

CANADIAN
NATIONAL
NORTHERN
QUEBEC
RAILWAYS

FEBRUARY, 1910.]

THE R

Canadian Northern Ry. Construction, Etc.

Quebec and Lake St. John Ry.—A contract has been signed, under the act granting aid to certain railways, between the Dominion Government and the company for the construction of a line from the 35th mile of the La Tuque branch to La Tuque Falls, not to exceed five miles.

Canadian Northern Quebec Ry.—During 1909 the company completed its cut-off from Garneau to Quebec, 78 miles, thus giving it its own independent entrance into that city. It also constructed a branch from St. Jacques to Rawdon, Que., bringing into communication with Montreal one of the oldest settled districts to the north. A railway connection with Rawdon was first promoted in 1856, but nothing was done, and the district lay unopened. The company is operating a train service over the line from Hawkesbury to Ottawa, about 58 miles, which line, however, forms part of the mileage of the Canadian Northern Ontario Ry.

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APRIL, 1910.]

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Canadian Northern Ry. Construction, Etc.

Canadian Northern Quebec Ry.—The Montmorency branch connects with the main line half-a-mile north of Hedleyville Jct., Que., and extends to the Montmorency Lumber Mills, about 1.5 miles above the falls. The branch is approximately 7.5 miles and it has been constructed particularly for the handling of pulpwood for the lumber company. About 3,000 cords have been shipped since the line was opened, and it is expected to ship about 20,000 cords a year.

Plans are said to be under consideration for the construction of a terminal station in Montreal. Three or four schemes are spoken of, one of them being for the purchase of the old jail at the corner of Notre Dame St. and Desorimier Ave., and its utilization, and another for an uptown site. The advantage of the old jail site is its proximity to the river front.

Canadian Northern Ontario Ry.—An

dispatch states that the diffoul

Canadian Northern Ry. Construction, Etc.

Canadian Northern Quebec Ry.—The question of the reconstruction of the elevator at Quebec has been under consideration, and it is said that it has been definitely decided not to utilize the site of the burned structure. A proposition is under consideration to utilize a site at Cap Rouge, in connection with the laying out of the company's proposed new yards. The suggestion is that the elevator be constructed on the brow of the promontory with the loading spouts inclined toward the cove, which would be dredged so as to accommodate steamers of large tonnage. The question of the yards at Quebec is also under consideration, the general idea being to centralize the Quebec yards and freight stations at Cap Rouge.

In connection with the recent construction of a branch from the main line through Limoilou to the Montmorency River, the Board of Railway Commissioners, Nov. 10, ordered the demolition of seven miles of grading on the ground that work had been started without the Board's consent. The municipality of Beauport objected to some road crossings and brought the matter to the Board's attention.

Canadian Northern Ontario Ry.—

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solicitor for the applicants.

Quebec and Lake St. John Ry.—D. B. Hanna, President, and Z. A. Lash, K.C., one of the directors, completed a trip of inspection over the La Tuque branch, Sept. 30. The Government Inspector went over the branch subsequently, and it was expected that a regular train service would be placed in operation by the end of Oct. The branch leaves the main line at a point from Quebec and extends to the La Tuque Falls of the St. Maurice River.

Saskatoon, Saskatchewan, Peace River and
A solicitation will be made

October 1907

Quebec and Lake St. John Ry. (Nov., 1907, pg. 831.)

Quebec and Lake St. John Ry.—With the completion of the La Tuque branch, and the addition of $1\frac{1}{2}$ miles to the Gosford branch to Clark's, the Q. and L. St. J. R. added $13\frac{1}{2}$ miles to its length during 1907, bringing its total mileage up to $296\frac{1}{2}$, divided as follows: Quebec to Roberval, 188 miles; Chambord Junction to Chicoutimi, 51 miles; La Tuque branch, 52 miles; Gosford branch, $5\frac{1}{2}$ miles. A subsidy contract was entered into between the Dominion Government and the company in respect of the construction of railway for 35 miles from the company's line near River Jeannotte to La Tuque, on the St. Maurice River, Quebec. This contract covers the La Tuque branch, which has been opened for traffic. (Nov., 1907, pg. 831.)

Quebec, Montreal and Southern Ry.—The

MARCH 1908

Canadian Northern Ry. Construction.

Canadian Northern Quebec Ry.—Application is being made at the current session of the Dominion Parliament for an act authorizing the construction of a line from near St. Jerome to St. Eustache, Que., and authorizing the company to construct or otherwise acquire a line from or near Ottawa, via Hawkesbury to Montreal, branching on Montreal Island to enter Montreal from both the northeast and the southwest.

Considerable progress has been made with construction on the cut-off from Garneau to Quebec. On the western division track has been laid from Garneau to the Batiscan River, and from Lachevrotiere west to the St. Ann River, 18.14 miles. The material for the superstructure of the bridge across the St. Ann River is being delivered. This bridge consists of four 90 ft. deck-plate girders. On the eastern division, 2.5 miles of track has been laid from Lachevrotiere easterly, and considerable grading done. The grading on the loop at Quebec has been completed.

The St. Jerome-Montford branch which connects the main line with the old Montford and Gatineau Colonization Ry., which was opened for traffic in Sept., 1907, is 15.2 miles long. The stations and freight sheds at St. Jerome and Shaw Bridge have been completed. Bridges have been completed at all points except at the first crossing of the North River.

Canadian Northern Ontario Ry.—During 1907 the grading of 50 miles upon the com-

MARCH
1908

page." The same argument applies to classes of steel manufacture. Comparative steel castings of the present day with those which were made even 10 years ago, would certainly be in favor of the cast-iron made a few years ago. In testing the physical quality of castings the first thing remarked is that the ultimate strength is good as it was years ago, but there are many methods of taking pieces for physical testing that practically any results can be obtained that are specified for. It is not uncommon to go into the various operating rooms and to see the machine operator gauge the test piece, and so secure an approximate area of the same so that it can figure in his mind the load that will be necessary to produce the results required by the specification. It does not materially matter whether the machine is run at 3 or 3 inches a minute after the elastic limit has been reached, the results can not be materially interfered with. From a large number of tests that I made in looking into this matter, I have found that between the lower and higher speeds an increase in ultimate strength of about 500 lbs. per sq. in. was obtained. This would mean that a test-piece within reasonable limits could be made to pass the specification. The physical value of steel is determined by two things, the proportion of carbon which it contains, and the rate of cooling. The quality of steel depends upon nature of the working to which it is subjected, and the care taken by the manufacturer. These three things apply to all descriptions of steel having soft to medium qualities. Better results would be obtained by the use of reheated ingots, instead of rolling direct from the initial heat. This would admit of the proper amount of mechanical work being given before the tem-

Quebec and Lake St. John Railway.

Following are facts and figures relating to the operation for the year 1906, in addition to those published, in our June issue:

The total mileage operated by the company's trains during the year was 240 miles, viz.: Main line, Quebec to Roberval, 189 miles; Eastern Extension, Chambord to Chicoutimi, 51 miles; and the mileage under construction and approaching completion is: From Jeanmoulin to La Tuque, 40 miles; from Valcartier towards Gosford, 5 1/2 miles; from Roberval to the Government Wharf, 1 mile; total, 286 1/2 miles. The traffic accounts show net earnings of \$198,300, against \$175,796 in the previous year. The gross earnings and expenditures are as follows:

	1906	1905
Passenger earnings	\$179,067	\$167,555
Freight earnings	369,843	340,711
Mails	13,417	13,328
Express, telegraph, parlor and sleeping cars	15,156	13,063
Car rental, etc.	24,593	25,714
Canadian Northern Ry. rental of offices	398	460
Canadian Northern Ry. share of maintenance, Riviere a Pierre Junction	1,065	974
Quebec dock receipts	4,210	2,053
Expenditure	\$607,749	\$563,858
	409,419	388,062
Net earnings	\$198,300	\$175,796

The pay lists for the year were \$177,172, as against \$167,320 in 1905. The cost of fuel consumed during the year was \$84,280, against \$83,702 in 1905. The average earnings per passenger were 57 6-10 cents, as compared with 57 8-10 cents in 1905, and per ton of freight \$1.01 1/2 as compared with \$1.01 in 1905. The train mileage for the year 1906 was 379,469 miles, as compared with 370,347 in 1905.

