

RESOURCES

OF
British North America

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V.2
no. 9



A MONTHLY REVIEW of the Developed
and Undeveloped WEALTH of the
DOMINION of CANADA and of NEWFOUNDLAND

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<i>MONTREAL</i>	Ar. Woodstock.....7.00 p.m.	London.....7.38 "	to
<i>to</i>	" Chatham.....9.08 "	Windsor (East Time).....10.05 "	DETROIT
<i>CHICAGO</i>	" DETROIT (Cent. Time).....9.30 "	" Durand.....11.50 "	NIAGARA
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"**Wonderland, 1904**," which is a very fine pamphlet of 116 pages, descriptive of the Northwest, including the Park, will be sent for **six cents**.



MAIN EXHIBITION BUILDING



JUDGING LIGHT HORSES—WINNIPEG FAIR



SCENE IN FAIR GROUNDS

RESOURCES

DEVELOPED AND UNDEVELOPED OF BRITISH NORTH AMERICA

Vol. II

MONTREAL, QUE., SEPTEMBER, 1904

No. 9



VIEW IN THE FAIR GROUNDS
PART OF RACE TRACK WITH GRAND STANDS

The 'Fair' of Winnipeg

ANOTHER Winnipeg 'Fair' has passed into history. In the expressive phrase of the West it was 'the best ever.' The ground space occupied was larger, the exhibits were more numerous and the attendance greater than in any previous year. Started a dozen years ago by enterprising men, at a time when many believed that an exhibition was impossible in such a sparsely settled country, it has grown with the city until to-day it ranks as the third largest fair on the American Continent. "Fair Week" in this Metropolis of the West has come to be one of the most important commercial and social events in Western Canada. First and foremost, of course, it is a great agricultural and industrial exhibition bringing together the people and the products of East and West.

Situated midway between the Atlantic and Pacific oceans, Winnipeg stands to garner in with one hand the food wealth of the virgin West and pass it out to the millions of the East and with the other to give back to the scattered tillers of the toil the finished product of civilization. In the substantial buildings and stock stables of the Fair Grounds, of which our illustrations will give

a better idea than pages of written description, the Western farmer and the Eastern manufacturer come into close touch. Here, last month, were to be seen the products of the Western plains, grain grown in a dozen localities, vegetables from districts which even a few years ago were popularly thought of as being in the sub-Arctic zone. Of live stock there was a display which would have astonished the connoisseurs of Smithfield or Islington. Manitobans are accustomed to see good horses at the Fair but this year's exhibition not only in imported animals but in young horses was the best they had ever seen. Splendid Clydesdale stallions with mares and foals were there to show that the Western farmer is getting fine young stock from the best available sires. Amongst the many well-known breeds of cattle to be seen, the Shorthorns and Ayrshires were foremost, two classes held to be most suitable for beef and dairy purposes respectively. No less than 130 Shorthorns were entered, many animals being of first-class standard. Of hunters, harness and saddle horses there was a fine display. From the ranches of Alberta were herds of cattle ready for the slaughter house. Of sheep, the Southdowns, Shropshires and Oxford Downs

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were the best. The British Columbia building was full to overflowing. That province had a very fine display of early fruit. The



THE PARADE OF LIVE STOCK

Manitoba Government showed a large collection of weeds, whilst the Dominion Government made a grand display of grain. Such was the showing of the West. The East sent all kinds of manufactured goods. Farm implements of all sorts were here—cutters and binders, threshing machines, ploughs and harrows—every device of mechanical ingenuity to quicken and increase the crude efforts of man. And alongside of them were attractive displays of the countless articles with which the prosperous farmers add to the comforts of their homes. Here were organs, pianos and gramophones to while away the forced inactivity of winter; there, stoves, ranges, furnaces, radiators, against the day when zero weather comes. An enterprising Toronto firm had an interesting exhibit showing rooms fully furnished, and a full line of ladies' apparel, furs, carpets, etc. All the necessities and many of the luxuries of civilization were here for the Westerner to see and buy.

The Exhibition was wonderful on its commercial side, and as an educational factor it was most important—it was no less wonderful in showing visitors the capabilities of the country itself—the intelligence and industry of those who would be their neighbors

did they settle in the West. These aspects of the Fair were wonderful. But far more interesting than splendid exhibition building or the stock and machinery shown, were the people themselves. They were the best evidence of the prosperity of the West. From every part of Western Canada they had come, pioneers from progressive Edmonton, ranchers from Calgary, wheat farmers from Brandon, Portage la Prairie, etc. Men of English, Scotch, Irish, Russian and Italian birth, but now Canadians all—they were all here to testify in person to the healthfulness and prosperity of the West. We have said that the Fair was first and foremost an industrial exhibition, but it has no less a place in the life of the West as a great social gathering ground. Men in remote parts save up and look forward for years to "Fair Week." Many are the unexpected meetings on Main street between those who immigrated together and had adventured into different parts of this vast continent. The steerage passengers of a decade ago are now the prosperous owners of hundred-acre farms and substantial homes and farm buildings. The sporting features of the Fair are a great attraction. Round the half-mile race track is an immense grand stand which holds 12,000 people, and thereupon during Fair week can be seen the wives and



MAIN BUILDING CONTAINING INDUSTRIAL AND LIVE STOCK EXHIBITS



ON THE RACE TRACK—START OF THE "FREE FOR ALL" RACE

daughters of the West, as handsome and stalwart specimens of womanhood as the world can show. And the prevailing tone throughout the vast and varied concourse is one of hopefulness and enthusiasm. Everyone talks of progress and prospects. There is something electrical in the air of Winnipeg. The city itself is an inspiration. Its growth has been marvellous even on this continent of wonderful achievement. Thirty-four years ago—less than half the lifetime of the average man—215 persons lived upon the site of the present city. Four years later, in 1874, the numbers had increased to 1,869. In 1885 they were 19,574; in 1898 they were 39,384. On October 1st, 1902, the population was 56,603; to-day it contains 77,000 souls. Such an increase of population cannot be paralleled, but it fails to give an adequate idea of the growth of Winnipeg. It is unique amongst cities. Nowhere in the world are there such streets. Of immense width, they are bordered with young trees which in a few years will make of them most beautiful, shaded boulevards. No

cities in Canada—few in the world—have such splendid sidewalks. There are 12 miles of asphalt pavement, 30 miles of macadam pavement, 16½ miles of wooden block pavement, 44 miles of tree-lined boulevards, 16 miles of stone sidewalks. In the whole of Canada there are not finer business buildings than those of Main street, beautifully built in stone and brick, with every modern convenience. Let these few facts tell the city's story. As a financial centre Winnipeg ranks third already amongst the cities of Canada. There are no fewer than 13 chartered banks doing business in the city, representing a paid-up capital of nearly fifty million dollars. A complete system of financial organization was effected in 1893 by the formation of "The Winnipeg Clearing House Association."

To-day only Montreal and Toronto show greater figures in their bank clearings. And whilst these cities show only slight yearly increases, Winnipeg shows monthly increases of nearly fifty per cent. The following figures will bring home to every business man how extraordinarily rapid has been the growth of Winnipeg as a financial centre—they represent the annual returns of the bank clearings in Winnipeg for the past ten years :

1894.....	\$ 50,540,648
1895.....	56,873,631
1896.....	64,146,438
1897.....	84,435,832
1898.....	90,674,325
1899.....	107,786,814
1900.....	106,956,720
1901.....	134,199,438
1902.....	188,370,003
1903.....	246,108,006

Winnipeg is the great emporium for the West. Immense stocks of goods and merchandise to supply the diverse domestic and commercial wants of the districts devoted to grain production, stock raising, cattle breeding, mining, lumbering and fishing, as well as the multitudinous wants of city, town and straggling

most amongst them is the great store of the Hudson's Bay Company where the pioneer can find every implement and



ON THE GRAND STAND—THE MEN AND WOMEN OF THE WEST.

domestic article with which to make a home in the prairie. Already Winnipeg has all kinds of manufacturing industries established, from jewelry, cigars and furniture to soap, soda water, beer, excellent bricks, clothing, harness, tanning, book-binding, boiler and machinery shops.

An electric car service covers eighteen miles of streets and over 250 arc-lamps light up the broad, level thoroughfares. Three daily and many weekly and monthly newspapers supply the busy citizens with local and world-wide news in breezy western phraseology. Nothing astonishes the European visitor to Winnipeg more than the nature and number of the public buildings. The Parliament Buildings of the Manitoba Legislature, the beautiful City Hall, the Public Schools and Churches are of a kind which the average tourist never dreamed of seeing. "You have to see

this place to believe it" was the remark of an English squire, the other day, as he stood in Main street and watched the busy, sun-lit scene, the gleaming clean-cut buildings, the neat electric cars and the ceaseless throng of men and women of all nationalities.

Winnipeg is the capital of a Land of Promise. There is no other country to-day where a poor immigrant can go with nothing but a few clothes on his back and in a few years become independent as he can in this Canadian west. Poor Galicians and Doukhobors who land here every day almost destitute, come back in a very short time owners of a quarter-section, with comfortable buildings, several head of cattle, good teams, machinery and wagon. Five years ago even the average Canadian did not know the value of Canadian farm lands.



THE "PIKE" OF THE FAIR.
WHERE THE SIDE-SHOWS ARE THE CHIEF ATTRACTION

village are to be found in the massive and handsome warehouses which are so striking a feature of the city's architecture. Fore-

He had been accustomed to buy good farm lands at from \$5 to \$10 per acre or less, and sell the products from each acre for

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twice what he paid for it. He knew that this was a mighty good investment, but did not realize the tremendous percentage of profit that he was making on his purchase. Soon after the American farmers began to arrive and show the difference in values between Canadian farm lands and those of the United States, and to show the difference in the products per acre, which is always in favor of Canadian lands by a great per cent., then did everyone begin to realize that Canadian lands were being sold at prices away below their actual value. The true basis of value for all property, whether stocks, bonds or real estate, is the revenue or profit that it will produce for the investor. For instance, C.P.R. stocks pay a dividend of 6 per cent., and are worth \$1.24; N.P. stocks pay a dividend of 7 per cent., and are worth \$1.94. The values placed upon business blocks in Winnipeg and other cities are fixed so that it would pay the investor from 5 to 8 per cent. net. Any stocks that will pay the investor 4 or 5 per cent. interest are generally quoted above par. The same principle applies to farm lands. Farm lands in Minnesota, Iowa and Illinois, which are paying the investor from 5 to 8 per cent., are worth from \$60 to \$125 per acre. The basis of value of farm lands in the United States is arrived at in the same way as the value of stocks and bonds, and this is right.

Now how is it with farm lands in Canada? The fact is that choice farm lands are to-day being sold at ridiculously low prices

away below and out of proportion with all other properties. As an illustration, a man buys a quarter-section of land and pays \$1600 for it. He breaks it all up the first year paying \$3.00 per acre for breaking, or \$480. This makes his land cost him \$2080 ready for crop. He sows it to wheat, and gets twenty-five bushels to the acre (a low average yield for new land), which gives him 4000 bushels. For a very average quality of wheat he would be able to get 70 cents per bushel, or \$2800 for his first crop off the land. He therefore gets enough from his first crop to pay for his land and very nearly pay for all labour and other expenses. Where is there an investment to be found to-day which will pay as great a return? West of Winnipeg there are millions of acres of good land only waiting to be taken up by the settler. Of the great West, as yet only half explored, Winnipeg is the business capital. Fifty million human beings could and will be supported in comfort upon this, the richest part of the Dominion. As Sir William Van Horne said during this Fair that has just ended: "Winnipeg will be the first city in Canada". It will



NEW BUILDING FOR THE UNION BANK, WINNIPEG

in 25 years time compete with Montreal for the title of commercial capital of the Dominion.



THE "WHEAT CITY" FAIR—GENERAL VIEW OF BRANDON EXHIBITION, WHICH ATTRACTED 30,000 PEOPLE ON AUGUST 12TH.

Our Point of View

CANADA wants men, money and markets to fill out this vast country into a great nation. The men are coming to us at the rate of one hundred thousand a year. Double the number would be welcomed and find a profitable place for their labour. Money in increasing quantity is yearly invested here. We could wish that more of it came from our kith and kin in the Old Country, but wheresoever from, it is doing great work in bringing into the world's markets some of the mighty store of natural wealth that Canada contains. For markets our commercial men are reaching out into all parts of the world. Anyone who knows the volume of trade done by Canada in Great Britain to-day will marvel at its increase during the last eight years. The food product supply year after year becomes of more serious importance to the Mother Country. England's production of wheat decreases annually—her rural population flows unceasingly into the towns. The chance for Canada to supply the food market there is an ever-increasing one. There is already a sentiment in favor of Canadian products—with business push and attention the export trade will steadily grow.

* * *

FROM the western seaboard of our country there will soon be a vast trade with Japan and China. The millions of Chinamen who now exist on rice, will, when their rich country is opened up, become bread consumers. Canada produces not only the finest wheat but the finest flour in the world. Our millers rival those of Minneapolis, and during the next decade a great trade in flour will be done between this country and Eastern Asia. In the weekly report issued on August 1st by the Department of Trade and Commerce, there are two reports by Canadian commercial agents in Australia upon the trade between that colony and the Dominion, which make very interesting and instructive reading. Mr. J. S. Larke, agent for New South Wales, Queensland and New Zealand, points out the field there is for the Canadian exporter in Australia. Although Australasia has only a population of four and a half millions, these people are the largest consumers of imported goods per head of any people in the world. In 1902 the total importations from abroad were:

Australia	£40,678,239
New Zealand	9,611,428

This gives a rate of no less than £10 4s 3d per head. "There is scarcely an article made in Canada that is not sold here or could be sold here," writes Mr. Larke. He gives the following advantages on the Australian market: "These countries are British countries doing business in the English tongue, with British methods and with British integrity. They use the Imperial weights and measures, and though their currency differs from that of Canada, it is well understood by Canadians. Their tastes, wants, and circumstances have great similarity to those of Canadians, and small modifications, as a rule, need to be made in Canadian goods to meet their requirements. In New Zealand a substantial preference has been given to certain British goods, and while no such preference has yet been given in Australia, there is here a sympathetic market in which there is a preference for British productions.

