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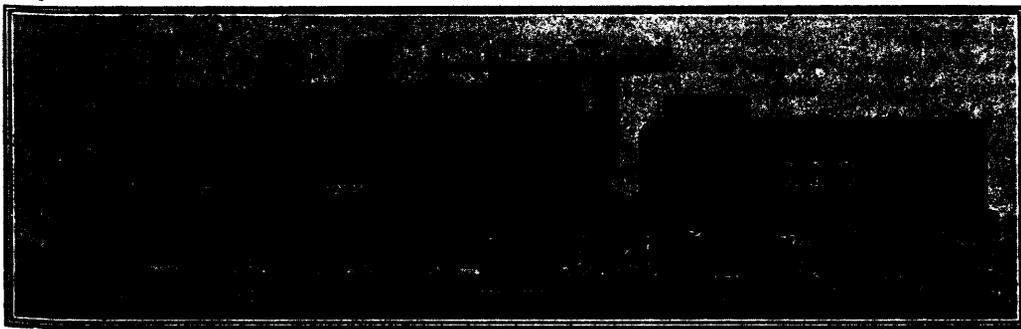
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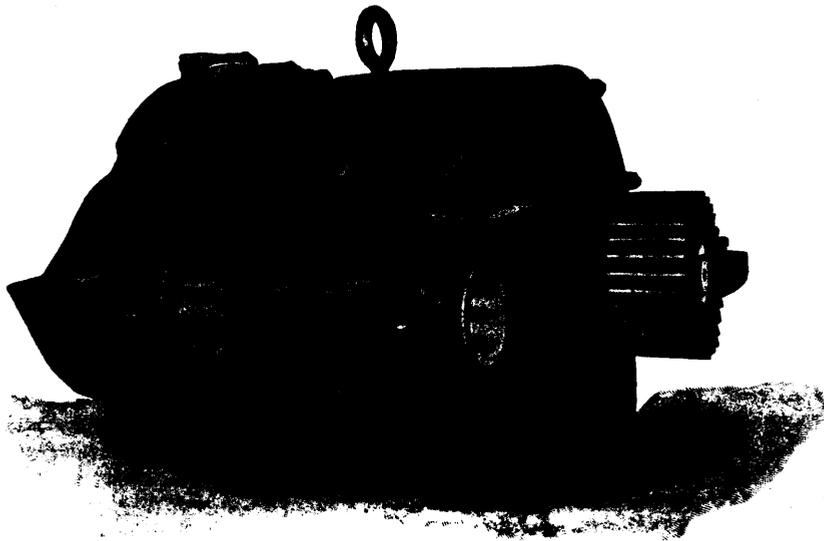
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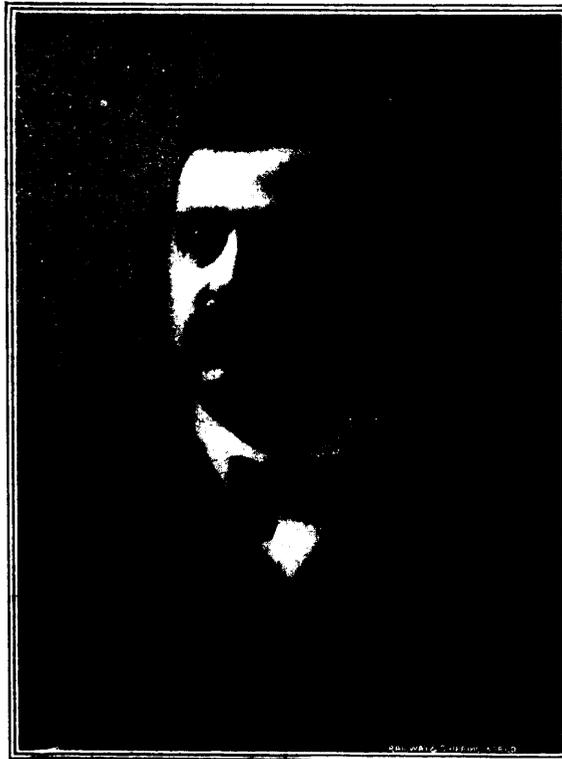
## The Toronto-Sudbury Lines.

As stated in our last issue, the C.P.R. has started construction upon a line from Romford, near Sudbury, southerly to a point near Toronto. The route of this proposed line parallels, and in some points is identical with that surveyed for the James Bay Ry., a line projected by Mackenzie, Mann & Co. in the interests of the Canadian Northern Ry. Referring to the starting of work by the C.P.R., W. Mackenzie, President Canadian Northern Ry., recently stated that James Bay Ry. Co.'s location surveys were about completed and the subsidies arranged for, and that it was his firm's intention to arrange a contract for construction almost immediately, and that work would be commenced about July 1. Mr. Mackenzie added: "I know little about the C.P.R. people's intentions, but they certainly have no authority to build such a line. The C.P.R. charter embraced a branch from Sudbury to the city of Toronto, but the time allowed to build was to 1891, and not only has this time lapsed, but no parliamentary authority for the construction of the road has ever been secured by that company."

Section 14 of the agreement between the Dominion Government and the incorporators of the C.P.R., which forms the schedule to the C.P.R. Act of 1881, says: "The company shall have the right, from time to time, to lay out, construct, equip, maintain and work branch lines of railway from any point or points along their main line of railway to any point or points within the territory of the Dominion. Provided that before commencing any branch, they shall first deposit a map and plan of such branch in the Department of Railways."

The James Bay Ry., by Z. A. Lash, K.C., Chief Solicitor, has filed protests with the Ontario Government and with the Dominion Board of Railway Commissioners, against the construction of the C.P.R. line. This protest is accompanied by a copy of an opinion given by the late Sir Oliver Mowat as Minister of Justice on Nov. 13, 1897. The opinion was given in connection with claims made by the C.P.R. and other railway companies to certain lands in Manitoba and the Northwest Territories, and in dealing with that question the Minister of Justice referred to the power claimed by the C.P.R. to build branch lines from its main line. On this point he said: "I think, though, the point is not free from difficulty, that the time for building branch lines was limited to the time mentioned in clause 4 of the contract. That clause stipulates for the completion on or before May 1, 1891, of the works therein described as the east and centre sections of the road and section 15 of the act (charter) provides for the company's

constructing the main line, and an existing branch described in the act, and also other branches to be located by the company from time to time as provided by the said contract \* \* \* the said main line of railway and the said branch lines of railway shall be commenced and completed as provided by the said contract. This language is so clear and explicit that it is out of the question to suppose it not to have been intended that there should be a limit of time as regards the branches. Not only does the act expressly state the contrary, but to give an unlimited time for com-



GEORGE COLLINS,  
Receiver and Manager, Central Ontario Railway.

mencing or completing a railway authorized by any act would have been contrary to the whole course of railway legislation. It would be contrary also to the policy of the General Railway Act of 1879, s. 28 (6), which act is referred to in the 22nd clause of the contract as applying to the C.P.R. so far as applicable thereto and as not inconsistent with the act relating to that company. Now it is true that the 4th section of the contract does not expressly mention branch lines. But it being quite clear from the 15th section of the act that it was intended there should be a limit of time both for commencing and for completing

these, that Parliament interpreted some provision in the contract as containing a limit or as showing a limit when read with the 15th section of the act, and that the only provision on the subject of such a limit is the 4th clause of the contract, that clause is to be construed accordingly. The words 'the said main line of railway and the said branch lines of railway shall be commenced and completed as provided by the said contract' may be read as including in the eastern and centre sections named the branch lines which the company should build therefrom under the authority of the act; or the 15th section may be read as if it said 'provided for by the contract in respect of the works therein specified.' It was evidently intended by Parliament to put the main line and the branch lines on the same footing in this respect. It has been suggested that the 15th section may be read as limiting time for those branch lines only which the company had contracted to build, but these are no more provided for by the words than other branch lines are; and if the 4th clause may in the light of the 15th section be read so as to embrace the branch lines contracted for, these may be read in like manner as embracing the branch lines located by the company from time to time."

Sir Oliver Mowat, in his opinion above quoted, referred to the policy of the Consolidated Railway Act of 1879, sec. 28, subsec. 6, as being contrary to the C.P.R.'s contention that its power to build branch lines from its main lines had not lapsed. But it was especially provided by the C.P.R. Act of 1881, sec. 23, that the above-mentioned subsection of the Consolidated Railway Act should not apply to the C.P.R.

Referring to the statement that the C.P.R. had no right to construct the proposed branch, A. R. Creelman, K.C., its Chief Solicitor, recently said: "There is no trouble whatever as to our right to build the road. We have looked carefully into the matter and there is no question as to our right to build branch lines. We have not, in fact, asked for parliamentary authority to build from Toronto to Sudbury simply because we have already secured this right. As a matter of fact, we have already started construction."

We have reason to believe that the C.P.R. management is very firmly of the opinion that it still has the right to build branch lines from its main line, and that if the matter is taken to the courts it is quite prepared to meet the arguments which may be advanced to the contrary.

The matter will come before the Board of Railway Commissioners at Ottawa, early in July, in connection with an application of the C.P.R. Co. to make certain changes in their proposed location.

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The Canadian Freight Association's summer meeting will be held at the Royal Muskoka Hotel. The Executive, Freight Inspection, Car Service and Classification committees will meet July 6, and the general meeting will be held on July 7. The Muskoka Lakes Navigation and Hotel Co. has arranged for several trips on the lakes for both days.

A Train Load of Subscribers.—It is not often that a whole train load of passengers are all subscribers to one paper, but such was practically the case with the special train which conveyed the members of the Canadian Ticket Agents and their guests to the St.

Alphabetical List of Advertisers.

Table listing advertisers and their page numbers. Includes: W. Abbott, Montreal; The Accident and Guarantee Co. of Canada; American Locomotive Co., New York; Auld Mucilage Co.; Babcock & Wilcox (Ltd.), Montreal; Baldwin Locomotive Works, Philadelphia, Pa.; Bell Telephone Co. of Canada; Bertram Engine Works Co., Toronto; The John Bertram Sons Co., Dundas, Ont.; Bradstreet Company; The Acton Burrows Co., Toronto; W. M. Camp, Chicago; Canadian Locomotive Co., Kingston, Ont.; Canadian Northern Railway; Canadian Pacific Railway Land Department; Canadian Railway Accident Insurance Co.; Canadian Shipbuilding Co.; Canadian Steel and Wire Co., Hamilton; Canadian Westinghouse Co., Hamilton; Continuous Rail Joint Co. of Canada; Dominion Bridge Co., Montreal; Dominion Steamship Line; Dominion Wire Rope Co., Montreal; E. L. Drewry, Winnipeg, Man.; Drummond, McCall & Co., Montreal; M. E. Evans, New York; Expanded Metal and Fireproofing Co., Toronto; Firstbrook Box Co., Toronto; Galena Signal Oil Co., Franklin, Pa.; J. J. Gartshore, Toronto; Government of Manitoba; The B. Greening Wire Co., Hamilton, Ont.; Gutta Percha and Rubber Mfg. Co. of Toronto; Holland Portable Light Works, Montreal; Holt, Renfrew & Co., Toronto; F. H. Hopkins & Co., Montreal; Hudson's Bay Company; Hunter, Rose Co., Toronto; James Hutton & Co., Montreal; Illinois Central Railroad; Imperial Bank of Canada; Intercolonial Railway; International Mercantile Marine Co.; Wm. Jessop & Sons (Ltd.), Sheffield, Eng.; Lima Locomotive & Machine Co. Lima, Ohio; Lehigh Valley Railroad; Rice Lewis & Son, Toronto; Locomotive and Machine Co. of Montreal; London Guarantee and Accident Co., Toronto; Mail Job Printing Co., Toronto; McCaskill, Dougal & Co., Montreal; John S. Metcalf Co., Chicago, Ill.; Mica Boiler Covering Co., Montreal; Michigan Central Rd.; Midland Towing and Wrecking Co.; Montreal Steel Works, Montreal; James Morrison Brass Mfg. Co., Toronto; T. A. Morrison & Co., Montreal; W. H. C. Mussen & Co., Montreal; New York Central Railroad; Niagara Navigation Co.; Northern Electric and Manufacturing Co., Montreal; Northern Navigation Co.; A. O. Norton, Coaticook, Que.; Ontario Wind Engine and Pump Co., Toronto; Page Wire Fence Co., Walkerville; Eugene F. Phillips Electrical Works, Montreal; The Hiram L. Piper Co., Montreal; N. L. Piper Railway Supply Co., Toronto; Place Viger Hotel, Montreal; Polson Iron Works, Toronto; J. W. Pyke & Co., Montreal; Queen City Oil Co., Toronto; Rhodes, Curry & Co., Amherst, N. S.; Richelieu and Ontario Navigation Co.; St. Thomas Brass Co., St. Thomas, Ont.; Safety Car Heating & Lighting Co.; Saxon Engine Works, Chemnitz, Germany; Simplex Railway Appliance Co., Montreal; J. & J. Taylor, Toronto; Toronto Bolt and Forging Co., Toronto; Toronto Engraving Co., Toronto; Wabash Rd.; Arthur White, Toronto; Wire & Cable Co., Montreal.

Louis exposition in May. The train, which consisted of seven sleeping cars, had 200 passengers; of the 131 men on board, all but three get THE RAILWAY AND SHIPPING WORLD regularly, which may be given as an illustration of the thorough way in which its circulation covers the Dominion.

"Eighteen Years Ago."—It is a singular coincidence that June 13, the date when the first dual daily transcontinental service on the C.P.R. will be inaugurated, is the anniversary of the departure in 1886 of the first through train of the company that ever steamed out of Montreal for its run of 2,900 miles across the continent. It was on that memorable day that the town of Vancouver was wiped out of existence by an awful conflagration that left only four houses standing, and in which 50 lives were lost.—Winnipeg Tribune.

**C.P.R.'s Building in London, Eng.**

The European headquarters of the C.P.R. have recently been installed in the new building erected by the company in Trafalgar Square, London, Eng. This area is the centre of London as well as the most important centre of continental traffic, Charing Cross, the terminal of the South-Eastern Ry., being on the opposite side of the square, and the principal residential hotels lying westward to Westminster and southward to the Thames embankment. The building has a frontage of 54 ft., and is 96 ft. in height from the street to the top of the clock tower. It is six stories high, and has a large basement, in which are three vaults and the motor plant for lighting, elevator, etc. The frontage on the ground floor is of polished granite, and the remainder of the front is of Portland stone. The main enquiry and ticket office on the ground floor is a very fine hall and general office, 43 by 32 ft., and 13½ ft. in height. An elevator service runs from the basement to the fourth floor; the building is fireproof throughout, all steel work being encased in concrete. The building is estimated to have cost \$400,000. An illustration of the front elevation is given on this page.

**Quebec Central Railway Meeting.**

The following report for the year ended Dec. 31, 1903, was presented at the annual meeting in London, Eng., May 18:

1902.		1903.	
\$669,341	Gross earnings .....	\$682,757	
467,621	Working expenses .....	492,698	
\$201,720	Net earnings .....	\$190,059	
509	Interest on balances .....	157	
<u>\$202,229</u>	Net revenue .....	<u>\$190,216</u>	

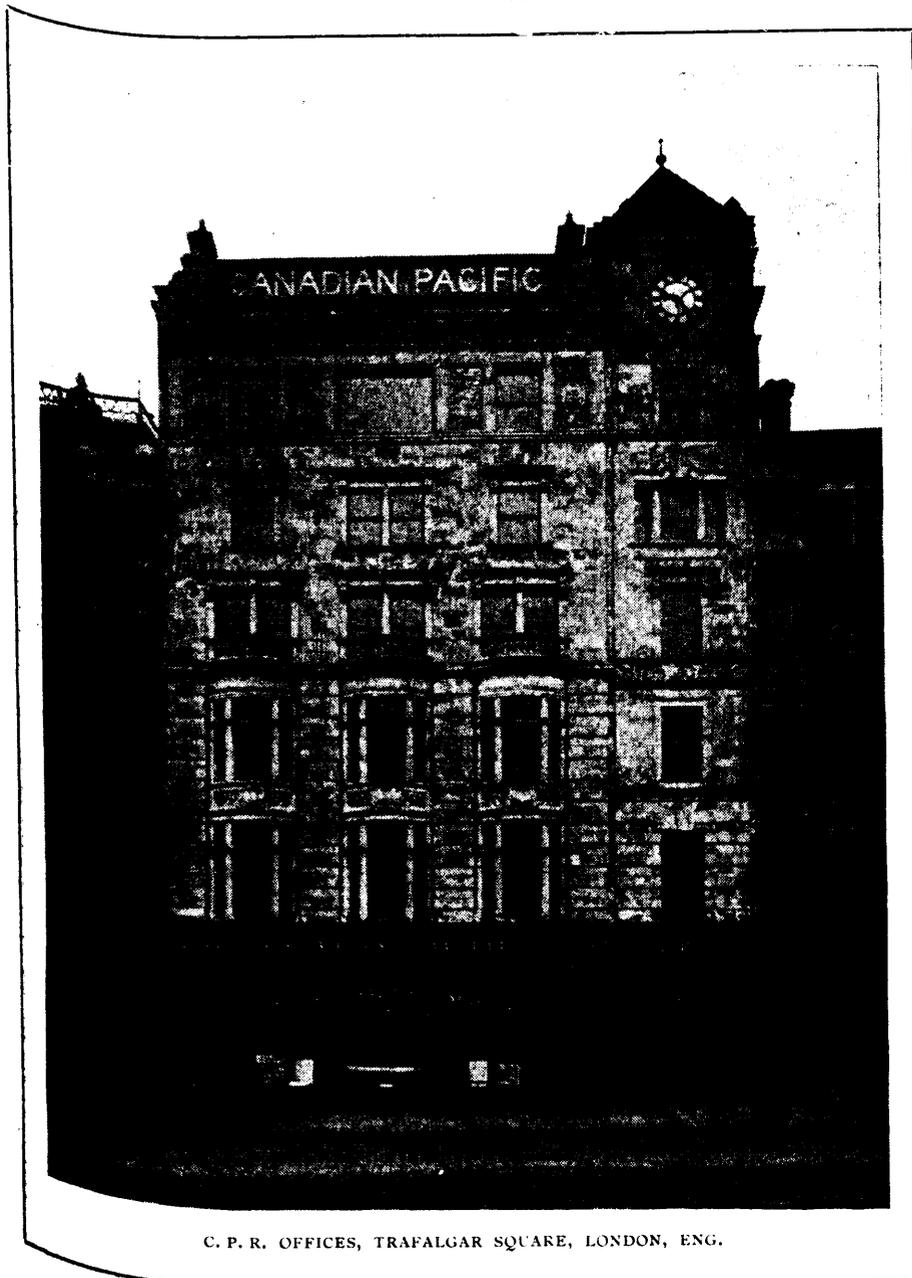
This statement shows increases in gross earnings of \$13,416 and in working expenses of \$25,077, but a decrease in the net earnings of \$11,661. The increase in working expenses is owing to the high price of coal resulting from the prolonged coal strike, the effects of which were felt during the greater part of the year, and to the increase in wages and materials, which has affected the working expenses of all railways in Canada and elsewhere. The net revenue was \$190,216. The addition of \$8,745 brought forward from 1902 increased the available total to \$198,961. After providing \$86,882 for the year's interest paid and accrued on the outstanding prior lien bonds and 4% debenture stock issued, \$14,731 was charged against net revenue for

alterations, additions and improvements to bridges, culverts and stations, ballasting, etc. There then remained \$97,348, from which was paid interest on the 3% second debenture stock, \$49,348, and a dividend at the rate of 2¼% for the year on the 7% income bonds absorbing \$37,011, leaving \$10,987 to be carried forward. Up to Dec. 31, 1903, £256,637 of the new 4% debenture stock had been issued. Of this £198,000 had been used in retiring a like amount of prior lien bonds, and £58,637 had been sold to provide funds for a portion of the requisite additional capital expenditure authorized by the act of 1899. There remained £152,000 prior lien bonds unexchanged on Dec. 31, 1903.

President E. Dent in moving the adoption of the report, said the gross earnings were the largest in the history of the company. The increased cost of fuel was \$23,000. The number of passengers carried during 1903 was 227,210, an increase of 7,524, the increase being both in through and local traffic. The total freight carried was 368,006 tons, a decrease of 48,470 tons against the figures for 1902. This was largely to be accounted for by the fact that owing to the drought of May and June, 1902, and the consequent low water in the rivers large quantities of forest produce could not be floated down to the railway for transport. The average earnings per ton were \$1.11 against \$1 in 1902, consequently the diminution in freight earnings was only \$3,613. The road has been maintained in good condition, and each year about 10 miles of old 56 lb. rails were being replaced by new ones of 70 lb. weight, and during last year nearly 17 miles of line were rebalasted. Reference was made at former meetings to the bridge which is being built across the River St. Lawrence some 2 or 3 miles above the city of Quebec. This work is progressing, but probably will not be finished for two or three years to come; still, in order to place the company in a position to utilize the facilities which will be afforded, Parliamentary powers had been secured to subscribe to the project if such subscription was considered justifiable. Power had also been secured to build a branch line from Scott's Junction to connect with the Quebec bridge when completed, but these powers are only permissive, and do not in any way bind the company. The gross earnings up to the end of the second week in May were \$247,051, an increase of \$34,741 as compared with last year. The net earnings to the end of April were \$64,516, an increase of \$18,773 over the corresponding period.

F. Grundy, General Manager, in seconding the motion, went into some detail in explaining the increased working expenses, and the decrease in the freight traffic, and pointed out some facts which indicated the increasing prosperity of the district from which the line drew its traffic. He then referred to the question of branch lines, which he said was of importance to the future of the line, and which the board would consider. There is the branch from Scott's Junction to make a connection with the bridge now building over the St. Lawrence between Quebec and Levis, for which a subsidy of \$3,200 per mile had been obtained from the Dominion Government during this session, and it was hoped to obtain a subsidy from the Quebec Government also. Then there is a very important link that ought to be built—namely, from St. Francis to St. George, a distance of nine or ten miles, for which the Dominion Government has promised \$3,200 a mile, and if the cost of the road is more than \$15,000 a mile, that subsidy is to be raised to \$6,400 a mile; and as the branch cannot possibly be built under \$20,000 or \$22,000 a mile, very likely the subsidy may be reckoned at \$6,400, and for that branch the Quebec Government also may give a subsidy.

The report was adopted, and the retiring directors, E. Dent, A. Bremner, F. Grundy,



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**CHARLES MILLER,**  
PRESIDENT.

F. H. Norman, Jos. Price and S. G. Shepard were re-elected. The other director, L. A. Carrier, Levis, Que., is appointed by the Quebec Government.

**Qu'Appelle, Long Lake and Saskatchewan Railway.**

The report for the year ended Nov. 30, 1903, states that the gross earnings, after deducting the earnings from Government service were \$436,350.67, against \$242,844.40 for the previous year, an increase of 79.68%. The expenses were \$435,155.70, against \$177,112.55, an increase of 145.69%. The percentage of expenses to earnings for the past year was 99.73%, against 72.93% for the previous year. The net profit for the year was \$1,194.97, against \$65,731.85 for the previous year. Earnings from passenger traffic, including Government service, were \$132,137.68, against \$65,418.95. Freight, express, mail and miscellaneous earnings, including Government service, were \$310,485.31, compared with \$183,137.63. The increase in gross earnings is satisfactory, and indicates along the line. The increase in expenses, \$258,043.15, is large. Most of this increase, as in previous years, was incurred for maintenance of way and structures. During the year the expenditure under this heading was \$231,234.48, against \$106,717.86 for the previous year, of which amount maintenance of buildings alone shows an increased expenditure of \$66,327.88. It was necessary to expend a very large amount on water tanks and other buildings to put the road in a position to handle the increased traffic. The balance of the increase in expenses, \$133,526.43, is attributable to the increased traffic of the road. The increase of nearly 80% in gross earnings shows a marked improvement in the earnings of the road, but the expenses for the year were \$435,155.70, or only about \$1.200 less than the gross earnings. Owing to the large increase in traffic it was absolutely necessary that a heavy expenditure should be incurred for betterments, nearly all of which was capital expenditure, and it is satisfactory to note that such a large amount has been paid out of the earnings of the company for one year. The directors are of opinion that the company may look forward to a very satisfactory traffic during the present year which will result in a considerable net surplus.

<b>ASSETS.</b>	
Cost of road	\$4,010,140 00
Bonds held by company re McDowall's Mill	
Siding	11,253 92
Sundry debtors	15,027 63
Interest deferred	1,125,600 79
Cash in bank	34,562 93
	\$5,196,584 37
<b>LIABILITIES.</b>	
Capital stock paid up	\$ 201,000 00
First mortgage bonds, \$782,700	3,809,140 00
Coupons due and not paid	1,889 88
Interest unpaid	1,125,600 79
Sundry creditors	300 28
Profit and loss account	58,653 42
	\$5,196,584 37
<b>EARNINGS.</b>	
Balance brought forward	\$ 57,639 16
Passenger	
Freight	\$132,137 68
Express	301,595 71
Mail	5,260 22
Miscellaneous	2,983 38
	640 00
	\$442,622 99
Less amount of Government service included in the above	6,272 32
	\$436,350 67
Balance carried down	\$ 58,834 13
Government subsidy for year	80,000 00
Interest on bonds held by company	238 91
	\$139,073 04
<b>OPERATING EXPENSES.</b>	
General expenses	\$ 3,053 08
Conducting transportation	59,454 60

Management expenses	2 914 20
Motive power	124,206 21
Maintenance of way and structures	231,234 48
Maintenance of cars	14,495 13
	\$435,155 70
Balance carried down	58,834 13
	\$493,989 83

<b>INTEREST ACCOUNT.</b>	
£1.1s. paid in cash on account Feb. 1, 1903	
coupon £1.1s. paid in cash on account Aug. 1, 1903, coupon	\$ 79,991 92
Expenses re service of coupon and other expenses (London)	427 70
Balance carried forward	58,653 42
	\$139,073 04

Following are the officers for the current year: President, H. C. Hammond, Toronto; Vice-President, Hon. W. Pugsley, St. John, N.B.; Secretary, R. A. Smith, Toronto; other directors: E. B. and F. G. Osler, G. T. Chisholm, C. S. MacInnes, S. B. Sykes, Toronto.

**Pere Marquette Railroad Report.**

The fourth annual report presented at the annual meeting held at Detroit, Mich., recently showed that for the year ended Dec. 31, 1903, the net earnings of the system, after paying interest, were \$1,616,678.22, an increase of \$630,764.85. Reference was made to the operation of the line into Chicago since Jan. 1, and to the arrangement made with the Canada Southern Ry. and Michigan Central Rd. companies for the use of the line between St. Thomas and Niagara, Ont., and Buffalo, N. Y., and to the contract with the New York Central Rd. for the use of its terminals at Buffalo, both via Suspension Bridge and Black Rock. In connection with the Bessemer and Lake Erie Rd. traffic a new steamer had been built and would be placed in operation early in the season.

The total mileage operated was 2,164.78 miles of which 1,816.40 was owned, 253.01 controlled, 24.00 leased, 0.26 owned jointly with other companies, and 71.11 miles over which trackage rights had been secured. This was an increase of 369.84 over 1902 and included the Lake Erie and Detroit River Ry. 199.41 miles, and the London and Port Stanley Ry. 24 miles, a total of 223.41 miles in Canada. The gross earnings on the Canadian lines were \$968,875.26, operating expenses and taxes \$720,771.75, interest account \$150,000, and dividend on stock \$86,100, leaving a net surplus of \$12,003.51. In 1902 the gross earnings were \$635,039.98, operating expenses, \$490,525.89; taxes, \$7,404.18; interest charges, \$144,333.33, leaving a deficit of \$7,223.42. The percentage of expenses to earnings, inclusive of taxes, was 74.39% against 78.41% in 1902. There was expended on maintenance of way and structures \$91,401.20, an increase of 24.66%. During the year 23 miles of the Erie and Huron Division of the L.E. and D.R.Ry. were rebalasted; a new engine house and steel turntable was erected at Walkerville, and new water tanks were erected at Sombra, Dresden and Wallaceburg. One mogul locomotive was added to equipment. During the year the \$3,000,000 5% bonds of the L.E. and D.R.Ry. Co. were purchased and refunded by the issue of 20-year 4½% bonds at an annual saving in interest charges of \$15,000. This liability is now included in the funded debt of the P. M. Rd. Co.

The statement of accounts of the L.E. and D.R.Ry., which also operates the London and Port Stanley Ry. under a lease, are given in detail, the condensed general balance sheet showing:

<b>PROPERTY ACCOUNTS.</b>	
Cost of road, construction and equipment	\$5,536,980 60
<b>AVAILABLE ASSETS.</b>	
Cash	19,237 14
Material on hand	83,413 82
Open accounts	13,642 67
	\$5,653,274 23

<b>CAPITAL ACCOUNTS.</b>	
Common stock	\$1,400,000 00
Funded debt	3,000,000 00
Government and municipal bonuses	1,018,640 18
<b>CURRENT LIABILITIES.</b>	
Accrued bond interest	62,500 00
Unpaid vouchers	123,798 57
Paymaster's account	35,601 22
Unpaid taxes	739 75
Income account	12,003 51
	\$5,653,274 23

**Quebec Provincial Railway Subsidies.**

At the recent session of the Quebec Legislature subsidies were voted in aid of the following railways:

**Atlantic, Quebec and Western Ry.**—For 50 miles of line from Gaspé Basin passing through the interior of Gaspé county towards Causapscal, on the Intercolonial Ry., 4,000 acres of land a mile. Also a similar grant in respect of the construction of 100 miles of line from Paspébiac to Gaspé Basin, following the shore as nearly as possible, conditionally upon 10 miles being built within a year of the coming in force of the act.

**Great Northern Ry.**—\$6,000 to be paid to the municipality of Ste. Sophie and the village of New Glasgow for the amount of debentures subscribed by these municipalities to aid the building of the railway from St. Jerome to New Glasgow.

**Herbertville to Mistassini.**—4,000 acres of land per mile to any railway company undertaking the construction of a line from Herbertville to St. Joseph d'Alma, thence northwesterly passing Peribonca Falls to the west and southwest of Lake St. John, near Mistassini.

**Indian River Ry.**—For 19 miles of line from the northern extremity of Lake Megantic to a point on the International boundary, 4,000 acres of land a mile.

**Interprovincial and James Bay Ry.**—For 50 miles of line from Lake Temiskaming at the present terminus of the C.P.R. branch from Mattawa, in a northerly direction, 4,000 acres of land a mile.

**Joliette and Lake Manuan Colonization Ry.**—For 60 miles of line from Joliette in the direction of Manuan or Lake Manuan, 4,000 acres of land a mile.

**Matane and Gaspé Ry.** For 30 miles of line from St. Octave de Metis on the Intercolonial Ry. to Matane, 4,000 acres of land a mile.

**Orford Mountain Ry.**—For 12 miles of line from Eastman to the boundary between the townships of East Bolton and Potton, 4,000 acres of land a mile.

**Quebec and Lake St. John Ry.**—For 38 miles of line from the main line near the Jeanette River to La Tuque on the St. Maurice River, 4,000 acres of land a mile. Also a similar grant for one mile of line from Roberval to the Dominion Government wharf on Lake St. John.

**Quebec Central Ry.**—For nine miles from St. Francis to St. George Beauce, 4,000 acres of land a mile.

**Waltham Station to Ferguson's Point.**—4,000 acres of land a mile to any railway company constructing a line from Waltham Station to Ferguson's Point, Pontiac county.