LIABILITIES

Capital stock	\$1,303,500.00
City of Quebec stock	230,500.00
Prior lien bonds	465,000.00
First mortgage bonds	442,400.00
Income bonds	640,400.00
	12,056,626.67

Bills payable:

Car trust and betterment notes	\$ 101,385.98
La Tuque and Gosford branches secured by land grant and subsidies	256,932.34
Other notes	21,973.38
	380,291.70

Wages, December

Canadian Northern Quebec Ry.	14,297.92
Mortgage, balance on new terminal property	7,255.03
Mortgage, balance on lands at La Tuque	53,829.16
	75,372.11

Outstanding accounts due by the company

Profit and loss account prior to reorganization (expended in betterments)	\$12,518,064.69
Profit and loss account	91,159.85
	46,900.76
	\$12,686,125.30

PROFIT AND LOSS ACCOUNT

Balance from 1905	\$ 39,740.70
Accrued interest on prior lien bonds	2,838.88
\$11,500 sold in 1906	
Net earnings for year ended Dec. 31st, 1906	198,300.40
	\$240,889.98

Interest on prior lien bonds, 4 1/2 per cent at 4 1/2	75,206.72
Interest on first mortgage bonds, 4 1/2 per cent at 5 per cent	105,876.17
Directors' fees	2,500.00
City of Mills, Currie & Co. commission paying coupons	886.68
Railway Share Trust & Agency Co. fee as bondholders' trustees	1,937.78
Hanson Bros. fee as agents in Canada for bondholders	486.67
Rebate allowed Chicoutimi Pulp Co. on 1905 account	2,213.32
Rebate allowed Quinichouan Pulp Co. Provincial Government Tax of \$10.00	62.38

ad and per ton of freight \$1.01½ as compared with \$1.01 in 1905. The tram mileage for the year 1906 was 379,469 miles, as compared with 370,347 in 1905.

ASSETS.

Main line and equipment..... \$13,607,980.85
 Less Dominion Government bonus..... \$ 1,002,999.50
 Less Provincial Government bonus..... 2,368,816.88
 Less Town of Chicoutimi bonus..... 12,000.00
 3,383,816.38

Bellevue branch construction..... \$10,224,164.47
 Cash disbursements..... \$1,312,112.91
 Car trust notes..... 78,264.88
 Mortgages on new property..... 37,029.16
 1,427,406.98

La Tuque branch construction..... \$ 720,976.67
 Cash disbursements..... 250,832.34
 Land grant notes current..... 971,809.01
 Less Dominion Government subsidy..... 150,518.00
 821,281.01

Gosford branch construction..... \$ 22,728.10
 Cash disbursements..... 6,100.00
 Notes current..... 28,828.10
 Lake St. Joseph Hotel Co. stock..... 8,000.00
 Quebec Transport Co. Lands at La Tuque..... 1,005.00
 Cash disbursement..... 2,648.96
 Amount outstanding..... 18,000.00

Roberval branch to wharf..... 20,648.96
 Steamer Pilonnami..... 11,255.97
 Cash in Quebec Bank..... 7,060.18
 Cash, special funds, in Quebec Bank..... 13,863.49
 Quebec Bank, Savings Department..... 7,477.75
 Bills receivable..... 26,000.00
 Coal on hand..... 500.00
 Mechanical and other stores on hand..... 13,277.24
 Fire insurance, unearned premiums..... 18,982.33
 Great Northern debt..... 5,145.25
 Lower Laurentian Ry. future stock..... 1,050.00
 Lake St. Joseph Hotel Co. 9,253.38
 Outstanding accounts due company..... 9,018.50
 31,906.62
 \$12,686,125.30

Hanson Bros., Inc. as agents in Canada for bondholders..... 486.67
 Rebate allowed Chicoutimi Pulp Co. on 1905 account..... 2,213.32
 Rebate allowed Ontonagon Pulp Co. Provincial Government—Tax of \$10.00 per mile for years ending June 30, 1903 and 1904..... 62.38
 4,820.00

Balance..... \$193,989.22
 \$ 46,900.76

St. Mary's and Western Ontario Ry.—Three gangs of men and 50 teams are reported to be at work between Farnham and St. Mary's, Ont., work being started July 9. (June, pg. 400)

The Toronto Auto-Transit Co. has been incorporated under the Dominion Companies' Act, with a capital of \$145,000 and offices at Toronto, for a variety of purposes, including the transportation of passengers, or baggage and merchandise from one place to another. It is given power to enter into contracts with railway and express companies, steamboat companies or owners, and owners of all other classes of conveyances, for the conveyance of passengers, baggage and other merchandise; to acquire steam and other vessels, etc. The provisional directors are: C. W. Verral, C. W. Verral, Jr.; C. E. Verral, Miss S. Tiffitt, and Jas. Balsdon, Toronto.

A company has been incorporated under the Dominion Companies' Act, with the title of Societe Canadienne d'Entreprises Generales a Responsabilite, Limitee, a capital of \$500,000 and offices at Montreal, with the object of constructing for itself or others works of all kinds, and specially in connection with the building of railways, tramways, telegraph and telephone lines; the development of hydraulic and electric powers relating to the business of the company, including means of transportation by land and water, wharves, docks and warehouses. The provisional directors are: Hon. R. Dandurand, M. Chevalier, L. Bieque, Montreal; H. Biermans, B. Lemay, Shawinigan Falls, Que.

August
1907

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July, 1907]

THE RA

Canadian Northern Ry. Construction, Etc.

St. John Valley Ry.—G. G. Ruel, Assistant Solicitor Canadian Northern Ry., and A. F. Stewart, of the engineering department of Mackenzie, Mann & Co., Ltd., spent some time recently in visiting the various points in the St. John Valley to be reached by the projected line for which the New Brunswick Legislature has approved a guarantee of bonds to the extent of \$15,000 a mile. The route looked over near Woodstock was that of the projected Woodstock and Centreville Ry., which for a great part of the distance parallels the public highway. About one-half the distance was graded years ago. It is expected that engineering parties to locate the route will be sent out in the course of the summer.

Canadian Northern Quebec Ry.—D. D. Mann, Vice-President C.N.R., completed a trip of inspection June 10 over the lines of the C.N.Q.R. and of the Quebec and Lake St. John Ry., in the latter of which a controlling interest has been acquired. The question of the extension of this line from Roberval to the mining belt of the province, about 200 miles, is said to be under consideration. The question of the erection of car shops for the company's lines in the province is also said to be under consideration, but it is understood that the principal shops will be located at Longue Pointe, Montreal, where a large area of land was recently acquired.

Canadian Northern Ontario Ry.—The ques-

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Canadian Northern Quebec Ry.—D. B.
Hanna, Third Vice-President C.N.R., is reported as having stated at Quebec recently, that with the construction of its branch lines being proceeded with satisfactorily, he expected the line to reach Quebec in the near future. H. T. Hazen recently completed a trip of inspection over the new lines under contract, and he stated, on returning to Montreal, that very satisfactory progress was being made. Tracklaying on the line from St. Jerome to connect with the Montford and Gatineau branch was expected to be in progress early in June.

Canadian Northern Ontario Ry.—It is stated that the line from Hawkesbury

JUNE 1907

Quebec and Lake St. John Ry.

The directors' report presented at the annual meeting held in Quebec, May 10, contained the following:

The number of passengers carried during the year was 325,639, and the number of tons of freight 367,879. In the previous year the figures were 301,725 and 346,011. The freight consisted of the following number of car loads: cordwood, 1,124; pulpwood, 3,308; sawn lumber, 4,143; square timber, 560; ties, 812; pulp and paper, 1,427; brick, and stone, 259; cheese, 78; grain, 329; general merchandise, 5,914; total, 17,954.

The construction works on the branch line to La Tuque have been carried on by the contractor, J. Paquet, and by his sub-contractors, O'Brien & Fowler, with a large force of men during 1906, and also during the winter. The work has exceeded the estimates very largely, owing principally to a great deal of rock being found where test pits have led the engineers to expect earth and gravel. Track is now laid to mile 30, and the grading thence to beyond mile 39 is almost completed, so that trains should be running to La Tuque not later than July next, and possibly earlier. The contractor is running regular trains to the end of the track, and the construction of the National Transcontinental Ry. having been commenced at La Tuque, men and material for this work are now being sent forward over the Q. & L. St. J. The water power at La Tuque has been purchased by a syndicate of U.S. paper mill manufacturers, who have also purchased from the company the land grant of 158,000 acres given by the Provincial Government to aid the construction of the branch to La Tuque. The same purchasers have also acquired a large area of timber limits on the St. Maurice River, and have contracted to furnish the railway with not less than 4,000 carloads of