"Australia, therefore, presents to the Canadian exporter of certain manufactures as inviting a field as is open to him."

The disadvantages are the remoteness of the market, which necessitates a slower return for the capital invested, higher rates of exchange and insurance and increased risks, disadvantages inherent, however, in all foreign trade. Moreover, the competition is very keen, every manufacturing country having its representatives there, closely on the lookout for trade chances.

MR. D. H. ROSS, the agent for Victoria, South Australia, Western Australia and Tasmania, in answering the question, "How to increase and maintain Canadian trade with Australia," recommends that Canadian firms should first of all pay more attention to correspondence. As this is a complaint often made against our business men, we quote his words in full: "One of the most serious complaints made by Australian merchants is the manner in which correspondence with Canadian firms is treated. In many cases it is of great importance to the importer here that he should have prompt replies to his inquiries. In this respect he anticipates, at least, the same courtesy he receives from other mercantile communities, but the result frequently is, that his letters are never even acknowledged. I am at a loss to understand why Canadian business people can be so discourteous to 'their kinsmen across the seas.' The cost of postage has been reduced to a minimum—a letter weighing ½-oz. only requires a 2-cent Canadian stamp to reach the most remote part of this great territory.

"Again, letters, even when acknowledged, do not in any way categorically refer to the propositions made. It is obvious that Canadian firms should remove this stigma on them, if they have any desire to secure and maintain a good name. That these complaints are justified is, in a degree, evidenced by the fact, that frequently special reports sent from this Commercial Agency direct to Canadian inquirers, are not acknowledged. Commercial rights are human, and it is, therefore, rather discouraging when their efforts are not recognized—not necessarily favorably."

He also insists upon the necessity of our manufacturers sending competent representatives through Australia. Small manufacturers would do well to use a commission house. He gives a clear and valuable explanation of how to invoice goods upon a f.o.b. (free on board) and c.i.f. basis (*i.e.*, delivered ex-ship's slings at Australian port of destination). He also suggests that there is a splendid opening for an extension of the Canadian banking system to Australia. At present all exchanges are made through London, which is inconvenient and expensive and the cause of great delay. In conclusion, he says of the whole Australian market: "While these markets are specially well catered for, 'the Bond of Empire' feeling is strong, and Canadian manufacturers should profit to the utmost in this respect by intelligently endeavoring to increase their Australian business by constantly studying the requirements of this market and securing an improved freight service. All the conditions of the progressive development of untrammelled commercial relations between the two young nations—Canada and Australia—are yet in an embryonic stage, but, by fair dealing and honorable reciprocity of trade obligations, then the assured material prosperity of trade between the two great countries must follow as easily and naturally as the night the day."

In this same weekly report are letters from Canadian Agents in Great Britain, the West Indies, Norway, Sweden and Denmark. They will well repay perusal by our export manufacturers and shippers.

* * *

IN his annual report on the trade between Canada and the United Kingdom during last year, the High Commissioner, Lord Strathcona, quotes the following extract from a report on the Fifth Congress of Chambers of Commerce of the Empire, made to the Association of Chambers of Commerce of the United Kingdom by the secretary of that body. It is interesting and of value as an independent estimate by practical, successful business men, bearing out to the full what Canadians themselves well know, and what this magazine has set itself to prove to the world, *viz.*, that Canada is a country of the vastest natural resources, possessing un-

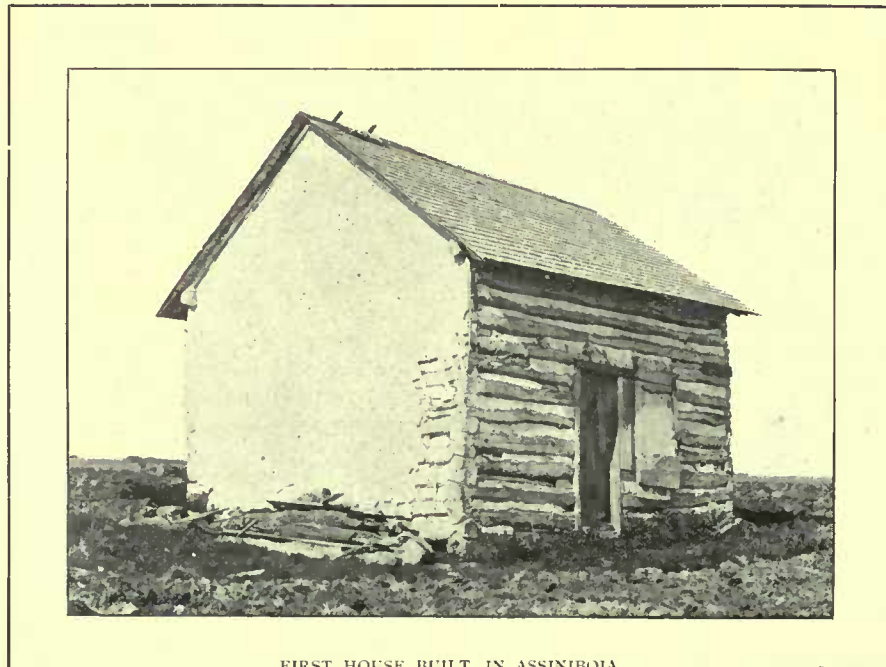
RESOURCES

rivalled opportunities for the employment of outside labor and capital. "After the business proceedings had terminated, the delegates made extended tours through Canada, and were received at various points by representatives of the provincial governments and cities, as well as of the boards of trade. We had thus many opportunities of conversing with leading Canadians in the different provinces, as well as of seeing the country and of ascertaining how far it is capable of development, both as respects agriculture and manu-

factures. The general opinion was, that Canada enjoys enormous natural advantages in the possession of magnificent waterways, noble forests, vast prairies suitable for wheat-growing, and great mineral resources, all of which are awaiting development. It would be difficult to find a country which is so favorably situated in regard to its possible commercial future, and all that seems necessary is the addition of a large population capable of utilizing these resources and of giving them a commercial value."



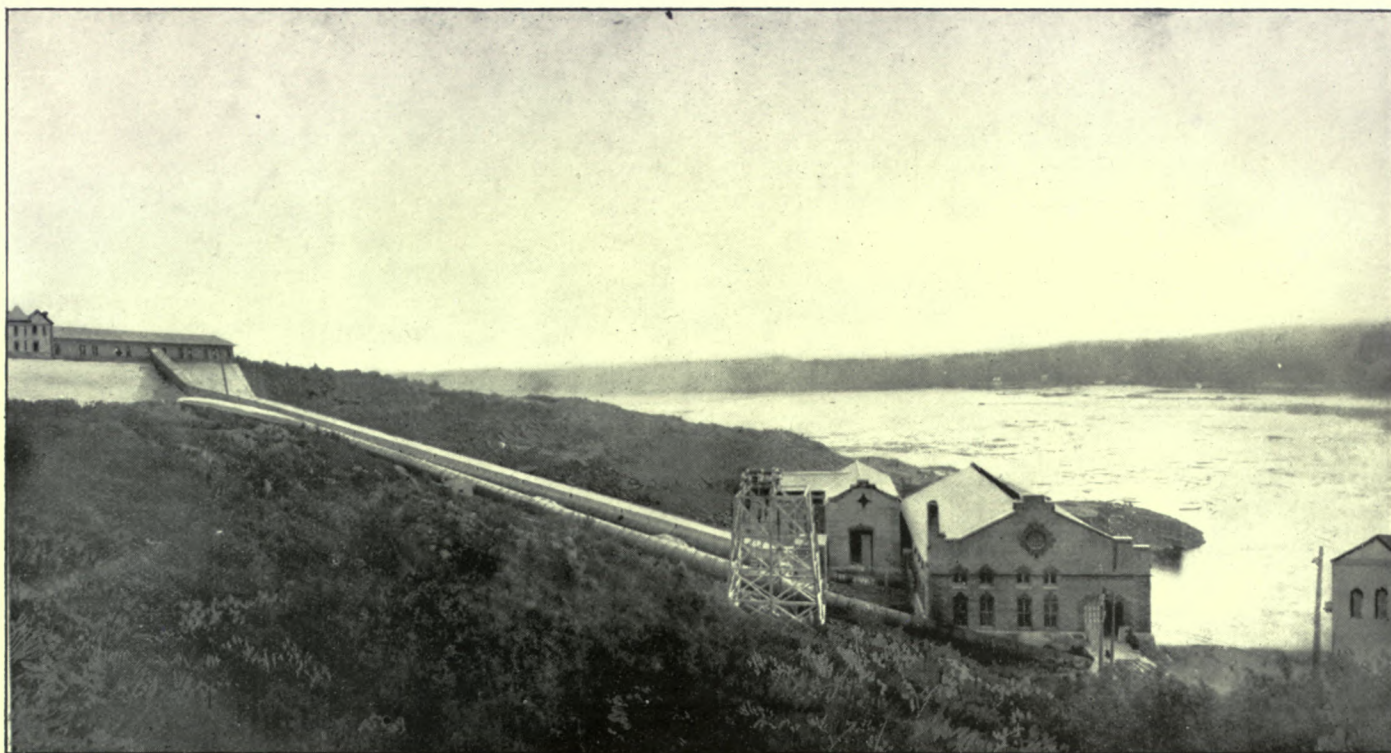
The Old and the New



FIRST HOUSE BUILT IN ASSINIBOIA
TYPICAL OF THE SETTLER'S PIONEER HOME.



FIRST "STONE" HOUSE BUILT IN ASSINIBOIA
REPRESENTING THE KIND OF HOMESTEAD WITH WHICH THE SETTLER REPLACES HIS FIRST RUDE DWELLING



THE POWER-HOUSE AT SHAWINIGAN

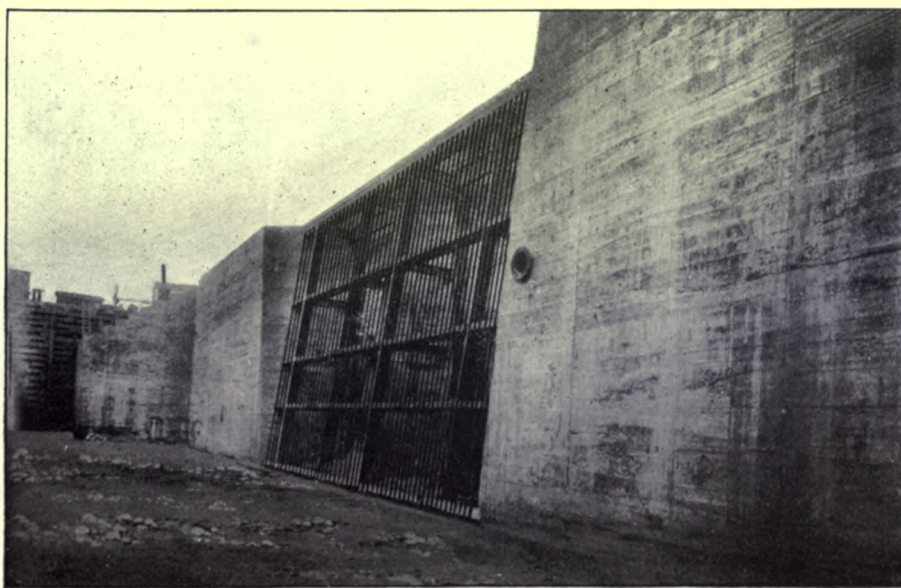
The Water Wealth of Canada

How it Has Been Utilized at Shawinigan Falls

CANADA possesses in her water-powers an asset of incalculable value. In these progressive days when the system of electric power transmission has reached well-nigh to perfection, the development and utilization of these powers offer commercial possibilities which are limitless. Modern industry and social life have come to depend to a very large extent upon cheap and abundant power, and electric transmission and distribution play a very important part in the economic problem of supplying this power. Canada possesses in her innumerable rivers a natural supply of power which cannot fail. It is constantly being renewed in a continuous, never-ending circle of water from ocean to atmosphere, back to earth, and through the streams to the ocean again. It is literally true to say that, properly used, it is a greater treasure than the coal mines of South Wales or Pennsylvania, or the gold mines of Australia or the Klondike. Unlike these it is inexhaustible. When you have taken one million tons of coal out of the earth there is only a hole left—it is the same with the gold. But the river and stream go on forever and their power lasts with them. So far the water wealth of Canada has hardly been touched—it is running to waste to-day much as it did when Samuel Champlain, in his birch-bark canoe, first adventured up the St. Lawrence. But upon one river in Quebec an important beginning has been made in the utilization of Canada's many and great waterfalls. As the availability of cheap power cannot fail to give Canada an advantage in industrial competition, and as this advantage will be more marked as the keenness of competition approaches that point where every national advantage must be made full use of, it will be of general use, and perhaps of particular advantage to those who have unused water-powers to their hand, to give a description of

one of the greatest and most successful water-power plants in operation on the American continent.