The lands are to be located as nearly as possible along the lines to be constructed, are not to include any timber limits at present under license, and are to be sold to bona fide settlers at not exceeding \$2.50 an acre. The Minister of Colonization and Public Works has power to indicate the places at which stations are to be erected; the lines are to be laid with rails, and generally equipped with materials made and purchased in Canada, unless it can be shown to the satisfaction of the Government that they cannot be purchased under such favorable conditions as elsewhere. The Government also will have control over the rates and tolls to be levied on the several lines.

**July Birthdays.**

Many happy returns of the day to --

J. H. Black, Auditor, Kingston and Pembroke Ry., at Kingston, Ont., born near Smith's Falls, Ont., July 8, 1874.

D. E. Blair, Assistant Superintendent Montreal St. Ry., Montreal, born at St. Thomas Montmagny, Que., July 25, 1877.

D. W. Campbell, General Superintendent of C.P.R. Atlantic Steamships, born at Montreal July 15, 1860.

D.A. C. Coleman, chief clerk to General Superintendent Central Division C.P.R. at Winnipeg, born at Carleton Place, Ont., July 9, 1879.

Geo. Collins, Receiver and Manager Central Ontario Ry. at Trenton, Ont., born at Kingston, Ont., July 20, 1860.

John Corbett, General Foreign Freight Agent C.P.R. at Montreal, born in Lanarkshire, Scotland, July 19, 1863.

E. J. Coyle, Assistant General Passenger Agent C.P.R. at Vancouver, B.C., born at Stayner, Ont., July 23, 1870.

Wm. Coyne, formerly Assistant to the President Consolidated Lake Superior Co. at Sault Ste. Marie, Ont., born at Calumet, Ind., July 14, 1866.

S. E. Dewey, Travelling Freight Agent G.T.R. at Hamilton, Ont., born at Beckenham, Kent, Eng., July 4, 1879.

J. F. Dolan, City Passenger and Ticket Agent Richelieu and Ontario Navigation Co. at Montreal, born at Kingston, Ont., July 1, 1868.

C. W. Graves, District Freight and Passenger Agent Great Northern Ry. (U.S.), Toronto, born at Waddington, N.Y., July 6, 1864.

W. R. Haldane, District Freight Agent C.P.R. at Detroit, Mich., born at Galashiels, Scotland, July 6, 1867.

J. H. Hanna, ex-Division Freight Agent

G.T.R. at Hamilton, Ont., born at London, Ont., July 27, 1867.

G. U. G. Holman, President and General Manager Levis County Ry. at Levis, Que., born at Talea, Chili, July 21, 1866.

A. D. Huff, Commercial Agent G.T.R. at Pittsburgh, Pa., born at Chatham, Ont., July 17, 1866.

D. T. Lawrence, Manager National Despatch-Great Eastern Line at Buffalo, N.Y., born at Marysville, Ohio, July 20, 1871.

J. M. Lyons, General Passenger and Ticket Agent I.C.R. at Moncton, N.B., born at Halifax, N.S., July 1, 1850.

T. J. Maguire, Accountant Quebec Central Ry. at Sherbrooke, Que., born at Quebec, July 31, 1860.

C. N. Monsarrat, Engineer of Bridges C.P.R. at Montreal, born there July 2, 1871.

J. B. Morford, Assistant to General Manager Michigan Central Rd. at St. Thomas, Ont., born at Warwick, Orange Co., N.Y., July 16, 1836.

J. E. Quick, General Baggage Agent G.T.R. at Toronto, Ont., born at Richmond, Ontario Co., N.Y., July 10, 1851.

W. C. Ross, Mechanical Foreman I.C.R. at Richmond, N.S., born at Quebec July 26, 1863.

Gerard G. Ruel, Assistant Solicitor Canadian Northern Ry. at Toronto, born at St. John, N.B., July 5, 1866.

E. G. Russell, ex-Manager Intercolonial Ry., born at St. George, N.B., July 23, 1858.

P. E. Ryan, Secretary-Treasurer Temiskaming and Northern Ontario Ry. Commission at Toronto, born at Ottawa, July 26, 1876.

F. W. Snider, Superintendent Atlantic division C.P.R. telegraphs at St. John, N.B., born in Halton Co., Ont., July 14, 1854.

Thomas Tait, Chairman of the Board of Railway Commissioners for Victoria at Melbourne, Australia, born at Melbourne, Que., July 24 1864.

**Recent Dominion Legislation**

The Dominion Parliament at its current session has passed the following acts relating to transportation and the allied interests:

Incorporating the Alberta Ry. and Irrigation Co., and providing for the amalgamation therewith of the Alberta Ry. and Coal Co., the Canadian North-West Irrigation Co., and the St. Mary's River Ry. Co.

Respecting the Atlantic and North-Western Ry. Co.

Respecting the Atlantic, Quebec and Western Ry. Co.

Incorporating the Boundary, Kamloops and Cariboo Central Ry. Co.

Respecting the British Columbia Southern Ry. Co.

Incorporating the Campbellford, Lake Ontario and Western Ry. Co.

Respecting the Canadian Northern Ry. Co.

Respecting the Canadian Pacific Ry. Co. (two acts).

Respecting the Collingwood General and Marine Hospital.

Respecting the Edmonton and Slave Lake Ry. Co.

Incorporating the Guelph and Goderich Ry. Co.

Respecting the Guelph Junction Ry. Co.

Respecting the Kootenay Central Ry. Co.

Respecting the Manitoba and Keewatin Ry. Co.

Respecting the Manitoba and North-Western Ry. Co.

Respecting the Montreal, Ottawa and Georgian Bay Canal.

Respecting the Nepigon Ry. Co.

Respecting the North American Telegraph Co.

Respecting the Ottawa, Brockville and St. Lawrence Ry. Co.

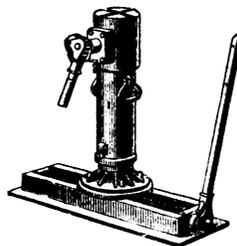
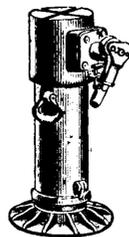
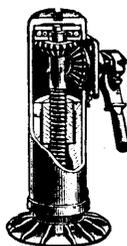
Respecting the Ottawa, Northern and Western Ry. Co.

# YOUR BRIDGE JACKS

Should be Absolutely Safe, and hold the load positively under all conditions.

## NORTON BALL BEARING JACKS

Are Ratchet Screw Jacks with working parts protected from grit and rust. They cannot drop or run down, will work in any position, and are always ready for instant use and guaranteed in every respect.



50 Styles, 8 to 70 Tons capacity.

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Respecting the Pacific, Northern and Om-  
ineca Ry. Co.  
Incorporating the Pontiac and Interpro-  
vincial Ry. Co.  
Respecting the Quebec and Lake Huron  
Ry. Co.  
Revising and amending the acts respecting  
the St. Clair and Erie Ship Canal Co.  
Incorporating the St. Maurice Valley Ry.  
Co.  
Respecting the Strait of Canso Bridge Co.  
Respecting the Vancouver, Victoria and  
Eastern Ry. and Navigation Co.  
Incorporating the Walkerton and Lucknow  
Ry. Co.  
Respecting the Welland and Grand Island  
Bridge Co.  
Incorporating the Whitehorse and Alsek  
Ry. Co.

**Recent Quebec Legislation.**

The following acts relating to transportation  
interests were passed at the recent session of  
the Quebec Legislature:  
Amending the act incorporating the Napier-  
ville Junction Ry. Co., and acts amending the  
same.  
Amending the acts incorporating the Que-  
bec and Lake St. John Ry., and acts amend-  
ing the same (two acts).  
Incorporating the Quebec and Portneuf  
Electric Ry.  
Amending the charter of the Quebec Cen-  
tral Ry. Co.  
Incorporating the Quebec County Ry. Co.  
Incorporating the Saguenay and Baie  
James Ry. Co.  
Respecting subsidies to certain railway  
companies.  
Incorporating the Suburban Tramway and  
Power Co.  
Incorporating the Terrebonne Electric Ry.  
Co.

**Canadian Electrical Association.**

The 14th annual convention, held at Ham-  
ilton, Ont., June 15, 16 and 17, was one of the  
most successful in the Association's history;  
the weather being perfect, the attendance  
large, the papers interesting and the social  
and other features most excellently arranged.  
The following papers were read:—The  
Origin and Development of Storage Batter-  
ies, by E. B. Walker; Aluminum Wire as a  
Conductor, by R. J. Parke; The Curtis Steam  
Turbine, by F. C. Smallpiece; The Niagara  
Power Development, by K. L. Aitken; A.C.  
vs. D.C. Arc Systems, by W. L. McFarlane;  
Heavy Electric Traction by Alternating Cur-  
rents, by P. N. Lincoln; The Statistics of  
Canadian Progress in Electrical Applications,  
by G. Johnson. Great interest was displayed  
in the question box, which had been largely  
availed of by members.  
On the first evening the members, etc.,  
were treated to a most enjoyable innovation  
by the Canadian Westinghouse Co., which had  
reserved the Star Theatre, where a vaudeville  
performance was given; the performers hav-  
ing been specially brought from New York.  
On the second day visits were made to the  
Hamilton Cataract Power, Light and Traction  
Co.'s Victoria St. sub-station, to the Cana-  
dian Westinghouse Co.'s plant, and to the  
Deering Agricultural Implement Works. The  
third day was devoted to visits to the Hamil-  
ton Cataract Power, Light and Traction  
Co.'s plant at DeCew Falls, and to the power  
works under construction at Niagara Falls,  
Ont. The officials of the Canadian Westing-  
house Co. and the Hamilton Cataract Power,  
Light and Traction Co. did everything in  
their power for the comfort and enjoyment of  
the members.  
It was decided to hold next year's meeting  
in Montreal. The following officers were  
elected:—President, K. B. Thornton, Mon-

treah; 1st Vice-President, A. A. Wright,  
M.L.A., Renfrew, Ont.; 2nd Vice-President,  
R. G. Black, Toronto; Secretary-Treasurer,  
C. H. Mortimer, Toronto; Executive Com-  
mittee: A. B. Smith, J. A. Kammerer, Tor-  
onto; C. B. Hunt, London, Ont.; A. A. Dion,  
Ottawa; B. F. Reesor, Lindsay, Ont.; G.  
Henderson, Hamilton, Ont.; F. Thompson,  
Montreal; G. A. Evans, Quebec.

**The Pintsch Lighting System.**

A statement from the Julius Pintsch Co. of  
Berlin to the Safety Car Heating and Light-  
ing Co. of New York, embraces very com-  
prehensive statistics of the application of the  
Pintsch system of lighting to railway cars,  
locomotives, buoys and beacons throughout  
the world. The figures given below show  
that 130,000 cars, 5,800 locomotives and 1,700  
buoys and beacons are equipped with this  
system, and that 372 gas works are in opera-  
tion to manufacture gas for the system which  
has been adopted by the majority of the rail-  
ways and lighthouse departments of the  
world:

	Cars.	Loco- motives.	Gas Works.	Buoys & Beacons.
Germany.....	45,200	5,583	75	155
Denmark.....	45		3	21
England.....	21,100		87	370
France.....	7,500		39	370
Holland.....	3,700	5	10	100
Italy.....	1,570		5	20
Switzerland.....	410	2	1	
Austria.....	5,525		10	5
Russia.....	4,000	132	13	20
Sweden.....	750	53	4	2
Servia.....	220		1	
Turkey.....	120			
Bulgaria.....	98		1	70
Egypt.....	150		3	2
Canada.....	450		2	255
Brazil.....	825	31	2	45
Argentina.....	1,150		10	5
Chili.....	50		2	
Australia.....	3,000		13	40
India.....	10,500		16	
United States.....	23,500		80	250
Japan.....	150		2	20
China.....			1	25
Mexico.....	125		1	
Total.....	130,138	5,806	372	1,703

F. H. Hopkins & Co., who have opened  
offices in the Imperial Bank Building, St.  
James St., Montreal, have acquired the good  
will of the late James Cooper's business and  
have taken over the warehouses, 17 to 27  
Norman St., the stock, and the agencies as  
follows: Cammell, Laird & Co. (Ltd.), Shef-  
field, Eng., steel rails, locomotive tires and  
axles; John Henry Andrew & Co. (Ltd.),  
Sheffield, saw, tool and drill steel; Glasgow  
Iron and Steel Co., Wishaw, Scotland, struc-  
tural steel, steel plates; Marion Steel Shovel  
Co., Marion, Ohio, steam shovels, ballast  
ploughs, dredges; Kilbourne and Jacobs  
Manufacturing Co., Columbus, Ohio, wheel  
and drag scrapers, wheelbarrows, railway  
trucks, contractors' and miners' dumping  
cars; Pittsburg Meter Co., East Pittsburg,  
Pa., Keystone water meters; Duff Manufac-  
turing Co., Allegheny, Pa., Barrett railway  
and other jacks; Ransome Concrete Machin-  
ery Co., New York, drum concrete mixers;  
Alexander Car Replacer Co., Scranton, Pa.,  
car replacers; Geo. Focht Son's Co., Hobok-  
en, N.J., concrete baskets; Roberts' Car and  
Wheel Co., Three Rivers, Mich., velocipede  
and section hand cars; Holland Co., Chicago,  
Ill., pneumatic hoists; Wallworth and Wells,  
London, Eng., Wells' lights and wrecking  
lamps; Rodger Ballast Car Co., Chicago, Ill.,  
convertible dump and grading cars. The  
members of the new firm are F. H. Hopkins,  
J. J. Rosevear and R. A. C. McNally. Mr.  
Hopkins was associated with the late Jas.  
Cooper and previously with Cooper, Fair-  
man & Co. for 23 years. Mr. Rosevear had  
charge of the finances of the late firm and  
Mr. McNally was manager of the mining  
machinery department at Rossland, B.C., and  
subsequently at Halifax, N.S.

**Canada Southern Ry. Meeting.**

The report for the year 1903 presented at  
the annual meeting at St. Thomas, Ont., June  
1, was as follows:

RESOURCES.	
Net earnings of 1903.....	\$355,088.39
Michigan Central Rd. balance of 1902 ac- count paid.....	159,778.40
Receipts from other sources.....	4,960.89
Cash and cash assets, December 31, 1902.....	20,623.54
	\$540,451.22
DISPOSITION OF RESOURCES.	
Dividend, paid Feb. 2, 1903.....	150,000.00
Dividend, paid Aug. 1, 1903.....	150,000.00
Balance of net earnings, due from Mich- igan Central Rd., Dec. 31, 1903.....	167,346.42
Other expenditures.....	1,675.00
Cash and cash assets, Dec. 31, 1903.....	71,429.80
	\$540,451.22

The balance showed liabilities of \$35,236,-  
197.43, against which there were assets:  
construction and equipment, \$28,955,674.53;  
capital stock, \$3,098,962.50; first mortgage  
bonds of owned and controlled companies,  
\$2,901,372.50; other investments, \$11,100;  
accounts receivable, \$30,311.68; due from  
Michigan Central Rd., \$167,346.42; cash and  
cash assets, \$71,429.80; total, \$35,236,197.43.

The agreement entered into between this  
company and the Michigan Central Rd. Co.  
Dec. 31, 1882, providing for the joint opera-  
tion of the properties of the two companies  
expired Dec. 31, 1903. On Aug. 15, 1903, a  
lease of the railway and other property to  
the Michigan Central Rd. Co., to take effect  
on Jan. 1, 1904, and to continue for 99  
years, was signed. As consideration for  
this lease the M.C.R. Co. is to pay the inter-  
est on the present funded debt of this com-  
pany, and upon such bonds as it may here-  
after issue in accordance with the terms of  
the lease, and also an amount sufficient to  
pay half-yearly dividends on this company's  
capital stock at the rate of 2½% until Jan. 1,  
1910, and thereafter at the rate of 3%. The  
lease referred to was accepted and ratified  
by the stockholders of the M.C. Rd. Co. at a  
special meeting held Oct. 9, 1903, and was  
subsequently approved by the Governor-in-  
Council.

Following are the officers for the current  
year: President and Treasurer, C. F. Cox,  
New York; Vice-President, E. A. Wickes,  
New York; Secretary, N. Kingsmill, K.C.,  
Toronto; other directors: W. K. and F. W.  
Vanderbilt, C. M. Depew, S. F. Barger, J. E.  
Brown, New York; H. B. Ledyard, Detroit,  
Mich.

The various subsidiary companies held  
their meetings at St. Thomas, June 1 and 2,  
and elected directors as follows: Niagara  
River Bridge Co., Niagara Grand Island  
Bridge Co., Canada Southern Bridge Co.,  
Toledo, Canada Southern and Detroit Ry. Co.,  
and Michigan, Midland and Canada Ry. Co.;  
same directors as Canada Southern Ry. men-  
tioned above; Leamington and St. Clair Ry.;  
W. K. and F. W. Vanderbilt, C. M. Depew,  
C. F. Cox, E. D. Worcester, New York; J.  
Ross, Montreal; N. Kingsmill, Toronto.  
Sarnia, Chatham and Erie Ry.; W. K. and  
F. W. Vanderbilt, C. M. Depew, C. F. Cox,  
New York; N. Kingsmill, Toronto.

**American Locomotive Co.**—A. J. Pitkin,  
formerly first Vice-President has been elected  
President, succeeding the late S. R. Calla-  
way; J. E. Sague, formerly Mechanical En-  
gineer has been elected first Vice-President;  
R. J. Gross remains as second Vice-Presi-  
dent; Leigh Best has been elected third Vice-  
President and also remains as Secretary. W.  
M. Barnum has been elected a director, suc-  
ceeding Mr. Callaway. The Executive Com-  
mittee has been increased from five to six, W.  
M. Barnum and F. H. Stevens being appoint-  
ed to fill the positions created by the death of  
Mr. Callaway, and the adding of an addition-  
al member to the Committee.

### U.S. Engineers on the C.P.R.

"Canadian," writing to the Toronto Globe, says: "For several years prior to the organization of the C.P.R. Co. in 1881, the management of the survey for the proposed line was entrusted to Mr. (now Sir) Sandford Fleming. He was superseded under the new regime, the office of Chief Engineer being given to General Rosser, an American. His first work was the location and construction of the branch line, 70 miles long, from Winnipeg to the American border, to connect there with the St. Paul, Minneapolis & Manitoba Ry. In building this line through the valley of the Red River he neglected such an ordinary precaution as the provision of adequate culverts through his embankments, and within a few months after its completion the latter were largely destroyed by spring freshets. After two years the company found it expedient to dispense with his services and he disappeared from the scene. His successor was Major Rogers, whose chief assistant was, like himself, an American engineer. Major Rogers had had some experience on the Denver & Rio Grande line, and he felt quite safe in dispensing with the services of the surveying parties that had been locating the route through British Columbia. Of thirteen Canadian parties he retained only one, which was under the charge of Mr. McMillan, in the Kicking Horse Pass. In a few months the American surveying parties, with which he replaced them, were discarded, and Canadians were reappointed."

With the object of "Canadian's" letter, viz., to urge the employment of Canadian engineers on Canadian lines, especially those which are practically to be built by the Government, there will be general accord, but in referring to what took place in regard to the construction of the C.P.R., it is well to be historically accurate.

Sandford Fleming was not superseded by General Rosser. Mr. Fleming, who was Chief Engineer of the C.P.R. under the Dominion Government, and who had charge of the surveys from the commencement, was relieved of that position in May, 1880, after performing magnificent work, and leaving on record, in a series of elaborate published reports, a mass of information which will doubtless prove of great value in connection with the location of the G.T. Pacific Ry. He was succeeded by Collingwood Schreiber, who, after the incorporation of the C.P.R. Co. in 1881, continued in charge of the construction of the portions of the C.P.R. then being built by the Government. General Rosser was the first Chief Engineer appointed by the C.P.R. Co.; he had his headquarters at Winnipeg, and was especially charged with the location of the line west of there. The branch line from Winnipeg to the U.S. border to connect with the St. Paul, Minneapolis, and Manitoba Ry. on the east side of the Red River was not located under General Rosser, having been built by the Government and put in operation in 1879, over two years before General Rosser arrived in Manitoba.

Major Rogers did not succeed General Rosser as Chief Engineer, but was engaged on special exploratory work in connection with the location of the line through the Rockies and Selkirks.

The Canadian Westinghouse Co. has closed a contract to furnish the Shawinigan Water & Power Co., Shawinigan Falls, Que., with a 6,600 k. w., two-phase, 2,200 volt, 3,600 alternations, 180 r.p.m. rotating field alternator, for direct connections with water wheel. Two 2,200 k. w. oil insulated, water-cooled transformers, 2,200 volt primary, 50,000 volt secondary, are included, in this contract.

### Railway Equipment Notes.

The G.T.R. recently added 12 steel tank cars to its equipment.

The Sydney and Louisburg Ry. has had one of its large locomotives repaired at Moncton, N.B.

The Reid Newfoundland Co. has added two dining cars, built at its own shops, to its equipment.

The Canadian Northern Ry. has placed an order with Rhodes, Curry & Co., Amherst, N.S., for 500 standard 30-ton box cars and 25 refrigerator cars, 60,000 lbs. capacity.

The Halifax and Southwestern Ry. has placed an order with Rhodes, Curry & Co., Amherst, N.S., for two first-class coaches, two second-class coaches and two baggage and mail cars.

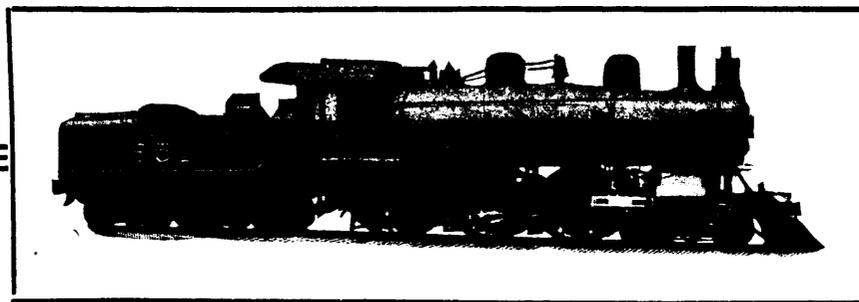
The Southwestern Traction Co. is in the market for eight or ten 3-yard, one way, standard gauge side dump cars; two end dump cars, same size; two underhung flat cars, about 30 ft. long; and a second-hand standard gauge dummy locomotive, 10 to 15 tons.

The Midland Ry. of Nova Scotia recently received a locomotive from the Baldwin Locomotive Works, 18 by 24 in. cylinders. It has one of its locomotives, which was recently in collision, undergoing repairs at Moncton, N.B. The company is not at present in the market for any additional locomotive power.

The C.P.R. received between May 16 and June 13 the following additional equipment: two switching locomotives from its Delorimier Ave. shops; seven sleeping cars, three dining cars, two baggage cars, eight mail and express cars from its Hochelaga shops; 183 box cars from its Perth, Ont., shops; and one steam shovel.

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**RAILWAY DEVELOPMENT.**

**Projected Lines, Surveys, Construction, Betterments, Etc.**

**Atlantic, Quebec and Western Ry.**—The Dominion Parliament at the current session has passed an act granting an extension of time for a year for the commencement of work on this company's proposed lines in Gaspé county, Que. At the recent session of the Quebec Legislature a subsidy of 4,000 acres of land a mile was voted in respect of

100 miles of line from Paspébiac, the present terminus of the Atlantic and Lake Superior Ry., to Gaspé Basin, Que., and also 4,000 acres of land a mile in respect of 50 miles of line from Gaspé Basin towards Causapsal, on the Intercolonial Ry. The grant for the line from Paspébiac to Gaspé Basin is conditional upon 10 miles being built within a year. We have been informed that C. B. K. Carpenter has gone to England to arrange for the early commencement of the work, and that it is hoped to have 10 miles towards Paspébiac and 10 miles towards Causapsal, from Gaspé

Basin, constructed within the next twelve months. (June, pg. 181.)

**Beersville Coal and Ry. Co.**—Press reports say that arrangements have been completed for the extension of the line from Beersville to the collieries of the Canadian Coal and Manganese Co. at Mount Carlyle, 2 1-6 miles, and that construction will be started at once. (June, pg. 181.) See also Coal Branch to Richibucto, Mar., pg. 74, and New Brunswick Central Ry.

**Bessemer and Barry's Bay Ry.**—The House of Commons at its current session re-

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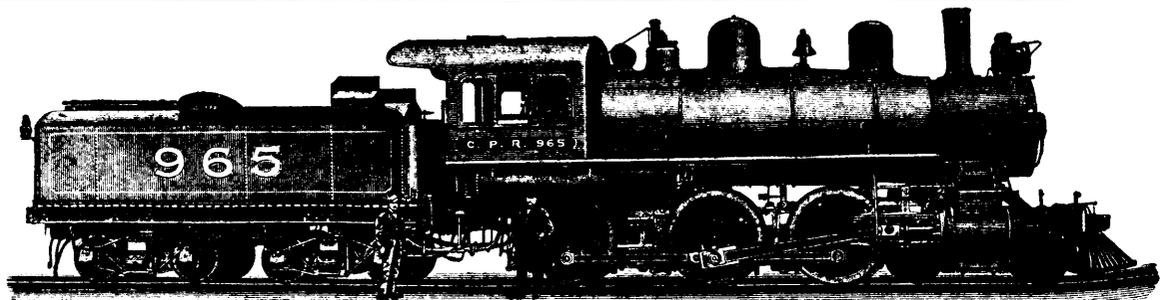
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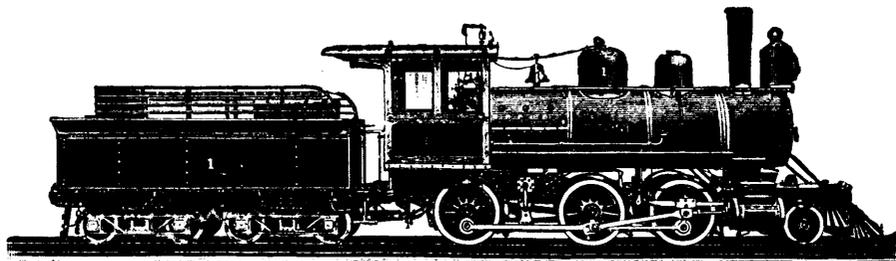
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Capital, \$3,000,000.

fused a good many of the powers asked for by the promoters of this company. The powers given authorize the construction of 35 miles of railway from L'Amable, on the Central Ontario Ry., to Barry's Bay, on the Canada Atlantic Ry., and the operation of vessels on navigable waters touched by the line. The capital is fixed at \$500,000. (June, pg. 181.)

**Boundary, Kamloops and Cariboo Central Ry.**—M. S. Wade, G. T. Mallery, D. J. McDonald, J. McD. Swanson, of Kamloops, B.C.; N. G. Guthrie, of Ottawa, have been incorporated at the current session of the Dominion Parliament with this title to construct a railway from Midway, B.C., to Okanagan Lake and Grand Prairie, thence to Kamloops, and by the valley of the North Thompson River to the Nechaco River, thence to Hazelton and to the junction of the Hootalinqua and Yukon rivers; and with power to construct a branch from Kamloops to Princeton, B.C. The head office of the company is to be at Kamloops, the capital is fixed at \$5,000,000, and it may issue bonds and other securities to the extent of \$40,000 a mile. (June, pg. 182.)

**Brantford and Lake Erie Ry. (Electric).**—C. P. Raikes, engineer in charge of construction of the South-Western Traction Co., London, Ont., recently went over the route of this projected line with a view of reporting upon

been passed at the current session of the Dominion Parliament. The point of commencement has been fixed at Chicoutimi on the Quebec and Lake St. John Ry., and the terminus at a point on Hamilton Inlet. The promoters include J. G. Scott and other officials of the Quebec and Lake St. John Ry. (June, pg. 183.)

**Colchester Coal and Ry. Co.**—Construction is in progress on the line to connect the company's coal mines with Debert, N.S., on the Intercolonial Ry., about four miles. J. J. Taylor is engineer in charge of construction. (Oct., 1903, pg. 341.)

**Cowichan, Alberni and Fort Rupert Ry.**—J. T. Braden, J. Thompson, E. C. B. Bagshawe, Mrs. E. M. G. L. Thompson, of Victoria, were incorporated at the last session of the British Columbia Legislature, with the above title, for the purpose of constructing a railway from Cowichan Bay to Alberni, and thence to Fort Rupert, with a branch line to Quatsino Sound, Vancouver Island. The head office of the company is fixed at Victoria, the capital is placed at \$2,000,000, and bonds to the extent of \$35,000 a mile may be issued. (Jan., pg. 1.)

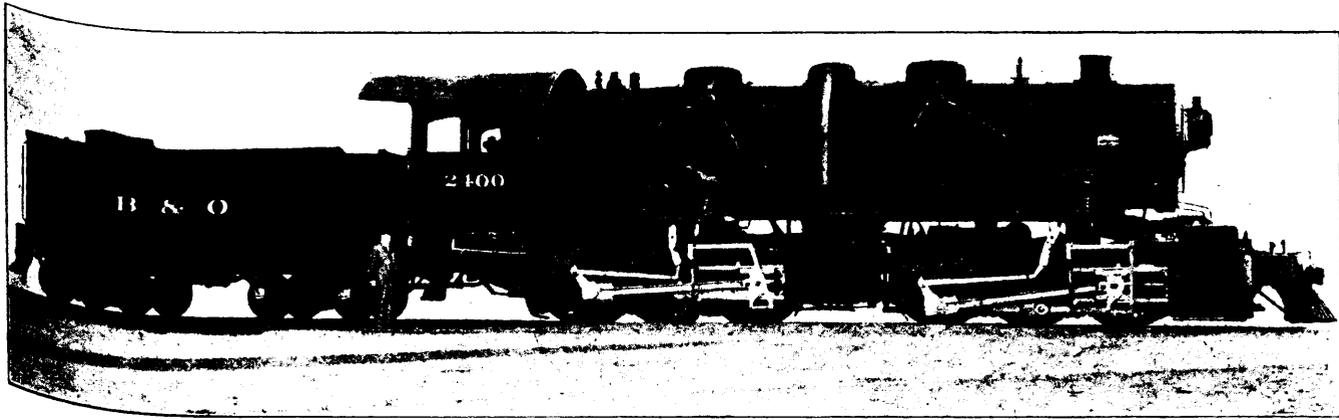
**Edmonton and Slave Lake Ry.**—An act has been passed at the current session of the Dominion Parliament granting an extension of time for the construction of a railway from

over by purchase or otherwise the franchises, rights, bonuses, etc., of the G.J.Ry. There was also passed an act authorizing the Guelph Junction Ry. to construct a branch line to Listowel, and another to St. Mary's and Clinton via Stratford, from suitable points on the already authorized line from Guelph to Goderich, authorizing the issue of bonds to the extent of \$25,000 a mile, and declaring that such bonds shall not be any charge on the line at present in operation between the junction of the line with the Credit Valley Ry. and Guelph, or on any other of the present assets of the company. Authority is given to enter into an agreement or amalgamate with the Guelph and Goderich Ry.

At a meeting held in Guelph June 18, the G. and G. Ry. Co. was formally organized, the directors and officers for the first year being: President, J. W. Leonard, Toronto; Vice-President, D. McNicoll, Montreal; Secretary and Solicitor, A. H. Macdonald, Guelph; other directors, Sir Thos. Shaughnessy, Montreal; H. P. Timmerman, A. H. Hertzberg, W. B. Bulling, Toronto; W. Bell, J. H. Hamilton, Guelph; Treasurer, G. A. Walker, Toronto.

The municipality of East Wawanosh passed a by-law June 4 granting a right of way for the line.