June
1907

large area of timber has been cut and is being floated down the River, and have contracted to furnish the railway with not less than 4,000 carloads of freight annually for the next nine years. The branch line from Valcartier towards Gosford is being continued for a further distance of a mile, which will make the length of this branch 5½ miles. A considerable quantity of freight has been delivered at the end of the line, and only awaits the track to be brought to market. The branch line from Roberval to the Government Wharf on Lake St. John, a distance of about one mile, has been completed and was inspected by the Government engineers in Dec. last. It is expected that this branch will be of great use in helping the steamboat navigation of Lake St. John, and thereby developing the territory on the north and west sides of the lake. The balance remaining unissued of the authorized issue of £500,000 of prior lien bonds has been disposed of during the past year, and has been and is being expended in the construction of the La Tuque, Gosford and Roberval Wharf branches, and also upon betterments on the main line. The ballasting of the main line from Lake Bouchette to Lake Edward was completed last year, and also a portion of the ballasting south of Lake Edward. Concrete and steel bridges have been constructed at the Rondeau and Jacot Rivers. The new dock at Quebec for the accommodation of canal boats and other light draught vessels has been completed. This dock is 700 ft. long, and is proving of very great benefit in accommodating the export trade of the railway. The yard at Quebec in rear of this dock has been nearly filled up, thus giving the railway a considerable increase in its yard accommodation. The pulp and cardboard mills and saw mills at the different points on the railway continued to be operated during the past year, and logs have been got out during the past winter to furnish them with a considerable increase of business. The colonization movement to the Lake St. John country has made satisfactory progress, and the Dominion Government is taking an active interest in this work, having

JUNE
1907

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June, 1907]

THE RA

appointed a special agent to supervise it at Quebec. The board have pleasure in handing over to their successors in office a road in excellent physical condition, well equipped with rolling stock in a good state of repair, and controlling a steady and increasing volume of traffic.

Following are the officers and directors for the current year: President, D. B. Hanna, Toronto; Vice-Presidents, G. Lemoine, Quebec; Z. A. Lash, K.C., Toronto; other directors: F. C. Annesley, W. H. Moore, A. J. Mitchell, F. Nicholls, Toronto; J. T. Ross, E. Beaudet and Senator Tessier, Que. The following are representative directors: J. G. Garneau, as Mayor of Quebec; Hon. Judge Gagne, representing Chicoutimi, and G. Tanguay, M.P.P., and Senator Choquette, representing Quebec Province.

It will be noticed that a number of changes were made in the directorate, consequent on the control having been secured by Mackenzie, Mann & Co.

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Railway Engineering and Main-

Sept., 1907]

THE RAILWAY AND MARINE WORLD

he long strip will be entirely ready for steel. As it is the grades are so far advanced that the steel men could not overtake them. West of 110 mile ridge being finished, there remains 109 to be done before Battle River is reached. Scattered along this big gap are many gangs of men and teams, and the grade at the rate of a mile a day is being built. The work is much easier than through the Eagle Hills. There is but one reason to prevent proceeding with the 110 miles of steel laying, and that is that they have not the steel. There is scarcely enough for a mile at present at Asquith, but the supplies of ties on hand is almost enough to land them at the other end of the grade. As soon as it is possible to get the steel in he believes that the work of laying it will be resumed from Asquith. In the meantime the big steam shovel brought in by the construction foreman, McTaggart, will be put to work building the approach to the C.P.R. bridge at Saskatoon.

Belly River Bridge.—A contract has been let to John Gunn & Sons, Winnipeg, Man., for the construction of the new bridge over the concrete substructure of the new bridge over the Belly River at Lethbridge, Alta. The concrete piling to be used in the foundation work will be supplied under a separate contract.

Revelstoke Bridge.—The new bridge which is being constructed over the Columbia River at Revelstoke, B.C., replaces a wooden structure approximately 1,070 ft. long, consisting of three 150 ft. deck, one 150 ft. through, one 100 ft. and one 120 ft. deck Howe truss spans resting on rock filled cribs, and 250 ft. of trestle approaches. The new structure will be of steel on concrete piers and abutments. There will be four 150 ft. deck and one 150 through truss spans, two 100 ft. deck plate girder spans, and two 40 ft. deck plate girder spans. The bridge built on the present

Quebec and Lake St. John Railway.

The Gosford branch, extending from Lorette to Clark Settlement in the Riviere aux Pins Valley, 5.75 miles, was opened for traffic Aug. 1. The locomotive drawing the train which carried the official party over the branch was the E. Beaudette engine no. 1, which was the first to run on the old Gosford wooden railway in 1872. In the course of his speech at the public dinner, with which the event was celebrated, J. G. Scott, General Manager, said: "We are met to-day for the purpose of inaugurating a work which is the completion of a work begun in 1870. I refer to the Gosford wooden railway, built by Quebec capital raised with much difficulty by Sir Henri de Lotbiniere and M. W. Baby, with the aid of J. B. Renaud, J. Ross, Hon. P. Carneau, H. Fry and others who have since gone to their rest. As happened since with regard to the main line, the promoters of 1870 had to rely upon the energy and the financial pluck of a U.S. citizen to build the road as contractor and they secured the services of J. B. Hubert in the same way as we 13 years later secured the services of another U.S. citizen, H. J. Beemer, to build the main line. Mr. Hubert was ably seconded by local engineers—the late C. A. Scott, J. Sullivan, H. O'Sullivan, and the late Mr. Stocking, and the wooden railway was built. It was not a success, but it caused the construction of a much larger public work, namely, the Lake St. John R.V., which has been of untold benefit to the city of Quebec. When the Lake St. John road was undertaken it was found that the Gosford end of the road was unsuitable for a through line, and the Gosford reverted to its primeval solitude. But the wealth of timber contained in the township of Gosford, and the large population isolated in the valley of the Riviere aux Pins settlements known as St. Gabriel West, commanded attention, and the result is the construction of a branch line from Valcartier

and of the lumber trade of the two greatest rivers in the Province—the Saguenay and the St. Maurice. If Quebec people will compare again even in a small way, as before, it will not be long before we will be calling out 'all aboard for James Bay' and Quebec will then have secured another back country larger and richer than what we have at present secured." May, pg. 327.

Canadian Northern Ry. Earnings, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1905-06 from July 1, 1906.

Earnings.	Expenses.	Net Earnings.	Increase or Decrease.
July \$ 601,800	\$ 397,900	\$ 203,900	\$ 61,400 +
Aug. 591,900	402,800	189,100	80,400 +
Sept. 644,400	417,800	226,600	60,400 +
Oct. 815,100	490,900	324,200	35,300 +
Nov. 741,700	481,300	260,400	13,800 +
Dec. 516,200	407,800	108,400	1,300 +
Jan. 351,400	410,300	28,000	1,300 +
Feb. 333,200	393,000	30,400	2,400 +
Mar. 488,800	394,800	94,000	91,000 +
April 509,900	405,200	104,700	145,000 +
May 570,000	512,500	358,100	119,500 +
June 663,100	610,400	334,900	

\$7,491,100 \$5,175,100 \$2,116,000 \$ 206,300 +
Approximate earnings for July \$939,500 Against \$903,800 for July, 1906.

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1905-06 from July 1, 1906.

Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July \$5,067,907.82	\$3,566,136.74	\$1,501,811.08	\$73,033.12 +
Aug. 6,170,452.27	3,707,873.07	2,462,579.20	670,931.92 +
Sept. 6,152,797.15	3,714,833.52	2,437,963.63	601,021.58 +
Oct. 6,046,605.48	4,100,777.07	1,945,828.41	510,750.33 +
Nov. 6,214,581.28	4,071,460.31	2,143,120.97	98,188.05 +
Dec. 5,092,098.07	3,726,404.71	1,365,693.36	80,088.07 +
Jan. 4,405,527.07	3,657,109.46	748,417.61	58,755.00 +
Feb. 4,268,266.74	3,610,218.62	658,048.12	401,971.72 +
Mar. 6,132,910.75	3,887,174.54	2,245,736.22	24,307.03 +
Apr. 6,391,501.39	4,024,635.52	2,366,865.87	33,095.38 +
May 6,937,135.20	4,147,177.19	2,789,958.01	477,550.52 +
June 6,817,714.41	4,402,000.13	2,415,714.28	

\$7,217,527.64 \$4,610,911.28 \$2,606,616.36 \$2,320,976.18
Approximate earnings for July \$6,900,000 Against \$5,882,000 for July, 1906.

construction of a branch line from Valcartier station to Gosford, the first section of which we are inaugurating to-day. Not only will this branch be valuable in exploiting the splendid hardwood lands of the township of Gosford, which will furnish an abundant supply of square birch and other timber for export at Quebec, and the best quality of fuel for the city of Quebec and for the rich parishes of Lorette, Charlesbourg and Beauport which are running short of fuel, but it will also remove from their isolation the hardy farmers of St. Gabriel West, several hundred families in number, who now cultivate the fertile lands of the Riviere aux Pins Valley, separated from civilization by a high range of mountains. For the farmers living on the north side of the Jacques Cartier River there is no bridge to cross that river for a distance of 20 miles from Valcartier to Pont Rouge. This is a terrible inconvenience, but it is going to be remedied by means of the very work we are inaugurating to-day, because one of the conditions upon which the Provincial Government has subsidized this branch is that the railway company shall construct a carriageway alongside of its bridge over the Jacques Cartier, and I have no doubt the Dominion Government will make the same stipulation when it grants its subsidy. But this section of this Gosford branch which we are inaugurating to-day is not all that has to be done. This branch must eventually be extended in one direction to the end of the settlements in the Riviere aux Pins Valley, and in the other to the first or second range of the township of Gosford in the direction of Lake Sept Isles, through lands capable of supplying enormous quantities of hardwood timber. "A capital of \$100,000 raised by Sir Henri de Lotbiniere and his associates for the Gosford Ry. has resulted in an expenditure of \$10,000,000, and in the commercial salvation of Quebec through the control of a great back country

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September
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(July, pg. 479.)