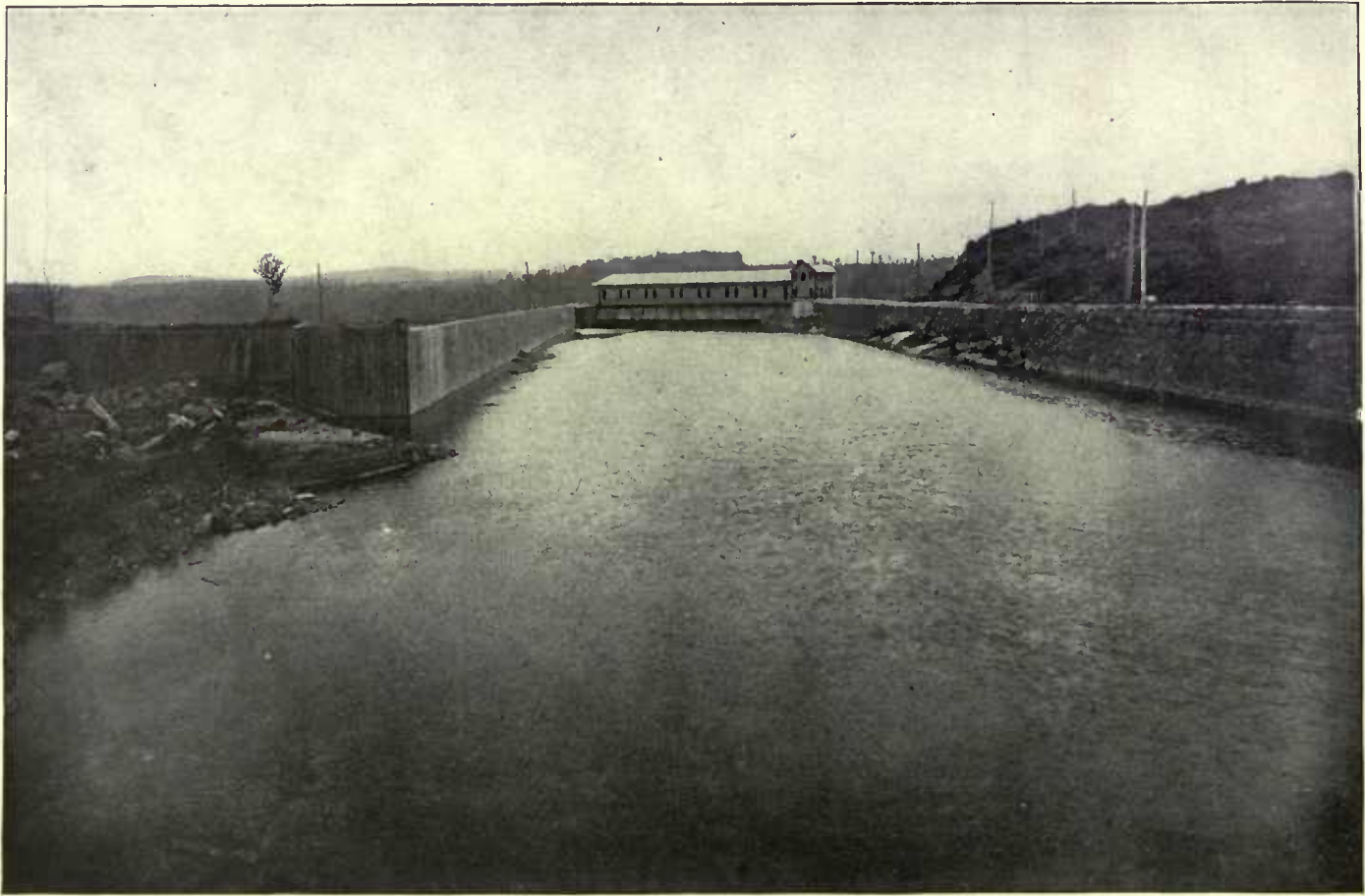
The St. Maurice river—one of the largest in Canada—has its source at the divide between the valley of the St. Lawrence and the valley of the Hudson Bay, at a point about three hundred miles north of Shawinigan Falls. It drains an area of about eighteen thousand square miles. Practically all of this area is forest, and most of the country not being suitable for agriculture,



INSIDE OF BULKHEAD

is likely to remain timbered for many years. This whole area is thickly interspersed with lakes, so that the flow of the stream is

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CANAL, 1,000 FEET LONG AND 100 FEET WIDE

naturally more constant than most rivers of its size. About 30 miles above the busy little city of Three Rivers there was established, in 1887, a pulp mill, on a fall of about 40 feet, and by the energy of Sir William Van Horne and General Alger, the great works of the Laurentide Pulp Mill at Grand Mere were constructed and put into successful operation. Below Grand Mere, and not far from where the river empties into the St. Lawrence, and about half way between Montreal and Quebec, are the famous Shawinigan Falls. For a distance of some four miles above the falls at Shawinigan the river broadens out and is practically a lake. At

crest of the falls a ledge of rock forms a natural dam, the water directly above the crest being about twenty feet deep at ordinary stages of the river.

It is at these falls that water-power development upon industrial lines has already been begun on a large scale by the Shawinigan Water and Power Company.

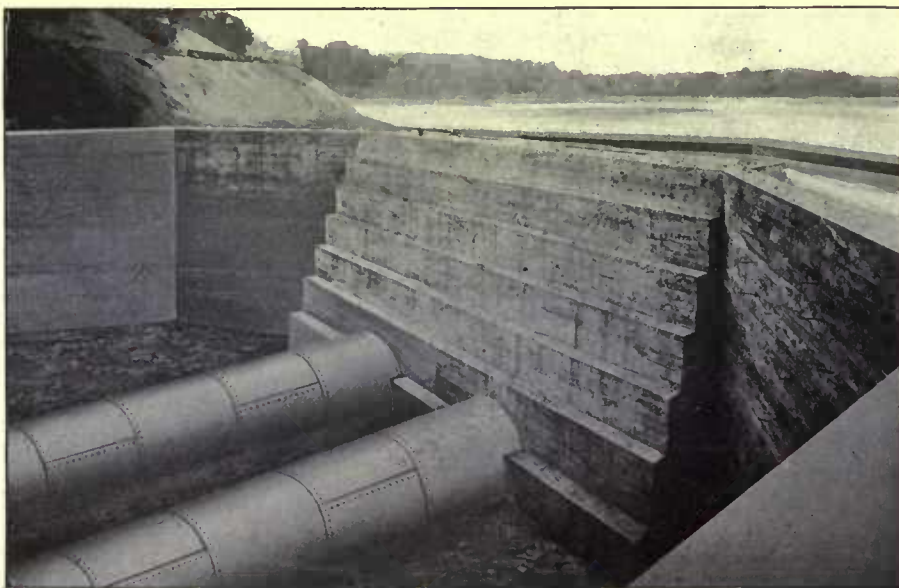
This company was organized under special charter granted by the Provincial Government of Quebec, January 15th, 1898.

The company purchased from the Provincial Government of Quebec all its property at Shawinigan Falls, including the water-power of the St. Maurice river at this point. The real estate acquired from the Government comprised eleven hundred acres, and the ownership of this property gives absolute control of Shawinigan Falls, in the St. Maurice river—one of the greatest natural water-powers in existence, the river at this point falling a distance of over one hundred and fifty feet. The property also furnishes ample land for the development of a town-site.

Five years ago the nearest approach to the falls by rail was about five miles, and then only by a railroad on which passenger trains were run weekly. The whole country was heavily wooded, and the most prominent feature in the landscape was a shrine established on the top of the hill close to the falls, the trees having been cut away so that the cross was visible for a long distance up and down the river.

It was impossible at that time to determine closely the low water flow of the river. The St. Maurice river drains an area of about 18,000 square miles, consisting almost entirely of forest land, so thickly interspersed with lakes that it is possible to journey through it in almost any direction with a canoe, making only short portages.

The sources of the river are 300 miles north of the St. Lawrence, and information obtained from the log drivers indicated that the



OUTSIDE OF BULKHEAD—SHOWING PENSTOCKS (LARGE PIPES)

the foot of the falls is another large lake, the difference in level between the two being about one hundred and fifty feet. At the

floods due to the melting of the snow, which during the winter covers the ground to a depth of 6 to 10 feet, were not over until late in July. From these and various other data which were obtainable as to the fluctuation of the river, it was estimated that the low-water flow would not be much less than 10,000 cubic feet per second, and that it would be possible to obtain an actual working head on the water-wheels of 130 feet. Therefore, a development of 100,000 horse-power could properly be made, relying on the natural flow of the river.

The first development was made by excavating a canal or forebay from a point near the crest of the falls, about one thousand feet to the west, the end of this canal being closed by a concrete wall, in which are the head-gates and the entrance to the penstocks. From the forebay-wall, penstocks about four hundred and fifty feet in length conduct the water to the power-house at the level of the lower lake. The canal is twenty feet deep at low water and one hundred feet wide, and of sufficient capacity to develop 75,000 horse-power. The excavation is entirely in granite rock. The forebay-wall is so constructed that it can be extended as required to utilize the full capacity of the canal.

In this power-house are now installed three units, each consisting of a pair of "Francis" turbines on a horizontal shaft, each pair of turbines being supplied with water through a penstock nine feet in diameter, and discharging through a central draft-tube, and each capable of developing 6,000 horse-power. To each of these three turbines is direct-connected a 3,750 K.W., 2-phase, 30-cycle, 2,200-volt generator. From a set of bus-bars current is taken to four 1,100-K.W. oil-insulated, water-cooled transformers, located in the transformer-house. In this transformer-house are also located the lightning arresters, static interrupters and

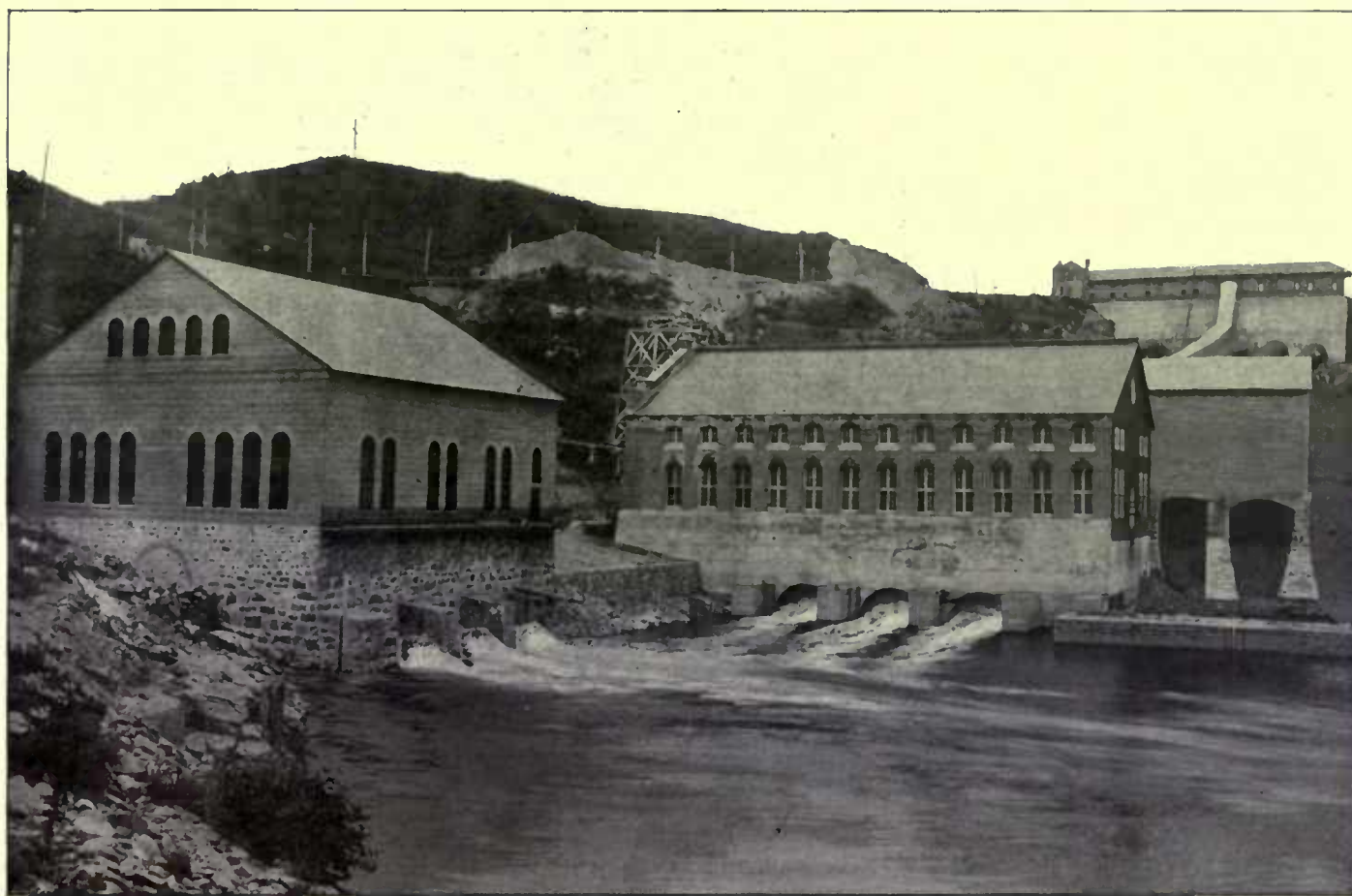
chemical industries located in the north part of the town, about two miles from the power-house. Here are at present a company engaged in the manufacture of ferro-manganese, and using 1,200 horse-power; also a calcium carbide factory of a capacity to utilize 5,000 horse-power.

From the transformer-house where the current is stepped-up to 50,000 volts a three-phase line of aluminum cable runs along the Great Northern and Chateauguy & Northern railroads to the company's terminal station in Montreal a distance of about 90 miles. This station has a capacity of over 16,000 horse-power.

