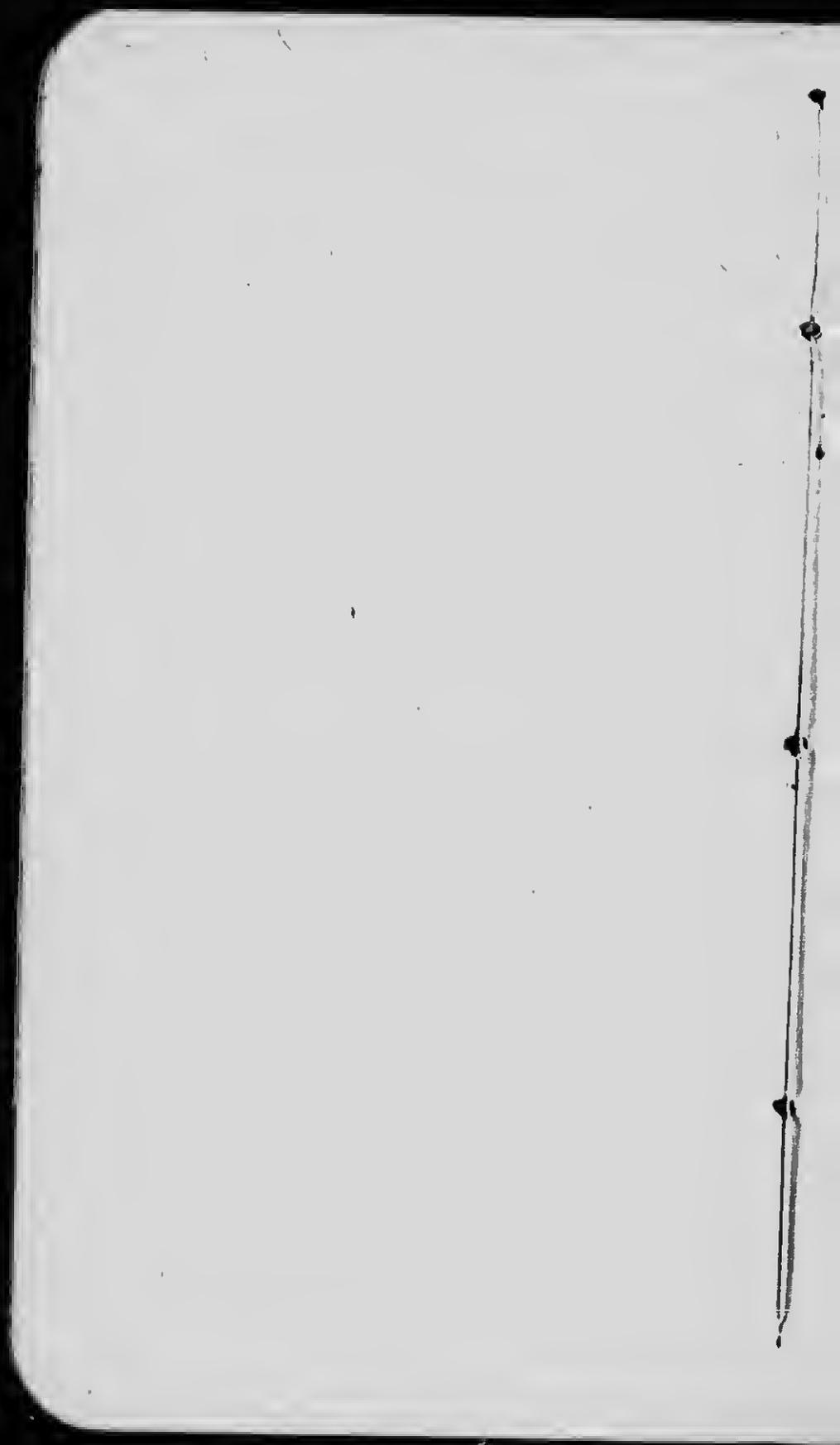
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CANADA
FIFTH CONGRESS
CHAMBERS OF COMMERCE OF THE EMPIRE
MONTREAL, 1901







BOARD OF TRADE BUILDING, MONTREAL.

THIS HANDBOOK HAS BEEN
COMPILED FOR THE PURPOSE
OF PLACING BEFORE THE MEM-
BERS OF THE CHAMBERS OF COM-
MERCE OF THE EMPIRE IN BRIEF
FORM A REVIEW OF CANADA'S
HISTORY, AN ACCOUNT OF CAN-
ADA'S INSTITUTIONS AND A
DESCRIPTION OF CANADA'S
RESOURCES. : : : : : : : :

DOMINION OF CANADA

The Dominion of Canada comprises the whole of the northern half of North America with the exception, on the west, of Alaska, which belongs to the United States, and, on the east, part of the coast of Labrador which is under the jurisdiction of Newfoundland, a British colony but not yet a member of the Canadian Confederation. On the east Canada is washed by the Atlantic Ocean, the Pacific forms its western boundary, and from the Arctic Ocean on the north it extends south to the International Boundary between Canada and the United States. The area of the Dominion is 3,745,574 square miles, of which 3,619,819 are land. The total area is twenty-eight times that of the United Kingdom of Great Britain and Ireland, or equal to the territory of France and all her colonies with Italy and Switzerland thrown in. Canada is twice the size of British India and nearly ten times that of all British Africa, not including the two colonies recently annexed. Add together the area of all the British territory in Australasia and the total is 200,000 square miles less than the area of Canada. The total area of the British Empire is 11 1-2 millions of square miles, of which Canada makes up nearly one-third.

This vast extent of territory is divided into seven provinces and nine districts, sixteen governmental divisions in all. Eleven of them have, in part, salt water for their boundary; five are wholly in the interior. Four of the eleven border on the Atlantic and the Gulf of St. Lawrence.

According to the last census (1901) the population of Canada numbers 5,371,315; the rural population

being 3,967,818, and the urban population 1,403,497. The population of British origin numbers 3,063,189; French, 1,649,371; German, 310,500, and the small remainder represents the other nationalities of western Europe.

The system of government established in Canada under the British North America Act of 1867 is a Federal Union (the first of the kind in the British Empire) having (a) a general or central government controlling matters essential to the development, the permanency and the unity of the whole Dominion, and (b) a number of local or provincial governments having the control and management of certain matters naturally and conveniently falling within their defined jurisdiction, while each government is administered in accordance with the British system of parliamentary institutions.

The chief executive government and authority is vested in the Sovereign, in whom is also vested the chief command of the militia and of all naval and military forces in Canada. His Majesty is represented by a Governor-General, appointed by the King in Council but paid by Canada.

The Parliament of Canada consists of first, the Sovereign; second, an Upper House, called the Senate; and third, a Lower House, called the House of Commons.

The Governor-General governs under the advice of a Council of Ministers, known as the King's Privy Council for Canada, which is responsible to the Parliament.

The Senate, as at present constituted, consists of 81 members; 24 each from Ontario and Quebec, 10 each from Nova Scotia and New Brunswick, 4 each from Prince Edward Island and Manitoba, 3 from British Columbia, and 2 from the North-west Territories.

The House of Commons, which is elected by the people for a term of five years, consists of 213 members.

The representation is arranged after each decennial census, by Act of Parliament, the basis being that the Province of Quebec is always to have 65 representatives, and each of the other provinces such a number as will give the same proportion of representatives to its population as the number 65 bears to the population of Quebec as ascertained by the census. British Columbia, by the terms of the agreement made between the Dominion and the province prior to the union, is never to have less than six members.

Speaking generally, the Federal Parliament has power "to make laws for the peace, order and good government of Canada" in relation to all matters not assigned exclusively to the legislatures of the provinces. In particular, the Dominion Parliament legislates for all Canada in respect to the following matters: (1) Taxation and borrowing for Dominion purposes; (2) elections to Dominion Parliament; (3) the census; (4) naturalization of aliens; (5) military and naval service and defence; (6) Postal service; (7) Supreme Court, the appointment and payment of Superior Court judges; (8) criminal law; (9) inter-provincial trade and commerce, including navigation and shipping, lighthouses, quarantine, general fishery regulations, etc.; (10) general financial and commercial system—that is, currency and coinage, banks, paper money, legal tender, bills of exchange and promissory notes, interest, weights and measures and bankruptcy; (11) copyright; (12) marriage and divorce; (13) public works, railway and steamship lines which are inter-provincial or for the general benefit of Canada; (14) Indians and Indian lands; (15) performance of international obligations imposed by the British Parlia-

ment; (16) territories not within the provinces, including the establishment of new provinces.

The executive government is divided into the following departments, over each of which presides a member of the Cabinet, known as the Minister of such department:

1. The Privy Council office, with charge of state papers and records of council.
2. The Department of the Minister of Justice and Attorney-General, including the management of penitentiaries.
3. The Department of Railways and Canals.
4. The Department of the Minister of Public Works, having control of all public works, other than railways and canals.
5. The Department of the Minister of the Interior, including: (a), Dominion Lands; (b), Geological Survey; (c), Indian affairs and Immigration.
6. The Department of the Secretary of State, including: (a), official correspondence with the Governor-General's office and with the Lieutenant-Governors of the Provinces, (b), the printing and publishing of the *Official Gazette*; (c), the registration of all public legal documents; (d) the Government stationery and King's Printer's office.
7. The Department of the Minister of Marine and Fisheries, including: construction and maintenance of lighthouses; river police; revenue coast-guard; steam-boat inspection; protection of fish and fish culture.
8. The Department of the Minister of Militia and Defence, including: militia, fortifications and military schools.
9. The Department of the Minister of Finance, including: Treasury board, government savings' banks and Audit office.
10. The Department of the Minister of Customs.
11. The Department of the Minister of Inland Revenue, including collection of the excise; canal and

timber slide tolls; ferry dues, and the carrying out of the acts relating to the inspection of food, gas, weights and measures.

12. The Department of Postmaster-General, including Post Office savings' banks.

13. Department of the Minister of Agriculture, including the patent office, census and statistical office, quarantine and experimental farms and dairy interests.

14. The Department of the Minister of Trade and Commerce.

In addition to these there is the Department of Mounted Police, administered by the President of the Privy Council, and also the office of the Governor-General. For the purpose of communicating directly with the Imperial Government the Dominion has a resident representative in London called the High Commissioner for Canada.

The judiciary branch of the Federal Government consists of two courts, the Supreme Court of Canada and the Exchequer Court.

The Supreme Court has an appellate civil and criminal jurisdiction throughout Canada. It is also a court of appeal for controverted election cases. It also has jurisdiction in controversies between the provinces and the Dominion. The Governor-in-Council may refer to the Supreme Court for an opinion upon any matter deemed advisable in the public interest. From the decision of the Supreme Court an appeal lies to the Judicial Committee of the Privy Council of Great Britain.

The Exchequer Court possesses exclusive, original jurisdiction in all cases in which demand is made or relief sought against the Crown or any of its officers. It enforces the law relating to revenue, and is also a Colonial Court of Admiralty.

The other courts throughout Canada are provincial. The judges of the higher courts are appointed and

paid by the Federal Government, but the administration of the courts is left to the respective provinces.

The Constitutional Act also provides for the provincial government. They are copies of the Federal Government and are therefore similar in form, with the exception that in several of the provinces there is only one legislative body, this being a matter which each province can settle for itself.

At the head of a provincial government is a Lieutenant-Governor, appointed by the Governor-in-Council of Canada, and paid out of the Federal treasury.

In the Provinces of Ontario, New Brunswick, Prince Edward Island, Manitoba and British Columbia there is but a single Legislative Assembly for each. Quebec and Nova Scotia have each a Second Chamber, or Legislative Council, the members of which are appointed for life by the provincial government.

The executive work of government in each province is carried on by the Lieutenant-Governor advised by his ministers, who hold seats in the Legislature and receive the support of a majority of its members. The same principle of responsible government prevails in the provincial as in the federal administration.

The Constitutional Act of 1867 defines the field within which the provincial legislatures may act.

A provincial legislature may exclusively make laws in reference to: (1) Amendments to the provincial constitution (except as to the Lieutenant-Governor); (2) sale and management of public lands; (3) direct taxation and borrowing for provincial purposes; (4) provincial officials; (5) provincial elections, franchise and election trials; (6) municipal system; (7) licenses of hotels, saloons, shops, etc.; (8) charitable institutions; (9) administration of justice in the province, establishment of courts, both civil and criminal, punishment of breaches of provincial laws, provincial prisons; (10) education; (11) property and civil rights in the

province; (12) solemnization of marriage; (13) local works, companies with provincial objects; (14) matters of a "merely private nature in a province."

THE BANKING SYSTEM.

The banking system of Canada is a combination of the corporation and the Government. All bills from \$1 to \$1 inclusive are issued by the Federal Government, as are also bills of a larger denomination for deposit and legal-tender purposes. The amount to be issued by the Government is set by act of Parliament and at present is confined to a maximum of \$20,000,000 (but it is to be increased to \$30,000,000), against which the Government must hold a reserve in specie and guaranteed debentures of 25 per cent. (of which not less than 15 per cent. must be in specie) and a guarantee in Dominion debentures of 75 per cent. More than \$20,000,000 may be issued, but for every dollar of the excess gold must be held in reserve for guarantee. This issue is not put in circulation by the Government directly, but through the banks, which in the first place require the smaller denominations for circulation and which by the Bank Act are obliged to hold a certain amount (not less than 40 per cent.) of legal tender in Dominion notes. Assistant Receivers-General are appointed in six of the principal cities, through whose offices the distribution of the specie and small notes and the re-collection of the latter when used are effected. All notes of \$5 and upwards (multiples of five), in circulation, are issued by the banks, which are chartered under the Bank Act. The Bank Act is subject to revision every ten years, at which period bank charters expire, and this decennial period is chosen for revising and strengthening what experience has shown to be necessary either in eliminating faults or in adding necessary new features. The conditions of the issue of new bank charters are very strict. The circulation of each

bank is restricted to the amount of its unimpaired paid-up capital; a system of monthly report and Government inspection is imposed, the monthly reports being published in the *Official Gazette* for the information of the public; and a rigid system of penalties, grading from a slight fine to a cancellation of charter, is imposed for infractions of the law. Arrangements are made by which the notes of every bank are taken or redeemable par in any part of the Dominion, so that there is no discount on any bank's notes. A system of virtual insurance is provided by which the banks pay into a Government fund five per cent. of their average yearly circulation as a "bank circulation redemption fund," and this is to be used at any time to ensure that notes of a failed bank shall be redeemed at par to their holders. Notes of banks in liquidation thus bear interest until redeemed. These features were introduced into the act in 1891 and have proved most satisfactory in their operation. No limit of specie is set arbitrarily to be held by each bank, though it may be said that the banks themselves, by virtue of their strong conservative management, their independence, and the advisory supervision of the Bankers' Association, tend to secure a safe minimum of specie reserve. No tax is paid by bankers on the bank issue. All banks have the double liability of their shareholders in addition to all assets as a security to note-holders. These liberal provisions enable the banks to increase their circulation when the needs of commerce require it and to decrease it as their needs become less exacting, and this elasticity renders the system well adapted to the trade of the country.

TRADE RETURNS.

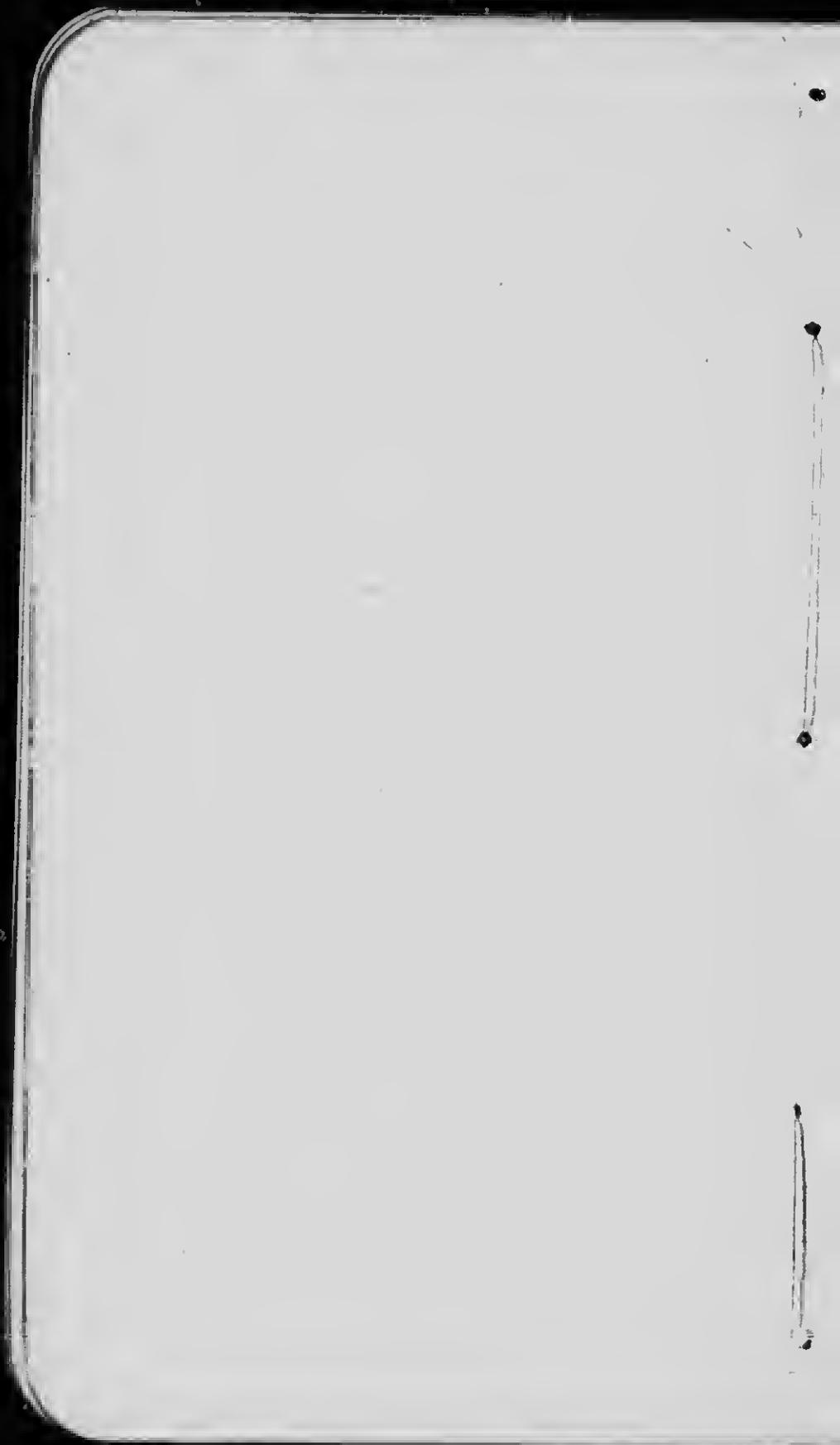
Last year the external trade of Canada amounted to \$423,910,444, the exports amounting to \$211,640,286, and the imports to \$212,270,158. In 1892 the

total external trade amounted to \$241,369,443, and in 1882 to \$221,556,703.

Last year the value of exports by countries was as follows:—Great Britain, \$117,320,221; United States, \$71,197,684; France, \$1,388,848; Germany, \$2,692,578; Spain, \$161,823; Portugal, \$105,495; Italy, \$236,899; Holland, \$320,241; Belgium, \$2,444,450; Newfoundland, \$2,381,082; West Indies, \$3,298,912; South America, \$1,781,913; China and Japan, \$570,586; Australia, \$2,586,554; other countries, \$5,153,000.

The value of goods entered for home consumption by countries was as follows:—Great Britain, \$49,206,062; United States, \$120,814,750; France, \$6,672,194; Germany, \$10,823,169; Spain, \$694,970; Portugal, \$129,379; Italy, \$3,742; Holland, \$875,615; Belgium, \$1,711,599; Newfoundland, \$1,117,400; West Indies, \$2,173,935; South America, \$1,659,074; China and Japan, \$984,876; Switzerland, \$765,010; other countries, \$36,920.

Last year the duties collected amounted to \$32,425,532, being 15.19 per cent. of the total value of imports entered for home consumption.



PROVINCE OF NOVA SCOTIA

The Province of Nova Scotia, originally Acadia, is composed of the peninsula proper and the adjoining island of Cape Breton. Northumberland Strait separates Nova Scotia from Prince Edward Island, and the Bay of Fundy almost separates it from New Brunswick, Nova Scotia being connected with that province by the Isthmus of Chignecto, $13\frac{1}{2}$ miles wide. The area of the province is 21,428 square miles, being over 13,000,000 acres, equal to a third part of England and Wales. The population is 459,574.

The Province is intersected by chains of lofty hills, in most cases running parallel with the coast-line. The Cobequid Mountains, stretching from east to west and terminating in Cape Chignecto, form the chief ridge. Several of these elevations are as high as 1,100 feet, and are cultivable almost to their summits. A sharply outlined ridge of precipices runs for 130 miles along the Bay of Fundy. Beyond these hills lies the garden of Nova Scotia, the Annapolis valley, full of varied scenery, and unrivalled for its fruit, flowers and cereals.

With the exception of Cape Breton the neighboring islands are not large. Sable Island, 150 miles east of Halifax, is an almost barren sand-bank which is noted as having been the scene of fearful shipwrecks.

In comparison with the rivers of western Canada those of Nova Scotia are small, and yet with few exceptions they are navigable by coasting-vessels for distances ranging from 2 to 20 miles. There are many beautiful lakes throughout the Province, one of the most interesting being Bras d'Or in Cape Breton, which may be best described as an imprisoned sea.

It is fifty miles long and of great depth, besides being well stocked with fish.

On the whole the climate of Nova Scotia is remarkably temperate, although there are extremes of heat and cold. The cold period reaches from the end of December to the first week of March. Spring is usually brief, but autumn, which is the most favored season of the year, is delightfully pleasant. The mean temperature of summer is 61 degrees, and of winter 23 degrees. The average mean annual temperature is about 42 degrees. Winter weather lasts generally from December to March. The spring is usually backward, but vegetation is very rapid. From May to November the weather is very pleasant and healthful. In late years, since the salubrity of its summer climate, and the charm, beauty and picturesqueness of Nova Scotia scenery have become more fully known, it has become a great resort for summer tourists from the heated and overcrowded cities of the United States, who flock to the Province by thousands to recuperate their exhausted powers amidst scenes which appeal to the lover of nature, in the varied forms of beauty in which she is here arrayed, and breathing a pure and healthful atmosphere tempered with the ocean breezes. That the climate of Nova Scotia is conducive to health and longevity is attested by the robust vigor of the population and the number of people of both sexes seventy, eighty, ninety and, now and then, a hundred years of age to be found in almost every community.

HISTORY.

The French were the original colonizers of the country now known as Nova Scotia, their first permanent settlement having been made early in the 17th century at Port Royal, where Annapolis now stands.

During Queen Anne's war Acadia was the scene of many conflicts, and it fell into the hands of the Eng-

lish. "The capture of Port Royal meant the capture of Acadia, which thus passed out of the hands of the French. Port Royal was now re-christened Annapolis Royal in honor of the Queen." The treaty of Utrecht in 1713 ended the war and formally ceded Acadia to the British crown.

The French, however, retained the Island of Cape Breton and they fortified Louisbourg, making it their Atlantic seaport.

Halifax was founded in July, 1749. It was a state enterprise and the early settlers were mostly disbanded soldiers with their families. Edward Cornwallis accompanied the settlers as governor of Nova Scotia. This was in fact the first British-Canadian colony.

The Acadians at this time numbered about nine thousand, living along the Annapolis Valley, around the shores of Minas Basin, and at the head of Chignecto Bay. They repeatedly refused to take the oath of allegiance to the King of England although the territory on which they lived had been ceded to Britain by the French King, who no longer claimed sovereign rights there. Many influences were brought to bear upon the Acadians to prevent them from taking the oath. The British authorities extended the time for swearing allegiance, but finally they were obliged to take severe measures, and in 1755 nearly six thousand Acadians were put on board ships and transported to other British colonies.

In the Seven Years' War Louisbourg was captured after a stubborn resistance. One of the most distinguished British officers in that conflict was Wolfe, afterwards the hero of the Plains of Abraham. With the fall of Louisbourg the Island of Cape Breton was surrendered, also St. Jean, known to-day as Prince Edward Island. The treaty of Paris by which Canada was ceded to Britain also transferred these islands to the British crown.

Parliamentary government in Canada was first planted in Nova Scotia. The first elective assembly of that Province met in Halifax on October 7, 1758. It consisted of 22 members; and the Governor in a letter to England expressed agreeable surprise at the competent way in which they performed their duties.

The Province received a large number of settlers driven out from New England by the American Revolution. They were called the United Empire Loyalists, and found homes there as many others did in Western Canada. During these years the immigration to the Maritime Provinces amounted to about thirty thousand.

Cape Breton had been made a separate province governed by a council; but in 1820 it was re-annexed to Nova Scotia, of which it has ever since formed a part.

As early as 1773 Scotch immigrants began to arrive. In one year not less than 1,300 settled in Pictou County. Between 1791 and 1828 not less than 25,000 Scotch settlers found their way to the beautiful island of Cape Breton.

From 1794 to 1799, Prince Edward, afterwards Duke of Kent, father of Queen Victoria, commanded the troops at Halifax, and the little Island Province was named after him.

On July 1, 1867, the Province entered the confederation known as the Dominion of Canada.

In 1876 the Intercolonial Railway was opened from Halifax to Point Levis. The line was subsequently extended to Montreal. In 1877 the Halifax Fisheries Commission awarded to Canada the sum of \$5,500,000 to be paid by the American Government.

The growth of Nova Scotia has been steady and solid, and the future promises much. The great mineral wealth of the province makes it not only possible but exceedingly probable that Nova Scotia will become one of the great iron and steel manufacturing centres of the continent.

AGRICULTURE.

Nova Scotia is a valuable agricultural country; wheat, oats, rye, barley, buckwheat, Indian corn, potatoes, turnips, beets, etc., grow in abundance, while apples, pears, plums, cherries, strawberries, currants and other fruits ripen to perfection. Grapes and even peaches grow in the open air in some districts. The Nova Scotia apple has become an article of commerce, and large quantities are shipped to Great Britain. The orchards in Annapolis and King's counties extend along the highway for fifty miles. No better apples are grown anywhere than those produced in this beautiful land of Evangeline. The annual production now averages a million barrels. There has been a marked development of the dairy interests here as well as in other parts of Canada. Cheese and butter are exported in large quantities to Great Britain. The factory system has been introduced and has been found generally satisfactory.

The dikelands around the Bay of Fundy are admirably adapted to the growth of hay. The intervale lands all over the province are rich and productive. The upland is of varying degrees of fertility. The wildwoods, barrens, and pastures are full of strawberries, raspberries, blackberries, blueberries, whortleberries and cranberries. Cranberries have recently become an important article of profitable cultivation, not only for home consumption but for export, in sections of bog land which is valueless for any other purpose. Great attention is now given to the cultivation of fruit, the Government having established a School of Horticulture at Wolfville.

MINES AND MINERALS.

Nova Scotia was known from very early days to possess important mineral deposits, but these only began to attract attention in the first part of last century

and their exploitation on any considerable scale practically dates from 1830.

The following summary shows the mineral production of Nova Scotia for the years 1901 and 1902:—

	1901.	1902.
Goldoz	30,537	28,279
Iron Ore*Tons	419,567	489,731
Manganese Ores†“	10	150
Coal raised†“	3,625,365	4,362,869
Coke made†“	120,000	406,152
Gypsum††“	135,637	173,000
Grindstones, etc.“	315	4,000
Limestone†“	95,794	223,606
Barytes“	600	742
Pig Iron“	90,034	206,193
Moulding Sand“		1,390

The first mineral deposit to be noticed is the Sydney coal field on the east shore of Cape Breton. Its area of available coal is estimated at over 500 square miles. It contains 12 seams, from 3 to 12 feet in thickness. The coals are highly bituminous, and adapted for coke and gas making. It is classified for steam purposes as superior to Newcastle, and nearly equal to the best Welsh steam coal. Some of the beds enjoy a special reputation for domestic coals.

Coal is also found in other parts of the Island of Cape Breton. Hitherto the collieries opened in the Sydney district have been sufficient to meet the demands of the trade. Now that the trade of the province is rapidly expanding, the deposits at other points are being opened up.

At Loch Lomond and at River Inhabitants, coal seams are known to outcrop, but as yet they have not

* Including imported ore, 474,517 tons.

† Ton of 2,240 lbs.

‡ Amount exported.

been opened up. At Port Hood, Mabou, Broad Cove and Chimney Corner there are extensive deposits of large seams of good quality.

On the mainland there are the Pieton Coal Fields, which have an area of 35 square miles. This is a coking coal. It is used at the Londonderry and Ferrona furnaces, and has a good reputation for steam purposes.

It is estimated that the Cumberland Fields have an area of 400 square miles. At Springhill there are seven seams from three to twelve feet in thickness. Mining is also carried on at Joggins. Cumberland coal is extensively used on Canadian railways.

Coal is found in Colechester, Hants and Antigonish counties. The annual production of coal in the Province is steadily increasing. Home consumption is large and will be greatly increased with the further extension of the iron and steel works at Sydney. Large quantities are also sent to Boston.

The mining of gold, although carried on on a comparatively small scale, when pursued methodically is remunerative, and capable of unlimited extension. The mines are all within easy reach of roads, and of the harbors along the coast, and aid is furnished by the Provincial Government in opening roads to new mines. The Nova Scotians make excellent miners.

The gold is obtained by quartz mining, and mills are stampers of the latest patterns. The gold bullion is of good quality, carrying little silver and, according to the Inspector of Mines, averages about \$19.25 at the mint.

Manganese, antimony, copper, lead, building stone, etc., are worked to a small extent; and large quantities of gypsum (173,000 tons in 1902) near Windsor.

FISHERIES.

During the year 1901, being the last year for which complete returns are available, the fisheries of the Province of Nova Scotia yielded a catch whose value was \$7,989,548, the principal kinds and their values being

as follows:—Salmon, \$118,070; herring, \$343,025; mackerel, \$975,460; lobsters, \$2,114,088; cod, \$2,635,332; haddock, \$659,368; hake, \$215,736; pollock, \$175,264; halibut, \$80,304; shad, \$22,955; alewives, \$52,556; eels, \$24,200; flounders, \$72,348; oysters, \$89,692; fish oil, \$97,883; fish for bait, \$136,813; fish for manure, \$52,676, making in all a value of \$7,989,548, being \$180,395 greater than the value of the catch of the preceding year.