Metabouchouan Pulp Co.—By an act passed last session of the Quebec Legislature the agreement between the shareholders and a syndicate for the reorganization of the company was confirmed, and its name was changed to that of the Metabouchouan Co. The capital was reduced to \$158,000. but the shareholders have power to increase it to \$1,000,000. The schedules attached to the act set out the property affected by the arrangement. This includes all rights and interests of the Pulp Co. in a railway to connect its works at St. Andre de l'Epouvante to its point of intersection with the Quebec and Lake St. John Ry., near Lake Bouchette, about 11½ miles, all the rights and interests of the Pulp Co. under the Do-

August 1907

Canadian Northern Ry. Construction, Etc.

Canadian Northern Quebec Ry.—Track-laying is reported to have commenced on the cut-off from near Garneau Junction, into Quebec. The work is being carried on from Garneau Junction, and is expected to be completed this year. The cut-off is about 80 miles long, the contractors being O'Brien and Mullarkey. The new line from St. Jerome, to connect the old Great Northern Ry. of Canada with the old Montreal and Gatineau Colonization Ry., at St. Sauveur, Que., about 15 miles, has been completed and it was expected that it would be opened for traffic Aug. 19. The proposed line from Montreal to St. Jerome is expected to be constructed during 1908.

Canadian Northern Ontario Ry.—C. W. Spencer, General Manager, is quoted as stating that trains will be running on the line

September
1907

Canadian Northern Ry. Construction, Etc.

Canadian Northern Quebec Ry.—The question of the reconstruction of the elevator at Quebec has been under consideration, and it is said that it has been definitely decided not to utilize the site of the burned structure. A proposition is under consideration to utilize a site at Cap Rouge, in connection with the laying out of the company's proposed new yards. The suggestion is that the elevator be constructed on the brow of the promontory with the loading spouts inclined toward the cove, which would be dredged so as to accommodate steamers of large tonnage. The question of the yards at Quebec is also under consideration, the general idea being to centralize the Quebec yards and freight stations at Cap Rouge.

In connection with the recent construction of a branch from the main line through Limoilou to the Montmorency River, the Board of Railway Commissioners, Nov. 10, ordered the demolition of seven miles of grading on the ground that work had been started without the Board's consent. The municipality of Beauport objected to some road crossings and brought the matter to the Board's attention.

Canadian Northern Ontario Ry.—

done this year owing to the heavy traffic.

Great Northern of Canada.—Col. McNaught, vice-president, says the Co. is going to build 60 miles more of its line in the immediate future, but is not ready to say just where at present. There will also be a short line connection with St. Jacques, which will make connection at the Ottawa end more direct.

The Quebec Harbor Commissioners are authorized by an act passed at the last session of the Dominion Parliament to guarantee the interest for 20 years at 3%, on bonds to be issued by the G.N.R. Co. to the extent of \$200,000, to be known as the Quebec Elevator bonds, as set forth in the contract dated June 30, 1899, between the Ry. Co. and the Harbor Commissioners.

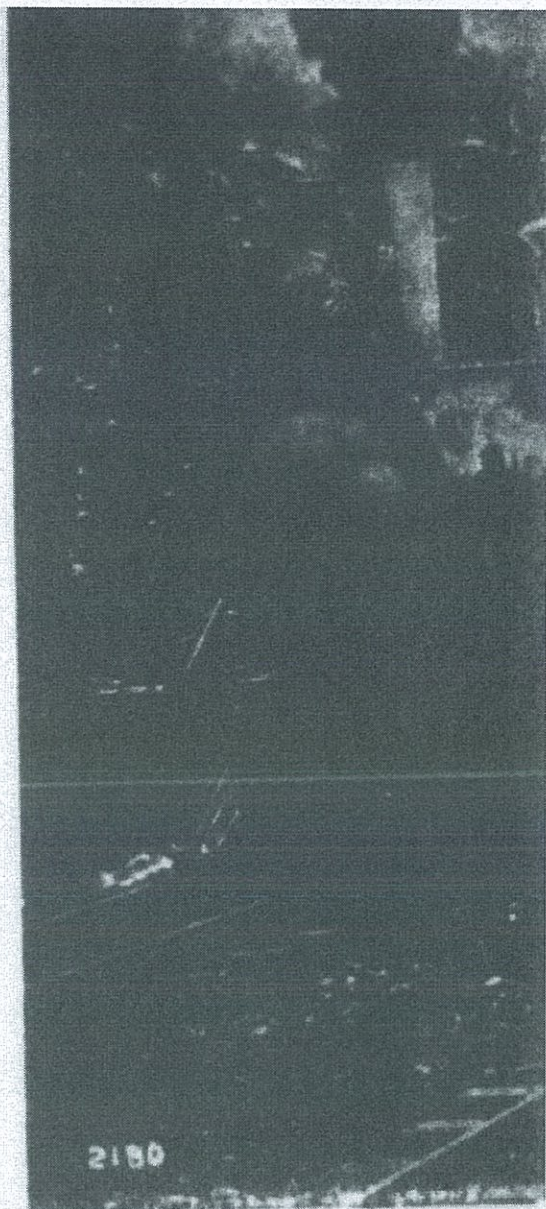
The charters of the Montreal Terminal Ry. and of the Chateauguay and Northern Ry. have been acquired by C. Magee and D. Murphy, of Ottawa, and H. Melville and Col. McNaught, some of whom are connected with the Great Northern Ry. of Canada. The first named is a street railway, and the second is a steam rail-



with the Great Northern Ry. of Canada. The first named is a street railway, and the second is a steam railway, having a Dominion charter to construct a line from Montreal to Joliette on the G. N. R., 37 miles. A Dominion subsidy of \$150,000 towards the construction of bridges at Bout de l'Isle, and a subsidy of the like amount towards the cost of the railway have been given. The plan for the bridges have been approved of by the Government, and F. A. Hibbert, of Ottawa, has been engaged to superintend their construction.

The bridge over the west channel is 1,594 ft. long, while that over the east channel is 1,114 ft. long. In addition to the railway tracks there will be a 10 ft. roadway on either side for carriages and foot passengers.

Great Northern (U.S.A.)—The extension of the terminal facilities of this Co.'s subsidiary, the Red Mountain Ry. at Rossland, B. C., has been commenced and will be com-



SUMM

Dec., 1904.]

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the mileage by 3,450 ft., and take out a considerable amount of curvature. The work includes a fill 40 ft. deep. (Sept., pg. 315.)

Quebec and Lake St. John Ry.—A contract has been let for the construction of a line of three miles from Valcartier, 16 miles from Quebec, northwesterly, the grading, etc., to be completed early in Dec. This branch, known as the St. Gabriel branch, will form part of a projected line 15 miles in length in the township of Gosford. E. Conway, Quebec, is the contractor, and A. F. Ducet, Chief Engineer, will supervise the construction.

Great Northern Ry. of Canada.—The report presented at the recent annual meeting at Quebec pointed out that since the opening of navigation in 1901, notwithstanding the almost unprecedented stagnation in the grain trade, a continuous business in grain shipments was carried on over the railway and through the Co.'s elevator. Up to the end of Oct. 17 large steamships were loaded, besides two steamers previously loaded in Montreal, which were obliged to unload and reship their cargoes at Quebec. All those steamers were loaded with full cargoes without any detention whatever, had rapid despatch, and took, besides grain, large quantities of flour, lard, dressed meats, pulp, paper, pressed hay, live stock, furniture wood, deals and other goods. The Co. loaded the largest cargo that has ever been shipped from the St. Lawrence. The Leyland Steamship Line is furnishing a very satisfactory service of large modern steamers, running between Quebec and London in connection with the railway. Negotiations are in progress for other lines to Manchester, Liverpool and other ports for next season. The local traffic of the railway is most promising. The great manufacturing industries at Grand Mere and Shawenegan Falls are already giving the railway a large quantity of freight, and when

other lines to Manchester, Liverpool and other ports for next season. The local traffic of the railway is most promising. The great manufacturing industries at Grand Mere and Shawenegan Falls are already giving the railway a large quantity of freight, and when the new mills now under construction at the latter point are completed a very heavy traffic may be looked for. The railway is also receiving a most satisfactory business from the other towns along the line, and from the rich agricultural country through which it runs. The receipts and operating expenses demonstrate a healthy condition of things for a railway yet in its infancy. The report of the Chief Engineer, A. E. Doucet, sets forth the physical condition of the road and the very considerable improvements and betterments which were carried out during 1901.