The general character of the country through which the line will run is rolling,



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it to the Canadian Electric Traction Co., of London, Eng., which finances the construction of electric railways. The B. and L.E. Ry. Co. has secured right of way in a number of municipalities along the projected route. (June, pg. 183.)

**British Columbia Electric Ry.**—A line is under construction to Greer's Beach, Vancouver, and negotiations are in progress with the Vancouver city council for authority to extend the line from 16th Avenue to the cemetery gates. (June, pg. 183.)

**Canada Atlantic Ry.**—Plans for the construction of a central station at Ottawa have been rejected by the Minister of Railways on the ground that inadequate provision was made for through traffic. A suggestion has been made by the Minister of Railways that the C.A.R. officials should consult with the C.P.R. and the Ottawa city officials and come to an agreement as to what is required. (Mar., pg. 73.)

**Campbellford, Lake Ontario and Western Ry.**—The Dominion Parliament at its current session passed an act incorporating a company with this title to construct a railway from near Blairton to near Leaside Junction, Ont., both points being on the C.P.R., and passing through Campbellford, Cobourg, Port Hope, Whitby and other places. (June, pg. 183.)

**Chicoutimi and North-Eastern Ry.**—An act incorporating a company with this title has

Edmonton, Alta., to Slave Lake, Atha. Plans were filed in the land office at Edmonton June 17 for the first 50 miles of this projected line. The plans show a line starting from a junction with the Edmonton, Yukon and Pacific Ry., near the Groat estate, northwesterly to St. Albert, thence northerly to near Edison and Independence settlements, about half way to Athabasca Landing. (June, pg. 183.)

**Fraser River Bridge.**—It was recently announced that the bridge over the Fraser River at New Westminster, B.C., would be opened for traffic July 1, without any public ceremonial. (June, pg. 185.)

**Granby Consolidated Mining, Smelting and Power Co.**—By an act passed at the last session of the British Columbia Legislature power was given to construct a tunnel or tunnels in the mountain at Phoenix, under this company's mines, and spur lines of railway to connect the same with existing railways. (Jan., pg. 2.)

**Guelph and Goderich Ry.**—The Dominion Parliament, at its current session, passed an act incorporating a company with this title to construct a railway from Guelph to Goderich, Ont., with power to construct a branch to St. Mary's, Ont. The capital is fixed at \$500,000, and power is given to issue bonds to the extent of \$25,000 a mile. It was also given power to enter into an agreement with the Guelph Junction Ry. to lay out and construct the extension and branch lines and to take

crossed by deep ravines at the three rivers, Grand, Connestoga and Maitland. The soil is generally loamy clay with gravel hills throughout the entire length of the line except at Connestoga River, where there is stiff clay; there is no rock. The steepest gradient is 0.75%, except when rising for the level of Lake Huron where there is a gradient of 1% for a short distance. The line is very direct; there are very few curves, and these are 1° and 2°. There will be four bridges of some length on the line: three spans of 100 ft. crossing the Grand River at a height of 50 ft.; two spans of 100 ft., crossing the Connestoga River at a height of 65 ft.; three spans of 100 ft. each, crossing the Maitland River at a height of 20 ft.; and three spans of 150 ft. crossing the Maitland River at a height of 50 ft. (June, pg. 185.)

**Halifax and Southwestern Ry.**—We were advised, June 17, that the grading on the Halifax and Liverpool sections was about completed, with the exception of two small structures which are under way. The masonry for the bridges on the Halifax section is completed, and the steel for all but one of the bridges has been delivered and is being erected. Tanks and station buildings are being erected, and the fencing and telegraph lines are being gone on with. Track has been laid from Mahone Junction east to the Puddle, 38½ miles, and ballasting was commenced at Mahone May 26. It is expected that the track will be laid into Halifax by Aug. 1. The

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contractors are experiencing great difficulty in getting suitable ballast, and this will delay the completion of the line. (June, pg. 185.)

**Hamilton, Grimsby and Beamsville Ry.**—During the passage of the bill through the House of Commons declaring the H.G. and B. Ry. to be for the general advantage of Canada, the control of the company was acquired by the G. T. R. When the bill came before the Railway Committee of the Senate it was opposed by residents of Hamilton and different points on the line, with the result that it was referred to a sub-committee for consideration. The bill, which sought for power to extend the line to St. Catharines and Niagara, was subsequently withdrawn. (June, pg. 162.)

**Hamilton Radial Ry. (Electric).**—Right of way has been purchased for the extension of this line from the present terminus, near Burlington, to Oakville, and tenders will be asked for the grading, bridging and tracklaying immediately. There will be two bridges, each about 500 ft. long, at Bronte and Oakville. The right of way will permit of a double track when required. The bridges will be built for a double track, and 80-lb. steel will be laid. The steepest gradient will be  $\frac{1}{2}$  of 1%. It is expected that the line will be completed during the summer, and it is said that the line of the Toronto and Mimico Ry. will be extended to Oakville also this year and effect a junction with the H. R. Ry. if satisfactory arrangements can be made with the municipalities. (June, pg. 186.)

**Herbertville to Mistassini.**—The Quebec Legislature at its last session voted a subsidy of 4,000 acres of land a mile to aid in the construction of a railway from Herbertville to St. Joseph d'Alma, thence northwesterly past Peribonca Falls, to the west and southwest of Lake St. John, passing near Mistassini. This line would form a belt round Lake St. John, if worked in conjunction with the section of the Quebec and Lake St. John Ry. between Herbertville and Roberval. Notice was given that application would be made at the recent session of the Quebec Legislature for the incorporation of a company to be called the Herbertville, St. Bruno and Alma Ry., to construct such a line, but it was not proceeded with. (Mar., pg. 77.)

**Herring Cove Ry.**—C. J. Osman, A. R. McClellan, B. F. Pearson, J. T. Hawke, F. W. Sumner, C. W. Robinson, S. S. Ryan, W. F. Taylor, were incorporated by an act passed at the last session of the New Brunswick Legislature, with power to construct a railway from Alma, the terminus of the Albert Southern Ry., to Herring Cove, and power to construct a railway bridge across the Upper Salmon River. The company is also authorized to make agreements with other companies for the operation of its line, or to amalgamate with other railway companies. The capital is fixed at \$25,000, and power is given to issue bonds. (June, pg. 186.)

**Indian River Ry.**—The Quebec Legislature at its last session voted a subsidy of 4,000 acres of land a mile towards the construction of a line from the northern extremity of Lake Megantic to the International boundary. (June, 1902, pg. 191.)

**Intercolonial Ry.**—Tenders are under consideration for a new station at Salmon Lake, Que.; additional sheds at Ste. Flavie, Que.; new station at Bayfield, N.S.; a coal house at Sydney, N.S., and brick office and store building at St. John, N.B.

Considerable progress is being made with the double tracking of the line between Bedford and Windsor Jct., 5 miles. (June, pg. 186.)

**Interprovincial and James Bay Ry.**—At the recent session of the Quebec Legislature a subsidy of 4,000 acres of land a mile was voted towards the construction of a line from Temiscamingue, the present terminus of the

Lake Temiscamingue Colonization Ry.—the Mattawa branch of the C. P. R.—northerly for 50 miles. (July, 1903, pg. 236.)

**James Bay Ry.**—An order in council has been passed by the Ontario Government preparatory to guaranteeing the bonds of the company to the extent of \$20,000 a mile in respect of the proposed line from Toronto to Sudbury. The guarantee is to run for 30 years from the completion of the line, the rate of interest being 3½%, and the security being a mortgage on the right of way, real estate, rolling stock and equipment, and also of the revenues, etc., of the line. Construction has to be commenced within a year, and the line is to be completed within four years. (June, pg. 187.)

**Joliette and Lake Manuan Colonization Ry.**—The Quebec Legislature at its recent session voted a subsidy of 4,000 acres a mile towards the construction of 60 miles of line from Joliette in the direction of Manuan or Lake Manuan, Que. (July, 1903, pg. 236.)

**Kootenay Central Ry.**—An act has been passed at the current session of the Dominion Parliament extending the time for the commencement of the projected lines from Fort Steele to Golden, and Fort Steele to Windermere, B. C., to 1906, and for the completion of the same to 1909. Dec., 1903, pg. 425.)

**Lindsay, Bobcaygeon and Pontypool Ry.**—The tracklaying gang completed the laying of steel from Burketon on the C. P. R. into Lindsay, June 20. (June, pg. 187.)

**Matane and Gaspé Ry.**—The Quebec Legislature at its recent session voted a subsidy of 4,000 acres of land a mile towards the construction of 30 miles of line from St. Octave de Melis on the Intercolonial Ry. to Matane. (Jan., pg. 3.)

**Manitoba and Keewatin Ry.**—The Dominion Parliament at its current session passed an act extending the time for the commencement of construction of this projected railway from Winnipeg or Selkirk, Man., to James Bay, near the mouth of the Severn River, for three years, authorizing the construction of harbors on Hudson's Bay, James Bay, or Lake Winnipeg, and giving power to use "such form of motor and method of producing power as is expedient." (Mar., pg. 79.)

**Midway and Vernon Ry.**—W. T. Hazen, C. E., St. John, N. B., recently visited Greenwood, B. C., on an inspection of the route of the projected line from Midway to Vernon, about 150 miles. It is understood that an announcement will be made early in July as to the date when construction will be started. (Jan., pg. 5.)

**Montreal and Southern Counties Ry. (Electric).**—Application is being made at the current session of the Dominion Parliament for an act extending the time for the commencement and completion of the projected line. A. J. deB. Corrivieu, Montreal, is the principal promoter, and T. Craig, Montreal, is Secretary of the company. (Aug., 1903, pg. 269.)

**Napierville Junction Ry.**—At the recent session of the Quebec Legislature an act was passed granting an extension of time for the construction of a projected line from Napierville Jct., and otherwise amending the powers of the company. (June, pg. 188.)

**Nepigon Ry.**—An act has been passed at the current session of the Dominion Parliament authorizing the construction of an additional line from near the Albany River to Fort Churchill, on Hudson's Bay, giving power to make agreements with the Grand Trunk Pacific Ry., or the National Transcontinental Ry., and extending the time for the commencement and completion of the lines by two and five years respectively. (June, pg. 188.)

**New Brunswick Central Ry.**—J. P. Geddes, J. B. Neale, M. T. Adams, G. R. Jones,

E. A. Reilly and R. Miller were incorporated at the last session of the New Brunswick Legislature with this title to construct a railway from near Coal Branch on the Intercolonial Ry., to the mines of the Canadian Coal and Manganese Co. The capital is fixed at \$100,000, and bonds to the extent of \$15,000 a mile may be issued. Press reports state that an arrangement has been made with the Beersville Ry. and Coal Co. for the construction of a line from the collieries to connect with its line to Adamsville, and that nothing will be done in the way of construction from Coal Branch. (June, pg. 188.) See also Beersville Ry. and Coal Co.

**New Brunswick Southern Ry.**—Application is being made at the current session of the Dominion Parliament for an act declaring the N. B. S. Ry., which extends from St. John to St. Stephen, N. B., to be an undertaking for the general advantage of Canada. The line was formerly known as the South Shore Line Ry., and has been in the hands of receivers for some time. Russell Sage, of New York, is principally interested. Traffic was suspended over the line June 8 by order of the Railway Commissioners on account of the insecure condition of the bridges. The object of the present application to Parliament is to enable the company to secure a suitable connection with the Washington County Ry. in Maine. (June, pg. 188.)

**Niagara, Queenston and St. Catharines Ry. (Electric).**—A by-law authorizing the St. Catharines, Ont., city council to subscribe for \$20,000 of stock in the N. Q. and St. C. Ry. Co., which proposes to construct a line from St. Catharines to Niagara-on-the-Lake, and thence alongside the Niagara river to Queenston, Ont., has been passed.

**Oxford Mountain Ry.**—At the last session of the Quebec Legislature a subsidy of 4,000 acres of land a mile was voted towards the construction of 12 miles of line from Eastman to the boundary between the townships of East Bolton and Potton. It is reported that the extension is under construction and will be completed in the fall, and further, that it is the intention of the company to extend the line from the Potton town line to the International boundary, and secure a connection with the C. P. R. at Masonville, Richford, or North Troy, Vt. (June, pg. 189.)

**Ottawa, Brockville and St. Lawrence Ry.**—An act was passed at the current session of the Dominion Parliament authorizing an extension of time for two years for the commencement and of five years for the completion of the projected line from Ottawa to Brockville, Ont., the extension to date from July 7, 1904. (June, pg. 189.)

**Ottawa, Northern and Western Ry.**—The Dominion Parliament at its current session passed an act authorizing an extension of time for five years for the completion of the line authorized from Hull to James Bay, Que., with branches to Lake Temiskaming and other unnamed points. The line has already been constructed to Maniwaki, 82.1 miles. (Dec. 1903, pg. 421.)

**Owen Sound.**—J. H. Holton, of Boston, Mass., recently visited Owen Sound, Ont., and went over the district with a view of reporting upon the prospects of an electric railway.

**Pacific Northern and Omineca Ry.**—An act has been passed at the current session of the Dominion Parliament authorizing an extension of three years for the commencement of this projected line from Kitimat Inlet, on the Pacific coast of B. C., easterly to the Peace River. (Jan., pg. 7.)

**Pontiac and Interprovincial Ry.**—The act authorizing the incorporation of a company with this title to construct a railway from Waltham to Ferguson's Point, Que., thence across the Ottawa river to the C. P. R. trans-

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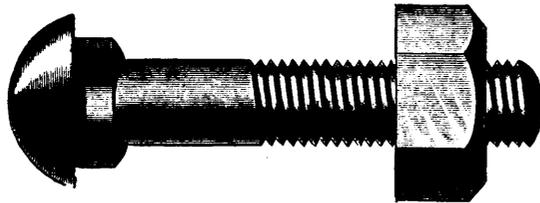
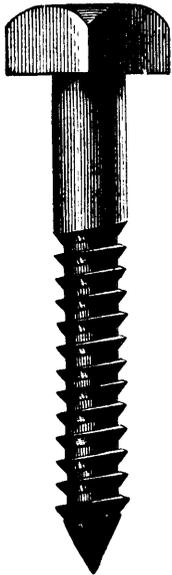
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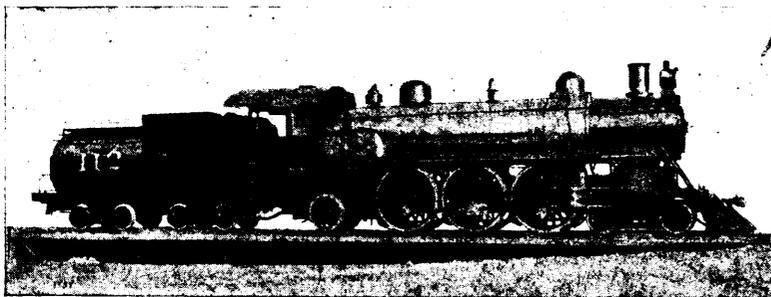
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DEPARTMENT OF AGRICULTURE AND IMMIGRATION

## MANITOBA

### NOTICE TO FARM LABOURERS

There are now daily arriving in this province numbers of young men from Eastern Canada and Great Britain who desire employment on Farms. Many of these are experienced farm hands and others are anxious to learn.

### ALL SUCH ARE ADVISED

on arrival in Winnipeg to call upon the undersigned when all possible assistance will be given WITHOUT CHARGE in securing employment at farm work. A register is kept of farmers wanting men and of men wanting employment. This is a GOVERNMENT AGENCY and no charge of any kind is made for its services.

**J. J. GOLDEN,**

Provincial Government Immigration Agent  
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## The Northern Navigation Company Of Ontario, Limited

### SUMMER SERVICE

#### LAKE SUPERIOR DIVISION

Sailings from Sarnia at 3 p.m., Mondays, Wednesdays and Fridays, for Sault Ste. Marie, Port Arthur, Fort William and Duluth. Monday and Wednesday steamers take Duluth passengers.

#### GEORGIAN BAY AND MACKINAC DIVISION

Sailings from Collingwood at 1.30 p.m., via OWEN SOUND Tuesdays and Saturdays, and PARRY SOUND Wednesdays and Fridays. For Georgian Bay Points, Sault Ste. Marie and Mackinac Is.

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Sailings from Parry Sound at 5.30 a.m. Daily except Sunday for Midland and Penetang.

MOTTO—"A well-fed passenger the best advertisement."

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TANK  
FIXTURES

RAILROAD WORK  
A SPECIALTY

Ontario Wind Engine  
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TORONTO, - ONT.

continental line between Petawawa and Chalk River, Ont., with branch lines, has been passed at the current session of the Dominion Parliament. At the recent session of the Quebec Legislature a land grant of 4,000 acres a mile was voted towards the construction of a line from Waltham station to Ferguson's Point. (June, pg. 189.)

**Prince Edward Island Ry.**—We are advised that the contractors are completing the ballasting on the section of the Murray Harbor branch between Charlottetown and Murray River, and are pushing the grading on the section between Murray River and Murray Harbor. It is expected that tracklaying will be commenced on this section early in July. At the bridge over the Hillsborough River the work of erecting the trestlework approaches is being proceeded with. These approaches are to be filled with earth, and it is expected that the ballast train will be at work on them at an early date. The contractor for the erection of the superstructure has the matter in hand for bringing the spans from the Miramichi river, N.B., to the bridge. The spans will be loaded on scows and will be towed into position across the strait. (June, pg. 189.)

**Quebec and Lake Huron Ry.**—At the current session of the Dominion Parliament an act was passed extending the time for the commencement of construction on this projected line from Quebec to Lake Huron, near the mouth of French River, for two years and for five years for its completion. (Mar., pg. 81.)

**Quebec and Lake St. John Ry.**—At the last session of the Quebec Legislature two acts conferring various powers on the Q. and L. St. J. Ry. Co. were passed, including the authorization of the construction of certain branch lines and extension of time for the construction of the same. A subsidy of 4,000 acres of land a mile was granted in aid of a line from Roberval to the Dominion Government wharf on Lake St. John, one mile in length; and for a branch line 38 miles long from a point on the main line near the Jeannotte River to La Tuque, on the St. Maurice River. J. G. Scott, General Manager, has gone to England to arrange for the financing of the construction of this branch line, with a view to starting work thereon at an early date. (Jan., pg. 7.)

**Quebec and Portneuf Electric Ry.**—At the recent session of the Quebec Legislature an act was passed incorporating a company to construct an electric railway from Quebec to Portneuf.

**Quebec Central Ry.**—At its recent session the Quebec Legislature voted a subsidy of 4,000 acres of land a mile for the construction of nine miles of line from St. Francis to St. George, Beauce County.

At the annual meeting in London May 18, reference was made to the proposed extensions, and to construction of terminals in Quebec, on the completion of the Quebec bridge, but the matters are still under the consideration of the directors. (June, pg. 189.)

**Quebec County Ry. (Electric).**—The Quebec Legislature at its recent session passed an act incorporating a company to construct electric railways in Quebec county.

**Saguenay and Bale James Ry.**—At the recent session of the Quebec Legislature an act was passed incorporating a company for the purpose of constructing a railway from the Saguenay River to James Bay.

**St. Catharines, Pelham and Welland Electric Ry.**—R. McLaren, S. D. Lake, St. Catharines; S. H. Glasgow, Welland; E. Morris, Fonthill; G. Arnold, Ridgeway, were incorporated at the last session of the Ontario Legislature with this title to construct an electric railway from St. Catharines to Welland, 13 3/4 miles, with a branch from Fonthill to Fenwick, 4 3/4 miles. The population of the district through which the line is project-

ed is 33,289, and the estimated cost of constructing and equipping the line is \$270,000. It is proposed to use private right of way for some portions of the line, to build bridges of steel and to lay the whole track with 56 lb. T rails. A right of way for the projected line has been granted in St. Catharines by the city council. J. H. Armstrong, St. Catharines, Ont., is consulting engineer. (Mar., pg. 81.)

**St. Joseph and Stratford Electric Ry.**—Surveys are reported completed on the first section of the proposed electric railway from Stratford to St. Joseph, Ont., from Stratford to Hensall, and it is expected construction will be commenced almost immediately. (June, pg. 189.)

**St. Maurice Valley Ry.**—V. Burrill, Burrill Siding; F. S. Tourigny, Three Rivers; H. Biermans, B. Leman, F. A. Stoughton, Shawinigan Falls, all in the Province of Quebec, have been incorporated at the current session of the Dominion Parliament with this title to construct a railway or tramway, to be operated by any motive power from Three Rivers, to a point where it will intersect the projected National Transcontinental Ry., the line to follow the St. Maurice and the Mattawin River valleys, and serving Pointe Chevalier, Shawinigan Falls, Grand Mere, Ste. Flore, and St. Jena des Piles. The capital is fixed at \$300,000, and bonds to the extent of \$25,000 a mile may be issued. The head offices are to be at Three Rivers, Que.

**St. Thomas Electric Ry.**—The city engineer has laid before the St. Thomas, Ont., council an estimate of the cost of extending the city's electric railway to Port Stanley, 6 1/2 miles. The cost of roadbed and overhead construction was put at \$5,910 a mile, equal to \$38,415; bridges \$7,000, turnouts \$2,950, making altogether \$48,365. In addition there would be right of way and equipment. (Jan., pg. 9.)

**Southwestern Traction Co. (Electric).**—Negotiations are in progress between the company and the St. Thomas, Ont., city council for right of entrance to the city. Grading from Lambeth, to which point the line was practically completed in 1902, to St. Thomas, is being proceeded with, a private right of way being purchased from the line between Elgin and Middlesex counties, into St. Thomas. The question of the location of the power house has not been definitely determined. A. G. Midford has been appointed engineer-in-chief, W. Evans is superintendent, T. Raycraft clerk of the works, and C. P. N. Raikes, of London, Eng., is in general charge, representing the Canadian Electric Traction Co. (June, pg. 189.)

**Strait of Canso Bridge Co.**—An act has been passed at the current session of the Dominion Parliament extending the time for the commencement and completion of the projected bridge across the Strait of Canso, N.S., for two and six years respectively from July, 1904. The promoters are making application to the Government for a subsidy by way of a guarantee of \$6,000,000 of bonds. (June, pg. 191.)

**Suburban Tramway and Power Co.**—An act was passed at the recent session of the Quebec Legislature incorporating a company with power to construct electric railways in the vicinity of Montreal.

**Temiskaming and Northern Ontario Ry.**—The Commissioners for the construction of the T. and N.O. Ry. have let a contract to A. R. Macdonell, who has the contract for 112 miles from North Bay to New Liskeard, Ont., now nearing completion, for the extension from New Liskeard to the point of intersection with the proposed National Transcontinental line, about 100 miles. The contract is awarded on a schedule rate. Tracklaying from mileage 57 towards New Liskeard has been commenced, and the line is expected to

be completed by the end of the year. (June, pg. 191.)

**Terrebonne Electric Ry.**—The Quebec Legislature at its recent session passed an act incorporating a company for the purpose of constructing electric railways in the county of Terrebonne. (Mar., pg. 83.)

**Tobique and Campbellton Ry.**—A. Fraser, N. H. Murchie, J. E. Stewart, J. McNair, R. B. Haining, A. I. Trueman, J. F. Tweedale, J. Burgess, were incorporated at the last session of the New Brunswick Legislature with this title to construct a railway from near Plaster Rock, the present terminus of the Tobique Valley Ry., crossing and recrossing the Tobique River, to a junction with the International Ry. of New Brunswick from Campbellton to Woodstock. The capital is fixed at \$40,000, bonds to the extent of \$10,000 a mile may be issued, and the head offices are fixed at Andover, N.B. (June, pg. 191.)

**Toronto, Hamilton and Buffalo Ry.**—It is reported that the company has acquired land for freight yards and roundhouse near Wentworth St., Hamilton. The C.P.R. is negotiating with the company for some changes in operating the C.P.R. locomotives, which are now detached at Hamilton, to Welland, but we are advised that such change could not be made until certain alterations are made at Hamilton yard. This, together with the fact that a considerable sum was appropriated at the annual meeting of May 31 for the betterment of the line, makes the report not improbable. (Mar., pg. 83.)

**Toronto Ry. (Electric).**—The Toronto Ry. Co. having acquired the lines and franchises of the Toronto and Mimico Ry., the Toronto and Scarborough Electric Ry., Light and Power Co., the Metropolitan Ry., the Schomberg and Aurora Ry., and the Toronto and York Radial Ry. Co. is beginning to take steps to have the lines connected up. The first step was taken June 24 when application was made to the city council for permission to connect the tracks of the Toronto and Mimico Ry. with those of the Toronto Ry. The application was to make a temporary connection for the purpose of reballasting and improving the T. and M. Ry., but the city council is averse to giving permission for any temporary connection until the general question of the entrance of all suburban lines to the city is decided.

The Toronto and Mimico Ry. recently made application to the Ontario Railway Committee for power to deviate from the highway at Lorne Park to the beach, which would give a slightly shorter and less hilly route than along the highway. The extension proposed is from Long Branch, the present terminus, to Oakville, about 13 miles. Satisfactory arrangements have been made with the township of Toronto, in regard to the extension and if satisfactory arrangements can be made with the townships of Etobicoke and Trafalgar the work will be gone on with this year. It will be built partly along the public highway and partly on private right of way. The steepest gradient on the extension will be 1 1/2%, and there will be the following bridges on the route at Etobicoke River, 130 or 150 ft. span; Port Credit River, two bridges, one of 80 or 100 ft. span and the second of 30 to 40 ft. span. There will be several minor bridges and culverts. The track will be laid with 60 lb. rails. Contracts will probably be let for the grading and the company will do the rest of the work itself.

The Scarborough township council has declined to grant the Toronto and Scarborough Electric Light and Power Co. a perpetual franchise, but has offered a franchise for 25 years with the privilege of deviating one mile on either side of a certain line in order to avoid steam railway tracks.

The Electrical Development Co., which is promoted largely by the same interests as

THE

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RAILWAY**

Calendar for June says:

**THE SEA.**

"How happy they, who from the toil  
and tumult of their lives  
Steal to look down where naught but  
ocean strives."—BYRON.

The fishing in the streams and lakes of  
Quebec and the Maritime Provinces and  
the ocean bordering those provinces is  
the finest on the continent. Write for  
Intercolonial detailed pamphlets.

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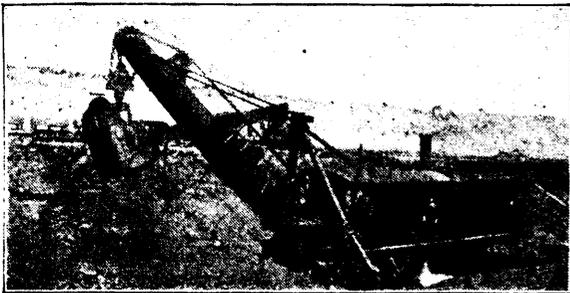
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**CARS, RAILS, SCRAPERS, BARROWS, TOOLS, Etc.**

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(SUCCESSORS TO THE LATE JAMES COOPER)

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**SWITCHES AND TRACK WORK**

FOR STEAM AND ELECTRIC ROADS

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OF ALL KINDS

**MANGANESE STEEL CASTINGS**

For wearing Parts, Insuring Great Hardness and Durability

**INTERLOCKING PLANTS**

**WORKS AND OFFICE: CANAL BANK, PT. ST. CHARLES, MONTREAL**

the T. Ry. Co., has completed the purchase of a right of way, 80 ft. wide, from the site of its power plant at Niagara Falls to Toronto. At several points near the city the width is considerably in excess of this. A subsidiary power house for the distribution of the power, to be brought from Niagara, will be erected outside the city limits, on Davenport Road, and adjoining the C.P.R. tracks. In addition to its pole line for the transmission of power the company has authority to construct a single or double track electric railway from Toronto to Niagara Falls. The company does not at present propose to do more than develop power, of which the T. Ry. and the suburban lines it now owns will be the principal users. (June, pg. 192.)

**Toronto Union Station.**—The question of the expropriation of some of the land cleared by the recent fire in Toronto is still engaging the attention of the Railway Commission, the city council and the railway companies. There has been much discussion and a lot of negotiating, the general trend being to bring all the parties nearer together. The companies have submitted a proposition to the city to construct a new Union Station at a cost of \$1,000,000, the assessment to be \$300,000, and to pay \$15,000 a year rent for the land expropriated. (June, pg. 192.)

**Vancouver, Victoria and Eastern Ry. and Navigation Co.**—The time for the completion of the company's authorized line of railway from Vancouver easterly to Grand Forks, B.C., has been extended for five years from July, 1904. A section of the line near Grand Forks has been constructed, and surveys for a considerable portion of the remainder have been made. The company is controlled by the Great Northern Ry. (U.S.), and the completed portion of the line is operated by the Spokane Falls and Northern Ry., a subsidiary of the G.N. Ry.

A contract has been let to Shepherd & Sims, St. Paul, Minn., for the construction of the branch from Grand Forks to Phenix, 26 miles. Stewart and Co. have been given a subcontract for grading, and Porter Bros. have a contract for the bridge and trestle work. The construction is to be pushed, the contracts calling for the completion of the line by Oct. 1. P. Welch, of Stewart & Co., Spokane, Wash., is in charge of the grading, and subcontracts for sections are reported let to Burns and Jordan, six miles, including the grading into Phenix; P. Hughes, one mile; Johnson and Brandt, four miles; Andrews and McDonald, two miles; and the spur from Grand Forks to the Granby Smelter; M. Welch, one mile; H. Boie, one mile; Johnson and Anderson, three miles. J. H. Kennedy is engineer in charge of construction, with the following in charge of sections: R. H. McCoy, Phenix; H. Silke, Summit; J. M. Buck, July Creek; W. I. Bassett, Grand Forks. (Mar., pg. 83.)

**Walkerton and Lucknow Ry.**—The Dominion Parliament at its current session passed an act incorporating a company with this title to construct lines from Walkerton to Lucknow, Ont., and from Walkerton to Hanover, Ont. The capital is \$75,000, and bonds to the extent of \$25,000 a mile may be issued. The head office is to be at Walkerton. Power is also given to amalgamate with the C.P.R. or the Huron and Ontario Ry. (June, pg. 192.)

**Welland and Grand Island Bridge Co.**—An act has been passed at the current session of the Dominion Parliament striking out the names of J. A. Lowell and A. Logan from among the incorporators, and extending the time for the completion of the bridge across Niagara River by five years. (June, pg. 193.)

**Whitehorse and Alesk Ry.**—The Dominion Parliament at its current session passed an act incorporating a company with this title to construct a railway from Whitehorse to Alesk Creek, with branch lines not exceeding

30 miles in length in any one case. The capital was fixed at \$1,000,000, and power was given to issue bonds to the extent of \$30,000 a mile. The head office is to be at Vancouver, B.C. (June, pg. 193.)

**Winnipeg and St. Andrews Ry.**—E. F. Hutchings, promoter of this railway from Winnipeg to Tyndall, says all that stands in the way of the operation of the line is permission to cross the Louise bridge at Winnipeg and lay a short piece of track on Main St. This permission he hopes to get, and having obtained it, is prepared to start construction in August. The franchise granted by Kildonan and St. Pauls municipalities calls for the commencement of construction by Aug. 15. (Feb., 1903, pg. 49.)

**Winnipeg Electric Street Ry.**—A new power house 110 by 55 ft. is under construction, and additional plant, doubling the present one, will be installed. (June, pg. 193.)

**Yonge Street Bridge, Toronto.**—A bill is before the Dominion Parliament providing that the Privy Council of Canada shall act as the Court of Appeal from decisions of the Railway Committee as if the Railway Act constituting the Railway Commission had not been passed. The only decision to which this act will apply is that given in the case of the order on the C.P.R. and the G.T.R. to build a bridge across the tracks at the foot of Yonge street, against which the companies appealed. (June, pg. 193.)