The vessels engaged in these fisheries numbered 527, tonnage 24,119 tons, fishing boats 13,564, gill nets 62,220 (1,762,000 fathoms), seines 695 (79,447 fathoms), 258 lobster canneries, 236 freezers and ice-houses, 6,519 smoke and fish houses, 1,757 fishing piers and wharves, and 163 fishing smacks and tugs. The total value of the fishing vessels, boats, nets and other material used in the fishing industry of Nova Scotia during the year 1901 was \$3,319,334.

There were 5,607 men employed in fishing vessels, 18,367 in fishing boats, 5,555 in lobster canneries, making a total of 29,529 persons employed in the industry.

FOREST PRODUCTS. -

The area of Nova Scotia is 20,600 square miles and of this the forests and woodlands cover 6,464 square miles, or about 31 per cent. of the total area. Of this forest and woodland area all but 78 square miles are granted land so that the timber lands of Nova Scotia are practically in the hands of private owners.

Extending through the counties along the north coast there is a belt of hard wood—oak and birch and maple. Merchantable pine is about exhausted, but a young growth remains for future use. Spruce and tamarac grow in abundance and there is also an extensive well wooded region in the northeast part of the province around the head waters of the rivers flowing into the Atlantic.

MANUFACTURES.

The manufacturing includes the production of boots and shoes, biscuits, refining of sugar, rope and twine, cotton, carriages, woollens, iron and steel, agricultural implements, glass, etc. Of these the production of iron and steel is one of the most important, and it has before it a future of great promise. There are deposits of iron ore at several places and, besides, apparently inexhaustible deposits exist on the shores of Newfoundland, and from there it is carried by cheap water transportation to the works in Nova Scotia. One of the largest iron and steel plants in Canada is situated at Sydney on the Island of Cape Breton where in close proximity to the excellent harbor are extensive coal mines. It is claimed that, in the near future, iron and steel will be produced here at so low a cost as to permit these works to compete successfully in the metal markets of the world with both British and American producers. Most of the iron ore used by the company is obtained from the Wabana iron mine on Great Bell Island in Conception Bay, Newfoundland, about 35 miles from St. John's, and about 400 miles from Sydney. The Company paid a million dollars for this mine, which consists of small regular blocks of red hematite piled one upon another, making a bed of ore of an average thickness of eight feet, extending over 817 1-2 acres, which is estimated to contain 28,000,000 tons of available ore. This is believed to be merely an outcrop, and when the ore available on the island is exhausted it is thought that enormous quantities of iron ore can be obtained by following the ore bed under the sea. The ore, while not of high grade, is of good quality.

The Sydney plant includes four blast furnaces, with an estimated capacity of 1,200 tons daily, ten 50-ton open hearth steel furnaces, a blooming mill and 400 by-product coke ovens.

There are also iron works at Ferrona with a yearly capacity of 30,000 tons, and steel plants at New Glasgow capable of turning out 100 tons of finished steel a day.

Shipbuilding is carried on at a number of places and large quantities of sugar are refined at Halifax. At Amherst, in the eastern part of the province, is a large establishment engaged in the manufacture of steam engines, mill machinery, railway cars and similar goods. In Halifax alone the annual value of the products of the city's manufacture exceeds eight million dollars.

TRANSPORTATION.

In Nova Scotia there are 950 miles of railway, being one mile of track to each 21.8 square miles of area. The Intercolonial is the principal line. It enters the Province from New Brunswick, and at Oxford Junction divides into two branches, one extending south to Halifax, the provincial capital, and one of Canada's principal Atlantic ports. The other branch continues eastward to Sydney, in Cape Breton, the mainland port in North America nearest Great Britain. From Sydney to Liverpool, Eng., the distance is 2,282 miles. From the Halifax line of the Intercolonial a railway extends across the Province, and then follows the coast to the southern end of the Province; and besides this there is another line reaching from the shore of the Bay of Fundy to the Atlantic. Almost an island, Nova Scotia is abundantly supplied with cheap water transportation. The rivers are small and none are navigable to large vessels to any extent; still no part of the Province is very far from tidal waters. The tonnage of seagoing vessels annually carrying cargoes to and from the ports of the Province is about 3,900,000 tons, and the coasting trade employs each year vessels with a total tonnage of 6,600,000 tons. Between Halifax and Great Britain a steamship service is maintained throughout the year, and also with St. John, N.B., New England

and West Indian ports. Steamships ply regularly between Nova Scotia and Prince Edward Island and Newfoundland, and during the summer up the St. Lawrence River to Quebec and Montreal.

Last year goods to the value of \$14,978,220 were exported from the ports of Nova Scotia; the imports were \$12,510,750, and the duty paid \$2,069,988.

The local affairs of Nova Scotia are administered by a provincial government of which the head is a lieutenant-governor appointed by the federal government of Canada. He is assisted by a small executive council responsible to the legislature. The legislature consists of a legislative council consisting of 19 members appointed for life, and a Legislative Assembly of 35 members elected by the people.

HALIFAX.

Halifax, the capital of Nova Scotia is a most interesting city. It has a population of 40,832. It is one of the chief Atlantic seaports of Canada, open all the year and has one of the best harbors on the continent. It is also a fortified port, being the headquarters of the North Atlantic Squadron of the British fleet. The city is situated on a peninsula about five miles long by three broad, rising on Citadel Hill to a height of about 250 feet above the waters of the investing harbor, "which is one of the largest, safest and best fortified in the world." The harbor is land-locked, whilst deep water and the natural features of the inclosing points and islands make it one easily fortified. These natural advantages have been improved, and Halifax is one of the strongest military and naval stations on the continent.

The peninsula has an eastern frontage on the middle harbor of five miles, and it is here that the city of Halifax is built, the extensive fortifications on Citadel Hill rising high over its centre.

On the opposite side is Dartmouth, virtually a suburb of the capital, and containing some important manufacturing establishments. South of Dartmouth lies Fort Clarence, on the east of the harbor and in line with Fort Charlotte on George's Island.

Halifax dates from June, 1749, when the sloop-of-war *Sphinx*, under the Hon. Edward Cornwallis, arrived in convoy of a fleet of thirteen transports carrying 2,516 settlers. The Board of Trade and Plantations, of which Lord Halifax was the energetic president, was the promoter of this colonization.

The shipping interests of Halifax are extensive, it being one of Canada's best harbors and a winter port. The Hon. Samuel Cunard, of Halifax, was the pioneer of the Atlantic steamship business. He built the steamship *Britannia*, the first of the famous line now bearing the founder's name. The *Britannia* left Liverpool for Halifax and Boston on her first trip on July 4, 1840. In connection with the naval station is one of the finest dockyards in North America. It was commenced in 1758 and now covers fourteen acres. The dry-dock is capable of receiving ships of the line.

Halifax has superior water and rail communication with the rest of the continent so that it is not surprising that it should stand high in the trade of the Dominion.

Halifax, in addition to a thriving inter-provincial and coasting trade, also trades largely with the West Indies; fish, field and forest products being exchanged for sugar, fruit and other products of a tropical climate.

Sugar refining and the manufacture of rope and twine bulk largely among her industries.

PROVINCE OF NEW BRUNSWICK

New Brunswick, the largest of the three Maritime Provinces of the Dominion of Canada, lies mainly between the 45th and 48th parallels of latitude and the 64th and 68th degrees of longitude. It is almost square in shape, and is surrounded on three sides by the sea; on the north by the Bay of Chaleur, on the east by the Gulf of St. Lawrence, and on the south by the Bay of Fundy.

The length of the province from north to south is 230 miles; its greatest breadth is 190 miles, and it has a seaboard of 545 miles, interrupted only by the isthmus of Chignecto which joins New Brunswick to Nova Scotia. The area of the province is 27,985 square miles.

The surface of New Brunswick is generally undulating, but in the northern and north-western sections there are many ranges of hills which rise to a height of from 1,200 to 2,000 feet, while individual peaks are to be found of even a greater altitude.

These elevations are an extension of the Appalachian mountains, which traverse the province from the State of Maine. The scenery is picturesque and varied, and vast forests abound all through this section of the province. The coast of the Bay of Fundy is rocky and bold, and interrupted by great ravines. West of the River St. John the soil is fertile and rich, and there is good agricultural land in the east with many beautiful grain fields, valleys and forests. Along the shores of the east coast and for twenty miles inland the country is flat, but beyond that distance it rises into gently sloping hills which extend as far as St. John.

New Brunswick is well watered. Rivers, lakes and bays are numerous, and several are navigable for vessels of large tonnage. The principal rivers are the St. John, Miramichi, Restigouche, Saint Croix, Petitcodiac and Richibucto.

The coast of New Brunswick is indented with five bays and harbours. There are few islands. The Bay of Fundy is a huge arm of the sea extending into the land between New Brunswick and Nova Scotia. It terminates in the Bay of Chignecto and Minas Basin. Its length up to Chignecto Bay is 140 miles, and its extreme breadth 45 miles. The bay is noted for its high tides.

The climate of New Brunswick is somewhat similar to that of western and southern Quebec. The winters are severe, and in summer a high temperature prevails; but the climate is healthy. In the interior the thermometer often registers 95 degrees Fahr. Winter begins early in December and lasts until the end of March. Sometimes the mercury drops to 30 below zero. The snowfall in the north is heavy; in the south the winters are more broken and open. The most charming season is autumn, especially that part of it known as the Indian summer which lasts about six weeks. The average rainfall is 30 inches, and the average snowfall is 88 inches.

The first census of New Brunswick was taken in the year 1824, at which time it had 74,175 inhabitants. In 1834 the number of its people had increased to 119,457, and in 1840 to 156,662. At the last census, taken in the year 1901, the population was 331,120.

HISTORY.

New Brunswick belonged to that part of New France called Acadia, and in 1604 settlements were planted here at about the same time as they were established in Nova Scotia.

Britain acquired Acadia under the treaty of Utrecht in 1713, but there was a dispute as to the boundary of the country embraced under this name, and it was not until 1763, when Canada was ceded, that it was finally decided that the territory now known as New Brunswick should pass to the British Crown.

New Brunswick received a large number of the immigrants who before and after the Revolutionary war proceeded north from New England. Of the fourteen townships taken up by settlers from New England, five were situated in what is now known as New Brunswick—four around the head of Chignecto Bay, and one on the St. John River. By the census of 1767 it appears that these five townships had a population of 500 souls, mostly "Americans from Rhode Island, Massachusetts and Pennsylvania." From the latter State came a number of Germans who settled along the bank of the Petiteodiac River. By 1783 the country had a population of 2,000.

In accordance with the promise of the Governor the people were given an elective Legislative Assembly. The first Assembly was dissolved by the death of George II., in 1760, and the representation was readjusted. At that time this territory formed part of the province of Nova Scotia, and these members sat in the Assembly at Halifax. In 1784 separation took place, and New Brunswick became a province by itself. About this time many United Empire Loyalists came to the country. They settled on the north shore of the Bay of Fundy, in the valley of the St. John River, and in the region about Passamaquoddy Bay.

In 1785 the city of St. John was incorporated, and the Assembly held two sessions there. In 1788 the seat of Government was removed to Fredericton because it was inland and less exposed in case of hostile invasion. The lumber and fishing industries were rapidly developing.

In 1825 occurred the great fire upon the Miramichi. The lumber industry had drawn many immigrants to this section, and for one hundred miles along the river bank there was a thickly populated strip of territory backed by dense forests. It contained four thriving towns and villages. All were wiped out by the conflagration. Nearly 200 persons perished, and the pecuniary loss was not less than one million dollars.

New Brunswick was one of the four original members of the Dominion of Canada. Her delegates attended the Quebec convention, and with Upper and Lower Canada and Nova Scotia, New Brunswick entered Confederation on July 1, 1867.

The provincial government of New Brunswick consists of a Lieutenant-Governor, appointed by the federal government, an Executive Council of seven members, and a Legislative Assembly elected by the people. The members of the Executive Council, being a provincial cabinet, hold seats in the Assembly, and are responsible to it for their administration of public affairs.

New Brunswick is divided into fifteen counties, each of which is a municipality and is governed by a body elected by the people, which is known as the municipal council, and which contains representatives from each parish.

AGRICULTURE.

The province has an area of 27,985 square miles, about one-half of which is in forest and woodland. In the past, lumbering was the prominent industry, but agriculture has rapidly gained in relative importance. The climate is less temperate than that of Nova Scotia, and is more liable to low temperatures during the winter. The opening of spring is usually later than in

Western Ontario and the summers, as a rule, are not so warm, extremes of heat being seldom experienced.

Much of the cultivated land is rich and fertile, and when well tilled, generally gives good crops of grain. There are considerable stretches of dyked land in the province on which large crops of hay are grown. The agricultural returns show about one million acres under cultivation, about half of which is in hay; of the other half, much the larger part is in oats; buckwheat occupies the next place in importance, while smaller areas are devoted to potatoes, wheat and barley. The country is well adapted to mixed farming, the production of grain and stock; the pastures are excellent and the root crops are large. Increased attention has been given of late to dairying, and many cheese and butter factories are now in successful operation.

The climate of New Brunswick is less favorable for fruit growing, still this branch of industry is being steadily developed. There are some successful orchards in the valley of the St. John River and in other sheltered spots in different parts of the province. The varieties of fruit grown are generally of the harder sort. The apples of New Brunswick have the reputation of keeping well, and there is no doubt that apple growing might be considerably extended with profit to the farming community. Small fruits are grown in abundance, and the cool weather in the early part of the summer delays the ripening of early fruits and permits the growing of large quantities of excellent strawberries, which ripen after the main supplies have been consumed, when this fruit finds a ready market at good prices in the larger cities of Eastern Canada and the New England States.

The province annually exports butter and cheese to a value of \$150,000. Practically all of it finds its way to the British market.

LUMBERING.

After agriculture the leading industry of New Brunswick is lumbering. The greatest part of the province is still covered with forests of great value and the exports of forest products average about \$7,000,000 a year. The principal wood of commerce is the spruce, which is found in great abundance all over the province, and is exported in the form of deals. This wood is also being extensively utilized for the manufacture of pulp, an industry which is certain to grow to large dimensions. There are two kinds of spruce in New Brunswick, white and black. Its forests also abound with fir and hemlock, the latter of which is used for making extract of hemlock bark for the purpose of tanning. White and red pine are also found in the New Brunswick forests, and the former wood was at one time very abundant and was extensively exported. Hackmatack and cedar are also plentiful. The principal hard woods are birch, beech, maple, ash, oak, elm, and butternut, the latter wood resembling walnut. Birch, beech and maple are very abundant in the forests of New Brunswick. Of birch there are several varieties, all of which are valuable for commercial purposes and as furniture woods. There are three kinds of beech and four kinds of maple in the province, and all these woods are important in a commercial sense. The hardwood forests of New Brunswick have been but little cut, but there is no doubt that at some future day they will be largely drawn upon for the manufacture of furniture and other purposes. At present the principal exports of hardwood are in the form of birch timber, which goes to England in considerable quantities. The lumber industry employs a large number of men, both in the woods and in the mills, and it shows no sign of decline.

FISHERIES.

The fisheries of New Brunswick are one of the province's most valuable assets, and they yield one-fifth of all the fish taken by Canadian fishermen. In 1901 these fisheries yielded a catch whose value was \$4,193,264, the values of the principal kinds taken being:— Cod, \$377,236; haddock, \$106,103; herring, \$1,033,793; mackerel, \$111,795; lobsters, \$489,034; pollock, \$65,169; halibut, \$95,475; trout, \$286,812; shad, \$65,470; sardines, \$555,006; alewives, \$81,632; eels, \$22,350; oysters, \$57,840; clams, \$68,610; fish oil, \$60,055; fish as bait, \$18,560; fish for manure, \$139,813.

The value of the catch in 1901 exceeded that of the preceding year by \$423,522.

There were employed in this industry 343 fishing vessels (4,138 tons), 6,825 fishing boats, 32,547 gill-nets (1,129,458 fathoms), 394 seines (13,619 fathoms), 221 lobster canneries, 251,620 lobster traps, 250 freezers and ice-houses, 1,216 smoke and fish houses, 340 fishing piers and wharves, 85 tugs and smacks, etc., having a total value of \$2,233,825.

MINERALS.

New Brunswick possesses valuable mineral resources, although they have not yet been developed to the same extent as in some of the other provinces. About one-third of the province belongs to the carboniferous formation. Mining, so far, has been done in the vicinity of Newcastle, at Grand Lake in Queen's County. All the New Brunswick coal seams are thin, ranging from twenty inches to forty-two inches, but they are close to the surface, in many cases not more than three or four feet below it, and in hardly any case more than thirty feet. Coal has been mined at Newcastle for many years, and it is estimated that the coal field there

contains 150,000,000 tons of coal. A line of railway has just been completed to this coal field. Anthracite has been found in small quantities in various places in St. John and Charlotte counties, but so far has not been worked with success. Albertite, a bituminous substance, used for the making of oil and the enriching of coal gas, exists in Albert county, and also oilite and bituminous shale which are allied to Albertite.

Iron has been found in many portions of the province, but so far the only place where it has been worked is in Woodstock, in the county of Carleton. Copper ore has also been found in many localities in Charlotte, St. John, Westmoreland, Albert, King's, Carleton and Gloucester counties. This metal is largely deposited throughout the province. At Dorchester the copper deposits are now being operated with success by a company with a large capital on an extensive scale. Among the other minerals of the province are nickel, antimony, galena, manganese, graphite and gold. The deposits of antimony and manganese have been worked with success.

Large deposits of gypsum exist in New Brunswick, those which have been the most extensively worked being in Albert county. The exports of gypsum from that county reach 100,000 tons a year.

The province is also well supplied with excellent limestone, and large quantities are exported to the United States. Mineral oil has been found in Albert and Westmoreland counties. A company with a capital of one million dollars has been formed to develop one of these properties.

MANUFACTURES.

The principal manufacturing industry of New Brunswick is that of converting the timber of its forests into various kinds of lumber. During the winter the logs are cut and the spring freshets carry

them down the rivers to the saw-mills where they are cut into deal, boards and planks during the summer. The province abounds in hardwood which has been very little dealt with in any shape, but which is available for making all sorts of utensils and which will supply the stock for large furniture factories similar to those which exist in the provinces of Ontario and Quebec. The nearness of the hardwood forests to the ports of shipment makes them much more valuable than they are in the provinces of Canada further west.

Another product of the forest, which is likely to be manufactured in the province on an extensive scale, is pulp. It is universally admitted that spruce is the best of all woods for paper pulp, and of this, New Brunswick possesses an abundant and almost inexhaustible supply. There are at present four pulp mills in New Brunswick of large capacity, two at Chatham, one at Mispec, near St. John, and one at St. John. These mills employ a large number of people and there is no doubt that this number will be further increased. A scheme is now on foot for the erection of a mill at Grand Falls, on the Nepisiquit River, which is intended to be the largest in America.

There are five cotton mills in the province; two in St. John, one in Moncton, one at Marysville, and one at St. Stephen. These mills are all in a prosperous condition. The atmospheric conditions of the Maritime Provinces are particularly favourable to this industry, which also enjoys the advantages of cheap water transportation for its raw material.

There are numerous iron foundries, large and small, in the province of New Brunswick and also several brass foundries. The province is well adapted to the manufacture of iron, there being abundant deposits of the necessary material in it or close to it, as well as unlimited supplies of coal from Grand Lake which would be available for smelting. The time, no doubt,

is near at hand when New Brunswick will be an iron producing country.

The manufacture of nails is carried on extensively at St. John and at other localities, and there are also two rolling mills. Boots and shoes are made in a number of places, and also larrigans, a form of footwear which is much used by lumbermen in the winter. Among the other manufactories are those of wrappers, paper boxes, etc., and woollen cloths are manufactured in several places. Candy is made in large quantities in St. John and Charlotte counties. Soap is also manufactured extensively. There is a sugar refinery in Westmoreland county, although not now in operation. Furniture factories exist in St. John and other industrial centres.

COMMERCE.

The principal ports of New Brunswick are St. John, St. Andrews, St. Stephen, Miramichi, Bathurst, Campbellton, Dalhousie, Richibucto, Buctouche, Shediac, Dorchester and Moncton. The ports which lie on the Gulf of St. Lawrence and the Straits of Northumberland are closed by ice for about five months of the year, but St. John and the other ports on the Bay of Fundy are open at all times. St. John does a large export business in winter of goods which are produced in the western provinces and brought over the Canadian Pacific and Interoceanic Railways. Seven or eight lines of ocean steamships run regularly between St. John and the United Kingdom during the winter, besides lines to the West Indies and the United States. This port also has a large trade of its own in lumber, so that its exports and imports aggregate upwards of \$16,000,000 annually. There is no doubt that the development of the West will, in the course of time, give St. John a very large trade. St. John possesses two grain elevators of large capa-

city and is well equipped with deep water wharves. A large dry dock is shortly to be constructed at this port, and large additions to its other shipping facilities are in contemplation. The harbour of St. John is perfectly land-locked and safe in any weather, and has a depth of water at its entrance of twenty-two feet at dead low water, spring tides. The extreme rise and fall of the tide is about twenty-seven feet or about the same as that of Liverpool, England.

TRANSPORTATION.

The Intercolonial Railway runs through the province from the boundary of Nova Scotia, at the Missequash, to the boundary of the province of Quebec, at the Restigouche. It branches off to St. John on the west and to Shediac on the east, and there are also branches to Dalhousie and to Indiantown on the Miramichi. This railway was built by the government of Canada under the terms of The British North America Act. It was one of the features of the bargain made between the provinces which was sanctioned by that Act, that Canada should build a railway from Quebec to Halifax. This railway now extends from Halifax to Montreal and also to Sydney in Cape Breton. It is one of the two great channels of communication between the Maritime Provinces and the West, the other being the Canadian Pacific Railway.

The Canadian Pacific Railway has its eastern terminus at St. John, and its line now extends to Vancouver in British Columbia. It has acquired or leased most of the lines of western New Brunswick, including the old St. John and Maine Railway with its branches to Fredericton; the New Brunswick and Canada Railway from St. Andrews to Woodstock with its branch to St. Stephen; the New Brunswick Railway from Fredericton to Woodstock on the east side of the river, and from Woodstock north to Edmunston, and the

Tobique Valley Railway. The Canadian Pacific passes through nine counties in New Brunswick. In the winter season it carries immense quantities of freight from western Canada and the United States to St. John for shipment to Europe. This business is large and constantly growing. The passenger traffic of the railway is also very rapidly increasing in consequence of the large number of tourists who come to the Maritime Provinces. The towns served by the Canadian Pacific Railway in addition to the cities of St. John and Fredericton are St. Andrews, St. Stephen, Woodstock, Hartland, McAdam, Andover, Grand Falls, St. Leonard's and Edmunston.

Besides these two trunk lines and their branches there are a number of local railways serving parts of the province not reached by the former. In all, New Brunswick has 1,500 miles of steam railway, being one mile of track to every 19.47 square miles of area.

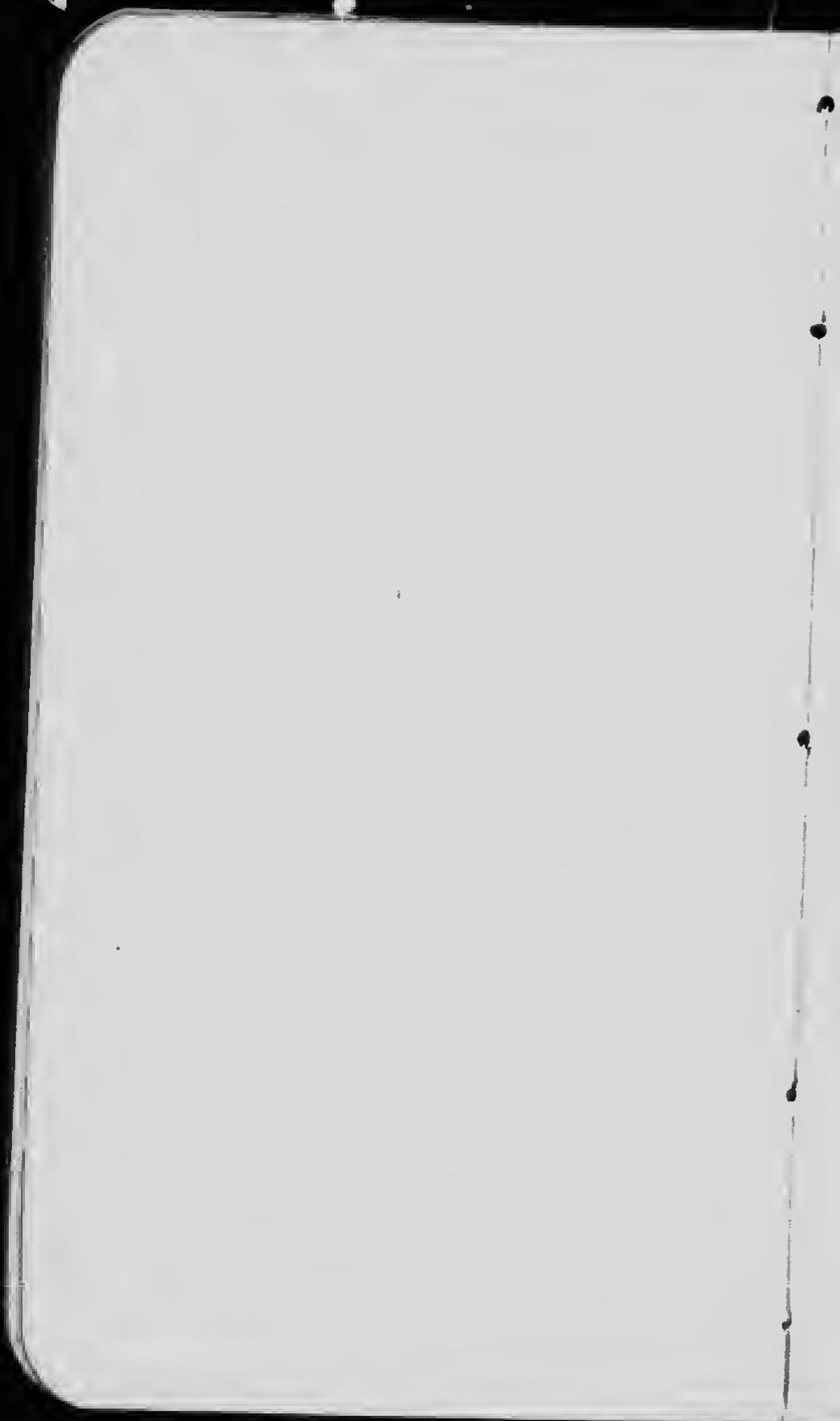
Steamboats ply regularly on the St. John River, between St. John and Fredericton, and also between Fredericton and Woodstock. There are also steamboats plying in the lower stretches of the St. John to Grand Lake and the Washedemoak, Belleisle and Hampstead, and to Hampton on the Kennebecasis. These boats supply admirable facilities to farmers for reaching the market at St. John. Steamers also ply on the St. Croix between Eastport, St. Andrews, and St. Stephen, and on the Miramichi between Chatham, Nelson and Newcastle, also to points above Nelson and below Chatham. The city of St. John is connected by steamer with Yarmouth, Digby and other ports in Nova Scotia, and with the island of Grand Manan. Steamers also run in the Bay Chaleur between Dalhousie and Gaspé, and to Prince Edward Island from Point du Chene.

The tonnage of sea-going vessels carrying cargoes to and from New Brunswick in the course of a year

amounts to 1,500,000 tons, and the tonnage of vessels engaged in the coasting trade of the province amounts annually to 1,700,000 tons.

Last year there were exported from the ports of New Brunswick goods to the value of \$17,657,751; imports, \$7,307,271; duties collected, \$1,255,788.

The principal city of New Brunswick is St. John, situated at the mouth of the St. John River on the Bay of Fundy. It has a population of 40,700. Its annual export and import trade amounts, to \$16,000,000. Fredericton, the provincial capital, has a population of 7,117, and Moncton, the operating headquarters of the Intercolonial Railway, has a population of 9,026.



PROVINCE OF PRINCE EDWARD ISLAND

In the great Bay of the Gulf of St. Lawrence and separated from the Continent by the Northumberland Strait lies the province of Prince Edward Island—the “low and beautiful land” that Cartier saw in 1534. It is situated between 46 deg. and 47 deg. 7 min. north latitude, and 62 deg. and 64 deg. 27 min. west longitude, and is distant from New Brunswick at the nearest point nine miles, from Nova Scotia fifteen miles, and from Cape Breton thirty miles. In form it is an irregular crescent, concaved towards the north, with an exceedingly indented coast line. The province is divided into three counties—Prince, in the west; Queen’s in the centre, and King’s in the east. It is about 140 miles long, from 2 to 34 miles wide, and contains an area of about 2,184 square miles, or 1,397,991 acres. Its population is 103,259.

The exact date of the discovery of the Island is wrapped up in the misty past, but it is commonly believed to have been first sighted by John Cabot on June 24th, 1497, who named it St. John, in honour of the day—the anniversary of the birth of St. John the Baptist.

From 1713 to 1758 the Island was under the control of the French.

In 1715 permanent settlement began.

In 1763 it passed into British possession.

In 1773 it was named Prince Edward Island.

In 1851 responsible government was granted.

In 1873 it became a part of the Dominion of Canada.

At the head of the provincial government is a Lieutenant-Governor appointed by the federal authorities.

His advisers form the Executive Council responsible to the elective Legislative Assembly composed of 15 councillors and an equal number of assemblymen.

Viewed from the water the appearance of the wave-girt province is very attractive. While picturesque and pleasing it is devoid of the romantic boldness which characterizes the north shore of the Gulf, being generally level, with, in some places, beautiful undulations. The scenery is of pastoral simplicity and resembles that of England, and the country is thickly dotted over with comfortable homesteads. In every direction bays and lovely arms of the sea indent the land, and the peculiar greenness of the fields and meadows rival in beauty that of the Emerald Isle itself. Beyond the bulwark of white sand dunes on the north shore are fifty miles of beach washed by the cool waters of the Gulf, and forming one of the finest bathing grounds in the world. The average temperature of the water is about 65 degrees.

