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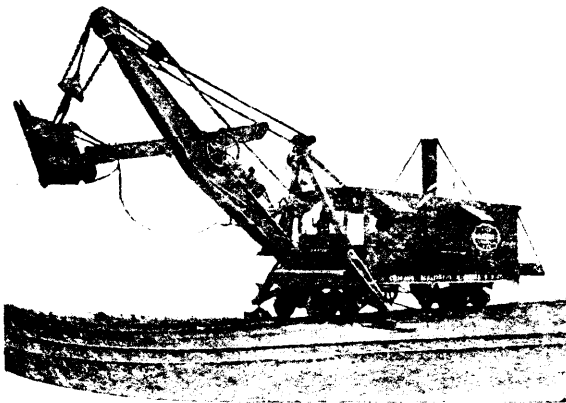
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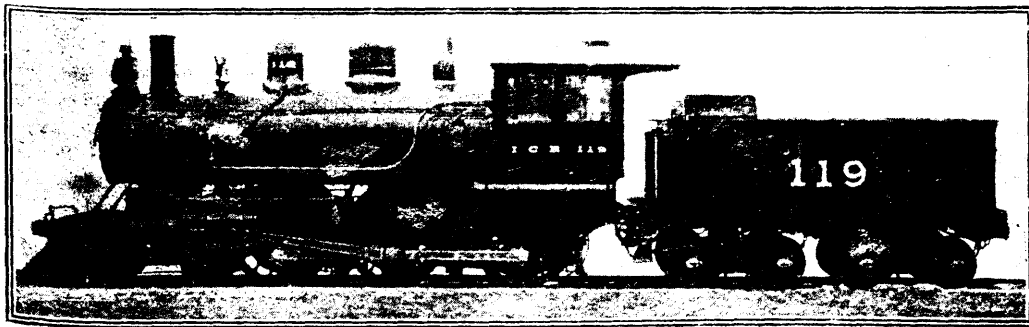
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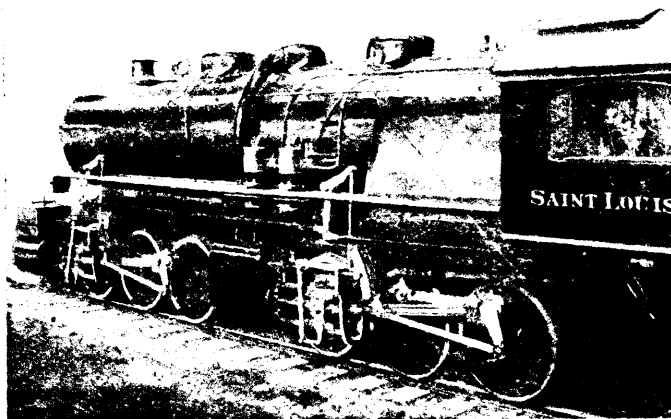
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G.T.R. Semi-Annual Meeting.

The full report of the proceedings at the half-yearly meeting of the shareholders of the G.T.R., held April 13, in London, Eng., has been received.

The President, Sir C. Rivers Wilson, in moving the adoption of the report and balance sheet, and the declaration of the dividends recommended, referred at the outset to the loss by death of Jos. Price, Vice-President, a most devoted and useful friend to the company. Mr. Price had been associated directly or indirectly with the G.T.R. for many years. During nine years he had been Vice-President, and during that period he rendered many services to the company. The affairs of the company occupied a large portion of his time and attention, and formed, indeed, one of the chief interests of his life. Shareholders would associate themselves with the deep regret which the directors felt at the loss of so valued and so esteemed a colleague.

In referring to the accounts for the past half-year, the President said that the falling off in gross receipts had been slightly more than counterbalanced by a reduction in working expenses. The decrease in gross receipts was £8,654, or a trifle more than 1% of 1%. The increase in passenger receipts was due to some extent to the special traffic in connection with the St. Louis Exhibition, but principally to the increase in local traffic. The freight receipts showed a decrease of £65,810, owing principally to the practical failure of the wheat harvest in the Northwestern States, which not only left no wheat for export, but was insufficient for their own requirements, wheat having to be imported into the United States from the Canadian Northwest in order to keep the mills going, which also reduced the amount of Canadian wheat for export. The through traffic showed a decrease of 331,157 tons, but there was an increase of 635,831 tons of local traffic.

Of the total freight carried the local traffic amounted to 5,689,116 tons, or 81% of the whole, against 5,053,281 tons, or 75% of the whole in 1903, the proportion of through tonnage falling from 25% in 1903 to 19% in 1904. The average rate received per ton showed a decrease of 5½d., from 5s. 10½d. in 1903 to 5s. 5d. in 1904, but this was attributable to the shorter average distance each ton of freight was carried, owing to the larger proportion of the traffic being local during the last half-year than in 1903, the average distance being 188.72 miles in 1904, compared with 208.76 miles in 1903. This preponderance of short distance traffic, which is carried at a slightly higher rate than the through traffic, has had the effect of in-

creasing the receipts per ton per mile, which were 70-100ths of a cent compared with, 68-100ths of a cent in 1903, but this additional rate was counterbalanced by the increased cost in handling this description of traffic compared with the through traffic, which, of course, comes to the company in full car and train loads, and is hauled much longer distances. The expenditure under the head of maintenance of ways and structures showed an increase of £23,358, which was due to the carrying forward to the second half-year's accounts of a larger proportion of

been an advance of £11,842 in taxes paid during the half-year. For a number of years taxes had been gradually rising in amount, but not to any unreasonable extent. Last year, however, the Ontario Legislature passed an act increasing the taxation of railways from \$5 to \$30 a mile single track, and \$10 for each additional track. The increased amount of taxes shown in the accounts was entirely due to this legislation, which pressed very hardly on this company, seeing that practically 5-6ths of the total mileage of the double-track of the G.T.R. was in Ontario.

It appeared, from recent advices, that there was a movement in the direction of still further increasing this very heavy taxation next year. The board would take all the steps open to them to resist what they could not but regard as an exceedingly unjust burden, particularly in view of the services which this company rendered to the Province.

Including the sum brought forward, the amount available for distribution was £436,466, out of which it was proposed to pay the authorised dividend for the past half-year on the guaranteed stock and 5% for the whole year on the first preference and second preference stocks, leaving £6,618 to be carried forward. He wished to make it clear why, on that occasion, the board were not able to recommend any distribution to the third preference stockholders. It was true that the net surplus revenue for the past six months exceeded that for the corresponding period of 1903 by £32,310, but they must not forget that the earnings for the first half of 1904 were £130,000 less than for the first half of 1903. The first six months of 1903 was an extremely prosperous period, and the working of the railway resulted in their being able to pay, not only the interest on the guaranteed stock, but also the full half-year's dividends on the first and second preference stocks, and the second half of that year they were enabled to pay, not only the remaining dividends on the first and second preference stocks, but also 2% on the third preference stock. In 1904 the earnings of the first six months only sufficed for the payment of interest on the guaranteed stock, thus throwing the whole of the burden of the entire year's dividends on the first and second preference stocks on to the earnings of the second six months, leaving, therefore, no margin for any distribution on the third preference stock. It was satisfactory to observe that the gross earnings for the first three months of the present year showed an increase of nearly £250,000 over those for the corresponding quarter of 1904, although



CECIL B. SMITH, M.C.A.N. Soc. C.E.E.

Chairman of the Timiskaming & Northern Ontario Ry. Commission.

expenditure than was usual. Comparing, however, the expenditure on this account for the whole year it was £8,080 less than in 1903. One item called for special reference, viz., the expenditure on ties, which showed an increase of £30,698. This was caused by the fact that in 1903 the company was unable to secure delivery of the requisite quantity, thereby reducing the charge for that year, and consequently increasing the amount of work to be done during 1904, when an adequate supply of ties could be obtained. Dealing with the principal items of expenditure, he said there had

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G.T.R. Semi-Annual Meeting.

(Continued from page 229.)

the traffic receipts were still behind those for the same period of 1903, which was an exceptional year.

Having referred to the operations of the G.T. Western Ry., and the Detroit, Grand Haven and Milwaukee Ry., and to the proposal to reduce the number of directors to ten, the President stated that it was ten years ago that the present board was placed in office. At that time, the company was not earning its fixed charges—it was living upon borrowed capital, a considerable deficit had accrued, which at June 30, 1896, amounted to £306,000. It was a very difficult matter for the company, under such circumstances, to do much in the way of alterations and improvements. However, times began to mend, and by the end of 1897 the deficit had been paid off, and in 1898 the payment of dividends was resumed. He reviewed the work done in the way of improving the line, strengthening bridges, etc., stating that now between Portland, Me., and Sarnia, Ont., there were 800 miles of line capable of carrying the heaviest traffic, and including the G.T. Western, 956 miles of double track, against 404 miles in April, 1895. The freight cars in 1894 numbered 22,486, with a capacity of 399,066 tons, to which there was added the 71 cars of 1,771 tons capacity of the Cincinnati, Saginaw and Mackinaw Ry., making altogether 22,583 cars of 400,837 tons capacity, an average of 17.75 tons per car. These were now represented by 22,174 cars of 530,470 tons capacity, or an average of 23.92 tons per car. In addition there had been added out of capital 4,360 cars of a total capacity of 148,800 tons. Although no addition had been made to the number of locomotives during the ten years, their hauling power had been increased over $\frac{1}{3}$, which had been accomplished by building engines of greater capacity when renewals were made. In 1894 the gross receipts of the whole system were £4,419,340, for 1904 they were £6,996,217, an increase of 58%. The net receipts in 1894 were £1,058,781, in 1904 they were £1,809,067, an increase of 71%. In spite of all the great works and improvements which have been accomplished, the fixed charges of the system have only increased by £56,314, or a little over 4%. Since the payment of dividends was resumed in 1898, the proprietors have received in dividends £3,500,000. The improvement in the value of the property is perhaps best shown by the market value of the securities, and he found on comparing the prices of to-day with the prices of the date when the change in the board was made, that they showed an aggregate improvement in value of considerably over £20,000,000.

He should like to recall, especially for the consideration of those who thought, perhaps, that enough had not been done for the shareholders, how heavily handicapped the company was by the finance of its earlier history. Out of a total capital at present of £69,750,000 only about £45,000,000 had been actually received in cash into the treasury of the company. For instance, of the £13,118,000 of existing preference stocks, first, second and third, no less than £6,000,000 represented unpaid dividends which were capitalized and added to the stocks between the years 1862 and 1872. Again, of the £23,000,000 of ordinary stock, the first £3,000,000 were paid for at par or something approaching par, but as regards the other £20,000,000, not more than 20% represented cash, that is to say, only £4,000,000, which, added to the other £3,000,000, makes a total of £7,000,000 actually received by the company on which there was a capital liability of £23,000,000. While the company's capital stands at £69,750,000, it really is only represented in cash received by the company by £45,000,000. In 1904 there was distributed in interest and dividends £1,800,000, and if it had not been for the unfortunate watering of the securities in times past, that sum would have admitted 4% to have been paid upon the whole of the company's capital.

The board had not only been careful of the current necessities of the company, but had sought to consolidate and broaden its foundations so as to permit of its availing itself to the fullest extent of the growing development of the Dominion, which promises a future prosperity for Canada to which it is difficult to foresee the limits. From this point of view the directors had recently acquired the Canada Atlantic Ry., and had promoted the G.T. Pacific Ry., both of which undertakings will tend greatly to strengthen the position of the parent company, while the board had surrounded them with every precaution for minimizing the financial risk and responsibility of the G.T.R. With regard to the G.T. Pacific Ry. Co., the directors had thought it their duty to avail themselves of the favorable condition of the money market, and, looking well ahead, they had considered it prudent to make provision for securing the whole of the necessary funds for the completion of the most important portion of the new undertaking—that was to say, the Lake Superior branch, and the 1,200 miles from Winnipeg to the foot of the Rocky Mountains. At their last special meeting, he mentioned that a preliminary arrangement had been made with Messrs. Speyer for the issue of the first quantity of bonds. Those negotiations were successfully carried through, and since then the board had been able, with the concurrence of the Canadian Government, to make an arrangement with the Rothschilds for disposing of the whole of the bonds necessary for the completion of the line. Their minds might, therefore, be entirely at ease as to the capital. Whatever might happen during the next three or four years, while the line was under construction, they would have the satisfaction of knowing that they had obtained the money, and that they had obtained it on favorable terms, for carrying out the whole of the prairie section and the Lake Superior branch. He considered that it was a matter for congratulation that the eminent firm of Rothschilds had associated themselves with Canadian finance, and especially with the finances of this company. The latest advices from Canada were to the effect that construction upon the Lake Superior branch would commence in June, and upon the prairie section not later than July.

He closed by moving the formal resolution adopting the report, and statement of accounts, and declaring dividends as follows:

On the 4% Guarantee Stock.....	2%
On the First Preference Stock.....	5%
On the Second Preference Stock.....	5%

A. W. Smithers seconded the resolution, which was passed. The retiring directors were re-elected, a resolution passed reducing the number of directors to ten, and the retiring auditors were re-elected.

The Canadian Coal and Ore Dock Co. is going to build a combined coal and ore dock at Port Arthur, Ont. The first section will be 3,000 by 600 ft., and will be completed this year. The site lies between the Neebing River and MacIntyre Creek, and it is proposed to dredge a channel, about 200 ft. wide and 3,000 ft. in length, from the harbor, which will cross the end of the dock, and to divert into it the waters of the creek and river. The Barnett and Record Co., of Minneapolis, Minn., are the contractors. The dock will be open to the public and all coal dealers will be permitted to use it, a fixed tariff being arranged for handling and storage.

Complaints Respecting Freight Rates.

In the House of Commons recently the Committee on Agriculture and Colonization presented the following report:—

"The committee have had urgent and repeated complaints laid before them to the effect that farmers in Ontario were handicapped in the export of their products and their profits correspondingly reduced by discriminating rates charged by Canadian railways as between competing and non-competing points within Canada; and also by discrimination by these same railways running through territory in the U.S., by their giving farmers of the latter much more favorable freight rates than that given to the farmers of Canada for similar and comparative distances to market points. The committee appointed a sub-committee to investigate these complaints, with authority to procure evidence, the committee having in view, if substantial evidence of the said charges were procured, to recommend a reference of the case to the railway commission. The sub-committee having made report to the committee substantiated by the evidences contained in the schedules hereto annexed, as an essential part of this report, and the committee having taken the report and evidence therewith into consideration, have adopted it as their own report, and as such, submit it with the schedules annexed to the consideration of the House, as follows:—

"LIVE STOCK.—Live stock shipments via G.T.R. from U.S. points. Tariff L.C.C. no. A-708 shows rates charged on cattle, sheep and hogs from Bancroft, Belsay, Duffield and other points to New York, Boston and Montreal.

"Live stock shipments via G.T.R. in Ontario. Tariff E-54 shows rates charged from points in Ontario, namely, Sarnia, Windsor, Ridgeway, Thamesville, Stratford, Lucknow, Bothwell, London, Listowel, and other points to New York, Boston and Montreal. Tariff (G.T.R.) I.C.C. A-748, shows the local rates charged on horses, cattle, sheep and hogs in the U.S. The standard mileage tariff (Canada-Atlantic Ry.) on live stock, C.R.C. no. 1, shows local rates charged on similar shipments in Canada. Tariff (Michigan Central Rd.) C.R.C. 409, shows rates on live stock from the United States to the sea-board. Tariff (G.T.R.) C.R.C. no. W-8, shows rates on live stock from the U.S. to the sea-board. Tariff (G.T.R.) C.R.C. no. 54, shows the same. Comparison of the above tariffs will show the material difference in favor of the U.S. farmer. The above tariffs will show the rates charged out of U.S. territory from points under the exclusive control of the G.T.R. to be very much lower than from points on its line in Canadian territory. This applies to shipments for both local and export, for instance, rates from Chesterfield, Mt. Clemens, Lennox, New Haven, etc., on cattle for export is 22c., whereas from Windsor, Sarnia, London, etc., the rate is 25c. per 100 lbs. On shipments between local points the difference is very much greater.

"GRAIN AND GRAIN PRODUCTS.—Tariff (G.T.R.) no. B-12, shows rates on grain and grain products to New York, Boston, and Philadelphia and Montreal. Tariff supplement to C.R.C. 81, tariff G.B.J. 16, tariff G.B.J. 17 shows the rates charged on local shipments in Canada. Tariff C.R.C. no. W-48 rates on grain products to the sea-board points for local and export shipments, G.F.D. 859, shows local rates on grain and grain products in the U.S. On grain and grain products the rates from U.S. points are very low when compared with the rates from Canadian points, more particularly when for local use or shipment via U.S. points for export. The rate from Chesterfield, Lennox, Mt. Clemens, New Haven, etc., in the U.S., for export on grain is 2c. and on grain products 11c. For local shipment the rate would be 13½c. to New

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York and 15½c. to Montreal, the shorter distance. From Canadian territory the rates would be for export from Windsor, Sarnia, and east 500 miles 13½c. and over, while for local shipments to Montreal from Windsor and other intermediate points the rate would be 19c., or 5½c. above the New York rate.

"BUTTER, EGGS AND CHEESE.—Tariff (G.T. Ry.) G.D. 57, shows the rates charged on shipments in Canada for export only. Tariff R.R.G.B. 12, rates on general merchandise in Canada to the sea-board for export shows rates from U.S. points to the sea-board. Tariff C.R.C. no. W-17, shows rates from the U.S. points to the sea-board as class rates. Tariff C.R.C. no. E-196, the same. Tariff G.J. no. 20, shows the prevailing rates charged on butter, eggs, and cheese from various points in Ontario to the sea-board. By comparing the above it will be seen that for local consumption in the U.S. cheese is carried 382 miles for 23½c., while for 400 miles in Canada the rate is 36c., or 12½c. per 100 lbs. in favor of the U.S. producers. It will also be seen that 7c. per 100 lbs. more is charged from Lucknow, Listowel, Palmerston, and other points in that vicinity than from London, Ingersoll and Woodstock to Montreal. The rates are not only very high, but no allowance is made for car-load shipments, notwithstanding the enormous proportions to which the trade is developing.

"GENERAL MERCHANDISE.—Tariff C.R.C. no. W-17, shows rates on general merchandise in effect from U.S. territory to the sea-board, and also from points in Canada. Distances are not considered.

"BEANS.—We also desire to call the attention of the committee to the fact that beans are shipped in class rates instead of being hauled at commodity rates, the same as grain products—their weight is the same—they are shipped in the same manner, and their value as a rule is about that of wheat. Tariff G.D. no. 57, shows rates on packing-house products to be very high, and distance not considered.

"TAN BARK.—Tariff (Ottawa, Arnprior and Parry Sound) shows rates on tan-bark. Very high for service rendered.

"We also desire to call the attention of the committee to the fact that the rates on imports are from 50 to 60% less in Canada than the rates on commodities exported, whereas in the U.S. both the exports and imports as a rule are equal. We might enlarge indefinitely, but the purpose in view will be served by pointing out a number of instances which illustrates the difference in rates given to Americans as compared to those given to Canadians. It does not appear fair to favor those who have contributed nothing to the building of our national highways, but on the contrary, they not only have lower rates accorded to their products, but in addition tax their railways heavily as well."

The recommendation of the committee that the report, with the schedules annexed thereto, be referred to the Railway Commission for its consideration and decision forthwith, was adopted by the House of Commons.

Railways in Nova Scotia.

The report of the Provincial Engineer of Nova Scotia, for the year ended Sept. 30, 1904, covers the first year of the work of R. McColl, who succeeded M. Murphy, D.Sc., who held that position for over 30 years. It points out that the railways of the Province may be classed under three heads:—first the 467 miles of the Intercolonial Ry., owned and operated by the Dominion Government; second, the 251 miles of the Dominion Atlantic Ry., owned by a private company, and declared to be for the general advantage of Canada; and third, all other lines which under the terms of the British North America Act come under

the jurisdiction of the Province. These lines with their mileage are:

	Miles.
Canada Coals and Ry. Co.	12
Cape Breton Ry.	31
Cumberland Ry. and Coal Co.	32
Halifax and South-Western Ry.	96
Halifax and Yarmouth Ry.	50
Inverness Ry. and Coal Co.	61
Midland Ry.	58
Nova Scotia Steel and Coal Co.	12½
Sydney and Louisburg Ry.	39
	391½

The returns of traffic upon these lines show a gradual improvement, with the exception of the Sydney and Louisburg Ry. This company has adopted a new system of making up its accounts, and does not show anything for the freight handled for its own purposes; but there has also been some falling off in revenue due to the operations of the Sydney and Glace Bay Ry., an electric line, in which the Dominion Coal Co., which also runs the S. and L. Ry., has a half interest. A detailed examination of the cost of operating shows quite a variation among the different roads. With regard to the maintenance of way, which varies according to the traffic, the cost per mile varies from \$170 to \$1,200, but on the roads which are largely employed in carrying coal, the variation is from \$400 to \$1,200, while on those with ordinary traffic it is from \$170 to \$210 a mile. With regard to locomotive power which should be largely in proportion to train mileage, the cost on the different roads runs from 20c. to 60c. per train mile. The amount of traffic would also be quite a factor in determining the cost of locomotive power, and this is borne out by the figures, as the coal roads, where the loads are much heavier, vary from 33c. to 60c., while the others only range from 20c. to 25c. The traffic expenses vary from 11c. to 29c. per mile of railway. As a sample of the increase in railway traffic, take the Halifax and South-Western Ry., formerly the Central Ry. In 1895, the returns per mile per year were \$613.83; during the year just closed they were \$951.25, an increase of 50% in ten years. The return of accidents for the year shows that only one passenger was killed; this was by jumping from a train. The number of accidents to employes has been larger than usual. Formerly not much attention was paid to this subject as it was claimed by most of the lines that it was a matter that was under the jurisdiction of the Dominion Government, but as owing to recent legislation this point has been settled the Provincial Department is paying more attention to it.

The subsidy accounts at Sept. 30, 1904, showed the following payments, etc.:

	Total subsidy.	Paid in 1904.	Out-standing.
Cape Breton Ry.	\$ 96,000.00	\$ 6,990.00	\$ 71,990.00
Halifax and Yarmouth Ry.	160,000.00	7,976.91	156,449.33
Inverness and Richmond Ry.	244,000.00	11,000.00	
Midland Ry.	183,510.40	7,000.00	

The Halifax and South-Western Ry. does not receive a subsidy in the same way as the other lines. To Sept. 30, 1904, the total paid was \$1,268,699.71, of which \$1,165,000 was paid to the company, \$640,000 being, in 1904, and the remaining \$103,699.71 was paid to various persons under the authority of Chap. 26 of the Statutes of 1903.

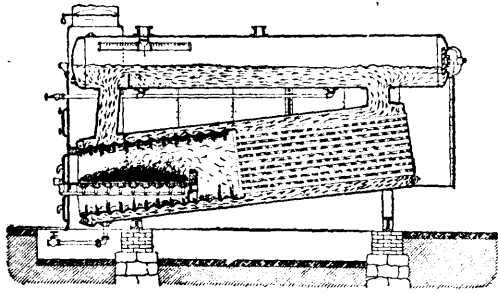
The business heretofore carried on in Toronto by the firm the Polson Iron Works has been acquired by Polson Iron Works, Limited. The new company has acquired all the assets of the business and has assumed its liabilities.

The Robb Engineering Co., Amherst, N.S., has sold a 375 h.p. corliss engine and a 150 h.p. Robb-Mumford boiler to the town of Glace Bay, N.S., for an extension of its electric lighting plant, and also a 450 h.p. corliss engine to the city of Moncton, N.B., for direct connection to electric generator.

June Birthdays.

- Many happy returns of the day to—
- Harry Abbott, President Vancouver and Lulu Island Ry., ex-General Superintendent C.P.R., Vancouver, B.C., born at Abbotsford, Que., June 14, 1829.
 - F. F. Backus, General Freight and Passenger Agent, Toronto, Hamilton and Buffalo Ry., Hamilton, Ont., born at Rochester, N.Y., June 4, 1860.
 - Archer Baker, European Traffic Manager C.P.R., London, Eng., born at York, Eng., June 21, 1845.
 - F. P. Brady, General Superintendent Lake Superior Division C.P.R., North Bay, Ont., born at Haverhill, N.H., June 22, 1853.
 - A. H. N. Bruce, C.E., Assistant Chief Engineer, Toronto and Hamilton Ry., Toronto, born at Ballyscullion, County Derry, Ireland, June 18, 1854.
 - J. E. Dalrymple, General Freight Agent, Central Vermont Ry., St. Albans, Vt., born at Montreal, June 1, 1869.
 - W. H. D'Arcy, General Claims Agent, C.P.R. Western Lines, Winnipeg, Man., born at Manorhamilton, Leitrim, Ireland, June 23, 1859.
 - A. E. Doucet, Division Engineer, Transcontinental Ry. Surveys, Quebec, born at Montreal, June 9, 1860.
 - W. F. Fitch, President and General Manager, Duluth, South Shore and Atlantic Ry. and Mineral Range Rd., Marquette, Mich., born at Circleville, Ohio, June 28, 1839.
 - A. A. Goodchild, Auditor of Stores and Mechanical Accounts C.P.R., Montreal, born at Peckham, London, Eng., June 3, 1866.
 - E. J. Hebert, General Agent C.P.R. Passenger Department, Montreal, born there June 18, 1864.
 - G. W. Hibbard, General Passenger Agent, Duluth, South Shore and Atlantic Ry. and Mineral Range Rd., Marquette, Mich., born at St. John's, Que., June 15, 1852.
 - Carl Howe, Assistant General Freight Agent Michigan Central Rd., Buffalo, N.Y., born at Berrien Springs, Mich., June 11, 1870.
 - L. R. Johnson, Assistant Superintendent of Rolling Stock, C.P.R., Montreal, born at Abingdon, Berks., Eng., June 22, 1855.
 - J. F. Jones, General Yardmaster G.T.R., Point St. Charles, Que., born at Prairieville, Ill., June 4, 1851.
 - L. K. Jones, Secretary Department of Railways and Canals, Ottawa, born at Port Hope, Ont., June 9, 1849.
 - Jas. Kent, Manager C.P.R. Telegraphs, Montreal, born there June 15, 1854.
 - A. C. Lytle, Superintendent and General Freight and Passenger Agent, Orford Mountain Ry., Eastman, Que., born at Hemmingford, Que., June 6, 1854.
 - W. R. MacInnes, Freight Traffic Manager, C.P.R., Montreal, born at Hamilton, Ont., June 7, 1867.
 - E. H. McHenry, Fourth Vice-President New York, New Haven and Hartford, Rd., and ex-Chief Engineer, C.P.R., born at Cincinnati, Ohio, June 25, 1859.
 - C. E. McPherson, General Passenger Agent, C.P.R., Winnipeg, born at Chatham, Ont., June 7, 1861.
 - W. D. Matthews, director C.P.R., Toronto, born at Burford, Ont., June 22, 1850.
 - R. H. Morris, General Baggage Agent, C.P.R., Montreal, born at Quebec, June 5, 1869.
 - L. Mulkern, canvassing freight agent, C.P.R., Toronto, born at London, Ont., June 18, 1871.
 - F. Price, Master of Transportation, G.T.R., London, Ont., born at Montreal, June 11, 1864.
 - Jas. Stephenson, ex-Chief Superintendent, G.T.R., Weston-Super-Mare, Somerset, England, born there June 2, 1837.