The line consists of aluminum cable composed of seven No. 6 B & S wires. At the terminal station current delivered to the Montreal Light, Heat & Power Company for general distribution in the city of Montreal. The amount of energy thus being delivered is 6,000 horse-power. During this year the additions to the plant will increase this capacity to 11,000 horse-power. It is expected to eventually use this station for delivery of not less than 20,000 horse-power. The additions to plant will include a duplicate transmission line between Shawinigan Falls and Montreal.

From the main transmission line at Joliette, thirty-five miles from Montreal, current is taken off and carried by a transmission line to the St. Lawrence River and beneath the river by submarine cable to the city of Sorel for lightning and manufacturing purposes.

At the first development above described two penstocks were reserved for the Northern Aluminum Company. At present this Company is using one of these penstocks and developing over 5,000 horse power in its power-house.

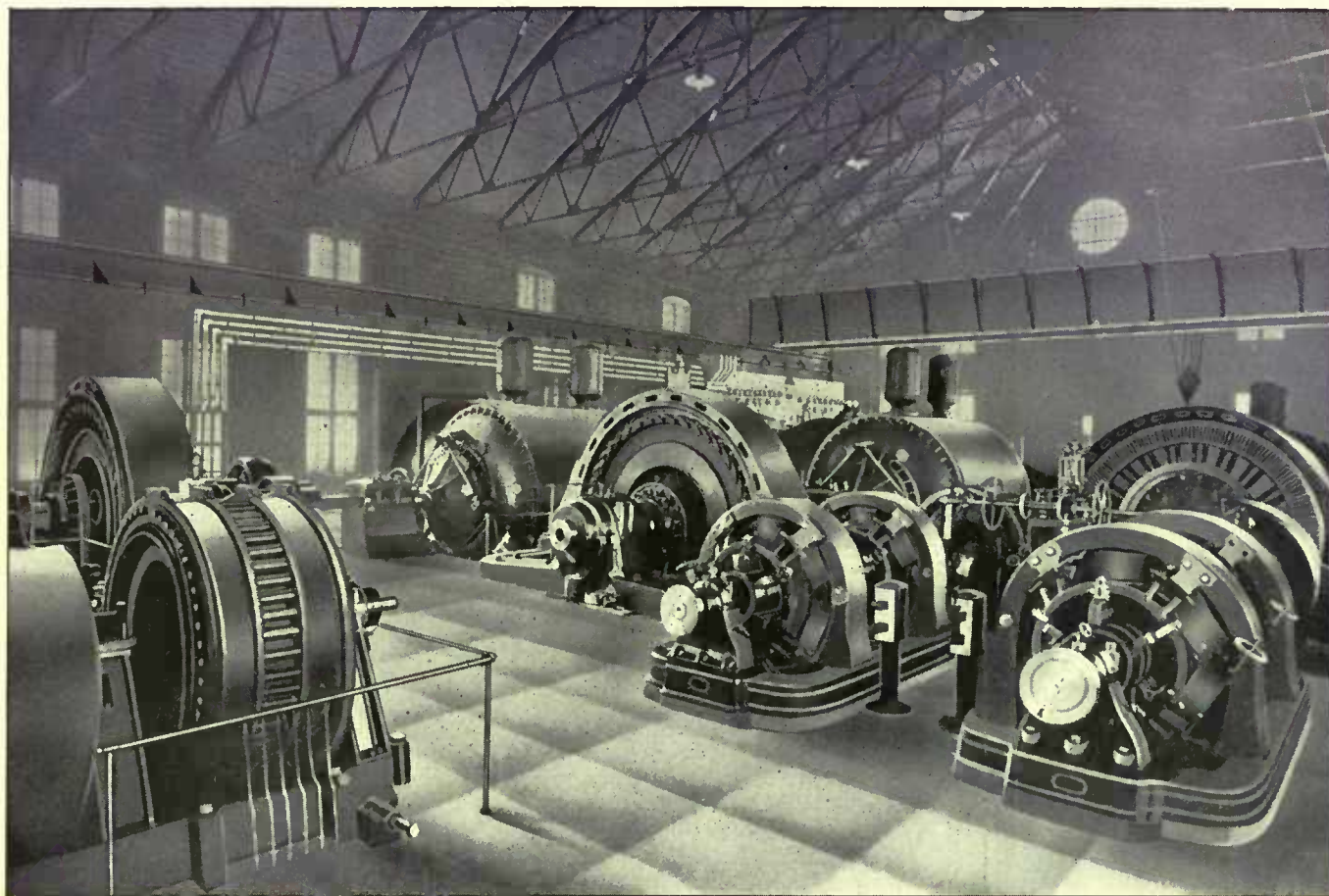


POWER STATIONS

high-tension switches for the 25,000-volt line, and also for the 50,000-volt line, to be described later. From the four transformers above mentioned a 25,000-volt line is taken to the electro-

The plant of the Shawinigan Carbide Company, Limited, is located some two miles from the power-house of the Shawinigan Water & Power Company.

RESOURCES



THE GENERATING STATION AT SHAWINIGAN FALLS

The present capacity of the factory is 5,000 tons of carbide per annum.

For the purpose of furnishing water to factories desiring to install their own-wheels in their mills, a second development has been made about a half mile upstream from the canal of the first or main development. Here a concrete forebay has been constructed, from which penstocks are taken to the mills, which discharge their water in the Shawinigan River (at a point on the same level as the water in the lower lake).

This second water power development is now being used by the Belgo Pulp and Paper Co., owned and operated by Belgium capitalists.

This Company owns large tracts of timber land in the watershed of the St. Maurice, uses 8,000 H.P., and has a capacity of one hundred tons per day (dry weight of pulp). A new paper machine has recently been put into successful operation and the Belgo Company are preparing to add plant for producing sulphite pulp and a paper mill of sufficient capacity to use all the ground wood which can be made by the present plant.

The transportation facilities of Shawinigan Falls are furnished at present by the Great Northern R.R. which operates between Quebec and Montreal, reaching Shawinigan Falls by a branch line of four miles. This road also makes connection with the Canadian Pacific Railway at Garneau Junction, a distance of four miles from Shawinigan.

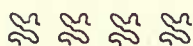
It is expected that these facilities will shortly be increased by the building of a branch from the Canadian Pacific Railway, and there is also projected a line from Three Rivers through Shawinigan Falls to a point north, where the road will intersect the Grand Trunk Pacific.

There are, within a radius of 100 miles from Shawinigan Falls some thirty-five cities and towns containing a population of approximately 200,000 not including Montreal and Quebec.

The construction of transmission lines in various directions from Shawinigan Falls will make it possible for the Company to eventually supply a large amount of power to these various centres of population. It is also probable that in the near future, the application of the alternating current to the operation of railroads now operated by steam power will have reached a point of practicability which will make it possible to operate almost all of the steam lines within 100 miles of Shawinigan Falls by electric current delivered to the various companies operating these roads. The Shawinigan Falls is one of the most desirable locations in Canada for manufacturing industries. Here may be found, as applied to a great many industries, most of the essential elements for successful operation.

Nature lovers will be pleased to know that all this development has been effected without in any degree detracting from the beauty of the falls themselves. The forest primeval still clothes the banks of the falls, and the taking of water sufficient for 35,000 H.P. has not made a perceptible diminution of the amount of water flowing over them.

The Falls of Shawinigan are still one of the most beautiful of natural spectacles. One hundred and fifty feet in height, they give an impression of violence and power not excelled even at Niagara. They can be seen from many points of view; perhaps to best advantage from the sloping ground in front of them, where the Falls are seen in their entirety, and the drop of one hundred and fifty feet can be fully realized.



Notes of the Provinces

AND

NEWFOUNDLAND

The first Marconi wireless message from Labrador to Harbor Grace came from Venison Island on Aug. 11th. Hitherto communication with Labrador has been completely cut off during seven months of the year, and we had only fortnightly communications during the remaining five months.

The establishment of a wireless telegraphic system will be a great boon to the fishing industry as it will facilitate the ordering of salt, and other supplies, chartering of vessels, &c., during the summer months, and will supply the sealing steamers with information of the movements of the ice-floes during the sealing season.

Forest fires have been raging in the vicinity of Harbor Grace during the past fortnight. The Land Department officials estimate that forest fires, this year, have destroyed \$20,000,000 worth of timber in Newfoundland.

Sir Alfred Harmsworth, of London, is now in Newfoundland inspecting large areas of woodland which his company recently purchased in the interior

of the island for the purpose of establishing the greatest pulp mill in the world. The areas embrace two thousand square miles excellently wooded.

Part of this territory is already being worked by

ping port and wharves capable of accomodating large ocean liners and other properties, all of which pass into Sir Alfred's hands. Other tracts yet unworked adjoining the Whitney property have been acquired.

The purchase price aggregates \$450,000.

Sir Alfred's varied newspaper interests are in a corporation known as the Amalgamated Press, Limited, of London. This has been capitalized, it is said, for the purpose of operating the pulp mill enterprise at \$10,000,000. A plant valued at half that sum will be established and work started as soon as possible, the intention being to enlarge the plant as rapidly as circumstances will admit.

The special advantages which caused Sir Alfred to select Newfoundland for this venture are an abundance of timber, unrivalled water power from a series of lakes, cheaper labor than elsewhere in America and sea transportation of the product for a shorter distance than from any other pulp-making centre on this continent.



Map of B. N. A.—with portion marked black showing position and extent of Newfoundland.

the Timber Estates Company, of which Henry M. Whitney, of Boston, is president. This concern has large saw mills, twenty miles of railway line, a ship-

NEW BRUNSWICK

New Brunswick has never paid as much attention to fruit culture as has the neighbouring province of Nova Scotia, although the soil and climate are well suited to the purpose. The Provincial Government, however, is endeavoring to encourage this industry by interesting the farmers in the matter. Some of the best apples exhibited at the winter fair at Amherst, N. S., last December, were grown in Queens County, N.B., and the second best collection came from near Gagetown. There is undoubtedly a great field for this industry in New Brunswick. Hon. L. P. Farris, the Commissioner of Agriculture, and other members of the government, are taking an active interest in it, and trying to spur the farmers on to plant orchards. This is one of the resources of New Brunswick which is practically untouched, and from which Nova Scotia, last year, netted over two million dollars. In connection with this, the government is anxious to give every encouragement to the dairying industry. New Brunswick is one of the best provinces in this respect, in Canada. Kings County alone, last year, produced over one million pounds of cheese, and over half a million pounds of

butter. This amount could be increased vastly with effort.

It is feared that the fisheries, this year, will be very disappointing. The catch in the neighbourhood of

taken. Bait has been very scarce and the establishing of proper freezers is becoming more necessary every day. Fish in the Bay of Fundy seem to be growing scarcer every year, and it is necessary for the preservation and development of industry that steps be taken in the way of providing bait freezers and destroying the dogfish. Codfish are very high now, as high as five dollars per quintal being paid ex vessel.

The use of gasoline engines is becoming quite common among the more progressive farmers of this province. An Amherst firm has been manufacturing an engine of about six-horse-power for use in threshing, for hay-presses, wood-cutters, feed-crushers, and so forth, and they have sold fifty of them in less than a year. The fuel is the cheapest which could be used in this part of the country. Those who have used these engines are much pleased.

The new plant of the Maritime Nail Works, St. John, which replaces the one that some months ago was destroyed by fire, is now completed, and operations were resumed the other day. The present building is considerably larger than the former one.



Map of Canada—with portion marked black showing position and extent of New Brunswick.

St. John has been about up to the average, but in other localities it has been a failure. The reasons assigned are fog, scarcity of bait, and the dogfish. Many of the boats have been able to leave port for only a small portion of the season, and the fog and heat have made it very hard to cure the few fish

NOVA SCOTIA

The transfer of properties of the Cape Breton Coal, Iron and Railway company at Cochrane's lake to an English syndicate, headed by Mayhew and Leech, has been finally consummated, and the money paid over to the original owners. The new company will now begin the work of developing the property as rapidly as possible. They will begin the construction of a branch railway to tap the Sydney and Louisburg road and also that of a branch and shipping pier at Louisburg. They are to make Louisburg the shipping port and will have running

powers over the Sydney and Louisburg railway. Mr. Leech says the output of the colliery when in full operation, will be two million tons annually. He says their deposits are very extensive. They expect to be ready for shipment of coal by the close of the next year.

Several well-known men of Amherst have bonded a marble property at Five Islands. There are said to be large deposits of marble of good quality there, and efforts have frequently been made to quarry them, but hitherto without much success. The pres-

ent operators, however, Messrs. Page and Silliker, of Amherst, will introduce proper machinery and anticipate good results.

A very practical demonstration of the value of peat-coke as a fuel was recently given at Yarmouth. The test was made in the power station of the Street Railway and was eminently satisfactory in every way. A continuous fire was kept up from 7 until 11 o'clock and steam was easily maintained at 100 pounds, with all drafts in flue and fire-box closed. The fuel burns very cleanly, giving little or no smoke and being

RESOURCES

absolutely free from clinkers. The peat is found in great quantities in Yarmouth County and can be put upon the market at a cost not greater than that of soft coal. At present it is being secured at Tusket. The funds for experimental work thus far have been furnished by local and American capitalists. A plant is now contemplated capable of turning out one hundred tons per day.