CLIMATE

The summer climate of Prince Edward Island is perfect, and as it was quaintly described in the olden days "of the best temperature which it is possible to see." In June and July the country is a paradise of bloom, verdure and foliage. Singularly free from extremes of heat and cold, there are not, as a rule, those sudden changes which are experienced on the mainland. Its summer heat is always tempered by the waters of the surrounding Gulf, and from every direction is borne on the breeze the life-giving smell of the sea. The winter is not unpleasant, but the springs, owing to the prevalence of ice along the shores, are often backward. Of such brightness and beauty is the summer, however, that it amply compensates for the slow-coming spring. Navigation generally closes towards the end of December, and re-opens about

the middle of April. The cold is neither so great in winter nor the heat so intense in summer as in the other provinces of the Dominion; while the Island, sheltered from the Atlantic by the hills of Cape Breton and Newfoundland, is almost entirely free from fogs. The autumn is a beautiful season. The average summer temperature at Charlottetown is 62.2 deg., and for the year, 40.7 deg.

MEANS OF COMMUNICATION.

During the season of navigation there is daily communication by the fine steamers "Northumberland" and "Princess" of the Charlottetown Steam Navigation Company, between Summerside and Point du Chene, N.B., and Charlottetown and Pictou, N.S. This company was first organized in 1863, and it is worthy of remark that during these forty years not an accident has occurred by which a passenger or piece of freight has been injured. After the close of open navigation, communication is maintained between Georgetown and Pictou, and between Summerside and Cape Tormentine (experimentally) by the specially built ice-breaking steamers "Minto" and "Stanley." In mid-winter the work of the steamers is supplemented by the ice-boat service between Cape Traverse on the Island and Cape Tormentine on the New Brunswick shore, a distance of about nine miles. The standard ice-boat is about 18 feet long, 5 feet wide and 2 feet 2 inches deep. Its frame is oaken, it is planked with cedar, and the planks are covered with tin. It has a double keel which serves for runners, and four leather straps are attached to each side. The crews are hardy, powerful and courageous men. The passage usually occupies three and a half hours, but when there is much "lolly" (small particles of ice floating in the water often to the depth of several feet), and when wind and tide are unfavourable, it sometimes

requires from five to seven hours. A trip by "the Capes" is a unique experience. Telegraphic communication is maintained by the cable of the Anglo-American Telegraph Company between Cape Traverse and Cape Tormentine; and the lines of this company, together with a 500-mile telephone system, serve the Island internally. A railway system of about 250 miles is also in operation.

THE CAPITAL CITY.

Charlottetown, the capital city, and the third in size of the cities "of the Maritime" is beautifully situated at the confluence of three arms of the sea and possesses a fine harbour. It has a thriving trade, is the eastern terminus of the "Plant Steamship Co." and a port of call for other lines. It is a well laid-out city with every modern improvement but an electric railway. One of the healthiest towns in Canada, it is yearly becoming more esteemed as a place of residence. The excellence of its drinking-water is proverbial, and its park, public gardens and squares are attractive breathing spaces. Within a few minutes' trip by ferry opposite the city is a spot of great historic interest, where remains of the French occupation may be seen and where the air of romance still hovers. The population of Charlottetown is 12,000. Other principal towns are Summerside, Souris, Georgetown and Alberton.

A GREAT FARM.

Agriculture overshadows every other resource in this "million acre farm," and few countries are better adapted for profitable husbandry, the soil being light, warm and easily tilled. It is essentially an agricultural province, not less than eighty per cent of its population being interested in this industry. There were, according to the census of 1901, 724,978 acres of

improved lands; 468,180 acres of unimproved lands; 530,363 acres in forests; 284,229 acres in pastures, and 3,582 acres in orchards. The average size of a farm is 90.74 acres, and the average value is \$2,314. In 1901 the total number of occupiers was 14,014, and the total value of farm property, \$30,434,089.

The gross value of farm produce for the census year was	\$1,764,674
The gross value of animal products for the census year was	2,648,623
Total	<hr/> \$7,413,297

Prince Edward Island's future, agriculturally, is very bright. "Extensive" farming is rapidly giving place to the "intensive" method on small areas; and dairying, fruit growing and pork raising are becoming very remunerative. One of the most important branches of agriculture is the dairy industry. Since 1891 there has been great improvement in this line. An experimental station for the manufacture of cheese started in 1892, under the supervision of the Dominion Dairy Commissioner, was followed in succeeding years by several other factories, all, with one exception, being on the co-operative principle, each company owning its building and plant. At the present time 44 cheese factories, 7 creameries, and 2 skimming stations are established throughout the province. The development of the cheese industry has been remarkable. In 1901 the yield of milk was 37,230,755 pounds, out of which 3,554,719 pounds of cheese, valued at \$320,521.75, and 633,679 pounds of butter, valued at \$132,792.25 were manufactured—a total revenue of nearly half a million dollars from the dairy industry. The butter industry, it will be noted, is not so advanced as that of the cheese, owing to the lack of the best facilities for getting the product on the market in good

condition; but the Island is capable of producing a very fine quality of butter, and with better means of transportation, it has every prospect of becoming in the near future the Denmark of America.

Through the importation of improved stock by the Provincial Government, and by private enterprise, a steady advance has been made in Island stock-breeding, and excellent specimens of horses, cattle, sheep and swine can be seen in every section. Great stimulus has been given to poultry-raising by the establishment by the Dominion Government of fattening stations, and by means of the lecturing tours of poultry experts.

Fruit-growing is yet in its infancy; but, with proper care it will make as great strides as the dairy business. The industry is being carefully fostered by the Dominion Government, which is setting out many experimental orchards, and by the Prince Edward Fruit-Growers' Association. The number of apple-trees on the Island is 202,910; of peach-trees, 163; of pear-trees, 1,962; of plum-trees, 27,480; of cherry-trees, 70,431; of other fruit trees, 57,924, and of grape vines, 749. The yield of fruit trees in the last census year was 184,487 bushels.

THE FISHERIES.

The fisheries of Prince Edward Island, particularly those on its north coast, are exceedingly valuable, and consist principally of oysters, lobsters, mackerel, herring, cod, hake and smelts. The oyster and lobster industries—carefully nurtured by the Federal Government—are flourishing; the cod and herring fisheries are capable of great development; but the mackerel fishing is almost commercially extinct. Salmon, shad, halibut and trout are caught in limited quantities. The catch of the fisheries of Prince Edward Island in 1901 had a total value of \$1,050,623. There were employed, 25 fishing vessels (596 tons), 2,395 fishing

boats, 4,323 gill-nets (85,386 fathoms), 22 seines (3,960 fathoms), 225 lobster canneries, 171 smoke and fish-houses, 5 freezers, 11 steamers and smacks. The total value of these vessels, boats, etc., was \$425,589.

There were 153 men employed in the fishing vessels, 4,160 in the fishing boats, and 2,728 in the lobster canneries.

The fisheries must always remain one of the standard resources of Prince Edward Island, but the inclinations of the Islanders are so decidedly agricultural that the cultivation of the deep has not hitherto received from them the attention it deserves. The lobster, salmon and trout hatcheries which are shortly to be established at or near Charlottetown will increase the piscatorial population.

COMMERCE AND MANUFACTURES.

Commerce is maintained principally with the other Maritime Provinces, the United States and Great Britain. The volume of exports is large, and includes oats, potatoes, butter, cheese, eggs, live stock, oysters, lobsters, mackerel and other products of the field and fisheries. Trade with the Mother Country is growing and the large inter-provincial traffic is increasing. Considerable pork, beef and mutton is shipped during the winter to Nova Scotia and New Brunswick; and large quantities of smelts, etc., go to Boston and other American cities.

On the Island there are 210 miles of railway which, with the Intercolonial on the mainland, belong to the Government of Canada. Last year the gross earnings amounted to \$197,999. The tonnage of sea-going vessels carrying cargoes to and from Prince Edward Island amounts, in the course of a year, to 150,000 tons, and the tonnage of vessels engaged in the coasting trade amounts, in a year, to 1,100,000 tons. Last year the value of the exports from the Island was

\$510,013; imports, \$643,829; duties collected, \$150,266.

Manufactures are limited, but they are steadily developing, and include a large pork packing establishment, a condensed milk and coffee establishment, a pasteurized milk factory, tobacco, furniture, boot and shoe factories, and foundries, nearly all located in Charlottetown.

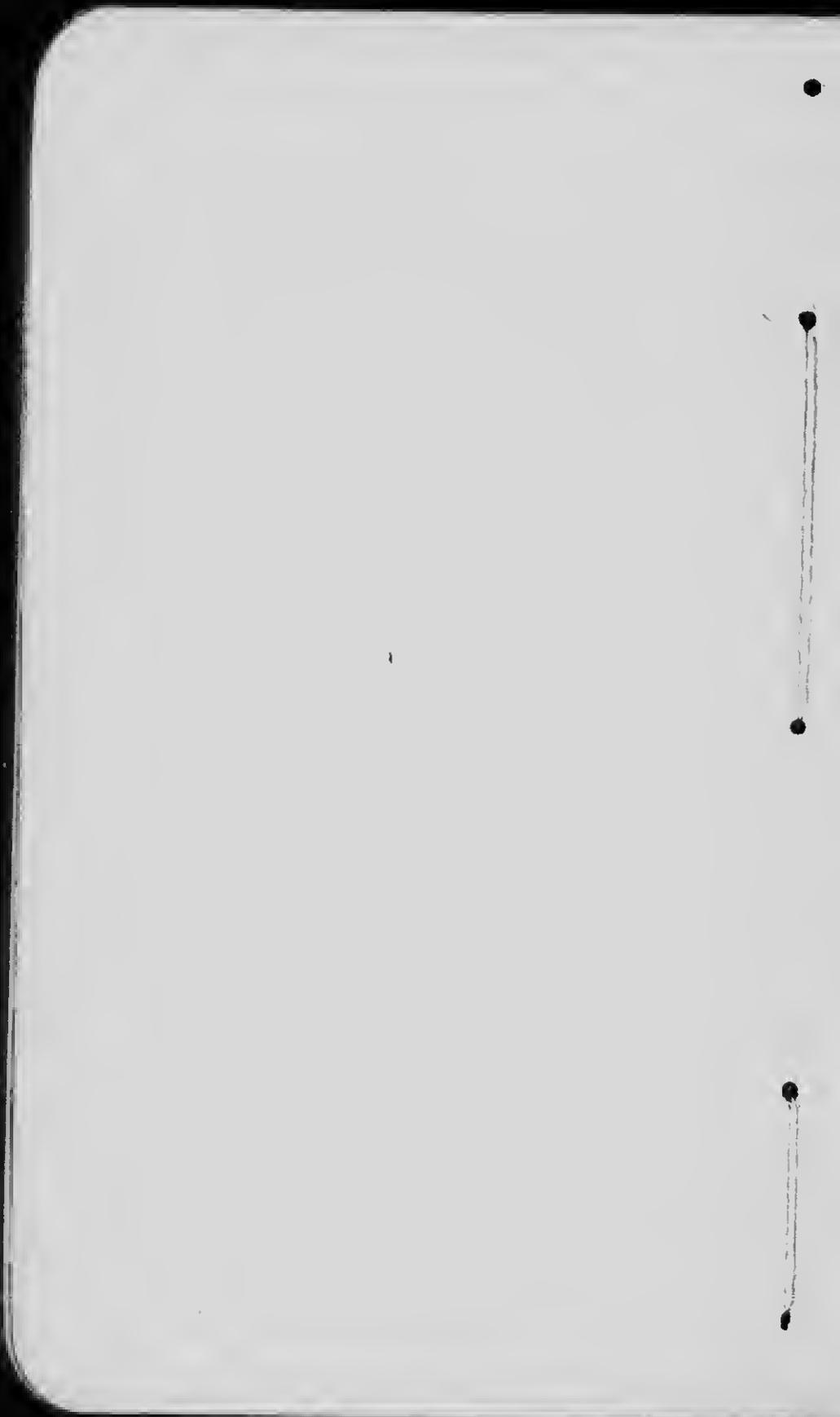
A wave of prosperity is spreading over this beautiful province. The agricultural population is throwing off its lethargy, is adopting new ideas and methods, and dairying, fruit-growing and all the other branches of the farmers' calling are fast becoming remunerative. Tourists are coming in increased numbers, and outside enterprise and money are gradually opening up new industries.

As a field for the farmer emigrant, there is comparatively little room; yet, Prince Edward Island is a desirable place for a certain class of immigrants in search of improved farms, and within easy reach of the social comforts of life. Good farms of this kind, vacated by those who turn their faces to the "Golden West" can be had from time to time at from \$20.00 to \$35.00 per acre.

A TOURISTS' PARADISE.

This lovely island of the sea possesses immense attractions for tourists, and there is no better summer resort in all America. It is an ontine paradise, and a wonder to those who visit it for the first time. Instead of the doubtful allurements of a conventional seaside resort, there will be found the finest surf-bathing in the world and excellent fishing and game in season. A number of comfortable hotels and farm-houses are open to the tourists at moderate rates, where the tired toilers of hot and dusty cities can find health and enjoyment. The spot that was described

in the latter part of the last century by a prejudiced English writer (William Corbett) as "a rascally heap of sand, rock and swamp, occupied only as a military station, and producing nothing but potatoes" is now designated a great garden, and is admitted by those fortunate enough to visit it to be unexcelled as a summer-land. A beauty that is unique has drawn many to its shores, and to-day the land which Cartier declared "the fairest that may possibly be seene," still delights. To the natural charm has long since been added that brought by cultivation. Set in the midst of the silver sea, its wealth of sub-tropical verdure and smiling fields, its air redolent of the fragrance of grasses and flowers, and all the dreaminess of a lotus-land, invite the tourist; and a hospitable people is ready to welcome him.



PROVINCE OF QUEBEC

The Province of Quebec ranks second among the provinces of Canada as regards area and population; British Columbia has a greater number of square miles within its boundaries, and Ontario has more inhabitants. Quebec contains the largest city and does the greatest amount of external trade. Her ports and her great river are the gateway to all that portion of Canada that lies beyond the provinces by the sea and extends westward to the Rocky Mountains. In natural resources, too, Quebec stands in the front rank of the Canadian Confederation. Her soil for the most part is exceedingly fertile and well adapted to the most profitable kinds of farming; her forests are comparatively boundless in extent, and contain the most valuable varieties of timber; her mineral wealth is still largely undeveloped, but already exceedingly valuable deposits of iron are being worked, and many others are known to exist. Useful structural material abounds in almost every district, limestone, marble, granite and sandstone; gold has been found in paying quantities in several localities, and copper is being mined. Her fisheries are among the most extensive and the most productive of any in the world, and give employment to a large number of people living in the eastern part of the province. The inland waters, too, are well stocked and thousands of sportsmen seek them each season.

One of the oldest of all crafts, that of the trapper, has still a wide field for its exercise in those vast tracts which lie to the north and west, and still await the axe of the pioneer. Quebec is a province that possesses great possibilities of future growth.

Her position in the Canadian Confederation, and in fact her position on this continent, is unique. Her laws, her language, her traditions, are not those of the other provinces with which she is linked in national life. Quebec is the New France that Champlain founded, that Frontenac defended, that Vandreuil surrendered. One hundred and forty-three years have passed since the flag of France ceased to wave over the valley of the St. Lawrence. To-day the French language is the mother tongue of a million and a half of its inhabitants, French civil law prevails and the church of the French-Canadian people enjoys practically the same rights and privileges that it enjoyed under the flag of the Bourbons. And yet this province is a unit in the great British American Confederation, the Dominion of Canada.

Measuring from Lake Temiscamingue east to Anse au Sablon in the Straits of Belle Isle the length of the province is nearly 1,000 miles, and its breadth is 300 miles. Its area, including the islands, the most important of which are Anticosti, Magdalen and Bonaventure, is 351,873 square miles. The Province of Quebec is therefore almost three times as large in area as the United Kingdom of Great Britain and Ireland or about equal to the united area of France and the Kingdom of Prussia.

The surface of the country is exceedingly varied and picturesque, embracing several mountain ranges, rolling hills, numerous rivers, several of which are of the largest size. The lakes number thousands great and small, and the forests cover vast tracts still unsettled and awaiting the axe of the lumberman and the clearing of the pioneer. The older settled portions of the Province are a beautiful and exceedingly productive farming country. The upper portion of the valley of the St. Lawrence and the valley of the Richelieu are level like the prairies of the far West. The

soil here is a rich heavy loam and clay. It is remarkably fertile, producing in abundance all kinds of grain and hay of the first quality. The south-eastern portion of the Province is hilly, broken in many places by the northern spurs of the mountain chain which extends northward from the State of Vermont. The Province is traversed from south-west to north-east by two mountain ranges running parallel to each other and generally parallel to the St. Lawrence river which flows between them. The Notre Dame, which are a continuation of the Appalachian range, extend along nearly the south side of the St. Lawrence terminating at the Gulf between the Baie des Chaleurs and Gaspé Point, where they form an elevated table-land 1,500 feet high. Their chief summits are Mount Logan and Mount Murray, nearly 4,000 feet in height. To the north of the St. Lawrence are the Laurentian ranges, called by the historian Garneau the Laurentides. From Labrador to Quebec City they are close to the north bank of the river. Here the range turns back from the river and extends south-west to within thirty miles of Montreal, where the mountain chain curves westward along the northern side of the valley of the Ottawa river. There are many rocky masses connected with the mountain chain lining the St. Lawrence which form precipitous cliffs, often rising to a considerable height. Below the City of Quebec they rise to an altitude of 3,000 feet. They enclose numberless small lakes, and far to the north they are comparatively unexplored.

RIVERS AND LAKES.

The principal arteries of drainage of the Province of Quebec are five great rivers: the St. Lawrence, the Hamilton, the East Main, the Rupert, and the Nottaway. The first is well known as one of the largest rivers of the world. The other four are less well known, but are none the less almost as large. Thus

the Nottaway, unknown even in Canada, up to 1895, is nearly 400 miles in length, measured by the windings of its course. It reaches a width of two and a half miles. It is the largest river of the Hudson Bay country. The Rupert is the outlet of the Lakes Great and Little Mistassini, which have a joint area of 775,000 acres, or over 1180 square miles. The course of this river exceeds 300 miles in length and falls into James Bay. The East Main is another large river which rises about 325 miles east of James Bay, and whose length, measured by the sinuosities of its course, is over 450 miles. The length of the Hamilton river, which empties its waters into the North Atlantic, exceeds 700 miles, and an idea may be formed of the volume of this river from the fact that seven only of the lakes furnishing it the tribute of their waters have a collective surface of 1,038,000 acres.

That portion of the St. Lawrence comprised within the Province of Quebec, from the Strait of Belleisle to St. Regis, measures 1,045 miles in length. It has been calculated that this river discharges every day into the ocean, 11,423,200,364 gallons of fresh water, or about 18,000,000 gallons a minute.

The principal rivers of a secondary order are the Ottawa, the Richelieu, the St. Maurice, the Saguenay and the Manicougan. The Ottawa is about 650 miles long, drains a territory of about 20,000 square miles, counting only that comprised within the Province of Quebec, and its principal tributary, the Gatineau, has a length exceeding 250 miles. The River du Lièvre, another affluent of the Ottawa, is 175 miles long. The length of the St. Maurice approaches 350 miles. Including its two upper branches, the Chamouchouan and the Grand Peribonka, the length of the Saguenay exceeds 400 miles, and the territory which it drains is over 25,000 miles in superficies. The Manicougan is another large river, having a course of over 300 miles. Its western neighbour, the River aux Outardes, meas-

ures 225 miles in length. The Romaine river, the Moisie, and others having their debouchure in the Gulf of St. Lawrence, are almost as large.

The portion of the province situate to the north of the St. Lawrence is studded with myriad lakes, many of them of considerable size. In the region of the Rupert River, there is the great lake Mistassini, covering 624,000 acres, the little Mistassini, 132,000; lake Namiskan, 36,000; lake Obatogoman, 36,000 and many others, besides several smaller lakes in South-eastern Quebec.

CLIMATIC CONDITIONS.

Extending over such a great area it is only natural to expect considerable variety of climate in the Province of Quebec; but there is everywhere these prevailing features: cold winters, short springs, and long, bright, sunny summers. During the latter part of March the snow begins to disappear, and the sunshine and warm showers of April prepare the ground for the reception of crops. Grain is sown during the latter part of April, and potatoes and corn are planted by the middle of May, except in the northern parts of the Province where seed time is about two weeks later. Warm summer weather sets in during June and continues well into September. July is the haymaking month, and the grain crop is harvested during August and early in September. Cattle graze from the middle of May until the last of October and sometimes well into the month of November. Snow usually falls in December. The snowfall in the part of the province north of Montreal is considerably heavier than elsewhere, and winter there is longer and more severe, but the cold is modified by the dry bracing atmosphere which renders winter agreeable and healthy. The mean summer temperature averages 58.3 degrees and the mean winter temperature 15 degrees. The aver-

age rainfall is 28 inches, and the average snowfall 91 inches.

The snow instead of being a drawback is a great benefit to the country. It protects the dormant vegetable life from the severe frosts, and it is a country saying that plenty of snow means a good hay crop in the following summer. Snow too, is necessary for good winter roads, and without it lumbering operations would be almost at a standstill.

Apples do well in about all parts of Quebec, and excellent wheat is ripened in the Lake St. John Region north of Quebec.

Autumn is a charming season throughout the Province; the air is cool and the sunshine bright and mellow. The changing foliage, especially of the maple and birch, paints the woodland hills in crimson and gold, and gives the whole landscape a matchless beauty. In winter the greater number of the days are bright with sunshine, and they are generally dry. The climate of the Province is healthy and agreeable. The charms of its summer and the beauties and sporting attractions of its rivers and lakes draw to Quebec each season thousands of visitors from many parts of the continent, who come here to spend those months whose heat in the southern cities is so intolerable.

From a hygienic point of view it is well known that there is no climate more healthy than that of the province of Quebec. That the climate is conducive to health and longevity is amply proved by the experience of old residents. The fevers, agues and malarial diseases which are frequently the scourge of newly developed countries, where the land is swampy or low-lying, are unknown in Quebec. Though this province is abundantly watered, the undulating surface secures a rapid flow of the natural drainage, and prevents the accumulation of stagnant water or the formation of fever-breeding marshes.

HISTORY.

The country now known as the Province of Quebec was the New France of the Old Regime. As early as 1497 Sebastian Cabôt reached the shores of Labrador, and in 1534 Jacques-Cartier landed in the neighbourhood of Miramichi Bay.

In 1535 Cartier returned and proceeded up the St. Lawrence as far as the site of the present City of Montreal. The place was then known as Hochelaga, and contained a large Indian population. Cartier wintered near Quebec and made several voyages to the country, but he was an explorer rather than a colonizer. During the last half of the sixteenth century further attempts to explore the country were made by de Roberval, and de Roche, but they were attended with but little success. To Samuel de Champlain belongs the credit of establishing the first settlement and of setting up a form of Government. He was a man of untiring energy, zealous in the service of his King and of the little colony which he established on the banks of the St. Lawrence in 1608. This was the founding of Quebec. But the first actual settlement by Europeans within the boundaries of the present Dominion of Canada was made in 1605 by de Monts, at Port Royal, now Annapolis Royal, in Nova Scotia.

Champlain not only founded Quebec, but he established a settlement at Three Rivers and discovered the Richelieu River, Lake Champlain, the Ottawa River and several of the Great Lakes. In 1629 Quebec was captured by Sir David Kirke, but Canada was restored to France by the treaty of 1632 and Champlain again became Governor of the little colony. When he died in 1635 the population of the settlement numbered 250.

For a number of years Canada was ruled by a trading corporation known as The One Hundred Associates;

but in 1663 the Company was abolished and Royal Government was established in the colony.

The next hundred years of the history of Canada are filled with wars waged against the Indians and the English colonies on the Atlantic coast. The Seven Years' War brought the conflict to a close and transferred Canada to the Crown of Great Britain.

In 1754 the conflict opened with a brush between a small body of troopers under Washington and a party of French soldiers under Jumonville, at Fort Duquesne. Washington took the initiative, and, as Baneroff says, his command to fire "kindled the world into a flame." It precipitated the tremendous struggle which, fought out to the bitter end on the Plains of India, on the waters of the Mediterranean and the Spanish main, on the gold coast of Africa, on the ramparts of Louisbourg, on the heights of Quebec and in the valley of the Ohio, resulted in the defeat of the French and the destruction of their sovereignty on the American Continent, and prepared the way for the foundation of the unique Empire which, unlike Russia and the United States, "equally vast but not continuous, with the ocean flowing through it in every direction, lies, like a world-Venice, with the sea for streets—Greater Britain."

The battle of the Plains of Abraham in September 1759 broke the power of France in Canada, and in the following year Governor Vaudreuil surrendered the colony to General Amherst.

The treaty of Paris of 1763 ceded to Great Britain "Canada with all its dependencies, the Island of Cape Breton and all the other islands in the Gulf of St. Lawrence." In ceding Canada the French king stipulated that the inhabitants should be granted the liberty of the Catholic religion according to the rites of the Roman Catholic Church as far as the laws of Great Britain permitted. By proclamation of Octo-

ber 7, 1763, a British government was established for the Province of Quebec, and General Murray was appointed governor-in-chief. The limits of the province were very indefinite. The western boundary was given as a line drawn from Lake Nipissing to Lake Champlain, thus leaving what is now a part of Ontario and the great West without any settled form of government. Cape Breton and Prince Edward Island were annexed to Nova Scotia, which also included what is now New Brunswick.

General Murray was assisted by a council of nine members. This may be called a period of English civil law, for it was generally this law that the courts applied although the old French land-law was in a measure restored.

There was practically no English population, except the military forces. Ten years later Governor Carleton put the English population down at 360.

During the war of the American Revolution the Province was invaded, Montreal captured and the city of Quebec besieged. The siege failed, and General Montgomery of the American army was killed while leading an assault upon the defences of the lower town. In the spring of 1776 Congress sent Benjamin Franklin and Charles Carroll as commissioners to Canada to win over the Canadians to the revolutionary cause. The mission accomplished nothing.

The Americans suffered defeat at Three Rivers and soon the invading force was in full retreat for Lake Champlain. The war continued until 1783, but the Province of Quebec was not again the scene of the conflict. In arranging the boundaries between the United States and the British possessions Quebec lost that vast region north of the Ohio and west of the Mississippi. The southern boundary of this part of Canada now became the middle of the Great Lakes.

A change in the form of government took place in 1791 when the colony was divided into Upper and Lower Canada, the dividing line being practically identical with that now dividing the Provinces of Ontario and Quebec. Two parliaments were set up, each consisting of the Crown represented by a governor or lieutenant-governor, an appointed legislative council and an elective assembly. The governor was assisted by an executive council, but it was not responsible to the assembly or to the people. Out of this finally grew those troubles which culminated in the uprising of 1837-38 and this led to the Union of 1841, the recognition, and finally the adoption of the principle of government by the Crown through ministers responsible to the elective assembly of the legislature. In 1867 Quebec entered confederation and became a part of the Dominion of Canada.

The government of the province is in the hands of a lieutenant-governor, appointed for five years by the Governor-General upon the advice of his ministers. The Lieutenant-Governor is assisted by an executive council or cabinet whose members hold seats in the Legislature, and who must possess the confidence of a majority of the members of the popular branch. The Legislature consists of two houses, a Legislative Council of 24 members, appointed for life, and a Legislative Assembly of 74 members chosen by the electors of the various constituencies into which the province is divided.

POPULATION.

According to the census of 1901, the population of the Province of Quebec is 1,648,898 souls. In 1891 it was 1,488,535; in 1881, 1,359,027, and in 1871, 1,191,516, which makes for this period of thirty years an increase of 457,383, viz.: 38.39 per cent., or an annual average of 1.27 per cent.

From the point of view of origin, the population is divided as follows:—French, 1,322,115; English, 114,710; Irish, 114,642; Scottish, 60,068; German, 6,923; Jewish, 7,607; Indians, 9,166; others, 13,467. The French form 80.18 per cent.; the English, 6.23 per cent.; the Irish, 6.22 per cent., and the Scotch, 3.64 per cent.

In and near the city of Montreal there is an English speaking population of 112,450; in the southern and eastern part of the province there is an English speaking population of 89,550; and in the Ottawa Valley, 42,200. In the City of Quebec, the provincial capital, there is an English speaking population of 4,800.

The population of the seventeen cities and principal towns of the province aggregates 505,061, divided as follows:—Montreal, 316,973; Quebec, 68,840; Hull, 13,993; Sherbrooke, 11,765; Valleyfield, 11,055; Three Rivers, 9,989; Lévis, 7,783; St. Hyacinthe, 9,210; Sorel, 7,057; Lachine, 5,561; Fraserville, 4,569; Joliette, 4,220; St. John's, 4,030; Chicoutimi, 3,826; Granby, 3,773; St. Jérôme, 3,619; Magog, 3,515.

AGRICULTURE.

The leading industry of the province of Quebec is husbandry. The great valley of the St. Lawrence, with its level fields, and rich, strong soil, was well adapted to growing wheat and other grains. At one time these grains were largely produced and the wheat crop was one of the regular and most profitable means of income that a Quebec farmer had. But the opening of the West has changed all this. The East could not compete with the prairies in growing breadstuffs, and the Quebec farmers had to change their methods. Dairying has now become the backbone of farming in this part of Canada. Every year the dairy interests become greater, the production larger and the quality of the products of a higher

grade. During the last ten years the quantity of stock has largely increased and it has also been considerably improved. Better methods are in evidence everywhere, and in all lines of agricultural production. The Provincial Government has done much to stimulate the industry. Dairy schools have been established, a thorough inspection of creameries and cheese factories has been carried out, and agricultural societies have been encouraged and assisted.

The province encloses over 100,000,000 acres of land which, from the double standpoint of soil and climate, is eminently adapted to agriculture. This is excluding poor and mountainous lands and those where climate is of a nature to permit of doubt as to the complete success of farming operations.