REDUCE YOUR COAL BILL



Your coal bill is a large item in your expense account, and if it could be reduced **TEN PER CENT.** it would mean a large addition to your net profit.

A **ROBB-MUMFORD** internally fired boiler will make a saving of at least **TEN PER CENT.** over an externally fired boiler, and in some cases considerably more

Robb Engineering Co., Ltd., Amherst, N.S.

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The NORTON BALL-BEARING JACK

A CANADIAN INVENTION
MADE IN CANADA FOR CANADIANS

THE BALL-BEARINGS

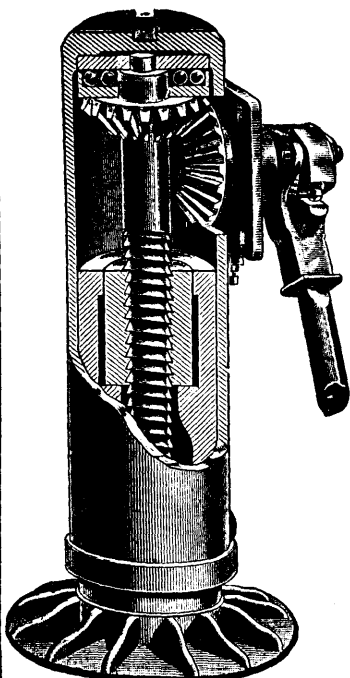
reduce the friction and increase the power of the Jack.

THE GEARS

are cut from solid steel forgings, thereby giving highest efficiency and greatest durability.

THE SCREW

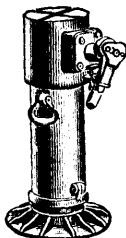
runs in a Phosphor Bronze Nut and is covered by a sliding sleeve which takes all the side strain, prevents the Screw from bending, and protects the working parts from Grit and Rust.



Sectional View of Norton Jack.



Foot-Lift Jack.



35 Ton Jack.



Journal Jack.

Made in 50 styles—8 to 70 tons capacity.

Manufactured by

A. O. NORTON,
COATICOOK, PROV. QUEBEC.

Stock carried by
W. H. C. MUSSEN & CO., Montreal.

Dominion Atlantic Ry. Annual Meeting.

The ninth annual meeting of shareholders was held in London, England, recently. C. F. Kemp, the President, in presenting the annual report—in which the payment of a dividend of 3% on the preference shares was proposed—said the gross income for 1904 was about £10,000 in excess of that of 1903, but this was reduced by increased expenditure to about £1,300. The working of the railway in the past year had not been altogether favorable. The early part of the season opened very well, but in the summer, during the period when the company's pleasure traffic was conducted, the weather was very doubtful, and this, no doubt, checked traffic to which the directors attached considerable importance. Their income was also, no doubt, affected to some extent by the St. Louis Exhibition. The fruit crop, although a very fair one, was not so good as to quality from this. He thought the directors might fairly congratulate the proprietors on the position which the railway had attained. With that the development on the line would go on steadily. If the directors that day obtained the proprietors' sanction to the proposed purchase of the Midland Ry. of Nova Scotia, he believed that the future of the company would be assured. Negotiations took place, and they had the railway inspected and tested in every way they could. The conclusion they arrived at was that the line had been remarkably well built. The railway ran from Windsor to Truro, where it joined the Intercolonial Ry. The latter ran from Truro up to Sydney, which was in the extreme east, and near which there were considerable deposits of coal and iron which were being worked. They fully believed that between Sydney and Truro there would be a considerable amount of passenger traffic, which would pass thence, via Yarmouth, to the U.S. Last year they opened a communication with New York by running a steamer there during the summer, and this had added considerably to their returns. The acquisition of the Midland Ry. would cost about £250,000. The directors had communicated on the subject with two or three of the principal shareholders and they were entirely in accord with the policy of the board.

P. Giffins, the General Manager, who was present from Kentville, N.S., spoke in support of the acquisition of the Midland Ry., stating that its cost, compared with that of similar railways in Nova Scotia and elsewhere in Canada, was very fair and reasonable. With the Midland Ry. forming an integral part of the Dominion Atlantic system a large number of people would be correspondingly benefited. Nova Scotia, which for so long had been a favorite playground for wealthy residents of the United States, was now becoming a field for investment both in Canada and the U.S. The resolution was passed. The company does not publish its annual report.

At a subsequent special meeting of the shareholders approved of the purchase of the Midland Ry.

Canadian Northern Ry. Operation.

The official time-table of the Canadian Northern Ry., which came into force in April, shows 1868.2 miles in operation against 1592.6 miles when the December time-table went into operation. The line is now operated under E. A. James, Manager, in four districts, as follows:—

District 1—Port Arthur to Winnipeg, 438.7 miles; Stanley Jct. to Gunflint, 66.9 miles; total, 505.6 miles. Superintendent, W. A. Brown; Chief Train Dispatcher, J. H. Scott; train dispatchers: W. E. Roberts, E. S. Hunt, J. Ferguson. Offices, Port Arthur, Ont.

DISTRICT 2—Carman Jct. to Leary's, 63.1 miles; Winnipeg to Emerson, 63.5 miles; Morris to Brandon, 145.3 miles; Hartney Jct. to Hartney, 50.8 miles; Emerson to Ridgeville, 10.1 miles; Oak Point Jct. to Oak Point, 54 miles; Greenway to Adelpa, 51.8 miles; total, 438.6 miles. Superintendent, A. Wilcox; Chief Train Dispatcher, J. Abbott; train dispatchers, W. A. Stewart, T. J. Brown, W. Ingles. Offices, Winnipeg.

DISTRICT 3—Portage Jct. to Gilbert Plains Jct., 180.8 miles; Gilbert Plains Jct. to Melfort, 298.5 miles; Sifton Jct. to Winnipegosis, 20.7 miles; Delta Branch Jct. to Delta, 14.8 miles; Neepawa Jct. to McCreary Jct., 70.4 miles; Rossburn Jct. to Clan William, 20.2 miles; Arizona Jct. to Brandon Jct., 51.5 miles; Brandon Jct. to Carberry Jct., 22.8 miles. Total, 679.7 miles. Superintendent, J. W. Dawsey; Chief Train Dispatcher, S. S. Foley; train dispatchers, R. Nelson, F. T. Peebles. Offices, Dauphin, Man.

DISTRICT 4—Gilbert Plains Jct. to Kamsack, 97.9 miles; Kamsack to Humbolt, 146.4 miles. Total, 244.3 miles. Superintendent, J. R. Cameron.

Canadian Northern Ry. Earnings, etc.

Gross earnings for Mar., \$273,100; working expenses, \$202,500; net earnings, \$70,600 against \$201,900 gross; \$142,300 working expenses, and \$59,600 net for Mar., 1904. Gross earnings for nine months ended Mar. 31, \$2,850,600; net earnings \$942,200 against \$2,316,800 gross, and \$785,200 net for same period 1903-04.

Approximate earnings for April, \$282,900 against \$234,300 for April, 1904.

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

Gross earnings, working expenses, net profits, increases or decreases over 1903-04, from July 1, 1904:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July	\$4,398,833.95	\$2,949,181.81	\$1,449,652.14	\$131,125.02+
Aug.	4,474,237.64	2,946,307.21	1,527,930.43	93,827.93+
Sept.	4,220,876.03	2,952,068.47	1,268,807.56	66,541.75+
Oct.	4,743,961.93	3,177,848.02	1,566,113.91	87,913.10+
Nov.	4,751,970.43	3,082,395.69	1,669,574.74	101,593.56+
Dec.	4,562,142.45	2,899,473.62	1,662,668.83	81,523.57+
Jan.	3,252,501.93	2,820,833.46	422,668.47	62,016.44+
Feb.	3,956,094.05	2,753,922.73	302,171.32	219,630.51+
Mar.	4,132,961.50	2,950,134.46	1,182,827.04	331,972.76+

\$37,593,579.91 \$26,541,165.47 \$11,052,414.44 \$1,093,318.44+

Approximate earnings for April, \$4,196,000 against \$4,030,000 for April, 1904.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Mar., \$238,391.63; net earnings, \$91,406.04 against \$190,508.00 gross and \$50,617.12 net for Mar., 1904. Net earnings for nine months ended Mar. 31, \$666,209.41, against \$588,715.08 for same period, 1903-04. Approximate earnings for April \$227,949 against \$186,279 for April, 1904.

MINERAL RANGE RY.—Approximate earnings for April, \$44,431, against \$48,697 for April, 1904.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Mar., \$771,545.84; net earnings, \$390,809.95, against \$468,816.58 gross and \$168,490.59 net for Mar., 1904. Net earnings for nine months ended Mar. 31, \$3,341,637.39, against \$2,580,198.41 for same period 1903-04. Approximate earnings for April, \$626,664, against \$472,088 for April, 1904.

Canadian Pacific Railway Land Sales.

	Acres.	Amount.		
1904-05	1903-04	1904-05	1903-04	
July..	36,425.75	267,647.32	\$177,473.94	\$1,020,464.70
Aug..	15,669.90	263,339.45	88,735.88	1,217,529.81
Sept..	16,470.02	60,441.12	73,642.96	268,757.99
Oct..	23,792.84	15,950.07	104,843.47	236,611.59
Nov..	23,392.84	22,563.95	142,261.70	107,365.21
Dec..	32,196.59	30,146.00	142,583.40	125,676.00
Jan..	34,500.41	116,840.78	141,750.50	386,649.88
Feb..	27,503.56	14,729.69	116,278.76	73,428.94
Mar..	15,906.61	12,992.06	87,576.00	59,660.03
April..	22,030.37	24,064.44	125,210.08	116,349.19
	247,888.89	828,721.88	\$1,170,356.69	\$3,666,433.34

Grand Trunk Ry. Earnings, Expenses, etc.

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.

	1905.	1904.	Increase.	Decrease.
Jan.....	\$2,556,340	\$2,253,378	\$302,962	.....
Feb.....	2,163,683	1,625,147	538,536	.....
Mar.....	2,011,143	1,604,710	406,433	.....
April.....	2,250,946	1,117,900	1,133,046	.....
	\$10,481,415	\$9,391,628	\$1,089,787	.....

GRAND TRUNK RY. CO.

The following figures relate to the individual lines, and are made out in sterling:

Revenue for Mar.:				
	1905.	1904.	Increase. Decrease.	
Gross receipts	£464,300	£431,600	£32,700	.....
Working expenses	324,800	328,600	.....	£3,800
Net profit	£139,500	£103,000	£36,500	.....

Aggregate from Jan. 1 to Mar. 31:				
	1905.	1904.	Increase. Decrease.	
Gross receipts	£1,226,900	£1,047,800	£179,100	.....
Working expenses	945,500	931,300	14,200	.....
Net profit	£281,400	£116,500	£164,900	.....

GRAND TRUNK WESTERN RY. CO.

Revenue for Mar.:				
	1905.	1904.	Increase. Decrease.	
Gross receipts	£106,000	£83,300	£ 700	.....
Working expenses	85,000	77,900	7,100	.....
Net profit	£21,000	£20,400	£ 600	.....

Aggregate from Jan. 1 to Mar. 31:				
	1905.	1904.	Increase. Decrease.	
Gross receipts	£268,200	£244,000	£24,200	.....
Working expenses	232,800	223,800	9,000	.....
Net profit	£35,400	£20,200	£15,200	.....

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.

Revenue for Mar.:				
	1905.	1904.	Increase. Decrease.	
Gross receipts	£ 27,700	£ 14,600	£13,100	.....
Working expenses	23,000	14,600	8,400	.....
Net profit	£ 4,700	.....	£ 4,700	.....

Aggregate from Jan. 1 to Mar. 31:				
	1905.	1904.	Increase. Decrease.	
Gross receipts	£ 72,500	£ 54,500	£18,000	.....
Working expenses	58,200	48,000	10,200	.....
Net profit	£ 14,300	£ 6,500	£ 7,800	.....

TRAFFIC RECEIPTS OF THE SYSTEM.

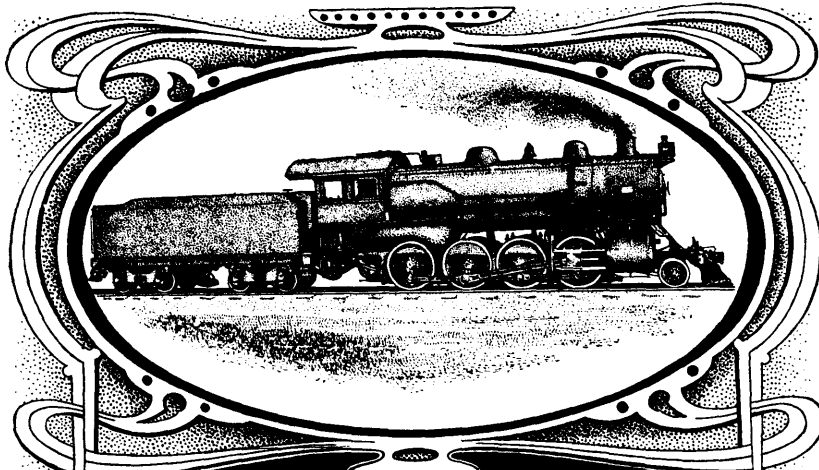
Aggregate from Jan. 1 to April 30:				
	1905.	1904.	Increase. Decrease.	
Grand Trunk..	£1,693,055	£1,522,073	£170,982	.....
G. T. Western	367,388	336,887	30,501	.....
D. G. H. & M.	93,274	70,826	22,448	.....
Total	£2,153,717	£1,929,786	£223,931	.....

Atikokan Iron Co.—The organization of the Atikokan Iron Co., which was recently incorporated under the Dominion Companies' Act, has been completed. The officers are: President, D. D. Mann, Toronto; Vice-President, J. C. Hunter, Duluth, Minn.; directors, W. Mackenzie, Toronto; H. Sutherland, Winnipeg; Z. A. Lash, G. DeC. O'Grady, Toronto; J. S. White, Chicago, Ill.; Executive Committee, H. Sutherland (chairman), J. C. Hunter and Z. A. Lash. The head office of the company is at Toronto, and the capital is placed at \$1,000,000. It is formed to carry on the business of a mining, milling, reduction and development company, and a number of other businesses that may be conducted in connection with the same. The principal object is to develop iron ore mines on the Atikokan iron range on the Canadian Northern Ry., west of Port Arthur, Ont. Work is to be commenced at once on the erection of a plant which will include a blast furnace, coke ovens, foundry, etc. R. Jones, formerly assistant superintendent of the Illinois Steel Co., has been appointed Superintendent.

Westinghouse Fan Motors, desk and wall types, are described in two little booklets issued by the Canadian Westinghouse Co.

The Deputy Minister of Agriculture for the Dominion has published regulations relating to the cleansing, etc., of stock-cars conveying stock from the U.S. into Canada, and otherwise regulating the importation of live stock by rail.

Judge Winchester of Toronto has completed taking evidence at London, St. Thomas and other Ontario points in regard to the alleged employment of aliens, and the discharge of Canadians by the Pere Marquette Rd., and will make a report in due course. The investigation was ordered by the Governor-in-Council under the authority of Chap. 114 of the Revised Statutes of Canada.



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AUTOMATIC LOCOMOTIVE BOILER WASHER**
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ERIE HEATING COMPANY
225 RAILWAY EXCHANGE
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IT WAS A BRAKE ROD

A heavily loaded, 12-ton car, equipped with Sterling Safety Brakes, ran down a ten per cent. grade April 23, derailed on a curve and telescoped a house. The "working" chain of the brake had broken but the "safety" chain, designed for such emergencies, held uninjured. Then a brake rod parted and the car got away. Reversing the current disabled the motors without stopping the car. This accident shows:

1st. That brake chains break from wear or other causes.

2nd. That reversing the current cannot be relied upon for stopping.

3rd. That the safety chain of the Sterling Safety Brake, attached, always ready and unworn, is a strong assurance of security.

**STERLING-MEAKER
COMPANY**
NEWARK, N.J., U.S.A.

C. P. R. LANDS

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. Ranching 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 not more than 640 acres, on the ten instalment plan by paying a cash instalment at time of purchase, interest at six per cent, on the unpaid purchase money at the end of the first year, and the balance of the principal with interest in nine equal instalments annually thereafter as shewn in the following table:—

160 Acres at \$3.50 per acre, cash payment \$83.90, first year's interest \$28.58 and nine instalments of \$70.00	
" " 4.00 " " " " " " " " " " " "	95.85, " " " " " " " " " "
" " 4.50 " " " " " " " " " " " "	107.85, " " " " " " " " " "
" " 5.00 " " " " " " " " " " " "	119.85, " " " " " " " " " "
" " 5.50 " " " " " " " " " " " "	131.80, " " " " " " " " " "
" " 6.00 " " " " " " " " " " " "	143.80, " " " " " " " " " "

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.

CANADA NORTH-WEST LAND CO

This Company has 750,000 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.

Temiskaming and Northern Ontario Ry.

Replying to a question in the Ontario Legislature recently, the Minister of Public Works stated that the expenditure on the construction of this line to Mar. 1 was \$4,882,855.51, of which \$4,240,114.82 was on the first division, and \$642,740.64 on the second division. During April there was expended \$7,993.28 on the first division, and \$118,362.16 on the second division, making a total of \$5,009,210.95.

Another question elicited the following information as to the quantities estimated, and the actual quantities paid for to Jan. 30 last in the construction of the first 112 miles of the railway.

	Estimated.	Paid For.	Price
Solid rock, cu. yds.....	200,000	882,542	\$1.70
Loose rock, cu. yds.....	100,000	68,367	.50
Hardpan, cu. yds.....	850,000	774,123	.38
Earth, cu. yds.....	1,500,000	764,695	.22
Permanent trestle, ft.....	4,000,000	1,341,367	.25
Temporary trestle, ft.....	10,000	687,241	.25
Culverts.....	1,600,000	751,051	.24

The third annual report of the commission details the work done during 1904. The report is divided into five sections—two dealing with construction, from North Bay to New Liskeard, and from New Liskeard northerly; one with rolling stock and equipment, one with finances and the last on the proposed land grant.

In connection with the construction between North Bay and New Liskeard, the contractor was given an extension of three months' reasonable weather to complete trestle filling and ballasting, which left the line in his hands until Aug. 15, 1904. In Sept. J. H. Black was appointed General Freight and Passenger Agent, to arrange tariffs, etc., and was subsequently appointed General Superintendent to operate the line. Reference is made to the erection of water tanks, station houses, and secondary houses on the line, the laying out of yards, etc. Stations were erected at Temagami, Haileybury, Whitefield, Montreal River and New Liskeard. The progress on the telegraph line not being satisfactory, a contract was let for the work at \$65 a mile.

Tenders were asked for early in May, 1904, for the construction of the line northerly, the commissioners undertaking to deliver rails, ties, etc., at New Liskeard. Four tenders were received, and the contract was awarded to A. R. Macdonell, who was the contractor for the first section of the line. Upon the estimated quantities the prices tendered worked out as follows:

A. R. Macdonell.....	\$1,523,650.00
Larkin & Sangster.....	1,681,325.00
Battle, Conlon & Armstrong..	2,354,642.50
B. D. Steacy.....	2,756,950.00

A contract was entered into with A. R. Macdonell and the work proceeded. The plans were submitted to Jos. Hobson, Chief Engineer, G.T.R.; who, in reporting upon the first 47 miles, said there are 44 curves, with an aggregate length of 57,717 ft., or say 10.93 miles out of a total length of 47 miles, which is very satisfactory. The curvature varies from 1° to 4°, and Mr. Hobson said that there were on lines ranking among the best on the continent more objectionable curves than any proposed. The gradients were favorable, the maximum being 1% for a total distance of five miles. Taking the line as a whole the gradients are remarkably good. The elevation of the subgrade at station O at the south end is approximately 648.5 ft. above datum; and at milepost 46 it is 1,024 ft.; the gradients are therefore favorable to southbound traffic. The contract called for the laying of 25 miles of track by the end of 1904.

The commissioners rented four locomotives to the G.T.R. at \$10 a day each between Feb. 12 and April 24, and subsequently rented four locomotives and a num-

ber of flat cars to A. R. Macdonell for ballasting at \$10 a day per locomotive, and 25 cents a day for each car. The total revenue from rolling stock was \$18,891.83, of which \$2,627.18 was received in cash from the G.T.R., and the balance deducted monthly from the progress payments to the contractor. The following equipment was ordered: three first-class passenger coaches, four second-class coaches, two combination baggage, mail and express cars, to be equipped with Westinghouse quick action brakes, which were delivered in Sept. and Oct.; 50 flat cars, one baggage and mail car, and 10 stock cars from the Crossen Manufacturing Co., Cobourg, Ont.; 25 flat cars, two conductors' vans and a snow plow from Rhodes, Curry & Co., Amherst, N.S. Two flanger cars and 25 flat cars were also purchased.

The statement of receipts and expenditure showed total receipts of \$5,859,252.03, of which \$228.40 was for cordwood sold in 1903, and \$19,019.63 for cordwood sold, and rent of engines, etc., the balance being a loan from the Province. The expenditure for 1903 was \$2,020,320.82, and for 1904 \$2,484,245.19, total \$4,504,566.01, leaving a balance of \$1,354,686.02.

The Chief Engineer, W. B. Russell, in his report referred to the completion of the 112.95 miles from North Bay to New Liskeard, with its water tanks, telegraph line, fencing through the settled townships, and station buildings, and to the survey work on the line north of New Liskeard. The work on this section turned out comparatively light on the first 32 miles, although there were one or two cuts; from mileage 32 to mileage 56, the work turned out heavy, and from mileage 56 to mileage 65, light. The maximum and ruling gradient was .5% rising north, and .4% rising south with compensation for all curves of .04% per degree, and advantage being taken in places of velocity or momentum gradients as high as .75% to reduce the work. The maximum curve held throughout is 4° with a radius of 1,432 ft. There are two heavy stream crossings at mileage 25 and 33 respectively, one being 100 ft. deep, and 700 ft. long; and the other 100 ft. deep and 550 ft. long at the top. They are to be crossed with steel trestles with 200 ft. and 150 ft. spans on the centres. Owing to the low ruling gradient, it is necessary to have some heavy cuts and fills in the broken country, one near the 36th mile is 70,000 cubic yards. At the end of 1904 the grading and track laying had been completed to the Blanche River, 25 miles from New Liskeard; grading had been done in spots to the 40th mile, and a road cut to mileage 70, three miles beyond the Hudson Bay height of land.

The final section of the report deals with the land grant voted for the construction of the line, viz., 20,000 acres a mile. It suggests the setting apart of an area of 6,336 square miles of land in Algoma and Nipissing districts, and north of the height of land for the purpose of sale by the commissioners, and recommends several amendments in the act as to the grant.

Railway Equipment Notes.

The Quebec and Lake St. John Ry. is adding to its rolling stock one passenger and one freight locomotive, a sleeping car and a passenger car.

The report that the C.P.R. had ordered 25 automobile cars, for use on its line in the Rocky Mountains, has, we are officially advised, no foundation whatever.

G. R. Prowse, Montreal, has just filled an order for cooking ranges and complete cooking apparatus for two dining cars which have been built by the Pullman Co.

The C.P.R. between April 14 and May 17, placed the following orders for rolling stock:—34 flat cars, 24 stock cars, with its Angus shops, Montreal; 15 vans, with its Farnham, Que., shops; 4 steam shovels, with the Locomotive and Machine Co., of Montreal.

The Government car Ottawa has been overhauled at the Intercolonial Ry. shops at Moncton, N.B. It has been fitted with electric light, generated by a dynamo propelled from the axles, and there is a storage battery for use when the car is at rest.

The C.P.R. between April 14 and May 17 added the following to its rolling stock:—6 switching locomotives, 6 colonist cars, 264 box cars, and 50 ballast cars, from its Angus shops, Montreal; 4 vans from its Farnham, Que., shops; 13 colonial cars from the United States.

In the House of Commons May 23 a vote was passed amounting to \$1,383,000 for the purchase during the year of 12 passenger and freight locomotives; 25 first-class day coaches, four second-class coaches, four parlor cars, two dining cars, 10 baggage cars and 150 box cars for the Intercolonial Ry.

The Intercolonial Ry. between April 19 and May 20, added to its rolling stock six Pacific type locomotives from the Canadian Locomotive Co., Kingston, Ont., and has also received 50 box cars from the Crossen Car Manufacturing Co., Cobourg, Ont., to replace cars destroyed, etc. The line is not at present in the market for additional rolling stock.

The Crossen Car Manufacturing Co., Cobourg, Ont., has orders on hand for 16 passenger cars of different descriptions for the Intercolonial Ry.; one baggage and mail car and 200 box cars for the Temiskaming and Northern Ontario Ry.; 10 passenger coaches, five baggage cars and 200 box cars for the Canadian Northern Ry.; and 100 flat cars for the James Bay Ry. The company has recently completed 100 flat cars for the James Bay Ry.

The executive officers of the Canada Car Co., Montreal, are: President and General Manager, W. P. Coleman; Vice-President, Sir H. M. Allan; Assistant General Manager, N. S. Reeder, Jr.; General Superintendent, J. Coleman; Auditor, and Assistant Sec. and Treasurer, R. B. Edwards. The company has placed large orders for the machinery for its works with the John Bertram Sons Co., Dundas, Ont.; Williams & Wilson, Montreal, and others.

The Canadian Northern Ry. has placed orders for the following passenger equipment: five 60 ft. baggage cars, 10 passenger coaches with the Crossen Car Manufacturing Co., Cobourg, Ont.; four 1st class passenger coaches, five 60 ft. baggage cars, 10 60 ft. mail and express cars with Rhodes, Curry & Co., Amherst, N.S.; 10 first-class coaches and 6 sleeping cars in the United States. The delivery of this equipment is to be made between July and October.

The Canadian Northern Ry. has placed an order with the Canada Foundry Co., Toronto, for five 10-wheel freight and passenger locomotives for the James Bay Ry. Following are the specifications:

- CLASS.—4-6-0-141.
- CYLINDERS.—Diameter, 19 in.; stroke, 24 in.
- WHEEL BASE.—Driving, 12 ft. 6 in.; total, 22 ft. 6 in.; engine and tender, 50 ft. 4½ in.
- WEIGHT.—In working order on drivers, 111,000 lbs.; on trucks, 30,000 lbs.; total, 141,000 lbs.; tender, 120,000 lbs.; total engine and tender, 261,000 lbs.
- BOILER.—Diameter, 62 in.; working pressure, 180 lbs.
- TUBES.—No. 260; outside diameter, 2 in.
- FIREBOX.—Length, 102½ in.; width, 42½ in.
- HEATING SURFACE.—Tubes, 1,618 sq. ft.; firebox, 148 sq. ft.; total, 1,766 sq. ft.; grate area, 30.2 sq. ft.
- LENGTH, ETC.—Length over all, 60 ft. 2½ in.; width, 10 ft. 2 in.; height of stack above rail, 14 ft. 5 in.
- WHEELS.—Diameter of driving wheels, 57 ins.
- TENDER.—Capacity, Ten tons of coal; 5,000 imperial gals. water.