#### Galena Signal Oil Co.

This company has the following experts in charge of lubricating on the various railways, etc., in Canada:—

J. P. Ferguson—Canadian Pacific, and Quebec & Lake St. John Rys., Alberta Ry. & Coal Co., Locomotive & Machine Co. of Montreal. Headquarters, Windsor Hotel, Montreal.

B. C. Gesner—Intercolonial, Prince Edward Island, Dominion Atlantic, Great Northern of Canada, Quebec Central, Sydney & Louisburg, and Halifax & Yarmouth Railways, Rhodes, Curry & Co., Amherst, N.S. Headquarters, Moncton, N.B.

W. B. Moore—Central Ry. of Nova Scotia, Caraquet Ry., Canada Coal & Ry. Co., Moncton and Buctouche Ry., Central Ry. of New Brunswick, Nova Scotia Steel & Coal Co. Headquarters, New Glasgow, N.S.

M. M. Meehan—Grand Trunk, Central Ontario, Canada Atlantic, Kingston & Pembroke, and Quebec Southern Railways. Headquarters, Windsor Hotel, Montreal.

Lewis Gleason, formerly in charge of the work on the C.P.R. and several other Canadian lines, is now looking after the company's interests on the Southern, the Norfolk & Western and the Virginia & Southern Rys.

**The Canadian Steel & Wire Co.**, Hamilton, Ont., is supplying and erecting over 250 miles of woven wire fencing for the C.P.R. Pipe-stone branch extension to Regina, and also for the main line between Winnipeg and Swift Current, Assa.

**The Melville Tours Limited** has been organized in Toronto with the following officials: President, Judge Morson; Vice-President, W. M. Douglas, K.C.; Managing Director, R. M. Melville, R.N.R.; Secretary, J. A. Blackledge, to carry on a general tourist business.

**Locomotive and Machine Co. of Montreal.**—Following are the directors and officials for the current year: President, A. J. Pitkin, New York; other directors: P. Fisk, G. R. Sheldon, W. M. Barnum, New York; K. W. Blackwell, R. Miller, D. W. Morrow, Montreal; officials: Vice-President, J. E. Sague, New York; 2nd Vice-President, R. G. Gross, New York; Secretary, Leigh Best, New York; Treasurer, C. B. Denny, New York; General Purchasing Agent, H. C. Hequemburg.

#### MAINLY ABOUT PEOPLE.

H. M. Allan, of the Allan Steamship Line, has been created a Knight Bachelor.

W. S. Taylor, Treasurer C.P.R., and Mrs. Taylor are spending the summer in Europe.

F. W. Churchill, C.P.R. ticket agent, Collingwood, Ont., arrived home June 13 from a trip to England.

J. Benjafield, G.T.R. train dispatcher, London, Ont., was married in Guelph, June 1, to Miss M. Lockey.

E. D. Worcester, Vice-President of the Michigan Central Rd., died at New York June 13, aged 76.

Mrs. Chamberlin, wife of the General Manager Canada Atlantic Ry., has recovered from her recent illness.

N. M. Cummins, C.E., at one time in the service of the East India Ry. Co., died at Magog, Que., May 26.

N. Curry, of Rhodes, Curry & Co., Amherst, N.S., is one of the directors of the New Brunswick Petroleum Co.

A. MacMurchy, Solicitor for the C.P.R., Toronto, and Mrs. MacMurchy, are on a visit to England for the summer.

R. Marshall, formerly Inspector of Bridges on the Canadian Northern Ry., Winnipeg, died there recently, aged 53.

R. G. Reid, President Reid Newfoundland Co., Mrs. and Miss Reid, have gone to St. Johns, Nfld., for the summer.

Mrs. Fleck, wife of A. W. Fleck, Secretary and Treasurer Canada Atlantic Ry., Ottawa, and Miss Fleck are in England.

Mrs. Hayter Reed, wife of the Manager of the Chateau Frontenac, recently returned to Quebec from a trip to England.

T. S. Rubidge, for many years Chief Engineer of the St. Lawrence canal system, died at Cornwall, Ont., June 21.

J. P. Apps, chief clerk to the C.P.R. General Baggage Agent, Montreal, is recovering from the effects of an operation.

W. C. Tennant, C.P.R. engineer, was accidentally killed by being thrown from a hand-car near Sharbot Lake, Ont., June 10.

J. J. Brignall, chief clerk to the District Passenger Agent, C.P.R., Toronto, is convalescing after an attack of typhoid fever.

P. Hurley, a well-known lake mariner who sailed from St. Catharines, Ont., about 50 years ago, died at Kingston, Ont., June 17.

Jas. Kelly, assistant superintendent of the C.P.R. bridge and building department, Moose Jaw, Assa., died at Winnipeg June 5.

Hon. M. E. Bernier, Deputy Chief Railway Commissioner, has recovered from a sudden attack of illness at St. Hyacinthe, Que., May 30.

D. Pottinger, General Manager of the Government Railways, Moncton, N.B., has been made a Companion of the Imperial Service Order.

H. G. Luke, agent of the Niagara, St. Catharines and Toronto Ry., Toronto, was married to Miss G. Beaumont in Toronto, June 3.

Mrs. G. McL. Brown, wife of the Superintendent of Dining, Sleeping and Parlor Cars, C. P. R., has returned to Montreal from Europe.

Miss J. Kingsmill, daughter of N. Kingsmill, K.C., Secretary Canada Southern Ry., was married at Toronto, June 8, to C. L. W. Worsley.

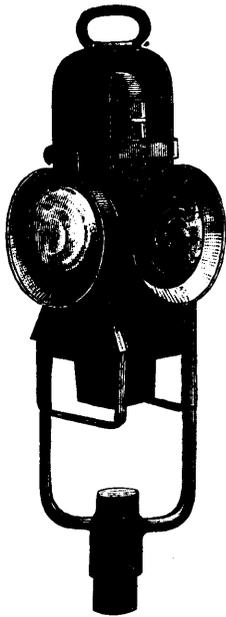
F. Attwood, who was recently killed in Winnipeg, Man., was a brother of Mrs. Niblock, wife of the C.P.R. Superintendent at Calgary, Alta.

Miss E. M. Playfair, daughter of Jas. Playfair, President Muskoka Lakes Navigation

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Require no Chimney

Consumption of Oil reduced by half

Wick regulated from outside

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Fittings copper and brass

Brass Oil Tank never leaks

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Save 50 per cent. in cost of Chimneys alone.

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## For Steamboats AND RAILWAYS

Vacuum Oils Reduce Friction, thus saving Coal and preserving Machinery.

- VACUUM 600 W. CYLINDER
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300 Fire Test, for Illuminating Purpose  
**THE QUEEN CITY OIL CO. LIMITED**  
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## RICHELIEU AND ONTARIO NAVIGATION COMPANY.

"Niagara to the Sea."

### MAIL LINE STEAMERS

(Palatial Steel Steamers)

Leave Toronto (from June 1st to 15th) Mondays, Wednesdays and Saturdays; thereafter daily, except Sunday, for Rochester, Kingston, Clayton, 1,000 Island Points and intermediate ports (running all the Rapids) to Montreal, where connection is made with steamers for Quebec, Murray Bay, Tadousac and points on the famous Saguenay River.

### HAMILTON LINE

(Fine Iron Steamers)

Plying between Hamilton, Toronto, Montreal and intermediate ports, passing through the picturesque scenery of the Bay of Quinte, 1,000 Islands and Rapids.

Steamers leave Hamilton and Toronto east bound, Tuesdays, Thursdays and Saturdays and Montreal west bound, Mondays Wednesdays and Fridays. For further particulars apply to—

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- or,  
THOS. HENRY, Traffic Manager, Montreal.

## IMPERIAL BANK OF CANADA.

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 Rest - - - - - 2,850,000

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- T. R. MERRITT, President; D. R. WILKIE, Vice-President; WM. RAMSAY, ROBERT JAFFRAY, ELIAS ROGERS, WM. HENDRIE, JAMES KERR OSBORNE, CHAS. COCKSHUTT.

### HEAD OFFICE, TORONTO.

- D. R. WILKIE - - General Manager.
- E. HAY - - - - Asst. General Manager.
- W. MOFFAT - - - Chief Inspector.

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MODERN EQUIPMENT & VESTIBULED THROUGHOUT  
 STANDARD FIRST-CLASS SLEEPERS

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DINER ATTACHED SERVING A LA CARTE MEALS

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NORTHERN NAVIGATION COMPANY,  
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 AND CANADIAN PACIFIC ALL RAIL ROUTE

Through tickets can be obtained at all Railway Ticket Offices.

- R. H. BELL, T.F. & P.A., Montreal
- WM. PHILLIPS, General Eastern Agent, Toronto
- GEO. H. SHAW, Traffic Manager, Winnipeg

and Hotel Co., was married at Toronto June 4 to C. E. Lee.

M. G. de Shaw, Superintendent of the Ottawa and New York Ry., Ottawa, has been granted an extended leave of absence on account of ill-health.

Col. C. W. Folsom, formerly Assistant Superintendent and Master of Transportation on the Rutland Rd., died at Cambridge, Mass., recently, aged 79.

Col. Sir. P. Girouard has resigned his position as Commissioner of the Government Railways, Transvaal and Orange River Colonies, South Africa.

H. P. Dwight, President G.N.W. Telegraph Co., has been appointed a member of the Board of Managers of the Industrial Schools Association.

S. Ryan, one of the subcontractors on the Temiskaming and Northern Ontario Ry., has retired from active work on account of an affection of the eyes.

B. C. Brown, who died recently near Brockville, Ont., aged 81, was contractor for the Brantford, Norfolk and Port Burwell branch of the G.T.R.

E. H. McHenry, Fourth Vice-President New York, New Haven and Hartford Ry., Hartford, Conn., is reported to be ill at his residence in Montreal.

H. H. A. Jones, formerly of the Lake Erie and Detroit River Ry. audit office, Walkerville, Ont., has been appointed Manager of the Windsor Navigation Co.

J. H. Laidlaw, third son of the late G. Laidlaw, Toronto, who was the promoter of narrow gauge railways in Canada, died at Cranbrook, B.C., May 24.

Miss E. Worgan, daughter of Capt. Worgan, R.N.R., Sydney, N.S., was married there June 8 to E. L. Gilpin, property agent of the Dominion Steel Co.

Miss E. Gourdeau, daughter of Lieut.-Col. Gourdeau, Deputy Minister of Marine, was married at Ottawa, June 15, to L. Bance, one of the Department officers.

A. F. Gault, of Montreal, was married June 22 at Quebec, to Mrs. H. Laurie, second daughter of H. G. Beemer, a director of the Quebec and Lake St. John Ry.

J. A. McCrossan, formerly manager of the Citizens' Telephone and Electric Light Co., Rat Portage, Ont., has been appointed city electrician for Vancouver, B.C.

Miss D. Rathbun, daughter of the late E. W. Rathbun, President Bay of Quinte Ry., etc., was married at Deseronto, Ont., June 4, to H. Jones, of London, Eng.

H. Stephens, son of C. E. Stephens, Secretary-Treasurer Northern Navigation Co., Collingwood, Ont., was drowned with three companions in Georgian Bay June 11.

J. H. Thompson, of Wm. Thompson & Co., shipowners and builders of St. John, N.B., was drowned with two friends, while canoeing on Southwest Branch Lake, N.B., May 23.

Col. W. P. Anderson, Chief Engineer to the Department of Marine, is the officer in command of the Canadian contingent at the annual rifle competitions at Bisley, England.

P. H. McCooe, recently General Roadmaster Southern Division G.T.R., St. Thomas, Ont., has been appointed to a similar position on the Texas and Pacific Ry. at Marshall, Tex.

H. E. Smith, Accountant of the Montreal Street Ry. Co., was presented with a cabinet of silver by the employes of the company on the occasion of his marriage to Miss Hoarn recently.

Miss K. Upper, daughter of the late Jos. Upper, railway contractor, Kingston, Ont., was recently married in England to Capt. F. F. Hunter, of the 31st Duke of Connaught's Own Lancers.

C. J. Panser, C.P.R. roadmaster at Portage la Prairie, Man., was recently presented with a purse and an address by the sectionmen and others connected with the line on his removal to Souris, Man.

Mrs. Creelman, wife of A. R. Creelman, K.C., Chief Solicitor for the C.P.R., died at Montreal June 17, and was buried at Toronto June 20. She was a sister of W. T. Jennings, C.E., Toronto.

G. S. McKinnon, formerly C.P.R. Master Mechanic at Winnipeg, who resigned some months ago, was recently presented with an address and silver fruit dish by the employes of the department.

C. F. Wenham, whose appointment as Western Agent of the C.P.R. Atlantic steamships at Chicago was recently cancelled, is being sued for some \$50,000, which the company claims he owes it.

G. R. Stephens, Chief Train Dispatcher G.T.R., Lindsay, Ont., was presented with a watch and chain by the company's employes at Lindsay on the occasion of his removal to Allandale, Ont., June 3.

Hon. Finch Hatton, at one time secretary of the initial company formed for the purpose of promoting the laying of a cable from Vancouver, B.C., to Australia and New Zealand, died recently in England.

G. S. Spence, after 44 years in the G.T.R. service, latterly as freight accountant at Toronto, recently retired, and he and Mrs. Spence were presented with easy chairs by a few of the freight officials.

W. B. Wood, Brantford, Ont. has resigned the Vice-Presidency of the Grand Valley Ry. and the Brantford Street Ry., as a protest against the action of the management in operating cars over the lines on Sundays.

A. H. N. Bruce, Chief Engineer of the Lindsay, Bobcaygeon and Pontypool Ry., recently received news of the death, on May 15, of his aunt, Mrs. Alexander, at Ballyscullion House, Londonderry county, Ireland.

A. B. Lee, President of Rice Lewis and Son (Ltd.), died at Toronto, June 23, aged 66. He was for many years chairman of the Toronto Harbor Commission, and was a director of the Victoria Rolling Stock Co.

C. Smith, foreman of the shops of the United Railways of Yucatan, Merida, Central America, who was accidentally shot there recently, was at one time employed in the Michigan Central Rd. shops at St. Thomas, Ont.

R. E. Waugh was presented with an address and easy-chairs for himself and Mrs. Waugh, by the G.T.R. station employes at Guelph, Ont., on the occasion of his recent removal to Stratford, Ont., as station master.

E. V. Skinner, Assistant Traffic Manager C.P.R. at New York, left Montreal on the company's str. Mount Temple on June 11, accompanied by his wife and daughters, for a trip to Europe. They expect to return in August.

R. W. Bottrell, of Ottawa, was elected first Grand Assistant Engineer of the Brotherhood of Locomotive Engineers at the recent meeting at Los Angeles, Cal. The first Grand Engineer is W. B. Prenter, who once resided in Ottawa.

Geo. Moore, who died in Hamilton, Ont., recently, aged 83, for many years conducted the G.T.R. dining rooms there, retiring in 1894. J. Moore, Hamilton agent Canadian Ex. Co., and G. Moore, of the G.T.R. dining rooms, Hamilton, are sons.

Mrs. Bermingham, who died at Kingston, Ont., June 25, was mother of C. Bermingham, Manager Canadian Locomotive Co., Kingston; of W. Bermingham, railway contractor, Sault Ste. Marie, Ont.; and of Mrs. Harty, wife of Hon. W. Harty, President Canadian Locomotive Co.

G. Stephen, chief clerk of the traffic department of the Canadian Northern Ry., Winnipeg, was presented with a case of cutlery by the officers of the traffic department on the occasion of his marriage to Miss F. Byrnes at Winnipeg, June 1.

L. G. Scott, Secretary Great Northern Ry. of Canada, and Mrs. Scott were among the passengers on the Richelieu and Ontario Navigation Co.'s steamer Canada when she sunk after the collision off Sorel June 13. They both had narrow escapes from drowning.

R. La Touche Tupper, who died in Winnipeg General Hospital, recently, was engaged from 1874 on railway survey work for the Dominion Government, and was subsequently Superintendent of the Government telegraph system in the Northwest Territories.

W. E. Fowler, Master Car Builder C.P.R., was present in his capacity of 3rd Vice-President at the recent convention of Master Car Builders, held at Saratoga Springs, N.Y. He was a member of the committee reporting on stake pockets and was subsequently elected 2nd Vice-President.

The American Railway Engineering and Maintenance of Way Association has appointed a committee on the Economics of Railway Location, the membership of which includes: W. F. Tye, Chief Engineer C.P.R., and W. McNab, Assistant Engineer G.T.R., the latter of whom is Chairman.

The action which Mrs. Duchesnay is bringing against the C.P.R. for damages for the death of her husband, the late E. J. Duchesnay, Superintendent of the C.P.R. between Kamloops and Laggan, B.C., who was killed by a fall of rock in a tunnel Sept. 2, 1901, has been set down for hearing at the July sittings of the B.C. Supreme Court at Vancouver.

R. McColl, who has been appointed Provincial Engineer of Nova Scotia in succession to M. Murphy, D. Sc., was appointed assistant Provincial Engineer in 1900, prior to which he had been employed on survey and construction work for the C.P.R. in Maine, Nova Scotia Central Ry., the New Glasgow Iron, Coal and Ry. Co., and the Nova Scotia Steel and Coal Co.

C. K. Domville, who died at Hamilton, Ont., June 4, aged 73, was Mechanical Superintendent of the locomotive and car shops of the old Great Western Ry. from 1876 to 1885, and from 1885 to 1897 was in charge of the foundries and bolt works of the G.T.R. at Hamilton. Prior to coming to Canada in 1876 he was for nearly 25 years in railway service in England.

T. S. Ingraham, First Assistant Grand Chief Engineer of the International Brotherhood of Locomotive Engineers, died suddenly at his desk at the recent convention at Los Angeles, Cal. This is the third high officer of the company to die suddenly within a year. P. M. Arthur, Grand Chief, died at the convention at Winnipeg, and his successor died within a week or two after his appointment.

R. W. Long, who has been appointed Division Freight Agent G.T.R. at Stratford, Ont., was born at Appin, Ont., Mar. 20, 1873, and entered railway service in 1889, since which he has been consecutively clerk, telegraph operator, stenographer, rate clerk, contracting freight agent, and until his present appointment commercial agent at Buffalo, N.Y., entire service with the G.T.R.

F. Harrison, foreman carpenter C.P.R., North Bay, Ont., was killed by being run over by an engine on the Temiskaming and Northern Ontario Ry. June 7. Accompanied by Chief Train Dispatcher Hodgson and G. Leach, he was having a run on an electric motor on the T. and N.O. Ry., when, on rounding a curve six miles from North Bay, a freight train moving backward was run into.

F. M. Fallon, who has been appointed city passenger and ticket agent Rutland Rd. at

Montreal, was born there May 26, 1875, and entered railway service with the G.T.R. in the Montreal city ticket office, July, 1901, going to the Montreal office of the Rutland Rd. the following year, and from Nov., 1903, to the date of his present appointment was in the Union ticket office at Windsor St. station for the C.P.R.

G. A. Mountain, who has been appointed Engineer to the Board of Railway Commissioners, was born at Quebec city in 1860, and after a term in the office of the City Engineer there, was engaged in survey work on the Newfoundland Ry. and the Quebec and Lake St. John Ry.; in 1881 he was appointed Assistant Engineer Canada Atlantic Ry., becoming Chief Engineer in 1887, which position he occupied until his present appointment.

A. H. Bears, who has been appointed Master of Bridges and Buildings, Central Division, C.P.R., Winnipeg, was born at Charlottetown, P.E.I., Jan. 6, 1857, and entered railway service 1884, remaining with the C.P.R. in various capacities until 1888, during which year he was employed as foreman on build-

ings for the Northern Pacific lines in Manitoba. He returned to the C.P.R. in 1889, and was engaged as foreman of buildings, tanks and other structures on the line; was engaged on construction in West Kootenay from 1897 to 1901, and at Winnipeg since.

Geo. Collins, whose portrait appears on the first page of this issue, was born at Kingston, Ont., June 20, 1860, and entered railway service in 1882 as clerk in the office of the Central Ontario Ry., Trenton, Ont., since which he has been consecutively 1884 to May, 1892, General Freight and Passenger Agent, same road; May, 1892, to April, 1894, Secretary and Treasurer, same road; April, 1894, to date, General Superintendent. Mr. Collins is also Receiver of the line, which is being operated under an order of court, and at the recent annual meeting he was elected Secretary.

J. P. Gay, who has been appointed Manager Milwaukee and Michigan Line and G.T. Despatch at Detroit, Mich., was born in Hamilton, Ont., April 26, 1857, and entered railway service with the old Great Western Ry. at Hamilton in 1873, continuing with the G.T.R.

on the amalgamation. He was employed in the mileage and local freight offices at Hamilton and London, in the division freight office, western division, G.T.R., under J. Earls; latterly has been chief clerk to the Division Freight Agent at Detroit, Mich., and from Aug., 1902, to the date of his present appointment was Division Freight Agent G.T.R. at Stratford, Ont.

E. J. Hilliard, who has been appointed Commercial Agent G.T.R. at Buffalo, N.Y., was born in Montreal April 14, 1870, entered railway service in 1886 as clerk in the passenger department, and has filled the following positions up to date of his present appointment: clerk Chief Accountant's office; stenographer General Manager's office; stenographer Divisional Freight Agent's office; Contracting Freight Agent, Montreal; Contracting Freight Agent, New York city; Travelling Freight Agent, Montreal; Chief Clerk Division Freight Agent's office, Montreal; Travelling Freight Agent, with headquarters at Moncton, N.B.

J. S. Lawrence, who has been appointed Superintendent C.P.R., at Nelson, B.C., was

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born at Toronto April 9, 1863, and entered railway service as telegraph operator on the old Northern and Northwestern Ry. Dec., 1879, at Collingwood, Ont., moving to Barrie in 1881, and being appointed relieving agent in 1882. In 1886 he joined the C.P.R., since which his record has been: Sept., 1886, to 1887, train dispatcher North Bend, B.C.; 1887, to Dec., 1893, train dispatcher at Kamloops, B.C.; Dec., 1893, to Sept., 1899, Trainmaster Nakusp and Slocan Ry., Nakusp, B.C.; Sept., 1899, to 1902, Trainmaster Columbia and Western Ry., Smelter Jct., B.C.; 1902, to July, 1904, Trainmaster C.P.R., Nelson, B.C.

F. F. Busted, who has been appointed Assistant Chief Engineer C.P.R., at Winnipeg, was born at Battery Point, Que., Oct. 10, 1858, and entered railway work as chainman, 1879, since which his record has been: 1881, to 1883, transitman; 1883 to 1887, assistant engineer in charge of construction; 1887 to 1889, in charge of location and division engineering of construction, this service being with the C.P.R.; 1890, locating and division engineer on construction, Alberta Ry. and Coal Co.'s extension from Lethbridge to the junction at the International boundary with the Great Falls and Canada Ry.; 1890 to 1892, locating engineer and city engineer of Bristol, Va.; 1892 to date with the C.P.R. as Roadmaster, Assistant Engineer, Resident Engineer, Engineer of Maintenance of Way and Structures, Division Engineer and latterly Superintendent at Nelson, B.C.

S. R. Callaway, President of the American Locomotive Co., who died at New York June 1, following the effects of an operation, was born in Toronto Dec. 24, 1850, and entered railway service in 1863, after which he was consecutively to 1869, junior clerk in Auditor's office, Chief Accountant, Secretary and Treasurer's office, G.T.R.; 1869 to 1871, chief clerk to Superintendent Great Western Ry.; 1871 to 1874, private secretary to General Manager, same road; 1874 to 1878, Superintendent Detroit and Milwaukee Ry.; 1878 to 1881, General Superintendent Detroit, Saginaw and Bay City Rd.; 1881 to 1884, General Manager Chicago and Grand Trunk Ry., and President Chicago and Western Indiana Rd. and Belt Line Ry.; Sept., 1884, to June, 1887, Second Vice-President and General Manager Union Pacific Ry. and controlled lines; Sept., 1887, to Jan., 1895, President and Receiver Toledo, St. Louis and Kansas City Rd.; Jan., 1895, to Aug., 1897, President New York, Chicago and St. Louis Rd.; Aug., 1897, to April, 1898, President Lake Shore and Michigan Southern Ry.; April, 1898, President New York Central and Hudson River Rd., which position he resigned on the organization of the American Locomotive Co., June, 1901

**Hamilton, Grimsby and Beamsville Electric Ry.**—A majority of the stock of the H. G. and B. Ry. has been purchased by the G.T.R. at \$200 per \$100 share. It is understood that the G.T.R. has purchased 1,142 shares from 26 holders, leaving 850 shares in the hands of 36 holders. These latter allege that there was an agreement by which their interests were to be protected in the event of any negotiations for the purchase of the line being acceptable to the Board, and some of the shareholders talk of taking proceedings to recover damages. The line extends from Hamilton to Beamsville, Ont., 23 miles; it has a capital of \$200,000, all of which is issued and paid up, and has a bond issue of \$85,000. It received \$28,000 of municipal aid, and at June 30, 1903, had a floating debt of \$10,617, bearing 5% interest. The total cost of the railway report at \$29,900.00, but we are advised that this is incorrect, the cost being \$392,000. The gross earnings for year ended June 30, 1903, were \$65,531.64; net earnings, \$31,363.02.

## TRANSPORTATION APPOINTMENTS.

**Board of Railway Commissioners.**—G. A. Mountain, heretofore Chief Engineer Canada Atlantic Ry., has been appointed engineer to the Board. Office, Ottawa.

Jas. Hardwell, heretofore Assistant General Freight Agent Intercolonial Ry., Montreal, has been appointed traffic officer. His duties will be to advise the Commissioners on all traffic matters as between railways and as between railways and the public, to examine, file and record all freight and passenger tariffs, and to advise the Board as to the approval or disapproval of the same.

**Canadian Lake and Ocean Navigation Co.**—B. W. Folger, of Kingston, Ont., in consequence of the many other interests that call for his attention, has resigned his position as Manager, and it is understood that he will be elected to a seat on the board, and act in an advisory capacity.

**Canadian Pacific Ry.**—J. W. Wetmore, Claims Attorney, Montreal, has resigned.

J. W. Leonard, who, since he resigned the position of Assistant General Manager of Western Lines at the end of last year, has been on leave, is apparently going to continue in the company's service. He was recently elected President of the Guelph and Goderich Ry. Co., a subsidiary company of the C.P.R. Press reports say he will be appointed Assistant to the President with duties appertaining to the Eastern Lines.

R. H. Webb has been appointed Manager of the company's Hotel Kaministiquia, Fort William, Ont., succeeding T. Smith, resigned.

J. S. Dennis, Superintendent of Irrigation and B. C. Land Commissioner, Calgary, Alta., in addition to his present duties has been appointed to deal with and advise the 2nd Vice-President on matters pertaining to extension of settlements, industrial questions and new industries; tie timber in B.C.; road and street crossings; fire guards as to districts and methods, and any outside duties, except operating matters, which may be assigned to him by the 2nd Vice-President.

F. F. Busted, who has been appointed Assistant Chief Engineer of Western Lines, with headquarters at Winnipeg, has charge of all construction and maintenance work on lines west of Port Arthur, Ont. J. G. Sullivan remains as Divisional Engineer of Construction reporting to Mr. Busted.

E. G. Trump, heretofore train dispatcher at Winnipeg, has been appointed night Chief Train Dispatcher, district 2, Central Division, succeeding W. J. Uren, promoted. Office, Winnipeg.

A. H. Bears, heretofore Assistant Bridge and Building Master, has been appointed Bridge and Building Master, district 2, Central Division, succeeding R. Marshall, deceased. Office, Winnipeg.

H. Stewartson has been appointed Assistant Bridge and Building Master, district 2, Central Division, succeeding A. H. Bears, promoted. Office, Winnipeg.

A. McDonald has been appointed general foreman of the Bridge and Building Department, Winnipeg terminals.

N. Hayden has been appointed Bridge and Bldg. Master, district 3. Office, Brandon, Man.

W. Borden has been appointed Assistant Bridge and Building Master, district 3. Office, Brandon, Man.

The position of Bridge and Building Master at Regina, Assa., was abolished on the recent rearrangement of the district, the duties being assumed by J. B. McTaggart, Bridge and Building Master, Moose Jaw, Assa.

W. J. Uren, heretofore night Chief Train Dispatcher district 2, at Winnipeg, has been appointed Chief Train Dispatcher at Moose Jaw, Assa., succeeding E. L. Chudleigh, transferred to Cranbrook, B.C.

J. Nutt, heretofore Travelling Passenger Agent at Winnipeg, has been appointed

ticket agent at Calgary, Alta. It is not intended to appoint a successor to Mr. Nutt.

Dr. Lefevre remains principal medical adviser for the Pacific Division, although the active work connected with attendance on the employes has been taken over by Dr. Weld, who formerly practised in partnership with Dr. Lefevre. Dr. R. E. Walker, of New Westminster, who formerly acted as assistant to the firm, continues in the same capacity with Dr. Weld; and Dr. A. J. Stewart has been appointed assistant at Mission, B.C. This latter is a new appointment.

T. W. Maguire has been appointed ticket agent at Niagara Falls, N.Y., for the summer season.

**G.T. Pacific Ry.**—R. Kellicher, heretofore assistant engineer, has been appointed Divisional Engineer at Winnipeg, succeeding G. A. Kyle, resigned.

**Grand Trunk Ry.**—J. Edwards, heretofore Travelling Freight Agent at Montreal, has been appointed Travelling Freight Agent at Moncton, N.B., succeeding E. J. Hilliard, appointed Commercial Agent at Buffalo.

L. V. Druce, heretofore agent at Seattle, Wash., has been appointed Commercial Agent there.

The following agents have been installed: St. Liboire, Que., A. E. Boulay; North Parkdale Jct., Ont., G. Hacking; Copetown, Ont., J. A. Kneale; Appin, Ont., J. McGregor; Walkerton, Ont., J. Milhausen.

**Intercolonial Ry.**—A. B. McHaffie has been appointed Master Mechanic at Moncton, succeeding H. Ashton, resigned.

C. S. McCarthy, heretofore locomotive engineer, has been appointed Air Brake Inspector, succeeding W. C. Hunter, resigned.

W. H. Olive, heretofore Travelling Freight Agent, has been appointed Assistant General Freight Agent, in charge of district Montreal to Dalhousie, N.B., with headquarters at Montreal, succeeding J. Hardwell, appointed Traffic Expert on the Railway Commission.

**Michigan Central Rd.**—A. L. Sarvey has been appointed Assistant Engineer Canadian Division, succeeding — Starbuck, appointed Division Engineer, Bay City, Mich.

**New Brunswick Coal and Ry. Co.**—W. C. Hunter, heretofore Air Brake Inspector Intercolonial Ry., has been appointed Superintendent, succeeding E. G. Evans, whose resignation of the positions of Superintendent and Chief Engineer took effect June 1. Office, Norton, N.B.

**Prince Edward Island Ry.**—It is understood that G. R. Joughins, Superintendent of Motive Power Intercolonial Ry., will also have charge of the motive power on the P.E.I. Ry.

**Richelieu and Ontario Navigation Co.**—H. Dubois, heretofore purser of the str. Kingston, has been appointed Travelling Freight Agent between Montreal and Hamilton. Office, Montreal.

**Rutland Rd.**—F. M. Gilman, District Passenger Agent at Montreal, has resigned, and that office has been abolished. T. M. Fallon, heretofore C.P.R. ticket agent, Union ticket office, Windsor St. Station, Montreal, has been appointed City Passenger and Ticket Agent. Office, 141 St. James St.