Building operations have begun at Canso of one of the largest cold storage plants in Canada. This is being erected by the Canso Cold Storage Company, and is to receive a subsidy of \$20,000 from the Dominion Government. It will be a three-story brick building eighty feet wide, 125 feet long and capable of extension. Refrigeration will be supplied by means of ammonia circulating through iron pipes and there will be between seven and eight miles of piping. The building and plant will cost between forty and fifty thousand dollars. The cold storage rooms will have an estimated capacity of about one thousand tons each, and there are four of these on the second floor and a number on the third. It is expected that the

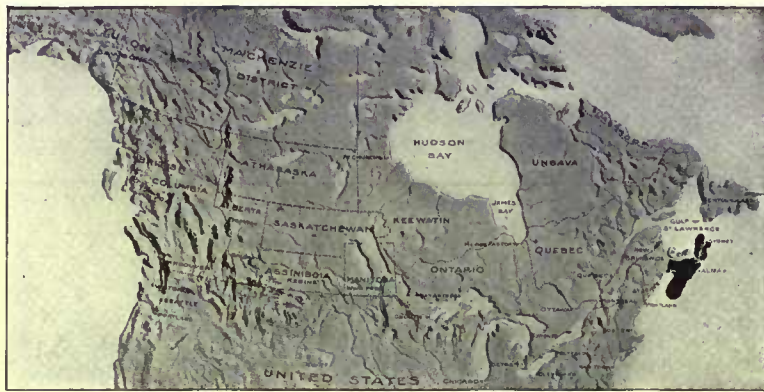
plant will be ready for the catch of bait which is usually made about the last of October. This plant, when in operation, will be a great boon for the fishing industry and hereafter we shall hear no com-

works". Three of these are to be erected at appropriate points in the provinces, in order to turn the fish into fertilizer and other commercial products. Both the flesh and bones of the fish will be converted into fertilizer and the oil will be extracted from the livers and other portions of the fish. This has been done in British Columbia and has enabled the operator not only to reduce the pest, but to make the dogfish commercially valuable.

The announcement is authoritatively made that an English syndicate has purchased the well-known Cochrane's lake coal properties and will operate there on a large scale. Development work is now proceeding rapidly and orders have been placed in England for air compressor machinery.

A very noticeable and encouraging feature in connection with the products of Nova Scotia factories is the high

place they occupy in public favor in regard to intrinsic value and excellence. The goods manufactured in Nova Scotia in several lines are now recognized in the trade throughout the Dominion as the very best of their kind.



Map of Canada—with portion marked black showing position and extent of Nova Scotia.

plaints about scarcity of bait from that section, which has been prolific in such this season.

The Dominion Government has decided, apparently, that the best way to reduce the dogfish pest in this province, is by establishing "reduction

QUEBEC

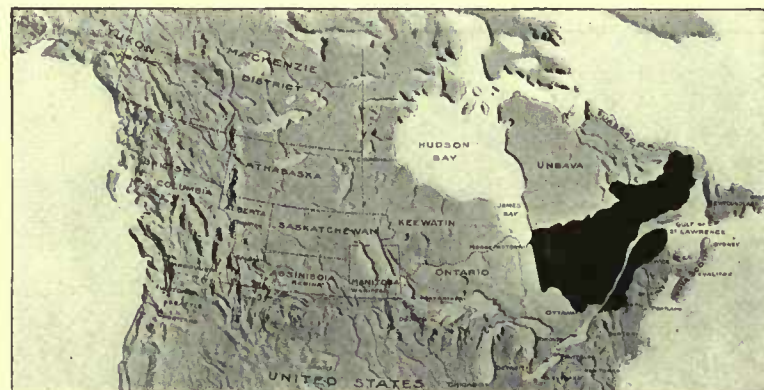
One hardly looks for humor in a Government report, yet in the weekly report published by the Department of Trade and Commerce, on August 8th, there is this amusing and withal practical piece of advice to Canadian shippers of hay, from Professor J. P. Sheldon, writing in the *Live Stock Journal*:

"There is now a constant, though fluctuating, demand . . . for urban consumption, and this will prevent the trade in foreign hay from coming to an absolute standstill, of which indeed the likelihood is very remote. The probability is, on the contrary, that the trade will expand in a more or less irregular manner perhaps—but still expand. This again will depend on the increase of live stock in these islands. So far, the great bulk of 'foreign' hay landed in Liverpool, comes either from Canada or Chili, or at all events from both combined. But in case of the growing demand in this country as the years roll on, other South American countries will contribute to the supply.

"It is not, I regret to say, only Chilian packers who are to blame. Our Canadian fellow-citizens of this world-wide empire—some of them anyway—are not by any means immaculate. This naturally grieves us rather keenly. When members of our own household, so to speak, aim to make a bit of spurious profit out of us, we are almost as those who are without hope as to the honesty of human nature. I have had two or three consignments of Canadian hay, consisting for the most part of timothy grass (*Phleum pratense*) and red clover (*Trifolium pratense*). Sometimes the clover predominates in a bale, but generally it is the timothy that does so. Now and again we come across a bale in which the Canada thistle predominates, and it is found for the most part in the interior of the bale. I had some brought under my notice not long ago, by my own men, that were about four feet long and a perfect fury of pricks.

"Well, I do not so much object to thistles as I do to damp masses of a miscellaneous character in the inside of a bale, turning the whole mass mouldy. This damp stuff weighs well, no doubt; but all the

same I object to it. Thistles and masses of sodden weeds are quite enough to try one's patience, it is true; but when we find our chaff-cutter grunting and jumping because a tangled skein of wire has got into it with this Canadian hay, unperceived, our patience simply collapses. Chopped wire is not to be recommended as food for live stock. Iron may



Map of Canada—with portion marked black showing position and extent of Quebec.

or may not be a good thing in itself for the constitution of animals, but it is scarcely recommendable that it should be administered in the form of wire chopped into half-inch lengths. In this state it does not readily digest. And, moreover, it is not an emollient to one's temper to find the chopper knives, after a tussle with wire, with edges like that of a saw.

"I want, in conclusion, to point out to our Canadian kinsmen (the Chilians I care nothing about) that they will lose more than they will gain by putting masses of thistles, damp weeds, rabbled lengths of wire into their bales of hay for export. They had far better consume those sorts of forage at home. Let them remember that a good reputation, once lost, is hard to be regained."

The *St. Louis Daily Globe-Democrat* has the following appreciative notice of the exhibit sent to the World's Fair by Our Handicrafts Shop of Montreal:

"A new and very interesting feature of the Canada Pavilion at the World's Fair is the exhibit of

handicrafts from Quebec, the work of French-Canadian women of the rural districts. Homespun woollens and linen, portieres woven in a decidedly unique manner, besides bead-work, porcupine quill embroidery, rush nets and rush-seated chairs are shown. Fine Honiton and point laces from English and Irish settlers of that province are exquisite both in pattern and execution. The Doukhobors and Galicians have contributed much that is artistic in embroideries and drawn linen.

"The Canadian Government is lending valuable assistance to this work, which was taken up by the Women's Art Association for the purpose of keeping alive interest in an industry within the farm home, which gives the women a chance to earn some money that will be their own, instead of forcing the young members of the household out into factories. The association has taken hold with a firm hand, and hopes to be able to prevent Canadian home arts from disappearing.

"In one of the large rooms upstairs the walls are hung with beautiful portieres, and a large table is weighted down with handsome gown lengths of woollens and linens, and dainty bits of lace, and table linen are also conspicuous."

The question of the protection of the Quebec forests against fire was discussed at a meeting held August 11th in the office of the Upper Ottawa Improvement Company. The Crown Lands Department of the Quebec Government has a proposition under consideration to increase the number of fire rangers, but before any action was taken, it was thought best to ascertain the views of the limit holders. At this meeting the latter expressed themselves in accord with the plan, recognizing the wisdom, amounting almost to a necessity, of protecting the limits against forest fires. However, it was on the question of the cost of the service that the limit holders expressed disagreement with the Government's proposals. As the matter now stands, the cost of maintaining the corps of rangers is met by the Government, while in cases where extra help is

required to fight fires, the Government and the limit holders share equally the additional expenditure. The new proposition of the Government provides for the maintenance of an increased service of rangers at no cost to the limit holders, who, however, are asked to provide for the total cost of the extra forces brought to the assistance of the regular rangers in case of fire. The limit holders do not agree to this, but ask the Government to continue paying half the cost of this extra service, as well as the total cost of the increased permanent service. The Government will be advised of the views entertained by the limit holders.

In Lord Strathcona's annual report upon the trade between Great Britain and Canada, there is this passage upon the pulp industry:

"So far as wood pulp is concerned, the Canadian trade with this side during the year has not been a satisfactory one for reasons that are too well known to need recapitulation.

"With respect of the paper trade, the following remarks by an importer who has long been connected with Canadian interests may be useful reading:

"There has been no increase, but rather a decrease in the amount of 'news' of Canadian make used in Great Britain, and this in spite of the considerable increase in consumption.

"It is to be greatly regretted for Canada's sake that people who have suitable timber limits and waterpower confine themselves to the manufacture of pulp at little or no profit to themselves as is only too apparent by the recent closing of pulp mills.

"Given a suitable location there can be no doubt whatever that if only interested parties would make the necessary further capital outlay and manufacture paper instead of pulp, they could reap a reasonable profit and steady trade.

"I am certain that Canada cannot reap the full benefit from her pulp wood resources until she carries out the full manufacture of the raw material into paper. To make pulp alone, either ground wood or sulphite, or even both at the same mill, will not pay so good a return on the capital expenditure as the complete manufacture of paper would do.

"This is certainly borne out by facts, for whereas during the past year two or three paper mills have closed, more than one of the mills making paper have added to their capacity, one well-known mill having practically doubled their plant.

"As regards the market here there is good opening for at least twice the quantity of 'news' Canada is now sending over. English mills are refusing orders, and the Scandinavian mills are kept well employed by orders from this market, while the consumption of 'news' is steadily increasing. So that I am convinced that there is ample scope for further developments in this direction at remunerative prices."

An important addition to Canadian manufacturing industries will shortly be located at the town of Drummondville, Que. Incorporation is now being applied for on behalf of the Drummond Cotton and Bleaching Co., which will erect a complete and up-to-date bleaching and finishing plant at Drummondville, where important facilities in the way of site, power, etc., have been secured. The company will at first restrict its efforts to the bleaching and finishing of cottons, but it is expected in time that further extensive developments will be made.

The head office of the company will be in Montreal. The capital is presently fixed at \$150,000, and has been very largely subscribed. The provisional directors are Honorable Wm. Mitchell, J. M. Woods, Geo. A. Gatehouse, Milton L. Hersey and Geo. Bothamley.

The city of Three Rivers—the second oldest city in the Dominion—owes its name to the fact that under the early French regime, the Indians coming down the three rivers St. Maurice, the St. Francis, and the Becancour in their bark canoes met here to barter their fur skins at the trading-post established by the old fur company of the Hundred Associates. With the disappearance of the fur-bearing animals, the town became the market-town of the farmers of the south and north shores of the St. Lawrence in its vicinity.

About 50 years ago the timber of the country came into value, and the thousands of miles of forest—extending in the rear away back to the height of land, where the streams emptying into Hudson's bay separate from those flowing into the St. Lawrence—have ever since been the subject of increasing exploitation. Within recent years, the great water powers of the Grand Mere and Shawinigan Falls have been developed, and at these points, some of the largest pulp and paper mills on the American continent have been erected. These natural forces are now being applied to the production of electrical power, carbide and aluminum works. Electric power is being supplied from here all the way to Montreal, some hundred miles distant.

Extensive wharves have been erected during the last three or four years along the river front of the city of Three Rivers, from whence a vast amount of lumber is shipped to the States in canal boats, and to England in steamers calling here to complete their mixed cargoes.

Immense quantities of coal and sulphur are being constantly landed to be expedited by rail to the pulp mills up the river.

The population has almost doubled within ten years, being now close to twelve thousands; business is active and booming in every line.

MANITOBA

A visitor from the city of Milwaukee commented on the fact that asphalt streets are built in Winnipeg for heavy drays. In Milwaukee, a city of 300,000, no heavy draying is permitted on asphalted streets, such drays being compelled to use streets which have been macadamized or laid with cedar blocks. He stated that the amount of asphalt pavement in Winnipeg much exceeds that of Milwaukee, and was much impressed with the large municipal improvements being made by the city.

In his report upon trade between Trinidad and Canada, Mr. Edgar Tripp, commercial agent of the Dominion at Port of Spain, writing of our flour trade with that island, has this passage about Manitoba's famous wheat: "Take the instance of flour. This is the foremost product of the Dominion—the standard staple of her trade, in the quality of which she claims supremacy. Trinidad could, and should, be Canada's best customer in the West Indies. What is the fact?"

Flour	1901-2	1902-3	1903-4
Total imports.....	£168,480	£182,321	£203,807
Imports from Canada....	12,725	11,173	4,791

"There is no commercial question that has been more thoroughly threshed out in connection with the subject under review than this question of flour. Canadian producers and dealers speak of 'Manitoba Hard' and similar flours as something unquestionably beyond competition in the outside world. Strangely enough, the outside world receives the statement without demur, apparently as a fact al-

ready absolutely demonstrated. Canadian agents, commercial travellers and others all write and say the same, and find most of those they interview to



Map of Canada—with portion marked black showing position and extent of Manitoba.

agree with them. Yet all the while the trade is stagnant, save and except an occasional spasmodic jump, which has come to be the regular precursor of a fall."

The wheat area in Manitoba and the Territories this season is greater than that of last year by about 10 per cent.—3,420,000 acres in all. Last year's crop in Manitoba was 40,116,000 bushels. The increase in the area planted should mean a total crop in Manitoba alone of more than 50,000,000 bushels. But the Manitoba average last year was only 15.42 bushels per acre, while in 1901 it was 25.1, and in 1902 26 bushels. Those who are now estimating this year's crop say, with reason, that it may safely

be predicted that the average yield will be much greater than last year. If one reckons this year's yield at 26 bushels to the acre, the crop in Manitoba and the Canadian North-West would be nearly 90,000,000 bushels. If the average were not better than last year, the crop would be 56,000,000 bushels. If the yield per acre were midway between that of last year and that of 1902, the crop would reach 73,000,000. There is reason to expect that it will at least reach the latter figure.