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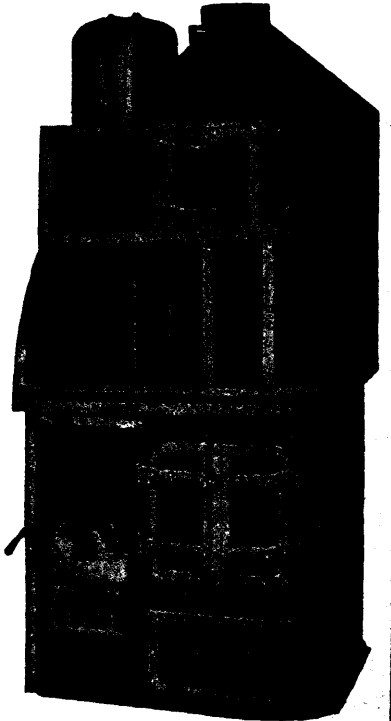
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Special First-class Round Trip Tickets at one fare plus \$2.00 from Chicago to Home-seekers in South and South-west.

Look The Illinois Central map over and consult

G. B. WYLLIE,
Canadian Passenger Agent,

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C.P.R. Hotel at Victoria.

The hotel which the C.P.R. has under construction at Victoria, B.C., has been designed on similar lines to the company's Montreal hotel—the Place Viger. The building will face the west, will have a frontage of 210 ft., with a porte cochere at one end, and a depth of 114 ft. There will be an annex of 116½ ft. by 45 ft. 10 in., in which will be the kitchen. The main building there will be five storeys high, and in addition there will be a basement 14 ft. high, and two floors in the high pitched roof. The front elevation shows a main entrance up a flight of stone stairs, to a verandah, which will be about 14 ft. deep to the wall of the central portion of the building. This verandah will be 85 ft. frontage, and over it will be a balcony reached by a door in the second storey. The balcony will be supported on stone arches, surmounted with decorative wings. The whole frontage shows a handsome and harmonious design carefully worked out.

On entering the central door from the verandah, the lounging room will be found to the right, and a drawing-room 30 by 50 ft. to the left. To the rear will be the palm room 68 by 46 ft., the palm garden itself occupying space 26 ft. square under a sky-light. To the left will be found a private dining-room 16½ ft. by 20 ft. These take up the centre part of the building. Adjoining the verandah on the right will be the smoking-room 36 by 20 ft., hall leading to side entrance and porte cochere, cloak and parcel room, offices and bedroom, etc., for manager and clerk. On the other side will be the dining-room 38 by 77 ft. To the rear of the centre of the hotel is a large palm garden, and some private rooms, with the kitchens adjoining and in the rear of the dining-room. These are contained in the annex. The first floor is given over to bedrooms, of which there are 25, most of them have bathrooms attached, and a number are so arranged as to be made connecting to suit family parties. The main corridor extending from north to south is 12½ ft. wide, and the north and south corridors are each 8 ft. wide. At each end of the main corridor and at the east end of the south corridor is a balcony fitted with fire ladders. The other floors also are divided up for bedrooms, with bathrooms, lavatories, and all other necessary accommodation for guests.

The basement contains a billiard room, grill room, bar, barber's shop, a number of sample rooms, baggage room, lavatories, as well as a number of bedrooms, etc., for the staff.

The decorations will be of an elaborate character. The main stairway from the ground to the first floor will be of marble with bronze rail, and the main hall will have marble walls and floor. The lounging-room will be in white, the walls being panelled on both sides; the drawing-room in white; the dining-room in Australian red bean; and the smoking room in Flemish oak.

The architect is F. M. Rattenbury, of Victoria, B.C., who also prepared the plans for the reconstruction of the company's hotel in Vancouver. The contractors are A. E. and R. Barrett, Vancouver.

The corporate name of the Standard Construction Co. was changed by supplementary letters patent issued at Ottawa, April 28, to the Pacific Construction Co. (Ltd.).

The Canadian Westinghouse Co. has sold a 500 k.w. enclosed type turbo-generator unit to the C.P.R. to be installed at Fort William, Ont., for supplying power to the grain elevators there. The unit is to operate 3 phase, 600 volt, 7,200 alternations, 3,600 r.p.m.

Pedigreed Live Stock Shipments.

The question of the railway charges for the carriage of pedigree live stock for breeding purposes in Canada has recently been the subject of considerable discussion between the agricultural interests, the railway companies and the Board of Railway Commissioners. Under the rules of the railway companies regarding the shipment of such stock, pedigreed horses, cattle, sheep, and swine in less than carload lots are waybilled at one-half the regular rates upon the production of certificates of registration from a live stock record association, recognized as reliable by the Dominion Department of Agriculture, and the signing of an agreement limiting the valuation to that of ordinary stock. The C.P.R. granted settlers' rates on such stock, not exceeding 10 head in any one case, going to Manitoba and the Northwest Territories, on the same conditions as to production of certificates and the limitation of value. The companies recently stated that this privilege would be withdrawn, and in the course of negotiations between them and the live stock associations and the Railway Commissioners, it came out that the privilege was being abused in various ways, and that the number and variety of the certificate forms issued by the 58 Canadian, 56 British and 36 United States societies, led to confusion and to the carriage at the low rate of animals not properly registered. As the result of the negotiations new regulations have been agreed to which come into effect June 1. These provide for the carrying of pedigree stock as heretofore but require that all certificates shall be uniform in size and appearance, and bear the seal of a central body approved by the Dominion Department of Agriculture. A shipping certificate has to be provided for each shipment, and a record of all movements over the rail at the reduced rate has to be endorsed on the record certificate.

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

Algoma Central and Hudson Bay Ry.—The company applied to the Dominion Parliament this session for an extension of time for the completion of its railway to Hudson Bay. The applicants desired to have five years within which to commence the extension, but the House of Commons has cut this down to two years, with five years as the time within which the line has to be completed.

The Lake Superior Corporation, which now controls the charter, is said to be arranging to have the line completed to a junction with the C.P.R. transcontinental line. At present about 25 miles of grading is required for this purpose, but there is a long stretch, something like 130 miles, on which track has to be laid, and a number of bridges to be built between the present track end and the point at which grading has to be taken up again. (April, pg. 143.)

Anthracite Coal Ry. Co.—J. M. Burns, T. Allan, of Calgary, Alta., are applying at the current session of the Dominion Parliament for an act incorporating a railway from the collieries in tps 18 and 19, ranges 7 and 8, west of the 5th meridian, easterly and southerly to Lethbridge, Alta.

Atlantic, Quebec and Western Ry.—A special meeting of the shareholders has been called to be held in London, Eng., June 12, for the purpose of authorizing an issue of bonds not exceeding \$9,050,000 in connection with the construction of the line, and to authorize the execution of a mortgage of the line, etc., as security for the same. (May, pg. 181.)

Bay of Quinte Ry.—Application is being made at the current session of the Dominion Parliament for an act authorizing the construction of a branch line from Bridgewater for 15 miles northeasterly, to the actinolite mines near Kaladar, Ont. (Mar., pg. 89.)

Bessemer and Barry's Bay Ry.—A general meeting of shareholders was held at Bessemer, Ont., May 12, when an issue of bonds not to exceed \$20,000 a mile, or \$100,000 in all, covering the construction of five miles of the projected line from L'Amable, northerly, was approved, and the issue of a mortgage to secure the same authorized. (May, pg. 181.)

Brandon, Saskatchewan and Hudson's Bay Ry.—The Dominion Parliament is being asked at its current session for an act extending the time for the commencement and completion of the Railway authorized by an act passed in 1903. The railway is projected from Brandon to a point on Hudson Bay near Chesterfield Inlet.

Brockville, Westport and Northern Ry.—Press reports state that the survey party had reached Clyde Falls, 300 miles northwest of Westport, that the construction gang had reached Bolingbroke, and that tracklaying would soon be commenced. A later report states that the survey party had given up work on account of wages not having been paid. (May, pg. 181.)

Bruce Mines and Algoma Ry.—The Ontario Legislature last session passed an act authorizing the construction of a line between Biscotasing and Chapeau stations on the C.P.R. transcontinental line, to Hannah Bay, on Hudson Bay, with branches. The company has power to construct a line from its present terminus at Rock Lake, Ont., to the C.P.R. line. (April, pg. 143.)

Canada Central Ry.—The Ontario Legislature last session passed an act authorizing a change in the provisional directors, the names of F. H. Clergue, W. Morris, G. E. Drummond, W. H. Plummer, J. MacArthur, W. A. Firstbrook, being added, and giving power to construct a railway, in addition to the lines already authorized, from Sudbury to Little Current, across Manitoulin Island, to Fitzwilliam Island; and from Tobermory to Meaford, Ont.; from Sudbury to Lake Temiskaming; from Sudbury to St. Mary's River; from Sudbury to Sutton, Ont., and from Sudbury to Hudson Bay, Ont. (April, pg. 143.) See also Manitoulin and North Shore Ry.

Central Ontario Ry.—Tenders were received to May 27, for the clearing, grubbing and grading of a section of the Whitney extension from Bancroft to Bird's Creek, Ont., 3½ miles. Work is expected to be commenced early in June, and to be pushed through to completion as fast as possible.

Coast Kootenay Ry.—The Railway Committee of the House of Commons has approved of the bill for an extension of the time for the construction of this line for a further period of two years.

Detroit River Bridge.—New York press reports state that the Vanderbilt plans for constructing an international railway tunnel under the Detroit River between Detroit, Mich., and Windsor, Ont., have been completed. Most of the preliminary details have been accomplished and work will be inaugurated soon. The undertaking will cost from \$10,000,000 to \$20,000,000, and will probably require two years to complete. As to the financing of the project it is stated that the Canada Southern Ry. will be the holding Co., and that the matter will be finally settled at the annual meeting of the C. S. Ry. Co., June 7. The plans for an international bridge at Detroit had to be abandoned because, first, of the cost, and second, the demands of the U.S. government in its restrictions upon structures across navigable streams. The tunnel plan was then taken up and the defin-

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ite lines upon which it is to be constructed, outlined. Arrangements are said to have been made or are pending, whereby the G.T.R. will use the tunnel on a rental basis. All other roads in the future will be allowed the use of the tunnel on a like basis. (April, pg. 143.)

Great Northern Ry. of Canada.—We are advised that no decision has been reached in respect to the extent of construction to be done during the current year. (May, pg. 181.)

Halifax and Southwestern Ry.—The Halifax and Yarmouth Ry. from Yarmouth to Barrington, N.S., has passed under control of the H. and S. W. Ry., and the line now under construction from Halifax will connect with it thus completing the line along the shore for which the people have been agitating for so many years. The route west from Liverpool has not yet been officially announced. T. H. White, Chief Engineer, was in Ottawa early in May, consulting with the Department of Railways in reference to the route. (May, pg. 181.)

Hamilton Terminal Ry.—C. S. Wilcox, A. E. Carpenter, C. E. Doolittle, W. Southam, J. Milne, G. L. Staunton, R. Hobson, of Hamilton, applied at the recent session of the Ontario Legislature for the incorporation of a company with this title. The object was to take over the 25 miles of track now owned and operated by the Hamilton Steel and Iron Co., or to be owned by it or its successors, with power of expropriation. The bill was opposed by the City of Hamilton, and after discussion, was thrown out.

Hermia Mining Co.—The Ontario Legislature has passed an act confirming the incorporation of this company and authorizing it to construct, in connection with its mining properties, a railway from Salter township on Lake Huron, to its copper mines at Sauble River, Ont., with a number of branch lines, not exceeding six miles in length. The provisional directors of the company are J. Hermann, Rev. H. Appleton, J. A. McPhail, L. Sibilsky, O. J. Larson, Calumet, Mich.; P. Primeau, J. S. Wilson, W. H. Green, Marquette, Mich. (April, pg. 144.)

Intercolonial Ry.—Arrangements are reported to be in progress for starting work on the extension to Sydney Mines, N.S. Mr. McLean, of the engineering staff, was in Cape Breton early in May in connection with the work. Work has been resumed on the double-tracking of the line at Rockingham, N.S. (April, pg. 144.)

James Bay Ry.—An arrangement has been made between the Orillia town council and the company by which the main line is to be taken through Orillia, in consideration of a bonus of \$30,000. A by-law giving effect to this agreement was carried on May 15. A number of questions affecting the route were raised in the Ontario Legislature, and a return of all documents relating to the matter was ordered. (May, pg. 185.)

Kato and Lardo-Duncan Ry.—Application is being made at the current session of the Dominion Parliament for an act authorizing an extension of the time for the commencement and completion of this line in British Columbia.

Kettle Valley Lines.—The Republic and Kettle River Ry. Co., one of the companies operating in British Columbia and Washington, operated as the Spokane and British Columbia Ry., and has increased its capital by \$5,000,000. It is said the line will be extended from Republic to Spokane, Wash.

Lake Superior, Long Lake and Albany River Ry.—The Ontario Legislature passed an act at its recent session extending the time for the commencement of this projected railway from Peninsula Harbor, on Lake

Superior, to Albany River, for two years, and the time for its completion for five years. (April, pg. 145.)

Manitoulin and North Shore Ry.—The application of the company, which is one of the numerous railway projects, the charters for which are owned by the Lake Superior corporation, at the current session of the Dominion Parliament for an extension of time, was contested by residents of Owen Sound, Ont. The company has power to construct a line to connect Owen Sound and Meaford, but as nothing was being done in the way of construction, local interests applied for an act of incorporation as the Owen Sound and Meaford Ry. As a result of the meeting between the Owen Sound deputation and the promoters of the M. and N.S. Ry., an agreement was reached, in consequence of which it is provided in the act that if the M. and N.S. Ry. does not begin construction between Owen Sound and Meaford within six months, and expend \$150,000 on construction, its powers are to lapse. The line is to be completed in 1906. In connection with the power of the company to construct a line from Sudbury to Little Current, a section was inserted directing the commencement of work within a year from July 1 at Little Current, the spending of \$120,000 within a year, and the completion of the work within two years. The Ontario Government has been asked to aid in the construction of this latter piece of line, 75 miles in length. We were advised May 22 that no definite arrangements had been made; that no engineer had been appointed, and that it was not likely anything would be done for some weeks. See also Canada Central Ry., and Owen Sound and Meaford Ry.

Nicola, Kamloops and Similkameen Coal and Ry. Co.—The Railway Commissioners have approved of the route of a projected railway from Spence's Bridge, on the main line of the C.P.R., to Nicola Lake, B.C., 45 miles. (April, pg. 145.)

North Lanark Ry.—Plans of the route of the North Lanark Ry. between Ottawa and Arnprior, Ont., have been filed with the Department of Public Works, Ont.

Northwest Coal and Coke Co.—Application is being made at the current session of the Dominion Parliament for an act extending the time for the construction of the railway authorized by the act of 1903. The line authorized is from Bull Park to a point between Cowley and Livingston, Alta. It is also asked that the name be changed to the Great West Ry. Co. J. B. Crawford is President, and F. Seaman, Secretary of the company. The company has control of 30 square miles of coal lands in Alberta.

Owen Sound and Meaford Ry.—The Railway Committee of the House of Commons has recommended the passing of an act incorporating a company with this title to construct a railway between Owen Sound, and Meaford, Ont., 23 miles. The company may commence its work within two years, and complete the line in five years. It is stated by representatives of Owen Sound who attended before the committee of the House of Commons, that the agreement with the Manitoulin and North Shore Ry. provides for the forfeiture of its charter if the line is not under construction by Jan. 1, 1906, and for the construction of the line by this company. A statement is also made at Owen Sound, that the line will be operated by the G.T.R., and that an arrangement will be made for running rights for the C.P.R. over it. See also Manitoulin and North Shore Ry.

Prince Edward Island Ry.—The seven mile branch from Cardigan to Montague Bridge is being constructed by W. Kitchen. The work is fairly heavy and includes two large bridges, one over Brudenell River, and the other over Vessy's Creek, as well as several large culverts. The contractor has 200 men and 100

teams on the work. It is expected that the branch will be completed in the fall.

The branch from Village Green to Vernon River Bridge is being constructed by M. F. Schurman & Co., Kensington, P.E.I. There are no special engineering or other difficulties in connection with the contract. Work is being pushed and it is expected to have the grading completed and the track laid early in the fall. (April, pg. 145.)

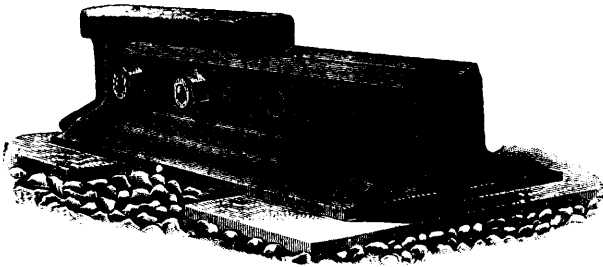
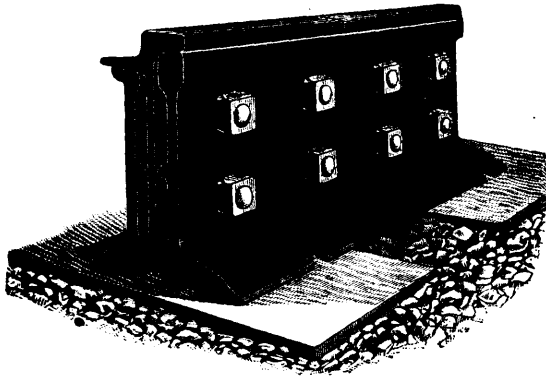
Prince Edward Island Tunnel.—A deputation from Prince Edward Island has been visiting various places in Ontario, Quebec and the Maritime Provinces, advocating the construction of a tunnel between the Island and the mainland. Meetings have been held in the island at which resolutions approving of the construction of a tunnel have been passed. (May, pg. 185.)

Quebec and Lake St. John Ry.—The annual report of the company gives details of a number of improvements commenced on the line during 1904, and which are to be completed during the current year. Among the works are the following:—The construction of a steel trestle bridge on masonry substructure over Rondeau River, at mileage 40; constructing a heavy timber bridge over the Rat River, at Chicoutimi; ballasting and widening the main line; the construction of engine sheds at Lake Edward and Chicoutimi; the erection of a coal chute at Chambord Jct.; the erection and improvement of stations and freight sheds at Roberval, Lake Bouchette, St. Jerome, St. Gedeon, Hebertville, and Chicoutimi; and the purchasing of land for additional shunting yard at the Quebec terminals. Steel rails, 70 lbs., were bought and 40 miles of the main track relaid. The lighter rails taken up will be utilized for the La Tuque branch, now under construction, and on the branch towards Gosford, the grading for which was completed in 1904. The track-laying on this latter branch was expected to be started by the end of May. It was also expected that work on the branch from Roberval to the Government wharf there, one mile in length, will be started early in June. (May, pg. 185.)

Temiskaming and Northern Ontario Ry.—The Government asked the Ontario Legislature for an act to give authority to extend the line to connect with the G.T. Pacific; to construct a number of branches; and for the prosecution of surveys as far as James Bay. Power was also asked for the purpose of generating electricity. In connection with the financing of construction, power was given to raise additional money if required, and a direction was given for the keeping of the accounts of the Commissioners in the Provincial Treasurer's office. The Commissioners, it was proposed, should have power to engage a consulting engineer who may be one of their number, and it is provided that a salary of \$2,500 a year may be paid to him in addition to the honorarium of \$1,000 a year as Commissioner.

Respecting the development of electrical power and its use on the line, D. Murphy, one of the Commissioners, said recently that something might be done in the future, as it had been demonstrated that electricity could be used successfully for long distance runs. It was claimed that heavier loads could be hauled and better time made with an electric motor than by steam. The Commissioners have placed the matter of reporting on the feasibility of adopting electric traction on the portion of the line between North Bay and New Liskeard, Ont., in the hands of electrical engineers to report upon. These engineers are authorized to obtain consultations from the best authorities on electric freight traction. The Commissioners expect to have the report of the engineers, with estimate of the cost, in hand early in June. At the same time the cost of developing water power on the Montreal River will be determined and

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For information regarding homesteads, apply at the Dominion Land Office.

For purchase of Provincial lands apply at the Provincial Land Office in the Parliament Buildings.

For C.P.R. or C.N.R. lands apply at the land offices of said railway companies.

For lands owned by private individuals apply to the various real estate agents in the city.

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the Commissioners will then probably decide on the question of operating the road by electricity. (April, pg. 145.)

Trans-Canada Ry.—In reference to the press reports that the capital had been secured for the immediate construction of about 400 miles of railway from Roberval, Que., to Hudson Bay, for the Quebec and Lake St. John Ry., we are advised that the proposed construction is to be on the Trans-Canada Ry., which is controlled by very much the same interests as the Q. and L. St. J. Ry. The capital is ready for the construction of the line from Roberval, which is the Lake St. John terminal of the Q. and L. St. J. Ry., to the mouth of Nottaway River, on James Bay, a distance of 380 miles, with a branch from the main line to the mining district of Lake Chibogamo, where there are large deposits of asbestos, copper, magnetic iron and gold. The furnishing of the money is subject to certain terms which are under the consideration of the Government. Surveys for the line have been made by H. O'Sullivan, F.R.G.S., and A. E. Doucet, C.E., and the promoters hope that the work may go on this year. The projected line will run almost exactly through the centre of the province, considerably to the north of the proposed route of the Eastern Division of the Grand Trunk Pacific Ry., and an excellent route has been obtained. The summit between the St. Lawrence and the Hudson Bay watersheds is only 900 ft. higher than Lake St. John, or 1,200 ft. above tide level. There are in the country to be opened up several million acres of spruce forests, and some very large water powers capable of developing from 200,000 to 400,000 h.p.; the soil generally is good, and the climate is stated to be better than that prevailing in the Lower St. Lawrence valley.

Vancouver, Victoria and Eastern Ry.—Application is being made at the current session of the Dominion Parliament for an act to again declare the company to be one under the jurisdiction of the Dominion Parliament, and authorizing the construction of a line from Oliver's, on the line of the Victoria Terminal Ry. and Ferry Co.'s line, to Livering pool, and the Fraser River Bridge; the making of connections with lines operating in the State of Washington, and the Vancouver, Westminster and Yukon Ry.; the Victoria Terminal Ry. and Ferry Co., and the New Westminster Southern Ry. An extension of time for the completion of the lines is also being asked.

Several survey parties are reported to be in the field at different points, and J. H. Kennedy, Chief Engineer, was recently reported to be visiting those working in the vicinity of Princeton and Keremeos, B.C. A number of contractors' engineers are also in the district looking over the ground. (April, pg. 145.)

Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:—

Authorizing the C.P.R., as lessees of the Toronto, Grey and Bruce Ry., to construct a siding on Liberty St., Toronto, crossing a G.T.R. siding at Jefferson Ave. (Mar. 18.)

Authorizing the C.P.R. to extend its branch line from sec. 19, tp. 2, range 6, west of the second principal meridian in Assiniboia, for 4.32 miles. (Mar. 28.)

Approving of the C.P.R. form of circus transportation contract. (April 20.)

Approving plans for the location of the Nicola, Kamloops and Similkameen Coal and Ry. Co.'s proposed railway from Spence's Bridge to Nicola Lake, 45 miles. (April 24.)

Authorizing a highway crossing of the C.P.R. in Russell township, Russell county, Ont. (April 26.)

Granting permission to the Guelph and

Goderich Ry. to carry its tracks under the G.T.R. at Blyth, Ont. (April 26.)

Authorizing the Quebec Ry., Light and Power Co. to construct a branch from its main line to the grounds of the Beauport Lunatic Asylum, Quebec. (April 27.)

Granting permission to the Gravenhurst, Ont., corporation to carry water mains under the G.T.R. tracks in that town. (Apr. 28.)

Approving an electric interlocking plant at Garth St., Hamilton, Ont., for the Toronto, Hamilton and Buffalo Ry. (April 29.)

Sanctioning location of a line for the C.P.R. from Yahk, B. C., to the International boundary, 9.19 miles. (April 29.)

Approving plans of a bridge over the Big Sauble River near Theford, Ont., at mileage 134½ from Toronto, for the G.T.R. (May 1.)

Approving plans for a number of bridges on the Canada Atlantic Ry., on the application of the G.T.R. (May 1.)

Approving plans of a bridge across the Pothole Valley, Alta., for the Alberta Ry. and Irrigation Co. (May 1.)

Approving plans for three trestle bridges for the G.T.R. on the Northern Division. (May 2.)

Approving plans and profiles of an extension of the Calgary and Edmonton Ry. from Strathcona to Edmonton, Alta., for the C.P.R. (May 3.)

Approving plans for the construction of the Quill Lakes branch of the Manitoba and North-Western Ry. for the C.P.R. (May 9.)

Authorizing the G.T.R. to expropriate lands in the village of Notre Dame de Graces, West, Montreal, containing altogether 3.97 acres. (May 10.)

Approving of a proposed deviation of the route of the power transmission line of the Toronto and Niagara Power Co. in the third concession of York tp., York county. (May 12.)

Approving of plans for a branch line in Ingersoll, Ont., for the Tillsonburg, Lake Erie and Pacific Ry. (May 12.)

Authorizing changes in the location at nine points of the line located between Kleinburg and Sudbury, Ont., for the C.P.R. The Board disallowed the application to change the location at four other points. (May 15.)

Approving of plans for the reconstruction of the superstructures of bridges for the G.T.R. in the 12th District. (May 15.)

Directing the repayment to the Schomberg and Aurora Ry. of \$200 deposited as security for the cost of construction of a siding with the G.T.R. at King, Ont. (May 15.)

Authorizing a change in the interlocking of the crossing by the Toronto, Hamilton and Buffalo Ry. of the G.T.R. at Victoria St., Hamilton, Ont. (May 22.)

Approving of plans for a number of bridges to be built by the C.P.R. on the Atlantic, Eastern, Lake Superior and Pacific divisions, and also approving of standard plate girder spans on the line. (May 22.)

The New Ontario Transportation Co. has been incorporated under the Ontario Companies' Act, with a capital of \$40,000 and offices at Fort William, Ont., to carry on a general contracting business. The provisional directors are: J. S. Smith, of Port Arthur, Ont.; E. H. Lane, E. J. Newton F. DeL. Stover, J. S. Steele, of Fort William.

The Canadian Northern Ry. has filed with the Board of Railway Commissioners tariffs of tolls on its main line from Kamsack to the Elbow, Assa., at 3½ cents a mile; Arizona section—Arizona Jct. to Pleasant Point, Man.; Carberry branch—Brandon Jct. to Carberry, Man.; Clanwilliam branch—Neepawa to Clanwilliam, Man., at 3 cents a mile.

Railway Commission Freight Orders.

The Bay of Quinte Ry. applied to the Board for permission to issue special rate notices giving carload rates on the actual weight of grain left in elevators or country storehouses at the close of the season's business, without previous application. On Feb. 9 the Board issued an order authorizing the issue of special rate notices in certain cases, and upon report of the Chief Traffic Officer, and it appearing to the Board that the practice referred to is one of long standing with the railways, is in the public interest, and that it would be unreasonable to require the shipper to pay the full carload minimum weight for each lot, it is ordered, "That the railway companies subject to the act be, and they are hereby, authorized to apply the carload rates on the actual weight on any less-than-carload lots of grain that may remain in the shippers' storehouses or elevators at the cleaning up of the season's business, preparatory to the reception of the new crops; and that the special rate notices giving effect to the said rates to be filed with the Board, and show for the information of the Board the reason for the issue thereof, and the rates which would have to be charged in the absence of said notices." (May 16.)