**Sydney and Glace Bay Ry.**—A. N. McLennan, formerly Superintendent Sydney and Louisburg Ry., is reported to have been appointed Manager S. and G.B. Ry. Office, Sydney, N.S. A similar report was current in April, but was denied by Mr. McLennan.

**Canada Coals and Ry. Co.**—An order has been granted by the Nova Scotia Supreme Courts ordering the winding up of this company with Jas. Rodger, of Montreal, as the liquidator. The winding up order was obtained with a view to the reconstruction of the company.

N. CURRY, President. N. A. RHODES, Vice-President. J. M. CURRY, Sec.-Treas.

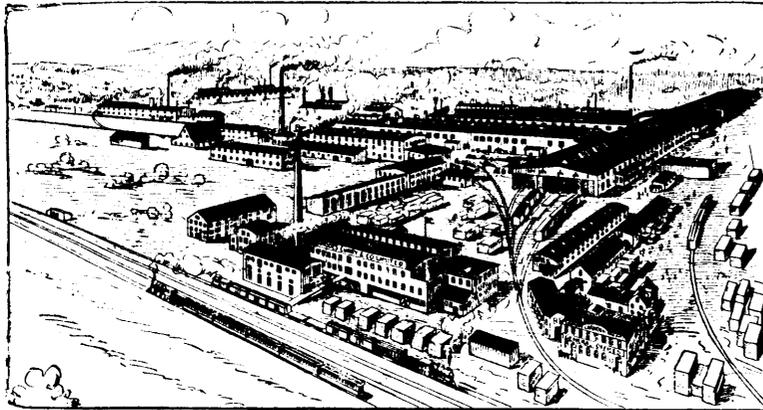
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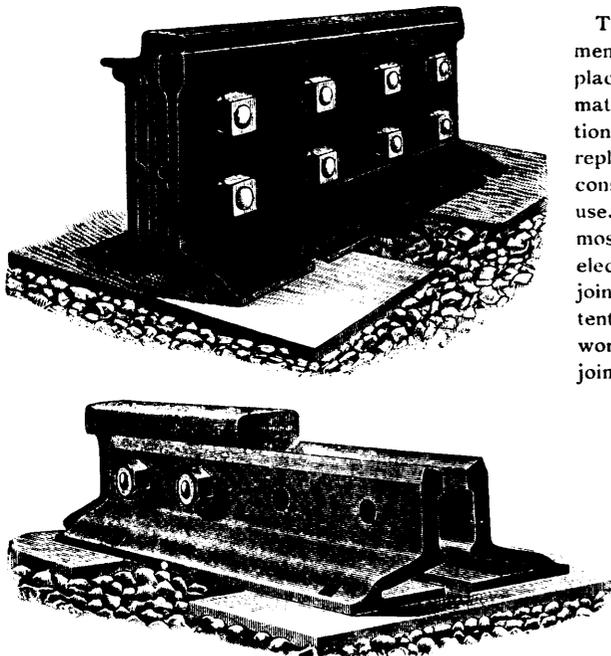


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### ATLANTIC TRANSPORT LINE.

NEW YORK—LONDON.  
Sailing from New York on Saturdays.

### DOMINION LINE.

PORTLAND TO LIVERPOOL.  
PORTLAND TO AVONMOUTH DOCKS, (Bristol and Antwerp.)

### LEYLAND LINE.

BOSTON—LIVERPOOL.  
Sailing from Boston on Saturdays.

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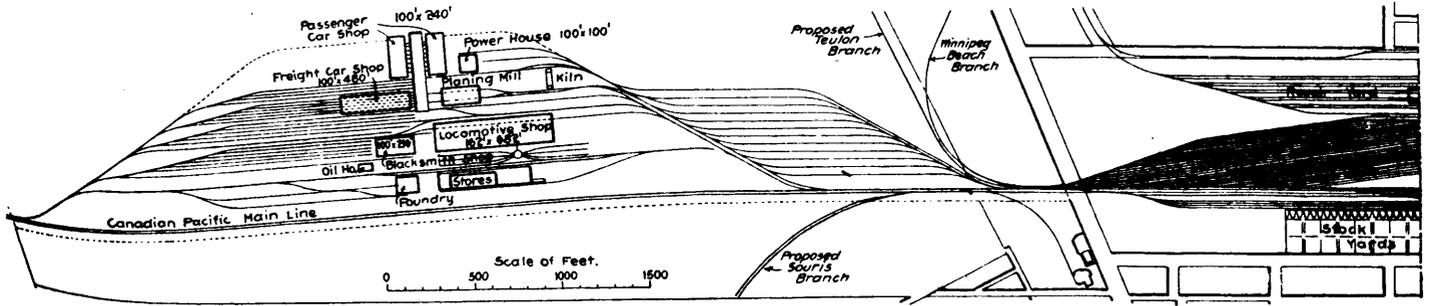
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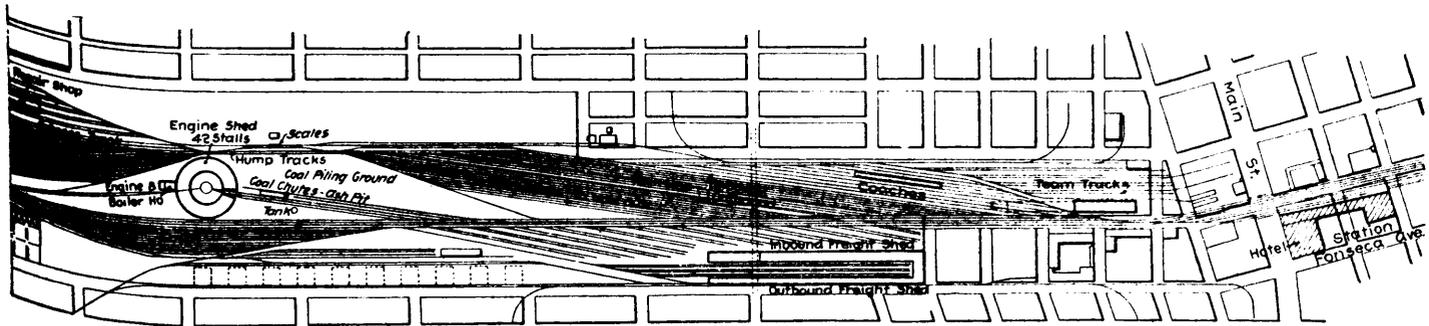
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EASTERN PORTION C. P. R. TERMINALS AT WINNIPEG.

**C.P.R. Betterments, Construction, Etc.**

**Atlantic and Northwest Ry.**—The Dominion Parliament at its current session passed an act extending the time for the completion of the lines authorized by the act of incorporation of the A. and N. Ry. (June, pg. 193.)

**Grade Reduction at Farnham.**—Press reports state that work is in progress near Farnham, Que., on an extensive piece of grade reduction.

**Piles Jct. to Grand Mere.**—The C.P.R. has been given, at the current session of the Dominion Parliament, an extension of time for the construction of its proposed line from Piles Jct. to Grand Mere, Que. (June, pg. 193.)

**Place Viger Yards Extension.**—After lengthened discussion and negotiation the Montreal city council has passed a resolution permitting the C.P.R. to close up certain streets in the vicinity of the Place Viger station, with the object of extending its yard accommodation there. (Oct., 1903, pg. 355.)

**Toronto-Toronto Junction Double Track.**—The double-tracking of the line between Toronto and Toronto Junction has been completed and ballasting is in progress. Nothing had been done beyond Toronto Junction June 25, but it is understood that the work is to be gone on with not only on the Owen Sound line as far as Weston or Kleinburg, but also on the Windsor and Detroit line as far as Streetsville. (June, 1903)

**Toronto-Sudbury Line.**—F. Paget is assistant engineer at Wahnapiatae, in charge of construction of the Toronto-Sudbury extension between Romford and Byng Inlet, Ont., having under him the following resident engineers in charge of 10-mile sections each: Residency no. 1, H. A. Le Sueur; Residency no. 2, H. B. R. Craig; Residency no. 3, R. Harcourt; Residency no. 4, E. L. Miles; Residency no. 5, A. J. Isbester. On the location south of Byng Inlet there are two parties in the field, one under H. M. Killaly, and the other under S. Keemlé, while on location working north from Woodbridge are also two parties, one under H. Carry, and the second under J. T. Morkill, who are all assistant engineers. The whole is under F. S. Darling, Divisional Engineer of Construction.

**Winnipeg Terminals, Station, Hotel, Etc.**—From time to time we have published

considerable information about the extensive works contemplated and under way by the C.P.R. at Winnipeg to meet the requirements of its greatly increasing traffic there. Early last year the company bought 350 acres west of its present yard site, and it is now utilizing this property for its new shops, etc. The improvements being made in the yard are of a radical nature, as the general layout has been entirely changed with the exception of the main tracks and a few of the branch line tracks serving the industries surrounding the yard. The plans provide for two combination receiving and classification yards for branch and main line traffic which are connected by means of two "hump" tracks. Each yard contains six inbound and six outbound main tracks, nine branch line tracks, six storage tracks and three independent running tracks. The yard is arranged with the locomotive shed, stand pipe, coal chutes and ash pit in the middle, and all freight is classified over the hump tracks. This system of having all the facilities convenient to the point where the engines are engaged will save a large amount of time and money. Other interesting and economical features are the arrangement of the weigh scales, which are on a descending grade, thus allowing cars to be separated and weighed by gravity without rehandling, and an elevated caboose track situated so as to be convenient to the outlet of the classification yard, so that cabooses can be attached to outgoing trains with little delay. The accompanying yard plan shows how both the local and main line traffic may easily be classified. The arrangement of the eastbound and westbound main tracks has not been changed, and they run directly through the lower part of the yard. The junction of the tracks of the branch lines to Souris, Teulon and Winnipeg Beach has, however, been moved further west between the main yard and the new car and locomotive shops. According to the new arrangement all the eastbound trains of both branch and main lines will pull directly into the west receiving yard. The cars are weighed in passing over the hump and are then classified on the main and branch line tracks in the eastern half of the yard. The same operation reversed will take place with the trains from the east, which are classified in the western half of the yard.

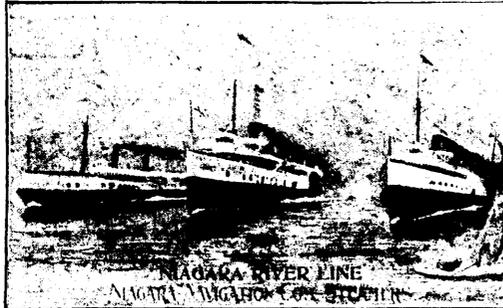
In connection with these yard changes,

new car, locomotive and other shops are being built to the west of the main yard. The new buildings include two passenger shops 100 by 240 ft., freight car shop 100 by 408 ft., planing mill 100 by 216 ft., power house 100 by 100 ft., locomotive shop 162 by 60 ft., blacksmith shop 100 by 216 ft., foundry 100 by 100 ft., and a stores building 85 by 260 ft., with a 200-ft. platform and offices above. Some of these buildings are nearly finished and all are under construction.

In the main yard proper a new locomotive house and freight sheds are being built. The locomotive house is of fireproof construction throughout, with walls of masonry, brick and concrete, and with roofs of concrete and steel supported on steel posts encased in concrete. It contains 42 stalls divided into four sections by brick fire walls. The turntable pit is 71½ ft. in diameter, and the inner wall is 95 ft. 2½ in. from the centre of the pit. The depth of the roundhouse is 80 ft. The outer door and roof supports are made of steel, and are 13 ft. 7 in. from centre to centre at the front circle, diverging to 25 ft. at the outside walls. The pits are 58 by 4 ft. wide. The walls and footings are of concrete, and the floor is paved with hard burnt brick on an arched bed of well-puddled sand. They are from 2 ft. 4 in. to 2 ft. 8 in. deep, and a catch water basin is built at the end of each pit. These basins are connected with 10-in. drain pipes graded to run to the main outlet. An easy inspection is obtained by this method and any blocking of drains can be remedied without digging or taking up the pipes. The track rails are bolted to the pit walls by wrought iron angle-shaped plate anchors placed in the concrete when the wall is built. The drop pit is built between and connects two pits and is 7 ft. wide. At the locomotive pits the opening is spanned by steel I-beams so arranged that they can be removed to facilitate the handling of driving wheels. The pit is 5 ft. 2 in. deep to the first floor level and has a car track 2 ft. in gauge. Under the track is an opening 1 ft. 5 in. wide and 5 ft. deep for the pneumatic jack. The roof is of concrete and steel construction and the main beams over the posts are of steel. The cross beams are built of steel rods and concrete. The posts are steel I-beams encased in concrete with a metal mesh close to the outer faces. Between the cross beams a 3-in. slab of reinforced concrete carries the roof and a

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**6 TRIPS DAILY (Except Sunday)**

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**THE CANADIAN PACIFIC RAILWAY COMPANY** have 12,000,000 acres of choice farming lands for sale in Manitoba, Assiniboia, Saskatchewan and Alberta. Manitoba lands and Assiniboia lands east of third meridian, \$4.00 to \$10.00 per acre according to quality and location. Lands in South-Western Assiniboia and Southern Alberta, \$3.50 to \$8.00 per acre. Ranchings lands generally \$3.50 to \$4.00 per acre. Northern Alberta and Saskatchewan lands generally \$6.00 to \$8.00 per acre. Maps showing the lands in detail will be sent free on application.

### TERMS OF PAYMENT.

An actual settler may purchase 640 acres, or less, on the 10 payment plan, by which the aggregate amount of principal and interest is divided into a cash instalment to be paid at the time of purchase and nine equal deferred instalments annually thereafter, as follows:

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- 160 acres at \$4.50 per acre, 1st instalment \$107.85, and 9 equal instalments of \$90.
- 160 acres at \$5.00 per acre, 1st instalment \$119.85, and 9 equal instalments of \$100.
- 160 acres at \$5.50 per acre, 1st instalment \$131.80, and 9 equal instalments of \$110.
- 160 acres at \$6.00 per acre, 1st instalment \$143.80, and 9 equal instalments of \$120.00.
- 160 acres at \$6.50 per acre, 1st instalment \$155.80, and 9 equal instalments of \$130.00.
- 160 acres at \$7.00 per acre, 1st instalment \$167.80, and 9 equal instalments of \$140.00.

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

### DISCOUNT FOR CASH.

If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. on five-sixths of the purchase money. Interest at six per cent. will be charged on overdue instalments.

F. T. GRIFFIN,  
Land Commissioner C.P.R. Co., Winnipeg.

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This Company has 800,000 acres of selected lands in Manitoba and Assiniboia which offer excellent opportunities to settlers and investors who desire to secure good lands in well settled districts. These lands are on sale at the Company's Office at Winnipeg, and at the various land agencies of the Canadian Pacific Railway Company.

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REDWOOD LAGER.

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AERATED WATERS.

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DESIGNERS, ENGRAVERS,  
ELECTROTYPERS.  
**92 BAY ST.**

The White Star liner Germanic, has been transferred to the Dominion Line, also owned by the International Mercantile Marine Co., and will be renamed the Ottawa, not the Labrador, as previously stated.

2-in. slab forms the ceiling, the air space between serving to prevent condensation. The longest spans for the reinforced concrete beams are 24 ft. An extension is being built at the rear of the house for the engine and boiler rooms independent of the roundhouse. The engine room contains a fan engine and blower for heating purposes.

The houses are heated by hot air which is conducted through concrete and tile ducts to the pits. The floor of the houses is composed of brick with sand grout resting on a bed of well-puddled sand. The pipes from the boiler house consist of a 3-in. exhaust steam pipe with attachments to connect with the steam domes of locomotives. Exhaust steam is used for heating purposes, a 4-in. wrought-iron pipe serving for hot and cold water, and a 1½ in. pipe being used for compressed air. Attachments and valves are provided between each pair of pits. The houses are wired for electric light and have three 16-candle power droplights per pit, which are hung over the main beams between the pits. Sockets for connecting handlights are provided in a convenient position on each post.

The freight houses now building consist of a two-story office 60 by 120 ft., an outbound shed 40 by 1,242 ft., an inbound shed 60 by 1,242 ft., with six tracks and two transfer platforms between them. The west end of the inbound shed is to be used as a bonded warehouse, and the west end of the outbound shed is a cold-storage building to be equipped with a refrigerating plant. The distance between the two sheds is 90 ft., and the width of each of the two transfer platforms is 10 ft. The height of the outbound freight shed at the rear wall is 11½ ft., and at the platform is 14 ft., and the height of the inbound freight shed is 11½ ft. at the rear and 15 ft. 3 in. at the front. The principal features are the long span roof beams which are cantilevered 8 ft. over the posts to carry the continuous doors. The rafters are covered with 1¼ in. boards and tar and gravel roof. The posts are supported on stone footings, and the concrete floor is laid on a prepared bed of well-puddled sand.

**Winnipeg Station and Hotel.**—The plans for the new station and hotel which the C.P.R. is building at Winnipeg show a handsome and imposing block. The front of the block to the track will be 662 ft. long, consisting of station and office building at the Maple st. corner, 169 ft. 8 in. long by 134 ft. 3 in. deep; hotel, 188 ft. 9 in. long by 234 ft. 3 in. deep along Main St. to Fonseca Ave. These two buildings will be connected by a building 303 ft. 4½ in. long by 50 ft. deep. The elevations of the hotel and station buildings to Fonseca Ave. will be handsome and imposing, though simple. The space occupied by buildings in the block will be set out as a court yard. The hotel will be seven stories high with a basement, the station building four stories with a basement, and the connecting building three stories with a basement. In style, the building may be classed as of the late renaissance order of architecture and re-pressed brick. The main entrance is to be 11 ft. high, and will be elaborately ornamented, the window casings, etc., will be carved to suit the general design of the building.

The main entrance to the hotel will give access to the rotunda 180 ft. in length, varying in width from 132 ft. to 76 ft.; and there will also be on the ground floor a dining room 112 by 50 ft., with kitchen 74 by 50 ft. in the rear; cafe 67 by 43 ft., reception room, office, smoking room and bar. On the first floor there will be drawing room and breakfast room, each 80 by 50 ft.; palm or tea room, 80 by 45 ft.; and a vice-regal suite, comprising salon, waiting room, private dining room, bedrooms and bath. The remaining floors will be given over entirely to bedrooms, pro-

vision being made for 350, three of the floors containing 56 each, besides special suites and a large number of bathrooms have been provided on each floor.

The entrance to the station building will be through a treble portico and vestibule into the general waiting room about 100 ft. square. This will be three stories high, and directly under a large glass roof. On the Maple St. side of the waiting room there will be a smoking room with lavatory accommodation leading off it; cafe and lunch room; and on the opposite side in addition to the caretaker's office will be ladies' waiting room with retiring room, etc., ticket office and rooms for conductors, telegraph office and news stand. The offices of the company will be situated in the floors above, all offices facing the outside of the building. Access to these will be gained by a stairway and elevator situated in the vestibule. Access will also be gained from the general waiting room to the building connecting the station and hotel, the ground floor of which will be devoted, one half for express purposes and the other half for baggage. The three floors above this building will be devoted to offices. The basement will be utilized one half for the storage of baggage and the other for the customs, express, bonded store and stationery departments.

The site for the buildings has all been cleared, and a temporary building has been put up for station purposes pending the erection of the station and office building. The contractors are Peter Lyall & Sons, of Montreal, and the architects E. and W. S. Maxwell, also of Montreal.

**Winnipeg Freight Sheds.**—The contract for the new freight sheds at Winnipeg has been let to the Manitoba Construction Co., Winnipeg. Work will be commenced at once.

**Weyburn to Stoughton or Heward.**—Power was given by an act passed at the current session of the Dominion Parliament for the construction of a branch from the Souris branch at Weyburn easterly to Stoughton or Heward, Man., on the Pipestone branch. It is reported that the line will be constructed at an early date. (June, pg. 193.)

**Brandon Freight Sheds.**—Plans have been completed for the construction of metal clad frame freight sheds at Brandon, Man., 420 by 40 ft. A separate shed will be constructed of the same size for the B.C. sugar refinery. They will be situated south of the tracks and west of Eleventh St. It is reported that construction will be gone on with at once, but a contract had not been let up to June 17.

**Manitoba and North-Western Ry.**—The act authorizing the construction of branch lines from Shebo westerly for 100 miles, and from Churchbridge to Cut Arm Creek, with 30 mile branches from the same, has been passed at the current session of the Dominion Parliament. (June, pg. 193.)

**Quebec, Long Lake and Saskatchewan Ry.**—A. M. Nanton, representing the shareholders of the Q., L. L. and S. Ry. & Navigation Co., and G. J. Bury, General Superintendent C.P.R., Winnipeg, under whose charge the line is being operated under lease as a branch line, made a visit of inspection over it early in June with a view of arranging for considerable betterments being made.

**Saskatoon Bridge.**—The temporary pile bridge over the South Saskatchewan river was completed and traffic opened June 3, the first train for eight weeks going through to Prince Albert, Sask. (June, pg. 193.)

**British Columbia Southern Ry.**—The Dominion Parliament at its current session passed an act authorizing an extension of time for the construction of the eastern and western sections of the main line, the branch to Martin Creek, and of branch and connecting lines for a period of five years. (June, pg. 195.)

**Phoenix Spurs.**—H. J. Cambie, Consulting Engineer C.P.R., Vancouver, B.C., recently paid a visit of inspection to the district in connection with the projected construction of spur lines to the Granby mines.

**Imperial Coal Co.**—Press reports state that the C.P.R. proposes to construct a line 28 miles in length from Michel to the mines of the Imperial Coal Co.

**New Westminster Lines.**—The C.P.R. has deposited with the Registrar of Deeds, New Westminster, a plan, profile and book of reference showing certain branch lines proposed to be constructed in the town.

**Victoria Wharf.**—The wharf which the C.P.R. is erecting at Victoria at a cost of about \$50,000, is situated at the foot of Menzies St., and is approached by a roadway having a gradient of 1.07 in 15, built on 10 spans of 15 ft. each. The wharf proper has a width of 90 ft., with a length of 430 ft., and the floor is 13.86 ft. above low water mark. There will be a shed 255 ft. long and 60 ft. wide on the wharf, and there will also be four adjustable gangways, two on each side, for loading and unloading vessels. The contractors for the wharf are Armstrong, Morrison & Co., of Vancouver, B.C. The buildings to be erected on the wharf will be constructed under a contract not yet awarded. At present the company is utilizing wharfage space, under lease from the Hudson Bay Co.

**Minneapolis, St. Paul and Sault Ste. Marie Ry.**—Rapid progress is reported as being made on the extension of the Glenwood branch from its last year's terminus, Ottertail, Minn., towards the International boundary at Emerson, Man. Tracklaying is reported to have commenced at Ottertail. (June, pg. 195.)

### Canadian Northern Ry. Construction.

**Carman Branch.**—Grading has been resumed at mileage 63 of this branch, and is being proceeded with to mileage 78, Somerset being the objective point. Track was laid 7.8 miles west of Carman in 1902. (Feb., 1903, pg. 51.)

**Greenway Branch.**—Grading has been resumed on this branch from Wakopa, Man., to which point track was laid last season, and it is expected to complete the additional 18 miles of the branch this year. A. R. Mann is the contractor. (Jan., pg. 25.)

**Portage la Prairie Station, Etc.**—C. Stovel, Right of Way Agent, was in town early in June purchasing property to be used for a new station building and increased yard accommodation.

**Rosendale Extension.**—Grading is in progress on this extension from Portage la Prairie to Brandon, Man. Track was laid to Arizona in 1903, and the grade had been completed to mileage 38, at which point work was resumed this year. (Jan., pg. 25.)

**Rosburn Branch.**—Grading has been commenced on this branch. When work ceased for 1903 the grade had been completed for about 20 miles from Salisbury, Man. This branch is projected to a junction with the main line, about 20 miles west of Grand View. (Jan., pg. 25.)

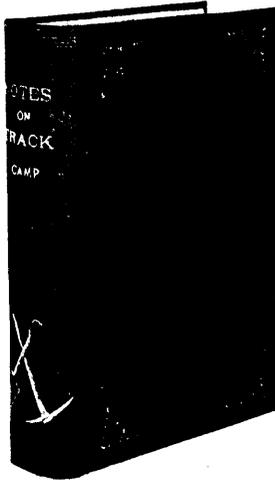
**Grand View to Edmonton.**—Work is in progress on the line from mileage 300 to mileage 520. Grading is reported to have been delayed by wet, and tracklaying was expected to be commenced by the end of June. S. R. Robinson has been given charge of tracklaying and bridge work, and started from Winnipeg June 2 to get everything in readiness to commence work. (June, pg. 197.)

**Thunder Hill Branch.**—Grading is in progress on the branch line from Swan River westward. This is one of the lines for the

# Notes on Track

By W. M. CAMP, M. Am. Soc. C. E.

**AN EXHAUSTIVE TREATMENT OF TRACK CONSTRUCTION AND MAINTENANCE FROM A PRACTICAL STANDPOINT**



The Book is Divided into Chapters as follows: (1) Roadbed; (2) Track Materials; (3) Track Laying; (4) Ballasting; (5) Curves, including Easement Curves; (6) Switching Arrangements and Appliances; (7) Track Maintenance; (8) Double-Tracking; (9) Track Tools; (10) Work Trains; (11) Miscellaneous Work and Construction; (12) Organization of Maintenance of Way Departments. Every phase of these general subjects is treated, particular attention being paid to *Cost of Track Work* and to *Modern Labor-Saving Machinery in Track Service*. The book also covers in much detail many allied subjects, such as Earthwork and Grading, Culverts, Yard Layouts and Switching Movements, Interlocking Switches and Signals, Automatic Electric Block Signals and Track Circuits, Principles of Rail Design, Fence, Cattle Guards, Section Houses and Tool Houses, Boarding Trains, Bridge Floors, Ash Pits, Handling Ballast and Filling Material, Wrecking, Fighting Snow, Tie Preservation, Metal and Concrete Ties, Track Elevation and Depression, Crossing Gates, Tree Planting, Capacity of Single Track, etc.

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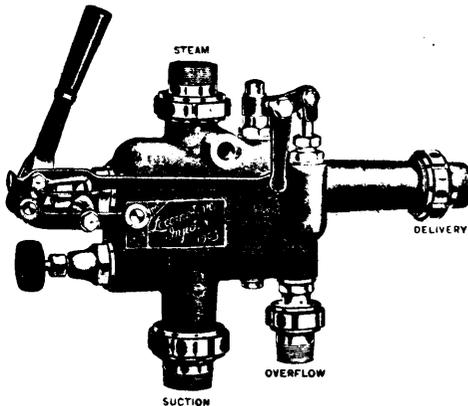
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**James Morrison Brass Manufacturing Co.**  
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## DIVIDEND NOTICE.

NIAGARA NAVIGATION COMPANY, Limited

NOTICE is hereby given that an Interim Dividend of Four per cent. (being at the rate of eight per cent. for the year) has been declared upon the Capital Stock of this Company, and the same will be payable on the 2nd July, 1904.

The Transfer Books will be closed from June 17th to 30th June, both days inclusive.

By order of the Board,  
**JOHN FOY, President.**

construction of which a contract was entered into with the Manitoba Government in 1902. (Aug., 1903, pg. 271.)

**Prince Albert Extension.**—Work is in progress east of Melfort, Sask., completing the line laid from Erwood. Local papers report that Neil Keith has started grading four miles west of Melfort towards Prince Albert. (June, pg. 197.)

**G.T.R. Betterments, Construction, Etc.**

**Kingston Subway.**—A further order of the Railway Commission in connection with the construction of the subway under the G.T.R. tracks at Kingston, Ont., directs that the city of Kingston and the county of Frontenac shall pay their proportions of the cost upon certificate of the engineer as the work progresses. (June, pg. 195.)

**Collingwood, Midland, Toronto and Scarborough Heights.**—At a meeting of the Transportation Commission at Collingwood, Ont., recently, reference was made to improvements that might be made on the G.T.R. with advantage to that town and the line generally. The first was one which would reduce the distance between Collingwood and Toronto from 84 to 60 miles, by the construction of a line from near Angus to King. The second was for the elimination of the gradients at Scarborough Heights by the construction of a line a short distance out in the lake, for 16 miles, which, it was stated, one of the G.T.R. officers had estimated would cost \$1,000,000. The lake along this stretch is only four or five feet deep, and in time the intervening space would be filled in by the falling of the cliffs. An alternative suggestion to this was to extend the line from King to near Whitby, but this would only benefit the northern division, whereas to do away with the Scarborough gradients would benefit the whole line. When the Transportation Commissioners were at Midland a suggestion was made for the joining of the Midland and Penetanguishene branches by a 16-mile spur at Elmvale.

**Parliament Buildings' Yard, Toronto.**—Considerable progress has been made with the erection of the outwards freight shed at this yard. The shed is precisely similar to that erected on Front St., from John St. to Simcoe St., dimensions of which were given in our issue of Oct., 1903, pg. 348. (June, pg. 195.)

**Stratford Shops.**—Press reports state that these shops are to be considerably enlarged, and that work will be started very soon. The report says the following buildings will be erected:—boiler shop, 16x120 ft.; tender shop, 32x102 ft.; carpenter shop, 100x63 ft.; brass foundry, 75x40 ft.; that the blacksmith shop will be enlarged, that the erecting shop will be extended 175 ft., and that cement, brick and steel will be the materials.

**Brantford Station.**—A contract has been let to —Whitham for the erection of the new station building, and the old building has been almost entirely taken down. The new building is expected to be completed by the

**Hamilton-Sarnia Double Track.**—On June 14 it was reported that the double track work had been practically completed between London and Ingersoll, and some stretches easterly from Ingersoll to Paris. The work consists of the widening of the present roadbed to accommodate the second track. The contract between Hamilton and Lynden has also made substantial progress. (June, pg. 195.)

**Battle Creek Station and Shops.**—We were advised June 15 that the matter of the building of a new station and the construction of repair shops at Battle Creek, Mich., was not in a sufficiently definite state to war-

rant an official statement. Press reports state that the shops at Port Huron and Durand, Mich., are to be closed, and the work now done there concentrated at Battle Creek. The Battle Creek residents have acquired 240 acres of land adjoining the present yards there for station and works, and in the event of the \$75,000 station being built the town council has decided to close a portion of a street. It was reported in Battle Creek June 4 that a telegram had been received from C. M. Hays, second Vice-President and General Manager, accepting the offer of the land, and etc.

**Grand Trunk Pacific Ry.**—The Dominion Parliament, at its current session, passed an act amending the act incorporating the G. T. Pacific Ry. in a number of particulars, the full text of which has already been published. An act has also been passed approving of the amended contract entered into between the Government and the G.T.R., respecting the construction of the G.T.P. Ry.

Surveys are being made at Port Arthur and Fort William, Ont., in connection with the lake terminals of the proposed line.

A good deal of interest has been taken in the investigation in progress into the alleged preferential employment of U. S. engineers on the surveys. The investigation is in charge of Judge Winchester, of Toronto, and according to an Ottawa despatch of June 27, fifteen U. S. engineers have already been deported on his certificate, their employment having been contrary to the provisions of the Alien Labor Act.

The commission to be appointed to construct the section of the line from Quebec to Winnipeg will consist of four members, and press reports state that it will include: Hon. S. N. Parent, Quebec, chairman; Hon. A. Maclellan, to represent the Maritime Provinces; Hon. T. Greenway, to represent Manitoba, and one to represent Ontario. (June, pg. 196.)