The Canadian Pacific Railway still has twelve million acres of land for sale. Easy and convenient terms of payment are offered.

If lands are bought for actual settlement to the extent of not more than 640 acres, the aggregate amount of principal and interest is divided into ten instalments, the first to be paid at time of purchase, the second in two years and the remainder annually thereafter.

The following table shows the amount of the annual instalments on a quarter section of 160 acres at different prices under the ten payment plan.

	First instalment	In nine equal instalments of
160 acres at \$3.00 per acre	\$71.90	\$60.00
" 3.50 "	83.90	70.00
" 4.00 "	95.85	80.00
" 4.50 "	107.85	90.00
" 5.00 "	119.85	100.00
" 5.50 "	131.80	110.00
" 6.00 "	143.80	120.00

All particulars can be obtained at the Land Office 208 Main street, Winnipeg.

RESOURCES

NORTH-WEST TERRITORIES

The rapidly rising tide of immigration to the Canadian North-West is indicated by the statement made by Mr. Thomas Duncan, of the Canadian Immigration Office, London, lately in Montreal on a holiday, that "We sent 50,000 British and 35,000 foreign settlers to Canada during the first six months of the current year, and expect to do even better next year. The class of people that has come out this year," continued Mr. Duncan, "is vastly better than that which has preceded, comprising people of more intelligence and larger means. Our work in the old country is to direct people to Canada, and when they arrive here have them consult the immigration officials at the different points as to the best place to locate. The great majority come out to take up land and go to farming, but there are large numbers of mechanics, and reports received show that it has not been difficult to secure employment. I can't say that industrial conditions in the old land are slack, but they have certainly been better.

"Canada has got a lot of advertising in the past few years, and, as a result, it is much better known. It used to be overshadowed by the United States, and the great tendency was towards emigration there. The part taken by the Canadians in the war, the fame of the wheat crops, and the prosperous future promised, constitute an allurements to people of all classes to look to a new home in a new country. We expect next year to greatly surpass what has been accomplished this season."

Great and far-reaching are the uses of immigration. What the sturdy settler from Europe is doing to develop our Great West all the world knows, but what is not so generally realized is that he has great powers as an advertising agent and unpaid commercial traveller, booming the products of the country he migrates to. This, at all events, is the opinion of Mr. C. E. Sontum, our commercial agent for Norway, Sweden and Denmark. Looking around for some reason to account for the enormous sale of American goods—from harvesting machines to bicycles and soap, in those countries, he writes: "I

have really been surprised at this 'American invasion.' How can it be, that the people in general know so well the names of the most noted American manufacturers, and that the European consumers can discuss with the dealer the merits of well-known American baking powders or other articles. I have come to the conclusion, that at least for the Scandi-

American goods and ideas. The larger importers of American goods have also, as a rule, been in America for some years, employed in some business, and have before returning home, secured more or less valuable agencies.

"To increase Canadian export I believe an increased migration between Norway and Canada, and the closer relations resulting therefrom, will prove of considerable importance commercially."

Mr. J. Burt, Dominion Government immigration agent at Kirkcaldie, Scotland, who has been making an exhaustive study of the West and of the conditions which exist there, he having spent no less than two months on his trip, is enthusiastic about the country through which he has toured.

While he does not wish to be quoted as saying that the great West is a land of milk and honey, yet he is prepared to tell his people in Scotland that probably nowhere else on earth is there to be found a country that will respond

more readily to the efforts of the farmer, and nowhere will such quick and rich returns be given for honest and intelligent labor as in the Canadian North-West.

Regarding the coming wheat crop, Mr. Burt expects that next year will see a large number of Scottish immigrants coming over to Canada to settle.

Speaking of the North-West, Mr. Parent, premier of Quebec, who has just returned from the Pacific Coast, whither he went with the G. T. P. directors, says: "It was a wonderful revelation to me, and no person in the east who has not seen the country can have the least idea even in the conception of their imagination of the vast size of the territory, the richness of its soil, and wonderful development of the country, where there is room for many millions of people, unless they go there and see for themselves." Of Prince Albert and Edmonton he said: "Prince Albert is the principal town in Saskatchewan with a population of about 3,000, and is in the centre of an extensive farming district. I was very much struck with Edmonton, its fine farming country and the development of the city."



Map of Canada—with portion marked black showing position and extent of the North-West Territories

navian countries, a great deal is to be credited to visiting and returning emigrants. When the uncle or brother, who 'speaks English,' has just returned from America, he naturally is a great attraction in his native place, and everything he says or does is greatly admired. He gives every day long lectures about how they do things on the other side of the Atlantic. He wants to be awakened in the morning by an American alarm clock. He explains how cheap and reliable they are. For breakfast he has in America been used to get porridge as part of the meal; explains to the housewife all about oatmeal and rolled oats (ten years ago no rolled oats was imported, while now every store sells it).

"He then goes out in the yard and sees the primitive farm machinery, which has undergone no improvement since he last was home; tells how far ahead the American farm machinery is, and how easy and well it works. He also tells how American buildings are heated by steam or hot water, which in these cold countries of course might be of considerable interest, etc., etc. In this way the visiting emigrants are giving the people a taste for

FRANKLIN, KEEWATIN, MACKENZIE, UNGAVA, ATHABASCA

The Government chartered a sealing steamer, Erick, which conveyed an auxiliary expedition to the steamer Neptune, which has been wintering in Hudson Bay for the past year with the Canadian official expedition sent for the purpose of annexing territory. It returned here August 7th, bringing Maj. Moodie. It met the Neptune at Port Burwell July 25th, and transferred coal and supplies. The Erick started on the return journey Tuesday, August 2nd, while the Neptune cruised north to Lancaster Sound, hoisting the British flag and proclaiming British sovereignty over that region.

Major Moodie reports that the Neptune went into winter quarters in Fullerton Inlet last October and found the American whaler Era, the only one in Hudson Bay during the past season wintering in the same vicinity. The Neptune built a fort there, established a garrison of police, organized the place as a port of entry and stopped illicit trading with

the natives. The Era paid duties on all goods intended for trading with the natives, thereby admitting Canadian authority.

The winter was otherwise uneventful.

The scientific exploration party made no explorations during the winter, and no exploring was done during the spring owing to lack of coal.

Major Moodie will go to Ottawa to consult with the Canadian Government, and he hopes to join the steamer Arctic, which will leave Quebec in about two weeks to relieve the Neptune.

Major Moodie believes the Hudson Bay route to be perfectly feasible as a commercial proposition. He also believes that the Canadian Government should build several forts, station a number of police therein and commission two steamers for Hudson Bay so as to adequately cover the needed service there.

The Arctic has been lying in Quebec just under Dufferin Terrace. She was to have sailed on August 15th, but the work of provisioning her has taken longer than was expected. She is to be commanded by Captain Bernier. He will carry with him ten men of the Mounted Police.



Map of Canada—with portion marked black showing position and extent of Franklin, Keewatin, Mackenzie, Ungava, Athabasca.

Major Moodie reports that the Neptune remained frozen in Fullerton Inlet until July 18th.

Ontario

WESTERN Ontario has struck oil again. For several years the production in the oil fields centering around Petrolia has been gradually falling off, the supply having been greatly diminished by the extensive operations of numerous companies and land-owners. Some of the wells have been giving only a few quarts of crude oil per day, though others in the better-paying districts are yielding from twelve to thirty barrels. It came, therefore, as an old-time boom when, last month, a new well was struck with a yield of 100 barrels a day, and another of 40 barrels. Both of these wells were only a few miles from Petrolia town, but in a section that had hitherto been overlooked by oil prospectors. The result of these fortunate finds has been to give a new impetus to the oil industry in Western Ontario. Pumping rigs have been erected in numbers of places, and the price of land in the oil territory is advancing. There is little doubt that the western counties are rich in petroleum deposits, and whether the present boom continues or not, there is sufficient natural wealth in the oil fields to make the industry one of the permanent assets of the province.

* *

MANUFACTURING interests in Ontario have heretofore centered in Toronto, and to a very great extent they still do so. The *Globe* has been publishing some industrial articles recently, which go to show that the development of Toronto's manufacturing industries during the past ten years has been little less than phenomenal. It is a tale of expansion, from one factory to another, and confirmed by outside evidence as well. So great, for example, is the freight traffic in and out of Toronto that both of the railways have for some time been looking for increased yard accommodation, and the Grand Trunk has recently acquired 200 acres of land outside the city for freight yard purposes.

A warning note, however, was sounded at a meeting of the Manufacturers' Association last month, when the president of the association claimed that the labor conditions and civic indifference were keeping away new manufacturing enterprises from the city. For the latter claim there does not seem to be any just ground, but the labor question in Toronto is admittedly unsettled, in evidence of which is the builders' strike a few weeks ago. But however greatly the smaller towns are gaining—and it is desirable that they should gain—Toronto still remains the manufacturing centre of Ontario.

* *

THERE is proof of industrial expansion in the proportions of a single contract given a few weeks ago, by which the Canadian General Electric Company, with works at Peterborough, will supply \$2,000,000 worth of machinery to one of the Niagara development companies. That a contract of this size can be handled by a local firm speaks something for our rate of growth.

* *

ANOTHER enterprise that is talked of concerns the lumber business of the Temiskaming country. A number of the leading operators who have secured tracts in that region propose to float their cut of logs down the Ottawa River to Ottawa, instead of building mills in the northern woods. From the farther limits would be a distance of nearly 400 miles, but the scheme is said to be, after a big dam has been built, quite feasible. Such a plan would mean considerable to the business interests of Ottawa.

AN important development enterprise is projected at Rainy River, on the far western side of Ontario. A Minneapolis syndicate will expend several millions in developing water-power and building mills. A pulp mill, paper mill and flour mill are proposed, and a saw mill has already been completed at a cost of \$350,000. It is expected that 70,000,000 feet of lumber a year will be manufactured, and the timber limits, which lie in both Ontario and Minnesota, have a twenty-five year supply. If these plans all materialize, two great manufacturing towns will be built at Fort Frances and Rainy River, and the enterprise will be a worthy neighbor to the Soo.

* *

EXPERIMENTS are to be made under the auspices of the Ontario Agricultural College in the culture of forest trees. A director for a forest-tree nursery has been appointed, and a tract of land set apart on which different varieties of seedlings are to be planted. It is hoped to have a supply of young forest trees ready for distribution within a year, and an effort will meanwhile be made to awaken a wider interest in this matter among the farmers. As year by year the natural supply of our forest wealth lessens, it is quite necessary that some such measure be taken for re-stocking.

* *

THAT our farmers need more encouragement than they get from the exhibitions and fall fairs seems to be the conviction of the Agricultural Department. There is a plan on foot now for the award of prizes for the best conducted farms, the prizes to be given through the agency of the agricultural societies in each district. Such a system has already been applied in some districts of the Maritime Provinces, and is said to have worked well. It should be even more successful in Ontario, and a bit of local competition in this regard might be productive of much good. Why not prize farms as well as prize flower gardens?

* *

THIS has been an exceptionally good season for Lake Ontario traffic. The passenger business last year suffered considerably because of the bad weather, but although the present season opened late, it has already largely compensated for the losses of last year. All the old companies have had a good business, and one or two new ones have had auspicious beginnings. The summer excursion traffic out of Toronto and Hamilton has come to be a business of large proportions, and is yearly increasing.

* *

IS there anthracite in Ontario? It has been often wished for and sometimes almost found; that is to say, coal deposits of more or less magnitude have been found by exploring parties in Northern Ontario, but not of sufficient value in quality and quantity to make mining profitable. It is doubtful if good anthracite exists; yet with the varied mineral resources of the northland it is always a possibility. The Guelph Trades and Labor Council recently asked the Government to again investigate, and in case of coal being found to prevent a monopoly being formed.

Financial Review

DURING August the financial markets were affected by several important developments. Towards the end of July the action of the Russians in seizing some neutral merchantmen and in sinking others, aroused fears that the war would involve other nations besides Russia and Japan. In London the markets were much upset, because it was thought Russia's actions indicated a settled design to provoke England in particular into war. But, happily for the world, these misgivings were quickly set at rest by the French Government. According to the best information, that Government caused it to be intimated to Russia, in no uncertain manner, that if the Czar's ministers cherished any notions of thus dragging France into the conflict as their ally, they were only deluding themselves, because France was determined not only to stay out of the war herself, but also to do her utmost to prevent other nations becoming involved.

When this attitude of France came to be generally understood there was a marked feeling of relief in the European capitals. The markets became more confident in their dealings. But London's recovery was delayed a little by a peculiar incident. It happened that a head clerk of the Rothschild's London house had indulged too extensively in speculation on his private account. At the beginning of August he was compelled to liquidate his holdings, which were large. For two or three days Capel Court was astonished and perplexed by the extent of the liquidation which came from the powerful house of Rothschild. Some supposed that the house itself might be in trouble. Securities became weak and nervous. When the truth came out the market recovered rapidly. The effect which these troubles in London had on New York was confined almost altogether to the foreign exchange market. At the time when gold was going to Europe in heavy volume in the spring, a great many people sold sixty and ninety-day drafts on London at the high prices, as a speculation. They figured upon renewing these bills in August, and then covering them at a profit in October or November, while the rush of cotton bills depressed exchange quotations. But when the bills came due in August, London was under the war scare, and instead of being allowed to renew, the speculators were requested to pay. Their demand for remittance on London caused exchange to rise to gold export point, which is a singular state of affairs to exist on the eve of very heavy cotton exports.