Upon the complaint of the Farmers' Association of Canada and the Dominion Cattle Dealers' Association against the G.T.R. and the C.P.R., under the Railway Act, 1903, alleging that discriminatory and excessive rates are charged for the transportation of cattle, in carloads, from stations on companies' lines to Montreal for export. On Mar. 6 the respondent companies were directed to submit for approval a proposition for rates scaling down from 23½c. from stations in Canada, west of Stratford, London and St. Thomas, and 25c. from the territory north of Goderich contiguous to Lake Huron and Georgian Bay, through reasonably graduated groups, to 15c. from Toronto, the rates from the Niagara district not to exceed the rate from Brantford, the present rates in no case to be exceeded, and section 252, subsection 3, of the Railway Act, 1903, to be observed. Application was made by the companies for a re-hearing of their case, which was had at Toronto April 25. Upon hearing Mr. Gregory on behalf of the complainants, and Mr. Loud for the companies, and upon the report and recommendation of the Chief Traffic Officer, and the evidence adduced, the Board has issued the following order May 18: "That in place of the rates at present being charged, the respondent companies substitute rates not exceeding the following, namely:—

FROM THE UNDERMENTIONED GROUPS TO MONTREAL.	Per 100 lbs.
1. Windsor, Sarnia and Point Edward to, but not including St. Thomas, London and St. Mary's	23½ cents
2. St. Thomas, Port Rowan, London and St. Mary's to, but not including Simcoe, Brantford, Harrisburg, Galt and Berlin	22 "
3. Simcoe, Brantford, Harrisburg, Galt, Waterloo and Berlin to Fort Erie, Niagara Falls, Port Dalhousie, Dundas, Guelph Jct. and Guelph, incl.	21 "
4. Hamilton, Campbellville and Rockwood to Oakville, Streetsville and Brantford, incl.	20 "
5. East of Oakville, Streetsville and Brantford to and including Mimico, Lambton and Weston	18½ "
6. Toronto and Toronto points	17 "
7. North of Toronto to and including Maple and Woodbridge	18½ "
8. North of Maple, Woodbridge, Brantford and Georgetown to and including Newmarket, Cardwell Jct. and Caledon East	20 "
9. North of Newmarket to and including Barrie	21 "
10. North of Caledon East to and including Beeton, north of Cardwell Jct. and Inglewood to and including Orangeville	21½ "

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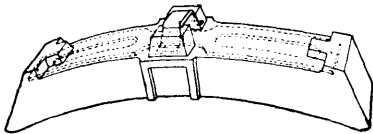
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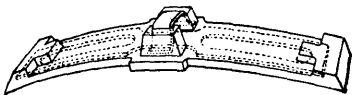
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Can be applied to any type of shoe.
The **Steel Back** doubles the life of the shoe.



Scrap, 5 Pounds

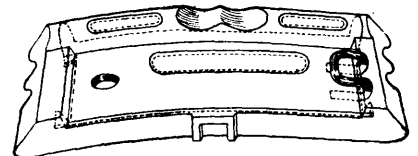
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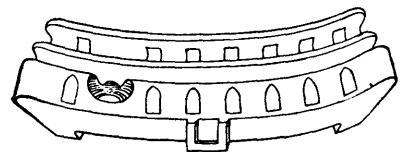
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11. North of Waterloo to Elmira, north of Guelph to Fergus, C.P.R. Elora branch and north and west of Orangeville to Crombies and Grand Valley..... 22 cents
 12. North and west of Beeton to and including Colwell, but excluding Allandale..... 22 1/2 "
 13. North and west of Colwell, Beeton, Crombies, Grand Valley and Fergus to and including Phelpston, Stayner, Creemore, Dundalk, Mount Forest and Harriston..... 23 1/2 "
 14. North of Stratford and Hyde Park to and including Goderich, Harriston and Mount Forest..... 23 1/2 "
 15. Beyond groups 13 and 14 to and including Kincardine, Southampton, Warton, Owen Sound, Meaford and Penetanguishene..... 24 1/2 "
 16. East of Toronto to and including Oshawa and Myrtle; also to and including Lindsay (via G.T.R.) and Woodville (via Lindsay); stations between Whitby and Manilla, and C.P.R. north of Burketon to Lindsay..... 17 "
 17. North of Stouffville to and including Mount Albert, north of Blackwater Jct. to and including Lorneville Jct..... 18 1/2 "
 18. West of Lorneville Jct. to Brechin, north of Mount Albert to and including Sutton..... 20 "
 19. West of Brechin to Orillia and thence to Barrie..... 21 "
 20. North of Orillia to and including Midland..... 22 "
 21. North of Lindsay to and including Fenelon Falls and Bobcaygeon..... 19 "
 22. North of Fenelon Falls to and including Kinmount, north of Lorneville Jct. to Cobocok..... 20 "
 23. North of Kinmount to Haliburton..... 21 "
 24. East of Oshawa, Myrtle and Lindsay to and including Cobourg, Peterboro' and Lakefield..... 16 "
 25. East of Cobourg and Peterboro'..... 15 "
- (Present special live stock tariff rates not to be exceeded.)

In connection with the hearing of complaints against the G.T.R. and the C.P.R., by the Farmers' Association of Canada, and the Dominion Cattle Dealers' Association, alleging discriminatory and excessive rates for the transportation of cattle to St. John, and West St. John, N.B., and Portland, Me., the Board ordered the adoption of rates varying from 20 cents per 100 lbs. from points between Kingston and Sharbot Lake to Prescott and Kemptville, inclusive; to 25 cents per 100 lbs., from west of Stratford, London and St. Thomas to the St. Clair and Detroit Rivers; north of Toronto—Point Edward main line to and including Clinton, Goderich, Listowel and Palmerston; north of Beeton, to, but not including Creemore; north and west of Allandale, to and including Stayner and Phelpston; beyond Orillia to and including Midland, Gowan and Gravenshurst, also north of Kinmount, and to 26 cents per 100 lbs., beyond points mentioned in the last two groups, and to and including Kincardine, Southampton, Warton, Owen Sound, Meaford, Hillsdale, and Penetanguishene.

The Canadian Freight Association applied for the approval of the Board to its supplement no. 4 to Canadian Freight Classification 12. This supplement proposed to make a number of changes in classification no. 12, and of supplements nos. 1, 2 and 3. The Board approved of the changes, with some slight exceptions, by an order dated May 17.

The Railway Commission, during the first 11 months of its existence, held 79 public sittings, 65 being in the west; dealt with 102 applications, and issued 307 orders. The offices of the commission during the same period made 53 inspections.

The rules of procedure to be adopted in connection with arrangements between insolvent railway companies and their creditors, and the winding up of insolvent railway companies prepared by the Judge of the Exchequer Court, under the provisions of the Railway Act, 1903, have been approved by the Committee of the Privy Council.

MAINLY ABOUT PEOPLE.

N. J. Holden, of Montreal, attended the International Railway Congress at Washington, D.C.

T. C. Keefer, C.E., has been granted the degree of Doctor of Laws by McGill University, Montreal.

Sir Thos. G. Shaughnessy, President C.P.R., returned to Montreal May 12 from a trip to Great Britain.

A. H. Taylor, Appraiser of Customs, Ottawa, who died there May 1, was formerly G.T.R. ticket agent there.

R. Kerr, Passenger Traffic Manager C.P.R., attended the recent meeting of the Western Passenger Association at Chicago, Ill.

A. C. Burgess, the former C.P.R. restaurateur, who died recently at Carleton Place, Ont., left an estate valued at \$60,000.

W. G. Warner, one of the engineers engaged on the survey for the proposed Montreal-Georgian Bay Ship Canal, died at Montreal, April 26.

The marriage of Miss Ethel Emmerson, daughter of the Minister of Railways and Canals to F. H. Deacon, of Milton, Ont., will take place June 7.

C. F. Dunbar, who died at Buffalo, N.Y., April 30, was for many years engaged in contracting. He constructed several sections of the G.T.R.

F. E. Kirby, marine architect, Detroit, Mich., where he has been located for the past 30 years, will shortly retire and proposes to reside at New York.

The house in course of erection at Crescentwood, Fort Rouge, Winnipeg, for W. Whyte, Second Vice-President C.P.R., is estimated to cost \$30,000.

J. W. Crosby, Manager Halifax Electric Tramway Co., owing to ill-health has been granted three months' leave of absence and has gone on a trip to Europe.

Thos. S. Armstrong, civil engineer in the construction department of the C.P.R., Winnipeg, Man., was married at Rostrevor, Ont., April 20, to Miss J. Dinsmore.

Col. Anderson, Chief Engineer of the Department of Marine, Ottawa, has been elected a member of the Board of the Institute of Civil Engineers of Great Britain.

W. T. Buckley, a conductor on the Ottawa and New York Ry., Ottawa, is reported to have inherited \$65,000 under the will of an uncle who died in Buffalo, N.Y., recently.

Kivas Tully, for many years engineer to the Toronto Harbor Commission, and consulting architect and engineer to the Ontario Government, died at Toronto, April 24, aged 86.

W. B. Russell, who has resigned his position as Chief Engineer of the Temiskaming and Northern Ontario Ry., will, it is reported, engage in mining pursuits in the Temiskaming country.

C. M. O'Dell, resident engineer Dominion Coal Co., Sydney, N.S., had a leg broken recently through being caught between a moving elevator and the wall at the Windsor Hotel, Montreal.

J. G. Thomson, formerly C.P.R. Traveling Passenger Agent at Chicago, Ill., has been appointed City Passenger and Ticket Agent West Shore Rd. at New York City, succeeding R. H. Pannill.

W. McDonald, who had contracts on the C.P.R. construction between Port Arthur, Ont., and Winnipeg, and during the last 20 years was a general contractor at Duluth, Minn., died there recently.

J. M. Rapelje, at one time a C.P.R. conductor at Winnipeg, Man., has been appointed Superintendent of the Yellowstone division of the Northern Pacific Ry., with headquarters at Glendive, Mont.

S. W. Bradley, Superintendent Cornwall Electric Street Ry., was presented with a gold-headed cane by the employes, May 3, on the occasion of his removal from Cornwall, Ont., to Buffalo, N.Y.

Earl Grey, the Governor-General, visited the Angus shops of the C.P.R., Montreal, May 12, and was accompanied by D. McNicoll, Vice-President, and W. R. Baker, Assistant to the Vice-President.

E. J. Chamberlin, General Manager Canada Atlantic Ry., and J. W. Smith, General Assistant, Canada Atlantic Ry., are among the provisional directors of the recently incorporated Colonial Lumber Co., Ottawa.

Geo. H. Gooderham, who died in Toronto May 1, aged 86, was a director of the Toronto and Nipissing Ry., and of the Toronto, Grey and Bruce Ry., prior to their amalgamation by the G.T.R., and the C.P.R. respectively.

D. McNicoll, Vice-President C.P.R., was in his private car Matapedia when a shunting engine backed violently against it at the Central Station, Ottawa, May 8. Mr. McNicoll was thrown from his berth but was uninjured.

Jas. Barry, who died at Niagara Falls, Ont., recently, was a member of the former firm of Ross, Barry and McRae, in carrying out contracts on the Canadian Pacific, the Great Northern of Canada, and the Toronto, Hamilton and Buffalo Railways.

W. H. Kelson, for many years General Storekeeper of the C.P.R., has started business as the W. H. Kelson Co., with offices at 80 St. Francois Xavier St., Montreal. The firm will handle railway, steamship, contractors' and mill supplies.

A. Lichtenhein, of the Galena-Signal Oil Co., ruptured some muscles of the leg about the middle of May, and has been going about on crutches as a result. He has been resting at his home in New York, but hopes to be about again early in June.

C. J. Crowley, at one time resident engineer G.T.R. at Toronto, is reported to have been appointed to take charge of the construction of the tunnels under the Hudson River from Jersey City to Cortlandt St., New York, for the Pennsylvania Rd.

C. M. Hays, Second Vice-President and General Manager G.T.R., was elected Vice-President of the fifth section of the International Railway Congress, recently held at Washington, D.C. He has also been appointed a member of the American section of the permanent body.

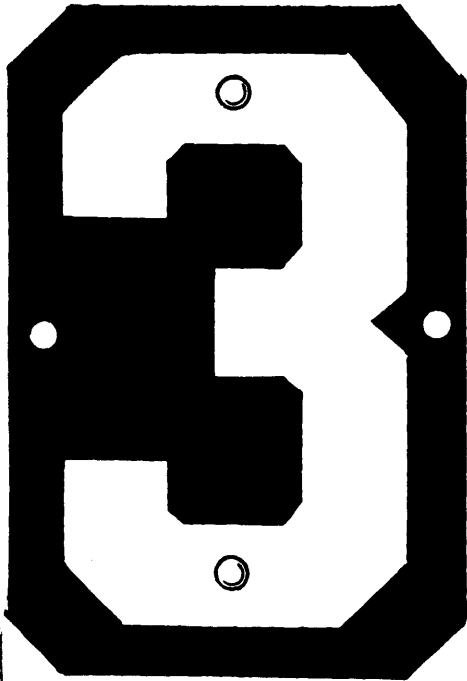
P. Gifkins, General Manager Dominion Atlantic Ry., has returned to Kentville, N.S., from London, Eng. He was accompanied by the Vice-President, J. R. Ronald, and the Secretary, R. L. Campbell, who returned to England, after having inspected the line and the company's steamers, etc.

G. A. Knowlton, Divisional Engineer, Grand Trunk Pacific Ry., was presented with a gold-headed cane and entertained at dinner May 10, by residents of North Bay, Ont., where he has resided for the past two years, on the occasion of the removal of his headquarters to Fort William, Ont.

Dr. F. R. Wainwright, third son of W. Wainwright, General Assistant and Comptroller G.T.R., who practised in England, died somewhat suddenly at Studland, Dorset, April 25. W. Wainwright had only recently returned to Montreal from Weston-Super-Mare, Eng., where Mrs. Wainwright died on Mar. 16.

J. A. Boak, who has been appointed Freight Agent Intercolonial Ry. at Chicago, Ill., was born at Halifax, Mar. 3, 1854, and has been engaged in the merchandise commis-

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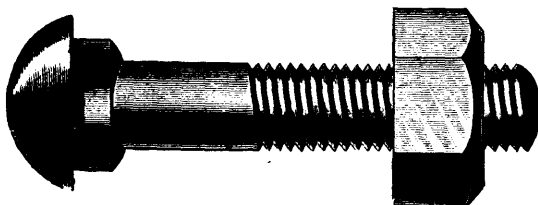
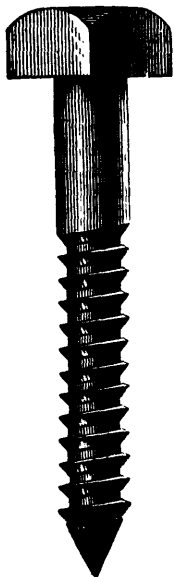
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sion business at Chicago and St. Paul, Minn., since 1880. Since Sept., 1903, he has been soliciting westbound freight for the I.C.R., and was appointed Freight Agent May 1.

The marriage of F. A. Huntress, formerly Manager of the Halifax Electric Tramway, Halifax, N.S., to Miss Gertrude Bent, was announced to take place at Boston, Mass., May 29. He has just been appointed Manager of the Rio Janeiro Light and Power Co., Rio Janeiro, Brazil, and will travel to his new place of residence on his wedding trip.

M. J. Butler, who has resigned his position as Assistant Chief Engineer of the Transcontinental Ry. Commission, will take a holiday during June and go into active service again July 1. Press reports stated that he was to enter the service of the Grand Trunk Pacific Ry., but the management of that company states that there is no truth in the rumor.

Hon. Jas. Sutherland, Minister of Public Works in the Dominion Government, and for some years chairman of the House of Commons' standing committee on railways and canals, died at Woodstock, Ont., May 3. He has been succeeded by Hon. C. Hyman, M.P. for London, Ont., who since 1903 has been chairman of the committee on railways and canals.

C. M. Hays, Second Vice-President and General Manager G.T.R., in addressing the Montreal Young Men's League, May 1, referred generally to transportation problems in Canada, and to the G.T. Pacific Ry. construction matters in particular. The construction of this line would, he stated, require 20,000 workers for its operation and maintenance.

E. J. Hebert, who has been appointed General Agent, Passenger Department, C.P.R. at Montreal, was born there June 18, 1864, and entered railway service Oct., 1879, since which his record has been: 1879 to July, 1882, various positions G.T.R. general offices, Montreal; July, 1882, to May, 1905, in General Passenger Department, C.P.R., Montreal, having been in succession private secretary to D. McNicoll, chief clerk to the Division Passenger Agent at Montreal, and chief clerk of the General Passenger Department.

The following item recently appeared in the Montreal Star: "Mrs. James Hardwell and her son Oswald have gone to take up their residence in Ottawa, where Mr. Oswald has assumed his duties as Traffic Agent of the Railway Commission." The Railway Commission does not have on its staff a Traffic Agent, and Oswald Hardwell has never been in railway service, neither is he attached to the Railway Commission, or any other Government department. His father, Jas. Hardwell, is Chief Traffic Officer of the Commission.

The representatives of Canada at the International Railway Congress, held at Washington May 3 to 10, were: C. Schriber, Deputy Minister of Railways and Canals; C. M. Hays, Second Vice-President and General Manager; E. H. Fitzhugh, Third Vice-President; F. H. McGuigan, Fourth Vice-President; J. H. Hobson, Chief Engineer, G.T.R.; D. McNicoll, Vice-President; I. G. Ogden, Third Vice-President; H. H. Vaughan, Superintendent of Motive Power; W. E. Fowler, Master Car Builder, C.P.R.; J. H. Walsh, General Freight and Passenger Agent, Quebec Central Ry.; F. W. Morse, Vice-President and General Manager G.T. Pacific Ry.

Major H. A. Gray, Engineer of the Department of Public Works, and having charge of the Ontario district, died at Toronto, May 23, from pneumonia contracted while on an inspection tour in the Rainy River District. He came to Canada in 1866, and was engaged successively as location

and assistant engineer on the Intercolonial Ry. He was appointed to the Department of Public Works engineering staff in 1878, and was in charge until 1886 of the Western Ontario district at Stratford; from 1886 to 1889, of the Maritime Provinces district at Halifax, N.S., and from 1889 to his death, of the enlarged Western Ontario District at Toronto.

The Toronto Globe says:—"One of the most responsible positions in Canada just now is that held by A. L. Ogilvie, the General Purchasing Agent for the National Transcontinental Railway Commission. Mr. Ogilvie was formerly Superintendent of the Public Works Department at Ottawa, and was appointed because of his remarkable knowledge of values. He is a strong man of proved integrity, who has after many a tussle earned the respect of contractors and dealers in supplies. He is a Toronto man, and before going to Ottawa, was associated with his brother, a Toronto architect." The Globe might have added that for this responsible position the munificent salary of \$150 a month is paid. It should be at least double that.

The following were among the representatives present at the recent annual meetings of the American Railway Association in New York: W. R. Baker, Assistant to Vice-President C.P.R., Montreal; A. Price, Superintendent of Transportation C.P.R. Western Lines, Winnipeg; G. C. Jones, General Manager; W. E. Mullins, Superintendent of Transportation Central Vermont Ry., St. Albans, Vt.; E. H. Fitzhugh, 3rd Vice-President; H. McGuigan, 4th Vice-President G.T.R., R. H. L'Hommedieu, General Manager Michigan Central Rd. The election of officers, appointment of committees, etc., resulted in the election of representatives of U.S. lines entirely. For the election of three representatives on the Committee on Train Rules, there were nine nominations, and the G.T.R. stood fifth on the list, receiving 17 votes.

J. F. Lee, who died at Detroit, Mich., April 27, was born in London, Eng., Oct. 23, 1851, and was educated at King's College, London, and King's College, Cambridge, Eng. He entered railway service in 1871 with the London and North-Western Ry., serving as correspondence and financial clerk in the general offices, London, until 1873, when he came to Canada, and entered the service of the G.T.R., his record since being: 1873 to 1881, freight, car mileage, audit and passenger department, G.T.R., at Montreal; 1881 to Mar., 1886, general agent, freight and passenger service, Chicago, Rock Island and Pacific Ry.; Mar., 1886, to Aug., 1890, commercial agent, freight and passenger departments C.P.R., at Chicago, Ill.; Aug., 1890, to Mar., 1896, District Freight and Passenger Agent, same road, at Chicago; Mar., 1896, to Jan., 1901, General Agent, passenger department same road, Chicago; Jan., 1901, to Jan., 1904, General Traffic Manager, White Pass and Yukon Route, Skagway, Alaska. During the last year he has been engaged in commercial pursuits in Detroit.

The following is taken from a Scotch contemporary:—"D. B. Hanna is another Scot who went to Canada lang syne an' noo comes back an' tells us we're a losin' oor time livin' in this barren an' forsaken country. Mr. Hanna hails frae Renfrewshire, an' noo he's ane o' the vice-presidents o' the Canadian Northern Railway, an' president o' the Great Northern Railway. If a man keeps his health an' is steady an' perseverin', says Mr. Hanna, he'll get on in Canada, an' it is a great pity the fairmin' classes here dinna ken better the chances they wad hae oot there. Emigrants should be pourin' frae this country to Canada, but young Scots shouldna leave hame as a mere speculation, unless they hae a turn for fairmin'. Yankees are crossing the border by the thousand, an' this year the

tide o' emigration frae the States will be bigger than ever. Canada is the bread basket o' the warl', an' the mair Scots gang oot the better. An' so on, an' so on, an' so on. The temptation to tak Canada on the word o' the Scots wha come hame on holiday is enough to overcome onybody wha wants to get on in the warl'. They're a' sae terribly enthusiastic."

F. B. Wade, Chairman of the Transcontinental Ry. Commission, died at Ottawa, May 23, aged 53. He had been seriously ill for about a month, an attack of cerebrospinal meningitis supervening on acute gastritis. He was born at Granville, N.S., Sept. 9, 1852, called to the Nova Scotia bar in 1875, and created a Q.C. in 1891. He first became connected with railway operations in 1878 as solicitor of the Nova Scotia, Nictaux and Atlantic Ry., and in 1888 undertook the financing for the completion of the Nova Scotia Central Ry. He was subsequently appointed Receiver-Manager of the line by the courts, and held that position for six years until the Central Ry. Co. was organized to take it over. He was engaged as counsel for Nova Scotia in the Eastern Extension Ry. claims against the Dominion Government; for the South Shore Ry. in the fight with the Narrow Gauge Ry. Co., and for the Yarmouth Steamship Co. in the struggle with the Dominion Atlantic Ry. He was engaged in the promotion of the Halifax and Southwestern Ry., and the Middleton and Victoria Beach Ry. He represented Annapolis in the Dominion Parliament from 1901.

Great Northern Ry., U.S.—C. Wurtele, heretofore General Agent at Vancouver, B.C., has been appointed General Eastern Canadian Agent, with jurisdiction over the freight and passenger agencies of this company in eastern Canada. Offices, 10 King St., E., Toronto. C. W. Graves, heretofore District Freight and Passenger Agent at Toronto, has been appointed District Freight and Passenger Agent with headquarters at 22 John St., Montreal. H. E. Tudor, heretofore General Agent at Montreal, has been appointed Travelling Freight and Passenger Agent, with headquarters at 22 John St., Montreal. Mr. Wurtele is succeeded as General Agent at Vancouver by K. J. Burns, heretofore General Agent at Victoria, B.C., and Mr. Burns is succeeded by E. R. Stephen, heretofore in the Vancouver office.

The Manual of Statistics for 1905, being the 27th annual issue, has just been published by the Manual of Statistics Publishing Co., 25 West Broadway, New York. The volume, which extends to 1,040 pages, conveys in a concise form a large amount of valuable information relative to railways, steam and electric, shipping companies and industrial securities generally, such as will be found useful to investors and others. The information is well up to date, and is conveniently arranged and indexed. A considerable number of Canadian railway and other companies are reviewed, and the information given is generally accurate. In the index, however, there are a number of errors, the old titles of certain lines being used instead of the present ones, and in one case the Alberta Ry. and Coal Co., is indexed as being referred to on page 60, but there is no reference to it at all in the volume. It is, however, impossible to avoid error in books of this kind, notwithstanding the care taken in the work of compilation.

The Association of Transportation and Car Accounting Officers will hold its annual session in Toronto during June. The President is T. F. Brennan, of the Buffalo, Rochester and Pittsburg Rd., Rochester, N.Y., and the Secretary G. P. Conard, 24 Park Place, New York.

THE PINTSCH LIGHT AWARDED THE GRAND PRIZE ST. LOUIS, 1904

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TRANSPORTATION APPOINTMENTS.

Canadian Pacific Ry.—E. J. Hebert, heretofore chief clerk in the General Passenger Agent's office, has been appointed General Agent Passenger Department. Office, Montreal. He will have general supervision of passenger business in the Montreal territory, that is east of Port Arthur, Sault Ste. Marie, Sharbot Lake and Kingston, Ont., to Quebec, Levis, Megantic, Que., and Newport, N.H.

J. Sparks has been appointed Assistant General Baggage Agent Western Lines, with office at Winnipeg. He will have charge of the baggage department of the Western Lines, reporting to the General Baggage Agent at Montreal.

W. F. Fee is reported to have been appointed Resident Engineer at Winnipeg, succeeding W. S. Edge, resigned.

G. H. Smith has been appointed Assistant General Freight Agent, Central Division. Office, Winnipeg.

T. S. Acheson has been appointed Travelling Freight Agent Central Division. Headquarters, Winnipeg.

Travelling Baggage Agent A. Hesketh will have his office at Calgary, Alta., and will report to the Assistant General Baggage Agent at Winnipeg.

W. J. Uren, heretofore Day Chief Train Dispatcher district 4, Central division, Moose Jaw, Assa., has been appointed Chief Train Dispatcher, 2nd district, Central Division 5, Winnipeg. He is succeeded by J. T. Barnes, heretofore Day Chief Train Dispatcher, district 2, Central division.

H. LeJeune, heretofore accountant at the Chateau Frontenac, Quebec, has been appointed Manager of the Mount Stephen House, Field, B.C.

Stewart Gordon has been appointed Manager of the Banff Springs Hotel, succeeding W. L. Matthews.

F. E. Quinn has been appointed District Baggage Agent at Vancouver, B.C. He will have charge of the baggage department, Pacific Division, reporting to the Assistant General Baggage Agent at Winnipeg.

R. K. Scarlett has been appointed City Passenger Agent at Vancouver, B.C., and is attached to the office of W. R. Thomson, City Ticket Agent.

J. Scott has been appointed general foreman at Vancouver, succeeding F. E. Hobbs, transferred to Kamloops, B.C., owing to ill-health.

Grand Trunk Pacific Ry.—G. A. Knowlton, Division Engineer, heretofore at North Bay, Ont., has had his headquarters removed to Fort William, Ont.

In connection with a press report that E. G. Russell, formerly Manager Intercolonial Ry., had been appointed Purchasing Agent G.T. Pacific Ry. at Vancouver, we were advised May 11 that he had not received any appointment in connection with the company.

Grand Trunk Ry.—W. Cuthbert, has been appointed Fuel and Tie Agent under the jurisdiction of the General Assistant and Comptroller.