**C.P.R. Earnings, Expenses, Etc.**

Gross earnings, working expenses, net profits, increases or decreases over 1902-03, from July 1, 1903:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July	\$3,997,343.75	\$2,678,816.63	\$1,318,527.12	\$142,815.86+
Aug.	4,076,153.74	2,642,051.24	1,434,102.50	71,204.05+
Sept.	3,937,001.72	2,734,735.91	1,202,265.81	208,488.69-
Oct.	4,488,263.88	2,834,236.87	1,654,027.01	37,892.38+
Nov.	4,142,909.47	2,664,928.29	1,477,981.18	80,259.96-
Dec.	4,264,815.39	2,683,070.13	1,581,745.26	91,296.58-
Jan.	2,896,599.34	2,538,947.31	357,652.03	559,118.74-
Feb.	2,541,862.15	2,459,341.34	82,540.81	660,199.88-
Mar.	3,532,186.81	2,681,332.53	850,854.28	407,710.18-
Apr.	4,061,504.78	2,648,972.18	1,412,532.60	80,640.71-
May	4,113,627.41	2,722,061.43	1,391,566.98	8,207.71+

\$42,052,267.44 \$29,289,073.86 \$12,763,193.58 \$1,827,596.84+  
+Increase. -Decrease.

**DULUTH, SOUTH SHORE AND ATLANTIC RY.**—Gross earnings for April, \$186,253.35; net earnings, \$59,616.81, against \$215,190.81 gross and \$72,835.91 net for April, 1903. Net earnings for ten months ended April 30, \$648,331.89 against \$815,199.91 for the same period 1902-03. Approximate earnings for May, \$183,852, against \$247,285 for May, 1903.

**MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.**—Gross earnings for April, \$474,765.13; net earnings \$176,769.23, against \$576,910.43 gross and \$253,619.41 net for April, 1903. Net earnings for ten months ended April 30, \$2,759,967.64 against \$2,086,876.24 for the same period 1902-03. Approximate earnings for May, \$465,454 against \$580,326 for May, 1903.

**MINERAL RANGE RY.**—Approximate earnings for May \$53,874, against \$49,860 for May, 1903.

**Canadian Pacific Railway Land Sales.**

	Acres.		Amount.	
	1903-04	1902-03	1903-04	1902-03
July	267,647.32	155,344.93	\$1,020,404.70	\$562,876.50
Aug.	263,339.45	130,723.83	1,271,529.81	473,064.85
Sept.	60,441.12	145,535.83	268,757.99	542,811.11
Oct.	15,959.07	270,616.23	236,611.59	952,645.35
Nov.	22,563.95	146,687.83	107,365.21	598,788.99
Dec.	30,146.00	577,382.61	1,25,676.00	1,263,289.45
Jan.	116,840.78	102,581.29	386,648.88	468,611.21
Feb.	14,729.69	183,554.82	73,428.94	749,235.13
Mar.	12,992.06	184,139.22	50,660.03	782,968.76
April	24,064.44	207,344.12	116,349.19	884,432.24
May	51,477.16	187,416.19	203,768.02	618,357.87

\$80,192.04 2,201,326.90 \$3,870,201.36 \$8,237,229.46

**Grand Trunk Ry. Earnings, Expenses, &c.**

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1904.	1903.	Increase.	Decrease.
Jan.	\$2,253,578	\$2,634,000	.....	\$380,822
Feb.	1,649,525	2,432,661	.....	783,136
Mar.	2,649,779	2,967,408	.....	317,629
April.	2,838,946	2,787,054	51,892	.....
May	2,976,555	2,913,553	63,002	.....
	\$12,368,183	\$13,734,876		\$1,366,693

The following figures have been issued from the London, Eng., office:

**GRAND TRUNK RY. CO.**

Revenue for May:				
	1904.	1903.	Increase.	Decrease.
Gross receipts	\$499,300	\$482,500	\$16,800	.....
Working expenses	315,600	319,100	.....	\$3,500
Net profit	\$183,700	\$163,400	\$20,300	.....

Aggregate from Jan. 1 to May 31:

	1904.	1903.	Increase.	Decrease.
Gross receipts	\$2,021,300	\$2,267,200	.....	\$245,900
Working expen.	1,559,000	1,597,800	.....	38,800
Net profit	\$462,300	\$669,400	.....	\$207,100

**GRAND TRUNK WESTERN RY. CO.**

Revenue for May:				
	1904.	1903.	Increase.	Decrease.
Gross receipts	\$92,100	\$99,900	.....	\$7,800
Working exp's	70,100	77,300	.....	7,200
Net profit	\$22,000	\$22,600	.....	\$600

Aggregate from Jan. 1 to May 31:

	1904.	1903.	Increase.	Decrease.
Gross receipts	\$428,900	\$459,800	.....	\$30,900
Working expenses	397,300	397,700	.....	30,400
Net profit	\$61,600	\$62,100	.....	\$500

**DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.**

Revenue for May:				
	1904.	1903.	Increase.	Decrease.
Gross receipts	\$20,100	\$16,200	.....	\$3,900
Working expenses	17,600	15,900	.....	\$1,700
Net profit	\$2,500	\$300	.....	\$2,300

Aggregate from Jan. 1 to May 31:

	1904.	1903.	Increase.	Decrease.
Gross receipts	\$90,900	\$94,700	.....	\$3,800
Working expenses	81,500	75,700	.....	\$5,800
Net profit	\$9,400	\$19,000	.....	\$9,600

**TRAFFIC RECEIPTS OF THE SYSTEM.**

Aggregate from Jan. 1 to May 31:

	1904.	1903.	Increase.	Decrease.
Grand Trunk	\$2,021,461	\$2,267,452	.....	\$245,991
G. T. Western	429,002	459,941	.....	30,939
D. G. H. & M.	90,943	94,841	.....	3,898
Total	\$2,541,406	\$2,822,234	.....	\$280,828

The question of running the C.P.R. locomotives in continuous service from Toronto and Welland has been under discussion, but nothing definite has yet been arranged. At present the C.P.R. locomotives do not run beyond Hamilton, the Toronto, Hamilton and Buffalo Rys. locomotives hauling the trains for the remainder of the distance. We are advised that considerable changes will be required in the yard tracks at Hamilton in order to carry out this proposition.

**The White Star Line**, one of the lines of the International Mercantile Marine Co., has added a new ship—the Baltic—to its fleet. The new steamer sailed from Liverpool on her first trip to New York, June 29. She is 726 ft. in length, 26 ft. longer than the Cedric and Celtic, the two previously largest vessels of the line, and is 24,000 tons register as against 21,000 tons of the other vessels. The cargo capacity is 28,000 tons, and the steamer has a displacement at her load draught of 40,000 tons. She has two funnels and four pole masts. Passenger accommodation is provided for 3,000 persons, and quarters are found for 350 of a crew. The grand dining saloon is 75 ft. wide and has seating accommodation for 370 persons. The appointments throughout are of the highest order, the accommodation for the third-class passengers being in advance of anything hitherto provided. The White Star Line now comprises 31 steamers, of which 27 are fitted with twin screws; 21 are each over 10,000 tons; the total tonnage being over 360,000 tons.

**The Canadian Westinghouse Company.**

One of the most interesting features of the recent convention of the Canadian Electrical Association in Hamilton was the visit which was paid to the Canadian Westinghouse Co.'s plant. From the time when electrical apparatus was first made use of in Canada, the Westinghouse Electric & Manufacturing Co.

of Pittsburg, Pa., has furnished a large and increasing portion of this apparatus in the Dominion, until now the time has arrived when in justice to its customers it is found advisable to establish a distinctively Canadian factory, to secure that intimacy of relation which is so advantageous alike to the manufacturer and client. Passing in review the various sites suitable for the location of such

a factory, it was natural that the choice should fall on Hamilton, not alone from the natural advantages of that city from the standpoint of a manufacturer, but as well from the fact that for a term of eight years another Westinghouse interest, the Westinghouse Manufacturing Co., Ltd., had been located in that centre, engaged with marked success in the manufacture of the Westing-

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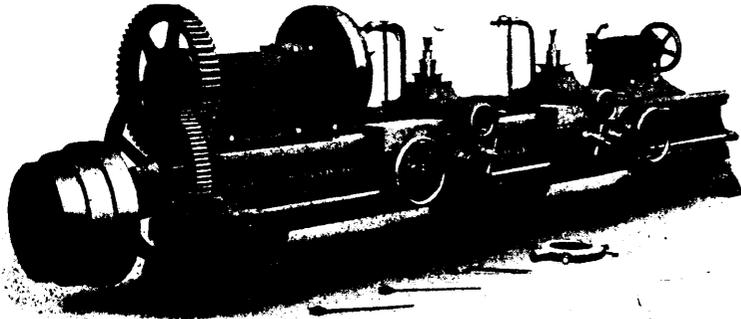
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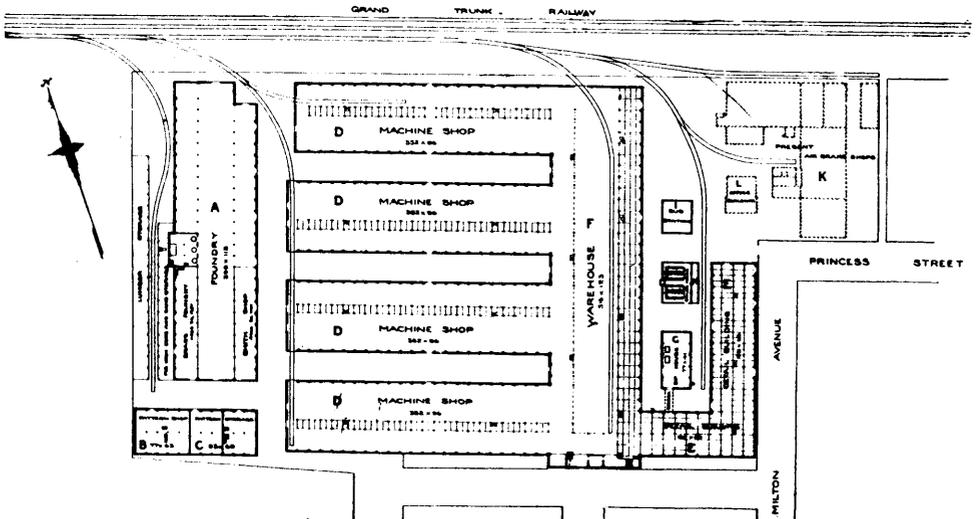
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**NIAGARA NAVIGATION COMPANY**

house air brakes for the equipment of Canadian rolling stock. To join under one management the existing air brake business and the electric business to be instituted, a new organization was formed under the name of the Canadian Westinghouse Co., Ltd., and leaving the air brake factory in its present state of efficient equipment, work was at once started to provide a plant of modern excellence and completeness for the manufacture of electrical apparatus. Notwithstanding an unusually severe winter, construction work has been pressed throughout, and it is safe to say that an operative condition of the plant will be reached this fall. The Canadian company will operate under the enjoyment of an agreement with the Pittsburg companies, by which all designs and processes of the older companies will be at its disposal, and thus fortified with the results of years of successful experience, equipped with a plant than which no better can be found, and aided by the co-operation of many of Canada's most representative citizens, an assured Canadian user is assured of the best obtainable apparatus. The lines of manufacture to be taken up comprise alternating and direct current generators; alternating and direct current motors, including railway motors; controllers; transformers; switchboards and switches; rheostats; instruments; meters; arc lamps and various subsidiary apparatus included in the general line of Westinghouse equipment.

The new buildings provided consist of foundry, pattern shop, pattern storage, general machine shop, detail machine shop, warehouse, insulation treating building, boiler house and transformer building. On the diagram, given on this page, these are lettered from A to I inclusive, in the order just given; L is the brake plant, and K the office building, enlarged to accommodate the increased force of the new company.

In laying out the manufacturing buildings on the property two cardinal points were kept in view—the first, that progress of material from raw to completed state should, as far as possible, be in a continuous direction; and the second, that the plan adopted should lend itself to an initial installation which would constitute a complete unit, and also be capable of reproduction along its own lines to an extent limited only by the total available property. On the latter point it may be said that something less than half the total installation shown in the illustration is at present under construction, the northern half



GROUND PLAN CANADIAN WESTINGHOUSE CO.'S PLANT, HAMILTON, ONT.

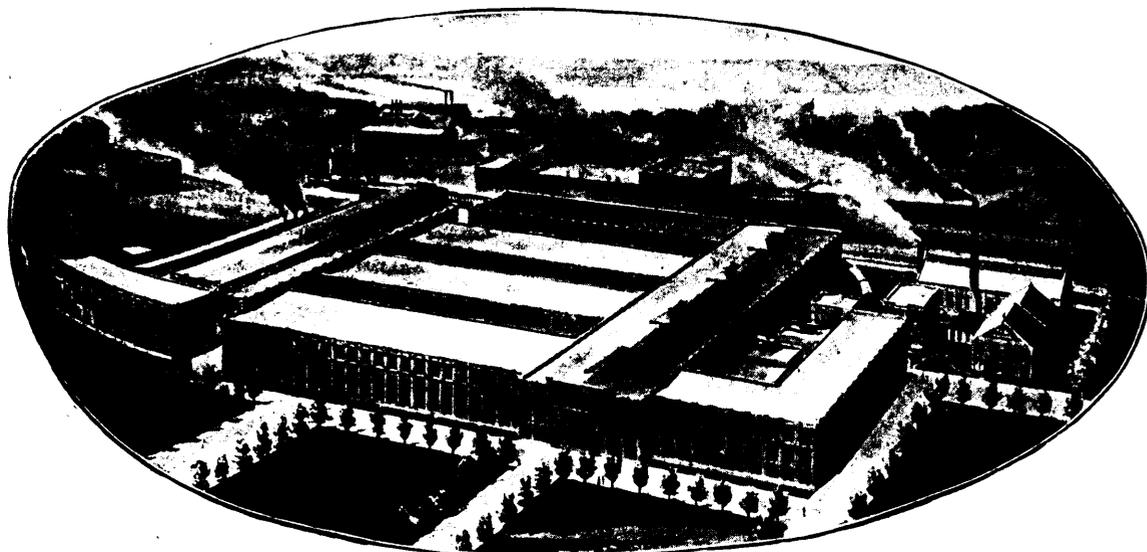
of the foundry and warehouse, along with corresponding machine shop wings, being left for future extensions. Regarding progress of material through the plant, it may be pointed out that with raw material received on track west of the foundry, progress is in general from this point to the warehouse, from which all shipments are to be made over tracks conveniently located within the building for this purpose.

The foundry is of monitor roof construction, with middle and two side bays. In the west bay are located the cupola house, the core room, and the brass floor, while just inside, along the west wall are located the bins for pig, sand, limestone, etc. A portion of the east bay is separated by partition from the foundry space to serve as blacksmith shop. The main bay is served by a 20-ton crane, the length of the building being also traversed by travelling jib cranes, operating at a lower level. A mezzanine floor over a portion of the core room provides suitable toilet facilities without reducing productive floor space. An electrically driven elevator is provided to deliver iron from yard to charging floor, and a coke conveyer, also electrically driven, receives coke from railroad car and deposits it in an appropriate bin on the charging floor.

The pattern shop, located conveniently near the foundry, is three stories high, besides a

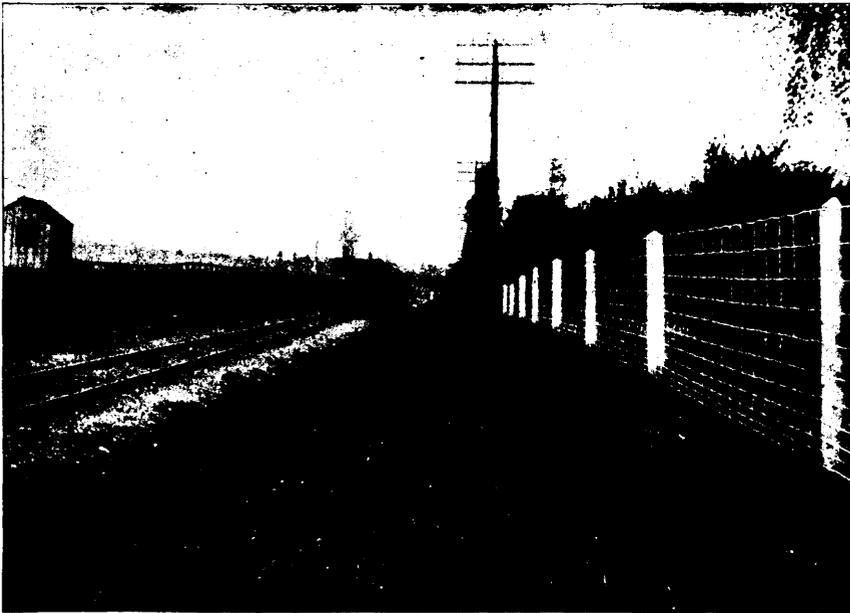
basement to accommodate shafting for machinery on first floor. The first floor is devoted to carpenter and cabinet shop uses, while the second and third floors are for pattern making. An electric elevator serves this building from basement to top floor. The pattern storage building adjoining is similar in construction, except the basement, which is unnecessary.

The general machine shop is arranged with a high bay covered by 20-ton crane, and low bay with 5 ton crane. In the former the heavier machine tools are located, and it is here that mainly the stationary parts of generators and motors will be finished, while the low bay will be devoted to preparation of rotary parts, and the gallery floor above the latter will provide space for the manufacture of commutators, brush-holders, bearings, etc., also for tool room and controller department. Toilet rooms and heating and ventilating fans are placed on a narrow mezzanine floor between high and low bays, the same being reached by stairways from both the ground and gallery floors. The elevators also pass up through this floor and industrial tracks run under the mezzanine, along by the foot of the elevators on the ground floor. After the completed rotary part has received its winding at the eastern end of the low bay it is passed by jib crane under the mezzanine floor at this point on to the eastern end of the high bay, where it is placed in its corresponding stationary part, which has been under construction in this aisle, and the auxiliary parts are received at the same point by the elevator from the gallery floor. In addition to the crane serving the main portion of the high bay, this eastern end or assembling floor is provided with an additional crane of like span, but at a lower level, so that by it machines can be delivered from the assembling floor, through under west gallery of warehouse into middle bay of the latter building, where the north and south crane can pick up the load for further handling.



THE CANADIAN WESTINGHOUSE CO.'S NEW PLANT AT HAMILTON, ONT.

The small cluster of buildings around the smokestack at the right comprise the present air brake plant.



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The warehouse has a high bay in the middle, with one gallery on the west side and two galleries on the east side. The machines delivered, as just described, from the general machine shop, are passed from the testing floor on the west side of the main bay, and after tests are finished, painted and shipped on cars from the warehouse track. This track also is the means for entry into the plant of the less bulky material and supplies, which are stored in this building for ready distribution to both the general and detail machine shops. The floor east of the tracks is at car floor level to facilitate handling of such material, and elevators are, of course, provided for distributing to the various floors.

The detail machine shop has two floors throughout, beside the ground floor at levels, corresponding to the two galleries on the east side of the warehouse, with which they directly communicate. It should also be noticed that the top floor of this building is at the same height as the gallery in the general machine shop and the west side of warehouse, and that a connection gallery at the same height is carried around the south end of the warehouse building. On the ground floor of the detail shop the coil winding and insulating departments are located, this being convenient both for receipt of wire from warehouse and delivery of completed coils to winding and assembling spaces at east end of general machine shop already referred to. The second floor is devoted to the machine work necessary on switches, rheostats, meters, instruments, arc lamps, etc., and on the third floor are the assembling and testing rooms for these lines of apparatus. No cranes are needed in this building, but elevators are provided, securing easy access to various floors.

The insulation treating building is separate from the main group so that this work, involving the use of inflammable materials, can be isolated. Convenient communication with the detail building is provided by a two-story enclosed bridge cut off at each end by fire doors. The boiler house is small in comparison with the main plant, which is due to the fact that the use of steam will be largely restricted to heating and drying purposes. Most of the steam for drying will be used in insulation-treating building next adjoining, but for heating the buildings it will be piped to nests of coils suitably installed in each building, with fans to distribute the air heated by these coils.

Power for manufacturing and testing purposes, as well as for lighting, is to be obtained from the Hamilton Cataract Power, Light and Traction Co., which draws its supply from DeCew Falls. Current will be received in the transformer house at 2,400 volts, and distributed at 440 volts for general shop purposes, although lighting distribution will be at 110 volts, and transformation to direct current will be made to supply some of the cranes and machine tools.

The construction of the buildings, which is in the hands of Westinghouse, Church, Kerr & Co., of New York, as engineers and general contractors, is of the most modern approved type. The foundations and walls up to the window sill line are of concrete, above which the walls are of brick, laid up in cement mortar. Floors and roofs are of reinforced concrete throughout, and in detail machine shop and pattern buildings even the columns are of this construction. The result is a group of buildings, as desirable and as nearly fireproof as it is possible to make them. All roofs are practically flat, with drainage so arranged that the leaders are carried down through the interior of the buildings to avoid stoppage by freezing in cold weather. Floors are top dressed with 1-inch maple, and roofs with tar and gravel.

Transportation between the foundry and all buildings, including the air brake plant, will

be by industrial railway, operated by storage battery locomotive. The standard gauge tracks on the property are directly connected with the main line of the G. T. R. for receipt of material and shipment of product. The main entrance to the plant, for employees, is at the south end of warehouse building, a central point at which will be located time checking devices, and from which stairways lead directly to the various floors. Entrances for teams from the city streets are provided near west end of machine shop and in front of the office building. The equipment of the plant will be on the most modern approved lines as developed by experience of the Pittsburgh factories.

The officers, etc., of the company are: President, G. Westinghouse; Vice-Presidents, H. H. Westinghouse, F. H. Taylor; General Manager and Treasurer, P. J. Myler; other directors, G. C. Smith, L. A. Osborne, T. Ahearn, W. Y. Soper, C. F. Sise, Hon. J. M. Gibson; Secretary, J. H. Kerr; Sales Manager, N. S. Braden; Superintendent Air Brake Department, P. Domville; Superintendent Electric Department, F. A. Merrick. The head office of the company is at Hamilton, and district offices have been established at Montreal, Toronto, Halifax, Winnipeg and Vancouver.

### Grain Elevator Notes.

A new engine is being installed at the King cleaning elevator, Port Arthur, Ont.

The grain elevator at Montreal constructed for the Harbor Commission has been completed, and is receiving grain.

The Canadian Northern Ry. has taken over the new elevator buildings at Port Arthur, Ont. It has now a storage accommodation of over 7,000,000 bush., and its working houses have a capacity of 2,000,000 bush. a day.

The Brackman-Ker Milling Co. proposes to construct an additional elevator at Edmonton, Alta., which will bring its elevator capacity at that point up to over 500,000 bush. The new building will be constructed of steel and brick.

Representatives of the Empire Elevator Co. have been interviewing the Dominion Government in connection with the dredging of the site for the company's proposed elevator at the mouth of the Kaministiquia River, Fort William, Ont.

The Empire Elevator Co. (Ltd.) has been incorporated under the Dominion Companies' Act with a capital of \$2,000,000, and head offices at Winnipeg, Man., to carry on a general grain elevator business in Canada. The provisional directors are: N. Bawlf, W. H. McWilliams, S. P. Clark, F. Phillips, W. W. McMillan, J. Love, F. H. Phippen, of Winnipeg; W. D. Douglas, of Cedar Rapids, Ia.; G. F. Piper, Minneapolis, Minn.; T. Foley, of St. Paul, Minn.; R. D. Martin, of Montreal. The company proposes to construct an elevator of 1,750,000 bush. capacity at Fort William, Ont., at once, and to add others at different points subsequently.

The C.P.R. has placed a contract for the erection of a new working house to work elevator E at Fort William, Ont., and to replace elevator B recently burned. The house will be of steel construction throughout, of rectangular bins enclosed with brick and tile walls, 154 ft. by 75 ft. on the ground with a track shed 30 ft. by 154 ft. The house will have a shipping and receiving capacity of 300 cars a day, and a cleaning capacity of 100,000 bush. a day. The equipment throughout the house will be fireproof, the cleaning machines, scale hoppers, garners, elevators and spouting will be of steel. The floor is to be of fireproof construction, in fact, there will be no wood whatever in the construction. The Barnett & Record Co., Minneapolis, Minn., has the contract.

## SHIPPING MATTERS.

### Grain Overages and Shortages.

A matter of considerable interest to vessel-owners and grain elevator companies has been brought before the Dominion Marine Association and the Government by A. A. Wright, of the Victoria Harbor Lumber Co., Toronto. This is the question of overages and shortages in grain cargoes from Fort William and Port Arthur. At present a steamer loading at any lake port elevator has to take the weight which is billed out by the elevators as being on board, whether accurate or not, and then at the unloading elevator has to accept the weight which they make out of the cargo, and if the quantity at the unloading elevator is less than at the loading elevator the shortage is charged against the steamer at the current market price. If the weight at the unloading elevator is greater than at the loading elevators at Fort William or Port Arthur, the steamer is paid for this quantity of grain at the current market price, in addition to the freight agreed upon per bushel for carrying the cargo. This state of affairs has existed for a great many years and has always been a sore point with vessel-owners, but owing to lack of concerted action on their part, it is contended that the elevators have, up to date, succeeded in shirking responsibility for their errors by charging them up to the steamers. If all the grain which is carried from these ports was carried by one line of vessels, so that all the overages would be set against all the shortages which occur, the matter would not be very serious; but when there are a dozen or more vessel-owners interested—some of them getting more than their share of the overages, and others getting more than their share of the shortages—it works out very unfairly, and it is thought that some equitable scheme can be devised which will be fair to all parties. In one case, in 1903, the V.H.L. Co. was brought out over 400 bush. short in one load at Owen Sound, the value of the grain being deducted from the amount of freight due the steamer. A steamer unloaded just ahead (which loaded just ahead at Fort William and Port Arthur) had an overage of over 700 bush. Another firm of vessel-owners, in four loads was charged up with 1,352 bush. of grain; and another owner was charged up over \$500 on one cargo. In no case were the vessels responsible in any way for the errors, as they delivered all the grain at the unloading elevator which was given them at Fort William and Port Arthur.

Mr. Wright states that he is credibly informed by grain shippers, and also by men who have been connected with the elevators, that it is not an unusual thing for elevators to come out ahead on the grain which is delivered to them. That is, after filling all the orders for the quantity of grain which they have received, they have grain left over, and this has been in some cases sold by the employes in connection with the elevator, and in other cases sold and the proceeds appropriated by the owners of the elevator. It was suggested at the meeting of the Marine Association that a fair proposition would be to have the Department of Trade and Commerce take charge of the weighing of grain at the receiving elevators, in the same way as it does at the loading elevators at Fort William and Port Arthur, allow the vessels to pay for their shortages in the same way as at present, and that all the overages be taken charge of by the Department until the end of the season; and that the total amount of the overages be distributed then pro rata amongst the vessels which had carried from Fort William and Port Arthur to Canadian ports, in proportion to the number of bushels shortage which had been charged up to them. This would be treating all vessel-owners alike, and

would be absolutely fair to every vessel, and also would enable the grain shippers to negotiate their bills of lading through the banks, giving them a fixed value. To see that the elevators did not profit by this at the

expense of the vessels it would be necessary for the Department also to keep track of the receipts and shipments from the elevators, and to see that up to the total net shortage that the elevators were not allowed to profit

from overages which they had and which grain they might sell. There is no good reason for relieving the elevators from settling their own disputes, and the vessels should be paid freight on the grain carried.

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less whatever may be damaged from water, which has, of course, to be settled for by the steamers or the underwriters. Even this proposition appears to some of the vessel-owners to be asking more from the steamers than is fair, and they claim that all a steamer should be asked to do is to give a bill of lading for the amount of grain which the loading elevators claimed was on board, and that she should collect her freight on the amount of grain weighed out by a Government officer at the unloading elevator, and that the elevators and the shippers should settle their disputes themselves, in the same way as is done with coal or any other bulk cargo.

**Notices to Mariners.**

The Dominion Department of Marine has issued the following notices to mariners:—

- No. 33. May 11.—Nova Scotia—86. Halifax harbor, McNab Island, Government rifle ranges.
- No. 34. May 13.—Nova Scotia—91. Cape Breton, south coast, off Guion Island, whistling buoy established.
- No. 36. May 14.—Quebec—River St. Lawrence, ship channel between Quebec and Montreal, Portneuf to Three Rivers, geographical position of lights.
- No. 37. May 17.—Quebec—96. River St. Lawrence, ship channel between Quebec and Montreal, Sorel, cables laid for experimental purposes, caution.
- No. 38. May 18.—British Columbia—97. Trincomali channel, off Atkin's reef, uncharted rocks.
- No. 39. May 25.—Ontario—98. Lake Ontario, Toronto harbor approaches, buoyage.
- No. 40. May 26.—Ontario—102. Lake Huron, north channel, Aird Bay, Cutler range lights established. 103. Lake Huron, north channel, Aird Bay, beacon erected on Cassin grain rock. 104. Lake Huron, north channel, Aird Bay, Curran rock buoyed. 105. Lake Superior, eastern end, outer Pancake shoal located.
- No. 41. June 1.—Ontario—107. Lake Superior, east end, buoyage.
- No. 43. June 2.—North Atlantic Ocean—111. Off the mouth of the Bay of Fundy, current survey steamer to be avoided. Nova Scotia—112. South of Madame Island, Crichton Head, orthography. New Brunswick—113. East coast, Miramichi Bay, Virn Bay, off Virn Island, buoy.
- No. 44. June 6.—Quebec—117. River St. Lawrence, Point Levis shoal, gas buoy established. 118. River St. Lawrence above Quebec, off Point Nicholas, gas buoy established. 119. River St. Lawrence above Quebec, Trembles shoal, change in character of buoy. 120. River St. Lawrence above Quebec, off Point St. Antoine, gas buoy established. 121. River St. Lawrence, ship channel between Quebec and Montreal, Grondine's Point, position of front range light. 122. River St. Lawrence, ship channel between Quebec and Montreal, Sorel to Longue Point, completion of 30 ft. channel.
- No. 45. June 7.—Ontario—123. Lake Ontario, Burlington channel, pier inner lights again in operation. 124. Lake Superior, Thunder Bay, entrance to Port Arthur, lighted buoy established. 125. Lake Superior, Thunder Bay, Kaministiquia River, front range buoy moved; new back range tower. 126. Lake Superior, Victoria channel, Mink Island reef, beacon established.
- No. 46. June 8.—Quebec—127. Gulf of St. Lawrence, Magdalen Island, Bird rocks, temporary change in character of light.
- No. 47. June 13.—Prince Edward Island—128. East coast, Cardigan Bay, Georgetown harbor, off Cardigan shoal, buoy. 129. North shore, Grenville harbor, buoys. New

Brunswick—130. Northumberland Strait, Richibucto harbor entrance, south beach, changes in bar range lights.

No. 48. June 16.—Quebec—131 to 133. Gulf of St. Lawrence, change in color of Martin River; Matane and Little Metis light-houses.

**Maritime Provinces and Newfoundland.**

The I.C.R. car ferry Scotia has returned to her run between Mulgrave and Point Tupper, after having been overhauled at Halifax dry dock.

The Dominion Government proposes to purchase or build a suitable steamboat to replace the Argus in the quarantine service at Halifax.

The Virginia Lake of the Reid Newfoundland Co.'s fleet has been having a thorough overhaul prior to going on the Labrador service for the season.

The hull of a new tug for Dickie and McGrath has been launched at Shelburne, N.S., and towed to Yarmouth, where the engines and boilers will be installed.