Another important development in America is the demoralization in iron and steel prices. For quite a long time the big trusts and pools held their list prices almost at boom levels. They sold their goods to foreigners at reduced rates, but held prices firmly for United States consumers. As an instance the situation in steel rails is quoted. The cost of manufacture is put at less than \$16 per ton, the price to United States railways was fixed at \$28, but sales were made to foreign railways at about \$20. Canadian Pacific bought a large order at near that figure. The consequence of this action was that the iron and steel plants could do little business. The trusts flattered themselves that prices were maintained; but consumers did not buy. The upshot was that about the middle of August an independent concern made a deep cut in steel billets. At once a succession of cuts was inaugurated by the trust plants, and the war is now progressing merrily. Wall Street has professed to be very much alarmed over this disturbance of the harmony that has existed for so long in the iron trade. But it would seem to the outside observer that the departure makes for a sounder and better condition of trade. The people who will suffer will be the protected trusts, and perhaps their employees (through reductions in wages), while the gainers will be railroads, builders and, in short, the whole body of consumers all through the country. Enormous profits, formerly divided amongst these big companies, will be distributed more among the people. Prob-

ably it is this consideration, along with the belief that business in iron and steel will become more active at the reduced prices, that has prevented the stock market from giving way under the attacks of the bears. But the securities of the different companies in the iron trust and outside bulk prominently on the stock exchange list, and since their profits will undoubtedly be less, it is reasonable to expect that later on some weakness may develop on that account.

Our situation in Canada is governed to quite a considerable extent by these happenings outside. No doubt some of our iron plants will now experience keener competition from the States, especially if they make further reductions in their quotations to Canadian buyers.

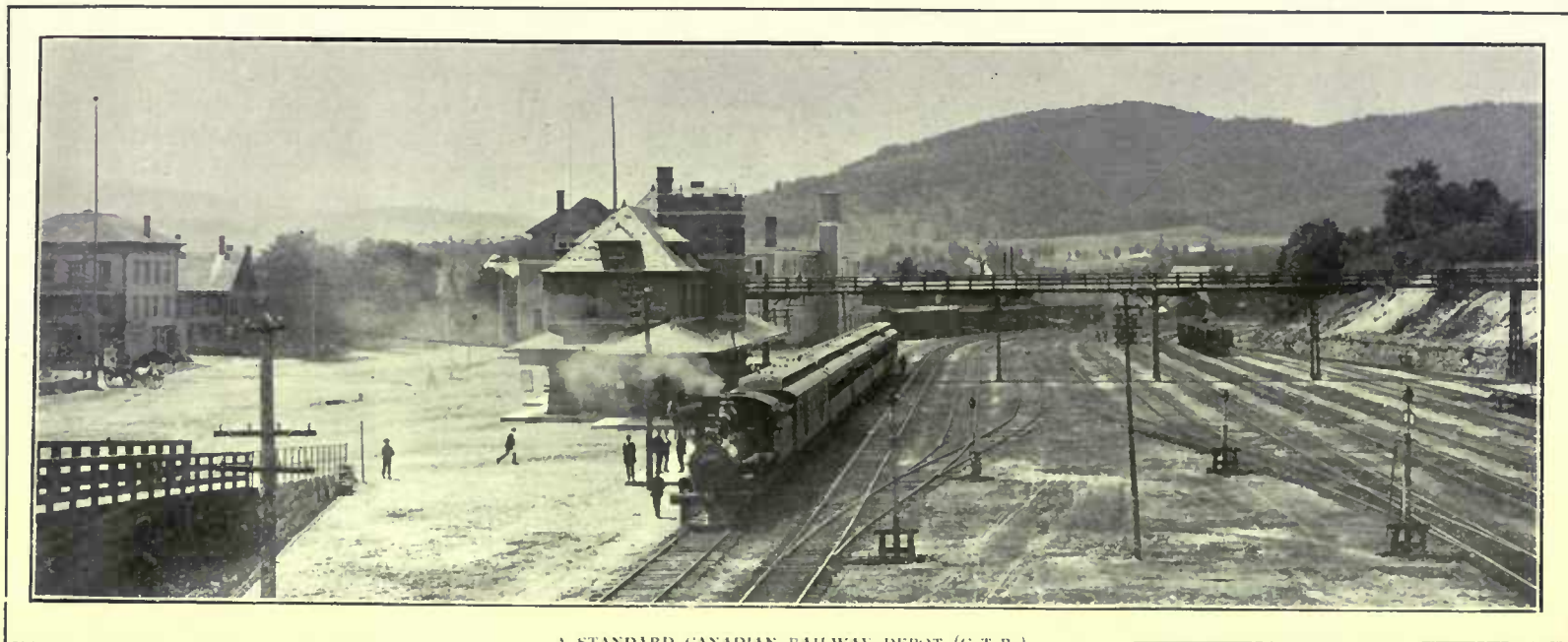
Among the developments of August none have aroused more anxiety in Canada than the reported appearance of black rust in our Manitoba crop. Its discovery is owing to the visit and explorations of an American grain expert. Up to a couple of weeks ago everybody expected from Manitoba a phenomenal crop. The word from the different districts was to the effect that the wheat looked magnificent. And now doubts have been created which cannot be settled finally till the crop is harvested. In connection with the damage reports, there is one thing to be considered, and that is the wild speculation in wheat futures at Chicago. Prices have risen as much as four cents in a single day and the excitement has been intense. Sober-minded financiers are inclined to think that a great many of the damage stories owe their origin to this speculation. To console us we have estimates of our North-West crop by careful experts of our own. The president of one of the great milling companies says he looks for a crop at least as big as last year's. With high prices our farmers should profit immensely if this estimate is realized.

One of the most interesting events of the month was the publication of the preliminary statement of the earnings of the Canadian Pacific Railway for the fiscal year ended 30th June, 1904. The statement is as follows:

	1904	1903	1902
Gross earnings.....	\$46,469,132	\$43,957,373	\$37,503,003
Working expenses.....	32,256,027	28,120,527	23,417,141
Net earnings.....	\$14,213,105	\$15,836,845	\$14,085,912
Other income.....	1,691,269	1,286,812	958,826
	<u>\$15,904,374</u>	<u>\$17,123,658</u>	<u>\$15,044,739</u>
Less fixed charges.....	7,586,097	7,052,197	7,334,825
Surplus.....	\$ 8,318,277	\$10,071,460	\$ 7,709,913
Applied to Steamships and Pension Fund.....	230,000	150,000	150,000
Available for dividend.....	\$ 8,088,277	\$ 9,921,460	\$ 7,559,913

The surplus represents, after allowing 4 per cent. on the preferred stock, 8.3 per cent. on the common stock. Gross earnings for the year increased 5.7 per cent.; net earnings from operations decreased 10.2 per cent. The cause of the decrease in net is well-known. Operating expenses were abnormally large during January, February and March, when the winter weather was most severe.

The earnings for the current year should show up exceedingly well if the Manitoba crop is as big as it was last year. With high-priced wheat the Manitoba farmers will doubtless be heavy buyers from Eastern manufacturers and importers, and the Canadian Pacific will be busily employed in the carriage of these articles, besides having its regular work of hauling the grain to terminal points. Of course the street is well aware that Canadian Pacific possesses an extra valuable asset in its land. One authority figures as follows: "The stockholders have an equity in the land holdings of the company, over and above the land grant bonds, of about \$40,000,000, which is equal to about \$50 a share on the common stock. If this be deducted from the present market price it would leave the earnings 10 per cent., and paying 6 per cent., selling at only 75."



A STANDARD CANADIAN RAILWAY DEPOT (G.T.R.)

The Conquest of a Continent

The Story of Canadian Railway Building

THE pioneer colonists whose clearings first challenged the supremacy of the forests had small need of transportation beyond those provided by nature. Their little fields of grain, dotting here and there with yellow the verdure of the Annapolis valley, or reaching back a few "arpents" from the banks of the St. Lawrence river, produced food for none but themselves and their families. The stern fight for existence under the strange conditions of a new world engaged all their attention and demanded all their strength. If each could



CUTTING OUT THE TRACK

provide a habitation that would protect his family from the rigors of winter; if the supply of food and clothing was always equal to the imperative demands of the situation; if he could keep the wolf from his own door, he considered himself fortunate and looked forward to the realization of those hopes that had led him to begin life anew in the wilderness. He had nothing to export, and the meagre supplies of clothing, arms and implements that came to him from the old land could be brought almost to his door by water, for the smoke that rose above the tree-tops from his log-cabin could always be seen from the river-shore. The water-stretches were the pioneer's only highways, and the clearings that in time grew into farms looked out upon the lakes and rivers which connected one settlement with another, and led from them all down to the ocean, beyond which lay the motherland. The explorer who turned his back upon even the rude civilization and scant comforts of the settlement; the fur trader who gathered the first fortune made in this country; the Indian on the warpath and the missionary on his errand of peace, all used the same highway

and the same means of transportation—the lakes and rivers, the canoe and paddle.

After a time the settlements began to reach back from the waterways; then the paths through the forests grew wider and wider until they became roads. Population increased, more goods were brought in from abroad, and the products of the soil and the forest, now exceeding the wants of the country, began to be exported. And then arose the transportation problem—how best could means be provided for carrying persons and things from one part of the country to the other. The waggon drawn by animals and the boat propelled by oar and sail, were for two centuries of Canadian history the only means of travel or shipment. The roads, like those of all new countries, were bad, and natural obstructions here and there interrupted the navigation of the waterways. But the country made progress and the means of transportation improved; and as the latter improved still more marked became the development of the country. The highways became better, lines of stage-coaches were established between the principal centres of



STEAM SHOVEL AT WORK—MAIN LINE OF GRAND TRUNK—EAST OF TORONTO

population; river and lake channels were deepened, canals were constructed around rapids and harbor facilities were provided.

RESOURCES

Then steam came to the aid of the oar and sail, and the waterways became still more valuable. Steamboats began to ply upon the lakes and rivers, and steamships to cross the ocean, but the over-



THE DOUBLE TRACK—OLD AND NEW

land means of transportation remained unchanged until the introduction of Stephenson's invention, when the advent of the iron-way and the iron horse provided the solution of the transportation problem. The first railway built in Canada formed part of the route between Montreal and New York. At that time the greater portion of the journey was made in summer by water. A steamboat carried the traveller from Montreal across the St. Lawrence river to the quaint little town of Laprairie, nine miles above the city; from thence a stage coach conveyed him to St. Johns, on the Richelieu river, about eighteen miles distant, where he took a steamboat for the southern end of Lake Champlain. Then he proceeded by packet boat through the canal to the Hudson river, and once more on a steamboat he journeyed to New York. This route was historical, for it was the one followed by the French, the British, and the American forces in the wars which made Canada a British possession and lost the Atlantic coast colonies to the British crown. In summer the journey could be made not only in comfort but with pleasure; but in winter, when the waterways were ice-bound and heavy sleighs took the place of boats, it was a matter of hardship, to be undertaken only when absolutely necessary.

It was on this route that Canadian railways had their beginning. In 1832 a charter, bearing the royal assent of King William IV., was granted to the Champlain and St. Lawrence Railway Company, authorizing it to construct and operate a railway between Laprairie and St. Johns. In 1836 the line was open for traffic, but its cars were hauled by horses and they ran on wooden rails. During the first year of its existence it was neither a steam nor an iron railway. However, in the following year, the "wooden flanges," as they were called, were replaced by iron rails, and the horse gave way to the locomotive. Real "railroading" had commenced in Canada. The following years were filled with political trouble, and further railway construction was not undertaken until 1845, when charters were granted to the Great Western Company for a line from Hamilton to Detroit, and to the St. Lawrence and Atlantic Railway Company authorizing it to build a road from Montreal eastward, to form part of a through line to Portland, Maine. In 1849 a charter was granted to a company subsequently known as the Northern, for a line from Toronto to Collingwood, and the road was soon built as far as Barrie, and in the following year charters were secured for lines from Richmond, Que., to Levis, and from Toronto to Guelph.

The year 1852 marks an epoch in the history of railway building in Canada. It was then that a charter was granted the Grand Trunk Railway Company, authorizing it to construct a line from Montreal to Toronto, and this became the "parent stem" of the present vast system which is to-day one of the great carriers of the commerce of this continent. For a number of years following railway construction was vigorously carried on and large amounts of capital were invested, but after a time the separate companies, each with its short and independent line, began to disappear, as one by one they amalgamated with the Grand Trunk, and thus a through line was secured from Québec and Montreal to the south-eastern frontier of Ontario, which was the Western Canada of that day. As the requirements of the country demanded it, or as the prospects of future growth seemed to justify it, branch lines were built and that net-work of steel created which now brings the Grand Trunk system into touch with about every part of the two great central provinces of Canada.

The next important extension of Canadian railway facilities took place in 1876, when the Intercolonial Railway, built and owned by the Federal government, was opened, and railway connection was thereby established between the Maritime Provinces and central Canada. Nine years later came the completion of the main line of the Canadian Pacific Railway, which puts part of Canada's great western wheat area into touch with Atlantic and Pacific ports, and which has assisted Canada in demonstrating to the world the vast extent of the granary she possesses in her prairie lands. It is only within the past few years that the Canadian people have fully realized the extent of the area in the West capable of yielding abundant crops of grain. It is now well-known that land far north of the present settled belt is equally fertile, with climatic conditions equally favorable to the growing of grain. This has been established by results; the soil has been tested, the crops have been grown, the country has been proved. This means that our West is much larger than it was thought to be, and that practically only patches have yet been brought under the dominion of the plough. And, besides the West, there is the northern part of Central Canada, the New Ontario and the New Quebec, where have been found millions of acres of agricultural land certain to amply reward the toil of the husbandman, and, therefore, capable of supporting a large population. The general recognition of these facts has been to the Canadian people something in the nature of a discovery. Canadians have at last found a long hidden part of



WHERE THE TRACK WAS RAISED TWENTY FEET

their country, and they are setting out to take possession of it. The first step is to open the door of this new Canada, to provide means of access, and to put it into touch with the outside world.