The municipal returns for 1901, collected and published by the Provincial Secretary, place at \$281,252,328 the value of immovable property comprised in rural municipalities, apart from non-taxable real estate represented by churches, schools and the property of charitable institutions. Deducting village property, mills and factories, there remains, at least, \$225,000,000 for farm lands and buildings. The value of farm plant and agricultural implements is about \$10,000,000; the value of the live stock represents about \$12,000,000, which forms a total of \$250,000,000 as the capital of the agricultural industry. And this will be increased more than ten-fold when all the good arable lands have been brought under cultivation.

In connection with the agricultural interests of the province it may be pointed out that there are still seven millions of acres of land open to colonization, which land can be secured at very low prices.

The chief colonization centres of the province which offer a certain future and easy circumstances to the hardy and intelligent settler who knows what he can

obtain from the soil by constant labour, are the following: Lake St. John and Saguenay region; Ottawa and Temiscamingue region; St. Maurice region; The Eastern Townships; the Chaudiere region; the Lower St. Lawrence (South Shore); the Valley of the Metapedia; Gaspesia.

The kinds of fruit successfully grown throughout the greater part of the province indicate the quality of the soil and the agricultural possibilities.

Apples, plums, cherries, and even the hardier kind of grapes, are grown in all the inhabited portions of the province, and succeed admirably. Melons and even tomatoes, which thrive in the open air, are regular growths, giving abundant returns. Pears succeed well in the south-eastern part of the province, and tobacco constitutes a very important crop, chiefly in the counties to the north of Montreal.

FORESTS.

The forest area of Quebec extends over fully 200,000,000 acres. No very accurate figures can be given for the quantity of standing timber, but according to a very moderate estimate recently made by the Crown Lands Department, the standing timber, exclusive of pulp-wood and under-size trees, will produce at least sixty thousand million feet of lumber, and in the opinion of well-informed persons this estimate is below the true one.

One great factor in the forest wealth of the province is pulp-wood. Its value has only recently come to the front, and now the manufacture of pulp and paper is one of the most thriving industries in Quebec. The wealth of the province in pulp material alone is enormous.

It has been estimated that there is still standing sufficient spruce to make two billion tons of paper pulp.

As in all northern countries, the coniferous trees occupy by far the largest space in the forestry of the province. Pine, spruce, balsam, fir, tamarac, hemlock, and cedar represent at least three-fourths of the forest trees adapted to commercial use. Spruce is by far the most abundant species. The date, more or less remote, is foreseen when the pine will no longer be able to provide the quantity of lumber it now furnishes for domestic consumption, and for export; but as far as spruce is concerned, it may be said, without exaggeration, that the forests are inexhaustible, even supposing an annual consumption ten-fold what it actually is. In hardwoods, birch, maple and elm are the most abundant. The pine limits capable of being worked are only found in the Ottawa and the St. Maurice territories, and in this latter region what remains is of rather inferior value both as regards quantity and quality. The finest pineries are found in the county of Pontiac, and in the northwest part of the county of Ottawa.

Spruce suitable for commercial purposes is found in all parts of the province, even as far as the valley of the Hamilton River, 250 miles north of the Strait of Belle-Isle, where a company composed of Nova Scotia capitalists carried on last winter extensive lumbering operations. The finest spruce for sawing is found on the south of the St. Lawrence, including the Gaspé Peninsula, as well as in the St. Maurice and Ottawa territories. Trees are often felled which produce logs of 30, 36 and even 40 inches diameter at fourteen and fifteen feet from the ground. The finest and largest cedar is also found in these districts. In the valley of the Bonaventure river, some of these cedars measure as much as five and six feet in diameter on the stump. In the region situated to the east and north of the Saguenay, black spruce is the most abundant, but there is also a considerable quantity of fine white spruce.

Birch, which is acquiring considerable value of late years as a wood for turning, above all for spool-making, is met with almost everywhere in this latter region. On the banks even of the St. Lawrence, in the neighborhood of port St. Nicholas, there are some magnificent forests of this wood, where the trees attain as much as twenty inches and over in diameter.

From the point of view of the lumber industry the forests of the Province of Quebec are the most favorably situated in Canada. The principal markets for the products of the forest are Great Britain, the United States and South America. For the American markets the lumber merchants have the choice of rail and water routes. For Great Britain and South America the ocean steamers have 1,750 miles of coast—986 on the north shore, 590 on the south shore, 175 on the Bay des Chaleurs—where they can load their cargoes of wood and pulp at the mouths of the rivers which carry down the timber cut in the interior. By the St. Lawrence, via Sorel, the Richelien and Lake Champlain, the barge route from Montreal to New York is but 457 miles in length. By the same route the distance from Quebec to New York is only 525 miles.

The following returns for a recent year of timber manufactured in Quebec give an idea of the extent of the lumbering operations carried on:—

Pine (feet)	195,722,428
Small red and white pine	48,992,295
Spruce	303,393,832
Birch (cubic feet)	369,000
Cedar (feet)	294,000
Firewood (cords)	2,350,000
Pulpwood (cords)	4,000
Railway Ties (pieces)	467,080
Pickets and Telegraph Poles	10,000

About twelve million dollars worth of forest products are annually exported from the province.

FISHERIES.

The maritime fisheries of Quebec comprise those Canadian waters to which have been given the names of the Gulf Division and the St. Lawrence Division. The first includes the vast peninsula of Gaspé, the county of Bonaventure, the Island of Anticosti and the Magdalen Islands. The second division embraces all the north shore of the St. Lawrence for a distance of five hundred miles from Pointe des Monts to Blanc Sablon at the entrance of the Straits of Belle Isle. The remainder of the St. Lawrence shore to the north is called the Great North, or the Canadian Labrador. Besides these there are the fisheries of the inland waters yielding bass, doré, sturgeon, trout, maskinongé, etc., the value of the annual catch being about \$350,000.

Last year the value of the yield of all the fisheries of the Province was \$2,174,459, the values of the principal kinds being: salmon, \$248,000; cod, \$910,000; herring, \$134,565; mackerel, \$187,000; lobsters, \$165,384; fish as bait, \$93,805; and fish oil, \$66,442.

In these fisheries 33 fishing vessels were employed with a value of \$21,145; 7,943 fishing boats, value, \$212,332; 12,278 gill nets, value, \$164,270; 832 seines, value, \$34,172; 157 lobster canneries, value, \$48,750; 128,720 lobster traps, value \$70,460; 146 freezers and ice-houses, value \$17,450; 1,119 smoke and fish-houses, \$149,735, etc. The total value of the vessels, boats, etc., employed during the year in the fisheries was \$954,661.

The above relates to what may be called commercial fishing, but besides that there is the fishing of the sportsman, which is a source of revenue to a large number of persons and to the province. It brings visitors from abroad, whose camp outfits and supplies are

purchased here, and who employ many persons as guides, boatmen and camp helpers.

Many parts of the Province possess great attractions for the sportsman with rod or gun. Quebec is justly looked upon by sportsmen as one of the finest fishing countries to be found in the world. The hunting of moose, caribou and red deer is a much-esteemed sport. The red deer are so plentiful that in several localities they have become a veritable plague to the settlers farming on the edge of the forest.

The Laurentides National Park is one of the largest and grandest fish and game preserves in the world. In the lakes which are enclosed within its limits are probably the finest specimens of *salmo fontinalis* to be anywhere found. Many have already been taken exceeding nine pounds in weight, and it is certain that many larger ones are to be found there, which will dwarf the fish of the Rangeleys and the far-famed Nepigon. Roughly speaking this park includes the central portion of the territory enclosed between the townships bordering on Lake St. John to the north and along the St. Lawrence to the south, that skirt the Saguenay on the east and stretch on the west to the limits leased to various fish and game clubs on the eastern side of the Quebec and Lake St. John Railway. It has a superficies of 2,640 square miles, or 1,689, 400 acres.

MINES AND MINERALS.

The province of Quebec may be said to take a high place as a producer of economic minerals. In some lines, notably asbestos, graphite and apatite, it takes first rank in Canada, and the output from the asbestos mines has in late years largely controlled the world's market. In other lines, such as gold, iron, copper and mica, the deposits are very extensive.

The following table gives, in summarized form, a statement of the mineral productions of Quebec for one year:—

	Quantity.	Value.
Copper.. . . . .Lbs.	1,632,560	\$287,494
Gold.. . . . .Oz.	238	4,916
Iron ore.. . . . .Tons	19,420	50,161
Silver.. . . . .Oz.	40,231	23,970
Asbestos.. . . . .Tons	25,285	483,299
Chromite.. . . . .Tons	2,010	21,842
Mica.. . . . .Tons	571	136,863
Ochres.. . . . .Tons	3,894	19,650
Pyrites.. . . . .Tons	27,687	110,748
Cement.. . . . .Brls.	19,546	32,871
Slate.. . . . .Tons	2,664	30,406
Granite.. . . . .Tons	9,895	62,062

The principal operations in iron smelting have been confined to the bog-iron ores of the St. Francis river, and those of the St. Maurice river. At the latter place smelting operations were commenced in 1733, and the industry has been carried on to the present time. The supply of ore is largely obtained by dredging carried on in Lac à la Tortue.

Along the Ottawa river, and especially near Hull, there are extensive deposits of magnetic iron ore.

From the Saguenay to the Straits of Belle-Isle, there are on the shores of the St. Lawrence almost inexhaustible quantities of magnetic sand, which produces an iron of the finest quality, equal to the best Swedish iron. This sand comes from the decomposition of the ferruginous rocks which are found almost everywhere along the large rivers of this region, notably along the Manicongan. At about 150 miles from the mouth of this river, and for a distance of about forty miles going northwards, there are practically inexhaustible deposits of magnetic iron and of hematite. There are deposits

of iron ore still more extensive, about a hundred miles to the north-east in the region of Lakes Minelek, Astray and Dyke, also on the Hamilton river. Deposits of magnetic iron have also been found on the Quinze river, east of the head of Lake Temiscamingue.

Chrome iron is mined at various points in the townships of Wolfestown, Ireland, Garthby and Coleraine, but the principal works are situated to the south-east of Black Lake. Chrome iron has also been found in the county of Gaspé.

Copper ores are found in a number of places. At present mining operations are chiefly confined to the mines at Capleton and places in this vicinity where there is a large body of ore. The ore yields sulphuric acid, copper, of which there is about four per cent., and silver averaging four ounces to the ton. There are also copper mines at Harvey Hill, and at Acton, on the line of the Grand Trunk Railway.

The mining of asbestos in Quebec is a comparatively recent industry. At Black Lake and Thetford, about seventy miles north of the city of Sherbrooke, the large deposits of chrysotile, or serpentine asbestos, which have since become so well known, were discovered in 1877-78. The principal deposits occur at two points, the most important being at Thetford, where the containing serpentine rock forms a considerable area surrounded by Cambrian slates.

The gold mines of Eastern Quebec have been known for many years. The mineral was first recognized in the Chaudiere district about 1824, and a second and more important find was made in 1834. Mining was first commenced in 1847, and it has been prosecuted at intervals to the present time. The sources of the Chaudiere gold have long been discussed, but no quartz veins or other fixed deposits of a payable character have yet been found. It is no doubt, however, derived from such deposits in the Cambrian or pre-Cambrian rocks

of the vicinity. The mining so far done has been principally in the gravels of old-river channels, tributary to the Chaudiere river. Some of these have been found to have a depth of over 160 feet and to be overlain by glacial deposits.

The gold is generally coarse, and nuggets of a value of over \$1,000 have been obtained from the gravels. Difficulty is sometimes found in working these old channels, but some of them are without doubt very rich in gold.

Another area of gold mining is found in the southeastern portion of the province, on what is known as the Ditton river. Operations were carried on in this locality for some years, and a considerable amount of coarse gold was obtained. The work has been conducted in a desultory manner in recent years with varying success.

Mica is found in the region to the north of the Ottawa river in the vicinity of the Lievre and Gatineau rivers. The deposits have been somewhat extensively worked during the last ten years. Closely associated with the mica are large deposits of apatite, or phosphate of lime.

The graphite, or plumbago deposits on the north of the Ottawa extend westward from Grenville. They are also found on the east side of the Lievre, in the township of Loehaber. This graphite is of superior quality and is said to be equal to the best Ceylon article.

Of building stone there is a great variety. Montreal is largely built of a grey limestone which is quarried in the immediate vicinity, and it abounds in many other localities. Much of the stone required for the Victoria Bridge was procured from Pointe Claire, a few miles above Montreal. The limestone of which the Parliament House, the docks and the principal buildings in Quebec city are made, was quarried at

St. Albans, where it occurs in inexhaustible quantities. The immense blocks used in the colossal masonry works of the St. Lawrence Bridge, in course of construction a few miles above Quebec, were quarried at Rivière-à-Pierre, on the Quebec & Lake St. John Railway, 60 miles from Quebec.

Fine granite, both of red and grey colours, is found at many places in the Eastern Townships, and is extensively worked in Stanstead county. Marbles occur in the crystalline series of the same district, and also as a part of the Archean of the Ottawa area; while the limestones of the Trenton, Black River and Chazy formations are extensively quarried at many places for building stones, as well as for the manufacture of lime and cement.

Extensive slate quarries are found in Eastern Quebec at Melbourne and Danville. Deposits of peat of excellent quality occur in the area along the St. Lawrence above Montreal, and also along the line of the Canadian Pacific Railway east of Montreal and near the Grand Trunk Railway east of Lake St. Peter.

Limestone suitable for burning is found in many parts of the province, and limestone that will form hydraulic cement exists at Quebec and Hull and along the Madeleine River in Gaspé.

RAILWAYS AND MARINE.

In the province there are 3,471.51 miles of railway (steam) in operation, or one mile of railroad for every 421 persons of the population. The principal systems forming this total are those of the Canadian Pacific, 1,162.81 miles; the Grand Trunk, 469.87 miles; the Intercolonial, 449.98 miles; the Quebec & Lake St. John, 249.92 miles; the Great Northern, 200.27 miles, and the Central Vermont, 121 miles. There are in addition 140.64 miles of electric railways, making a total of 3,612.15 miles of railway. At the time of the

Confederation, in 1867, there were in the province but 515.25 miles of railway. There is at present one mile of track for every 100 square miles of area. The Interecolonial extends from the boundary of New Brunswick to Montreal. The Canadian Pacific line runs from Quebec city along the north shore of the St. Lawrence River to Montreal, and from thence westward along the Ottawa River, and also through the country between the St. Lawrence and the International Boundary. The Great Northern begins at Quebec city and, crossing the Ottawa River at a point about seventy miles west of Montreal, connects with the Canada Atlantic Railway, and thus forms a trunk line to the Great Lakes.

The tonnage of sea-going vessels carrying cargoes during the course of a year to and from the ports of the province is in round numbers three million tons, and in the coasting trade there is annually employed vessels of a total tonnage of a little more than seven million tons. The tonnage of British ships employed in both classes of trade is almost six and a half million tons a year.

COMMERCE AND MANUFACTURES.

Last year there were exported from the Province of Quebec goods to the value of \$91,057,201, and the imports into the province amounted to \$82,014,413; duties collected, \$11,675,114. This represented 40.87 per cent. of the total external trade of Canada.

Quebec is also a manufacturing province, containing a large number of industrial establishments that yield a fair profit on the invested capital and give employment to a large number of skilled mechanics and mill operatives. Near Three Rivers there is a successful iron plant; cottons and prints are manufactured at Montreal, Valleyfield, and Magog; woollens at Montreal, Sherbrooke and Chambly; paper and pulp near

Montreal, at Lachute and Hull in the Ottawa Valley, at Shawinigan Falls and Grand'-Mère north of Three Rivers, at Valleyfield, in the country north of Quebec city, and along the St. Francis River in the southeastern part of the province; in Quebec city there is a large production of fur goods and boots and shoes, and also in Montreal; and among the other products of the manufactories of the province are refined sugar, clothing, wall paper, glass goods, steam-engines and machinery, tinware and house furnishings, furniture, rubber goods, tobacco and cigars, agricultural implements, stoves, etc.

There is not a country in the world which has so many and such immense water-powers as the Province of Quebec. There may be counted by the dozen, waterfalls capable of developing each a force of from 25,000 to 75,000 horse-power, and there are several that exceed 450,000. The great fall of the Hamilton River, 250 miles from the sea coast, is 302 feet high, and, regard being had to the volume of the river's waters at this point, it is calculated that this fall is capable of producing a motive force exceeding one million horse-power.

In this northern part of the province are many other gigantic water-powers awaiting development, one of these northern rivers alone being capable of furnishing an industrial motive power of over a million horse-power. On the Saguenay River near the town of Chicoutimi and near Lake St. John are gigantic water-powers, also along the St. Maurice River, on the Richelieu, the St. Lawrence and the Ottawa Rivers, and along the course of most of the rivers flowing into the Ottawa. Most of these great natural sources of power await development.

PROVINCE OF ONTARIO

The Province known since 1867 as "Ontario" is territorially identical with the Province known from 1791 to 1867 as "Upper Canada." The latter title, as set off against "Lower Canada," had reference to the relative positions of the two Provinces in the valley of the St. Lawrence river which, after skirting Ontario along nearly the whole of its southern border, passes through Quebec, formerly "Lower Canada," on its way to the Atlantic Ocean. Upper Canada and Lower Canada were the two parts into which the Province of Quebec, established by Royal Proclamation in 1763 and enlarged by the Quebec Act of 1774, was divided by Imperial Order-in-Council in 1791.

A glance at the map of this part of North America will show that Ontario lies partly in the valley of the St. Lawrence and partly in the basin of Hudson Bay. The water parting between these two regions runs from a point on the Ontario-Quebec boundary between Lakes Temiscaming and Abitibi westward around Lake Nipigon and then south-westward to the international boundary at the short portage between the Pigeon and Rainy rivers. The former of these two streams empties into Lake Superior, the latter into the Lake of the Woods. The waters of this latter lake are discharged into Lake Winnipeg through the Winnipeg river, and Lake Winnipeg empties its waters into Hudson Bay by the Nelson river. The position of this great water-parting has an important bearing on the industrial potentiality of the Province, especially in the light of recent explorations which have revealed the existence of a much greater area of agricultural land in the Hudson Bay basin than was formerly supposed. The Province has a land area of 220,508 square miles.

CLIMATE.

On this Continent it would be quite misleading to take latitude as a trustworthy indicator of either actual or average temperature. Longitude has quite as much to do with it as latitude, and altitude as much as either. Great bodies of water exercise a modifying influence on the temperature of the localities adjacent to them. It is obvious, therefore, that there is a much wider diversity of climate in Ontario than its mere distance from the Equator would suggest. The most southerly part of the Province is the county of Essex, in latitude 42 degrees north; the most northerly is the land adjacent to the mouth of the Albany river, in latitude 52°. In longitude it extends from about 74° to 95° west. A better idea of its average latitude may be gathered from a few suggestive facts. Owing to causes which are somewhat obscure, the isothermal lines across Ontario and the adjacent States vary extremely from straight lines, but on the whole the mean January temperature of this province, and of the lake region generally, is much higher than in the basin of the Mississippi and Missouri rivers. Southern Ontario is as warm in January as Northern Missouri, two hundred miles further south, and Northern Ontario east of Lake Superior is as warm as Central Iowa, four hundred miles nearer the Equator.

A singular, perhaps inexplicable, fact regarding the climate of Northern Ontario is the favourable temperature of the great area beyond the water-parting above mentioned as lying north and west of Lake Superior. The testimony appears to be unanimous that north of this water-parting the climate is more moderate than it is south of it, though that is by no means severe. In the old settled part of the Province the climate conditions are peculiarly favourable to the growing of nearly every sort of grain and ordinary fruit. From

this area the original forest has been for the most part cleared away, but abundance of woodland still remains in the northern part to exercise a moderating effect on its climate, especially as regards rainfall.

PHYSICAL FEATURES.

Ontario is divided physiographically into two very unequal portions by a line running irregularly from the Georgian Bay near the mouth of the Severn river eastward to a point near Brockville on the St. Lawrence, and thence northward toward Arnprior on the Ottawa. In general character the part south and east of this irregular line is well adapted for agriculture, especially mixed farming, while the much larger portion trending northerly and westerly from the same line is broken up by irregular masses of rock, studded with lakes, and available for agriculture generally in detached portions varying in extent from small patches to large areas, one of which has been found to contain about sixteen million acres. The rock formation of the southern district is chiefly limestone; that of the northern district is chiefly Laurentian and Huronian.

Northern Ontario is about six times as extensive as Southern Ontario, though the latter contains almost all the thickly settled part of the Province. What settlement there is north of the irregular line already defined is scattered over the districts of Muskoka, Parry Sound, Nipissing, and Algoma, chiefly along the line of the Grand Trunk and Canadian Pacific Railways, the great rivers, and the Georgian Bay.

The limestone formation of southern Ontario is broken through by an extension southward of the Laurentian range between Kingston and Brockville. This includes the archipelago of the "Thousand Islands" in the St. Lawrence River. The western part of southern Ontario is a plateau of which the eastern side is the Niagara escarpment. As a farming

and fruit-growing district this fine plateau is unsurpassed. The surface of the plateau is so nearly level in the Niagara peninsula that the Welland Canal, constructed to enable vessels to pass from Lake Erie to Lake Ontario, is supplied with water from the former. The descent of the escarpment from Thorold to St. Catharines is made by several locks, and, owing to the nature of the locality there is available a great force of water from Lake Erie for the production of electric energy. The central portion of southern Ontario, from west of Toronto to Kingston is traversed diagonally by the Trent River. Both the central and the eastern portions are devoted to farming, and are occupied by an intelligent and prosperous population.

Northern Ontario is traversed from east to west by the curious depression in which the waters of Lake Nipissing are carried by the French River westward to the Georgian Bay, and the other waters flowing into it are taken by the Mattawa eastward to the Ottawa.

Over a million acres of this densely wooded upland have been reserved from settlement under the name of the "Algonquin Park" this having at a remote period been part of the territory occupied by the great race of Indians so designated. All that part of northern Ontario south of the Nipissing depression is literally dotted with lakes of all sizes, most of them abounding with fish, and many of them being parts of eustomary and picturesque canoe routes. The settlements are in "pockets" of arable land interspersed among the rocks and lakes.

The Canadian Pacific Railway leaves the Ottawa Valley at the mouth of the Mattawa, ascends the latter stream to its source, passes between it and Lake Nipissing, and skirts the north shore of that lake until it trends northwesterly to Sudbury, which is at the eastern limit of the great nickel ore region. The main line goes on across the continent, passing north of

Lake Superior by the way, but a branch line has been constructed from Sudbury to Sault Ste. Marie. Lumbering and nickel and copper mining are the chief industries along the eastern part of this branch line, but prosperous settlements are traversed by the western part. Between the Nipissing valley and the height of land the rock formation is chiefly Huronian, still largely covered with valuable pine timber, a large area of which has been reserved about Lake Temagami. Further north occurs the new settlement in the alluvial clay valley, extending northwesterly from Lake Temiscaming and forming the front entrance to the enormous clay belt of sixteen million acres beyond the water-parting. At Sault Ste. Marie, where the outlet river from Lake Superior makes a rapid descent, have been established the Clergue pulp and iron Works. The former depends on the vicinity for a supply of spruce timber; the latter on Michipicoten for a supply of iron ore, brought to the smelter at the Sault by the Algoma Central Railway. The region immediately north of Lake Superior is still a wilderness, but north of the water-parting there will probably soon be thriving settlements. Port Arthur and Fort William are rapidly developing into considerable towns, the former being the headquarters of the Canadian Northern Railway, and the latter of this section of the Canadian Pacific. These are the two places to which Manitoba and the North-west wheat is brought by rail to be shipped by the St. Lawrence to tidewater. West of Fort William on the Canadian Pacific are the Wabigoon settlement and Rat Portage, and west of Port Arthur on the Canadian Northern is the recently formed settlement in the Rainy River Valley. There is some gold mining in the Lake of the Woods district.

The most important and singular feature of Northern Ontario is the lately discovered "clay belt" already referred to. It stretches continuously from

the Quebec boundary westward into the Thunder Bay district, and forms part of the Hudson Bay slope.

This clay belt contains about sixteen million acres in an almost unbroken stretch of good farming land, similar to that already tested by several years of settlement in the adjacent Temiscaming district. This great agricultural area is equal in extent to about four-fifths of what is called above "Southern Ontario." The climate in this northern district presents no obstacle to successful agricultural settlement, being very similar to that of Manitoba. The country, too, has an abundance of wood for fuel, building, and commercial purposes, and plenty of pure water everywhere. The amount of pulp wood at present growing on the whole northern slope is estimated at 288,000,000 cords, of which a great deal is found in the clay belt. This would go, of course, to the settlers on the land there.

AREA AND POPULATION.

The land area of Ontario has been estimated approximately at about 140,000,000 acres, somewhat over 200,000 square miles. Its extent is approximately equal to that of a territory 460 miles square. It is the third province of the Dominion in extent, being smaller than either Quebec or British Columbia. It is about the same size as France or Germany, and a good deal larger than Spain. It is nearly four times as large as England, six times as large as Ireland, and seven times as large as Scotland.

The population of Ontario, according to the census of 1901, is 2,182,947. The great majority of the people occupy that part of the province designated above as "Southern Ontario," the last portion of which was settled about half a century ago. During the past thirty years settlement has followed lumbering operations into the Laurentian district, and now much of the area south of Lake Nipissing has been taken

up for agricultural purposes. The Manitoulin Island and the north shore of the Georgian Bay have been similarly developed during the same period. It is very probable that in the current decade there will be a rapid increase of population, owing to the settlement of the northern clay belt and the development of the mining industry in Northern Ontario.

The people of Southern Ontario came at first from the United States under the well known name of "United Empire Loyulists." Emigrants from the Mother Country came in slowly. The Canada Company colonized parts of Wellington and Huron counties. Col. Talbot founded a settlement in Elgin county. Glengarry was peopled very largely by Scottish Highlanders, and Lanark by emigrants from the Lowlands of Scotland. The newer parts of Southern Ontario were settled chiefly by those who emigrated from other settlements. Only of late years, under the stimulus of railway construction and mining work, have foreigners from Europe made their appearance in any considerable numbers; these include Poles, Swiss, Italians, Finns, and Scandinavians from Europe, and Syrians and Armenians from Asia. Very few French people have ever come direct to Ontario from France, but in several localities there are large settlements of French-Canadians from the Province of Quebec.

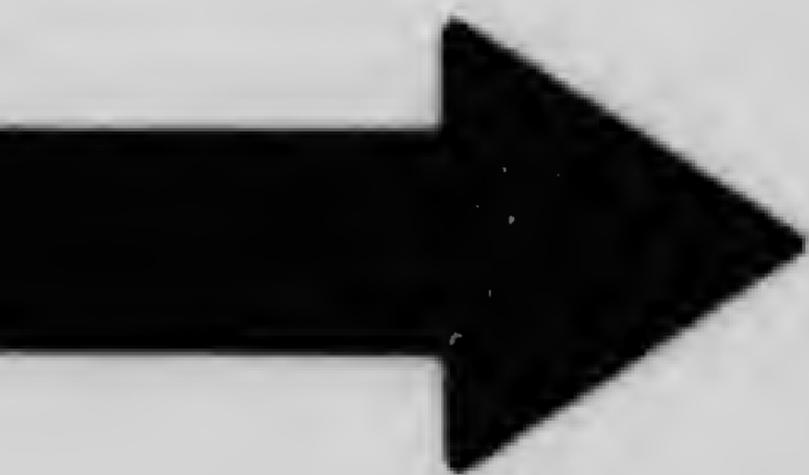
HISTORY.

In the days of the French regime the territory now comprised within the limits of the present province of Ontario was regarded as part of the great western country in which settlement was scarcely attempted. Military posts and trading stations were established at a number of points, but beyond this little was attempted.

In 1613 Champlain made a trip up the Ottawa river in the hope of finding a passage to Hudson Bay. He

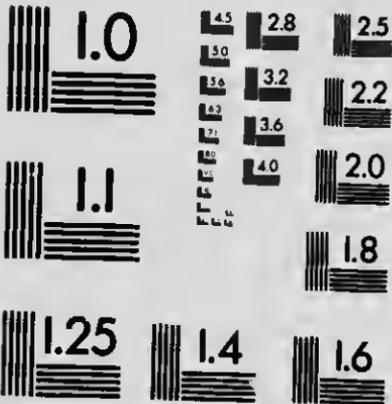
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proceeded beyond the present county of Renfrew. Then missionaries visited the Huron nation in their country north of Lake Simcoe, journeying from Montreal up the Ottawa, across to Lake Nipissing and down the French river to the Georgian Bay. In 1615 Champlain led a war party against the Iroquois, crossing Lake Ontario and attacking the Iroquois stronghold near Lake Oneida, in the present State of New York.

When Canada was ceded to Great Britain the Great West, over which the flag of France had floated, was included in the terms of the treaty. Until 1791 the British Government administered the whole under the name of the Province of Quebec. The revolutionary war lost Britain not only the thirteen Atlantic coast colonies, but also the vast territory to the south and west of the Great Lakes, which France had once claimed as belonging to Canada. The boundaries of the British possessions were subsequently fixed as they exist to-day.

Western Canada received a large number of Empire Loyalists, who removed from the older colonies after their independence was established.

The English settlers desired their new country to be administered by English law, and this was one reason for the division in 1791 of the old Province of Quebec into Upper and Lower Canada. A Legislative Assembly was granted each. On September 17th of that year the first Legislature of Upper Canada met at Newark (Niagara) under Lt.-Governor Simcoe. The House of Assembly consisted of sixteen members. In the following year, York, now Toronto, was founded, and in 1796 the seat of government was removed there from Niagara.

During Simcoe's tenure of office, from 1792-1796, the second migration of Loyalists began, and shortly afterwards the Talbot settlements were made in the townships in the rear of Lake Erie. By the year 1812, the population of Upper Canada had increased to

about 75,000, scattered along the frontier from Lake St. Francis to the Detroit River. During the war of 1812-14 Upper Canada was the scene of many bloody conflicts.

In Upper Canada, as in the other provinces, there was the long struggle of the people and the Assembly for responsible government. In 1837 an uprising took place in sympathy with that led by Papineau and Nelson in Lower Canada. In the Upper province the leader was Mackenzie.

Practical reform followed, and in 1841 the two Canadas were united under one general government, and the principles of a responsible executive were introduced.