J. I. Anderson has been appointed solicitor passenger agent at Hamilton, Ont.

R. Ivers has been appointed locomotive foreman at London, Ont., succeeding H. Ashton, resigned.

The following agents have been appointed:—
Laprairie, Que., J. A. Talbot; Brockville Tkt., Ont., M. O. Dafeo; Lindsay, Ont., R. G. McCraw; Newmarket, Ont., A. Roach (Acting); Aliston, Ont., J. D. McMinn; Petersburg, Ont., H. Ober; Camlachie, Ont., F. McCordie; Ridgeway, Ont., W. H. Dixon; Dunnville, Ont., T. A. Stone; Shallow Lake, Ont., G. W. McVicar; outside ticket agent: Lindsay, Ont., A. M. Paton.

Intercolonial Ry.—H. H. Schaefer, heretofore chief clerk to the General Freight

Agent, has been appointed Division Freight Agent at St. John, N.B., succeeding E. S. Smiley, resigned. His district will comprise all stations from St. John to Aulac, Pointe du Chene and Eel River; and from Loggieville to Fredericton, N.B., inclusive.

J. A. Boak has been appointed Freight Agent at Chicago, and will solicit both east and west bound traffic. Temporary office, 34 Wabash Ave., Chicago, Ill. C. R. Boak has been appointed travelling freight agent for territory outside of Chicago.

Michigan Central Rd.—W. S. Kinnear, heretofore Chief Engineer, has been appointed Assistant General Manager, with office at Detroit, Mich. Press reports state that he will have charge of the construction work of the proposed tunnel under the Detroit River.

Northern Navigation Co.—S. Bickford, formerly agent of the Algoma Steamship Co., Detroit, Mich., is reported to have been appointed Travelling Freight and Passenger Agent for the N.N. Co., with headquarters at Toledo, Ohio.

Pere Marquette Rd. and Cincinnati, Hamilton and Dayton Rd.—E. Zimmerman, President of the latter line, has been elected chairman of the Board of Directors of the Pere Marquette Rd.

T. J. Walsh, heretofore Assistant Secretary to the two companies, has been appointed Secretary, and I. L. Carroll has been appointed Assistant Secretary.

T. Ensel, heretofore Trainmaster Wabash Rd., at St. Thomas, Ont., has been appointed chief clerk to the General Manager of the P. M. Rd., with office at Detroit, Mich.

Quebec Central Ry.—During the absence of F. Grundy, Vice-President and General Manager, in England, the duties of General Manager are being performed by J. H. Walsh, General Freight and Passenger Agent.

Richelieu and Ontario Navigation Co.—C. B. Knott, formerly of the Florida East Coast Hotel Co.'s service, has been appointed Manager of the R. & O. N. Co.'s hotels. N. M. Patterson and F. Gowen will remain as resident managers of the Manoir Richelieu and the Tadousac hotels respectively.

Temiskaming and Northern Ontario Ry.—G. A. McCarthy has been appointed Chief Engineer, succeeding W. B. Russell, resigned. Office, North Bay, Ont.

A. J. McGee has been appointed General Accountant. Office, Toronto.

Wm. Young has been appointed Roadmaster. Office, North Bay, Ont.

A. Allan has been appointed Master Mechanic. Office, North Bay, Ont.

Transcontinental Ry. Commission.—M. J. Butler, Assistant Chief Engineer, has resigned from June 1.

Wabash Rd.—J. W. Jones, who was Superintendent of the St. Louis Terminals during the exhibition there, has been appointed Trainmaster Buffalo Division, Wabash Rd., succeeding T. Ensel, resigned. Office, St. Thomas, Ont.

The Intercolonial Ry. will place the Ocean Limited, its special express train from Montreal to Halifax, in operation on June 4.

The Canadian Ry. Club met in Montreal May 2, when L. R. Johnson, Assistant Superintendent of Motive Power C.P.R., lectured on Japan, illustrated by limelight views. Members had the privilege of being accompanied by friends, including ladies.

The Westinghouse Co.'s Publishing Department, Pittsburg, Pa., issued a specially written and illustrated book descriptive of the different works controlled by the various companies, and the appliances turned out, in connection with the International Railway Congress at Washington. It has also issued a circular on Catenary line construction.

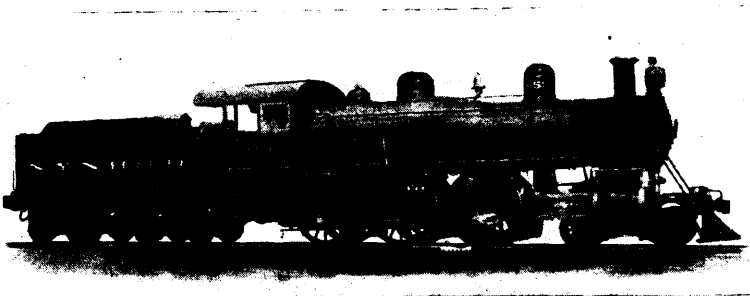
Aliens on the Pere Marquette Rd.

Judge Winchester's report which has been received by Sir Wm. Mulock, Minister of Labor, establishes the charge that aliens were brought into Canada by the Pere Marquette Rd. Co. from the U.S. to work on its lines, and that to make room for them Canadians were got rid of. The report covers 56 typewritten foolscap pages, and reviews briefly the main parts of the evidence, in so far as it went, to show how Canadians had been displaced by citizens of the U.S. after the Pere Marquette Rd. Co. had acquired the Lake Erie & Detroit River, the Erie & Huron and London & Port Stanley Railways. The report shows that the following persons have been brought into Canada by the company within the past year, and are at present holding positions in violation of the provisions of the alien labor act: J. S. Pyeatt, Superintendent; E. Cain, Trainmaster; J. R. Gilhula, Dispatcher; O. S. Leseur, Assistant Engineer; G. M. Osborne, instrument man; J. W. O'Loughlin, stenographer; J. McManamy, master mechanic; W. C. Groening, general foreman; C. F. Shoemaker, foreman boilermaker; C. H. Shoemaker, boilermaker; W. L. Hutker. All the foregoing reside at present time in St. Thomas, Ont.; E. Britton, District Passenger Agent, at present residing in London, Ont. In connection with these persons the commissioner says: "I find that they came into Canada, being assisted in the way of transportation from the U.S. under contract or agreement, parole or special, expressed or implied, made previous to their importation or agreement to perform labor or service in Canada, and in my opinion they are liable to deportation by the Attorney-General of Canada under the sixth section of the act. The evidence shows conclusively that the positions filled by these men can be as well filled by Canadian citizens and British subjects."

The commissioner also states that the evidence went to show that Canadians and British subjects could be obtained to fill such positions, and that Mr. Pyeatt, the Superintendent, when asked what efforts he had made to obtain Canadian officials, merely mentioned that he had applied to the Michigan Central and the Wabash Railway for officers to fill some of the lower positions, but that W. Woollatt, Mr. Pyeatt's predecessor, had stated in his evidence that he would not think of applying to those companies, which were American. The commissioner further states: "In my opinion the policy of the present management of the Pere Marquette Rd. Co. was to fill the higher positions with Americans, and with that in view they appointed Mr. Pyeatt and other officials to take charge of the work at St. Thomas, and E. Britton as the District Passenger Agent at London. That there was a discrimination against Canadians is abundantly shown by the evidence."

Judge Winchester scores Mr. Pyeatt severely for the manner in which some of his testimony was given, and particularly for his treatment of K. R. Cameron, Trainmaster, who was replaced by an American named Cain, after Mr. Pyeatt had been appointed Superintendent. In this connection the commissioner says: "I have no doubt whatever that Mr. Cameron's statement that no complaint was made by Mr. Pyeatt to him, as stated by Mr. Pyeatt, is true, and that Mr. Pyeatt had at or about the time of his own appointment agreed with Mr. Cain to appoint him to Mr. Cameron's position, and carried out such intention before obtaining Mr. Cameron's resignation; and I hold that his actions towards Mr. Cameron, who is an intelligent, conscientious, capable and hard-working trainmaster, were unfair and unjustifiable, and

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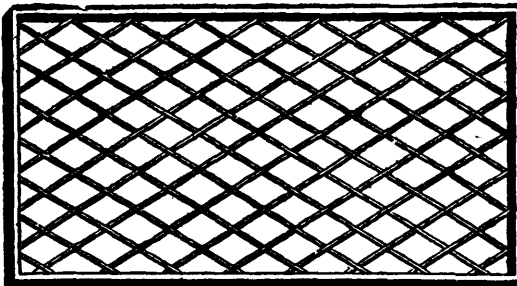
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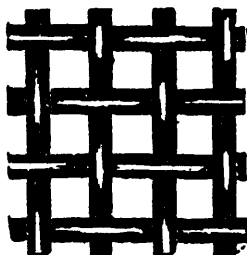
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NIAGARA RIVER BRIDGE CO.

THE annual general meeting of the Niagara River Bridge Company, for the election of directors and other general purposes, will be held on Wednesday, the 7th day of June, 1905, at the hour of eleven o'clock in the forenoon, at the offices of the Canada Southern Railway Company, in the City of St. Thomas.

NICOL KINGSMILL,
10th May, 1905. Secretary, N.R.B. Co.

NIAGARA GRAND ISLAND BRIDGE CO.

THE annual general meeting of the Niagara Grand Island Bridge Company for the election of directors and other general purposes, will be held on Wednesday, the 7th day of June, 1905, at the hour of eleven o'clock in the forenoon, at the company's head office in the City of St. Thomas.

NICOL KINGSMILL,
10th May, 1905. Secretary, N.G.I.B. Co.

were for the express purpose of helping an American friend." The commissioner cites other instances which, in his opinion, go to show that the American officials unnecessarily found fault with some of the subordinate officials, no doubt for the purpose of compelling them to resign their positions, so that American friends could be appointed in their place. The report closes with a statement by the commissioner as follows: "I find no effort whatever was made to appoint Canadians for the positions now filled by the Americans."—Ottawa Correspondence Toronto Globe.

An Order-in-Council was issued May 25, directing the deportation of all the officials named, and warrants have been issued under the Alien Labor Act to carry out the order. J. S. Pyeatt and J. McManamy are given 24 days to leave, and the other officials from four to seven days to leave. Prior to the passing of the order a petition from St. Thomas asking that the law be not enforced was sent to the Government. Counsel for the Pere Marquette Rd. also saw the Premier, the Minister of Justice and the Minister of Labor on the subject, but they declined to advise the Government to interfere with the enforcement of the law. Officers of the Pere Marquette Rd. have been at Ottawa with a view of an appeal being made against the order.

Halifax and Southwestern Railway.

At the last session of the Nova Scotia Legislature an act was passed providing for a further loan to this company of \$1,075,000 for the purpose of purchasing the Halifax and Yarmouth Ry., and the Middleton and Victoria Beach Ry. This latter line is under construction from Middleton to Victoria Beach, about 40 miles, the tracklaying and ballasting being in progress. At the time it was acquired by Mackenzie, Mann & Co., some few miles had been graded, but some difficulties had been met with in connection with the location of the route, etc. The act provides for the loan of \$10,000 a mile for the 40 miles of the line at 3½%, the money to be raised by an issue of Government bonds.

The Halifax and Yarmouth Ry. extends from Yarmouth to Barrington Passage, 50 miles, and the act provides for a loan at the rate of \$13,500 a mile at 3½%, the money to be raised by an issue of provincial bonds. The original company chartered to construct the line was the Coast Ry. of Nova Scotia, the railway being projected from Halifax to Yarmouth, about 200 miles, and organization was started in Feb., 1893. The line was opened from Yarmouth to Pubnico, 28 miles, Aug. 18, 1897; to East Pubnico, 30.80 miles, Oct. 18, 1897; and to Barrington Passage, Jan. 15, 1900. This latter section of 20 miles was not continuously operated. A contract was made with the Dominion and Provincial Governments for the construction of a further 90 miles from Barrington Passage to Lockport, but nothing was done. In 1899 the name of the company was changed to the Halifax and Yarmouth Ry. The length of the line is officially given as 50.10 miles; sidings 3.26 miles, laid with 56-lb. steel. The sharpest curve has a radius of 955 ft., and the steepest gradient is 79 ft. to the mile. Its rolling stock on June 30, 1904, consisted of 4 locomotives, 7 first-class cars, 2 baggage and mail cars, 8 cattle and box cars, 28 flat cars, and one snow plow. During the year ended June 30, 1904, its operations showed: Train mileage—passenger trains, 18,500 miles; mixed trains, 29,600 miles; total, 48,100 miles; engine mileage, 50,315 miles. Passengers carried, 51,477; freight carried, 9,540 tons. Passenger receipts, \$26,523.59; freight receipts, \$11,328.33; mail and express, \$1,357.10; other sources, \$675.22;

total earnings, \$39,884.29; working expenses, \$30,354.11; net earnings, \$9,530.13. Capital, issued and paid up, \$500,000; bonds, \$750,000 issued; Dominion subsidy paid, \$160,000; Provincial subsidy paid, \$156,449.33; municipal aid, \$15,338.93; total capital, \$1,621,178.93, on which there had been paid \$831,788.26. Total cost of line and rolling stock, \$973,146.86.

The transfer of the line to the H. and S.W. Ry. was made on May 27.

Toronto Transportation Club.

The adjourned meeting for organization was held at the offices of the Canadian Freight Association, Toronto, May 5, W. B. Bamford in the chair. About 30 transportation men were present.

J. A. Sutherland, chairman of the special committee appointed at the preliminary meeting to draft constitution and by-laws, presented the report, which after discussion was adopted with certain amendments. The following are the principal features:—The object of the club is the mutual improvement of its members and the encouragement of social intercourse among them.



W. B. BAMFORD,

President Toronto Transportation Club.

It shall consist of members and honorary members. Any male between 21 and 60 years of age occupying a position with title with a transportation company, or with a collateral organization owned or controlled by or operated in connection with a transportation company shall, if acceptable to the membership committee, be eligible to membership. The qualifications for honorary membership were left over for future consideration. The officers are to be: President, First and Second Vice-Presidents, Treasurer, Secretary, and Executive Committee consisting of officers mentioned and six other members. Officers, etc., are to be elected at the annual meeting by ballot. Regular meetings are to be held quarterly on the first Friday of March, June, September and December, the December meeting to be the annual one. The annual subscription is \$2. Applications for membership must be made to the Secretary on the authorized forms, endorsed by two members; the applications are to be referred to the executive committee, and if found eligible and satisfactory to a majority of the committee the application shall be submitted at the next regular meeting of the club.

The election of officers for the current year resulted in follows: President, W. B. Bamford, Travelling Freight Agent C.P.R.; 1st Vice-President, J. A. Sutherland, contracting freight agent New York Central Rd.; 2nd Vice-President, T. L. Cochrane, Travelling Freight Agent Wabash Rd., St. Thomas, Ont.; Treasurer, R. J. S. Weatherston, city freight agent G.T.R., Secretary, H. Logan, soliciting freight agent Lehigh Valley Rd.; Executive Committee: D. D'E. Cooper, Canadian Freight Agent Lehigh Valley Rd.; J. W. Hickson, contracting freight agent West Shore Rd.; E. D. Mackenzie, Canadian Freight Agent Pennsylvania Rd.; C. E. Horning, City Passenger and Ticket Agent G.T.R.; W. Phillips, General Eastern Agent Canadian Northern Ry.; C. W. McMullen, city freight agent C.P.R. All the officers reside in Toronto except Mr. Cochrane.

It was unanimously resolved that THE RAILWAY AND SHIPPING WORLD be the official organ of the Club.

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

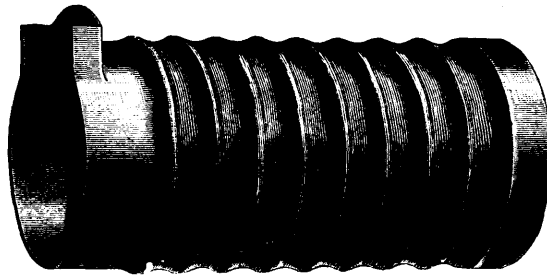
In connection with the betterments and improvements on the company's lines generally we are advised that during the current year masonry and steel bridges will be substituted for a large number of wooden bridges, and heavier spans will be installed where they are necessary. Six hundred miles of 80 lb. steel will be laid on the main line, and the rails removed will be used for construction purposes in the West; 400 miles of these new rails will be laid on the western portion of the system, and the balance on lines east of Fort William. About \$1,000,000 will be spent in ballasting and fencing. The work of widening embankments will be continued and many ties will be renewed. The new shops at Winnipeg, it is expected, will be in complete operation in a month or two. These shops will be equipped to take care of repairs to locomotives and cars running on lines west of Fort William. Over \$500,000 is to be expended in yard improvements at the various divisional points, and in the extension of sidings in order to facilitate the handling of the heavy and more numerous freight trains which are now being run. Twenty-four new water tanks are to be built. Following its custom in the past, the company, in view of the large increase in tourist traffic, will spend large sums in the extension and improvement of the trails and roads in the vicinity of its mountain hotels. At a number of places where the greatly increasing business renders it necessary, new stations and freight sheds are being erected or extended, and new locomotive houses put up. A large sum will also be expended in the improvement and extension of the elevator facilities at the head of Lake Superior.

Place Viger Yard Extension.—After having been under discussion for nearly three years the Montreal City Council has passed a resolution allowing the C.P.R. to close a number of streets now running from Notre Dame St. to Commissioner St. The company has purchased, with but two exceptions, all the properties south of Notre Dame St. between Woodyard and Barclay streets, and these it is expected will be acquired at some future date. The city council has approved of plans for cutting off the ends of Barclay, Beaudry, Montcalm and Wolfe streets, and a new road is to be constructed from St. Timothy St. to Commissioner St. The space secured will be laid out in additional yard space and additional freight shed accommodation. The plans for the laying out of the yard have not been completed by the company.

Toronto-Sudbury Branch.—A contract has been let to Deeks & Co. for the grading of 128 miles from Parry Sound southerly to

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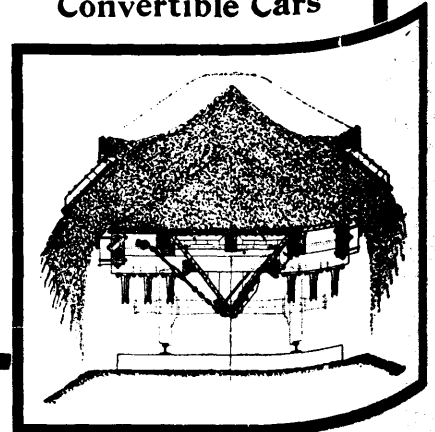
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Bolton, Ont., on the Toronto-Owen Sound line.—The line will pass along the west side of the Muskoka Lakes, and will probably touch Lake Muskoka at Bala Falls. The Toronto-Owen Sound line of the C.P.R. will be used as far as Bolton. The grading of the northern section of this branch from Romford to Byng Inlet is about completed.

Victoria Harbor to Sharbot Lake.—It is announced that surveys are to be made for a branch line from Victoria Harbor, Ont., north of Lake Couchiching to the Montreal-Toronto line at Sharbot Lake, and that a grain elevator will be built at Victoria Harbor.

Fort William-Winnipeg Second Track.—It is proposed to construct about 50 miles of double-track during the current year, but the arrangements have not all been completed.

Central Division Betterments.—During the current year the work in connection with the reduction of gradients will be gone on with on the different sections of this division. The number of cubic yards of rock and other material to be moved in the various sections is approximately as follows: Fort William to Ignace, Ont., 57,000 cu. yds.; Ignace to Rat Portage, Ont., 59,000 cu. yds.; Rat Portage, Ont., to Winnipeg, 81,000 cu. yds.; Winnipeg to Brandon, Man., 18,400 cu. yds.; Brandon to Broadview, Assa., 55,000 cu. yds.; Moose Jaw to Swift Current, Assa., 95,000 cu. yds. During the season 381.7 miles of track will be ballasted, the mileage being divided among the districts as follows: Fort William, 30 miles; Ignace, 30 miles; Rat Portage, 13 miles; Brandon, 85.8 miles; Broadview, 50 miles; Moose Jaw, 117.8 miles; Swift Current, 23.1 miles, and 32 miles. In the Moose Jaw section there will also be 54 miles of bank widening, and in the Swift Current section there will also be some bank widening done. New bridge work will also be done as follows: a 200 ft. through steel span at mileage 114, Rat Portage section; a 100 ft. steel girder at mileage 27, and a 150 ft. through lattice girder at mileage 40, Emerson section; a 100 ft. through lattice span on stone abutments at mileage 27, and a bridge of five 150 ft. Howe truss spans on concrete abutments at mileage 47, Portal section. There will also be 24 miles of 80 lb. steel laid on the Broadview section, and 88 miles on the Moose Jaw section, releasing 56 and 60 lb. steel, which will be relaid elsewhere. It is also intended to lay out a new sorting yard at West Fort William to facilitate work in handling cars during the wheat rush, and to relieve congestion in the Fort William yards; and to build an addition to the station at Moose Jaw.

Lake Winnipeg Extension.—An extension of 16 miles will be constructed northerly from Winnipeg Beach, Man., during the current season. The line has not been definitely located, but we were advised May 25, that a survey party was in the field. (May, pg. 205.)

Branches from Saskatoon.—It has been arranged to construct a branch easterly and a branch westerly from Saskatoon, Assa., about 25 miles in each case. We have been advised, however, that it has not been definitely decided to take up the construction of these branches this year.

Reston-Wolseley Branch.—A contract has been let to J. D. McArthur, Winnipeg, for the construction of 40 miles of line to connect Reston, Man., on the Arcola branch line, with Wolseley, Assa., on the main Transcontinental line at mileage 295 miles west of Winnipeg. (May, pg. 205.)

Quill Lakes Branch.—The location of this branch of the Manitoba and North-Western Railway has been approved by the Board of Railway Commissioners. The branch as proposed starts from the main line in sec. 15, Twp. 30, range 11 west of the 2nd meridian

and runs to sec. 8, tp. 33, range 21 west of the 2nd meridian. We are advised that nothing definite has been arranged as to when construction will be started on this branch.

Pheasant Hills Branch.—This branch, which is in operation from Kirkella, Man., to Lipton, Assa., 146.5 miles, is being extended to a further distance of about 55 miles to Strassburg, mileage 202. The contract has been let to Foley Bros., Larson & Co. (Apr., pg. 151.)

Blenfuit Branch.—The Railway Commissioners have approved of the plans for the construction of the extension for 4.32 miles in Assiniboia. (May, pg. 205.)

Western Division Improvements.—During the current year 220 miles of track will be ballasted, the mileage on the different sections being: Medicine Hat, 57 miles; Calgary, 44 miles; Laggan, 20 miles; Lethbridge, 30 miles; Cranbrook, 49 miles; Sirdar, 20 miles. The new bridge work on this division includes a 100 ft. deck plate girder at mileage 109.9; a 150 ft. span at mileage 179.1 Calgary section; a 70 ft. half deck plate girder on concrete abutments at mileage 57, and a 100 ft. through truss span to replace wooden structure at mileage 96.3, Laggan section. It is also intended to lay 80 lb. steel for about 95 miles in the Medicine Hat section; 11.7 miles in the Calgary section, and 81.5 miles in the Laggan section, to replace the present 56 and 60 lb. steel. A new station will be built at Medicine Hat.

The Calgary and Edmonton Ry. now terminates at Strathcona, on the south bank of the Saskatchewan River, opposite Edmonton. The company has a charter to extend into Edmonton, and to cross the river by a high level bridge. The Board of Railway Commissioners has approved of the location of the extension. (Jan., pg. 25.)

Wetaskiwin Branch.—The contract for the extension of the branch easterly from Wetaskiwin, Alta., from mileage 25 to mileage 50, has been let to Breckenridge and Lund, Wardner, B.C. The work is to be completed this year.

Lacombe Branch.—A contract for an extension of this branch for 25 miles beyond the present terminus, 25 miles east from Lacombe, Alta., has been let to Foley Bros., Larson & Co. The contract is for grading, the C.P.R. as usual doing its own track-laying. The work is to be completed this season.

Yahk to International Boundary.—The sanction of the Board of Railway Commissioners has been given to the plans and profile of the proposed branch from Yahk, at mileage 40.8 west of Cranbrook, B.C., to the International boundary, 9.19 miles. Tenders for the construction of the line have been asked.

Pacific Division Improvements.—The ballasting to be done during the current year will be on 80 miles of track as follows: 24 miles in Mountain section; 31 miles in Shuswap section, and 10 miles in Thompson section, and 15 miles in Cascade section. The bridge construction will include: two 60 ft. spans at mileage 106; two 60 ft. plate girders and one 100 ft. deck lattice girder at mileage 106.8; an 80 ft. deck plate girder at mileage 107.2; two 60 ft. deck plate girders at mileage 107.3; two 30 ft. deck plate girders at mileage 111.4; two 60 ft. deck plate girders at mileage 122.5; and a bridge consisting of six 30 ft., one 30 ft. deck plate girder, two 100 ft. deck lattice girders and four steel towers; all on the Mountain section. Five miles of 80 lb. steel will also be laid. The general work to be undertaken includes the rearrangement of tracks and yard improvements at Revelstoke, North Bend and Vancouver, a new station at Revelstoke, and an hotel at Victoria. A description of this

hotel is given on pg. 241. General repairs and a number of improvements are also to be carried out during the year at the company's mountain hotels, and on the mountain trails in the vicinity of Glacier and Field.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—The company has under construction a line from Thief River Falls westerly for 300 miles, to a junction with the main line at Kenmare, N.D., about 32 miles south of the International boundary at Portal, Assa., where a junction is effected with the C.P.R. It is expected to have the line completed this fall.

Transcontinental Railway Surveys.

The first report of the Transcontinental Railway Commission was presented to Parliament May 22. It confirms the favorable reports which have appeared from time to time as to the easy gradients obtainable and the character and resources of the country, not only between Moncton and Quebec, but westerly towards Winnipeg. It has not yet been ascertained whether a line north or south of Lake Abitibi would be more advantageous. The commissioners dissent from the idea that the Intercolonial Ry. could be used for the eastern section of the line. Were this done, they say, the country would be deprived of a more profitable line for freight, and much valuable country would be unopened. Chairman F. B. Wade summarizes the work already accomplished. He states that the commission has decided, subject to the approval of Parliament, to take over a portion of the survey work on the eastern division, performed by the G.T. Pacific Ry., for which \$289,863 will be paid. Although the G.T. Pacific management is strongly of opinion that it has secured the best possible line through the country east of Winnipeg, the commissioners decided it would not be advisable to take this for granted, and further explorations are accordingly being made. "We have reason," Mr. Wade says, "to hope for very substantial improvement upon the line obtained by the G.T. Pacific Ry., but it is too early yet to attempt to go into details."

So far as could be learned the chief instrument men and other men on parties taken from the G.T.P. were mostly, if not all, Canadians. The preliminary surveys in districts A from Moncton to the boundary between New Brunswick and Quebec, and B from the boundary line between New Brunswick and Quebec to Clear Lake, have been completed, and the parties withdrawn from the field. The commission is now possessed of sufficient information to enable a decision to be arrived at as to whether the line via Fredericton and the St. John River valley or one across the centre of New Brunswick shall be adopted. As to whether the line should run north or south of Lake Abitibi in Ontario it will be some time before the commissioners will have sufficient data to make up their minds on the point. It is proposed to commence location surveys in districts A and B as soon as local conditions permit, and it is expected that surveys for this stretch, from Moncton to Clear Lake, in Quebec, as well as for F from Winnipeg to Lake Nepigon, will be completed, so that tenders may be invited in early autumn. As far as the commissioners are aware all their employes are British subjects, and with very few exceptions Canadian-born. They are confident that there will be a full home supply of both skilled and common labor for all their purposes. They have laid down the rule that promotion must be made on merit alone, and in the matter of merit the judgment of engineers in their department will prevail.