W. R. MacInnes, Assistant Manager for Furness, Withy & Co. at Halifax, N.S., has resigned, and J. E. Furness of the head offices at Liverpool, Eng., has arrived to fill the vacancy.

R. Scott, of Fogo, Nfld., has completed a 70 ton coasting steamer for the island trade. She is fitted with compound engines 7½ and 13 in. cylinders by 12 in. stroke, and is capable of making 11 knots an hour.

G. Robertson, President of the Imperial Dock Co., St. John, N.B., recently stated that negotiations were in progress with a contractor for the construction of the dock, and it was hoped to be able to have all the arrangements completed by the beginning of July.

U.S. shipowners are endeavoring to make arrangements for a regular steamship service every two weeks between New York and St. Johns, Nfld., calling at Boston, Mass., and Halifax, N.S. The steamers it is proposed to use are 1,500 tons gross, and have considerable passenger accommodation.

The Ship Owners' Marine Insurance Co., at its annual meeting at Windsor, N.S., recently, declared a dividend of 6% on the operations of the past year. The officers for the current year are: President, C. de W. Smith; Secretary, J. E. Curren. C. R. Burgess, of Wolfville, was elected to fill a vacancy on the directorate.

The officers and directors of the Valley Steamship Co. for the current year are: Secretary and Treasurer, F. C. Whitman; General Manager, C. W. Collins; other directors: F. W. Pickels, S. W. Pickup and S. E. Bancroft. The offices of the company are at Annapolis, N.S. The str. Granville will be put on the run between Annapolis and St. John, N.B., calling at intermediate ports.

The Richard Steamship Co. (Ltd.) has been incorporated under the Dominion Companies' Act for the purpose of acquiring the str. Richard or other steamers, and building other steamers. The capital is fixed at \$40,000; the offices are to be at North Sydney, N.S., and the provisional directors are: J. T. and J. E. Burchell, of Sydney; W. Hackett, Jos. Salter, E. W. Hickey, of North Sydney; Major Schurman, of Kensington, P.E.I.

The Bertram Engine Works Co., Toronto, is building the frames for a new ferry steamer for the St. John, N.B., city council. The frames will be put together in Toronto, and then shipped in sections to St. John, where it will be put together, completed, and engaged by Fleming Bros., who have the contract. The dimensions of the hull are: length over

guards, 140 ft.; length, outside to outside propeller posts, 114 ft.; length, outside to outside body posts, 136 ft. 4 in.; moulded beam, 34 ft.; width over guards, 49 ft.; depth, base line to top deck beam amidships, 12 ft. 11 in.; depth, base line to top of deck beam ends, 11 ft. 11 in.

**Province of Quebec Shipping.**

The str. Clipper has been sold to Hodge and Walley, of Sherbrooke, for their trade on Lake Memphremagog.

The Department of Marine has decided to send one of its engineers to Montreal to look into the question of constructing a dry dock there.

The str. St. Lawrence, formerly running to Prince Edward Island, has been converted into a cattle barge, and is now at Montreal, Gordon, Ironsides and Fares being the owners.

The str. Gauss, which the Dominion Government purchased from the German Government for use in the Arctic seas, arrived in Quebec June 13 under the command of Capt. Bernier.

The Deputy Minister of Marine has had a conference with the shipping men of Montreal respecting the best locations for the placing of submarine bells on the St. Lawrence route.

A suggestion has been made among scientific and marine men that the time has arrived when the Tidal Survey branch of the Department of Marine should be developed into a hydrographic survey branch.

The Department of Marine has asked tenders from British firms for the construction of two steamers for ice breaking purposes in the St. Lawrence River. It is hoped to have them ready for work during next winter.

The str. Admiral, owned by the North American Transportation Co., ran into the wharf at New Carlisle, Que., recently, and was very much damaged. The accident was caused by the signal between the bridge and the engine room failing to work.

The Sincennes-MacNaughton Co. has added to its fleet a new steel tug, the F. Dupre, which was built at Sorel, her dimensions being: length, 80 ft.; breadth, 20 ft.; draught, 10 ft. 6 in. She is fitted with compound engines 18 and 36 in. diameter by 24 in. stroke.

Reville Bros. (Ltd.) has been incorporated under the Dominion Companies' Act with a capital of \$5,400,000. The company is already incorporated in France, and carries on a fur and general trading business in Quebec, Edmonton and other places on the shores of Hudson's Bay and the Northwest Territories, in connection with which it owns steamboats, sailing and other vessels. P. D'Aigneaux, Quebec, is the chief officer and representative of the company in Canada.

The Department of Marine is making a series of experiments in the St. Lawrence River opposite Sorel, with an electrical device for guiding steamers in narrow channels. Two parallel lines of cable have been laid following the line of the shore in the vicinity of Sorel Point for a distance of about two miles; these lines of cables are at distances of about 500 and 1,000 ft. from the shore, but are not in the ship channel. The position of the cables are marked by buoys and sign boards on shore. As soon as the experiments are completed a report will be made to the department by the officer in charge.

The Richelieu and Ontario Navigation Co.'s str. Canada was sunk in the St. Lawrence near Sorel at 2.45 on the morning of June 13, after having been in collision with the Dominion Coal Co.'s str. Cape Breton. The Canada was on her regular trip from Quebec

to Montreal, and the Cape Breton was returning to Sydney, N.S. The bow of the Cape Breton crashed into the starboard side of the Canada, making a large hole, into which the inrush of water was so great that she sank within 20 minutes after the collision. Five persons were drowned, including A. Thi-beault, chief clerk in the Co.'s freight office at Montreal, and his two sons; and H. Bonne-terre, purser. The Canada is a side-wheel steamer, registered at Montreal, and built at Sorel in 1866. Her dimensions are: length, 248 ft.; breadth, 31.2 ft.; depth, 10.8 ft.; tonnage—gross, 1,768 tons; register, 962 tons. She had a license to carry 600 passengers. The value of the vessel is placed by the company at \$190,000. The company has directed that the wreck be raised, and it is estimated that the cost of this and the reconstruction will not exceed \$80,000. The Department of Marine has ordered an investigation to be made into the cause of the collision.

**Ontario and the Great Lakes.**

The Ontario Government has let a contract for the construction of a new wharf at Port Carling, Muskoka.

The War-road Marine Transportation Co. is building a steamboat at War-road, Minn., for service on the Lake of the Woods.

The U.S. Government has built a dredge at War-road, Minn., on the Lake of the Woods, and is dredging the harbor there.

Capt. G. Dunn, Owen Sound, has purchased the three-masted schooner Ida Olsen, from U.S. owners, for the lumber trade on Georgian Bay.

A new steamboat named Sovereign, built at Point St. Charles, Que., has been placed on Rice Lake, Ont., for the regular passenger and excursion trade.

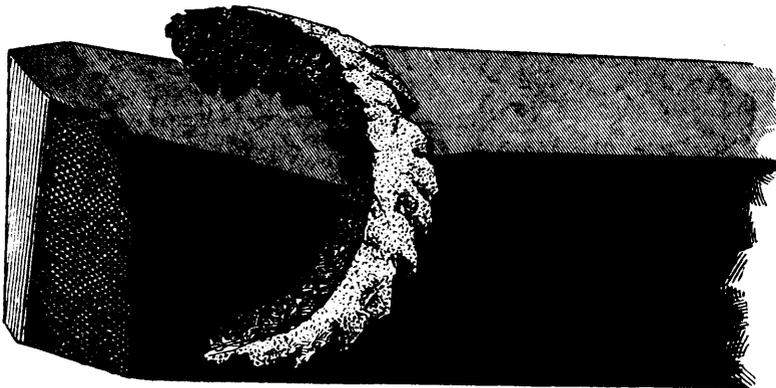
The Thousand Islands Steamboat Co. has announced that it will run its steamers between Kingston, Ont., and Cape Vincent, N.Y., on Sundays, commencing July 3.

The masters of the C.P.R. Upper Lake steamers for the season are:—Manitoba, Capt. Anderson; Athabasca, Capt. McDougall; Alberta, Capt. Pyette, formerly first officer.

The U.S. Government is making surveys in Kingston, the Niagara Peninsula and Windsor, in connection with the verification of its lake charts. This work is undertaken every three years.

The City of Owen Sound, which will be on the Toronto-Jordan Beach run for the season, has had a new smoke stack put up, and some other improvements made at the Polson Iron Works, Toronto.

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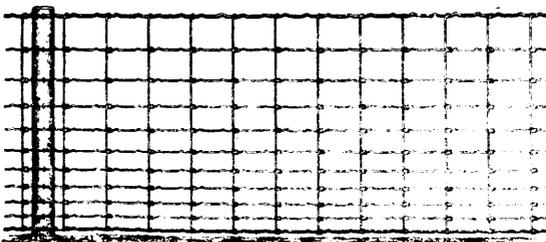
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Kensington - - - - " July 9  
Dominion - - - - " July 16  
Southwark - - - - " July 23  
Canada - - - - " July 30  
Vancouver - - - - " Aug. 6  
Kensington - - - - " Aug. 13  
Dominion - - - - " Aug. 20  
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ESTIMATES PROMPTLY FURNISHED.

The Pere Marquette Rd. will not run more than one car ferry between Conneaut, Ohio, and Port Stanley, Ont., this season. One of its ferry steamers, Shenango no. 1, was burned during the winter.

The Department of Marine has promised the shipping men of Toronto that a new and powerful siren will be installed at the eastern gap, replacing the present apparatus, which is unsatisfactory.

A press report states that the Ontario Electric Ry., which proposes to construct an electric railway from Toronto to Ottawa, will run steamers from Kingston, Ont., to Montreal, in connection with its line.

Complaints are being made in marine circles that U.S. steamers are violating the coasting regulations between Cornwall and Brockville, Ont., and are also carrying more passengers than are allowed by the regulations.

The Polson Iron Works, Toronto, has under construction for W. Mackenzie, President Canadian Northern Ry., a 70-ft. yacht for service on the lakes and river near Lindsay, Ont., where Mr. Mackenzie has a summer residence.

The str. City of Windsor started on her first trip from Collingwood to Sault Ste. Marie, Ont., for her new owners June 11. Capt. P. M. Campbell is master, and A. B. Pratt is purser. Both were formerly with the Northern Navigation Co.

The hull of the str. White Star, formerly on the run from Toronto to Oakville, and which was burned in 1903, has been sold to the Montreal and Cornwall Navigation Co. The hull has been towed to Montreal, where it will be overhauled and rebuilt.

The U.S. Government has let a contract for the construction of a second canal through St. Clair flats. The str. Gliddon sank there in 1903 and caused great inconvenience to the shipping interests. A contract has also been let for the removal of the wreck.

The Dominion Parliament at its current session extended the time for two years within which a bona fide start is to be made with the construction of the projected canal from Lake St. Clair to Lake Erie, near Pelee Point, Ont., and for five years for its completion.

The Dominion Parliament passed an act at its current session giving power to repeal the existing regulations for preventing collisions so far as they apply to the inland waters of Canada and make new regulations similar to those in force in the U.S. waters.

J. B. Roy, Inspector-General of the Department of Public Works, recently went over the Lake of the Woods system of navigation, with a view of seeing what it is necessary to have done to meet the requirements of navigation, particularly on the Rainy River section.

The C.P.R. has a contract for the shipment of 15,000 tons of lead ore from Kootenay, B.C., to Great Britain. The ore will be taken to Port William by rail, and by steamboat to Owen Sound, thence by rail to Montreal, where delivery will be made to the company's Atlantic steamships.

Capt. M. McLaughlin, who died in Toronto June 2, aged 80, was one of the oldest inland marine men. Among the old-time vessels he commanded were the Perseverance, Enterprise, Elizabeth, Victory, Caroline, Mary Taylor, Oddfellow, Alice Grover, J. A. Torrance and Lacoucier.

The Windsor Navigation Co. is being formed in Windsor, Ont., for the purpose of acquiring the str. Urania, until 1902 running between Port Stanley and Rondeau, Ont., and Cleveland, Ohio, for the Lake Erie and Detroit River Ry. It is proposed to place the steamer on her old run.

The Department of Marine has issued a notice to the effect that it is compulsory for pleasure-boats of all descriptions to carry lights in the same way as merchant vessels, under penalties varying from \$20 to \$200. The Department is taking steps to have gasoline and other launches inspected and licensed.

Owing to the difference between the Masters and Pilots' Association and the Lake Carriers' Association a large portion of the U.S. shipping on the lakes was tied up for six weeks after the opening of navigation. The tie-up was broken by the Masters and Pilots' Association agreeing to go back to work at last year's rates, June 14.

A composite tug for the Georgian Bay Consolidated Lumber Co. was launched June 14 at Collingwood. She was named the Wau-  
baushene, and has the following dimensions: length, 85 ft.; breadth, 18 ft.; depth, 10 ft., and is fitted with fore and aft compound engines, 15 and 30-inch cylinders, by 24-in. stroke, steam being supplied by a Scotch boiler 10 ft. 6 in. by 11 ft.

The Canadian canal at Sault Ste. Marie was opened for traffic April 30, and the U.S. canal on the Michigan side of the river on May 5. The total traffic of the two canals to May 31 was 449,888 tons, against 6,839,856 tons for the period from opening of navigation to May 31, 1903. The enormous decrease is due to the tie-up of the U.S. fleets on account of a difference about wages.

The Montreal Transportation Co. is having a thorough examination made of the hull, engine and boiler of the burned str. Advance. Upon the report of the experts regarding these the company will determine what class vessel it will be possible to make of her. The Advance was towed to Kingston, where she now lies, by the company's new tug Emerson, recently completed at Collingwood.

The Montreal, Ottawa and Georgian Bay Canal Co. has been granted an extension of time to May 1, 1906, for the commencement, and until May 1, 1912, for the completion of its canal system. The company proposes to construct a deep water system of navigation between the St. Lawrence River and Georgian Bay, utilizing the Ottawa and Mattawa Rivers, Lake Nipissing and French River, constructing canals and locks where necessary.

The Turbine Steamship Co.'s str. Turbinia, reached Sydney, N.S., June 11, Montreal June 16, and Hamilton June 19. She is the first merchant vessel equipped with steam turbines to cross the Atlantic. She started from Hebburn-on-Tyne, Eng., and went round the north of Scotland, leaving Stornaway June 3, and making the run from land to land in six days. She has been painted and her internal fittings completed and was placed on her run June 30.

The Lake Ontario Navigation Co. has been organized with the following officers and directors: President, Judge Morson; Vice-President, R. L. Joynt, M.L.A.; Managing Director, J. Hazlett; Treasurer, J. W. Hazlett; other directors, T. W. Church, W. C. Wilson, Capt. O'Brien and T. Long, of Port Hope; Secretary, T. L. Church. The company will operate the str. Argyle, the officers for the season being: Master, Capt. O'Brien; chief officer, Capt. Sullivan; purser, J. W. Hazlett; chief engineer, Jno. Hazlett; steward, W. Owens.

The Dominion Parliament has before it at the current session two bills for the purpose of creating harbor commissions for the harbors at Port Arthur and Fort William. The bills were introduced at the request of the people of the two towns. The Dominion Marine Association has entered a protest against the proposal on the ground that the fees which the commissions would be authorized to charge would seriously handicap the shipping interests. The Minister of Marine

promised to take this question into consideration, and meanwhile the bills are held over.

The Great Lakes and St. Lawrence Transportation Co. has chartered two steamers, the Sirius and the Ostergotland, to run between Montreal and Duluth, Minn., calling at Port Arthur, and Fort William, Ont. The steamers will take general cargo from Montreal, and will return with grain, flour, etc. The Sirius is 240 ft. long, and 36 ft. beam, with a 17 ft. 6 in. draught; and is fitted with triple expansion engines developing 660 horse power. The Ostergotland is 225 ft. long, 34 ft. 6 in. beam, with 18 ft. 10 in. draught, and is fitted with triple expansion engines developing 650 horse power.

### Manitoba and Northwest Territories.

The str. Viking has been placed on a route between Selkirk and Huansa, Man., making three trips a week.

The boiler for the steamer which Jas. Woods is building at Athabasca Landing, Alta., has been received at Edmonton.

It is reported that ice on the northern shores of Lake Winnipeg was over five feet thick, and navigation was not thoroughly opened up before June 15.

The C.P.R. constructed a large scow at Saskatoon, Sask., for ferry purposes on the Saskatchewan River during the re-construction of the railway bridge at that point.

A steamboat is under construction at Selkirk, Man., for the Dominion Government, to replace the Victoria. The machinery in the old steamer will be put in the new hull.

A report from Prince Albert, Sask., states that the hulls of three vessels have been completed and are awaiting the arrival of the machinery, and that the hull of a steamer for the fishing industry is on the stocks.

### B.C. and Pacific Coast Shipping.

The C.P.R. has completed a new 15-car freight barge for service on Kootenay Lake, B.C. A new passenger steamer for the same route is being considered, but nothing has been definitely announced in regard to it.

Capt. H. H. Burr, who has been engaged in navigation on the Fraser and Stikine Rivers for a number of years, died at Ashcroft, B.C., recently. He was for a long time master of the str. Gladys, on the New Westminster-Chilliwack run.

The str. Manuka, which took the run from New Zealand to Vancouver while the Moana was undergoing repairs, recently made the trip from Brisbane, Queensland, to Vancouver in 20 days, the fastest trip yet made between these points.

A new tug, Coutli, has been launched at False Creek, Vancouver, B.C., for the Union Steamship Co. Her dimensions are: length, 81 ft. 6 in.; breadth, 18 ft.; depth, 10 ft. 8 in. She is fitted with compound engines, 13 and 26 in. cylinders by 18 in. stroke, capable of making 10 knots an hour. The engines were built in Scotland.

The U.S. courts have decided that the C.P. Navigation Co. is only liable to the extent of \$3,221, being the value of property saved from the Islander, wrecked in Aug., 1901, to those who suffered loss or injury in consequence. The total sum for which the company was sued was \$400,000, but settlements were made in all cases, and the judgment now given closes up the matter.

The C.P.R. proposes to appeal to the U.S. Government against a fine of \$2,600 imposed by the U.S. collector of customs at Ketchikan, Alaska, on the str. Princess May for carrying 13 passengers bound for Seattle from Ketchikan to Vancouver. The C.P.R. contends that what was done does not in any way



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J. R. Booth Elevator, Depot Harbor, Ontario	1,000,000	"
Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	1,000,000	"
Erie R. R. Transfer & Clipping House, Chicago, Ill.	100 cars in 10 hrs.	"
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	1,500,000	"
Burlington Elevator Co., Peoria, Ill.	500,000	"
Canada Atlantic Railway Elevator, Coteau Laing, Que.	500,000	"
Northern Grain Co., Manitowoc, Wis.	1,350,000	"
Union Elevator, East St. Louis, Ill.	1,100,000	"
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violate sec. 2 of the act of 1898, which provides that no foreign vessel shall transport passengers between ports or places in the U.S., directly or by way of a foreign port under penalty of \$200 for each passenger. Three of the passengers landed in Vancouver, went across to Victoria, and proceeded to Seattle by the C.P.R. str. Princess Beatrice, and the other to went by rail from Vancouver.

The Department of Marine has issued a new edition of the Canadian list of lights and fog signals corrected to April 1. This will be supplied free to all mariners applying for it.

The cruiser Canada, which is being built at Barrow-in-Furness, Eng., for the Dominion Government, was launched June 14, the christening ceremony being performed by Lady Strathcona.

The Dominion Parliament is considering an act amending the Pilotage Act, by appointing the Minister of Marine to be the pilotage authority of any district whenever it appeared to be in the interests of navigation to do so. The object of the act, it was explained, is to meet certain difficulties which have arisen.

The Canadian Government is calling for tenders for a monthly steamship service from Montreal and Halifax, to Mexican ports, on the Atlantic coast, and between Vancouver and Mexican ports on the Pacific coast. The steamers are to be not less than 3,000 tons carrying capacity, have sufficient passenger accommodation, and to steam not less than ten knots an hour.

An order-in-council has been passed substituting a new regulation for that dated May 30, 1893, whereby certain privileges in regard to exemption from provisions of the Steamboat Inspection Act were granted to steamers registered elsewhere than in Canada, but engaged in the coasting trade of Canada. The new order provides that all vessels shall be subject to the Steamboat Inspection Act unless they have certificates for the then current year from the British Board of Trade, English Lloyds, French Lloyds, Norwegian Lloyds, or the British Corporation for the Survey and Registration of Shipping.

The Dominion Government has cancelled the agreement made with Colombier Bros., of Bordeaux, France, for a France-Canada steamship service on the ground that the service given was not in accordance with the contract. The steamers have called at St. Pierre, Miquelon, the French islands off Newfoundland en route. The Government is negotiating with the Canadian Lines (Ltd.), in which Sir W. Armstrong, Whitworth & Co., Erwick-on-Tyne, Eng.; W. Petersen, New castle-on-Tyne, Eng.; and a number of those connected with the Canadian Lake and Ocean Navigation Co. are interested to take up the contract.

### Among the Express Companies.

H. M. Gain has been appointed Assistant Route Agent Canadian Ex. Co., with headquarters in Quebec city.

The Alaska Pacific Ex. Co. has opened its summer service on steamers leaving Vancouver for Dawson, Yukon and intermediate points.

The Canadian Ex. Co.'s route on the Temiscouata Ry., heretofore in charge of H. C. Creighton, Superintendent, has been transferred to F. H. Hackett, Route Agent.

The estate of the late G. Cheney, Vice-President of the Canadian Ex. Co., has been entered for probate at Montreal by W. G. Cheney, the value being placed at \$25,750.

The Dominion Ex. Co. has opened its routes for the season on the lines of the Deseronto Navigation Co., the Niagara Navigation Co., and the Rainy River Navigation Co.

The Canadian Ex. Co. has closed its office at Caldwell, Ont. The name of its office at Kingsburg Junction, Que., has been changed to Villeroy, and its offices at Boiestown and St. Martins, N.B., have been re-opened.

The Western Ex. Co. has extended its service from Bismarck to Washburn, N.D., on the Minneapolis, St. Paul and Sault Ste. Marie Ry., and in connection therewith has opened offices at Washburn, Wilton and Underwood, N.D.

G. W. Newcomb, Hopewell Hill, N.B., is reported to have resigned the agency of the Canadian Ex. Co. at that point, because he refused to have anything to do with the handling of intoxicating liquors shipped into that place.

The Canadian Ex. Co. has established a route on the Cape Breton Ry., and in connection therewith has opened offices at Point Tupper and St. Peters, N.S. It has also established a route on the steamer line between Mulgrave and Canso, N.S.

The American Ex. Co. has adopted a letter of identification for the use of travelling representatives of firms who carry American or National Ex. Co.'s money orders. In connection therewith the Dominion Ex. Co. has authorized its agents to pay, without demanding personal identification, orders of these two companies when presented by persons holding such letters of identification, the orders paid to be endorsed "Cashed under letter of identification no. —."

The Canadian Ex. Co. announces that in addition to the facilities given by the Atlantic and Lake Superior Ry. to points on the Gaspé coast, a steamer line runs in summer twice a week between Dalhousie, N.B., and Gaspé, calling at a number of intermediate points. Shipments for points reached by steamer only are to be routed via Dalhousie, while shipments to points reached by both rail and steamer are to be routed by the shipper, whose instructions are to be taken at the time of shipment.

### Telegraph and Cable Matters.

The Western Union Telegraph Co. has closed its office at Mira, N.S.

The Great North-West Telegraph Co. has closed its offices at Belleville station, Hawkesville, Ont.; Montcalm, Montcalm Mills, St. Andre Junction, Que.

The United States Signal Department is installing wireless telegraph stations at Nome and St. Michael, Alaska. The cable service between these two points became inoperative during the spring, and no signals can be passed over it.

The Dominion Government passed an act at its current session increasing the capital of the North American Telegraph Co. from \$1,000,000 to \$10,000,000, and authorizing it to extend its lines throughout Manitoba and the Northwest Territories.

A despatch from Edmonton, Alta., states that the extension of the Government line from there to Athabasca Landing was completed and in operation to Fort Saskatchewan, Alta., June 9. The balance of the line is expected to be completed by the end of July.

W. Spence, a telegraph operator at the Reid Newfoundland Co.'s office at Lewisport, Nfld., has been committed for trial at the November assizes on a charge of maliciously removing a telegraph wire used in the operations of the postal telegraph line at that place.

The annual convention of the Association of Railway Telegraph Superintendents was held at Indianapolis, Ind., June 15 and 16. W. W. Ashald, of the G.T.R., Montreal, was a member of the "Topics Committee." W.

J. Camp, Electrical Engineer C.P.R. Telegraphs, was also present.

P. S. Archibald, C.E., Moncton, N.B., has been appointed by the Supreme Court of Newfoundland an arbitrator in the case of the Reid Newfoundland Co. against the Government concerning telegraph lines. D. MacMaster, K.C., Montreal, has been appointed on behalf of the company; the third arbitrator has not been named.

Richard Fuller, who died in Hamilton, Ont., June 12, was the contractor for the construction of the Government telegraph line from Fort Pelly, Sask., to Edmonton, Alta., and for some years prior to his death was a director of the Great North-West Telegraph Co. He was in the employ of the Great Western Ry. for a number of years, acting from 1856 for about 20 years as lumber buyer for the mechanical department.

The Great North-West Telegraph Co. has opened offices at Beaumaris, Jessops Falls, Muskoka Wharf, Port Sydney, Tobermory, Ont.; Little Metis Lighthouse, St. Denis Wharf, Que. These are summer season points, the offices being closed during the winter. New offices have been opened at Creemore, Farrans Point, Lynedoch, Millington, Washago, Ont.; Kiskisink, Villeroy (formerly Kingsburg Jct.), Que.

The Canadian Northern Ry. is constructing a telegraph line from Keist's Mills, 30 miles beyond Erwood, Sask., to Prince Albert, and Scott Griffin, Superintendent of the C.N. Telegraph Co., states that it is expected that the line into Edmonton, Alta., will be completed by the end of the year. The line has been completed from Grand View, Man., to Kamsack, Sask., and the work is being proceeded with rapidly from that point.

The C.P.R. has established a school in Montreal for teaching telegraphy, shorthand and typewriting for the benefit of its younger employes. Teachers have been engaged for the three subjects, and rooms set apart for the classes in the basement of the old Olivet Baptist church, adjoining Windsor st. station. A charge of \$2 a month is made for instruction, which will be returned on the completion of the course provided 80% of the attendances have been made.

The C.P.R. Telegraph Department has opened offices at Gerrard, Glacier, Lardo, Poplar, Proctor, St. Leon, Troup Junction, B.C.; Bowsman, St. Claude, Eden, Marchand, Ogilvie, Woodridge, Mowbray, Man.; Brooks, Sheho, Coleman, Castle Mountain, Grayson, Kincorth, Seven Persons, Siffeld, Tabor, N.W.T.; Mira, N.S.; Bears Pass, Dalton, Hedderleigh, Kama, Metagama, Mattawin, North Lake, Otter, Queenston, Rondeau, Ont.; Maniwaki, Que.

The 10th anniversary of the opening of the Postal Telegraph Co.'s building in New York, was celebrated May 23 and 24, those present including C. R. Hosmer, Vice-President P.T. Co. and Commercial Cable Co.; J. Kent and W. J. Camp, C.P.R. Telegraph Department, Montreal; and F. B. Gerrard, who is in charge of the Commercial Cable Co.'s offices at Canso, N.S. The occasion was also the 60th anniversary of the sending of the first telegraph message by Professor Morse between Washington, D.C., and Baltimore, Md.

The Canadian Marconi Co. has signed a contract with the Dominion Government to equip seven stations in the Gulf of St. Lawrence and on the Atlantic seaboard. The first stations to be equipped will be at Fame Point, Gaspé County; Heath Point, Anticosti Island; Point Amour on the Labrador coast, and at Belle Isle lighthouse. The stations are to be in working order by the end of Aug. The other three stations are to be in working order by June 30, 1905, and will probably be located at Cape Race, Nfld.; Sable Island, and at the Straits of Canso.

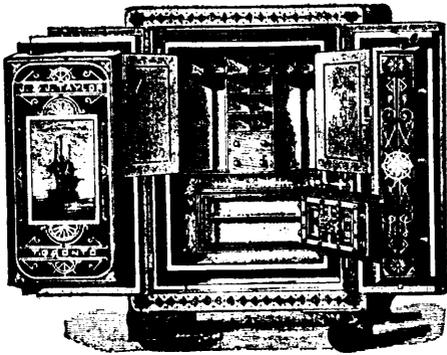
**The Dominion Telegraph System.**

A special report has been issued by the Department of Public Works dealing with the Government Telegraph service. The report is accompanied by eight sectional

maps, and one index map showing all the lines owned by the Government. The total length of lines on April 1, 1904, was 6,042 1/4 miles, with 348 1/2 miles of cable; there were 291 offices, at which an average of 96,500 messages are handled yearly. The lines are dis-

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**BARE AND INSULATED ELECTRIC WIRE**  
Electric Light Line Wire, Incandescent and Flexible Cords,  
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Americanite, Magnet, Office and Annunciator Wires,  
Cables for Aerial and Underground Use.



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Bank Safes Fire Proof Safes  
Etc., Etc., Etc.**

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How much the success of your business and the comfort of your household depend on communication with others, you will appreciate the fact that telephone service is worth a great deal more than it costs.

**METALLIC CIRCUIT SERVICE**  
EFFICIENT, RAPID, CONSTANT.

**THE BELL TELEPHONE COMPANY**  
OF CANADA.

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Stone Crushers, Concrete Mixers.  
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30 Dump Cars, narrow gauge, 2 1/2 yards.  
Boilers, Engines, Steam Shovels, etc.

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(Late Division Freight Agent G.T.R.)  
Canada Life, Western-Fire and Marine, Ontario Accident. Risks promptly covered on application by wire or otherwise.



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High Speed and Durability. Producing Wonderful Results.

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tributed as follows: Newfoundland, Port au Basque to Cape Ray, 14 miles. Nova Scotia: North Sydney to Port Hawkesbury via Meat Cove, including one mile of cable, 319 1/4 miles; North Sydney to Port Hawkesbury via Gaborous, 128 miles; branch lines, including 2 1/4 miles of cable, 96 1/2 miles. New Brunswick: Chatham to Escuminac, 42 miles. Bay of Fundy system, 44 1/4 miles, including 11 miles of cable. Quebec: Bay St. Paul to Chicoutimi, 92 miles; St. Alexis to St. Catharines Bay, 78 miles; other branch lines connecting, 61 miles; North Shore line, Murray Bay to Belle Isle, 1,073 miles, including 61 1/2 miles of cable; branch lines, 27 1/2 miles; Quarantine system, 66 1/4 miles, including 4 1/4 miles of cable. Anticosti system, 316 1/2 miles, including 65 1/4 miles of cable; Magdalen Islands system, 82 miles of land lines and 165 1/2 miles of cable. Ontario: Pelee Island system, 42 1/2 miles, including 17 miles of cable. Northwest Territories: Qu'Appelle to Edmonton, 619 1/2 miles; Edmonton to Alexandria, 36 miles; Batoche to Duck Lake and Indian Agency, 12 1/2 miles; Moose Jaw to Wood Mountain, 90 1/2 miles. British Columbia: Ashcroft to Quesnelle (local line), 215 miles; lines on Vancouver Island, 298 miles; Kamloops to Lower Nicola, 67 miles; Golden to Windermere, 92 miles. Yukon: Ashcroft to Dawson and boundary with branch lines, 2,452 1/2 miles. Lines are shown as being under construction from near Onion Lake to Lloydminster, Sask. (since completed), Edmonton to Spruce Grove, from Edmonton to Athabasca Landing, Alta., and from Wood Mountain to Willowbunch, Assa. A telephone line is shown on the map from Walsh to Fort Walsh, Assa., but no reference is made to it in the report. The total revenue for the year was \$132,422.17, and the expenditure as \$373,348.29. The officers specially in charge of the service are: General Superintendent, D. H. Keeley; Accountant, R. Keeley; technical assistant, J. A. Parr; Superintendent North Shore Line, A. Bayer; District Superintendents: E. Pope, Quebec, lines west of Bersimis; E. H. Tétu, Penticost, Que., lines east of Bersimis; A. Malouin, West Point, Anticosti Island; A. Le Bourdais, Grindstone, Magdalen Islands; D. C. Dawson, St. John, N.B., Cape Breton system; Mrs. C. C. Seeley, Grand Manan, N.B., Bay of Fundy system; J. McR. Selkirk, Leamington, Ont., Pelee Island system; J. S. Macdonald, Qu'Appelle, Assa., Northwest Territories; W. Henderson, Victoria, B.C., British Columbia lines south; J. Y. Rochester, Vancouver, B.C., Yukon System.