The directors for the current year are : President, Hon. P. Garneau, Quebec ; Vice-Presidents, J. McNaught, New York ; H. H. Melville, Boston, and V. Chateauvert, Quebec ; other directors, J. T. Ross, Hon. J. Tessier, J. G. Scott and E. Ling, Quebec ; W. L. Bull, New York ; J. Joyce, Boston ; H. E. Mitchell, Philadelphia, and Hon. S. N. Parent, Mayor of Quebec, ex-officio.

London and Port Stanley Ry.—After ex-

Quebec & Lake St. John Ry.—We were officially informed on Jan. 4 that the cut-off from Valcartier to St. Catharines, 4 miles, had been completed, with the exception of the steel superstructure of the bridge over the Jacques Cartier river, which was in course of erection, and that it was expected the line would be operated over the cut-off by the end of Jan. (Dec., 1901, PG. 358.)

The Quebec Ry. Light and Power Co. has, as stated, leased a water privilege of 1,000

promoter. (Aug., 1902, PG. 207.)

Quebec and Lake St. John Ry.—A branch line extending from St. Audre Jet., 159 miles from Que., to Metabetchouan, Que., 11 miles, has been completed. An extension of the line has been projected from Chicoutimi to St. Alphonse, about 12 miles.

Coal pockets have been erected at St. Raymond. Que., for the locomotive department, in order to save time in coaling. (Aug., 1902, PG. 267.)

The Quebec and New Brunswick Ry. Co.

January 1903

missed the action with costs.

Great Northern of Canada.—Some changes have been made in the official list, Hon. P. Garneau, Quebec, retains the Presidency; Hon. J. Sharples, heretofore Vice-President, becomes 1st Vice-President; Col. J. McNaught, New York, has been elected 2nd Vice-President, & H. H. Melville, Boston, 3rd Vice-President. J. G. Scott continues as Secretary & General Manager. E. Ling has been appointed Treasurer. Fifty-year 5% gold bonds, to the amount of \$6,000,000, have been authorized at the rate of \$20,000 a mile. Bonds covering 171 miles from Quebec to a junction at Hawkesbury with the Canada Atlantic, have been deposited with the Central Trust Co., & will be sold on completion of the road. The authorized capital stock is \$3,000,000, all common, of which \$2,000,000 has been issued. A 10 year contract has been made with the Canada Atlantic for interchange of traffic on a mileage basis. The Co. has been granted the use of the Government docks at Quebec, & all steamships run in connection with the road will be exempt from harbor, port & other dues for 5 years. See also under "Railway Development."

1900

The appeal in the case of the G.N.R. Co. vs. Campbell came before the Supreme Court at Ottawa May 7. The appeal is against two judgments of the Court of Review at Montreal affirming judgments for \$14,700 in the Superior Court against the Co. on three promissory notes, of which payment is disputed on the ground that they were given without consider-

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Chicago and Western Indiana Road.

At a meeting of the directors and officials at Montreal, July 24, there were present:— President Thomas and E. A. Bancroft, General Counsel, C. & W. I. Rd.; G. B. Reeve, 2nd Vice-President, and F. W. Morse, 3rd Vice-President, G. T. R.; President McDoel, and G. W. Kretzinger, General Counsel, Chicago, Indianapolis and Louisville Rd.; President Underwood and O. W. Johnson, General Counsel, Erie Rd.; President Carpenter and O. S. Lyford, General Counsel, Chicago and Eastern Illinois Rd.; President Ramsay, and Col. Blodgett, General Counsel, Wabash Rd. The object of the meeting was to confer as to what was to be done in order to comply with the decision of the Chicago City Council to compel the road to elevate its track between 16th and 23rd streets in that city. The work will doubtless be undertaken at an early date, but the negotiations, which involve a multitude of

September
1901

The C. & W.I.Rd. has 16.99 miles of line from Polk st., Chicago, to Dolton, Ill. It has 48.58 miles of branches, and its second, third and fourth tracks and sidings make the total track 218 miles. It owns over 850 acres of land in Chicago, used for right of way, switches and transfer yards, etc., and for stations leased to various companies. The belt division and the Indiana elevator are leased to the Belt Ry. Co. of Chicago, and the rest of the property is leased conjointly by the Chicago and Eastern, the Wabash, the Chicago and Grand Trunk (now the Grand Trunk Western), the Chicago and Erie, the Chicago, Indianapolis and Louisville (each owning \$1,000,000 of the capital stock), the Atchison, Topeka and Santa Fe, and the Elgin, Joliet and Eastern companies, the lessees paying all expenses of operation and maintenance on a mileage basis. The leases are all covered by the mortgage as additional security.

September 1901

SEPT., 1901.]

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*details, have not been finally closed, though it is expected an agreement will be arrived at within the next few weeks. It is said the cost of elevating the road is estimated at about \$6,000,000.

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MAY, 1901.]

pony truss spans, each 100 ft. long.

St. Lawrence Subdivision Revisions.—

Contracts have been let for clearing, fencing, grading and building trestles, culverts and bridge substructures, on the following deviations of main line on the St. Lawrence Subdivision, Canadian Northern Quebec Ry. as follows:—Burril deviation, between Glenada and St. Boniface, mile 87.6 to 91.6; East Yamachiche deviation, between St. Boniface and Charette, mile 94.82 to 96.3; St. Ursule deviation, between Fremont and St. Justin, 110.15 to 114.89; to Angus Sinclair, contractor, Toronto; St. Paulin deviation, between Charette and St. Paulin, mile 101 to 104.6, to V. T. Bartram, contractor, Toronto. Full information as to the objects of these deviations, their character, etc., was given in Canadian Railway and Marine World for July.

Charney to Quebec Bridge.—A press report states that a contract has been let to J. R. O'Neil for building a line from Charney, about 8 miles east of Levis, Que., to the Quebec Bridge, and that work has been started.

Quebec District Structures.—A press report states that a contract has been let to W. M. Fletcher & Co., Toronto, for the erection of 8 concrete bridge and other structures at points on Quebec District.

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Location Betterments on Canadian National Railways.

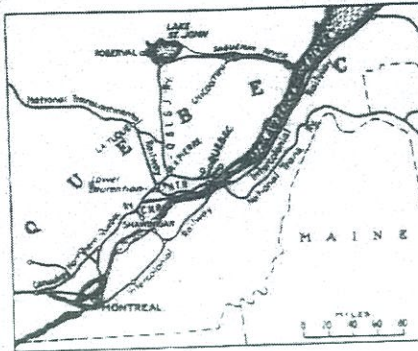
By Henry K. Wicksteed, B.A.Sc., Chief Locating Engineer, Canadian National Railways.

Present construction and studies for location betterments on the Canadian National Rys. may best be understood by a brief review of early railway building on the Canadian Northern. The principal component of the lines composing the Canadian National Rys. System is that of the Canadian Northern. This was financed, designed, and built, as everyone knows, by the firm of Mackenzie & Mann, both members of which were not only very able business men and financiers, but had had a long previous experience in contracting on the Canadian Pacific, and an absolute confidence in the resources of Canada and its future. They knew personally a great many of the older engineers, and others who had been identified with the construction of the older road, and they gathered about them a number of these men who knew the topography of Canada as no one else could know it, and the weak points of the older roads as well as the strong. Under these circumstances it is not surprising that the Canadian Northern, from Montreal and Toronto to Vancouver, has the reputation of being the best long distance line on the continent in proportion to cost, and the best on this continent from an economic point of view means the best in the world. Some day justice will be done to the extraordinary talent and vision of these two men. Public opinion is even now swinging round in that direction. The successful man has always a great crowd of detractors, but as a successful man remarked to me a few days ago, it is easier to make and keep a reputation than to do things. These men attempted the impossible and

tions for some 25 miles between Toronto and Ottawa. Grades of 1.5% were reduced to 0.5%, while the other construction was going on, and finished simultaneously, the stations being left in their original positions, and the existing business of the line being left undisturbed. A still more important link in the main chain between Montreal and Quebec was the Great Northern of Canada, completed