During these years the western waterway was improved and the Grand Trunk Railway System inaugurated. The first locomotive railway in Upper Canada was the Northern, which on July 13, 1853, was opened from Toronto to Bradford.

In 1851, ten years after the Union, the population of Upper Canada was 952,000.

On January 27, 1851, the main line of the Great Western Railway was opened for traffic.

On September 1, 1860, the corner stone of the Parliament buildings, Ottawa, was laid by the Prince of Wales.

In 1861 the population of Upper Canada was 1,396,091; of Lower Canada, 1,111,566.

On July 1, 1867, Upper Canada became the Province of Ontario in the Canadian Confederation called into existence by the British North America Act.

The government of Ontario consisted of a Lieutenant-Governor, an Executive Council and a Legislative Assembly. The members of the Executive must hold seats in the Assembly, and the Executive remains in office only so long as it retains the confidence and

support of a majority of the Legislature. There is no Legislative Council. The Executive Council or Cabinet usually consists of eight members. The House of Assembly contains 98 members elected from the provincial constituencies. The municipal affairs are administered by township and county councils elected by the ratepayers.

AGRICULTURE.

The chief natural resources of Ontario, in the order of their comparative importance, are its arable lands, timber areas, mineral deposits, fisheries, and game. These furnish, in the form of raw material or manufactured products, nearly all the merchandise exported from the Province, besides affording means of subsistence to its inhabitants.

In Ontario there are about twelve and a half million acres of land under cultivation, while the total amount of farm land assessed amounts to nearly 24,000,000 acres. The number of farmers is estimated to be 180,000, the average size of their farms 130 acres, and the average value \$5,600.

Ontario is pre-eminently an agricultural country, first, because of the large number of her people engaged in agricultural pursuits, and second, because of the fact that a larger amount of capital is invested in agriculture than in any other industry.

Southern Ontario consists almost entirely of agricultural land. The limestone formation exercises an important influence on both vegetable and animal life. The soil is extremely varied, but is quite capable almost everywhere of being by means of "mixed" farming, maintained in a high state of fertility. There is an abundance of water in every part of this great region, hence aridity and the consequent necessity for irrigation are unknown. For a number of years Canadian cheese and bacon have easily held a pre-eminent place

in the British market, and butter is rapidly reaching a similar position. Canadian fruit, especially apples, is now much in demand. The trade with Great Britain in Canadian live cattle has greatly fallen off owing to the enforcement of the regulation requiring them to be slaughtered at the port of arrival, but the dead meat trade is on the increase. In the production of goods by the Dominion as a whole, Ontario takes a prominent place as the following statistics show:—

Average of 21 years (1882-1902).

	Aeres.	Bushels.	Acre.
Fall wheat..	908,809	18,443,293	20
Spring wheat..	452,482	7,092,213	15
Barley..	623,019	16,494,873	26
Oats..	2,002,468	70,611,052	35
Peas..	710,497	13,770,243	19
Potatoes..	159,225	18,304,558	115
Turnips..	126,521	54,085,586	427

Including the area devoted to the raising of corn, carrots, and other vegetables, the total acreage under crop in 1902 was 8,677,988. This amount has not varied much since 1882. In 1902 there were 48,185,125 bushels of apples grown from 7,024,890 trees and there were half as many trees under bearing age. The following figures show the amount of live stock owned by the farmers of Ontario on the first of July, 1902:—Horses, 626,106; cattle, 2,562,584; sheep, 1,715,513; hogs, 1,684,635; poultry, 9,762,808. During the twelve months preceding the above date the following were sold or slaughtered:—Horses, 54,538; cattle, 673,544; sheep, 732,994; hogs, 1,991,907; poultry, 3,674,198.

As Northern Ontario is still in its infancy it is reasonable to expect a rapid increase in the products of the farm during the current decade. The vast "Clay Belt" north of the water-parting beyond Lakes Super-

ior and Huron will be opened up for settlement, and as it is exceptionally well adapted for dairy farming it will soon contribute a large proportion of the whole output of the Province, from the fact that, as already stated, it is computed to contain sixteen millions of acres of arable land.

Dairying is one of the most important branches of Ontario agriculture. Ontario exports more cheese than the whole of the United States, and on the British market the quality of the product is admittedly superior. Entering late into the race when it seemed almost won by the United States, Canada has wrested from that country the first place on the market by the superiority of its product. Much of the cheese consumed by the British public is made in Ontario, although doubtless sometimes sold to the consumer as the home article.

Ontario cheese is made under the factory or co-operative system and not in the homes of the farmers. The cheese makers managing these factories have for the most part received their training in government dairy schools. By these methods a superior and uniform product is secured.

The making of butter is also carried on in a similar manner, and the output is yearly increasing in quantity and the quality is yearly becoming better and more marketable. On an average the gross value of the cheese made annually is \$13,200,000 and of the butter \$2,000,000.

As a breeding ground for horses and livestock of the first quality, Ontario stands unrivalled. The stimulating and invigorating qualities of the climate, the remarkable freedom from disease, the nutritive qualities of its roots and grasses and the skill and enterprise of its breeders have all contributed to make it so. No other section of the continent of equal size can compare with Ontario in the variety of breeds, the number

of pure-bred animals produced, or, taken as a whole, in the general excellence of the individual animals. In recognition of this fact, American breeders are accustomed to resort largely to Ontario in the same way as they do to Great Britain, when desirous of introducing new blood into their herds and flocks, and consequently the United States is Ontario's best market for pure-bred horses, cattle, sheep and swine.

All the leading flocks, herds and studs of Ontario have been founded upon animals imported from Great Britain, and pedigrees trace back to British records. From that source breeding animals are still secured as occasion demands.

Cattle and live stock in Ontario enjoy immunity from disease to a large degree. Among cattle neither pleuro-pneumonia nor foot and mouth disease exists, and it may truthfully be said that there is no disease actively at work among horses or sheep.

Fruit is grown to a very large extent in the Province, the possibilities for fruit growing in Ontario being practically unlimited. The area of land occupied by orchards and gardens is about 400,000 acres, and there are 14,000 acres in vineyards. The apple trees of a bearing age number 7,024,890 in addition to which there are of young trees 3,600,000. A fair average annual yield is about fifty-six million bushels. Apples are grown successfully over a very large part of the Province. Beginning with the valley of the St. Lawrence, about Brockville, a good apple country is found which extends to Niagara, a distance of 288 miles. In nearly all of the western and central counties bounded by Lakes Ontario, Erie and Huron, there are fine apple growing sections, and the further north the varieties are grown the flavour and the long-keeping quality of the fruit are more highly developed.

In the Niagara peninsula from Hamilton to Niagara, also along the shores of the western part of Lake

Erie, peaches are grown very successfully, and there is said to be over half a million of peach trees planted in those parts of Ontario. Grapes also, are grown very generally throughout the province, but most of the larger vineyards are located in or near the peach growing district referred to. There are in all about 13,000 acres of vineyards in the province, which produce annually about fifteen million pounds of grapes. Small fruits are grown in great abundance in nearly every part of the province. Canadian markets are well supplied with home grown fruits, and there is a large surplus of long-keeping sorts which is sent chiefly to Great Britain.

Closely allied to fruit is honey, of which Ontario produces annually about 8,300,000 pounds.

FORESTS.

An authority upon the forest wealth of Canada estimates the forest area of Ontario at 102,118 square miles in extent, of which 22,557 square miles are under license. South of the Height of Land and east of the Thunder Bay district there are 64,762 square miles of forest; 24,850 square miles in the Thunder Bay district, and 12,506 square miles north of the Height of Land. Of this last only 150 square miles are pine land. The plateau of the Height and its northern slope are well wooded, particularly the former. Spruce is abundant, but there is very little pine. North from the Height to James Bay and west from the Albany River to the inter-provincial boundary, there stretches a vast peat bog or muskeg, as the Indians call it, with some good timber—poplar, spruce and tamarac—along the banks of the rivers. Eastern Ontario has been cleared of its forests for many years. In the peninsula the old forests of pine and valuable hard woods have nearly disappeared. The forests of the Georgian Bay district are rich in pine, but they

are being rapidly depleted. The districts of Nipissing and Algoma are well timbered with pine, birch, cedar, maple, spruce, poplar, tamarac, etc.

The portions of these districts lying about Thunder Bay, Rainy River, Spanish River and Lake Temiscamingue are extensively operated by lumbermen. The Temiscamingue pine lands lie at the western limit of the splendid Ottawa Valley forest.

The most important lumber tree is the "white" pine, which is indigenous to the province and grows to great perfection in vast regions where little else is produced. The "red" pine is also a valuable tree, and the wood of the "jack" pine lends itself to various economic uses. Many kinds of deciduous trees are now used for flooring, wainscoting, ceiling, and furniture making—especially walnut, oak, elm, maple, ash, birch and basswood. All resinous timber is used for railway ties, cedar being the favourite for that purpose and for fencing, on account of its durability. Spruce and balsam are the chief dependence for pulp wood. Immense quantities of valuable timber of all sorts have been destroyed by devastating fires, but the destructive process has been somewhat arrested in Ontario by "fire-ranging" and restrictive regulations in the use of fire. The increasing scarcity of "white" pine in the United States and Canada has prompted the creating of "reservations" with a view to re-forestation with this tree and the indefinite postponement of the time when the supply will be exhausted. Reproduction of pine to an unlimited extent is quite practicable, and will undoubtedly be carried out more and more systematically in the future. The revenue derived by the province from lumber amounted in 1902 to over a million and a half of dollars.

One year's production of the lumber industry in Ontario is as follows:—Pine (board measure), 672,093,361 square feet; lumber, other than pine (board

measure), 44,534,290 square feet; pulpwood, 29,703 cords; cordwood, 50,557 cords; railway ties, 2,575,255.

Owing to the erection of several large pulp mills the utilization of pulp wood is sure to increase rapidly during the next few years, the export in this line being largely of pulp instead of wood.

Besides supplying the home market, the province annually exports forest products to the value of about eight million dollars.

MINES AND MINERALS.

Farming and lumbering have long been regarded as the characteristic industries of Ontario, and those upon which her reputation and place among the confederated Provinces in great degree depend. Of late years has been added manufacturing; and it is now apparent that mining has claims to be considered an industry of first-rate importance, worthy to rank with those already named. In value of yearly output the minerals and mineral products of Ontario are but little behind the produce of the forest, and there seems every probability that the gap will speedily be still further lessened.

The year 1901 (the last year for which complete returns are available), was productive of substantial progress in many branches of the mineral industry, especially in those concerned with iron, copper and nickel, the three most important products of the metalliferous mines of Ontario. Up to the present time a very large proportion of the mineral output of the Province has consisted of non-metalliferous substances, including building and structural materials such as stone, brick, lime, etc. The aggregate value of this non-metalliferous output is growing from year to year, but much more rapid progress is being made in the production of metals. The present ratio of development if maintained will soon place the value of metalliferous

erals annually produced in the Province in excess of that of the non-metallie products.

In 1901 the mines of Ontario yielded the following quantities of mineral products, of which the values are also given:—

Gold.oz.	14,293	\$ 214,113
Silver.oz.	151,100	31,330
Copper.lb.	9,074,000	589,080
Nickel.lb.	8,882,000	1,859,970
Iron ore.tons	273,538	174,128
Pig iron."	116,370	1,701,703
Steel."	14,471	347,280
Zinc ore."	1,500	15,000
Total metallie.		\$5,016,731

The total value of non-metallie substances and their products was \$6,814,352, which with the value of the metals makes a total of \$11,831,086. The mining industry in all its branches employed 11,835 persons, whose wages amounted to \$4,233,154.

The gold mining in Ontario is at present centred in Hastings county in the east and in the district lying between Port Arthur and the Manitoba boundary on the west.

As yet there has been but little deep gold mining in Ontario, and workings up to the present time scarcely afford sufficient grounds for generalization. In a few of the mines irregularities have developed below ground in the course and location of the payable ore chutes as well as in the veins themselves, and the conclusion has been reached that the gold ores of North and West Ontario are in the main low grade, and cannot be expected to yield large profits unless economically worked on a large scale.

Nickel mining occupies the chief place in the list of mineral industries, the output of nickel exceeding

in value that of any other single product, though closely followed by pig iron. The production for the year amounted to 8,882,000 pounds, or 4,141 tons, valued in the matte at \$1,859,970. The nickel mines are in the districts of Nipissing and Algoma, the principal development having taken place at and near the town of Sudbury, on the transcontinental line of the Canadian Pacific Railway.

By far the larger part of the iron ore mined in the province was the product of the Helen mine in the Michipicoten Mining Division (northern shore of Lake Superior), which was worked steadily during the year. The shipments from the Helen were to the following points:—Midland, Ont., 11,574 tons; Hamilton, Ont., 66,330 tons; Ashtabula, Ohio, 98,213 tons; Buffalo, N.Y., 65,612 tons; Cleveland, Ohio, 17,026 tons; total, 258,755 tons. Of the ore mined 13,783 tons were magnetite, and 259,755 tons hematite.

There are also deposits of iron ore in the eastern and northern parts of Ontario.

The pig iron product of the blast furnaces of Ontario during the year was 116,370 tons, valued at \$1,701,703, an advance in quantity of 53,984 tons, and in value of \$765,637 as compared with the preceding year. The large increase was mainly due to the fact that there were three furnaces making iron during the year as against two the year before.

To produce the above-mentioned quantity of pig iron there was smelted 194,510 tons of ore, of which 109,109 tons were from Ontario mines, and 85,401 tons imported from the United States. Native ores thus constituted about 57 per cent. of the total quantity used, as compared with 23 per cent. in the preceding year, a decided gain in the utilization of the domestic product. The bulk of the home ore originated in the Helen mine. The smelting plants at Hamilton, Midland and De-eronto all carried on a steady campaign throughout the year.

The steelmaking department of the Hamilton Steel and Iron Company's plant produces an excellent quality of open-hearth steel; and in April, 1902, the Lake Superior Power Company's steel mill at Sault Ste. Marie began operations, converting pig iron, mainly from the Midland furnace, into Bessemer steel. The products of the Sault Ste. Marie plant are ingots, rails, beams, channels and other structural shapes, and the annual capacity is 200,000 gross tons of ingots and 180,000 tons of finished products.

A plant for the manufacture of steel is being constructed at Collingwood by the Canadian Steel Company. Both the Bessemer and open-hearth processes will be employed, and the product will be steel rails, beams, plates, bar iron, rods, etc. The mill will have an estimated annual capacity of 200,000 gross tons.

Copper is mined along the north shore of Lake Huron, and graphite and mica are found in the western part of the province. The oil wells of Ontario are in the southwestern part, a few miles southeast of Saranac. The yield was 21,433,500 imperial gallons, and the value of the products almost a million and a half dollars. Natural gas is found in the southwestern peninsula, and the value of the yield was \$342,183.

FISH AND GAME.

The fisheries of the lakes and rivers within Ontario and also of the upper Canadian portion of the St. Lawrence River, including the international lakes, belong to the province. The most important fish of the Great Lakes are salmon-trout and white fish, but the inland lakes and streams teem with black bass and brook trout. Besides the fishing done by sportsmen, which is yearly assuming larger volume, there were in 1902 as many as 2,885 men regularly employed in the business, operating 124 steam vessels, 1,295 sailboats, over two and a half million yards of

gill-nets, 479 pound nets and as many hoop-nets, besides other devices. The amount of capital invested was \$816,392; the catch was 23,715,070 pounds, valued at \$1,265,705; the revenue derived by the province was \$40,000. The preservation of the fish from needless destructive influences is a matter of careful consideration, and good progress has been made in this direction, as well as in the re-stocking of exhausted streams.

Ontario is the natural home of many of the best kind of game, at the head of which must be placed the king of the Canadian forest, the moose. During the past fifteen years, with the exception of two or three inter-venant, moose shooting has been absolutely prohibited in order to encourage reproduction. They now abound in spite of much wanton slaughter, which, owing to the vastness of the country, cannot be entirely suppressed. In districts not open for settlement the Indians and the white squatters are permitted to kill moose and other game for their own use at all seasons. Virginia deer abound in the partly settled country, and, as they prefer the society of man to that of the wolf, they are generally found in greatest abundance near the farmers' clearings. As shown by the statistics furnished by the railway and express companies, and the number of shooting licenses issued by the Game Department, the deer killed in 1902 must have been at least 12,000, and, so far, there is no perceptible diminution of their number. The northern forests of Ontario swarm with partridge every fall, and quail and wild duck abound.

TRANSPORTATION.

Before Confederation in 1867 the railways in Ontario totalled 1,447 miles. Since that date there have been constructed about 5,600 miles, making over 7,000 miles in all. Of these the Grand Trunk has 2,719 miles; the Canadian Pacific, 2,406; the

Michigan Central, 318; the Canada Atlantic, 263; the Canadian Northern, 268. The remainder of the mileage is divided among a number of short and independent lines.

Several lines of steamers for freight and passenger service form important features in the transportation service of Ontario. Three fine iron steamers constitute the Canadian Pacific Railway fleet plying between Owen Sound and Port William; the Northern Navigation Company has three large steamers plying between Sarnia and Port Arthur, and five of less capacity between Collingwood and Sault Ste. Marie. There are other but smaller enterprises and some "tramp" steamers, seeking a share of the upper lake traffic. Between Toronto and Montreal there is a fine fleet of passenger steamers and an equally fine service between Toronto and Niagara. The vessels used on the great St. Lawrence route are constantly improving. The Welland and the St. Lawrence canals now enable heavy draft freight steamers to make an unbroken voyage from the most western Great Lake ports to Liverpool, England.

MANUFACTURES AND COMMERCE.

As a manufacturing community, Ontario stands at the head of the Dominion. Her production of manufactured goods is large, it extends over a wide range of articles, and it is scattered over the older parts of the province generally. In the cities are to be found a large proportion of the manufactories of the province, but the towns and villages have their share, and this in a measure accounts for the large number of flourishing places of moderate size throughout the province. Ontario manufactures largely for all parts of Canada, so that the greater portion of her products are for home consumption; but the exports are considerable. It is estimated that the province produces 65 per cent. of the total output of manufactured

goods of all Canada. Among the leading manufactures are the production of iron and steel already referred to, agricultural implements, carriages and bicycles; steam-engines, locomotives and machinery of all kinds; furniture, carpets and house-furnishings; cloth, knitted goods, clothing and similar articles; wooden ware, paper, wall-paper, pulp, etc.; steam-boats and steam and electric cars; organs and pianos and other musical instruments; tobacco, spirits, wine and ale, etc.

The leading centres of population and industrial life are: Toronto, on Lake Ontario, the provincial capital, population, 208,040; Ottawa, on the Ottawa river, the federal capital, population, 59,923; Hamilton, on the western shore of Lake Ontario, population, 52,634; London, in the heart of the southern part of the province, population, 37,931; Kingston, at the eastern end of Lake Ontario, population 17,961; Brantford, west of Hamilton, population 16,619.

Last year the value of the exports from the province amounted to \$48,597,480; imports, \$86,232,560; duties collected, \$12,577,343.

PROVINCE OF MANITOBA

Geographically considered, Manitoba may be called the central province of the Dominion, being situated about midway between the older provinces in the East and the Pacific coast. It forms part of the great prairie region whose characteristics are open country, fertility of soil and great grain producing powers. Manitoba is about 300 miles in extent from east to west, and it extends north from the 49th parallel, which marks the boundary between the province and the United States. Manitoba has an area of 73,732 square miles, or some 47,188,480 acres. The province is therefore nearly as large as the combined area of England and Scotland. The province has to-day a population estimated at 300,000, of whom 41,000 are farmers. Allowing five members to each farmer's family would give a population of 205,000 living on farms and engaged in agricultural pursuits.

The surface is almost level, with stretches of prairie covering large districts, intersected here and there by valleys in which run rivers and small streams. Timber is found in many districts on bluffs and in belts, and along the banks of rivers and streams, as well as upon the ranges of hills which run across the province from the southeast toward the northwest. The northern and northwestern part of the province is also wooded. The proportion of forest and woodland to the total area is estimated at about forty per cent. It is from these forests and belts of timber that settlers secure their fuel supply. The area of land estimated as available for farming purposes is over 25,000,000 acres. The area under crop in 1902 was 3,189,015 acres.

CLIMATE AND SOIL.

The climate of Manitoba may be described briefly as follows:—A sharp, frosty winter, with the thermometer dropping at rare occasions to 30 or 35 degrees below zero, with no thaw from the 1st of November to the end of February. The sun's rays then gradually melt the snow, which has fallen to the depth of about 18 inches, and by the 1st of April all the snow is gone. April and May bring spring weather, dry for seeding. June is the rainy month with enormous growth of vegetation. July is showery, great growth continues. August sees the ripening of the harvest. In September harvesting is completed; no more rain for the season. October is bright and sunshiny; the days now getting colder, until the winter opens in November.

Now, although true for some seasons as a whole and applicable to many parts of the season each year, yet it is generally admitted that any one, and even all, the conditions may be changed. There have been thaws in January, rain in February, snow in April and May, no rain in June, continued wet weather in September, even until the snowfall in November. However, the facts remain that Manitoba has clear, cold weather in winter, with a very dry bracing atmosphere; that the springtime in April and May is delightful; that June and July give summer rains, the pastures and hay, and the promise of great wheat crops; that August and September see hay and harvest safely garnered; and October prepares the way for the winter.

The influence of the wild land and forest to the east of Red River, the great extent of lake surface all surrounded by belts of timber in the north, as well as the bluffs and belts of timber in the central parts of the province, and especially on the mountain elevations, have a most beneficial influence on the rainfall.

The Dauphin district, north and east of Riding Mountains, is influenced by the vast expanse of shallow lakes to the east, which, warmed by the sun's rays in the daytime, throw off much heat at night, thus keeping the temperature more even.

"Blizzards" are practically unknown in Manitoba. The many timber bluffs, belts and forests already referred to, break the violence of any wind storms that may arise, and, no doubt, also account for the fact that cyclones are never known here.

The greater part of the soil in Manitoba is a deep, rich vegetable mould, which is easy to bring under cultivation, and has wonderful recuperative powers in overcoming either drought or wet weather.

HISTORY.

The hardy explorers of the old French regime visited those vast prairies which to-day are included within the limits of the Great Canadian West. Charlevoix, the historian and missionary, was stationed about 1725 at the west end of Lake Superior. Between 1731 and 1749 de la Verandrye and his sons explored an immense tract of country lying behind the territory of the Hudson Bay Company. Among the trading posts which they established one was on the site of the present city of Winnipeg and another at the mouth of the Saskatchewan river.

The earliest white residents of the prairies were the employes of the two great rival fur companies, the Hudson Bay Company and the North-West Company. In 1811-12 the Earl of Selkirk, having secured a controlling interest in the Hudson Bay Company, sent out the first settlers to his lands upon the Red River. The North-West Company became very powerful in Canada, and after a few years the company came into conflict with Lord Selkirk's settlers on the Red River. The Imperial authorities intervened, and finally the

North-West Company was amalgamated with the Hudson Bay Company, and the latter continued to manage the fur trade. For many years the only settlement in the country now known as Manitoba was along the banks of the Red River. In 1849 the population was only 5,391 souls, with 6,300 acres of land under cultivation, but the people of Canada began to give more attention to the North-West. The Canadian parliament appointed a committee to investigate the claim of the Hudson Bay Company to this vast territory. The committee found that the territory belonged largely to Canada, having been a part of New France, which was ceded in 1763. The people of the western settlement next asked for some measure of representative government and requested to be annexed to Canada.

In 1869 the interests of the Hudson Bay Company were bought out. The sum of £300,000 was paid to the company, the latter only retaining the land around the trading posts and two sections in every township, a total reservation of one-twentieth of the entire region. The company also gave up its trade monopoly and all claim to government.

Then Canada moved to take possession of the country and the first Riel rebellion broke out. The Lieutenant-Governor sent out by the Canadian Government, the Hon. Wm. Macdougall, was threatened, and he thought it prudent to retire. Meetings of the half-breeds were held, and a provisional government was set up, with Louis Riel as president. A number of loyal citizens were captured, and one of them, a young man named Thomas Scott, was murdered. This aroused great indignation throughout Canada, and preparations for a military expedition to Red River were pushed rapidly forward. A small force was led by Colonel Sir Garnet Wolseley (afterwards

Lord Wolseley, recently Commander-in-Chief of the British Army), and it proceeded by the water ways from Ontario westward to the Red River. The force numbered about 1,100 men, some 400 of whom were regulars; upon their approach Riel and his associates fled across the border. Order was restored, and in 1870 Manitoba became a province and a member of the Canadian Confederation. The Provincial Government consists of a Lieutenant-Governor, assisted by a responsible Executive Council, and an elective House of Assembly. There is no second legislative chamber.

In 1885 the Canadian Pacific Railway was completed and Manitoba found herself on one of the world's great highways. Immigration increased, settlers began pouring into the province, and the prairies became wheat fields producing foodstuffs for the Canadians of the East and the people of the Motherland.

The only tax on the land of the Province is that imposed for municipal purposes, and, as the Provincial Government bears all the cost of administration of justice and makes large grants towards the building of roads and bridges, and for the support of schools, these municipal taxes are a mere trifle. Improvements on farm property are not taxed.

AGRICULTURAL RESOURCES.

The principal occupation of the residents of Manitoba is farming. This includes the raising of wheat, oats, barley, flax, potatoes, roots and vegetables, the feeding and breeding of such stock as horses, cattle, sheep, hogs, and poultry.

The following statistics, prepared by the Department of Agriculture from year to year, give the best possible proof of the development of the Province, and the substantial success that has attended the labors of the husbandmen in their new homes.

Area sown to various crops:—

	Wheat. Acres.	Oats. Acres.	Barley. Acres.
1883..	260,842	215,431	60,281
1892..	875,990	332,974	97,644
1902..	2,039,940	725,060	329,790

Product of various crops:—

	Wheat. bush.	Oats. bush.	Barley. bush.
1883..	5,686,355	9,478,961	1,898,430
1892..	14,453,835	11,654,090	2,831,676
1902..	53,077,267	34,478,169	11,848,422

The following is a synopsis of the crop of 1902 from the Government Crop Report:—

Crop.	Area in Crop. Acres.	Average Yield. Bush.	Total Yield. Bush.
Wheat	2,039,940	26	53,077,267
Oats..	725,060	47.5	34,478,160
Barley	329,790	35.9	11,848 422
Flax..	41,200	13.7	561,440
Rye..	2,559	19.5	49,900
Peas..	1,596	21.4	34,154
Potatoes.	22,005	157	3,459,325
Roots.	12,175	265	3,230,995

Crop statistics have been compiled in Manitoba for twenty years (1883-1902 inclusive). For this period the average yield of wheat has been 19 bushels per acre. During a similar period the average yield of spring wheat for Ontario was 15.5 bushels per acre, and in the United States 14.3 bushels. Manitoba leads the world in the production of spring wheat.

The statistics of crop yields given above include the total area sown each year in the province. The

results of good, bad and indifferent farming are all included. When care is taken in preparing land for crops and a proper rotation of cropping pursued, the wheat yield invariably exceeds 25 bushels to the acre. Some farmers never have less than 30 bushels to the acre. On the Experimental Farm at Brandon the wheat yield for years has exceeded 30 bushels to the acre, and that of other crops proportionately high; the oat yield repeatedly being over 100 bushels per acre.

Forty-one varieties of wheat tested at the Brandon Experimental Farm in 1901 yielded over 30 bushels per acre. The best twelve of these yielded from 35½ to 42 bushels per acre. The six best varieties, including red and white flax averaged 36½ bushels per acre.

During the past six years twelve varieties have averaged 36½ bushels per acre. The lowest averaged 31 bushels, the highest 42 bushels per acre for the six years.

Sixty-three varieties of oats were tested at the same farm in 1901. Fifty-seven of these yielded over 60 bushels per acre. Of the remaining six, four yielded over 57 bushels. The best twelve varieties yielded from 85 to 91 bushels, an average of 88½ bushels.

In the barley tests the yields of two-rowed were from 36½ to 47½ in 1901. For six years the average yield of the best six varieties was 41½ bushels per acre. Six-rowed barley gave from 44 to 48½ for the best six varieties in 1901, and an average of over 46 for the best six for the six years' test.

Pease are not much grown in Manitoba; but that they can be grown very successfully, is proven by the yields obtained at the Experimental Farm. In 1901 there were twelve varieties tested which yielded from 38 to 43 bushels per acre. The average for the best twelve varieties tested during the past six years was 42½ bushels per acre.

LIVE STOCK AND DAIRYING.

The soil and climate of Manitoba are well adapted to the business of stock-raising and dairying. The growth in these branches of agricultural industry has been proportionate to the advance in grain production, as will be seen from the following tables:—

LIVE STOCK IN THE PROVINCE.

	1893.	1902.
Horses	88,000	146,594
Cattle	173,250	282,344
Swine	50,700	95,598

DAIRY PRODUCTS.

	1895.	1902.
Pounds Butter	1,763,252	3,915,875
Value	\$217,066.74	\$636,160.69
Pounds Cheese	1,553,192	1,093,653
Value	\$107,170.24	\$111,423.24
Total value dairy products.	\$324,176.98	\$747,603.93

There are twenty-eight creameries and thirty-three cheese factories in operation in Manitoba. A practical Dairy School is operated during the winter months, free of charge to farmers' sons and daughters, and the Government Dairy Superintendent and his assistants devote their whole time during the summer to supervising and instructing the operators of factories and creameries. Dairying is, however, still in its infancy. The possibilities for extension can hardly be estimated, for the virgin prairies give most nutritious grasses, and the yield of cultivated crops, oats, barley and ensilage corn, for feeding purposes is phenomenal.

GARDEN PRODUCTS.

The statement has often been made that the climate of Manitoba is too severe for the successful cultivation of fruits. This erroneous supposition has arisen from the failures experienced by early settlers to acclimatize the varieties of apples, plums, cherries, etc., which are grown in the warm, moist climates of the east and south. Varieties have been procured from countries having a climate similar to that of Manitoba and the province is now able to point with pride to progress in fruit-growing.

At the exhibition of the Western Horticultural Society in Winnipeg during August, 1901, there were shown over sixty varieties of apples and crabs. At the Provincial Horticultural Exhibition of 1902 there were eighty entries of apples, plums, currants, gooseberries and raspberries. One of these entries included some forty varieties and another thirty varieties of apples and crabs.