Speaking of Lake Abitibi region and the

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

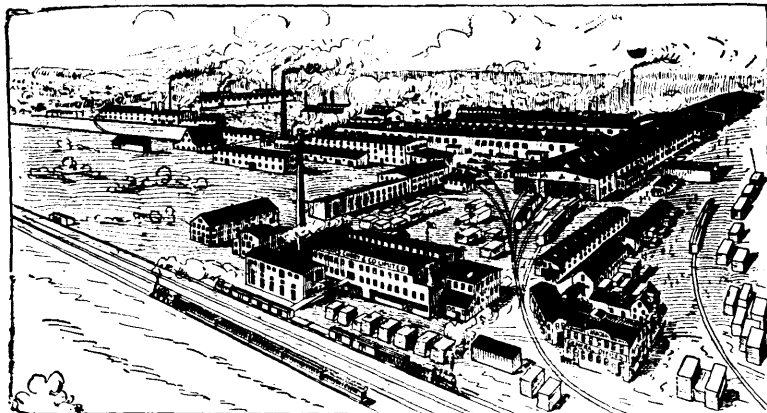
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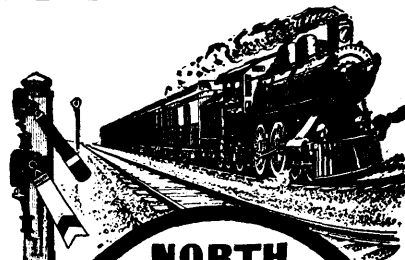
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country extending west, the Chairman says it is now known to be most inviting. The districts between Clear Lake, in Quebec, and Moncton, are most valuable, and should be opened up by railway communication. Arrangements to secure uniform specifications in the eastern and western divisions of the railway have been approved. It has been asserted that there are almost insuperable physical difficulties in the way of constructing a direct line between Moncton and Levis, but the route, as the surveys show, runs all the way through valuable country, part of which is settled and the remainder most desirable for settlement. The opening up of this stretch will be of great advantage to the country. The probable length of this line, if the cross-country route in New Brunswick is adopted, will be shorter than the I.C.R., but how much shorter the commission cannot say until location surveys are completed. Using the same gradients as the I.C.R., a saving of at least 90 miles would be effected, and nearly as much by the river route. The same motive power that would haul 660 tons on the Intercolonial would by the new line haul 1,260 tons going east and 990 tons going west.

Taking the workings of the two railways, and supposing that 10 daily freight trains are run each way, in 313 working days on the I.C.R. there will be 4,131,660 pay tons of freight carried, costing \$3,160,711. On the Transcontinental the same business would be done for \$1,782,518; in other words, the commissioners claim that the saving by means of the Transcontinental, with its lower gradients and curves, would be \$1,277,192, which, capitalized at 4% per year, would be equivalent to over \$30,000,000. Giving the Transcontinental 10 fully loaded trains per day of its own, the saving capitalized would represent \$54,000,000, and if the gradients are increased to the I.C.R. standard of 1%, the distance will be reduced on the Transcontinental to 403 miles from Moncton to Levis. These calculations are all made on the line through the centre of New Brunswick. With the distance reduced to 403 miles there will be a saving of \$448,937 a year, as against the I.C.R., which, capitalized, would represent \$13,723,438.

It has been suggested that the I.C.R. should be utilized for the eastern section of the line, but the commissioners consider, from information obtainable, if it were attempted to lower the gradients of the Transcontinental, the distance from Levis to Moncton would be increased by considerably over 100 miles, and a large section of valuable country left unopened. There are two points on the stretch from Levis to Moncton where it may be found desirable to put in pusher grades of 1%. If this is decided on a further shortening of 25 miles can be secured.

"We cannot estimate accurately," says Mr. Wade, "the cost of the proposed line from Moncton to Chaudiere (Levis), but think it will not exceed \$33,000 a mile, and we hope to very considerably reduce this estimate. We have expended up to the end of March \$440,000, and we have liabilities of \$175,761. For the ensuing year we estimate that we will require sums of \$1,328,500 to carry on our work. We hope to be in a position to call for tenders early this autumn. In this case we deem it desirable that \$3,000,000 should be voted on account of possible payments to contractors."

Chief Engineer Lumsden reports that gradients of 4% eastbound and of 6% westbound with maximum curvatures of 4° are obtainable except in a few places, where 6° curves may be needed. In no case will the curvature be in excess of 6°. The river route is surveyed to measure 333 miles, whereas what is known as the back route is 316 miles, a distance of 17 miles in favor of

the latter. Bridges and curvatures on the back line are comparatively few and small in number. From Grand Falls to Quebec they are small in size and number.

District Engineer Doucet found that a first-class line could be had from the Quebec boundary near Edmundston to Quebec bridge, and from the latter westerly via Batiscan, La Tuque and St. Maurice Rivers to Waymantachane, a distance of 432 miles. In no case will the gradients on eastbound traffic exceed 4% and on westbound 6%, with very few cases of the latter. The maximum curvatures of 6° will only be called into requisition in a few places. The average cost of this stretch from Edmundston to Waymantachane will not exceed \$30,000 a mile.

The distance from Moncton to St. Chrysostome is 493½ miles by the I.C.R. The distance between the same points by the Transcontinental is 504 miles. Final location surveys will, however, shorten this latter distance by 18 miles, making the distance from Moncton to St. Chrysostome 486 miles. The estimated shortening from preliminary surveys, using 1% gradients both ways, is 100 miles, which would make the distance 403 miles. The I.C.R. with 1% gradients can haul 22 cars, equal to 660 tons net pay load, whereas the Transcontinental could carry 42 cars eastbound, giving 1,260 tons net pay load, and westbound 33 cars, giving 990 tons net pay load.

Assistant Chief Engineer Butler gives the cost per ton on the respective lines as follows: I.C.R., Moncton to St. Chrysostome, 73c.; Transcontinental Ry., Moncton to St. Chrysostome, 59 7-10c., using a 1% gradient, or 43c. using the minimum gradients obtainable.

Speaking of the region between Clear Lake, Quebec, and the Ontario boundary, Chief Engineer Lumsden says that the country is dotted with numerous lakes, the lands being timbered with spruce, cypress, birch, poplar, small tamarac and cedar. It will be some time before it can be decided whether the line north or south of Lake Abitibi will prove more advantageous. The reports so far indicate that the north line will be found more advantageous as to cost of construction, the nature of country traversed and its suitability for settlement. The country between Winnipeg and Lake Nepigon contains enough timber to supply the whole of this section, and, in addition, the branch to Lake Superior. It consists principally of rocky knolls intersected with numerous lakes. —Ottawa Correspondence Toronto Globe.

Grand Trunk Pacific Ry.

The Ontario Legislature at its recent session passed an act declaring that the corporation of Fort William had power to enter into an agreement with the G.T. Pacific Ry., respecting the location of the Lake Superior terminals of the company on Mission Island there, and to provide for the raising of \$300,000 by debentures, to provide for the payment of the bonus agreed upon. The act also declares that the 1,600 acres of the present Indian reserve on Mission Island, acquired for the terminals, and any other contiguous land acquired for the same purposes, shall form part of the town of Port William. The land mentioned will form the headquarters of the company on Lake Superior of the line to be constructed to connect with the Eastern Division from Moncton, N.B., to Winnipeg, to be constructed by the Transcontinental Railway Commissioners. According to a sketch map published by the Fort William Board of Trade, the terminals will extend from opposite the Canadian Northern Ry. coal docks on the Kaminitikwia River to the lake front at the mouth of Mission River. The area in the bend of the Mission River will be re-

served for elevators, docks, and a turning basin for vessels. The round-house will be near the elevators, while on the lake front there will be the coal dock, and just inside the river the oil tanks. Along the Kaminitikwia banks will be located the freight and passenger stations, repair shops, etc., and adjoining will be freight and passenger docks for steamers.

While the Board of Trade publishes this sketch, the company has not prepared what may be regarded as final plans. The construction of the branch northerly from Fort William, according to statements of a more or less official character, is to be started in July, and there will be a ceremony of some kind to inaugurate the work. Up to the time of writing no announcement had been made of the letting of any contract for the work.

Plans for the location of the Pacific Coast terminal on Kaiwin Island, B.C., have been approved of by the Minister of Railways and Canals. The terminals will be situated to the south-west of Port Simpson, and will be on part of the Indian reserve. A formal application will be made to the Railway Commission to expropriate the lands required for this point, at the same time that the application to expropriate Mission Island property at Fort William will be made.

Canadian Northern Ry. Construction.

The C.N.R. tracklaying gang reached Battleford, Sask., May 16, upon the main line from Winnipeg, which is being pushed through to Edmonton, Alta. The place will be made a divisional headquarters.

In connection with the erection of a new station at Port Arthur, Ont., it is announced that the plans, which are being prepared by Mr. Pratt, the company's architect in Winnipeg, will be ready early in June. The question of the Government yard, which has been in an unsettled state for some years, has been disposed of by the Ontario Government. In exchange for 200 ft. of water frontage for local purposes, the C.N.R. interests obtain 300 ft. on Cumberland St., for use for hotel purposes. The C.P.R. obtains a strip of North Water St., in exchange for running rights over two tracks of railway, and Port Arthur receives the land facing on Arthur and Cumberland streets for municipal buildings.

The Canadian General Electric Co.'s capital has been increased from \$3,000,000 to \$5,000,000, by supplementary letters patent under the Dominion Companies' Act.

The C.P.R. will commence running the Imperial Limited on June 4, making the trip from Montreal to Vancouver, B.C., in 4½ days. This will give a double daily service each way.

The Canadian Westinghouse Co. has prepared plans for doubling the size of its foundry building at the new works at Hamilton, and it is expected will proceed with the work during the summer.

The C.P.R. has organized a school of telegraphy and shorthand at Winnipeg for junior members of its staff, who desire to improve their positions. A similar school has been successfully established at Montreal.

The Canadian General Electric Co. has issued section 3 of its supply catalogue. This section deals with construction material of all kinds. It has also issued bulletin 836, descriptive of its Thompson Type 1 induction meter.

The B.C. General Contract Co., of which G. H. Webster, formerly Division Engineer C.P.R. at Vancouver, is President and Engineer, has secured a contract in connection with the irrigation canal works being carried out in Alberta by the C.P.R.

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Recent Provincial Legislation.

The sittings of several of the Provincial Legislatures for 1905 having been completed, a list of the Acts passed by them affecting transportation and allied interests is appended:

BRITISH COLUMBIA.

Amending the British Columbia Ry. Act.
Incorporating the Fording Valley Ry. Co.
Respecting the Kootenay, Cariboo and Pacific Ry. Co.
Respecting the Pacific Northern and Omineca Ry.
Amending the Queen Charlotte Islands Ry. Co. Act, 1901.
Respecting the Victoria Terminal Ry. and Ferry Co., and the New Westminster Southern Ry. Co.

NEW BRUNSWICK.

Respecting the Beersville Coal and Ry. Co.
Incorporating the Buctouche and Rexton Ry. Co.
Approving of certain agreements between the C.P.R. and the town of St. Stephen.
Respecting the Caraquet Ry. Co.
Respecting the Gulf Shore Ry. Co.
Amending the Act incorporating the Imperial Dock Co. of St. John.
For the protection of fires in connection with surveys and construction of the National Transcontinental Ry. and other railways through the forest lands in New Brunswick.
To facilitate the opening for settlement of the lands of the New Brunswick Ry. Co.
Authorizing the conveyance of right of way to the St. John Bridge and Ry. Extension Co.
Regarding street railway companies in the city, and city and county of St. John.

NOVA SCOTIA.

Incorporating the Bear River Steamship Co.
Incorporating the British American Coal and Ry. Co. (Ltd.).
Amending the Act incorporating the Cape Breton Coal, Iron, and Ry. Co. (Ltd.).
Amending the Act incorporating the Cape Breton Northern Ry. Co.
Amending the Act incorporating the Cumberland Telephone Co.
Amending the Act incorporating the Davison Tramway Co.
Relating to the Halifax and Southwestern Ry. Co., the Halifax and Yarmouth Ry. and the Middleton and Victoria Beach Ry. Co.
Amending the Act incorporating the Lunenburg Marine Insurance Co.
Respecting the sale of the Midland Ry.
Amending the Act incorporating the Minudie Coal Co.
To enable the town of North Sydney to grant a bonus and exemption from taxation to the North Sydney Marine railway.
Relating to the Nova Scotia Eastern Ry.
Amending the Act incorporating the Nova Scotia Northern Ry.
Relating to the Nova Scotia Steel Co.
Amending the Act incorporating the Port Hood-Richmond Ry.
Amending the Act incorporating Rhodes, Curry & Co. (Ltd.).
Authorizing the granting of aid to the construction of a railway from St. Peters to Louisburg.
Incorporating the Union Telephone Co.

ONTARIO.

Amending act respecting land grant to Algoma Central Ry.
Respecting Bruce Mines & Algoma Ry.
Respecting Canada Central Ry.
Respecting aid given by town of Fort William to G.T. Pacific Ry.
Confirming agreement between G.T.R. and city of Brantford.
Respecting Guelph Radial Ry. and confirming by-law of city of Guelph.

To extend time for completion of Haliburton, Whitney & Mattawa Ry.

To incorporate Hamilton, Guelph and North Shore Ry. Co.

Respecting Herminia Mining Co.

Relating to Irondale, Bancroft & Ottawa Ry.

Amending act incorporating Lake Superior, Long Lake & Albany River Ry.

Respecting London, Aylmer & North Shore Electric Ry. Co.

Incorporating London, Chatham & Western Ry. Co.

Respecting London Street Ry.

Incorporating Manitoulin & Iron Range Ry.

Respecting New Ontario Ry.

Incorporating Niagara, Dunnville & Erie Electric Ry. Co.

Respecting Ontario Electric Ry. Co.

Amending act incorporating the Ottawa River Ry. Co.

Incorporating Ontario Telephone Co.

Respecting Pacific & Atlantic Ry. Co.

Respecting the Penetanguishene & Orillia Ry. Co.

Incorporating Perth & Huron Radial Ry. Co.

Respecting St. Catharines, Pelham & Welland Electric Ry. Co.

Incorporating Toronto, Ottawa & French River Ry. Co.

Incorporating Western Central Ry. Co.

Respecting Windsor, Essex & Lake Shore Rapid Ry.

Respecting Windsor & Tecumseh Electric Ry. Co.

Respecting the London Street Ry.

Amending the act incorporating the Lake Superior, Long Lake and Albany River Ry.

Respecting the Herminia Mining Co.

Sir C. Rivers Wilson, President G.T.R., arrived in Montreal from England May 12, and during his stay there, remained at the residence of Sir H. Montague Allan. He started out May 25 from Montreal on an inspection of the Company's lines.

The Canadian Freight Association has issued a circular to shippers in reference to the practice of false classification, false representation of the contents of packages, false report of weight, etc., and calling attention to the penalties prescribed in the Railway Act, 1903, for these offences.

A Winnipeg despatch of May 8 stated that the C.P.R. was contemplating handing over the work of the maintenance of way of its Western lines to private contractors. The company at present employs about 10,000 men on the work of maintenance. We have reason to believe that the report was without foundation.

The Colonial Construction Co. has been incorporated under the Dominion Companies' Act, with a capital of \$2,000,000 and offices at Montreal, to carry on a general contracting business. The provisional directors are: F. S. Maclellan, K.C., J. J. Meagher, F. Robertson, J. C. Macdiarmid, J. T. Mitchell, of Montreal.

The Dominion Parliament at its current session passed an act in respect to the letting of Government contracts. It is provided that tenders shall be asked for all public works, except in cases of pressing emergency in which delay would be injurious to the public interest; in cases where the work can be done more expeditiously and economically by the officers and servants of the department; where the estimated cost does not exceed \$5,000, or where, from the nature of the work it is not advisable to invite tenders; and that the tenders received shall be submitted to the Governor-in-Council, under the direction of which the contract shall be awarded.

ELECTRIC RAILWAYS.

Electric Ry. Finance, Meetings, Etc.

British Columbia Electric Ry.—Railway earnings for Mar.—Vancouver, \$19,157; Victoria, \$10,019; New Westminster, \$10,509; total \$49,685 against \$34,690 for Mar., 1904. Gross earnings, railway and lighting, \$71,522, against \$66,352 for Mar., 1904. Working expenses, \$41,180; renewal funds, \$6,695; net income, \$23,647, against \$39,951, \$5,988 and \$20,413 respectively, for Mar., 1904. Net earnings for nine months ended Mar. 31, \$254,362, against \$224,371 for same period 1903-04.

At a special general meeting held in London, Eng., April 20, the capital was increased to £1,000,000 by the creation of 150,000 new shares, and a rearrangement of the shares already issued was approved of. The shareholders also consented to the electrification of the Vancouver and Lulu Island Ry., leased from the C.P.R., and to the purchase of most of the shares of the Victoria Gas Co.

Halifax Electric Tramway.—Railway receipts for April, \$10,515.93, against \$11,144.71 for April, 1904.

Kingston, Portsmouth and Cataract Electric Ry.—The line has been advertised for sale by the bondholders, by tender. The line comprises nine miles of track, and has recreation park facilities. The car barn, 23 cars, two sweepers, and a motor are also included in the sale.

Montreal Street Ry.—A special meeting of the shareholders was called for May 8, to sanction an issue of debenture bonds, but as certain necessary formalities had not been complied with at that date, the meeting was adjourned to an unnamed date.

Passenger earnings for April, \$200,910.09; total earnings, \$202,946.25, against \$184,905.41 and \$186,472.75 for Mar., 1904. Operating expenses, \$125,350; fixed charges, \$22,454; surplus, \$55,141.57, against \$125,372.36; \$20,836.74 and \$40,263, respectively, for Mar., 1904. Net earnings for seven months ended Mar. 31, \$453,158.37; fixed charges, \$140,905.27; surplus, \$312,253.10, against \$417,446.28; fixed charges, \$140,905.27; surplus, \$291,011.77 for same period 1903-04.

St. John St. Ry.—The New Brunswick Legislature at its recent session passed an act providing for the assessment of the property of street railways in St. John. The act also provides for the making of by-laws by the city for enforcing the giving of an efficient service, and the laying of necessary tracks, and for the cleaning of snow in winter by the company.

St. Thomas Street Ry.—The cost of the power for the operation of the line for 1904 was reported to be \$3,120.53.

Toronto Ry.—Car earnings for April, \$201,317.40, against \$183,763.24 for April, 1904.

Projects, Construction and Betterments.

Brantford Street Ry.—An extension to the Mohawk Road is proposed to be undertaken at an early date. (Mar., pg. 109.)

Brantford and Erie Ry.—Application is being made to the Brantford, Ont., city council for a right of entry to the city, and negotiations are in progress with the Brantford Street Ry. The council's railway committee favors the entrance of the line over the Oxford St. and Lorne bridge. The projected line is from Brantford to Port Dover, Ont.

British Columbia Electric Ry.—The tunnel at Coquitlam, 2½ miles, in connection with the company's power development plan, has been practically completed. The work was commenced in July, 1902, and it was estimated that it would take three years to com-

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plete, but the engineers have accomplished their task in three months less than the allotted time. The tunnel which runs out of Lake Coquitlam into a smaller lake called Lake Beautiful, passes under a spur of the Cascade range of mountains, 3,400 ft. high, has a fall of 32 ft., is 12,775 ft. long, with dimensions 9 ft. by 9 ft. From Lake Beautiful to the power-house on Burrard Inlet, the fall is 410 ft. From thence the power is conveyed by cable high over navigable waters by twin steel towers, made in England. The completion of the work gives the company the disposal of 35,000 h.p. (April, pg. 161.)

Chatham, Wallaceburg and Lake Erie Ry.—It is announced that an early start will be made with construction, and it is hoped to have it completed from Chatham to Wallaceburg, Ont., by the fall. Tenders are under consideration for the supply of 60,000 ties, and 1,000 cedar poles for the line. A site has been purchased on King St., Chatham, for a power-house and office buildings. W. N. Warburton is General Manager.

Fort William, Loch Lomond and Mount McKay Incline Ry. and Tourist Resort Co.—A number of Fort William residents and others applied at the recent session of the Ontario Legislature for the incorporation of a company with this title, with power among other things to construct an electric railway from West Fort William to Mount McKay, and to Loch Lomond, and along the Kaministiquia River to Squaw Bay on Lake Superior.

The Grand Valley Ry. offers to agree not to run its cars in Galt on Sundays if given a franchise in the city. The council is considering the proposal.

Guelph Radial Ry.—The Ontario Legislature passed an act at its recent session confirming a by-law of the city of Guelph debentures for the issue of \$30,000 of the line. The company also got power to issue \$48,000 of bonds, for which the city of Guelph guarantees the interest, to retire an existing issue; and an extension of time for the construction of the line. (Mar., pg. 110.)

Hamilton, Ancaster and Brantford Ry.—The negotiations in connection with the arranging of the route of this line and its entrance into Hamilton and Brantford have been continuously in progress, and on May 9, the entrance into Brantford was arranged. The Ontario Legislature had before it at its recent session an application for an act confirming the election of A. Kennedy, C. D. Haines, S. Strathy, L. Harris and E. Kendrick, as directors; fixing the capital stock at \$500,000 and authorizing the issue of bonds for the construction of the line. (May, pg. 205.)

Hamilton, Grimsby and Beamsville Ry.—The Hamilton, Ont., city council is considering a proposal to connect this line with the city lines at James and Main streets, and Sanford avenue and Main St.

Hamilton Radial Ry.—The steel superstructures for the bridges on the extension from Burlington to Oakville, Ont., have been completed, and will be placed in position as speedily as possible. Application is being made to the Wentworth county council for a franchise for a line from the corner of Sherman Ave. and King St. w., to Bartonville, and also to run cars via King and Main streets. (April, pg. 161.)

London, Chatham and Western Ry.—J. N. Lewis, M. M. Trenaman, Detroit, Mich., W. and H. McSweeney, A. T. Boles, Leamington, applied at the recent session of the Ontario Legislature for an act incorporating a company with this title to construct a railway to be operated by electricity or any other motive power except steam, from London to Windsor, passing through Lobo, Caradoc,

Ekfried, Glencoe, Mosa, Bothwell, Thamesville, Chatham, Raleigh, the Tilburys, Rochester, Maidstone, and Sandwich. The capital is fixed at \$2,000,000 and the offices are to be at Chatham. In passing through committee the company was denied the privilege of constructing branches, and of obtaining special rights in water powers; and was directed to obtain franchises from municipalities before power could be sold, or lighting plants installed. The bonding power was fixed at \$25,000 a mile, instead of \$30,000 as asked.

London Street Ry.—The Ontario Legislature at its recent session passed an act confirming certain agreements made between the company and the city council in respect to the construction of additional lines, and double track in the city. (Mar., pg. 111.)

Montreal Terminal Ry.—The company has completed its line along Forsythe St. to the eastern limits of Maisonneuve, about 2½ miles, and expects to have it in operation early in June. This will give a line from the corner of Craig St. and City Hall Ave., Montreal, to the eastern limits of Maisonneuve, about seven miles.

Montreal Park and Island Ry.—The application for a revival of the charter of this company, which is owned by the Montreal Street Ry. Co., has been denied by the Railway Committee of the House of Commons. The company sought power to construct additional lines on Montreal Island, and the application was opposed by the Montreal Terminal Ry., which is already operating in the district sought to be served, on the ground that it would parallel its line. The bill was supported by a number of members of the House from the districts through which the proposed line would run. (Mar., pg. 111.)

Ontario Electric Ry.—The Ontario Legislature was asked at its recent session to pass an act granting a further extension of time for the commencement of this line, which is projected from Toronto to Ottawa, via Cornwall.

Perth and Huron Radial Ry.—T. Ballantyne, J. Brown, J. Orr, W. Preston, W. J. Mooney, D. M. Ferguson, E. T. Dufton, of Stratford, Ont., were incorporated last session of the Ontario Legislature as a company with this title to construct an electric railway from Stratford to Grand Bend, on Lake Huron; Stratford to New Hamburg; and Stratford to Tavistock.

Quebec Ry., Light and Power Co.—Permission has been given by the Board of Railway Commissioners for the construction of a branch line from the company's main line into the grounds of the Beauport Lunatic Asylum, Quebec.

Toronto and York Radial Ry.—Application was made at the recent session of the Ontario Legislature for an act authorizing the company to construct the various lines which the Toronto and Scarboro' Electric Ry., Light and Power Co., the Toronto and Mimico Ry. and the Metropolitan Ry. were authorized to construct under their several acts; to construct a line to Bowmanville and Cobourg, Ont., in extension of the Scarboro' line. The company also asked to have it declared that it possessed the same powers as the Metropolitan Ry. The various lines were to be completed in five years. The confirmation of an agreement with the township council of Scarboro' granting a perpetual franchise in the township was also asked. The application met with some opposition from municipal authorities on the ground that the act would confer a perpetual franchise on the company, and that the acts relating to the Metropolitan Ry., which it was sought to have applied to the other lines amalgamated under the title of the T. and Y. R. Ry., gave power to operate the line by steam or electricity. The mat-

ter was specially brought before the notice of the Government, and a decision was reached that the bill should not be passed. W. H. Moore, General Manager, offered to withdraw the clauses relating to the franchise, and to ask only for confirmation of the by-law, as in connection with that contracts had been entered into and work was in progress. The same stand was taken by the Government upon this matter, and the Railway Committee decided, by a vote of 9 to 8, not to concur in the preamble.

The question of the entrance of the company's lines into the city has been discussed with representatives of the Toronto city council, and the York county council, but no decision was reached. The matter also was brought up in the Legislature, when T. H. Lennox, M.L.A. for North York, introduced a bill for the purpose of forcing an agreement between the radial railways and the city. The bill, however, was withdrawn on the Premier stating that the matter would be considered by the Government and dealt with in connection with the appointment of the Electrical Railway Commission.

Application was made at the recent session of the Ontario Legislature for an act confirming an agreement of the Toronto and Mimico Ry. with the township council of Trafalgar, for a franchise for an electric railway through the township.

Statements made at different points along the route of the proposed extension from Long Branch to Oakville, are to the effect that the options taken on the land for the right-of-way have lapsed, and that there will be no construction this year. It is also stated that the gauge is to be altered to standard, 4 ft. 8½ in., and that until the existing line is so altered no further construction will be undertaken. (Mar., pg. 111.)

Toronto and Hamilton Ry.—Application is being made at the current session of the Dominion Parliament to sanction an agreement, or authorizing the making of an agreement with the Toronto and Niagara Power Co. for the use of the right-of-way of the Power Co. for the purposes of its railway, and for other purposes.

The starting point of this line in Toronto will be near the intersection of Davenport Road and the C.P.R. track from Leaside Jct. to Toronto Junction, the word "Toronto" having been inserted instead of "Leaside Jct." in our last issue, by an oversight.

We are advised that owing to the incompleteness of legislation respecting the company's affairs, the receipt of tenders, which was fixed for May 1, has been postponed until further notice. As many intending tenderers as possible were notified in time, but several tenders were received and the deposit cheques have been returned. (May, pg. 207.)