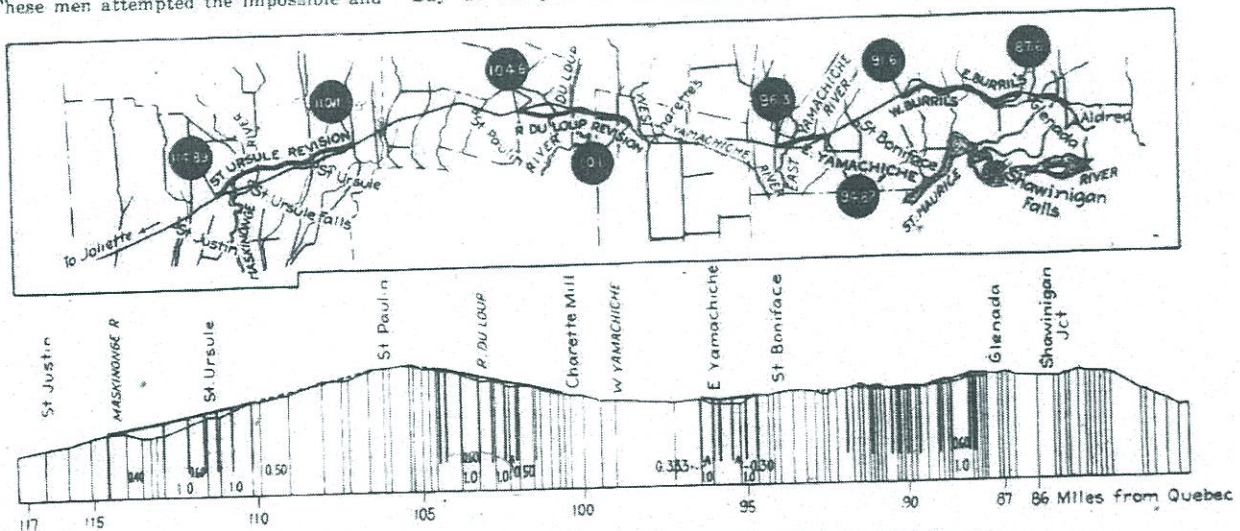
sated to 0.60% compensated. This provided for nearly one half the distance between Quebec and Montreal, and two fifths of that from Quebec to Hawkesbury. Nine miles of the remainder was taken up by a sharp drop into the St. Maurice valley, and an equally sharp rise on the opposite side, and of the remainder all but 30 miles was on the great Montreal plain, and where the grades were at all objectionable, they were all so short as to be easily reducible by ordinary steam shovel work.

The St. Maurice depression, involving as it did the moving of a station and raising of a bridge over the river, has been left alone for the present, and is being worked as a special short division, but this 30 miles, involving some long 1% grades, became one of the first studies of the Canadian National staff. Surveys showed that these could be reduced to 0.60% by the construction of some 14 miles of new line, and 4° curves substituted for the 8° standard now obtaining, and that the capitalized value of the change would amount to some \$5,000,000 or more, while the cost was estimated at \$1,500,000, but this cost was largely made up by that of four steel viaducts over as many rivers. The existing bridges, which had been standing some 20 years, were none too heavy in the first place, and quite unequal to modern loads, and rebuilding them in the new sites was somewhat cheaper than in the old. The amount chargeable to grade revisions therefore, was less than \$500,000 and it needed little argument to convince the directorate that the expenditure was a good investment. Work on these



Canadian National Railways Lines in the Quebec District.

about 1900, and itself composed of older roads coupled together. It extended originally from Hawkesbury, on the Grand Trunk, 60 miles east of Ottawa, to Rivière a Pierre, on the Quebec & Lake St. John, and was intended as an overflow route for the somewhat heavy flow of grain then going east from the Georgian Bay at Parry Sound to Quebec. One



Betterments under construction on St. Lawrence Subdivision, Canadian National Railways.

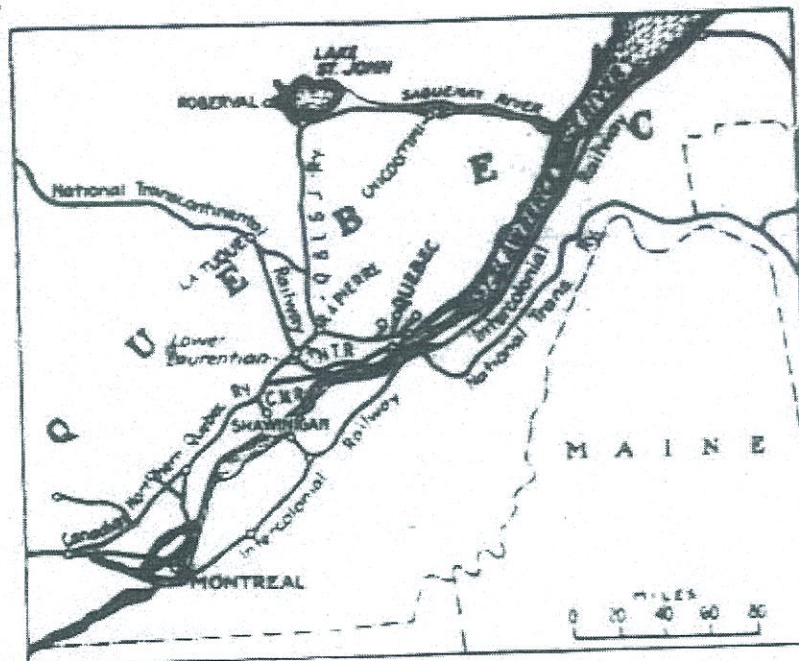
got away with it. Two farmers' sons built 10,000 miles in less than 20 years.

Part of this system in the east was composed of acquired lines which were linked together and sometimes acted merely as feeders to the parent system; sometimes formed part of the main line itself. They had nearly all been finished years before, and in location features higher standards demanded at the present were not on a par with the somewhat old. One such road was the Bay of Quinte, which was used with modifica-

hundred miles of this route, from Quebec to the St. Maurice, was made up of two colonization roads, the Lower Laurentian and the Quebec & Lake St. John, and had a number of grades of 2%, and curvature as sharp as 10°, in combination.

The newer portion had been built to a 1% standard. The most objectionable part of the combination was eliminated by building a new line from the St. Maurice River, 80 miles, to Quebec, which reduced the distance some 17 miles, and the ruling gradient from 2% uncompen-

changes has actually been commenced. Meantime the traffic on the Quebec & Lake St. John, a little separate system of 280 miles, built as a colonization road, had grown very rapidly, owing to the development of the wood pulp and paper industry in the Saguenay basin, and its 1.5% grades (and on the Quebec end 2%) had become very expensive to maintain and operate. Most of this traffic goes to and beyond Montreal, and leaves the Q. & L. St. J. at Rivière a Pierre, running over the 40 miles of the Lower Lauren-



Canadian National Railways Lines in the Quebec District.