**General Telephone Matters.**

H. Pert has been appointed travelling inspector of the Bell Telephone Co. between Winnipeg and the Pacific Coast. The Kent Telephone Co. proposes to install a line from Kouchibouguac to Rogersville, N.B., with connections for intermediate points. The Bell Telephone Co.'s franchise in Kingston, Ont., expires July 1, and negotiations are in progress with a view to an extension. The Bell Telephone Co. is arranging to construct a line from Carberry, Man., to serve Pleasant Point, Melbourne, Kerfoot, and Petrel. A company is being formed in Fort Frances, Ont., for the purpose of installing a telephone system at that place and other villages in the Rainy River valley. W. A. Winfield, General Manager Prince Edward Island Telephone Co., Charlottetown, was married June 8 to Miss May Cameron, of Stellarton, N.S. The Bell Telephone Co. has declined to grant the request of its Hintonburg, Ont., subscribers, to be given the same rates as those now charged in Ottawa.

The officers of the committee having in charge the collection of funds for providing a telephone memorial in Brantford, Ont., in commemoration of the original invention of the telephone in that city are W. F. Cockshutt, L. Harris, J. Muir, and G. H. Muirhead.

The Bell Telephone Co. has arranged for connection with the new long distance lines of the Kamouraska Telephone Co., which give connections to Cacouna, Riviere Ouelle, and other points in Kamouraska and Temiscouata counties from Riviere du Loup, Que.

The London, Ont., city council has accepted the Bell Telephone Co.'s offer for a renewal of its franchise for three years at \$2,500 a year, with 20 free telephones for the municipal offices. The Canadian Machine Telephone Co. has submitted an offer for a competitive franchise.

The Brantford, Ont., city council has decided to engage a telephone expert to prepare a plan of the city from a telephone standpoint, and to submit the plan to manufacturers, with a view of securing estimates for the installation of a telephone service to be owned and operated by the municipality.

At the annual meeting of the New Brunswick Telephone Co. at Fredericton, N.B., June 14, a satisfactory report was presented and a regular half-yearly dividend declared. Hon. A. G. Blair was re-elected President. The company proposes to erect new exchange buildings in Fredericton and Moncton at an early date.

It is reported that the arbitrators appointed to decide upon the priority of the invention for an automatic exchange, upon which J. B. Lormier, of Piqua, Ohio, is seeking a Canadian patent, over other somewhat similar devices, has been decided in the applicant's favor. The Lormier device is the one which the Canadian Machine Telephone Co. has adopted.

The case in which the Bell Telephone Co. and the Owen Sound, Ont., town council are respectively plaintiff and defendant, came before the courts at Hamilton June 23. The company is desirous of carrying its wires into its new offices by means of underground conduits, and the council declines to give permission to open the streets for this purpose. Judgment was reserved.

The East Grey Telephone Co. has been organized with head offices at Markdale, Ont., the directors being J. R. Fawcett, C. Nott, Wodehouse; S. Wiley, Dr. Ego, and W. Turner, of Markdale, the latter of whom has been appointed Secretary. It is proposed to start construction of the line from Markdale to Kimberley at once. Extensions to Clarksburg and other places in the vicinity are contemplated.

La Compagnie d'Aqueduc du Cap St. Ignace has been incorporated under the Quebec Companies' Act with a capital of \$9,000, for the purpose, among other things, to "use electric power for telephone or electric light purposes in the Province of Quebec." A. Belanger, J. J. Guimot, S. Gamache, O. Gagne, St. Ignace; N. Fortin, Riviere Ouelle, are the incorporators, and the head office is fixed at St. Ignace.

The Peterborough, Ont., town council has passed a by-law granting a 10 years' franchise to the Canadian Machine Telephone Co. The company is to have its complete system installed and in working order within 12 months, and to furnish telephones at a rate not higher than \$15 a year for private houses, and \$20 a year for places of business, or for house and place of business, \$30 per year. An efficient service and latest and most approved machines and appliances are to be supplied. Upon streets in the business part of the town wires are to be placed underground.

The board of control of the Toronto city council has approved of a draft agreement upon which offers for a competitive telephone service in the city are to be asked. The draft provides that the company whose tender is accepted must deposit with the city \$100,000, of which \$25,000 will be held after the installation of the system; 2,000 telephones are to be installed within 21 months after the contract is signed; the franchise will run for seven years and will be renewable for five year periods thereafter, the city to have the right to expropriate. The wires to be laid underground except in such places as are approved by the City Engineer.

The People's Telephone Co. of Sherbrooke, Que., expended during its last financial year \$22,000, of which \$15,000 was on the new central energy station. The financial report also stated that there had been an increase in the number of subscribers, and that the service had been materially improved during the year. The annual meeting was held June 8. The officers and directors for the current year are: President, Lieut.-Col. Bernard, Richmond; Vice-President, C. H. Fletcher, Sherbrooke; General Manager, C. Skinner, Sherbrooke; other directors: T. B. Rider, Fitch Bay; H. A. Meagher, B. Quinn, Windsor Mills; C. H. Kathan, Rock Island; C. A. Jenkins, W. Farwell, Jos. Gauthier, G. H. Bradford, G. Ayer, Sherbrooke; Secretary-Treasurer, J. H. Bryce; Auditor, E. Hargrave.

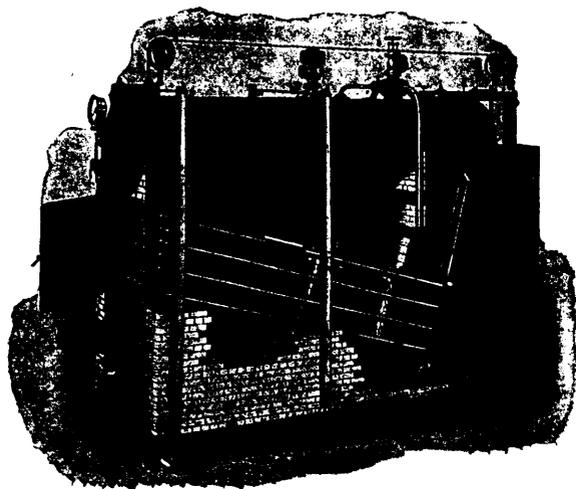
The Antigonish and Sherbrooke Telephone Co. (Ltd.) has been organized at Melrose, N.S., under the provisions of an act passed at the last session of the Nova Scotia Legislature. The company has taken over the Pratt and Weston Telephone Line, which connects Wine Harbor, Sherbrooke and Goldenville; and the line from Antigonish to Lochaber. Extensions are under construction from Goldenville to Liscombe Mills, from Wine Harbor to Bickerton, and from Lochaber to Sherbrooke. The whole of the extensions were expected to be completed by the end of June. The head offices of the company are at Sherbrooke, and the officers and directors are: President, Hon. W. D. R. Cameron; Vice-President, T. J. Sears; Secretary-Treasurer, J. R. Macdonald; Managing Director, A. S. MacMillan; Counsel, J. A. Wall; other directors: Jas. McConnell, A. MacGillivray, A. Sinclair, Rev. M. M. Doyle, J. E. Ellis, G. T. Bohaker.

**PURCHASING AGENTS' GUIDE.**

(Continued from third page of Cover.)

- Packing, Piston**  
The Gutta Percha & Rubber Mfg. Co. of Toronto.
- Pinch Bars**  
The Hiram L. Piper Co. .... Montreal.  
The N. L. Piper Railway Supply Co. .... Toronto.
- Pipe Covering**  
The James Morrison Brass Mfg. Co. .... Toronto.  
Mica Boiler Covering Co. .... Montreal.
- Planers**  
The John Bertram Sons Co. .... Dundas, Ont.
- Plushes**  
The Hudson's Bay Company. ....
- Porter**  
E. L. Drewry. .... Winnipeg.
- Portable Boilers**  
Babcock & Wilcox (Ltd.). .... Montreal.
- Printing**  
The Hunter, Rose Co. .... Toronto.  
The Mail Job Printing Company. .... Toronto.
- Pumps**  
Rice Lewis & Son. .... Toronto.
- Punching and Shearing Machines**  
The John Bertram Sons Co. .... Dundas, Ont.
- Rail Benders, Roller**  
Montreal Steel Works .... Montreal.
- Railway Supplies**  
The Hiram L. Piper Co. .... Montreal.  
The N. L. Piper Railway Supply Co. .... Toronto.
- Rails (Low)**  
Drummond, McCall & Co. .... Montreal.  
F. H. Hopkins & Co. .... Montreal.  
J. J. Gartshore. .... Toronto.  
W. H. C. Mussen & Co. .... Montreal.

<b>Rails (for relaying)</b> F. H. Hopkins & Co. .... Montreal. J. J. Gartshore ..... Toronto. T. A. Morrison & Co. .... Montreal. W. H. C. Mussen & Co. .... Toronto. Rice Lewis & Son ..... Toronto. Jas. W. Pyke & Co. .... Montreal.	<b>Station Name Signs</b> Acton Burrows Co ..... Toronto.	<b>Track Tools</b> Canada Switch and Spring Co. .... Montreal. F. H. Hopkins & Co. .... Montreal. Rice Lewis & Son ..... Toronto. Montreal Steel Works ..... Montreal. W. H. C. Mussen & Co. .... Montreal. The Hiram L. Piper Co. .... Montreal.
<b>Reamers</b> W. Abbott ..... Montreal.	<b>Steamboats</b> Canadian Shipbuilding Co. .... Toronto. Polson Iron Works ..... Toronto.	<b>Tramway Equipment</b> F. H. Hopkins & Co. .... Montreal. W. H. C. Mussen & Co. .... Montreal. J. J. Gartshore ..... Toronto.
<b>Rivets, Boiler and Bridge</b> Toronto Bolt and Forging Co. .... Toronto.	<b>Steam Couplers</b> Safety Car Heating and Lighting Co. .... New York.	<b>Trucks (Electric Car)</b> Baldwin Locomotive Works ..... Philadelphia, Pa. Montreal Steel Works ..... Montreal.
<b>Rolls, Plate Bending</b> The John Bertram Sons Co. .... Dundas, Ont.	<b>Steam Hammers</b> The John Bertram Sons Co. .... Dundas, Ont.	<b>Turnbuckles</b> Montreal Steel Works ..... Montreal.
<b>Roof Trusses</b> Dominion Bridge Co. .... Montreal.	<b>Steam Shovels</b> F. H. Hopkins & Co. .... Montreal. W. H. C. Mussen & Co. .... Montreal.	<b>Turntables</b> Dominion Bridge Co. .... Montreal.
<b>Rope</b> Rice Lewis & Son ..... Toronto. The Hudson's Bay Company ..... Toronto.	<b>Strap Traps</b> The James Morrison Brass Mfg. Co. .... Toronto.	<b>Valves, Iron and Brass</b> The James Morrison Brass Mfg. Co. .... Toronto.
<b>Rubber Tiling, Interlocking</b> The Gutta Percha & Rubber Mfg. Co. of Toronto.	<b>Steel</b> W. Abbott ..... Montreal. F. H. Hopkins & Co. .... Montreal. Wm. Jessop & Sons ..... Sheffield, Eng. Rice Lewis & Son ..... Toronto.	<b>Valves, Rubber</b> The Gutta Percha & Rubber Mfg. Co. of Toronto.
<b>Safes</b> J. & J. Taylor ..... Toronto.	<b>Steel Buildings</b> Dominion Bridge Co. .... Montreal.	<b>Varnishes</b> McCaskey, Dougall & Co ..... Toronto.
<b>Safety Valves</b> The James Morrison Brass Mfg. Co. .... Toronto.	<b>Steel for Springs</b> James Hutton & Co. .... Montreal.	<b>Vessels</b> Polson Iron Works ..... Toronto.
<b>Screws, Coach and Log</b> Toronto Bolt and Forging Co. .... Toronto.	<b>Steel Plate</b> Jas. W. Pyke & Co. .... Montreal.	<b>Waste</b> Rice Lewis & Son ..... Toronto. N. L. Piper Ry. Supply Co. .... Toronto. The Queen City Oil Co. .... Toronto.
<b>Semaphore Arms</b> Acton Burrows Co. .... Toronto.	<b>Steel Tyres</b> James Hutton & Co. .... Montreal. Jas. W. Pyke & Co. .... Montreal.	<b>Water Softeners</b> Babcock & Wilcox (Ltd.) ..... Montreal.
<b>Semaphores</b> The Hiram L. Piper Co. .... Montreal. The N. L. Piper Railway Supply Co. .... Toronto.	<b>Stop Cocks, Iron and Brass</b> The James Morrison Brass Mfg. Co. .... Toronto.	<b>Wheelbarrows</b> F. H. Hopkins & Co. .... Toronto. Rice Lewis & Son ..... Toronto.
<b>Shaking Grates</b> Babcock & Wilcox (Ltd.) ..... Montreal.	<b>Structural Metal Work</b> Dominion Bridge Co. .... Montreal. Locomotive and Machine Co. of Montreal ..... Montreal. Jas. W. Pyke & Co. .... Montreal.	<b>Windmills</b> Ontario Wind Engine and Pump Co. .... Toronto.
<b>Shaping Machines</b> The John Bertram Sons Co. .... Dundas, Ont.	<b>Superheaters</b> Babcock & Wilcox (Ltd.) ..... Montreal.	<b>Window Blinds</b> The Hudson's Bay Company ..... Toronto.
<b>Shipbuilders' Tools and Supplies</b> Rice Lewis & Son ..... Toronto.	<b>Switches</b> Montreal Steel Works ..... Montreal.	<b>Wines and Liquors</b> The Hudson's Bay Company ..... Toronto.
<b>Ship Lamps</b> The Hiram L. Piper Co. .... Montreal. The Holland Portable Light Works ..... Montreal. The N. L. Piper Railway Supply Co. .... Toronto.	<b>Switch Lamps</b> The Hiram L. Piper Co. .... Montreal. The N. L. Piper Railway Supply Co. .... Toronto.	<b>Wire and Wire Rope</b> The B. Greening Co. .... Hamilton, Ont. Rice Lewis & Son ..... Toronto. W. H. C. Mussen & Co. .... Montreal. The Wire and Cable Co. .... Montreal.
<b>Ships</b> Canadian Shipbuilding Co. .... Toronto. Polson Iron Works ..... Toronto.	<b>Switch Locks</b> The Hiram L. Piper Co. .... Montreal.	<b>Wire Cloth</b> The B. Greening Co. .... Hamilton, Ont.
<b>Shipbuilders and Engineers</b> Canadian Shipbuilding Co. .... Toronto.	<b>Switch Ropes</b> The B. Greening Co. .... Hamilton, Ont.	<b>Wire, Copper</b> E. F. Phillips Electrical Works, Ltd. .... Montreal. The Wire and Cable Co. .... Montreal.
<b>Shovels</b> F. H. Hopkins & Co. .... Montreal. The Hudson's Bay Company ..... Toronto. Rice Lewis & Son ..... Toronto.	<b>Switch Targets</b> Acton Burrows Co. .... Toronto.	<b>Wire, Electric</b> E. F. Phillips Electrical Works, Ltd. .... Montreal. The Wire and Cable Co. .... Montreal.
<b>Side Bearings</b> Simplex Railway Appliance Co. .... Montreal.	<b>Tanks and Tank Fixtures</b> Ontario Wind Engine and Pump Co. .... Toronto.	<b>Wire, Insulated Copper</b> E. F. Phillips Electrical Works, Ltd. .... Montreal. The Wire and Cable Co. .... Montreal.
<b>Signal House Numbers</b> Acton Burrows Co. .... Toronto.	<b>Tarpaulins and Waterproof Covers</b> Sonne Awning, Tent and Tarpaulin Co. .... Montreal.	<b>Wire, Telegraph and Telephone</b> E. F. Phillips Electrical Works, Ltd. .... Montreal. The Wire and Cable Co. .... Montreal.
<b>Signals</b> The Hiram L. Piper Co. .... Montreal. N. L. Piper Railway Supply Co. .... Toronto.	<b>Telegraph and Telephone Office Signs</b> Acton Burrows Co. .... Toronto.	<b>Wire, Transmission and Trolley</b> The Wire and Cable Co. .... Montreal.
<b>Signs</b> Acton Burrows Co. .... Toronto.	<b>Tents</b> Sonne Awning, Tent & Tarpaulin Co. .... Montreal.	<b>Wrought Steel Piping</b> Babcock & Wilcox (Ltd.) ..... Montreal.
<b>Slotting Machines</b> The John Bertram Sons Co. .... Dundas, Ont.	<b>Tobacco and Cigars</b> The Hudson's Bay Company ..... Toronto.	<b>Yachts</b> Polson Iron Works ..... Toronto.
<b>Snow Ploughs</b> Rhodes, Curry & Co. .... Amherst, N.S.	<b>Toilet Paper</b> The Hudson's Bay Company ..... Toronto.	
<b>Spikes, Railway and Ship</b> Toronto Bolt and Forging Co. .... Toronto.	<b>Track Jacks</b> F. H. Hopkins & Co. .... Montreal. Montreal Steel Works ..... Montreal. W. H. C. Mussen & Co. .... Montreal. A. O. Norton ..... Coaticook, Que.	
<b>Springs</b> Montreal Steel Works ..... Montreal.		



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# The Purchasing Agents' Guide

To the Manufacturers of & Dealers in Steam & Electric Railway, Steamship, Express, Telegraph & Telephone supplies, &c.

<b>Accident Insurance</b> Accident & Guarantee Co. of Canada. Montreal. Canadian Ry. Accident Ins. Co. .... Ottawa, Ont. London Accident & Guarantee Co. .... Toronto.	<b>Conveyor Belts, Rubber</b> The Gutta Percha & Rubber Mfg. Co. of Toronto.	<b>Iron</b> Rice Lewis & Son. .... Toronto.
<b>Aerated Waters</b> E. L. Drewry. .... Winnipeg.	<b>Cross Arms, Top Pins &amp; Side Blocks</b> The Firstbrook Box Co. .... Toronto.	<b>Iron Signs</b> Acton Burrows Co. .... Toronto.
<b>Air Brakes &amp; Fittings</b> Canadian Westinghouse Co. .... Hamilton, Ont.	<b>Cross Arm Braces</b> Toronto Bolt and Forging Co. .... Toronto.	<b>Japans</b> McCaskill, Dougall & Co. .... Montreal.
<b>Alex</b> E. L. Drewry. .... Winnipeg.	<b>Crossing Gates</b> The N. L. Piper Railway Supply Co. .... Toronto.	<b>Journal Bearings</b> Jas. W. Pyke & Co. .... Montreal. St. Thomas Brass Co. .... St. Thomas, Ont.
<b>Anchors</b> Rice Lewis & Son. .... Toronto.	<b>Crowbars</b> Toronto Bolt and Forging Co. .... Toronto.	<b>Lager Beer, &amp;c.</b> E. L. Drewry. .... Winnipeg.
<b>Awning</b> Sonne Awning, Tent & Tarpaulin Co. Montreal.	<b>Curtains</b> The Hudson's Bay Company. ....	<b>Lamps &amp; Lanterns</b> The Holland Portable Light Works. Montreal. The Hudson's Bay Company. .... Toronto. Rice Lewis & Son. .... Toronto. The Hiram L. Piper Co. .... Montreal. N. L. Piper Railway Supply Co. .... Toronto.
<b>Awl</b> James Hutton & Co. .... Montreal. Jas. W. Pyke & Co. .... Montreal. Rhodes, Curry & Co. .... Amherst, N.S.	<b>Cuts</b> Acton Burrows Co. .... Toronto.	<b>Lathes</b> The John Bertram Sons Co. .... Dundas, Ont.
<b>Babbitt</b> Rice Lewis & Son. .... Toronto.	<b>Derrick</b> The B. Greening Co. .... Hamilton, Ont.	<b>Launches</b> The Bertram Engine Works Co. .... Toronto. Polson Iron Works. .... Toronto.
<b>Barges, Grain</b> The Bertram Engine Works Co. .... Toronto.	<b>Derricks</b> James Cooper. .... Montreal.	<b>Lights, Contractors and Wrecking</b> F. H. Hopkins & Co. .... Montreal. The Holland Portable Light Works. Montreal. W. H. C. Mussen & Co. .... Montreal.
<b>Belt, Rubber</b> The Gutta Percha & Rubber Mfg. Co. of Toronto.	<b>Door Signs</b> Acton Burrows Co. .... Toronto.	<b>Lights, Dock</b> The Holland Portable Light Works. Montreal.
<b>Blankets &amp; Bedding</b> The Hudson's Bay Company. ....	<b>Dredges</b> The Bertram Engine Works Co. .... Toronto.	<b>Lights, Portable</b> The Holland Portable Light Works. Montreal.
<b>Block &amp; Tackle</b> Dominion Wire Rope Co. .... Montreal. Rice Lewis & Son. .... Toronto.	<b>Drilling Machines</b> The John Bertram & Sons Co. .... Dundas, Ont.	<b>Linoleum and Floor Coverings</b> The Hudson's Bay Company. ....
<b>Boat Fittings &amp; Hardware</b> Rice Lewis & Son. .... Toronto. Sonne Awning, Tent & Tarpaulin Co. Montreal.	<b>Drills</b> W. Abbott. .... Montreal.	<b>Locomotive Brass Work</b> The James Morrison Brass Mfg. Co. .... Toronto.
<b>Boats, Steel and Composite</b> The Bertram Engine Works Co. .... Toronto.	<b>Dry Goods</b> The Hudson's Bay Company. ....	<b>Locomotives (Compressed Air)</b> American Locomotive Co. .... New York, N.Y. Baldwin Locomotive Works. Philadelphia, Pa. Locomotive and Machine Co. of Montreal
<b>Boiler Covering</b> Mica Boiler Covering Co. .... Montreal	<b>Economizers</b> Babcock & Wilcox (Ltd.). .... Montreal.	<b>Locomotives (Electric)</b> American Locomotive Co. .... New York, N.Y. Baldwin Locomotive Works. Philadelphia, Pa. Locomotive and Machine Co. of Montreal
<b>Boilers</b> Polson Iron Works. .... Toronto.	<b>Electric Car Route Signs</b> Acton Burrows Co. .... Toronto.	<b>Locomotives (Logging)</b> Lima Locomotive and Mach. Co. .... Lima, Ohio.
<b>Boilers, Locomotive</b> The Bertram Engine Works Co. .... Toronto.	<b>Electric Cranes</b> Dominion Bridge Co. .... Montreal. W. H. C. Mussen & Co. .... Montreal.	<b>Locomotives (Back)</b> American Locomotive Co. .... New York, N.Y. Baldwin Locomotive Works. Philadelphia, Pa. Locomotive and Machine Co. of Montreal.
<b>Boilers, Stationary and Marine</b> Babcock & Wilcox (Ltd.). .... Montreal.	<b>Elevator Belts, Rubber</b> The Gutta Percha & Rubber Mfg. Co. of Toronto.	<b>Locomotives (Steam)</b> American Locomotive Co. .... New York, N.Y. Baldwin Locomotive Works. Philadelphia, Pa. Canadian Locomotive Co. .... Kingston, Ont. F. H. Hopkins & Co. .... Montreal. Lima Locomotive and Machine Co. Lima, Ohio. Locomotive and Machine Co. of Montreal The Saxon Engine Works, Chemnitz, Germany.
<b>Boiler Tubes</b> Jas. W. Pyke & Co. .... Montreal.	<b>Enamelled Iron Signs</b> Acton Burrows Co. .... Toronto.	<b>Machinery, Mining</b> The Bertram Engine Works Co. .... Toronto.
<b>Boilers</b> Simplex Railway Appliance Co. .... Montreal.	<b>Engineers' Supplies</b> The Gutta Percha & Rubber Mfg. Co. of Toronto. The James Morrison Brass Mfg. Co. .... Toronto.	<b>Machine Tools</b> W. Abbott. .... Montreal. The Saxon Engine Works, Chemnitz, Germany.
<b>Bolts, Bridge</b> Toronto Bolt and Forging Co. .... Toronto	<b>Engines, Hoisting</b> The Bertram Engine Works Co. .... Toronto.	<b>Machinery Repairs</b> The Bertram Engine Works Co. .... Toronto.
<b>Bolts, Carriage and Machine</b> Toronto Bolt and Forging Co. .... Toronto	<b>Engines, Stationary &amp; Marine</b> The Bertram Engine Works Co. .... Toronto. Polson Iron Works. .... Toronto.	<b>Manganese Steel Castings</b> Montreal Steel Works. .... Montreal.
<b>Bolts, Track</b> Toronto Bolt and Forging Co. .... Toronto	<b>Engraving</b> Acton Burrows Co. .... Toronto. Toronto Engraving Co. .... Toronto.	<b>Matches</b> The Hudson's Bay Company. ....
<b>Brake Beams</b> Simplex Railway Appliance Co. .... Montreal.	<b>Express Office Signs</b> Acton Burrows Co. .... Toronto.	<b>Mats and Matting</b> The Gutta Percha & Rubber Mfg. Co. of Toronto.
<b>Brass and Copper Cloth</b> The B. Greening Co. .... Hamilton, Ont.	<b>Expanded Metal</b> Expanded Metal and Fireproofing Co. Toronto	<b>Mechanical Draft Fans</b> Babcock & Wilcox (Ltd.). .... Montreal.
<b>Brass Castings</b> St. Thomas Brass Co. .... St. Thomas, Ont.	<b>Feedwater Heaters</b> Babcock & Wilcox (Ltd.). .... Montreal.	<b>Milepost Numbers</b> Acton Burrows Co. .... Toronto.
<b>Bridge Numbers</b> Acton Burrows Co. .... Toronto.	<b>Fencing</b> Canadian Steel and Wire Co. .... Hamilton, Ont. Page Wire Fence Co. .... Walkerville, Ont.	<b>Milling Cutters</b> W. Abbott. .... Montreal.
<b>Bridges</b> Dominion Bridge Co. .... Montreal.	<b>Flags</b> Rice Lewis & Son. .... Toronto. The Hudson's Bay Company. ....	<b>Milling Machines</b> The John Bertram Sons Co. .... Dundas, Ont.
<b>Buoy Lighting</b> Safety Car Heating and Lighting Co., New York	<b>Flour</b> The Hudson's Bay Company. ....	<b>Mills, Boring and Turning</b> The John Bertram Sons Co. .... Dundas, Ont.
<b>Cables, Electric and Feeder</b> E. F. Phillips Electrical Works, Ltd., Montreal.	<b>Foghorns</b> Rice Lewis & Son. .... Toronto.	<b>Mohair</b> The Hudson's Bay Company. ....
<b>Cable Heating</b> Safety Car Heating and Lighting Co., New York	<b>Gas and Electric Fixtures</b> The James Morrison Brass Mfg. Co. .... Toronto.	<b>Numbers</b> Acton Burrows Co. .... Toronto.
<b>Car Jacks</b> F. H. Hopkins & Co. .... Montreal.	<b>Gates</b> Page Wire Fence Co. .... Walkerville, Ont.	<b>Nuts, Square and Hexagon</b> Toronto Bolt and Forging Co. .... Toronto
<b>Car Lighting</b> W. H. C. Mussen & Co. .... Montreal.	<b>Gauges, Steam and Vacuum, etc.</b> The James Morrison Brass Mfg. Co. .... Toronto.	<b>Oakum</b> Rice Lewis & Son. .... Toronto. The Hudson's Bay Company. ....
<b>Carpets</b> Safety Car Heating and Lighting Co., New York	<b>General Supplies</b> The Hudson's Bay Company. ....	<b>Oils</b> Galena-Signal Oil Co., Franklin, Pa., & Toronto. The Queen City Oil Company. .... Toronto.
<b>Cars</b> Rhodes, Curry & Co. .... Amherst, N.S.	<b>Grain Elevators</b> John S. Metcalfe Co. .... Chicago, Ill.	<b>Office Signs</b> Acton Burrows Co. .... Toronto.
<b>Car Wheels</b> Jas. W. Pyke & Co. .... Montreal.	<b>Groceries</b> The Hudson's Bay Company. ....	<b>Packing</b> The N. L. Piper Railway Supply Co. .... Toronto.
<b>Castings (Steel)</b> Montreal Steel Works. .... Montreal.	<b>Hardware</b> Rice Lewis & Son. .... Toronto. The Hudson's Bay Company. ....	<b>Packing, High Pressure Sheet</b> The Gutta Percha & Rubber Mfg. Co. of Toronto.
<b>Chemical Machinery</b> Rhodes, Curry & Co. .... Amherst, N.S.	<b>Headlights</b> The Hiram L. Piper Co. .... Montreal. N. L. Piper Railway Supply Co. .... Toronto.	
<b>Chains</b> Rice Lewis & Son. .... Toronto.	<b>Hose</b> Rice Lewis & Son. .... Toronto.	
<b>Coal Haulage Ropes</b> The B. Greening Co. .... Hamilton, Ont.	<b>Hose, Air Brake and Steam</b> The Gutta Percha & Rubber Mfg. Co. of Toronto.	
<b>Concrete Mixers and Rock Crushers</b> W. H. C. Mussen & Co. .... Montreal	<b>Hose, Fire</b> The Gutta Percha & Rubber Mfg. Co. of Toronto.	
<b>Contractors' Plant</b> F. H. Hopkins & Co. .... Montreal.	<b>Hose, Suction</b> The Gutta Percha & Rubber Mfg. Co. of Toronto.	
<b>Contractors' Plant</b> T. A. Morrison & Co. .... Montreal.	<b>Illustrations</b> Acton Burrows Co. .... Toronto.	
<b>Contractors' Plant</b> W. H. C. Mussen & Co. .... Montreal.	<b>Injectors</b> The James Morrison Brass Mfg. Co. .... Toronto.	
	<b>Interlocking Signals</b> Montreal Steel Works. .... Montreal.	

(Continued on pages 259 and 260.)

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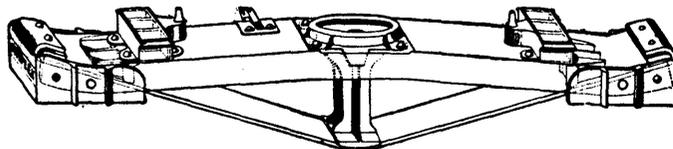
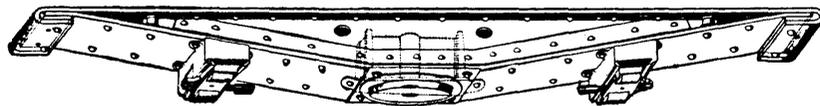
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