Plums, currants, gooseberries, raspberries and strawberries grow wild in abundance and the early settlers scarcely missed the fruit gardens of their old homes in the midst of this plenty.

Vegetables grow to a remarkable size and of excellent quality. Cabbage and cauliflower attain surprising proportions, and all other garden produce likewise. Tomatoes ripen in the open air. Melons are also grown with slight protection. Beets, carrots, lettuce, radishes, in fact all that the gardener in any country considers worth growing is at home in Manitoba. Of late years, considerable interest has been taken by farmers in the subject of fruit-growing, and it is now not uncommon to find the farm orchard well stocked with hardy fruits.

PROVINCIAL GOVERNMENT LANDS.

The Provincial Government offers for sale 1,500,000 acres of land throughout the province, to which the attention of settlers and investors is invited. These lands are the cheapest now on the market and may be purchased direct from the Government on the very easy terms of ten yearly instalments, with interest at 6 per cent., placing the power to purchase well within reach of all bona fide home seekers.

In southern Manitoba, sections, half-sections, and quarter-sections are to be found in almost every locality between Morden and the western boundary of the province, and in close proximity to churches, schools, good market towns and railway facilities.

In the northern and northwestern portions of the province may be found larger tracts. That between Lakes Winnipeg and Manitoba is suitable for mixed farming, cattle and sheep-raising, as there is an abundance of wood, water and pasturage. West of Lake Manitoba and along the main line of the Canadian Northern Railway good farms and ranches are to be obtained, while on the southern slope of the Riding Mountains, within easy reach of two lines of railway, are to be found large tracts of choice land well adapted to grain-growing or mixed farming.

East of the Red River and Winnipeg are large tracts of partially wooded land, which, when cleared of the wood, will make excellent farming districts, being within reach of good railway facilities.

As an evidence of the satisfaction in purchasing provincial lands, it may be stated that not one sale has been forfeited for non-payment within the last three years, proof beyond a doubt that Manitoba land is a good investment paying for itself in a short time.

The present prices of provincial lands range from \$3.00 to \$6.00 per acre according to location and quality.

Permits to cut hay or wood on provincial lands are granted to settlers at low rates, the cost of wood per cord being 25 cents and for hay, per ton, 25 cents.

Improved farms can be purchased from private owners.

Manitoba is no longer in the experimental stage. Success has attended the early settlers and it is certain that a similar degree of prosperity will attend those who now come to the province. They can see evidence of prosperity on every hand and cannot fail to be inspired by the assurance that what others have done they can do.

TIMBER RESERVES.

It has already been stated that nearly forty per cent. of the area of the province is in timber. Of this over 2,000 square miles are a permanent timber reserve where no cutting may be done without permit from the government. These lands are for the most part heavily clad with spruce, though in many portions there is a sprinkling of oak and birch. It is the intention of the Government to permit no cutting to be done beyond the natural yearly increase, and as it is estimated that the spruce forests will renew themselves in twenty years it will be seen that Manitoba has a large available supply of timber for lumber and fuel purposes. The greater part of the lumber used in building is Ontario pine from the Lake of the Woods, and fir and cedar from British Columbia. Manitoba spruce is chiefly employed for small dimension lumber, shiplap and sheeting.

The lakes and rivers of Manitoba are well stocked with fish of which the principal varieties are whitefish,

trout, pickerel, pike, sturgeon, etc. Last year the value of the catch was \$726,500.

Although the Buffalo has long since disappeared from the western prairies there is still abundance of game and the hunter and trapper find their labors and skill well rewarded.

RAILWAYS AND MARKETS.

Every settled portion of the province is served by one or more lines of railway. Railway construction has kept pace with, and in some instances has been in advance of settlement. The two railway systems, the Canadian Pacific and Canadian Northern, have 2,569 miles of line in the province, of which 1,309 miles belong to the former and 1,260 miles to the latter. The Canadian Northern will construct over 300 miles during the present year.

Every railway station is a market town where the farmer can dispose of all his products to equal advantage, whether the town be large or small. All, or nearly all farm products are sold on an export basis, and local conditions do not affect prices. At every station elevators are owned and buyers stationed by one or more of the large grain companies. Consequently prices are uniform (having regard to freight rates), throughout the province.

At Fort William and Port Arthur, on Lake Superior, immense storage has been provided by the railway companies with every appliance for rapid trans-shipment of grain from cars to boats.

The wonderful increase in production during the past few years has necessitated a proportionate increase in storage capacity. The following figures relate only to Manitoba and do not include the North-west Territories:

ELEVATOR CAPACITY OF THE PROVINCE.

Canadian Pacific:—

Terminals.

Fort William..	7,000,000	Bushels
Port Arthur..	330,000	"
Keewatin..	550,000	"
Winnipeg..	740,000	"

Interior:—

Main Line..	2,364,000	"
Branches..	9,366,400	"

Total..	20,350,400	"
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Canadian Northern:—

Terminals.

Port Arthur..	3,250,000	Bushels
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Interior:—

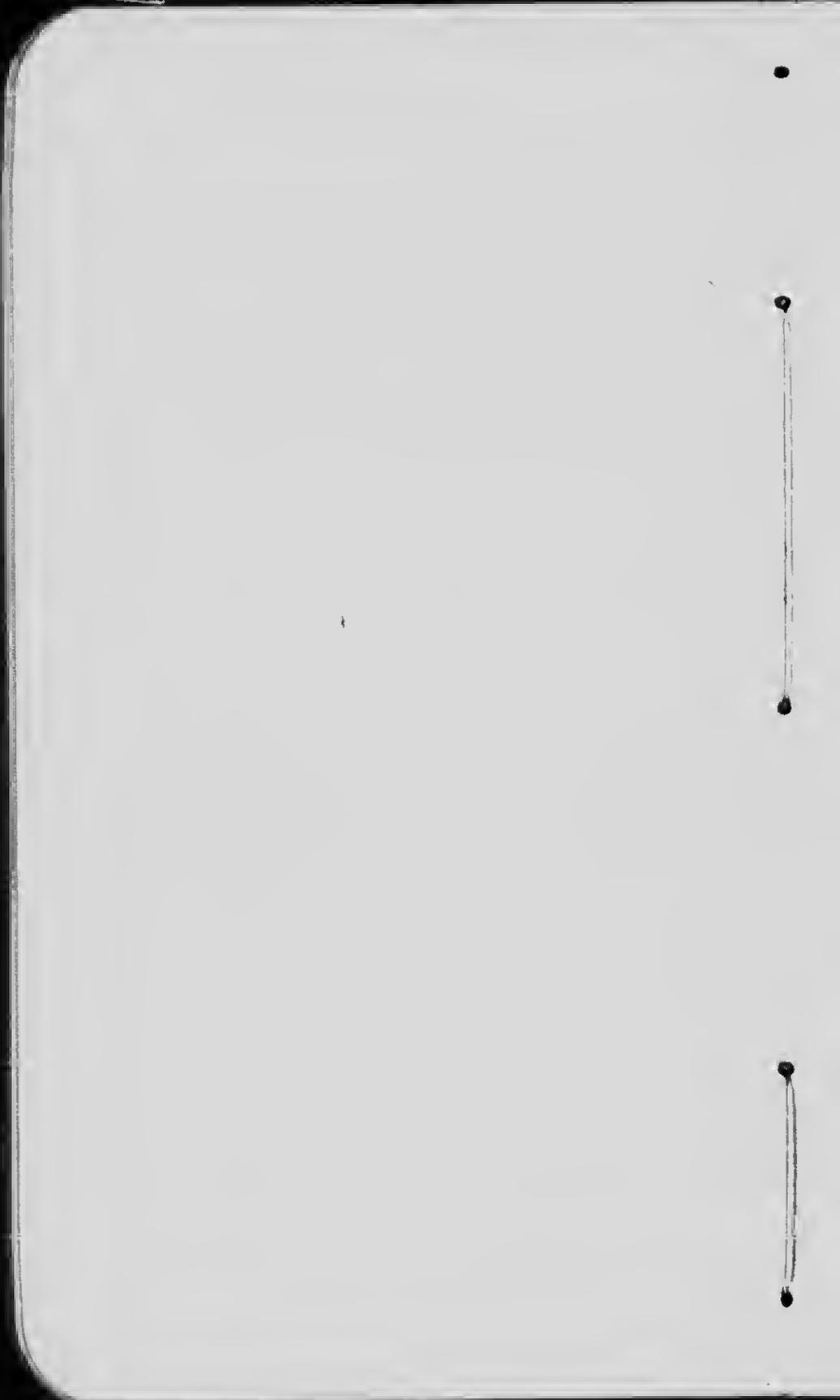
Main Line..	671,000	"
Branches..	2,675,000	"

Total..	6,596,000	"
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Grand total..	26,946,400	"
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CITY OF WINNIPEG.

Winnipeg, "the Gateway of the West," is a modern and progressive city with a population of 63,500. Its situation has made it the commercial capital of the Western half of British North America and its public, commercial and financial institutions are in keeping with its position as such. Winnipeg of twenty years ago was a city of tents and temporary frame structures. That Winnipeg has passed away and in its place one finds to-day fine edifices of brick and stone, whose solidity typifies the permanence of the general prosperity.



NORTH-WEST TERRITORIES

The three territories generally comprised under the name of the North-West are Assiniboia, Saskatchewan and Alberta. They include that vast area that stretches westward from Manitoba to the Rocky Mountains, and from the international boundary north to about the 55th parallel which forms the southern boundary of the district of Athabaska. These Territories form part of the region over which the Hudson Bay Company once exercised control, and which was included in the surrender and sale of the North-West to Canada in 1869. These western tracts were known as Rupert's Land.

In 1870 the eastern part of the territory was set apart as the Province of Manitoba, but until 1876 the local government of the North-West Territories was in the hands of the Lieutenant-Governor of Manitoba and a council of eleven members. In 1876 an Act came into force providing for a separate Government of the Territories, and the Hon. David Laird became the first resident Lieutenant-Governor. He was assisted by a council of five; the first session of the council being held in 1877 at Livingston on the Swan river. Battleford was the seat of government until 1883, when Regina was chosen, principally on account of its being on the main line of the Canadian Pacific, which was completed in 1885. Part of the council was made elective in 1883 and two years later the Territories were given representation in the Senate and House of Commons of Canada.

In 1888 the council was abolished, and an Assembly of twenty-two elective members set up. The Terri-

teries have now practically responsible government, with nearly all the powers and privileges of a province. The day is not far distant when the Territories will become separate provinces of the Dominion.

Courts have been organized throughout the Territories; municipal institutions have been set up, and an excellent educational system established.

The district of Alberta covers an area of 101,883 square miles; Saskatchewan, 107,618 square miles; and Assiniboia, 88,879 square miles, making a total of 298,380 square miles, or as great an area as Great Britain and France combined.

According to the census of 1901 the population of the three is 158,940.

Assiniboia is divided into two great areas—Eastern and Western Assiniboia—each of which has its own peculiar characteristics, the former being essentially a wheat growing and mixed farming country, and the western part of the latter especially adapted to ranching. In both divisions minerals are found, and on the bars of the South branch of the Saskatchewan River, in Western Assiniboia, gold mining is profitably carried on.

There is nothing to mark any difference between Manitoba and Eastern Assiniboia, which is known as the park country of the Canadian North-West. The general aspect of the country is rolling prairie, dotted over with clumps of trees.

Alberta is divided naturally into two districts, differing widely in topographical features and climatic conditions.

Southern Alberta, which forms the extreme southwestern corner of the prairie region of western Canada, stands unrivalled among the stock countries of the world. The country is level, open prairie in the eastern portion but it is much broken along the western side by the foothills of the Rockies. Cattle and horses graze

out all the year round, instinctively finding shelter in the bottom lands whenever needed, and hay is easily and cheaply secured as provision for weak stock.

The northern part of the district is fairly well wooded, forest tracts and prairies occurring alternately. The surface is undulating and through the centre of the district flows the Saskatchewan river, its bed being 20 feet below the general level.

In some parts there are large plains free from timber and in other great areas of woods composed of large trees.

The district of Saskatchewan lying north of Assiniboia, is the largest of the three. The smaller portion of the district lies to the south of the Saskatchewan east. It is generally a mixed wooded and prairie country, abounding in water and natural hay, and well suited by climate and soil for the raising of wheat, cattle and sheep.

The principal river of this great western country is the Saskatchewan, whose general course is from the foothills of the Rockies eastward. The north branch flows through Saskatchewan, and a few miles east of Prince Albert it is joined by the southern branch which flows through the North-western portion of Assiniboia. There are many other smaller streams and a large number of lesser lakes, some of which, like Dore Lake, Pine Island Lake, Red Lake, and Big Quail Lake, are bodies of water of considerable size.

CLIMATE.

The open nature of the country, clear, dry atmosphere and abundance of bright sunshine, its elevation (varying from 1,402 feet above the sea level), and the fresh breezes which blow across its plain, all tend to make the climate one of the healthiest in the world.

There is an entire absence of malaria, and there is no disease peculiar to the country. The western portions of the country have attained a considerable reputation as health resorts, particularly for persons of consumptive tendencies.

At times and at places winter is severe. That is to say, between about the 15th of December and the 15th of March the thermometer frequently registers a temperature considerably below zero. At this period also storms, known locally as "blizzards," occasionally occur. During such, however, very low temperatures rarely prevail. Having stated this, the worst has been said. With the aid of comfortable houses and proper clothing and furs, the North-west settler defies the winter at its worst.

The average weather during the winter in Eastern Assiniboia, Northern Alberta and Saskatchewan is clear, calm and cold, with intense bright sunshine. The snow, which never falls to more than a few inches in depth on the prairies, becomes dry and powdery. Under such circumstances life is enjoyable and healthful.

The winter in southern Alberta and western Assiniboia is a season of bright, cloudless days, infrequent and scanty snowfalls and frequent and prolonged breaks of warm weather, heralded by the chinook wind. Waggon's are used during the entire year, and it is only in occasional seasons that sleighs are necessary for brief periods. In January and the early part of February there are sometimes short periods of cold, sharp weather. Heavy snowstorms have at times covered the prairie more than a foot deep, but this is very exceptional. The winter generally breaks up in February with a grand blowing of the warm wind from the west, followed by a period of from one to three weeks of warm, bright weather, the beginning of southern Alberta's spring. The earliest spring flowers

appear in March. May is generally fine, warm and bright; June and the earlier part of July, rainy; the remainder of July, August, September, October and generally November, warm and dry. The summer, July to September, is characterized by hot days, relieved by a never-failing breeze and cool nights, and the warm golden days of autumn, often lasting well into December, are the glory of the year. The grand characteristic of the climate as a whole, and the one on which the weather hinges, is the chinook wind, so called because it blows from the region formerly inhabited by the Chinook Indians on the banks of the lower Columbia river. It is a warm, dry wind blowing from the mountains across the plains, and its principal characteristic is its power of rapidly melting the snow, or almost, it might be said, of drying it up, so frequently no water runs from it. To it is due the pleasing dryness of every hollow on the prairie, even the deepest coulees or prairie ravines. The effect of this wind in winter may be described as little short of miraculous, in its clearing away of the snow, always scanty in amount, with amazing celerity. A gale from the north will blow for a day or two, powdering the prairie with drifted snow, and at times sending the cattle, horses and wild game to the shelter of the coulees or prairie ravines. Then the wind lulls, and a breeze from the west springs up. It is the warm chinook, in balmy contrast to the biting eastern or northern snow gales. A few hours suffice for the disappearance of all traces of the snow, and the cattle and horses are once more dispersed over the ranges, feeding on the hay provided by nature for the herds and flocks during winter in this favored land.

That the climatic conditions are favorable to agriculture is shown by the crop returns given elsewhere.

AGRICULTURE.

Prince Edward Island, famous for the excellence of its agricultural products, has been named the "Garden Province" of Canada. The North-West Territories, embracing over a hundred times the area of The "Garden Province," might appropriately be called "The Great Canadian Farm." The total area of Assiniboia, Saskatchewan and Alberta is 304,340 square miles, which reduced to acres, makes 194,777,600. The total area under cultivation last year was about 1,000,000 acres, leaving an empire of 193,777,600 acres awaiting development and for grazing purposes.

One of the most important economic crises which this country has ever seen took place during the year 1901, when the railway companies found themselves unable to remove the large crop harvested within the usual period. The high yield in all classes of grain throughout the territories was chiefly responsible for this state of affairs, but an examination of the crop area statistics reveals the fact that the area under cultivation is increasing annually to such an extent that with merely average crops in the future, the production is bound to exceed that of previous years. The area under wheat in the Territories in 1898 was 307,500 acres; in 1899, 363,500; in 1900, 413,000; in 1901, 508,500; and in 1902, 626,000, which means that the area under wheat has more than doubled in extent during the past four years. The increase in the area under oats has been even greater. The oat area in 1898 covered only 105,000 acres; in 1899 it increased to 135,000; in 1900, 175,000; in 1901, 229,500; and in 1902, over 310,000 acres. The area under this cereal has, therefore, trebled since 1898. Barley is not very extensively grown in the Territories as yet, although in the westerly portion of the country where a standard price of from 40 to 45 cents a bushel is paid for malting barley, it is one of our best paying crops.

One of the peculiarities of the colonization of the Canadian West is the steady advancement westward of the zone within which wheat can be successfully grown. It is not long since the idea of growing wheat west of Moosomin was regarded with ridicule in the Province of Manitoba. During the present year about 14,000,000 bushels were raised west of that point, with an average yield of about 25 bushels per acre.

STATISTICS OF GRAIN PRODUCTION.

WHEAT.

	Total Bushels.	Total Acreage.	Yield per acre.	Average Yield.
1898..	5,512,178	307,580	18.01	
1899..	6,915,623	363,523	19.02	
1900..	4,028,294	412,864	9.75	19.53
1901..	12,808,447	504,697	25.37	
1902..	13,956,850	625,758	22.30	

OATS.

1898..	3,040,307	105,077	28.93	
1899..	4,686,036	134,938	34.81	
1900..	4,226,152	175,439	24.08	35.30
1901..	11,113,066	229,439	48.43	
1902..	10,661,295	310,367	34.35	

BARLEY.

1898..	449,512	17,092	26.29	
1899..	33,421	14,276	23.62	
1900..	353,216	17,044	20.72	25.60
1901..	795,100	24,702	32.18	
1902..	870,417	36,445	23.88	

FLAX.

1902..	158,185	17,067	9.26	
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IRRIGATION.

In the early days of the settlement of the Canadian North-west Territories it was found that nature could be materially assisted by utilizing the waters of the mountain streams running in an easterly direction through the Territories, for the purpose of irrigating large tracts of land in southern Alberta and western Assiniboia. The Federal Government promptly took the matter in hand and large amounts of money have since been expended in making a complete topographic and hydrographic survey of the southwesterly portion of the Territories, in order to ascertain the volume of water available for irrigation and the most suitable and feasible areas tributary thereto, so as to facilitate intelligent and just administration.

There is, in every portion of the Territories, sufficient precipitation almost every year to mature crops. But with the increase of population and prosperity more scientific methods of farming were naturally discovered and utilized, and the introduction of irrigation marks an epoch in the history of these districts. Irrigation in a country like the Canadian North-West, where the rainfall is in most years ample for an average crop, may appropriately be placed on the same basis as insurance. Wherever a good irrigation system has been established the value of farm land has increased rapidly. This is due in great measure to the fact that the average crop from year to year is better than in districts where the rainfall alone is depended on, with their consequent years of drought which bring down the average.

The oldest irrigation enterprise in the Territories is the Calgary Irrigation Company. Its canal heads on the Elbow River and covers practically all the irrigable lands in the Calgary district. This canal is capable of irrigating an area of 45,000 acres. Some 35 miles of main ditch is now completed. One of the latest devel-

opments in western irrigation enterprise is the construction of the Canadian North-West Irrigation Company's canal, usually known as the "Galt Canal." This extensive irrigation system, which has been constructed at an expenditure of some \$400,000, draws upon an inexhaustible supply in the lakes fed by the melted snows and glaciers of the Rocky Mountains, from which flows the St. Mary River, where the head works are located. The length of the main canal is 61 miles, of the Lethbridge branch 32 miles, and of the Stirling branch 22 miles, making the entire length of the Galt canal system 115 miles. The Bow River Canal scheme is a gigantic enterprise, which is now claiming the attention of the public. This proposed canal heads in the Bow river, and brings under irrigation millions of acres of lands between Calgary and Medicine Hat. The Canadian Pacific Railway Company, which owns a large area of land in that portion of the Territories, is taking hold of the undertaking in a practical manner and it is likely that construction work will be initiated in the near future, the necessary surveys having already been commenced.

LIVE STOCK.

For the purpose of discussing the advantages of the Territories for live stock husbandry, the country may be roughly divided into two great sections; namely, *the farming section* and *the ranching section*. The former consists of Eastern Assiniboia, Saskatchewan and Northern Alberta, the latter comprises Western Assiniboia and Southern Alberta. It is not, however, to be supposed that no farming is done in the ranching section or ranching in the farming section. The two divisions outlined rely present somewhat varying climatic conditions, necessitating different methods of managing live stock.

The most important distinction between these two natural divisions is the lesser degree of humidity prevalent in the ranching section, which causes the prairie grasses to suspend growth early in the autumn when they are subjected to a regular process of curing on the stalk during the bright, sunny autumn. Herein lies the explanation of what, to the uninitiated, is somewhat of a mystery; namely, that cattle, horses and sheep are able to range out all winter on the snow covered prairies and apparently to keep in good, thrifty condition. This peculiarity was first brought into prominence during the early days of settlement through the medium of the buffalo, which thrived admirably all winter upon the cured grasses.

It has been shown that there are some 193 millions of acres, over 300,000 square miles, of land available for free grazing in the North-West Territories. Of this enormous extent of country about 200,000 head of sheep, 600,000 head of cattle and 175,000 horses are at present pastured. No higher tribute could be paid to the Canadian North-West as a grazing country than the statement, that all cattle and sheep exported *are consigned to their final destination right off the prairies and without any grain finishing process.* The total export shipment of finished cattle from the Territories in 1899 amounted to 41,500 head and at the most conservative estimate there should be at least 70,000 head available for export during the present year. The total area of the State of New South Wales, Australia, is about equal to that of the Territories. There are here 200,000 head of sheep and, up to a few years ago, New South Wales boasted of sixty million head in addition to an enormous number of cattle and horses. This conveys a faint idea of the expansion which this industry is capable of in the Canadian North-West.

With the enormous immigration now pouring into the country, which, for the present year, is estimated

at 100,000 souls, or about 30,000 families, it is evident that the demand for farm horses of all classes will be quite beyond the abilities of the country to supply. Train loads of heavy draft horses are now being brought up at large transportation expense from the costly lands of Ontario. These animals can be raised here at half the cost on the extensive prairie ranges. The day of depression in the horse business has passed and the western demand at remunerative prices is bound to keep well ahead of the supply for many years to come.

DAIRYING.

The dairying organization in the Territories is one of which the farmers here are justly proud. Some years ago the Dominion Government organized a chain of co-operative creameries all through the Territories. These institutions, while subject to the control of the patrons, through boards of directors, are under absolute Government management. Most of the patrons separate their milk at home by means of hand separators and bring the cream to the dairy station once or twice a week in large cans. The cream is then carefully tested and weighed, and at the end of every month each patron gets credit for its equivalent in butter and receives a cash advance of ten cents per pound. When the total output of butter for the season is disposed of by the Government, a cheque for the balance due each patron is sent him from the Department of Agriculture. Any settler having the means to procure a few milk cows can thus insure a monthly cash income *sufficient to pay all his ordinary running expenses.*

Last year the factories had 1,014 patrons, and the butter made amounted to 532,477 pounds, its gross value being \$104,630.

MINERAL RESOURCES.

The Canadian North-West Territories is a country of many and varied resources, amongst which its minerals take a high place. Extensive coal deposits are found in the Territories. Without an adequate supply of fuel in almost every portion of the country, it would not be so attractive as a field for settlement. A conservative estimate of the coal-bearing strata in the Territories places the area at 65,000 square miles. The yearly output of the mines now in operation is about 350,000 tons.

The coal mines already discovered are of sufficient capacity to supply the whole of Canada with fuel for centuries. Lignites are now mined in Eastern and Western Assiniboia, and in Northern Alberta; and are obtained at the pit's mouth at from 65 cents to \$2.50 per ton. Semi-bituminous coal is mined at Lethbridge (where \$1,500,000 have been invested), and at other places in Southern Alberta, and it is obtained at from \$1.50 to \$3.00 per ton. The true bituminous is mined at a number of places in Southern Alberta, and is worth about the same as the semi-bituminous. True anthracite coal is mined at Anthracite (four miles from Banff), and is sold aboard cars at from \$2.00 to \$5.00 per ton, according to grade. There are extensive collieries at Lethbridge, Canmore, and Anthracite. The Government issues permits to mine on Dominion lands at the following royalties: 10 cents per ton for lignite, 15 cents for bituminous, and 20 cents for anthracite. The coal mining industry of the Territories affords employment to about a thousand hands.

Another important kindred industry which is rapidly springing into prominence is the manufacture of coke, now progressing along the line of the Crow's Nest Railway, in Southern Alberta. Extensive beds of excellent coking coal are found there. This indus-

try is bound to develop rapidly, and is already employing a large number of people.

For over thirty years gold dust of the finest quality has been washed out of the sands of the North Saskatchewan river, for 100 miles above and 200 miles below Edmonton, during low stages of water, by individual miners using only the primitive pick, shovel and grizzly. Scientific investigations have, however, been made with the result that some of the newest and best dredging and gold-saving machinery has been put in operation on the river by a number of experienced miners with capital. Meanwhile, those best informed on the subject consider that the dredging of the river bed and the hydraulic sluicing of the flats and terraces of the valley will yield enormous profits to capital skilfully applied.

Enormous veins of galena have been located which are pronounced by experts to contain a large percentage of silver. Capital alone is wanting to make them treasures of wealth to the country. Copper ore in vast quantities has also been found, said to contain 60 per cent. of pure copper. Iron ore has been discovered in various parts of Alberta. A forty-foot seam of hematite iron, said to contain 67 per cent. of iron, exists at the base of Storm Mountain, quite close to the railway line, and other large seams have been located in the Macleod district, in Southern Alberta.

Petroleum has been discovered from time to time in various portions of the Territories. The Dominion Geological Survey's staff has recently explored Northern Alberta and made several test borings with most satisfactory results. The fields recently opened in Southern Alberta near the International Boundary give promise of excellent returns. A large settlement has already sprung up in the vicinity and an enormous expenditure has been made in machinery and appliances now on the ground. The oil is said

to be the purest found in the world, and it is said that the supply is inexhaustible.

Natural gas exists all through Western Assiniboia and Alberta. In some cases wells have been flowing for upwards of fifteen years without any apparent indication of decrease in pressure. The town of Medicine Hat, in Western Assiniboia, containing several thousand inhabitants, is both heated and lighted by natural gas.

GAME AND FISH.

There is still an abundance of game throughout the Territories, such as prairie chickens (grouse), ducks, geese and plover. These are found throughout the central and southern portions. Edmonton, which is the extreme limit of the railroad to the north, is the gateway to a wild, half-known country, a huge territory most abundantly stocked with game. In the Smoky River district, which is several hundred miles north of Edmonton, there are yet a few wood buffalo, the best authorities say about seventy-five head in all. These the Mounted Police are striving strenuously to protect, but their extinction is much to be feared. Moose exist in large numbers in the forest-covered country between the North Saskatchewan and Lake Athabasca, and are to be found in the extension of the same belt to the northwest of it, even into Alaska. To the northward of the Great Slave Lake, that vast solitude known as the barren lands extends to the very shores of the frozen sea. It is the home of the musk ox, the barren ground caribou, the wolf, the glutton, and the arctic fox. Along the shores that bound it the polar bear may be frequently shot. It is a region full of interest to the naturalist and to the explorer.

Salmon trout weighing from 15 pounds to 40 pounds are among the catches in Eastern Kootenay.

In the mountains back of these lakes, grizzly, cinnamon, silver tip and black bear, mountain sheep and goat are fairly plentiful. The commercial fisheries of the Territories annually yield a catch worth \$230,000.

TRANSPORTATION.

In the North-West Territories there are 2,085 miles of railway, being one mile of track for each 257 square miles of area. The principal system is the Canadian Pacific whose transcontinental line passes through the Territories on its way to the Pacific coast. The Canadian Pacific enters the Territories at Moosomin and traverses Assiniboia and Southern Alberta from east to west. Numerous branch lines have been constructed and extensions are made from time to time as settlement warrants the outlay. From Regina, on the main line, a branch road extends north to Prince Albert in Saskatchewan; and in Alberta a branch line runs north and south from Edmonton to Macleod on the Crow's Nest extension, crossing the main line at Calgary.

The Canadian Northern Railway, which runs from the great lakes, through Manitoba into the District of Saskatchewan, is being rapidly constructed. This line will open up the fertile Saskatchewan Valley between Prince Albert and Edmonton, running north of and almost parallel to the Canadian Pacific through the entire breadth of Saskatchewan and Northern Alberta towards the Yellow Head Pass, where the Rocky Mountains open their portals and invite, by the lowest and easiest grade in Alberta, the construction of a railway through to Cariboo and the Pacific coast beyond.

The proposed line of the Grand Trunk Pacific is through this northern country touching both Prince Albert and Edmonton, and reaching the Pacific coast at Fort Simpson, B. C.

All the surplus wheat grown in the Territories finds its way into the common market, viz., Great Britain. The elevator and transportation systems of Western Canada are second to none in the world. The former is now under rigid Government control. There is an almost unlimited demand for oats and barley grown in the Territories. The former is eagerly purchased in the western mining districts, and what is fit for milling purposes sells at a higher price to local oatmeal mills.

Besides the railway outlets, there is also that to the east down the Saskatchewan by steamboat to Lake Winnipeg, from whence the people of Manitoba propose improving the old row boat route, so as to be navigable by steamboats to the Atlantic ports of Nelson and Churchill, on Hudson's Bay. The North Saskatchewan river, running through Northern Alberta and Saskatchewan, was in the days of the fur trade the main route for all imports and exports to and from the Territories; and although most of the fleet of steamboats which, up to the advent of the railway, tapped the Saskatchewan Valley now lie idle, as population and development advance the river will again be utilized more and more. Coal is certain to be shipped that way, and the Alberta and Saskatchewan farmer will be afforded the choice of an eastern as well as a western market whenever Manitoba secures the opening of the Hudson Bay route.