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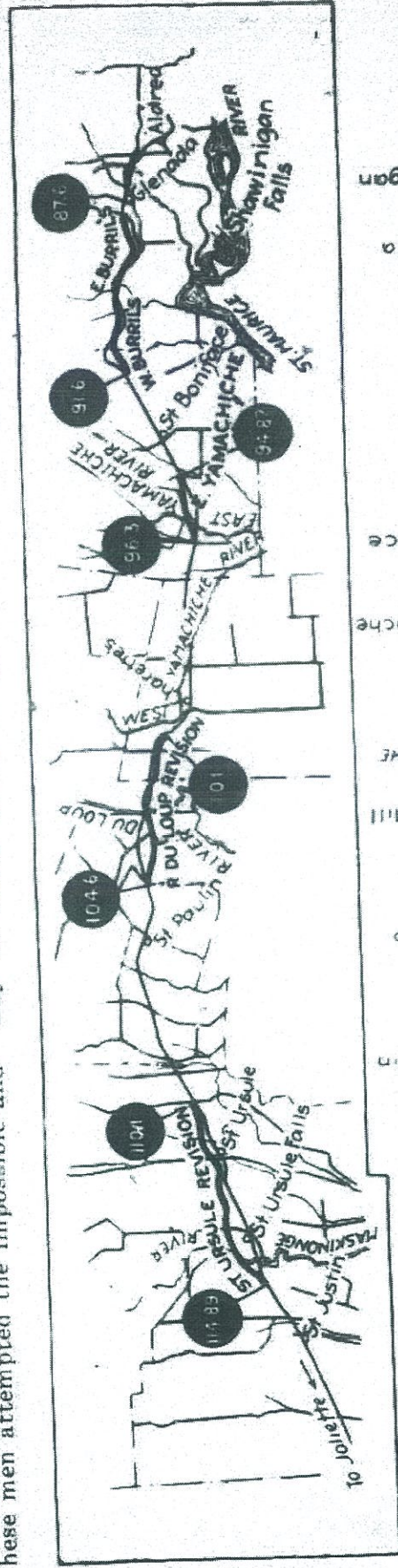
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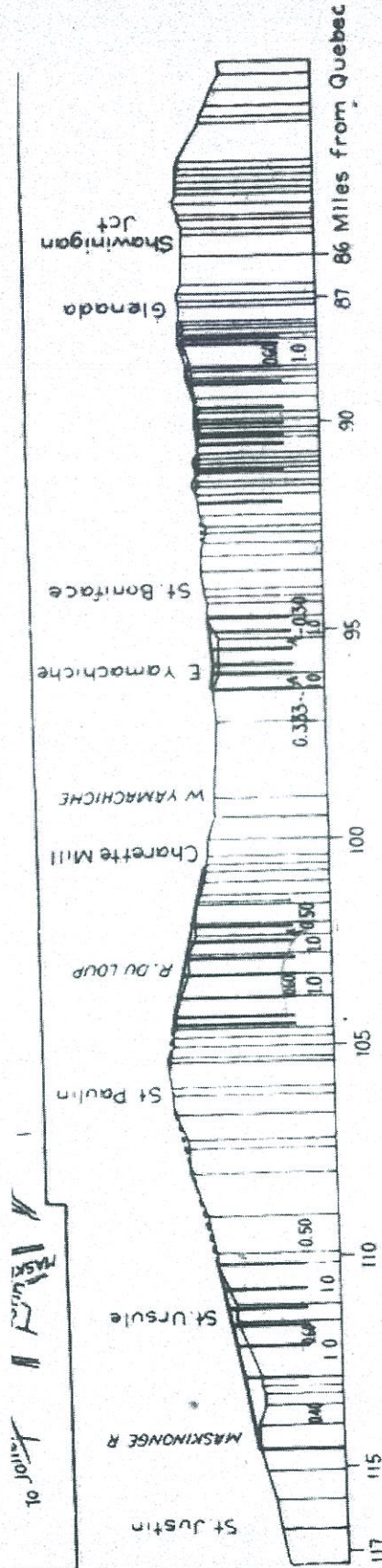
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Projected Railway and Industrial Development in Quebec.

tian above mentioned, with 2% grades, and into the main line at the St. Maurice River. The National Transcontinental Ry., another member of the Canadian National Rys. System, crosses this midway between Riviere a Pierre and the St. Maurice, and this, too, is carrying more traffic to and from Montreal over this little one-horse colonization branch. Studies now being made, for the reduction of these 2% grades to the same 0.60% standard, are well advanced and very encouraging, but obviously in a reduction from 2% to 0.60%, with considerable changes in elevation, it cannot be expected that much of the old line will remain. It is possible, however, to retain all the station and traffic points in tact. Otherwise there would be a very serious rebellion among the good people of the Province of Quebec.

Last in importance perhaps, and farthest away from the great trade centers, but among the most interesting of all, are the studies on the Quebec & Lake St. John itself. One hundred and twenty-five miles north of Quebec City is the Town of Chicoutimi. Many Canadians have never heard of it, and probably the great majority of Americans. Yet it is a seaport nearer to Europe than any in the United States. Within 50 miles of it are a million horsepower of water running to waste. Within 150 miles are some of the greatest spruce forests of the world, and at its doors, and extending more than 50 miles, are 1,000 square miles of good agricultural land. In this city, and on this land, are 50,000 to 60,000 industrious and thrifty French Canadians. From Canada, the United States, and both England and France, capital has come freely in the past, and is still coming for investment in pulp grinding and paper making. To the westward, and tributary to this city are mineral areas which have caused at least one flurry of excitement. Quebec has perhaps the sanest population, and the most progressive and business like government of any province in Canada. This combination is a hard one to beat, and many people are realizing it. One chance acquaintance on the train in midwinter had come all the way from Kansas City, merely to look into the chances for profitable investment.

Under these circumstances, it is only natural that the traffic on the Quebec & Lake St. John should increase, and that it should look forward to economic development and improvement in grades and curvature, and possibly, in the more remote future, to electrification. At every few miles along its line are rivers with minor waterpowers which can be developed easily and cheaply. Few of them perhaps are large enough to justify a transmission line to distant localities, but quite large enough in the aggregate to keep a railway going, and probably so evenly distributed that a high tension line and converters would be unnecessary. This matter of electrification of Quebec lines will soon be well worth studying, but the question of grade reduction and increasing at moderate expenditure the train load by 50% and sometimes over 100%, remains relatively just as important. Electrification will reduce or nearly eliminate the coal bill. Grade reduction will reduce both coal and wages in proportion to tonnage. Both expenditures will probably soon be worth while. The accompanying plans and profiles show some of the most interesting of the problems under construction and study.

A press report states that a large project for industrial expansion in the province of Quebec is taking shape, embracing the construction of a railway from Hudson Bay to the Seven Islands, passing by Lake Mistassini, Lake St. John and Chicoutimi, to enter Quebec by the Montmorency Valley, which would shorten the route from Chicoutimi to Quebec by 100 miles; the establishment of pulp and paper mills at Seven Islands and at other places where there are important water powers along the line of the railway, and the erection of steel works at Chicoutimi and at Quebec. The project, according to reports, is being promoted by a syndicate with which Lord Burnham, principal proprietor of the Daily Telegraph, London, Eng., and Lord Desborough, who is a member of the Grenfell family of financiers, are members. The area within which the project, according to the report, is to be carried out, extends from Seven Islands on the St. Lawrence River, through Saguenay and Chicoutimi counties, and northerly and northwesterly to Hudson Bay, and it is proposed to build a railway from Chicoutimi to Quebec City. During the past two years there has been considerable exploratory work done in this region, and several charters have been secured from the Quebec Legislature, authorizing railway construction, development of water powers, navigation rights, etc., while land subsidies for the building of 200 miles of railway have been provided and are available for any company undertaking to build the lines specified. Following are particulars of the companies incorporated having construction rights in the area.

The Quebec Legislature in 1919 incorporated two companies, one the Quebec & Ungava Ry. Co., and the other the St. Felicien & Ungava Ry. Co., of both of which Viscount Templeton, London, Eng., the Earl of Clarendon, London, Eng., and Pickering, Ont.; B. Spring Rice, Burwash, Sussex, Eng.; and H. C. Thompson, London, Eng., were provisional directors, and J. T. Ross, Quebec, was a provisional director of the second named company. The Quebec & Ungava Ry. Co. was authorized to build a railway from Seven Islands, in Saguenay County, on the north shore of the St. Lawrence River, northerly to Lake Memphak, thence westerly or northwesterly to the most suitable harbor between the mouth of Big River and Nastapoka Sound on Hudson Bay, with branch lines. The St. Felicien & Ungava Ry. Co. was authorized to build a railway from St. Felicien, St. John County, to Lake Mistassini, thence to Lake Nichikuin and to Lake Petitsikapau, or by an alternative route between the first and the last named points. During the winter of 1919-20 several parties connected with a syndicate with which the provisional directors of these two companies were associated, carried on explorations in the territory through which these lines were projected.

At Seven Islands, the Clarke interests carried on extensive developments, including the building of Clarke City, with wharves, and a power and pulp plant, in connection with which a railway was built during the construction period. A recent report stated that the Clarke properties had been sold to a syndicate, which proposed to make extensive developments in the region.

The Quebec & Chibougamau Ry. Co. was incorporated by the Quebec Legisla-

ture at its last session to build a railway from Quebec northerly through Quebec, Montmorency, Charlevoix and Chicoutimi counties to Chicoutimi, to the Saguenay River, and thence through Chicoutimi and St. John counties to Lake Chibougamau, with branch lines.

The Quebec Legislature at its last session voted a subsidy of 4,000 acres a mile, not convertible into money, to a company building a railway from near Chicoutimi, on the Quebec & St. John Ry., to St. Felicien, to the west of Lake St. John, running through the regions situated east and north of the lake, as well as branch lines, the total length of main line and branches subsidized being 120 miles. The Legislature, at the same time, voted a similar subsidy to a company to build a line from Malbaie to Ha Ha Bay, in the St. John Lake district.

A recent press report stated that the Quebec Ry., Light & Power Co. was negotiating the sale of its charter for the operation of a steam railway, and such part of its lines as was used for that purpose, to a syndicate interested in the development of the province. This piece of line might be useful in connection with the building of a line to Chicoutimi.