Windsor and Tecumseh Electric Ry.—Application was made at the recent session of the Ontario Legislature for an act authorizing the company to extend its lines through the townships of the Tilburys, Maidstone, Rochester, Dover, Raleigh and the city of Chatham, and for other purposes. W. F. Brown, Walkerville, Ont., is General Manager.

Winnipeg, Selkirk and Lake Winnipeg Ry.—An announcement has been made that this line, now operated by steam, will be electrified during the current year, and that several short branch lines will be constructed. (Mar., pg. 111.)

Winnipeg Street Ry.—The extension of the line from Maryland bridge to the new suburban park, on the south side of the Assiniboine River, will be about two miles long and will be single track. The extension will be commenced at an early date and it is intended to have it completed this season. The Logan Avenue extension will be one mile of double track line and will also be

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completed this season. The extension in Kildonan township will consist of two miles of double track, which will be laid on the east side of the Red River, along the Bird's Hill road. (May, pg. 207.)

Electric Railway Notes.

H. E. Smith, heretofore Accountant, has been appointed Comptroller of the Montreal Street Ry.

The London Street Ry. Co.'s private car Victoria has been converted into a regular passenger car.

The Canadian Westinghouse Co. has sold to the Edmonton, Alberta, Street Railway a 200 k.w. railway generator and a number of double equipments of railway motors.

The proposal to allow the Winnipeg Street Ry. to operate its cars on Sundays has been defeated by a vote of the citizens, there being 2,370 votes against the by-law and 2,166 in its favor.

Of the 14 new double truck motor cars which the Winnipeg Street Ry. is adding to its equipment two will be built at the company's own shops in Winnipeg, and 12 are being built in Ontario.

W. N. Warburton, formerly General Freight Agent Niagara, St. Catharines and Toronto Railway and Navigation Co., has been appointed General Manager Chatham,

and it appears that the T.R. Co. has returned its mileage one year as miles of single track, and in the next each mile of double track as one mile. Upon enquiry we have been informed that the mileage reported to the directors at the end of 1904 was 105.0832 miles.

The B. C. Electric Ry. Co. has created the position of Managing Director, who will have his headquarters in London, Eng., and will spend some months in British Columbia each year. J. C. Buntzen, General Manager, Vancouver, has been appointed to this position and is now rearranging the staff and putting the business in order prior to taking up his residence in London. R. H. Sperling, heretofore General Superintendent, has been appointed General Manager in British Columbia, and F. Hoffmeister, heretofore superintendent in charge of the installation of the electric power plant for the Winnipeg Electric Power Co., has been appointed Electrical Superintendent.

The Montreal Street Ry. has placed a new type of car in operation on its lines. It is of the semi-convertible type, with seats partly cross and partly side. In place of the ordinary 5 ft. rear platform, there is a 7 ft. platform, divided into two by a brass railing, one portion being used for passengers entering the car and the other for passengers alighting. There are two doors at the rear of the car so that passengers entering and alighting do not come in contact.

Council, upon the report of the Engineer of the Public Works Department "as suitable for use by the company, having regard to the efficiency of such fender, brake, or other life saving appliances, for life saving purposes, and to the location of the company's line, and the speed at which the company's cars may be run," shall be adopted and used within the time fixed in the order. A penalty of \$10 a day is fixed for the operation of a motor car without the appliances ordered, "except in case of accident or unavoidable necessity." In the event of the company operating on a private right of way, it shall have the right of crossing highways on maintaining such safeguards as may be ordered by the Ontario Railway Committee.

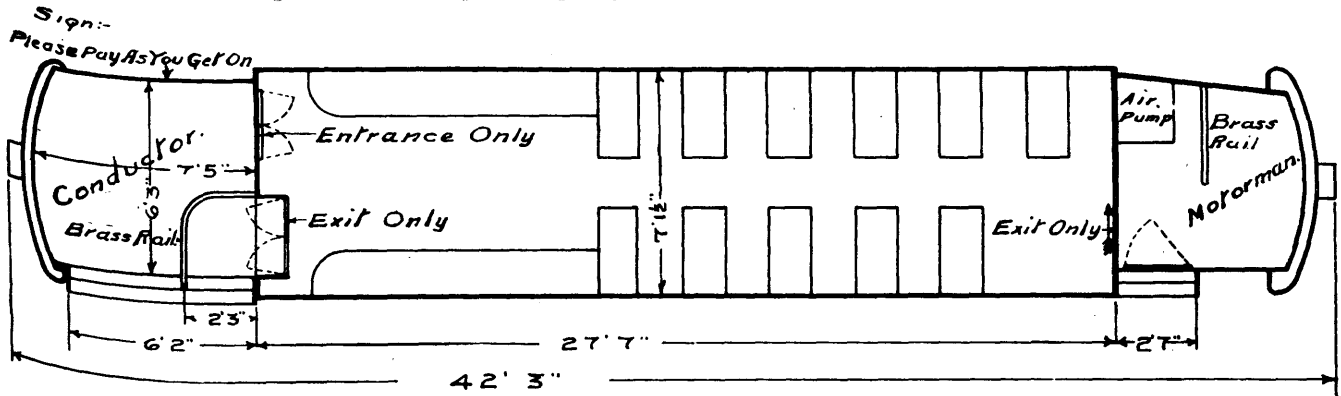
Grain Elevator Notes.

The Northern Elevator Co. proposes to erect a flour mill and elevator in connection at Winnipeg, Man., to cost \$250,000.

The Montreal Grain Elevating Co.'s directors for the current year are: A. T. Paterson, A. Macdougall, R. Reford, T. A. Crane and B. McLellan.

The Kaleida Farmers' Elevator Co. has been incorporated under the Manitoba Companies' Act, with a capital of \$5,000, to construct an elevator at Kaleida, Man.

A number of suits have been brought against the Crown Elevator Co. for wages and material



THE MONTREAL STREET RY. CO.'S NEW STANDARD CAR—FLOOR PLAN.

Wallaceburg and Lake Erie Ry. Offices, Chatham, Ont.

Sterling-Meaker Co., Newark, N.J., has recently received an order from the Brooklyn Heights Rd. Co., Brooklyn, N.Y., for 400 Sterling fenders or life guards, and has recently shipped 200 of the same to Manila, P.I. for a road which is being built there.

The Windsor and Tecumseh Electric Ry., Walkerville, Ont., has purchased from the Robb Engineering Co., Ltd., Amherst, N.S., a 450 h.p. Robb-Armstrong corliss engine and two 200 h.p. Robb-Mumford boilers, also for a large steel smoke stack, condenser and all piping complete.

The Montreal St. Ry. Co. recently announced that conductors and motormen who had been five consecutive years in service would have their pay advanced to 19c an hour, and that summer and winter uniforms would be provided free for conductors and motormen who had been three consecutive years in the company's service. The increase went into effect May 1. The Ottawa Electric Ry. Co. has also announced an increase of wages.

The mileage of the Toronto Ry. as reported to the Department of Railways and Canals for 1904 was 46.75 miles; for 1903 it was reported as 96.74 miles; for 1902, the figures given were 49.35 miles, and for 1901 89.10 miles. The figures which the department asks for are of the miles of track laid,

The fares will be collected as the passenger steps on the platform, thereby relieving the conductor of the necessity of entering a crowded car to collect fares. By this means he will be enabled to attend to the other duties which he is called upon to perform, but now has very little time to attend to. The front platform is made more spacious than ordinarily, and the motorman, and all the apparatus under his charge are railed off from the front of the car, the door in which is to be used only as an exit. A floor plan of this car is given on this page. It is the invention of W. G. Ross, Managing Director, and D. McDonald, Superintendent of the company and has been patented in Canada, the United States and European countries.

The Ontario Government purposes to appoint a special commission to deal with the whole question of electric railways in the province. No announcement had been made at the time of writing, as to the number of the commission, the details of the duties it would be called upon to perform or when it would be appointed. The government has also had under consideration the fender question, and the Legislature has approved of an act amending the present acts dealing with the subject. The new provisions set forth that such fender, brake or other life saving appliances as shall be recommended by the Lieut.-Governor-in-

supplied for the construction of the company's elevator at St. Boniface, Man.

The Point Edward, Ont., Elevator Co. has given notice that the terms of storage have been reduced from 30 to 10 days, and on sample lots one-eighth extra will be charged on account of special bins.

The Aberdeen Elevator Co. has been incorporated under the Ontario Companies' Act, with a capital of \$50,000 and offices at Hamilton, Ont., for the purpose of carrying on a general grain elevating and storage business. The provisional directors are: A. Fowler, New York; E. R. Bacon, Chicago, Ill.; J. J. Scott, J. D. Gansby, J. H. Publow, Hamilton, Ont.

It was recently announced from Montreal that a company was in process of formation for the purpose of constructing a large number of elevators in Manitoba and the Northwest, and two flour mills in Great Britain. C. R. Hosmer, who is reported to be interested in the proposal, has been in England, and it is said that he was engaged in some negotiations in connection with financing the company.

The C.P.R. elevator B at Fort William, Ont., has been completed, and in connection with it a new yard is being laid out so that sufficient cars can be accommodated to enable the house to be worked to its full capacity. The elevator can handle 38 cars of wheat an hour, and may be run for the full 24 hours at

that rate if necessary; and can load wheat into vessels at the rate of 100,000 bush. an hour.

The C.P.R. has ordered a steam turbine generator for the power plant at its Fort William, Ont., elevators. This engine will be in addition to the two now installed there and will bring the total available power up to approximately 2,100 electrical h.p., all of which will be utilized in the C.P.R. grain handling plant. The new machine will be what is known as a Westinghouse-Parsons turbo-generator and is to be manufactured by the Canadian West-

inghouse Co., Hamilton, Ont. The mechanism of this engine is similar to the new turbine steamers, but instead of the shaft driving a propeller, it is directly connected to an electrical generator, and the electrical energy generated is wired to the different buildings where it may be needed. In power it is rated at 500 kilowatts or roughly 600 electrical horsepower, and as it will be running parallel with the two compound engines now in position, will serve as a test of the relative efficiency of the turbine and the oscillating engine.—American Elevator.

Port Colborne Harbor Works.

The Dominion Government is carrying out an extensive system of harbor works at Port Colborne, Ont., situated at the southern or Lake Erie end of the Welland Canal. This canal is navigable for vessels drawing 13½ ft. and therefore deep draught Upper Lake vessels must unload there, or should their other dimensions suit, lighten sufficiently to enable them to pass through. The work at Port Colborne was taken in hand in 1899, with the object of making the place a tran-

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The General Railway Signal Company has acquired the American assets and properties of the Taylor Signal Company, of Buffalo, N. Y., and of the Pneumatic Signal Company, of Rochester, N. Y., and is prepared to furnish and install approved forms of mechanical, pneumatic, electro-pneumatic and electric interlocking devices, track circuit appliances, motor signals, railway gates, etc.

shipping point of large dimensions, and a possible rival of Buffalo, N.Y. The works comprise new docks, excavation of channels, and two large breakwaters to the east and west of the port. These breakwaters, of which one, 5,000 ft. long, is totally finished, while the other, 2,400 ft. long, is half completed, are under the supervision of the Department of Public Works. The remainder of the works are being carried out by the Department of Railways and Canals.

This latter work may be divided into two sections, outer harbor and inner or canal basin. The former calls for the construction of two docks, 200 by 700 ft., and the deepening of an area to 22 ft. to allow approach by the largest lake carriers. The excavation is entirely of solid rock, over 300,000 cubic yards in all, averaging a cut of 3 to 4 ft. From lighthouse to canal basin entrance, a depth of 18 ft. is required, principally sand and soft material. The canal basin itself is dredged to afford 16 ft. of water. This plan, however, will no doubt be changed to afford a depth of 22 ft. over entire area of both inside and outside harbor. In addition the sides of the canal basin have been dug out and concrete docks built.

The design of the inside and outside harbor docks is similar, save for the width of crib. They are essentially submerged cribs work filled with stone and surmounted by concrete blocks carrying a mass concrete wall, the whole covered for width of crib by an 18 in. slab of concrete. The timber used in the cribwork was about 35,000,000 ft., mainly 12 by 12 in. The filling of each crib had to be completed at one operation, so that 2,000 cubic yards of material had to be provided to be dumped in, as soon as the crib had been placed in position. The concrete blocks are each 4 by 4½ by 7 ft. They are made with a joggle, so that the mass concrete filling forms a strong joint between each block, and prevents any lateral displacement of blocks relative to the wall which might be caused by impact of the heavy seas or vessels. Up to the end of 1904 40,000 barrels of cement had been used for concrete. The principal item of this work consisted of the drilling, blasting and dredging of 300,000 cubic yards of very hard flinty limestone over a great area. The cut varied from 6 ins. to 6 ft., but to get down to grade it was necessary to drill and blast at 2 to 3 ft. below grade in order to avoid pinnacles and ledges being left.

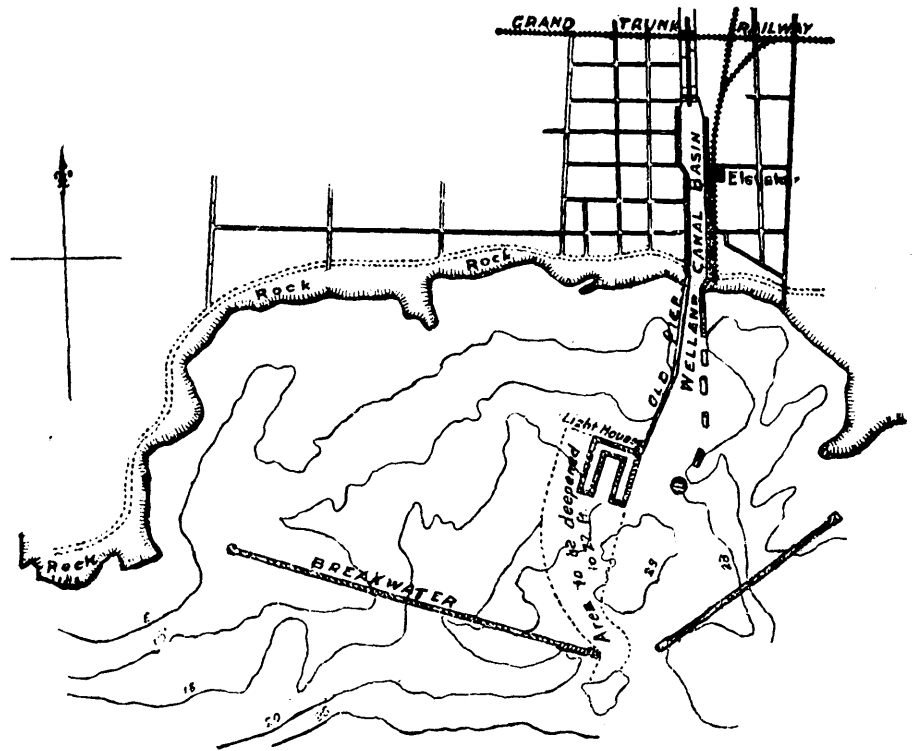
These various works are now almost completed, and arrangements are being made for the putting in of the foundations of a 2,000,000 bush. elevator.

The foregoing is extracted from a paper read recently before the general section of the Canadian Society of Civil Engineers by J. M. Hogan.

SHIPPING MATTERS.

Reciprocal Inspection of Steamships.

The following order has been issued by the Secretary of Commerce and Labor for the United States:—"The Department of Commerce and Labor of the U.S. has been officially notified that the Government of Canada will recognize as valid the steamboat inspection certificates issued by the authorities of the U.S. to American steamers, and, in the case of vessels of the U.S. having unexpired certificates of inspection issued by officers of the U.S. Government, will dispense with any further inspection as regards hull, boilers, machinery, and equipments, including life-saving appliances, except such as is necessary to satisfy the inspectors that the condition of the vessel, her boilers and life-saving equipments are as stated in the said



PORT COLBORNE HARBOR IMPROVEMENTS.

current U.S. certificate of inspection. It is therefore ordered that hereafter, and until otherwise directed, the merchant passenger steamers of Canada, sailing from ports in the U.S. and holding unexpired certificates of inspection, issued by the duly constituted officers of Canada, shall be subject to no other inspection than necessary to satisfy the local inspectors, that the condition of the vessel, her boilers and life-saving equipments are as stated in the said current Canadian certificate of inspection. The masters, owners or agents of Canadian merchant passenger steamers, other than steamers holding certificates of inspection issued by the authorities of the U.S., shall, immediately upon arrival at ports in the U.S., file in the office of the local inspectors of steamboats having jurisdiction in such ports a copy of their current Canadian certificates of inspection. Masters, owners or agents of the Canadian merchant passenger steamers holding an unexpired U.S. certificate of inspection upon arrival at a U.S. port on their last voyage preceding the date of expiration of the current U.S. certificate held by such steamer, and it shall thereafter be examined and certificated in the manner provided herein." The regulations for inspection follow.

The Deputy Minister of Marine has issued a circular to Collectors of Customs stating that an Order-in-Council, dated April 26, has issued ordering that whereas the Minister of Marine has received assurances that the unexpired certificates of inspection held by Canadian steamboats plying to and from ports in the U.S. will be accepted by the U.S. authorities without any further inspection than is necessary to satisfy the U.S. inspectors that the condition of the steamboats, their boilers, machinery and life-saving equipment is as stated in the Canadian current certificate of inspection; and ordering that unexpired certificates issued by the U.S. authorities shall be accepted in Canada as evidence of lawful inspection of U.S. steamships plying to and from Canada and that no further inspection shall be required of such steamships beyond that which is necessary to satisfy the Canadian inspectors that the condition of the

steamers, their boilers, machinery and life-saving equipment is as stated in the U.S. current certificate of inspection. The Canadian inspectors will be supplied with temporary certificates to issue to such steamboats for presentation to the Collector of Customs at the port from which they clear, in proof of the Canadian inspectors being satisfied as to the condition of the steamships, and the Collectors of Customs are to treat such vessels as having satisfactorily passed Canadian steamboat inspection. This regulation came into effect on May 6, instant, and is to be observed by Collectors of Customs and Steamboat Inspectors until further instructions are issued on the subject.

Regulations Respecting Cornwall Canal.

The following Dominion Order-in-Council respecting the Cornwall, Ont., Canal was passed April 18:—"Every vessel shall be brought to a dead stop 100 ft. from the nearest gates of the lock. The winch cable must there be secured to some suitable post on the vessel by the vessel's crew, after which the vessel will be drawn into the lock by the winch. Before the vessel moves under the impulse of the winch, all the usual and necessary lines for controlling the vessel must be out, and must be handled by the crew in such a way as will prevent too great speed being developed, and must be held at such a point as to effectually stop the vessel as soon as she is fully within the lock. While the vessel is being locked her crew must change the position of the winch cable in such a way as will allow the winch to pull the vessel out of the lock. When locking is completed, the vessel's crew must release the winch cable from the vessel."

A deputation consisting of J. A. Cuttle, President, Montreal; A. A. Wright, Toronto; C. A. Jaques, Montreal, and F. King, Secretary, representing the Dominion Marine Association, interviewed the Minister of Railways and Canals, May 17, and protested against the enforcement of the rules. A petition setting forth in detail the objections of the Association to the various rules was subsequently sent to the Department.



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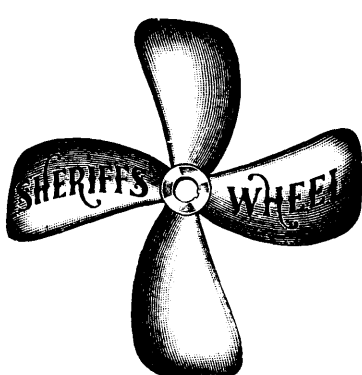
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SAILINGS FROM MONTREAL AT DAYLIGHT.

S.S. Southwark, June 3; S.S. Dominion, June 10; S.S. Ottawa, June 17; S.S. Kensington, June 24; S.S. Canada, July 1; S.S. Southwark, July 8; S.S. Dominion, July 15; S.S. Ottawa, July 22; S.S. Kensington, July 29.

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Canada & Michigan Bridge & Tunnel Co.

THE annual general meeting of the Canada and Michigan Bridge and Tunnel Company, for the election of directors and other general purposes, will be held on Thursday, the 8th day of June, 1905, at the hour of twelve o'clock noon, at the Crawford House, in the City of Windsor.

NICOL KINGSMILL,
10th May, 1905. Secretary C. & M.B. & T.Co.

THE CANADA SOUTHERN RAILWAY CO.

THE annual general meeting of the Canada Southern Railway Company will be held on Wednesday, the 7th day of June, 1905, at the hour of eleven o'clock in the forenoon, at the company's head office in the City of St. Thomas, for the following and other general purposes, viz.:—to elect Directors to authorize the company to guarantee the bonds or other securities of, or to otherwise loan its credit to, or become a guarantor for or to subscribe for or become the owner of stock in any Railway Tunnel Company with which its line is now, or may hereafter be in connection, and to empower the Directors to do all matters necessary to effectually carry out any such arrangements.

NICOL KINGSMILL, Co.
Secretary Canada Southern Ry. Co.
Dated at St. Thomas the 26th day of April, 1905.

LIST OF VESSELS REGISTERED IN CANADA FROM JANUARY 1 TO MAY 13.

Name.	Number.	When and Where Built.	Engines, etc., rig.	L'gth	B'dth	D'pth	Gross tons.	Reg tons.	Home Port.	Owners.
Alert	86,871	Bristol, Me., 1880	10 8 N.H.P., Screw	ft. 98.3	ft. 19.1	ft. 7.4	105	63	Sydney, N.S.	F. D. Macdonald and E. M. Johnston, Sydney, N.S.
Alert	117,011	Not given	1 2	33.5	10.3	4.2	12	8	Vancouver, B.C.	R. Draney, Vancouver, B.C.
Assiniboia	116,984	Medicine Hat, Assa., 1903	4 26 " St. wh'l	73.0	18.5	4.0	98	41	Rat Portage, Ont.	H. H. Ross, Medicine Hat, Assa.
Atomic	116,924	Birmingham, Eng., 1886	1 6 " Screw	28.0	7.7	3.0	3	2	Victoria, B.C.	Victoria Chemical Co. (Ltd.)
Clutha	111,957	N. Westminster, B.C., 1903	2 7	45.0	11.4	4.1	28	19	N. Westminster, B.C.	St. Mungo Canning Co. (Ltd.), N. Westminster, B.C.
Daniel	116,726	St. John, N.B., 1904	12 0	50.8	12.9	5.8	29	20	St. John, N.B.	Tapley Bros., St. John, N.B.
Edna	117,009	Vancouver, B.C., 1905	5 6	38.3	11.0	5.2	18	12	Vancouver, B.C.	J. Leckie & T. F. E. Kinnell, Vancouver, B.C.
Hazel B.	117,101	North Bay, Ont., 1904	2 7	65.0	12.7	3.6	27	22	Ottawa, Ont.	M. C. McCaw, et al, North Bay, Ont.
Fleada	116,727	St. John, N.B., 1905	1 2	35.8	7.4	3.7	6	4	St. John, N.B.	J. D. Purdy, St. John, N.B.
Richmond	117,923	Sydney, N.S., 1905	20 5	112.5	18.0	8.3	162	105	Sydney, N.S.	Richmond S.S.Co. (Ltd.), Sydney, N.S.
Royal City	111,956	Poplar, Eng.	20 0	96.5	12.0	6.5	38	23	N. Westminster, B.C.	F. J. Fader, New Westminster, B.C.
Adam Hall	116,927	Victoria, B.C., 1904	26	112.0	20.1	6.7	145	55	Victoria, B.C.	Big Bend Lumber Co. Arrowhead, B.C.
Adam J. Smith	117,031	Manitowoc, Wis., 1893	53	117.0	23.6	8.6	387	209	S. S. Marie, Ont.	F. M. Perry, S. S. Marie, Ont.
Belle	117,013	Vancouver, B.C., 1905	16	84.5	18.7	8.0	94	64	Vancouver, B.C.	B. C. Mills Timber and Trading Co., Vancouver, B.C.
Dufferin	116,896	Shelburne, N.S., 1905	42	108.0	25.0	8.6	211	99	Yarmouth, N.S.	Burwell Johnson Iron Co., Yarmouth, N.S.
Enterprise	116,926	Pilot Bay, B.C., 1905	2	47.0	10.0	5.0	20	14	Victoria, B.C.	F. Coyle, Pilot Bay, B.C.
Bu Jennie	116,367	Goderich, Ont., 1905	8	52.0	12.0	5.3	22	15	Goderich, Ont.	J. Lapointe, Spanish River, Ont.
Geneva	117,071	Orillia, Ont., 1905	11	80.7	16.3	5.3	92	58	Toronto	W. Thomson, Orillia, Ont.
Hazel Dollar	121,212	Glasgow, Scotland, 1905	241	370.0	50.0	26.7	4304	2803	Victoria, B.C.	R. Dollar, Victoria, B.C.
Isaac Lincoln	116,400	Marine City, Wis., 1898	42	133.5	30.2	9.2	375	165	Sarnia, Ont.	F. E. Hall, L'Original, Ont.
Kestrel	116,379	Port Arthur, Ont., 1904	1	36.5	5.0	4.0	13	9	Port Arthur, Ont.	P. E. Bowell & Co., Port Arthur, Ont.
Louis A.	117,025	Pt. Hawkesbury, N.S., 1903	1 25	25.6	6.6	3.5	3	3	Sydney, N.S.	L. A. Petrie, Glace Bay, N.S.
Lucania	116,801	Sorel, Que., 1904	16 73	42.4	13.0	6.0	18	12	Sorel, Que.	S. Paul, Sorel, Que.
Lulu Eddy	116,250	W. B. City, Mich., 1888	6 50	51.3	13.3	5.6	3	2	S. S. Marie, Ont.	J. Gaulty, S. S. Marie, Ont.
Nina	116,770	1903	1	21.0	5.4	2.5	3	2	Toronto	Mrs. A. A. Glanville, Cutler, Ont.
Phyllis	116,380	1903	4	24.0	5.4	2.5	3	2	Port Arthur, Ont.	L. Walsh, etc., Port Arthur, Ont.
Rover	116,925	Peterboro, Ont., 1905	13	40.0	9.5	3.2	19	12	Peterboro, Ont.	The Dickson Co. Ltd., Peterboro, Ont.
Samson	116,925	Victoria, B.C., 1905	13	115.5	30.2	5.3	425	248	Victoria, B.C.	W. Turpel, Victoria, B.C.
SAILING VESSELS										
Acme	116,517	Lunenburg, N.S., 1904	Schooner	89.4	24.6	9.2	101	91	Lunenburg, N.S.	T. Richardson, et al, Lunenburg, N.S.
Annie Ethel	117,024	Gaberons, N.S., 1905		62.0	19.6	7.8	51	51	Sydney, N.S.	G. Harris, Louisburg, N.S.
Eva Jane	116,518	Lunenburg, N.S., 1904		94.6	25.0	10.0	116	93	Lunenburg, N.S.	A. Corkum, et al, Lunenburg, N.S.
St. Dominique	116,889	Petite du Grat, N.S., 1904		47.0	13.0	6.9	21	21	Arichat, N.S.	T. Marchand, et al, Petite du Grat, N.S.
W. K. No. 6	117,010	N. Westminster, B.C., 1903	Scow	69.0	29.0	6.8	151	151	N. Westminster, B.C.	L. Wilson and J. D. McKeen, New Westminster, B.C.
A. M. C.	117,014	Vancouver, B.C., 1902		79.0	30.0	7.5	160	160	Vancouver, B.C.	W. H. Armstrong, Vancouver, B.C.
Amita	116,522	Lunenburg, N.S., 1905		48.6	13.5	6.1	16	16	Lunenburg, N.S.	S. Winters, Rose Bay, N.S.
Edwood	116,521	Lunenburg, N.S., 1905		48.5	13.5	6.1	16	16	Lunenburg, N.S.	J. Zinck, Lunenburg, N.S.
Eva S. Robins'n	116,951	Manistee, U.S.A., 1871		163.6	29.2	10.0	369	355	Sarnia, Ont.	F. E. Hall, L'Original, Ont.
Evelyn	116,520	Lunenburg, N.S., 1905		48.0	13.8	6.0	18	18	Lunenburg, N.S.	J. Geldert, Louisburg, N.S.
Gladys	116,827	Clark's Harbor, N.S., 1905		31.6	11.9	5.7	12	12	Barrington, N.S.	B. L. Goodwin, Cape Island, N.S.
Hiram Walker	116,601	Champlain, N.Y., 1886		94.4	17.6	7.0	104	102	Montreal	Montreal Gravel and Sand Co.
M.G. Schwartz	116,519	Lunenburg, N.S., 1905		95.6	25.4	10.4	122	98	Lunenburg, N.S.	J. H. Schwartz, Lunenburg, N.S.
Miriam May	116,852	Shelburne, N.S., 1905		74.0	21.0	8.2	65	65	Shelburne, N.S.	E. Inkpen, Burin, Nfld.