A BUSY SCENE—VIEW IN GRAND TRUNK FREIGHT TERMINUS, MONTREAL.

And this brings the country to another period of important railway extension which cannot fail to have a widespread effect upon the industrial and the commercial life of the whole Dominion. In order to give the old West another and a much needed outlet, and to open up the new West and the new North to home-seekers, a transcontinental railway is to be constructed wholly on Canadian soil, to be built and operated under Government control to a certain extent, and to be closely affiliated, with the oldest and most widely ramifying system in the Dominion. Canada is therefore just beginning one of the most interesting and important chapters in the history of her railway development.

In the older parts of Canada the period of new railway construction is about past, for nearly all the lines of communication and transportation at present required are now in operation. The needed railways have been built; and most of them are well-seasoned by use and time, well maintained and profitably administered. And yet in this part of Canada millions of dollars have recently been spent upon the railways, not in constructing new lines but in improving the old ones—in correcting the mistakes of the past, or in doing in the prosperous present what was

impossible at the time of original construction. This rebuilding, as it may be called, is a good sign. It gives to these works a greater permanency; it increases their efficiency, and it tends to raise the standard of railway work throughout the country. It is a sign of general national growth. A railway that finds a double track necessary does not serve a community that is industrially stagnant. A new railway is an investment of capital that usually has to look far into the future for a profit; but the rebuilding that has been

going on in Central Canada is demanded by a prosperity that is now being enjoyed.

The principal manufacturing of Canada are situated in the Province of Ontario and in the Eastern portion of the Province of Quebec. The latter also contains Canada's chief summer port—Montreal,—while the former, besides being a generally rich agricultural country, possesses the orchards and vineyards whose fruits supply the home market and are also shipped to Great Britain. It is in these parts of Canada that the Grand Trunk Railway has most of its mileage. Its main line extends from Montreal westward through the



HANDLING THE GOODS IN ABOVE SHED

heart of Ontario, connecting the principal cities and towns, and terminates at Chicago, the great grain and meat market

RESOURCES



FRONT VIEW OF NEW FREIGHT TERMINUS, MONTREAL

of the Western United States. This line is the main artery of the commercial life of Canada, and it is no wonder that a single track became inadequate to the proper handling of the traffic poured in upon it. Nearly the whole of this main line has been double-tracked, and work upon the uncompleted portion will soon be finished. About one year ago the double track was completed between Montreal and Niagara Falls and trains began running over it. Between Hamilton and the St. Clair tunnel the work is being rapidly proceeded with, and on the Western division, between the tunnel and Chicago, it is practically finished. The double track has also been extended south of Montreal to St. Johns, on the Richelieu river. These improvements make this main line the equal of any railway in America and the superior of most. The work has been done in the best manner possible. Every mile of track is laid with heavy steel rails; gravel ballast makes the road-bed solid; gradients have been reduced, curves straightened out, and, in some cases, the mileage has been lessened—these improvements tending to make it possible to increase the speed of trains with the minimum of power and the maximum of safety. In connection with this double-tracking there has also been an enormous outlay upon sidetracks, yards, new stations and improved terminal facilities at the principal points. All this work was carried on during a time when traffic was heavy, but there was no interruption to the general business of the road.

The permanent and thorough character of the work will be indicated by specifying a few of its important features. The improvements to the main line do not only consist of a double track, but the whole character of the road has been bettered. The gradient over this section—between Montreal and Toronto—has been reduced for east-bound traffic to practically a water level sloping to the east, the direction of the heavy traffic, and to accomplish this the old track was lowered from ten to twenty feet at the summits, and the "fills" raised a corresponding amount. These improvements practically double the tonnage that eastbound trains can haul.

Other portions of the main line are now receiving similar attention and a few months will see the completion of a double track of the section between Hamilton and the St. Clair tunnel, involving the rebuilding or enlarging of a few small bridges on this section, for which stone and steel only will be used. Another important improvement on this division is the diverting of the main line so as to carry it through the manufacturing city of Brantford, which heretofore was on a branch road, six miles south of the through track. The change was effected by a "cut-off," four miles in length, constructed according to the high standard of the main line. Several grades in this locality have been reduced, and the bridge over the Grand river is to be rebuilt at a higher level. This puts Brantford on the great international route between Chicago, Montreal and New England points.

The quality of the line is indicated by the class of traffic it is capable of handling. The International Limited is a test of this. A train that travels from Montreal to Toronto, a distance of over 330 miles, in seven and a half hours, and that makes the journey from Montreal to Chicago in twenty-two hours, must maintain a rate of speed only possible on a first-class track.



THE CITY OF TORONTO

But the improvements have not been confined to the roadway. They have been extended to buildings for handling freight, to the housing of motive power, to machine shops, and to general terminal facilities. For instance, at Toronto the freight-house has

been rebuilt and the freight-yard has been enlarged by utilizing the site of the old Provincial Parliament buildings, purchased from the Ontario government. The total track accommodation is now three hundred cars at that point.

Similar improvements have been made at Hamilton. A new freight-house has been erected on land having practically the same level as that of the principal business part of the city, which is a great improvement on the old site.

The new freight terminals at Bonaventure station, Montreal, have recently been completed at a cost of \$130,000 for construction, apart from a land purchase of 200,000 square feet. All these buildings are first-class in every respect, being built of stone and brick, with concrete floors and metal roofs, and they are arranged and furnished in such a manner as to make the speedy handling of freight as easy, cheap and convenient as possible.

Prior to 1898 the Grand Trunk Railway did not handle any grain from Lake Superior and Lake Michigan through its elevators at ports on the Georgian Bay and the St. Clair river for export by the way of the port of Montreal; but since that time it has done a large and steadily increasing share of that trade, to the extent some seasons of handling over forty per cent. of the entire Canadian North-West grain shipped by water from Lake Superior ports, and during the season of 1903 it handled over 14,000,000 bushels of such grain.

At Montreal the company has now under construction, at Windmill Point wharf (by agreement with the Harbor Commissioners), a steel elevator of 1,000,000 bushels capacity, of the most improved and modern plan for the better and more efficient handling of this large business.

This elevator will be a steel structure, absolutely fireproof, 238 feet long and 84 feet wide, with an elevating capacity of 30,000 bushels per hour. With this new elevator at the Montreal

slight conception of the quantity of grain that has been hauled by the Grand Trunk from the Canadian North-West can be had, when it is stated that of the total shipments from Port Arthur



THE CITY OF MONTREAL BY MOONLIGHT

and Fort William by water last fall, which aggregated a little under 35,000,000 bushels, the Grand Trunk System carried, in connection with elevators at Collingwood, Midland, Meaford, Goderich and Sarnia, over 14,000,000 bushels—in round figures about 41 per cent. of the whole, and for the season of navigation of the previous year, the Grand Trunk System handled over 12,000,000 bushels of Canadian North-West wheat through elevators at its lake ports, or about 33 per cent. of the total.

In 1898 the Grand Trunk commenced to handle ex-lake grain through elevators at Georgian Bay ports for export via Montreal, and comparing 1899 with the previous year, the increase was nearly 60 per cent., and this increased each year until, in 1903, the increase, as compared with the trade of 1898, was 110 per cent.

Under their charter the Grand Trunk Pacific Company have powers to run their own steamships on the Pacific and Atlantic oceans. Mr. H. A. Allan of the Allan Line having accepted a place on the Board of Directors, it would appear that the relations between the G. T. R. and this great steamship line are likely to be closer in the future than heretofore.

Such in outline are the improvements already completed or now being made along the lines of the Grand Trunk Railway System, and which very materially increase its carrying capacity to the benefit of the shipping and travelling public and to the advantage of the shareholders of the company. These improvements possess a special significance at this particular time, when another gigantic railway enterprise is being launched, for they show that the Grand Trunk Railway is prepared to handle the great volume of trade that will naturally fall to it as soon as the construction of the Grand Trunk Pacific is sufficiently advanced

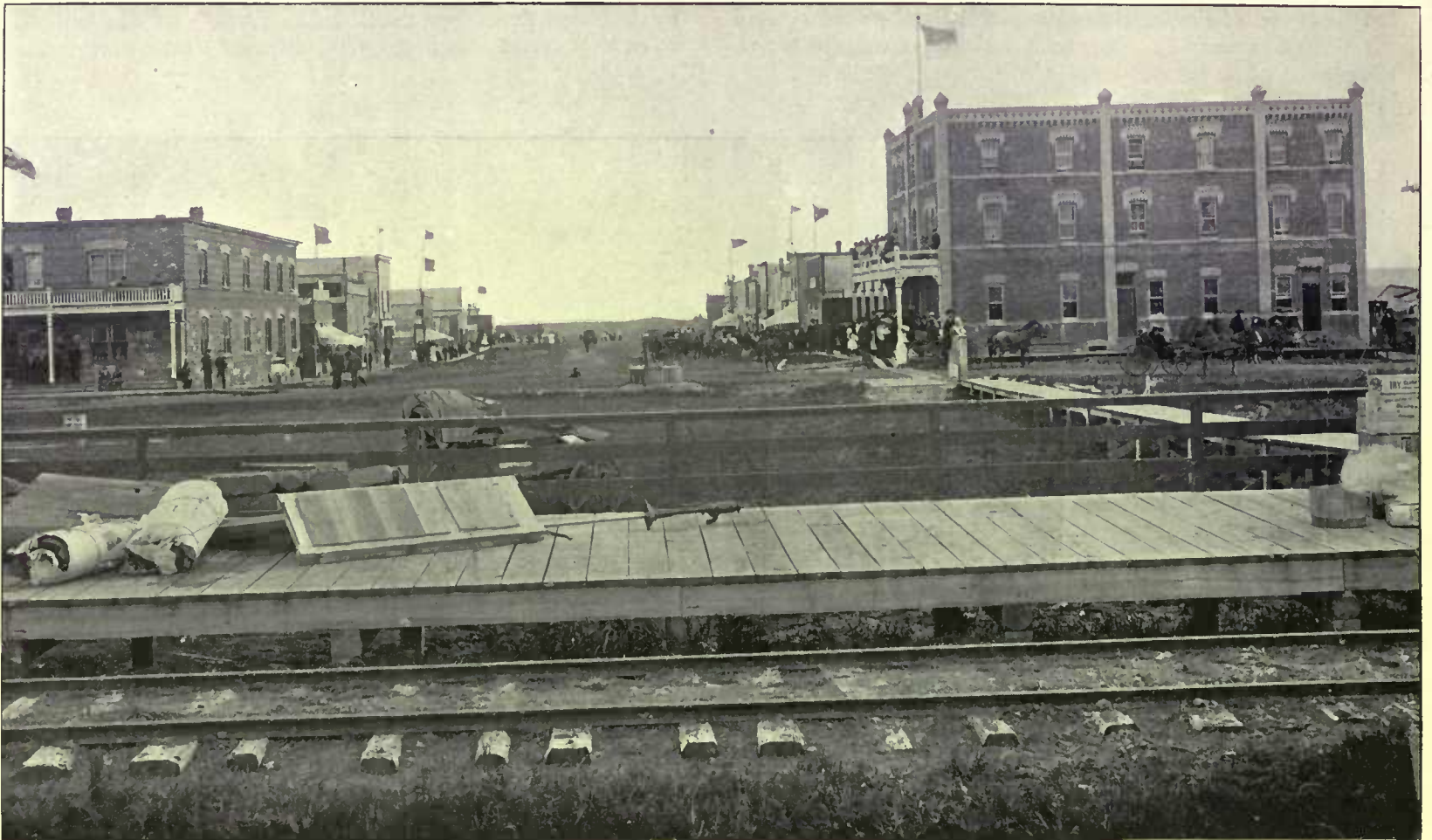


STANDARD FREIGHT HOUSE AND OFFICES

terminus the company will be in a position to handle much more expeditiously and advantageously the export grain from the Canadian North-West than has been practicable in the past. Some

to tap the new North and the new West and connect them, not only with Atlantic ports, but with the industrial centres of Eastern and Southern Canada.

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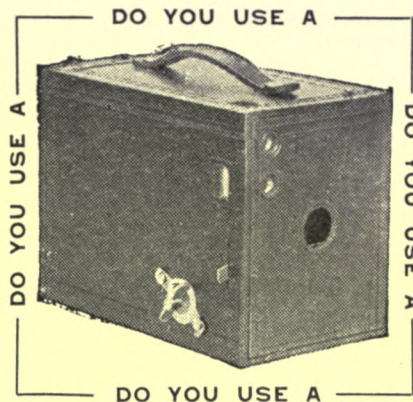
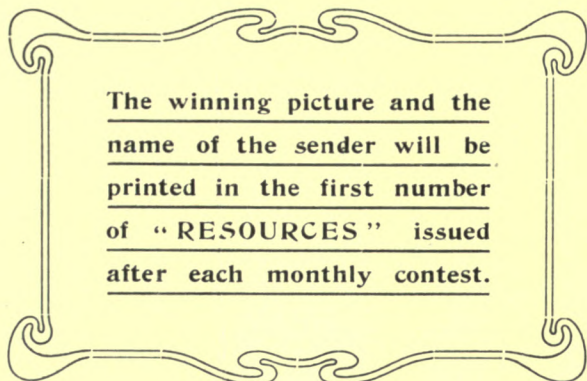
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