[See Quebec Subsidies for Railway Construction, Mar., pg. 122; Quebec & Ungava Ry., May, 1919, pg. 254; St. Felicien & Ungava Ry., May, 1919, pg. 254; Quebec & Lake Chibougamau Ry. Co., Aug., pg. 428; Quebec Ry., Light & Power Co., Oct., pg. 557.]

Proposed Enlargement of Niagara Railway Arch Bridge.

A recent press report stated that a conference had been held between Sir Adam Beck, Chairman, Hydro Electric Power Commission of Ontario, and the owners of the Niagara Railway Arch bridge in reference to the use of the bridge by radial electric railways, which would necessitate four tracking it.

We are officially advised that the bridge is an international one, controlled by two companies, the Niagara Falls Suspension Bridge Co., incorporated in Canada, and the Niagara Falls International Bridge Co., incorporated in the United States. The officers of the Canadian company are:—President, C. Riordan, Montreal; Secretary-Treasurer, J. H. Ingersoll, St. Catharines, Ont. H. G. Dickinson, Niagara Falls, N.Y., is superintendent of the bridge.

The G.T.R. operates the railway portion of the bridge, leasing the upper deck, and the proposed widening could not be accomplished without its consent, as the bridge tracks terminate, on one side, on G.T.R. property, in use for its terminal purposes.

Plans for adding two more tracks have been prepared by Chas. Ewan Fowler, C.E., New York, N.Y. It is proposed that the four tracks on the upper deck shall have a capacity for E.70 locomotives and that the lower deck will have two electric railway tracks in the center, two 20-ft. roadways, and two 10-ft. sidewalks. Mr. Fowler says that it is hoped to have progressed far enough so that construction may be started next spring. He is also engaged on plans for the proposed Windsor-Detroit bridge.

Lucerne Railway Club Ltd. has been incorporated under the British Columbia Companies Act with authorized capital of \$2,000, to carry on a social club.

tian, above mentioned, with 2% grades, and into the main line at the St. Maurice River. The National Transcontinental Ry., another member of the Canadian National Rys. System, crosses this midway between Riviere a Pierre and the St. Maurice, and this, too, is carrying more traffic to and from Montreal over this little one-horse colonization branch. Studies now being made, for the reduction of these 2% grades to the same 0.60% standard, are well advanced and very encouraging, but obviously in a reduction from 2% to 0.60%, with considerable changes in elevation, it cannot be expected that much of the old line will remain. It is possible, however, to retain all the station and traffic points intact. Otherwise there would be a very serious rebellion among the good people of the Province of Quebec.

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Prairie Provinces Grain Crop Movement.

The Board of Grain Commissioners' Statistician, E. A. Ursell, Fort William, Ont., reported on July 9, as follows:—Although the export demand for Canadian wheat continued comparatively quiet during June, stocks in store, in transit and still in farmers' hands have been reduced to less than 120,000,000 bush., distributed as follows:—in Western Grain Inspection Division—75,000,000; in Eastern Grain Inspection Division—23,000,000; and in U.S.A. lake and seaboard ports—22,000,000. Approximately 30,000,000 bush. have been exported, milled or consumed at home. Reports to date indicate the July movement will probably be somewhat larger than that of June, so that the Canadian carry-over at the close of the season will be less than that of a year ago.

The unsettled condition of the markets which followed the announcements of the reduction of freight rates has gradually given place to a more or less pronounced state of apprehension that the condition of growing crops indicates a much smaller yield this year than last, which would more than offset the larger carry-over expected. The Canadian crops depend entirely upon frequent and copious rains throughout the growing season, as there was no reserve moisture in the soil in the spring. Mid June conditions in many important districts were decidedly unfavorable, owing to the lack of sufficient moisture, and the ultimate yield will undoubtedly be affected.

Freight rates on the Great Lakes weakened considerably towards the middle of June, quantities of grain being carried to Buffalo at $1\frac{1}{4}$ c and to Montreal at $6\frac{1}{2}$ c wheat basis, but during the last 10 days firmness was apparent, particularly for tonnage for July shipment, rates advancing to $1\frac{3}{4}$ c to 2c to Buffalo and 7c to $7\frac{1}{2}$ c to Montreal for last week of June shipments, and 2c to Buffalo and $7\frac{1}{2}$ c to Montreal first half July shipment. On the ocean, liner tonnage has been fully sufficient to meet all demands and very few tramp steamships have been chartered. The rates paid for these have been little better than distress rates. From Vancouver the movement continues small, the Oriental requirements having been almost satisfied.

Barley	3,515,576	40,427,473	24,139,123
Flaxseed	281,470	2,936,902	3,338,817
Rye	459,843	6,802,425	10,978,983

Distribution of Lake Shipments from Fort William and Port Arthur, in bushels.

MONTH OF JUNE, 1929—	To unload at	Total
Canadian	U.S.A.	

Wheat	8,501,628	6,440,641	14,942,269
Oats	2,235,420	85,000	2,320,420
Barley	1,507,297	1,908,676	3,415,973
Flaxseed	30,910	304,898	335,808
Rye	459,515		459,515

OPENING OF NAVIGATION TO JUNE 30, 1929—		
Wheat	32,358,828	31,204,202
Oats	11,019,303	533,089
Barley	3,500,341	7,185,419
Flaxseed	194,219	548,813
Rye	1,507,520	247,224

Grain handled at Vancouver and New Westminster, B.C., elevators, 11 months ended June 30.

RECEIPTS:	1929	1928
Wheat	94,202,855 bush.	81,222,723 bush.
Oats	787,938 "	531,048 "
Barley	600,476 "	59,567 "
Rye	340,179 "	328,826 "

SHIPMENTS:		
Wheat	91,738,395 "	75,971,052 "
Oats	67,315 "	11,266 "
Barley	476,533 "	1,254 "
Rye	70,371 "	240,240 "

Grain handled at Prince Rupert, B.C., elevators, 11 months ended June 30.

RECEIPTS:	1929	1928
Wheat	2,499,398 bush.	7,980,544 bush.
Oats	1,575 "	5,992 "

Grain handled at Victoria, B.C., elevator from date of opening to June 30.

of opening to June 30.		SHIPMENTS:	
RECEIPTS:		Wheat...	107,924 bush.
Wheat	146,618 bush.	Barley...	46,820 "
Barley	46,820 "		

Canadian grain handled at Duluth, Minn., and Superior, Wis., 11 months ended June 30, in bushels.

RECEIPTS:		SHIPMENTS:	
	1929	1928	1928
Wheat	877,419	745,568	794,067
Oats	16,910	662	24,577
Barley	610,628	841,864	936,198
Flaxseed	40,044	13,941	31,147
Rye	15,015	35,374	43,140

Railway Projects, Surveys, Construction, Betterments, Etc.

Abbotsford Lumber Co. is reported to have engineers making surveys for a logging railway from its timber limits on the Guma Mountain near Abbotsford, B.C.

pendent last autumn owing to the then impending election, 13 miles of grading had been completed on which 70-lb. rails had been laid for 6 miles. The election resulted in a change of government, and the whole matter of the diversion is under the executive council's consideration.

Pacific Great Eastern Ry.—Willard Kitchen, a director, and Robert Wilson, Executive Assistant, Pacific Great Eastern Ry., on returning recently to Vancouver, B.C., from a trip of inspection over the line to Quesnel and over the projected extension to Prince George, reported that ballasting was in progress between Clinton, mile 45, and Williams Lake, mile 156, Lillooet Subdivision, and that satisfactory progress was being made with the construction of concrete cribs and retaining walls along Anderson Lake on Squamish Subdivision. Work was started earlier than usual this year and as a result the work, a good deal of which is of a permanent nature, has been nearly completed. (Press report.)

We are advised officially that the wharf and approach trestle proposed to be built at Squamish will be adjacent to the present government dock. The landing dock area will be approximately 150 x 30 ft., which, with the present dock, will give a total area in one block of about 150 x 60 ft. There will be an elevated platform and ramp 200 x 10 ft. The train passenger platform will be 450 ft. long by 14 ft. wide and a 3-track 40-ft. apron car ferry slip will be built, and 2,300 ft. of railway trestle. Creosoted piles will be used under the passenger dock and all parts subject to teredo action, and cedar piles will be used under the railway trestle where there is no teredo action. The deck of the wharf will be 10 ft. above mean sea level. All timber used will be B.C. fir, and the trestle will be standard 6-stringer, 15-bent construction. There will be an approach of train fill material for about half a mile, requiring about 17,500 cubic yards of material.

A contract has been let to Watson and Stewart, Squamish, for bridge foundations at mile 44.1 and 48.4, near Rethel, mile 44.6, Squamish Subdivision. Another contract for bridge foundations has been let to Dawson, Wade and Co., Ltd., Vancouver. (Press reports.)

August
1929