PROVINCE OF BRITISH COLUMBIA

British Columbia is Canada's Maritime Province on the Pacific Ocean. "The Coast" is the common name by which it is known in central and eastern Canada. The province has a length of about 700 miles with an average width of about 400, and its estimated area is 372,630 square miles; population according to the census of 1901, 178,657. On the south the international boundary line separates it from the American States of Washington, Idaho and part of Montana. The eastern boundary is the summit of the Rocky Mountains separating British Columbia from the District of Alberta. The province extends northward to the 55th parallel of north latitude, where a narrow strip of Alaska protrudes between it and the Pacific Ocean. Its general northern boundary is the 60th parallel which divides the province from the Yukon district. At this northern portion of British Columbia the eastern boundary is the 120th meridian, separating the province from Athabasca. Included within the limits of British Columbia are Vancouver Island, Queen Charlotte Islands and a large portion of the archipelago of the Pacific Ocean.

Speaking generally, British Columbia is a highly mineralized mountainous country with intervening valleys of splendid arable and pasture lands, magnificent forests and incomparable waterways. Its timber is unequalled in quality, quantity and variety; its numerous gold, silver and coal mines already working and under process of development, and the wide extent of partly unexplored territory denote vast areas of mineral wealth; its fertile valleys indicate

wonderful agricultural and horticultural possibilities; and its waters contain untold quantities of the most valuable fish. These, combined, give British Columbia a wealth the extent of which has not yet been realized.

British Columbia has an ocean frontage of 1,000 miles, and the coast line is sinuous and indented to a remarkable degree.

It has many fine harbors, the principal of which is located at the entrance of Burrard Inlet, a few miles north of the mouth of the Fraser river, on which is Vancouver, the western terminus of the Canadian Pacific Railway.

Victoria, on Vancouver Island, possesses an outer harbor at which all the ocean liners dock, and an inner harbor for vessels drawing up to eighteen feet.

Four principal mountain ranges traverse the mainland of the province from southeast to northwest. The Rockies on the eastern frontier rise to an altitude of 16,000 feet. West of the Rockies are the Selkirk and Gold ranges, with many elevations of 10,000 feet. Farther west are the Cascades and Coast ranges, averaging 100 miles in width with mean elevations of 6,500 feet. Between the Gold and the Coast ranges is the great interior plateau.

The principal rivers are the Fraser, Columbia, Skeena, Nass, Stikine, Liard and Peace.

The Fraser is the great watercourse of the province. It rises in the northern part of the Rocky Mountains, runs for about two hundred miles in two branches in a westerly direction, and then in one stream runs due south for nearly 400 miles before turning to rush through the gorges of the coast range to the Straits of Georgia. Its total length is about 740 miles. It is navigable for vessels drawing twenty feet to New Westminster, about fifteen miles from its mouth, and for light draught river boats to Yale, a small town 110 miles from the mouth, and again for

smaller craft for about 60 miles of its course through the interior, from Quesnelle Mouth to Soda Creek in Cariboo.

The Columbia is a large river rising in the southeastern part of the province, in the neighborhood of the Rocky Mountains, near Kootenay lake. It drains a total area of 195,000 square miles.

The Kootenay rises near the head waters of the Columbia and flows south through East Kootenay, Montana and Idaho, and returning to British Columbia empties into Kootenay Lake, its waters again being discharged through the Lower Kootenay river into the returning branch of the Columbia.

The principal lakes are the Kootenay, Slooan, Arrow (Upper and Lower), Okanogan, Shuswap, and Harrison in Southern British Columbia and Quesnelle in Northern. They are all navigable, and on the four first named steamboat service has been established.

There is a great variety in the climate of British Columbia. In the southwest it is characterized by mild winters, cool, dry summers, southwest winds, and occasional fogs. In the north, winter is severe, and in the interior there are considerable extremes of heat and cold. At Esquimalt on the Island of Vancouver the highest average temperature for a number of years has been 86.4 degrees; the lowest 16.7 degrees, the mean annual temperature 47.73 degrees; rainfall, 38.77 inches; snowfall, 41.9 inches. At Mission Valley in the upper mainland, the highest average temperature for a number of years has been 98 degrees; lowest, 17 degrees below; mean annual 43-40 degrees; rainfall, 5.52 inches; snowfall, 59.7 inches. At Nicola Lake, in the interior plateau, the average rainfall is 12 inches.

In East Kootenay the climate is so mild that hops can be successfully cultivated and fruit gives a fair

yield, considering that the little orchards were only planted a few years ago.

On the shores of Kootenay Lake, apple, pear, plum, cherry and fruit trees are all found doing well within short range, and of excellent quality. Large reclamation works are going on on lands in the Kootenay river, where 40,000 acres of bottom lands have been dyked. The manager of the works states, "We have found the soil and climate of the Lower Kootenay meadows almost phenomenally favourable for cereals, root crops, garden vegetables, and small fruits. The climate is both healthful and pleasant."

The rainfall of the interior is light. At Spencer's Bridge it is only 11.3, while on the coast there is a rainfall of 40 inches. The seashore climate of Vancouver Island is milder than many parts of England, with less rain and less seasonal variations. The west slope of the Coast range has a rank vegetation, owing to the excessive rainfalls, and the lower grounds if mild, have, as a climate for residence, attractions rather for the pursuit of agriculture than as health resorts for the invalid.

HISTORY.

The first European to visit these Pacific shores was Captain Cook, the famous navigator. In March 1778 he dropped anchor off Vancouver Island, and named the waters King George's Sound. It is now known by its Indian name, Nootka Sound.

The discovery by Captain Cook was noised abroad, and in 1786 four trading expeditions were fitted out for these waters. In 1788 Captain Meares, formerly a lieutenant in the British Navy, arrived at Nootka with two ships and ninety men. A small fort was built, and in the summer a forty ton vessel was launched, called the "North-West America."

Captain George Vancouver was sent out from Great Britain to receive possession of Nootka. He also

made a survey of the northern coast, and returned to England in 1790.

Among the early pioneers of the Pacific Coast and the far North-West were Samuel Hearne, Alexander (afterwards Sir Alexander) Mackenzie, Simon Fraser and David Thompson. Their names are preserved in the geography of the country.

In 1849 the Island of Vancouver was granted to the Hudson Bay Company for a period of ten years. A form of government was established, and Richard Blanshard was sent out from England, its first governor. He resigned his post in 1850. James (afterwards Sir James) Douglas, chief factor of the Company, then became governor, and thus the real as well as the nominal control was placed in the hands of the Company. An assembly was called, and it held its first meeting in August, 1856. It framed laws, but the real law of the colony was the will of the Company.

The mainland was still called New Caledonia and it was practically an unknown country. Gold was discovered on the Fraser river in 1857, and miners began pouring into that region. Order had to be maintained, and consequently some form of government had to be set up. Therefore the mainland was made a province under the name of British Columbia to be ruled by a governor and a small council.

In 1866 the two Pacific coast colonies were united under the name of British Columbia. On July 20, 1871, British Columbia became a Province of the Canadian Confederation. The legislative council of British Columbia was abolished and replaced by an assembly composed entirely of elected members. British Columbia therefore entered the Dominion of Canada with a constitution very similar to that of the older provinces and with the assurance that "responsible government" was firmly established.

British Columbia entered Confederation upon the condition that within two years the construction of a railway should be commenced that would connect the Pacific coast with the older provinces in the east. This road is now the Canadian Pacific Railway. It was completed in 1885, and it gave Canada and the Empire a great highway from the Atlantic to the Pacific. The long-sought "Northwest passage" to the far East has been found: but not by the way of the frozen seas of the Arctic region, but across the broad prairies and through the mountains of Western Canada.

The city of Victoria on the Island of Vancouver is the capital of British Columbia. The provincial government consists of a lieutenant-governor, an executive council or cabinet of five members, and a legislative assembly containing thirty-three members elected by the constituencies into which the province is divided. The members of the Executive must hold seats in the Assembly and receive the support of that body.

MINES AND MINERALS.

The three leading industries of British Columbia are mining, fishing and lumbering.

The development of British Columbia as a mining country has been rapid during the last few years, but can only be said to have begun, systematic work being so far confined to a few districts of a comparatively limited size.

The output of gold is now greater than ever before, considerably surpassing that of 1863 when placer-mining reached its point of greatest production. Quartz mining is now the system that is most profitable. This necessitates a large outlay of capital, and therefore mining for gold is now in the hands of companies. The scene of the chief operations is the boun-

dary and Okanogan districts. The Rossland and Nelson districts are rich in gold bearing quartz.

The value of the mineral products for 1899 was \$12,293,131; in 1900 the value was \$16,311,751, and in 1901, (the last year for which revised returns are available), the value was \$20,086,780. The complete returns for 1901 are as follows:—

Gold, placer	Ounces	48,505	\$ 970,100
“ lode	“	210,384	4,318,603
Silver	“	5,151,333	2,881,745
Copper	Pounds	27,603,746	4,416,963
Lead	“	51,582,906	2,002,733
Coal	Tons, 2,240 lbs	1,460,331	4,380,993
Coke	“ “ “	127,081	635,405
Other materials			417,238
			<hr/>
			\$20,086,780

The returns showing the output for 1902 have not yet been completed, but the estimated value of the output is \$18,000,000.

Coal was discovered as early as 1835, but it was not until 1875 that the output of the province exceeded 100,000 tons per annum. Since that time, however, the market has gradually increased until, in 1902, about 1,500,000 tons of coal and 128,000 tons of coke were produced, the market and transportation facilities, rather than the mines, being the limiting factors in the production.

The Vancouver Island collieries have produced to date a total of nearly 17,500,000 tons of coal, and within the past three years one of the coal fields on the western slope of the Rocky Mountains has been rendered accessible by a railway, and has made an output during the past year (1902) of over 200,000 tons of coal, almost 110,000 tons of coke also being manufactured.

At present the only working collieries in the province are in the two districts just mentioned, but the distribution of coal seems general, since it is known to exist in places along the whole western slope of the Rocky Mountains; it is found in the interior valleys at Nicola, on the Thompson River and in the Omineca District; it occurs on the Pacific Coast on Vancouver Island, on the Queen Charlotte Islands and along the Skeena River, while recent reports confirm its discovery in the Chilkat District of the Lake Bennett Mining Division.

The variety of coal found is a first-class bituminous, carrying from 60 to 75 per cent. of fixed carbon, from 20 to 30 per cent. of volatile combustible matter, and from 3 to 9 per cent. of ash.

As will be seen, the greater part of this immense reserve of power—for coal is power—remains dormant at present, an asset reserved for use in opening up the coming trade of the Pacific Ocean.

In 1858 alluvial or "placer" gold was found in the bars of the lower Fraser River, and, in 1860 and 1861, on the headwaters of the river in the Cariboo District, which produced gold to the value of about \$50,000,000. From this time practically dates the opening up and settlement of British Columbia.

Within the next ten years the province produced about \$33,000,000 worth of "placer" gold, the greatest production in any one year being in 1863 and amounting to about \$4,000,000. All of this gold was obtained with pick and shovel, without the aid of any machinery.

Gradually, as the workings became too deep for the ordinary pick and shovel methods, then only available, the placer output gradually dropped until, in 1898, the annual production was only a little over half a million dollars.

In 1899, however, placer mining was revived by the discovery of new fields in the Atlin District, a con-

tinuation to the north of the famous Cariboo and Omineca diggings of the past, and the connecting link between these and the more recent, but equally famous, goldfields of the Yukon, thus completing the chain of continuous "placer" districts from the 49th parallel, north-westerly, to the 69th parallel.

It is only repetition of the history of all placer mining countries that prospecting for lode mines receives little or no attention until after the placer grounds have been so culled over as to force the prospector into new fields of labour.

Thus, it was not until 1893 that the lode mines of British Columbia really began to be productive, the output from this source during the six years immediately prior to that date amounting to an average value of only about \$60,000 a year, derived from selected rich ores found near the existing lines of transportation.

In 1893, however, the value of the production of the lode mines of the province rose to \$300,000, since which time there has been a steady increase, until in 1901 the output from this class of mining had reached a value of \$13,683,041, and although it fell off slightly in 1902 the decrease was due principally to the lesser market values prevailing. The increase thus shown in the short period of nine years gives ground for faith in the country as a future large producer of mineral wealth, and indicates that British Columbia will prove to the capitalist a profitable field for investment.

FORESTS.

No other province of Canada, no country in Europe, and no State in North America, compares with British Columbia in respect to its timber.

There are prairies here and there, valleys free from wood, and many openings in the thickest country, which in the aggregate make many hundred thousand acres of land on which no clearing is required, but

near each open spot is a luxuriant growth of wood. The wooded area covers thousands of square miles, and includes forty kinds of timber; and even with a large number of saw-mills with a great daily capacity there is little danger of the depletion of the forest lands to any appreciable extent.

The finest growth is on the coast and Vancouver Island, and in the Gold and Selkirk ranges. Most prominent among these trees is the Douglas fir, a forest giant that sometimes attains a height of three hundred feet, with a base circumference of from thirty to fifty feet. A good average, however, is a stick one hundred and fifty feet clear of limbs and five to six feet in diameter. This timber is the greatest British Columbia tree in so far as commerce is concerned, and in the opinion of many botanists is an admirable wood for pulp purposes. The yellow and red cedar, although not so widely distributed as the larger fir, is quite as valuable, if not more so. The red variety is employed largely for shingle making, the market for this shingle gradually growing in the East. Among the trees which play a prominent part in the commerce of the province are the white spruce, hemlock, white pine, balsam, tamarac, yew, cedar and cottonwood. The maple is also a valuable tree, although not so general as the others mentioned. There is an immense amount of timber suitable for pulp manufacture along the coast, and steps have recently been taken by the Legislature to encourage this industry by setting apart areas of timber lands for the purpose of establishing it in British Columbia.

The approximate number of lumber and shingle mills in operation in the province last year was 116, whose output was about 232,000,000 feet of lumber and 200,000,000 shingles. The capital invested in saw-mills last year—not including the amounts invested in timber limits—was about \$1,000,000.

Despite the number of mills in operation, the supply of timber seems to be inexhaustible, the extreme density of the forest, an acre of which sometimes yields 500,000 feet of lumber, rendering the deforestation slow.

The market for British Columbia timber is becoming world-wide, and vessels from British Columbia carry the sawn product to Great Britain, Anstralia, Africa, South America, China and Japan, United States and Mexico.

The trees indigenous to the province are as follows: White fir, western white fir, mountain balsam, large-leaved maple, vine maple, red alder, arbutus, western birch, canoe birch, western dogwood, red cedar, American larch, mountain larch, western larch, white spruce, western black spruce, black spruce, white-bark pine, scrub pine, white mountain pine, black pine, yellow pine, western crab-apple, balsam, poplar, cottonwood, aspen, cherry, Douglas fir, western white oak, lance-leaved willow, willow, western yew, giant cedar, yellow cypress or cedar, western hemlock, Alpine hemlock.

AGRICULTURAL LANDS.

There is almost every description and quality of land in British Columbia, from the rich river bottom land, such as that in the Fraser delta, to the light covering of moss and sand at high altitudes on the mountains. Between Yale and the coast, in the New Westminster district, where the rainfall is regular, the land of the valleys is rich and heavy; east of Yale, where the rainfall is slight and irregular, there is a considerable quantity of good land, very productive under irrigation. In the Nicola and Okanagan valleys of the Yale district, and in both the Kootenays, there is a quantity of very fertile land, in some parts, as in the Okanagan section, requiring irrigation, and in other places sufficiently cared for by the rainfall. On the higher lands, the bunch grass grows freely, and affords the

best pasturage for cattle. Where water is convenient for irrigating purposes, grains and vegetables succeed well in those sections otherwise used only for grazing. Along the Fraser valley fruit ripens well. A great number of varieties have been tried at the Experimental Farm at Agassiz, and the more delicate fruits have been successfully cultivated. Still greater success has been achieved in the Okanogan valley, a considerable distance east of Agassiz, so that in all parts of British Columbia south of the Canadian Pacific Railway the land, when worked as circumstances require, is found to be of the first quality for agricultural purposes. North of the railway line, in the district of Lillooet and Cariboo, there is a considerable quantity of land adapted to farming, and still larger tracts admirably suited for cattle-raising.

On Vancouver and adjacent islands are many fine farming districts, the lands being very productive. Mixed farming, dairying and fruit-raising are chiefly followed. Agricultural pursuits are here placed amidst beautiful surroundings and in a mild and equable climate.

FISHERIES.

An important part of the trade of British Columbia is the wealth of fish in the waters of her coast. Of these the most valuable at present is the salmon. They literally teem in the Fraser and Columbia rivers, and frequently visitors are astonished during the spawning season by the sight of broad expanses of river, or deep pools, packed almost solid with wriggling masses of splendid fish making their way to the spawning grounds. The salmon make their way for great distances up the rivers. The salmon of the Columbia fill the streams of the Kootenay; those of the Fraser are found six hundred miles in the interior. There are 77 canneries in the province, employing nearly 20,000 men during the season. This is exclu-

sive of those employed in sealing and deep sea fishing. Each cannery costs from \$30,000 to \$10,000 equipped.

Besides the salmon are the oolachan, which come in great numbers, and supply a valuable oil largely used by the natives. The black cod, a superior food fish, abounds from Cape Flattery northward. Cod, similar to the eastern variety, are taken on the banks off the coast of Alaska. Halibut of fine quality and large size are plentiful in the inner waters, on the banks off the west coast of Vancouver Island, and further north. Tho halibut fisheries are just being developed, and during the past three years large quantities were exported. Sturgeon of very heavy weight, and occasionally up to 1,000 pounds, are numerous in the Fraser and large rivers.

According to the latest government report the value of the yield of the fisheries of British Columbia during the year was \$7,942,771, the catch of salmon alone being worth \$6,567,948. The values of the other provincial catches were: halibut, \$285,050; oolachan, \$30,000; fur seals, \$366,330, etc.

In the fisheries were employed 168 vessels, value, \$353,000; 4,398 boats, value \$301,307; 785,800 fathoms of gill-nets, value \$589,000; 77 salmon canneries, value \$1,540,000; 7 cold storage plants, value \$87,000. The value of vessels engaged in fur-sealing was \$370,500, and the value of boats, canoes, spears, etc., \$23,900. The total capital invested in the fisheries of British Columbia is \$3,360,082; men employed, 20,354.

SPORT.

The sportsman will find a greater variety of fish and game in British Columbia than in any other part of North America. There are, indeed, few regions which can boast anything like the variety of species. Whether with rifle, or with smoothbore, or with rod, there is almost a bewildering choice. The three great

parallel ranges of the mainland hold an immense amount of big game. In the Rockies there are big-horn, goat, caribou and deer; in the Selkirks, goat and caribou, and in the Coast range, goat and quantities of the true blacktailed deer. Grizzly and black bear are to be found in numbers throughout the province. In some districts the grizzly will be the more numerous, while in others, black bear are found in the greater number. The mule deer, miscalled blacktail, is so abundant in East Kootenay, the boundary county, Okanogan and Lillooet, as to be a very certain source of supply for the ranchers and miners to draw upon. Elk (wapiti) shooting may be indulged in by those visiting the northern end of Vancouver Island. It is believed that the elk is extinct upon the mainland, with the possible exception of the southeastern corner of the province, but on Vancouver Island it is tolerably abundant, although, unfortunately, it frequents a very densely forested region, so that the hunting means hard work.

Although few persons, however keen, would visit British Columbia merely for the sake of its wing shooting, yet it is undeniable that, with the exception of Manitoba and the Territories, a man may find as much work for his breech-loader in the province as he would almost anywhere. Five species of grouse and vast quantities of wildfowl, from swans to teal, abound in suitable localities. The marshes of the Columbia swarm with mallard and other choice duck in the autumn; the Arrow Lakes and the upper valley of the Fraser form a trough much frequented by the wild geese during their migrations, and the fiords and sounds of the coast shelter great flocks of wildfowl throughout the winter—for it must not be forgotten that the winters of the Pacific are very much less rigorous than those of the Atlantic, and that a very large proportion of the birds do not go further south than Vancouver Island.

TRADE AND TRANSPORTATION.

With the exception of Holland the trade of British Columbia is the largest in the world per head of population. Last year the exports amounted to \$18,385,335; imports, \$10,391,256, and duties paid \$2,351,404. The leading articles of export are fish, coal, gold, silver, timber, masts and spars, furs and skins, fish oil and hops. A large portion of the salmon, canned and pickled, goes to Great Britain, Eastern Canada, the United States, the Hawaiian Islands, Australia and Japan; the United States consumes a large share of the exported coal, and great quantities of timber are shipped to Great Britain, South Africa, China, Japan, India, Anstralia, and ports in South America. To Great Britain and the United States are sent the valuable furs and peltries of land animals and the much-prized seal, otter, etc. China also receives a considerable amount of lumber, timber and furs. Valuable shipments of fish oil, principally obtained from dogfish at the Queen Charlotte Islands, are consigned to the United States and to the Hawaiian Islands. A large inter-provineial trade with Eastern Canada, Manitoba and the North-West Territories is rapidly developing, the fruit of the province being largely shipped to the prairies, where it finds a good market. With the shipping facilities offered by the Canadian Pacific Railway and the magnificent steamship lines to Japan, China, Australia and the Hawaiian Islands, backed by her natural advantages of climate and geographical position, and immense resources in timber and minerals, British Columbia is gradually obtaining her proper share of the commerce of the world.

The principal railway in the province is the Canadian Pacific which crosses the Rocky Mountains by two different routes and extends to the city of Vancouver on the coast. The railway mileage of the province is

1,408 miles, being one mile of track to each 271 square miles of area.

The tonnage of vessels employed in the coasting trade is 7,062,657 tons, and of sea-going vessels carrying cargoes to and from the ports of the province, 2,386,572 tons.

CITIES.

Victoria is the capital of British Columbia, and the "Queen City" of the province. It is situated on the southern end of Vancouver Island, about forty miles distant from the mainland, and is an exceedingly beautiful residential spot. It has a population of 21,000.

Victoria has the advantage of being a port of call of the Royal Mail Steamship Line of steamers to and from Japan and China; the R. M. Line to Honolulu, H. I.; Suva, Fiji; Wellington, New Zealand, and Sydney, Australia, and several other lines. Steamers run daily between Victoria and Vancouver.

Three and one-half miles from Victoria is the harbour of Esquimalt, the headquarters of the British Squadron in the North Pacific. The harbour is a magnificent one, affording excellent anchorage with deep water. The place is strongly fortified.

The city of Vancouver is the principal shipping port of British Columbia. It is situated on a peninsula of the mainland, having Burrard Inlet on the east, one of the finest harbours in the world, and English Bay on the west. The surrounding country is fine and the climate is mild. It is a young city and its growth has been rapid. It is the western terminus of the Canadian Pacific Railway. It has a population of 27,000. Nanaimo on Vancouver Island, and Nelson and Rossland in the interior, each has a population of about 6,000.

DISTRICTS

Besides the three districts of Assiniboia, Alberta and Saskatchewan which are generally known as the North-west Territories, there is that vast and largely unorganized region, enclosing Hudson Bay and stretching northward to the Alaska boundary and the waters of the Arctic Ocean. The greater part of this region is an unknown land with a sparse population of savages, and visited only by trappers and explorers.

To the east is the region known as Ungava. It lies directly north of the Province of Quebec and is separated from the Atlantic Ocean by the Labrador coast, which stretches from the Strait of Belle Isle north to Hudson Strait. Its western boundary is the shores of Hudson and James Bays. It has an area of 354,961 square miles. Farther north is the District of Franklin with an area of 500,000 square miles.

On the west side of Hudson Bay is the District of Keewatin. It reaches north from Ontario and Manitoba to the Gulf of Bothnia and the waters of the Arctic Ocean. On the west are the Districts of Saskatchewan, Athabasca and Mackenzie. Keewatin has an area of 470,416 square miles. Through this district flow the rivers which empty their waters from the west into the great inland sea of Hudson Bay. The region contains many lakes, among them being Lake Winnipeg, which extends north from Manitoba into Keewatin. Near the outlet of the lake is the famous Hudson Bay Company's post, Norway House. At Port Nelson on the bay is the trading post of the lone north, York Factory.

Lying between Keewatin and British Columbia and north of Saskatchewan is the District of Athabasca, named after the great lake which is situated within

its limits just south of the Reindeer or Cariboo Mountains. The district has an area of 251,965 square miles. Athabasca Lake discharges into the Slave River flowing into the Great Slave Lake, which in turn discharges into the Mackenzie River which empties into the Arctic Ocean. This great north country is known as the Mackenzie District, with an area of 562,182 square miles. On the west it is separated by the Rocky Mountains from the celebrated Yukon Territory. This territory extends north from British Columbia and on the west it is bounded by the United States Territory of Alaska. Its principal river is the Yukon, flowing to the north-west until it passes into Alaska, and then it bends to the southwest and finally empties into the Behring Sea. Among its tributaries in the Yukon are the Big Salmon River, the Pelly River, and the world-famed Klondike; area 196,176 square miles.

Until within a few years it was known only as a barren region, with a sparse native population, and yielding only some small product in skins and furs. Miners arrived in 1878, and gold was found on the river-bars of the Lewes and Salmon in 1882 and 1883. Late in the autumn of 1886 "coarse" gold was found on Forty-Mile River, a tributary of the Yukon from the west which joins the main river near the Ala-kan boundary. The few miners in the district gathered there in 1887, and, following up its tributaries, found rich ground. The productive fields were gradually extended southward across the local watershed to the tributaries of Sixty-Mile River. Then came the rush of miners to the Klondike in the years 1897 and 1898. Great hardships were endured by those first comers, but greatly improved means of access have since been established. A railway is now operated from the coast to the head of the Lewes River, and steamers have been placed upon that river and on the Yukon. From 1885 to 1892 inclusive, the value of gold produced in the Yukon amounted to \$84,813,500.

THE KLONDIKE.

The late Dr. Dawson, for many years Director of the Geological Survey of Canada, wrote of these gold fields as follows:

"The Klondike gold-fields are situated in a tract of country of some 800 square miles in area between Klondike and Indian Rivers, affluents of the Yukon River, near the 64th degree of north latitude. The region may be described as a high plateau, deeply trenched by the wide flat-bottomed valleys of a number of tributaries of the rivers just mentioned. These rise together near the central part of the original plateau, which constitutes the highest ground in the vicinity and is known as The Dome. Very numerous, short and narrow tributary valleys and gulches join the several larger streams along their courses, to nearly all of which local names have now been applied.

"The gold is found and worked in the gravel deposits of the valleys and their adjacent slopes. It is evidently local in its origin, for it is usually but little worn by attrition, and often still contains quartz, and the associated gravels themselves are composed solely of the rocks of the immediate vicinity. So far, little gold has been discovered in the parent rock, but lode mining or 'quartz mining' may confidently be looked forward to in the near future in such a district.

"Good lignite coal is known to exist and is already worked to a small extent in several places; copper has been discovered, both in the form of the native metal and as sulphide ores; argentiferous galena has been found, and gold-bearing quartz in paying deposits is almost certain to be developed. The future of the Yukon district as a mining region seems, therefore, to be assured, in conformity with the general forecast which has long been made in regard to the prospective mineral wealth of each and every considerable part of the Western Cordillera."

Several of these northern districts possess another very valuable asset, which although not so easily converted into ready money as the gold of the Yukon, will in time become the source of great wealth. In the basin of the Mackenzie river and its tributaries, the Athabasca, Peace and Laird rivers, is the great forest of the North-West. It consists chiefly of poplar, pine, banksian and a good quality of pine. There are also large forest and pulpwood areas in the Ungava district, very similar to the woodlands in Northern Quebec.

According to the report of the Geological Survey and of Dominion land surveyors there are in the Territories of Canada 696,952 square miles of forest and woodland.

The population of the Yukon is 27,219, and of the other districts 25,490.

In the Yukon Territory there is one place which, although small in size and population, has a name known throughout the world. It is Dawson City, the seat of the Territorial government, and the centre of the Klondike mining operations. It became known in 1896, and since then its fame has gone abroad. It is situated on the Yukon river a few miles from the Alaskan boundary.

CITY OF MONTREAL

Montreal, the largest city in Britain's possessions in the western world, is the commercial metropolis of the Dominion of Canada, the home of her strongest financial institutions, the scene of her greatest industrial activity, the door through which passes the larger part of her external trade. Situated well inland nearly one thousand miles from the Atlantic, Montreal is still an ocean port; belonging to the eastern group of Canadian cities, she is the gateway to the Canadian west; filled with the New World spirit and taking the New World view of life she has a past behind her that reaches back to the early colonial days when the country was a wilderness and its masters savage red men; the chief city of Britain's premier colony her population is largely composed of the descendants of France's pioneers in the western world, men who first planted the seeds of civilization in the Valley of the St. Lawrence and who left their mark on the history of the continent. The visitor coming to study the conditions of life in the Dominion of Canada, her industrial and intellectual development, the aspirations of her people, and the promises of her future, will find in the city of Montreal much that will interest him and aid him in his task. One thing he will not fail to receive, and that is a hearty welcome from all classes.

The city of Montreal is situated upon the southeastern side of a triangular island formed by the mouth of the Ottawa river, which, after a course of 600 miles, pours its waters into the St. Lawrence. The length of the island is 30 miles and its greatest breadth about 7 miles. Along the southern and eastern sides of the

island flows the St. Lawrence and part of the waters received from the Ottawa, and on the bank of this mighty stream is built the city of Montreal. From this stretch of river-front the land rises in a succession of terraces until the elevation terminates in Mount Royal, 900 feet above sea level. The Mountain stands directly behind and in close proximity to the city to which it has given both its name and the finest natural park on this continent. Between the base of the Mountain and the river, and spread out to the right and left, stands Montreal and her suburbs. To the north and west of the Mountain the country is generally level, sloping gradually away to the "back" branches of the Ottawa, which on this side separate the Island from the mainland.

From the Mountain-top a view of varied and matchless beauty greets the eye. At one's feet lies the busy city, and beyond are the glimmering waters of the St. Lawrence, whose broad expanse is spread out to view almost as far as the eye can see. Across the river is the level farm land of the valley of the St. Lawrence, stretching away towards the mountains which loom up along the southern and eastern horizon and mark the boundary line between Canada and the New England States. To the west are the gardens and orchards and meadows of the island farmers, and here and there the glittering spires of the parish churches. Through the gaps in the distant woods can be seen the silvery surface of the Ottawa, and more distant still the rugged outlines of the Laurentian Hills, which flank the river to the north. Such is the panorama that rivets the attention and commands the admiration of the visitor to Mount Royal.

Accessible to sea-going ships and situated at the confluence of two great rivers, Nature intended Montreal to be a busy mart. From the west flows the Ottawa, the outlet of the great pine region of Canada,

whose timber areas, although worked for years, have still stored in their sombre forests millions of wealth. From the southwest rolls the mighty St. Lawrence bearing to the Atlantic the surplus waters of the Great Lakes, which extend westward to the very centre of the continent. Meeting at Montreal, the united volume of these two rivers forms a waterway navigable by ocean steamships of the first class. No other seaport on this continent is so near the wheat fields, the cattle ranches and the lumber forests as Montreal. The early French fur traders realized the natural advantages of the site, and long before a permanent settlement was effected on the island it was their practice to pitch their tents here each season and await the coming of the Indians from the south and west with their canoes laden with the spoils of the chase. From that time to the present day trade has flowed in increasing volume through these natural channels.

HISTORY.

The first white man to set foot on the fair island upon whose shore stands to-day the commercial metropolis of Canada was that hardy French sailor, Jacques Cartier, whom history has honored with the title of Discoverer of Canada. He landed one bright October day, 1535, and found a large fortified Indian town which its inhabitants called Hochelaga. From the mountain top he viewed the surrounding country over which the dense forest threw its gloom. The rude but hearty hospitality of the Indians was partaken of and then Cartier and his party paddled back to their ships at Quebec. Sixty-eight years elapsed before the white man came again. In 1603 Champlain, the founder of Quebec and "the maker of Canada," proceeded up the St. Lawrence as far as the Lachine Rapids, just above the present harbour of Montreal. Soon after, fur traders began to frequent

the place, but it was not until 1642 that a colony was planted here and the foundations of Montreal were laid. Its founder was Maisonneuve who, accompanied by de Montmagny and sixteen followers, on May 18, 1642, landed on or near the spot where the Custom House now stands.

“Eighteen they were in all—five of them women, of whom two, Madame de la Peltrie, and Mademoiselle Jeanne Mance, were of the same class as their leader; but difference in caste in no way interfered with the common zeal, nor diverted their common aim—the building of a ‘city of God’ in the midst of a heathen world.”

A small fort and chapel were built and the little band, the first citizens of Montreal, set out to face the difficulties and dangers of their trying situation. Ten years later actual colonization began and grants of land were made, but after twenty-five years of existence the little colony had a population of only 765 souls. In 1672 streets were laid out and named, and shortly thereafter the town was enclosed with a wooden palisade. In 1717 a Bourse or Exchange was opened, and in 1721 a postal service was established between Montreal and Quebec, the capital of New France. The population of New France numbered at this time about 3,000 souls. The Seven Years’ War, which broke out in 1755, brought general distress to the colony, and Montreal shared in the hard times, but the end of the Old Regime came in 1760 when Governor Vaudreuil surrendered Montreal to General Amherst, and three years later the treaty of Paris ceded Canada to the British Crown.

After fifteen years of peace and considerable growth Montreal again felt the shock of war. During the war of the American Revolution an army led by General Montgomery invaded Canada, captured Montreal and besieged Quebec. Montgomery lost his life before

the walls of Quebec, the invasion failed, and in the spring of 1776 Montreal was evacuated. In 1809 the first steamboat built in Canada and the second in America, was launched at Montreal and navigated the St. Lawrence between that city and Quebec. In 1832 Montreal was incorporated, and during the same year work was commenced upon the first line of docks. In 1836 a railway was constructed from St. Johns on the Richelieu river to Laprairie on the south side of the St. Lawrence, nine miles above Montreal. This was the first railway in Canada.

In 1842 the city's population was somewhat over fifty thousand.

A NEW ERA.

"The old order" of things in Montreal was drawing to a close, and an era of larger things was dawning. The Montreal Board of Trade, the corporation that has done so much for the commerce of the city, came into existence in 1842. Those were fairly prosperous years and the general trade of the city increased steadily.

Still, however, the town maintained its medieval aspect. Few vestiges are now left of the old town, but many existed then. The streets were narrow and crowded. The merchants lived over their warehouses, and their clerks often lived with them. The few residences above St. Catherine Street were like manor houses among the fields, which stretched down to Dorchester street. The old town was solidly packed and it was only on the new streets like St. James street, Craig street and McGill street, that there were many gaps. The presence of a large garrison of British troops added to the gaiety of the city. The daily parade at 11 a.m., always attracted many citizens to the Champ de Mars, then the centre of the town.

In summer the merchants led a busy life, but when winter came navigation was closed and wholesale trade

was dull. During these months the heads of business houses came down to their offices for only a short time each day.

During the year 1851 a railway to Rouse's Point on the frontier of the State of New York was completed. Other lines to the south and east, now parts of the Grand Trunk system, were soon constructed, and in 1853 the road was opened through to Portland, Maine. The St. Lawrence ship channel was deepened to 15 feet 2 inches, and the *Genova* arrived, being the first ocean steamer to reach Montreal. She was followed by the *Sarah Sands* and the *Lady Eglinton*. No railway to the west was yet open, and the Lachine canal had to take all the Western freight. The canal looked busier then than it does now, but the vessels that thronged it were small. The tonnage passing through is now double that of 1853.

The first stone of the Victoria Bridge was laid on July 20, 1854, and in the same year the railway was opened to Levis. The year 1854 also marks the true commencement of the movement which has made this city a great manufacturing centre, for then Mr. John Redpath established his great sugar refinery.

About this time the Allan Brothers, who had for years been in the shipping business, established the Montreal Ocean Steamship Company, which in 1856 commenced a fortnightly service with four steamers.

The first train from Montreal to Toronto left on October 27, 1856, and in November the same year the line was opened as far as Stratford, Ont.

In this year also the present water-works were completed, with the exception of the upper reservoir.

On December 17, 1859, the Victoria Bridge was completed, and in the following year it was formally opened by the Prince of Wales. In 1859 the Grand Trunk Railway was opened to Lake Huron.

The Allan Line now gave a weekly service, and the year was also marked by the establishment of a num-

ber of important factories along the bank of the Lachine canal.

In 1872 large cotton mills were established at Hochelaga in the eastern outskirts of the city, and the manufacture of silk was introduced in 1876. The North Shore Railway from Quebec to Montreal was opened in 1879 and extended to Ottawa. It was known as the Quebec, Montreal, Ottawa and Occidental Railway, and to-day it is part of the Canadian Pacific Railway system.

On October 21, 1880, a contract was entered into between the Canadian Government and the Canadian Pacific Railway Company for the construction of a transcontinental line; and on June 28, 1886, the first through train to the Pacific coast left Montreal for Vancouver.

MONTREAL OF TO-DAY.

Montreal is surrounded by a number of suburbs so closely built to the city that they practically form part of one industrial and commercial centre, and they should be taken into account in studying the life of Canada's business metropolis.

The population of Montreal and her principal suburbs according to the census of 1901, compared with the census of 1891, is as follows:—

	1901	1891
Montreal..	267,730	219,616
Ste. Cunegonde....	10,912	9,291
St. Henri..	21,192	13,413
St. Louis..	10,933	3,587
Westmount..	8,856	3,076
Maisonneuve	3,958	1,226
Ontremont..	1,148	408
De Lorimier...	1,279	450
Verdun..	1,898	296
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	327,906	251,363

Montreal has 180 miles of streets, and in these streets 666,900 square yards of permanent paving. Her annual consumption of water amounts to about eight billion gallons. The total annual civic revenue is three and a half million dollars, and, according to the last annual report of the City Treasurer, it was derived principally from the following sources: Assessments on real estate, being one per cent. on value for municipal purposes and one-fourth of one per cent. for school taxes; water-rates being seven and one-half per cent. on rentals of dwellings; from business duty and personal tax, vehicle licenses and other special licenses. In 1902 the revenue amounted to \$3,379,219, and the expenditure on revenue account amounted to \$3,305,867.

The value of the real estate in the city, according to the assessment roll is \$190,000,000, of which \$38,500,000 is exempt from taxation.

The municipal affairs of Montreal are administered by a City Council, composed of a mayor and thirty-four aldermen. The mayor is elected by the voters throughout the entire city. He is granted an allowance not exceeding \$4,000 a year, and serves for a term of two years. The aldermen are elected by the voters of each of the seventeen wards into which the city is divided, each ward returning two aldermen. They hold office for two years and are paid an annual salary of \$600, while each chairman of a permanent committee is paid an extra allowance of \$200 a year. The executive work of the council is mainly done under the direction of standing committees. The city holds its charter from the Legislature of the Province of Quebec.

THE GREAT WATERWAY.

The waterway, of which Montreal is the most western port accessible to ordinary ocean-going vessels, extends from Port Arthur on Lake Superior in the

west to the Straits of Belle Isle on the east, the northern outlet of the Gulf of St. Lawrence into the Atlantic Ocean—a distance of 2,360 miles. From the Straits of Belle Isle to Liverpool the distance is 2,234 miles, making a total water route of 4,494 miles from the heart of North America to the shores of Great Britain.

Tidal navigation extends inland as far as Portneuf, 36 miles above Quebec and 862 miles from the ocean. The distance between Montreal and Quebec by the River St. Lawrence ship channel is 160 miles, and of this distance 65 per cent. is natural deep water not requiring improvement. Owing to shallowness along other portions of the river between these two places, in particular through Lake St. Peter, vessels drawing more than from 10 to 12 feet were formerly barred from passage for the greater part of the season of navigation. In 1826 the question of deepening the channel was first definitely mooted, but it was not until 1844 that any dredging operations were begun. In that year the deepening of a new straight channel was commenced, only to be abandoned in 1847. Three years later dredging operations on the present channel were started, and by 1869 the depth had been increased to 20 feet. At present there is a minimum low water depth of 27 feet 6 inches. The work is being steadily proceeded with, and it is expected that by next year ships of 30 feet draught, by taking advantage of the tide for 50 miles above Quebec, will be able to navigate between Quebec and Montreal at lowest water with safety.

Above Montreal the navigation of the St. Lawrence River is obstructed at a number of places by a series of rapids. A lake-going steamer can safely pass through these coming down stream, but in ascending the river it is necessary to make use of the canals which overcome the obstructions. Niagara Falls blocks the way between Lake Ontario and Lake Erie,

but the Welland Canal supplies the missing link of navigable water, while Lake Huron and Lake Superior are connected by the Sault Ste. Marie Canal. The aggregate length of these canals is 73 miles, the total height overcome by locks is 551 feet, and the number of locks through which a vessel would pass in making the voyage from Montreal to the head of Lake Superior is 48. The St. Lawrence River canals and the Welland Canal have a minimum depth of 14 feet, the Sault Ste. Marie Canal, 20 feet 3 inches. At the last session of the Dominion Parliament these canals were made free.

From Montreal westward the Ottawa River is navigable to Ottawa city, the Federal capital, a distance of 120 miles; while the Richelieu River, flowing into the St. Lawrence from the south, is the outlet of Lake Champlain, and the latter is connected by canal with the Hudson River, the whole forming a waterway between the St. Lawrence River and the port of New York.

It is upon these avenues of trade that Montreal is situated.

The harbor of Montreal has a total wharfage of 32,646 feet, or 6.18 miles, and large additions are being made along the lower or eastern river front. The level of the wharves has recently been raised, the height of the revetment wall increased, larger and better freight sheds built, and the construction of a first class, thoroughly up-to-date grain elevator is nearing completion. It is the intention to make Montreal a thoroughly modern port.

The season of navigation of 1902 opened on April 3; the first arrival from the sea was on April 17, and the last departure on November 27, when the port was closed for the winter. During the season 758 ocean vessels arrived, having a tonnage of 1,541,272 tons, and 9,395 inland vessels, having a tonnage of 1,885,250 tons, making in all 10,153 vessels arriving

with a total tonnage of 3,426,522 tons. In sea-going vessels there was an increase over the preceding season of 16 vessels and in tonnage of 88,224 tons; and in inland vessels an increase of 945, and in tonnage of 202,064 tons.

The nationality and tonnage of the ocean-going vessels were as follows:—

Nationality.	Vessels.	Tonnage.
British	556	1,200,274
Norwegian	165	285,991
German	14	28,665
American	20	21,369
Danish	2	4,453
Austrian	1	520

The trade of the Port of Montreal during the past four years, together with statement of the grain elevated in the Harbour during the same period are as shown in the accompanying tables:—

TABLES REFERRED TO

YEARS.	Sea-going Vessels arrived in Port.	Total Tonnage.	Value of Merchandise Exported.	Value of Merchandise Imported.	Customs Duties Collected.
1902.....	738	1,541,272	\$59,775,673	\$70,737,832	\$11,111,304
1901.....	742	1,453,048	56,220,750	65,632,086	9,423,252
1900.....	726	1,393,886	62,496,431	64,071,590	8,984,885
1899.....	801	1,517,611	64,040,982	65,018,544	8,918,906

The quantities of Grain elevated in the Harbour of Montreal by the Montreal Elevating Company during the past four years were as follows :—

	1902.	1901.	1900.	1899.
Wheat.....	Bush. 15,018,395	Bush. 12,820,845	Bush. 9,472,195	Bush. 10,001,498
Corn.....	238,039	4,024,620	11,420,393	13,458,920
Peas.....	398,761	685,905	1,554,529	1,240,958
Oats.....	1,831,924	2,343,383	4,723,926	4,089,994
Rye.....	894,729	804,166	564,513	374,909
Barley.....	246,651	602,378	991,673	1,113,490
Buckwheat.....	161,805	117,908	291,314	188,007
Flax Seed.....	372,198	696,315	184,592	750,870
Totals.....	19,162,502	22,094,460	20,203,155	31,228,255

Last year the total receipts of produce at Montreal were as follows:—Wheat, 20,177,624 bushels; corn, 574,706 bushels; peas, 497,521 bushels; oats, 3,372,509 bushels; barley, 435,752 bushels; rye, 710,264 bushels; buckwheat, 157,085 bushels; flax-seed, 612,354 bushels; flour, 1,043,016 barrels; meal, 25,288 barrels; eggs, 356,415 cases; butter, 770,708 packages; cheese, 2,223,894 boxes; lard, 209,938 barrels; meat, ham and bacon, 131,066 packages.

The principal shipments of produce to particular ports via the St. Lawrence River were as follows in 1902:—

PORTS.	Wheat.		Flour.		Butter.		Cheese.		Apples.		Cattle.	
	Bushl.	Brls.	Brls.	Pkgs.	Boxes.	Brls.	Head.					
London	3,154,007	252,693	213,360	918,125	77,917	20,928						
Liverpool	3,494,381	43,177	128,655	491,842	168,035	22,343						
Manchester	1,211,444	722	33,534	57,780	30,713	7,985						
Bristol	2,508,598	39,587	117,422	424,095	6,445	7,004						
Hull	222,525	.....	.....	.....	.....	.....	
Newcastle	167,961	.....	.....	.....	.....	275		
Cardiff	213,794	3,287	.....	17,554	2,370	.....					
Glasgow	997,361	158,492	40,489	123,319	207,028	15,793						
Leith	410,401	28,920	200	53,694	550	454						
Aberdeen	.....	46,401	.....	9,174	6,218	160				
Dublin	437,826	23,524	.....	581	8	.....					
Belfast	16,003	24,544	.....	6,342	3,371	.....					
Antwerp	1,398,907	.....	.....	.....	35	1,538			
Hamburg	989,965	322	.....	57	2,890	.....					
Rotterdam	499,710	1,430	.....	.....	.....	.....		
Havre	153,584	.....	.....	.....	.....	.....	
South African Ports.	40	40,946	8,063	91	1,320	.....					
Lower Ports	16,888,505	664,045	541,723	2,102,654	506,940	76,480						
Total for 1902	16,888,505	169,109	5,146	985	2,031	.....					
		833,204	546,889	2,103,639	509,591	76,480						

The following table shows the quantities of butter and cheese received at and shipped from Montreal during the last four years:—

	1902.	1901.	1900.	1899.
BUTTER.				
Receipts	pkgs. 770,708	pkgs. 585,917	pkgs. 441,652	pkgs. 572,141
Shipments	597,754	432,177	261,768	494,953
CHEESE.				
Receipts	boxes. 2,473,894	boxes. 2,085,015	boxes. 2,154,763	boxes. 1,912,580
Shipments	2,443,468	2,161,241	2,335,601	2,206,702

Shipments of Live Stock from Montreal to particular Ports during Seasons of Navigation, 1902, 1901, 1900, and 1899:

Port.	1902.		1901.		1900.		1899.	
	Cattle.	Sheep.	Cattle.	Sheep.	Cattle.	Sheep.	Cattle.	Sheep.
Liverpool.....	23,547	7,686	16,079	2,176	24,420	12,489	30,271	12,940
London	22,263	28,489	16,716	26,589	22,672	10,200	12,347	22,650
Glasgow	15,481	6,198	20,723	14,985	21,070	4,815	18,057	14,603
Bristol	7,045	2,964	6,925	1,302	7,705	758	10,099	3,083
Newcastle.....	629	.....	1,881	.....	3,752	431	2,587	.....
Manchester.....	8,068	514	8,603	8,009	9,693	3,433	6,112	3,640
Cardiff.....	.....	.....	2,864	777	2,868	298	2,331	1,341
Havre.....	.....	.....	.....	700	.....	.....	.....	.....
Totals.....	77,193	45,831	73,791	54,538	92,180	32,514	81,804	58,277

RAILWAY FACILITIES.

Montreal is abundantly supplied with excellent railways which put the city in touch with all parts of Canada, and through their American connections with the industrial and commercial centres of the United States. Four great trunk systems converge here, and these practically control the overland carrying trade of Canada. They are the Grand Trunk Railway, the Canadian Pacific Railway, the Intercolonial Railway and the Canada Atlantic Railway.

The main line of the Grand Trunk system begins at Portland on the Atlantic ocean, in the State of Maine, and extends westward through the Province of Quebec and the Province of Ontario, thence across the International Boundary through American territory to Chicago, on Lake Michigan. Its branch lines form a network over central Canada, and connections are made with the principal systems of the northern and western States. Below Montreal the St. Lawrence river is touched at two points—at Levis opposite Quebec City, and at the foot of Lake St. Peter. The northeastern frontier of the United States, which at its nearest point is only 50 miles due south from Montreal, is crossed at five places, and these lines, passing through the most thickly settled and productive parts of the Province of Quebec, meet at Montreal. From here southwestward extends a double-tracked main line through the Province of Ontario by way of Kingston, Toronto, Hamilton and London, and extending to Buffalo, Detroit and Chicago in the United States. From this main line reach out the branches which practically cover all the older portions of Ontario. By means of the Central Vermont Railroad, controlled by the Grand Trunk, and its New England connections, the Canadian road extends to Boston and New London on the Atlantic. The heart of these arteries of trade is Montreal, where the chief executive offices and the

workshops of the system are situated. The head office of the corporation is in London, England.

The Canadian Pacific Railway is the great transcontinental system of the Dominion, and binds together the Provinces of the Confederation. Its main line extends in the east from St. John, an Atlantic port in the Province of New Brunswick, to Vancouver in British Columbia, on the Pacific coast, passing through Montreal, Ottawa and Winnipeg, across the great western prairies, through the Rocky Mountains, and then on to Vancouver. From there its system of transportation is continued by a line of steamships to Japan and China. From Montreal a branch reaches along the north shore of the St. Lawrence to the city of Quebec; another through the southeastern part of the Province of Quebec into New England where connections are made which give a through service between Montreal and Boston and other American centres. Southwest of Montreal the system extends through Ontario by way of Toronto, and London, to Detroit, in the State of Michigan, with through train service over American connections to Chicago. Branches extend throughout Ontario, one of the principal being that from the trans-continental line through the northern part of the Province and thence westward to St. Paul and Minneapolis in the State of Minnesota. In Manitoba and the North-West Territories branches tap the more important grain-producing districts thus giving overland connection with the port of Montreal. The head office and the main workshops of the Canadian Pacific Railway are in Montreal.

The Intercolonial, together with the Prince Edward Island Railway, belongs to the Government of Canada; and it was primarily built for the purpose of uniting the Maritime Provinces with Central Canada. Its eastern terminus is the Atlantic port of Halifax, Nova Scotia. From there it proceeds in a northwesterly direction across Nova Scotia and New Brunswick until

it reaches the St. Lawrence river, in eastern Quebec. Thence it proceeds up the valley of the St. Lawrence to Montreal, entering the city over the tracks of the Grand Trunk Railway whose terminal facilities it uses and with which system it makes connection. The Intercolonial Railway and the Canadian Pacific Railway give Montreal two through lines to the most eastern portion of Canada and to St. John and Halifax, Canada's two winter Atlantic ports.

In addition to the railway connections Montreal enjoys by means of the Grand Trunk and the Canadian Pacific systems, the city has another through line to the Great Lakes. This is the Canada Atlantic Railway. Its present western terminus is Parry Sound, an excellent harbour on Georgian Bay. From there the line extends due east through the great pine region of Northern Ontario, passes through Ottawa and then on to a point on the main line of the Grand Trunk 40 miles west of Montreal. It then enters the city by means of the Grand Trunk.

RAILWAY STATISTICS.

The following statistics taken from the returns to the Government for the year 1902 show the extent of these four systems and the volume of business of each:—

Grand Trunk—mileage, 3,142; train mileage, 15,478,580; passengers, carried 7,334,607; tons of freight carried, 10,080,963; gross earnings, \$22,211,813; net earnings, \$7,814,120.

Canadian Pacific—mileage, 7,321; train mileage, 20,504,118; passengers carried, 4,771,017; tons of freight carried, 8,755,538; gross earnings, \$36,866,875; net earnings, \$14,043,674.

Intercolonial—mileage, 1,570; train mileage, 6,700,000; passengers carried, 2,186,226; tons of freight carried, 2,385,816; gross earnings, \$5,918,990; net earnings, \$57,890.

Canada Atlantic—mileage, 458; train mileage, 1,429,314; passengers carried, 368,571; tons of freight carried, 1,545,240; gross earnings, \$1,816,946; net earnings, \$569,021.

Besides these four Canadian railway systems Montreal has, by means of four American lines, direct connections with the New England and the Middle States and through train services to Boston, New York, and other American centres. One of these, the Central Vermont, which is practically part of the Grand Trunk system, has already been referred to.

The Delaware and Hudson Railroad gives a through service between Montreal and New York by way of the west shore of Lake Champlain and the Hudson valley. Its northern terminus is 50 miles south of Montreal but it has running powers into the city over the Grand Trunk line.

The Rutland Railroad runs through trains to Boston and New York by way of the east side of Lake Champlain. Thirty-five miles south of Montreal it forms a junction with the Canadian Pacific Railway and enters the city by means of that line.

The Adirondaek and St. Lawrence division of the New York Central system runs through trains to New York, its lines passing through the heart of the Adirondaek Mountains and down the valley of the Hudson river. Ten miles south of Montreal it forms a junction with the Canadian Pacific, entering the city over the latter's tracks. All these are well equipped railways, giving Montreal first-class connections with her southern neighbours.

Three electric railways operate on the Island of Montreal intersecting the city in all directions and connecting it with numerous suburban points. The total mileage of the three is 103 miles; car mileage, 11,554,791 miles; passengers carried last year, 50,622,367; gross earnings, \$2,041,197; net earnings, \$913,183.

MONTREAL AS A FINANCIAL CENTRE.

Montreal is the financial centre of Canada, the home of the leading banks, insurance companies and other moneyed institutions which safeguard the capital of the general public and supply the country with the sinews of commercial and industrial life. In Canada there are 35 chartered banks, and 19 of them have either a head office or a branch in Montreal. The paid-up capital of the 35 banks amounts to \$74,883,-880; note circulation, \$58,283,484; assets, \$627,976,-830; liabilities, \$497,750,512.

The 19 banks doing business in Montreal have a total paid-up capital of \$64,740,000; note circulation, \$49,940,000; assets, \$544,142,000; liabilities, \$432,-368,000.

The volume of banking business done in Montreal is indicated by the following statement of the Montreal Clearing House for the last three years:—

	1900.	1901.	1902.
January . . .	\$62,853,000	\$71,115,000	\$76,995,000
February . . .	54,250,000	51,138,000	74,009,000
March. . . .	54,882,000	69,580,000	79,989,000
April	55,915,000	69,132,000	106,427,000
May	62,332,000	84,507,000	101,028,000
June.	65,543,000	79,746,000	90,827,000
July	61,293,000	80,198,000	89,071,000
August	58,229,000	71,723,000	91,712,000
September . .	57,686,000	73,368,000	100,015,000
October	65,983,000	78,250,000	107,848,000
November . . .	68,656,000	85,581,000	92,701,000
December. . .	63,311,000	75,141,000	88,348,000
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	\$730,933,000	\$889,479,000	\$1,098,970,000

The volume of business done on the Montreal Stock Exchange is shown by the following returns for 1901 and 1902:—

Transfer of shares in	1901.	1902.
Transportation corporations. . . \$	809,270	\$ 875,555
Industrial corporations.	435,525	1,138,169
Banks	11,914	11,404
	\$1,256,709	\$2,025,128
Mining shares.	\$1,470,329	\$ 494,036
Bonds to the value of.	1,889,400	7,322,950

AS A MANUFACTURING CENTRE.

Montreal is the greatest manufacturing centre of Canada. In comparison with other Canadian cities her industries represent the largest investment of capital and their annual output possesses the greatest value. This output covers a wide range, but a notable feature of Montreal's manufactures is the large proportion of staple goods produced. This, to a certain extent, indicates that the industries of the city rest upon a solid, permanent basis. In the production of metal goods there is a large investment of capital, and very successful manufacturing is carried on in a variety of lines in which iron and steel is the essential raw material. The two great railway companies have their workshops in Montreal, where their locomotives and cars are built. Several of the largest steam-engine works are also located here besides a number of general machine shops, electrical machine works and other industries of a similar kind. The city also contains rolling mills, nail factories, axe, scythe and saw works, tin works, brass and iron foundries, bridge works and structural material works and many other kindred metal industries.

Montreal also holds a prominent place in the manufacturing of textiles, practically controlling the Can-

adian production of cottons. There are four cotton mills in the city, and one company alone in its Montreal factory employs eighteen hundred hands. The cotton industry is in a flourishing condition, and Canadian mills to-day largely supply the Canadian market.

Montreal was the first place in Canada to manufacture table and floor oil-cloths, and the industry is now in a flourishing condition. Woollens are also manufactured, knitted goods, clothing, hats and caps and a great variety of similar articles. The silk industry, too, is well established here and its products hold their own in the Canadian market. There is also a large production of shirts and gentlemen's furnishings, waterproof clothing, wadding, cordage, and other goods of hemp and jute. Several of the largest boot and shoe factories in Canada are here, also factories engaged in the production of rubber footwear and other rubber goods.

Sugar refining is also another very large industry. More than one-half the total Canadian importation of raw sugar finds its way to the Montreal refineries and is here turned into the finished product.

There is also a large production of biscuits, confectionery, flavoring extracts, baking powders and similar goods which enter into the general grocery trade of the country.

The manufacturing of paints, oils and varnishes is also an important industry, and the same may be said of the production of carriages and winter vehicles, harnesses and belting and various other leather goods. Furniture is manufactured, also marble for interior decorations, builders' supplies, roofings, etc.

There is a large production of tobacco, cigars and malt liquors, chemicals, drugs, dye-stuffs, proprietary medicines, etc.

Perhaps the importance of Montreal as a manufacturing centre is best indicated by a brief summary of

the census returns respecting industrial establishments. In 1891 the city contained 1,604 such establishments. The value of land occupied was \$4,277,475; capital in buildings, \$6,936,583; capital in machinery and tools, \$8,429,496; working capital, \$25,406,845; number of employes, 35,749; wages paid in a year, \$12,217,399; value of raw material used in a year, \$40,089,091; value of articles produced, \$65,868,857.

The industrial returns according to the census of 1901 have not yet been published. They would show a great increase over the returns just given as is shown by the returns respecting population to which reference was made in another part of this sketch. An important addition to the productive forces of the city has been made in recent years by the employment of electricity generated by means of the gigantic water powers situated in comparative close proximity to the city. The Lachine Rapids in the St. Lawrence River, two miles above Montreal, and the Chambly Rapids in the Richelieu River, about sixteen miles distant have been harnessed and the electric current thereby generated is used to light the dwellings and streets of Montreal, to propel the street cars and to turn the wheels of industry in general. The possible development of these great natural forces is practically unlimited, assuring to industrial Montreal a motive power whose equal is possessed by but few manufacturing centres on this continent.

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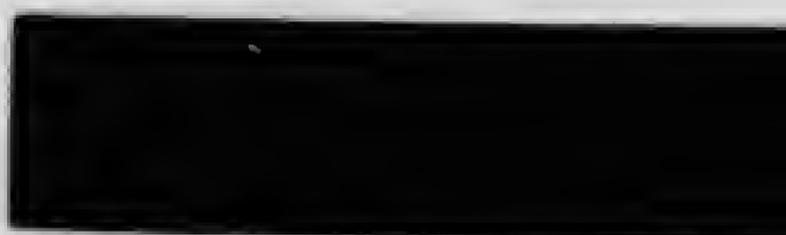
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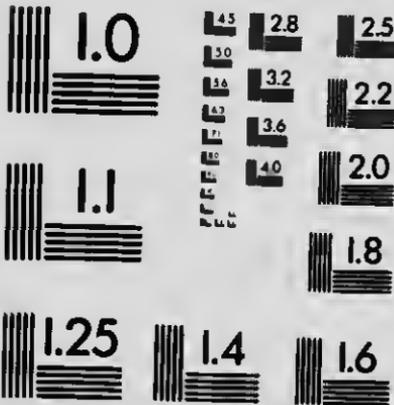
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