The petition sets forth that the regulations, while of no practical advantage in any way, will cause vexatious delay, and largely increase danger in the passage of the canals, and will thus prove extremely prejudicial to the best interests of the canal. The objections, as given in detail, set forth that if carried out, a vessel would be out of control 100 ft. away from the lock about to be entered, would be hampered in entering the lock, and liable to damage the gates or herself, and would be expelled from the lock in an improper direction, and in a manner endangering her safety. The petition concludes: Captains and pilots of experience in every case report delays of at least 2 1/2 or 3 hours over and above the time occupied while these regulations were enforced, and unite in condemning the regulations as unsafe, unsatisfactory, and, in a word, quite impracticable. The whole process would appear to be cumbersome and laborious, entailing much extra labor from the crews of vessels without apparent advantage, and causing as well the most vexatious delays in navigation.

Notices to Mariners.

The Department of Marine has issued the following notices to mariners:—
 No. 25. April 5.—New Brunswick—56. South coast, Bay of Fundy, Point Lepreau; temporary fog alarm. Nova Scotia—57. Bay of Fundy, Annapolis basin, Bear River entrance, Winchester point, lighthouse established. 58. South coast, Jeddore rock, color of lighthouse.
 No. 26. April 6.—British Columbia—68. Vancouver Island, southeast coast, Victoria Harbor, off Shoal point, buoy established. 69. Boundary bay, Mud bay, beacons.
 No. 27. April 15.—New Brunswick,—64.

South coast, Bay of Fundy, Point Lepreau, change in fog alarm.

No. 28. April 20.—Nova Scotia—69. South coast, Halifax harbor, changes in gas buoy lights. 70. Halifax harbor, McNab Island, government rifle ranges.

No. 29. April 25.—British Columbia—72. Entrance to north arm of Fraser River, lights established.

No. 30. April 27.—Quebec—74. Chaleur Bay, north side, Port Daniel, hand fog horn at light station. 75. River St. Lawrence above Quebec, Pointe à Basile, back range tower rebuilt.

No. 31. May 4.—British Columbia—76. Queen Charlotte sound, new channel, Christie passage, Balaklava Island, Scarlett point, lighthouse point. 77. Broughton strait, Mitchell bay, kelp patch reported. 78. Queen Charlotte sound, approaches to Knight and Kingcome inlets, uncharted rocks; hydrographic notes. 79. Northern waters, Laredo channel, uncharted rocks, sailing directions. 80. Northern waters, schooner passage, uncharted rock. 81. Northern waters, Douglas channel, uncharted rock.

No. 32. May 4.—Nova Scotia—82. South coast Lockport (Rugged Island harbor), uncharted rock.

No. 33. May 5.—Quebec—85. River St. Lawrence, below Quebec, eastern limits of Quebec, pilotage district changed from Bee Island to Father Point.

No. 34. May 8.—Ontario—86. Ottawa River, Lake Deschenes, Britannia, change in position and character of light.

The Department of Marine has issued an index to the notices to mariners published during 1904. Copies can be obtained by shipmasters and others interested on application to the Department at Ottawa.

Maritime Provinces and Newfoundland.

Geo. McLeod, a former shipbuilder of Kent County, N.B., died at St. John, N.B., May 8.

C. T. Schmidt has been appointed Dominion Inspector of Boilers for the Halifax division.

Capt. C. E. Myers, of Charlottetown, P.E.I., has passed his examination as "extra" master.

Capt. P. Parker, of Yarmouth, N.S., formerly in the service of the Quebec Steamship Co.'s Fontabelle, and prior to that in sailing vessels, died at New York, May 1.

A proposal is being considered for the formation of a company to purchase a steamer, now being built at Glasgow, Scotland, and run her between Halifax and Glace Bay, N.S. Jos. Woods, of Halifax, is primarily interested.

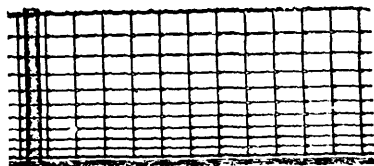
The str. Northumberland was placed on the run between Charlottetown, P.E.I., and Pictou, N.S., at the end of April, to relieve the freight congestion at Pictou, and the Princess was put on the run between Point du Chene, N.B., and Summerside, P.E.I.

The str. Scottish Hero, owned by the Canadian Lakes and Ocean Navigation Co., Toronto, struck on a rock recently outside Sydney harbor, N.S., and received some damage. The steamer is under charter to the Dominion Coal Co., for the season, to carry coal between Sydney and Montreal.

The Deer Island and Campobello Steamboat Co., of Bangor, Me., is negotiating for the purchase of the str. Champlain, of St. John, N.B., which it proposes to run between Bangor and the Canadian islands in the vicinity. The str. Viking, now on the route, is too small for the service.

A contract for a steamship service between Prince Edward Island and Newfoundland, has been awarded to R. J. Leslie, Halifax, N.S. The str. Amelia will be placed on the

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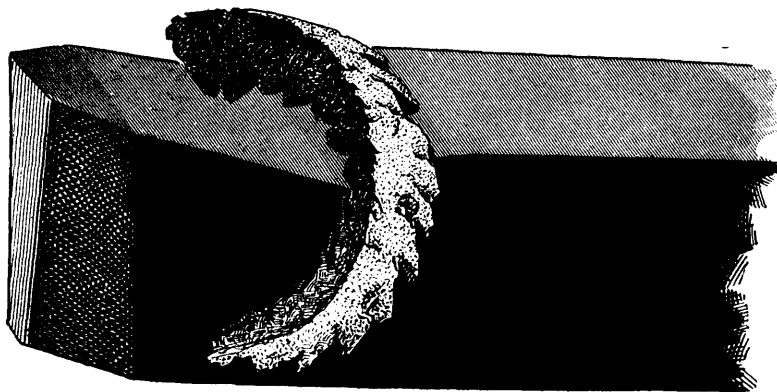
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run and will serve the following ports: Cardigan, P.E.I.; Pictou and Sydney, N.S.; Placentia and other Newfoundland ports.

The Department of Marine and Fisheries has issued some notes on the currents at the entrance of the Bay of Fundy, and on the steamship routes in its approaches, off southern Nova Scotia, from the investigations of the tidal and current survey in the season of 1904, W. B. Dawson, engineer, in charge.

The str. Dufferin has been placed on the east coast run from Halifax, N.S., formerly taken by the Wilfrid C., which has been sold to Beazley Bros. The Dufferin is a new steamer, 227 tons gross, with a speed of 10 knots an hour, and has accommodation for 50 passengers. Capt. W. F. Murdoch is the commander and E. Craig the chief engineer.

The Woburn Steamship Co., and the Wasie Steamship Co., are the titles of two companies incorporated under the Dominion Companies' Act, to carry on a general navigation business in Canada. The provisional directors in each instance are: J. D. and J. C. McGregor, T. Cantley, G. F. McKay, H. Graham, of New Glasgow, N.S. The capital of the first company is \$48,000, and of the second \$18,000.

Summerside and Pointe du Chene route. Should this be decided on, the new boat would probably be ready for next year's service. The Northumberland would then be put on the Charlottetown and Pictou route, to take the place of the Princess, which would probably be disposed of. The President, Capt. Richards, and one of the directors, B. Rogers, were in Toronto recently and made a trip on the Turbinia, during which they thoroughly inspected her.

Province of Quebec Shipping.

It is proposed to provide a steam tug for the use of the pilots at Father Point. The steamer will be built on order of the Minister of Marine.

The new str. Lady Eileen for the Gaspé coast trade reached Campbellton, N.B., May 4, and made her first trip to Gaspé and other Quebec points, in the following week.

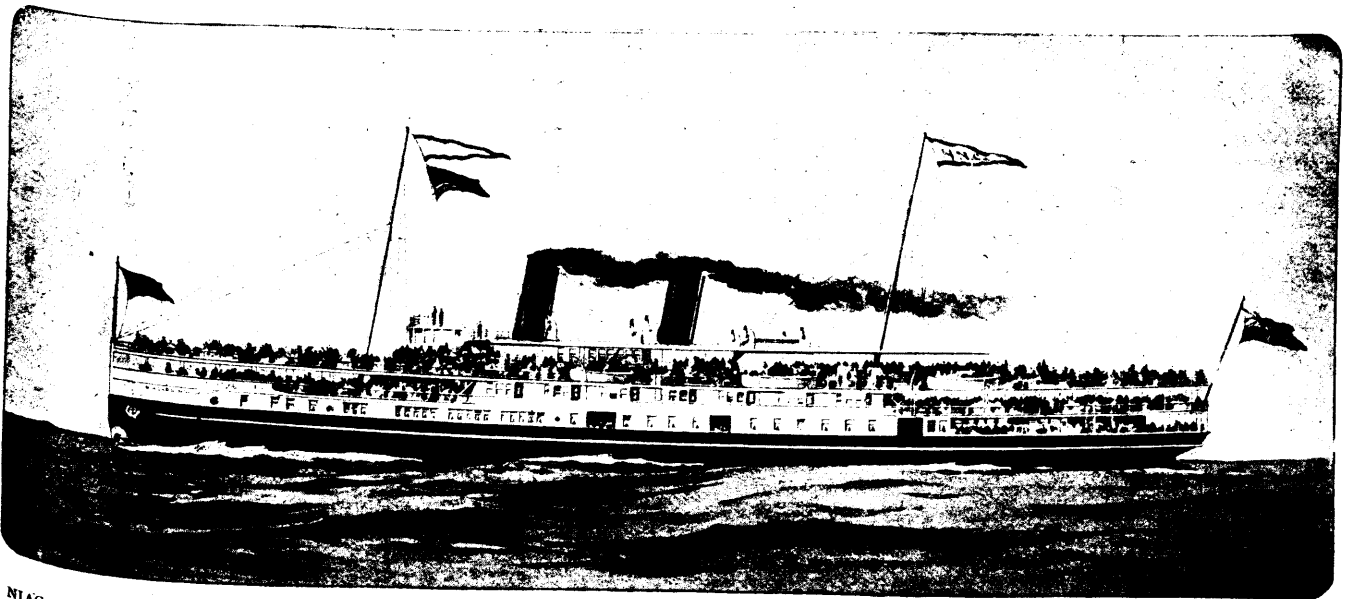
The south wall encircling the inner basin at the Louise dock, Quebec, gave way, April 20. The dock was built by the Dominion Government, which will undertake its repair. The damage is estimated at over \$20,000.

R. Reford has resigned his position as mem-

steamer for use on the St. Lawrence. It is proposed that the new steamer shall be 160 ft. long between perpendiculars, and have a speed of 14 knots an hour.

The St. Lawrence Floating and Wrecking Co. (Ltd.) has been incorporated under the Dominion Companies' Act, with a capital of \$200,000 and offices at Montreal, to own and operate docks and to carry on a general wrecking and salvage business. The provisional directors are: J. W. Harris, F. X. and J. Durand, T. Lessard, P. G. Martineau, of Montreal.

The Montreal Harbor Commission has had considerable trouble lately in connection with the new steel sheds, as well as with the question of the allocation of berths for the steamships for the season. A settlement of both has been reached, the first after a conference of engineers, and the second after a discussion with the Minister of Marine. The changes in the plan of construction of the sheds will involve an extra cost of \$10,000 per shed. The berth question was left in the hands of the Minister of Marine, the President of the Harbor Commissioners, and the Mayor to arrange all differences, the Board agreeing to adopt the recommendations made by them.



NIAGARA NAVIGATION CO.'S NEW STEAMSHIP TO BE BUILT BY THE CANADIAN SHIPBUILDING CO. FOR DESCRIPTION SEE APRIL ISSUE.

A new wharf and warehouse are to be erected at St. John, N.B., the total cost of which, together with the necessary dredging, will be \$600,000. The Dominion Government will provide the cost of the dredging, which is estimated at \$300,000. The new wharf will give berths for four additional steamers, and is expected to be completed in 1906. Under the arrangement for the construction the city will pay back to the C.P.R. the \$50,000 it gave for wharfage at Sand Point, and will thereby secure sole control of the wharves there.

The Harbinger Steamship Co. has been incorporated under the Dominion Companies' Act with a capital of \$9,000 and offices at River Hebert, N.S., to carry on a general navigation business, and in connection therewith to purchase the str. Harbinger. The Harbinger is a screw steamer of 17 n. h.p., built at Shelburne N.S., 1901, having the following dimensions:—Length, 97 ft.; breadth, 20 ft.; depth, 8.4 ft.; tonnage—gross 109 tons, register, 46 tons. The provisional directors are: A. V. Rockwell, H. and C. Kelly, A. W. Pugsley, of River Hebert.

The Charlottetown Steam Navigation Co. of P.E.I. is considering the question of having a larger and faster boat built for the

ber of the Montreal Harbor Commission, and it is stated that he will be succeeded by A. A. Allan as representative of the shipping interests.

The Government dredge W. S. Fielding, which is under construction at the Government dockyard at Sorel, will not be ready until late this year. The dredge was under construction in 1903, and was to have been at work on the St. Lawrence channel in 1904.

The directors of the Richelieu and Ontario Navigation Co. entertained a large party on board the str. Montreal, on May 20, when she was given a trial trip from Montreal to Point aux Trembles and return, prior to going on her regular run between Montreal and Quebec.

The str. Canada which was sunk in June, 1904, after the collision with the Cape Breton and was afterwards raised, has been rebuilt by the Richelieu and Ontario Navigation Co., at Quebec, and completed at Sorel. She left for Montreal, May 1, to take up her regular run between that port and Quebec.

Press reports from London, Eng., state that negotiations are in progress between the Dominion Government and a shipbuilding firm for the construction of another icebreaking

Ontario and the Great Lakes.

The Toronto Ferry Co. has added a new steamer, the Island Queen, built at Bronte, Ont., to its fleet.

T. R. Cossey is constructing a small steamer on Lake Wabigoon, Ont., for the Lake Wabigoon Steamboat Co.

The keel has been laid at Collingwood, Ont., for a steel drill scow for the Boone Dredging Co., for use in harbor improvement work.

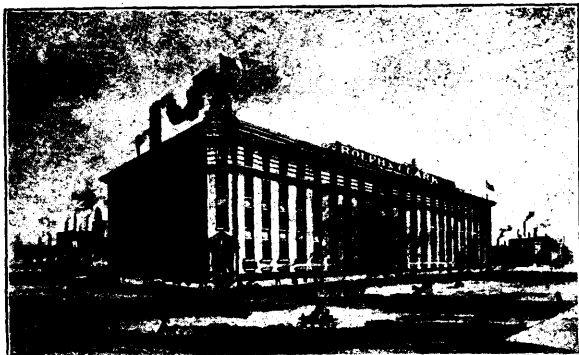
The Department of Railways and Canals is considering tenders for the docking at the Port Colborne entrance of the Welland Canal.

The lighthouse at Burlington Beach is to be reconstructed. The proposition is to make the tower higher, and to add a fog signal apparatus.

Jas. Swift and Co. have chartered the freight steamer Nile to run between Kingston and Ottawa, Ont., on the Rideau Canal, stopping at all way ports.

A tug named the Frank L., for Capt. W. E. Oldfield, Parry Sound, Ont., has been launched. Her dimensions are: length, 72 ft.; breadth, 14 ft.; depth 6 ft.

The City of Montreal, formerly the China, reached Toronto May 3, where she is being



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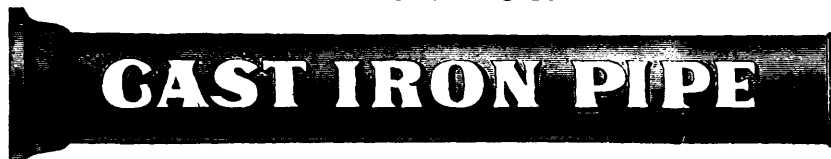
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General Agent, Pass. Department, Buffalo, N.Y.

fitted with two boilers and a compound engine at the Bertram Engine Works.

Capt. A. Milloy, who for a number of years was master of the City of Toronto, plying between Toronto and the Niagara River, died at Niagara-on-the-Lake, April 27.

The Crawford Tug Co., Warton, Ont., has added to its fleet a new steel frame, oak plank tug, 95 ft. long. The tug is stated to be one of the most powerful on the Upper Lakes.

The str. Ednaivan, trading from Thessalon among the islands of Lake Huron, ran on Bigsbee Island, during a fog, May 5, but was towed off without having received material damage.

The Dominion Government steamer Aberdeen, which was caught in the ice at Soulanges Canal in Dec., 1904, reached Toronto, May 5, where she is to have new boilers installed at the Polson Iron Works.

Capt. Burke of the Midland Queen was presented with a hat and a purse of gold by the Fort William, Ont., Board of Trade, in recognition of his having taken the first steamer into port for 1904 and 1905.

The Dominion Government has decided to abolish the position of collectors on the canals. As no tolls are now collected, the compilation of statistics has been discontinued, and there is therefore nothing for them to do.

The lengthening and refitting of the str. Macassa having been completed, she left Collingwood May 6, for Hamilton. Representa-

tives of the Hamilton Steamboat Co. accompanied the steamer to her home port. She is now on the run between Hamilton and Toronto, in conjunction with the Modjeska.

The lighthouse tender Scout which was burned by an explosion of an acetylene gas buoy at Kingston, Ont., has been raised and is being reconstructed. For the present the Scout's work is being done by the Donnelly between Kingston and Prescott, and by the Pierrepont between Prescott and Montreal.

Lumber men and others interested in the navigation of the Ottawa River, recently waited on the Dominion Government and asked for an appropriation of \$160,000 to build dams at the foot of Kippawa and Temiskaming lakes, at Cass Expanse and Barriere River, to regulate the flow of water, and maintain the level.

The Rainy River Navigation Co. has decided to discontinue running the Keenora on Rainy River during the current season, replacing her on that section of the route between Rat Portage and Fort Frances by the Edna Brydges. The officers for the current year include G. A. Graham, Manager, and M. McCullough, Secretary-Treasurer.

The officers and directors of the Brockville Navigation Co. for the current year are: President, N. Cossitt; Vice-President, O. K. Fraser; Managing Director, W. S. Buell; other directors, J. Grant, R. Bowie. The report of the directors said the past year was the most

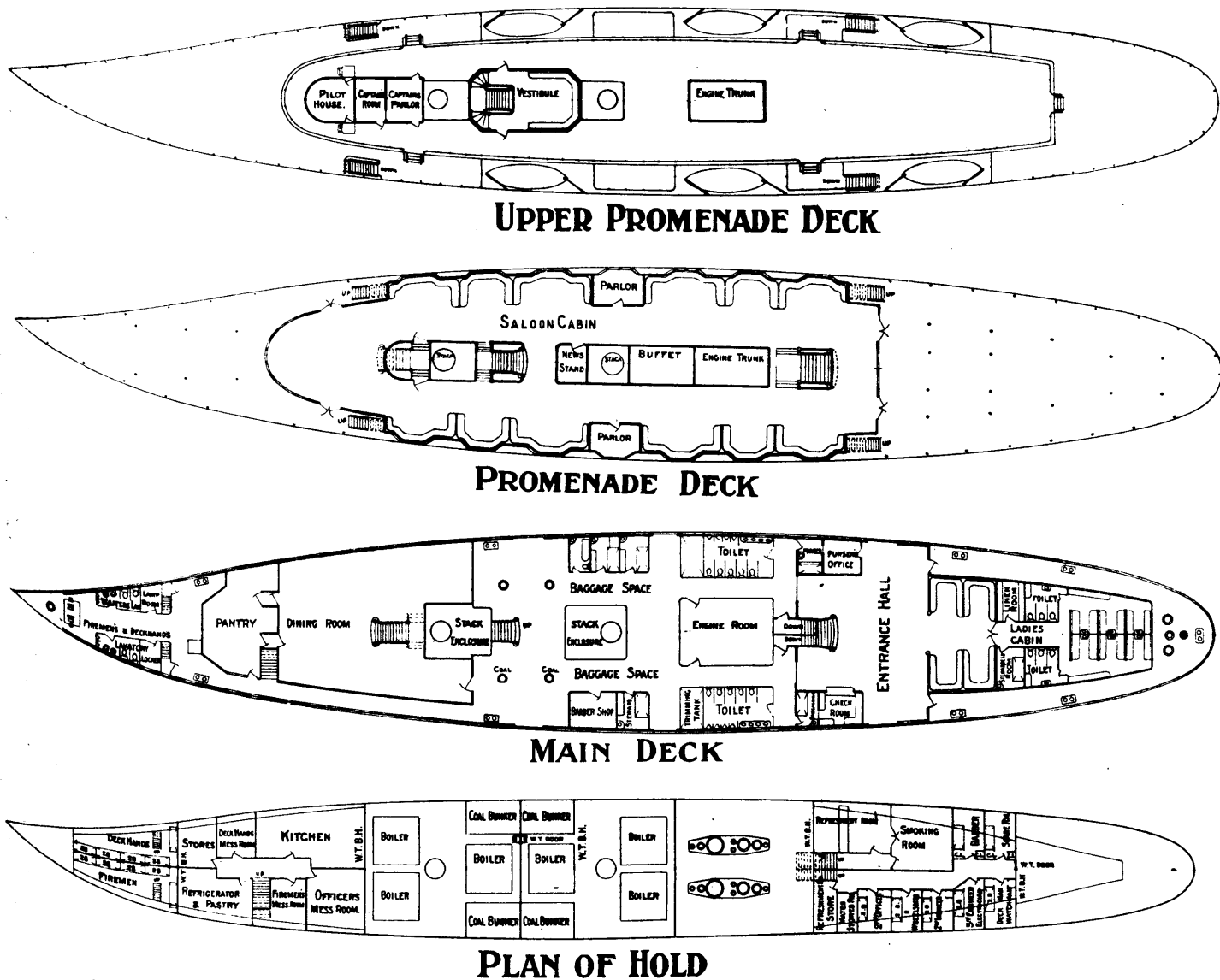
prosperous in the company's history, and a substantial dividend was declared.

The Montreal and Cornwall Navigation Co. has put in new boilers and overhauled the engine of the str. Filgate, and has also overhauled the engine of the str. Garnet. Its str. Empire, which was formerly the White Star, burned at Toronto, 1903, will be placed on the Toronto-Oakville route. The hull was towed from Toronto to Cornwall, where she was rebuilt.

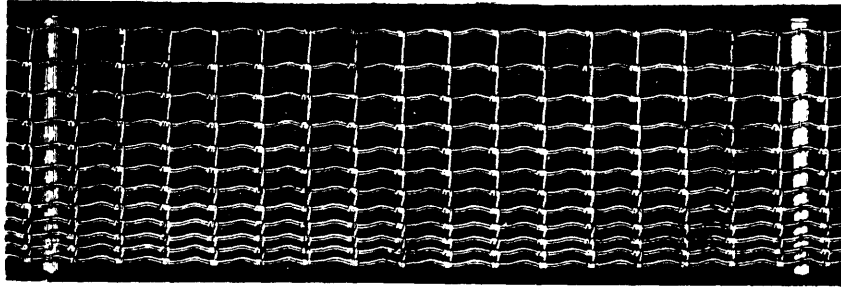
The str. Turbinia while in the dry dock at Kingston, Ont., had a new centre propeller fitted, and had some other alterations made. She began her season's trips May 1, making the run from Hamilton to Toronto at the rate of over 24 miles an hour. A new waiting-room and freight shed are being erected on the wharf at Toronto, a tent being used pending their erection.

In connection with the notice given that vessels could not be loaded at the elevators at Port Arthur and Fort William after 6 p.m., the Dominion Marine Association has appointed a deputation to interview the Minister of Trade and Commerce to protest against it being put in force. The Association learns that no order on the subject has been issued by the Department, and the matter is being investigated.

Homer & Co. has been incorporated under the Ontario Companies' Act, with a capital of \$50,000 and offices at Gravenhurst, Ont., to take over the business of Homer & Co., gen-



DECK PLANS OF THE NIAGARA NAVIGATION CO.'S NEW STEAMSHIP TO BE BUILT BY THE CANADIAN SHIPBUILDING CO. FOR DESCRIPTION SEE APRIL ISSUE.

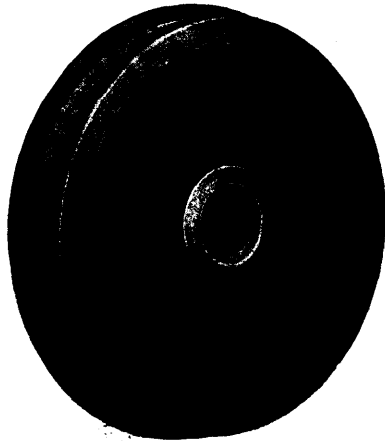


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eral merchants, and in connection therewith to own and operate steam and other vessels. The firm is engaged in a general supply business and employs steamers on the Muskoka Lakes to deliver freight, etc., to hotels, summer residences, etc.

We are advised that the Dominion Government has not purchased the str. Manitou from the United States and Dominion Transportation Co., and has no intention of doing so. According to the press reports the Manitou was to be used for hydrographic survey work on Lake Superior, to replace the Bayfield, which was to be transferred to Hudson Bay. The Bayfield has been fitted out, and left Owen Sound, May 4, to continue the work of making a survey of Lake Superior.

The Fort William Dredging and Harbor Improvement Co. has been incorporated under the Ontario Companies' Act, with a capital of \$150,000 and offices at Fort William, Ont., for the purpose of erecting dry docks, to engage in dredging, and generally to do any improvement work in connection with the same. The incorporators are: E. R. Wayland, E. S. Rutledge, C. H. Jackson, F. R. Morris, T. E. Dean, L. L. Pelliter, W. Stevenson, Mrs. G. Morton, of Fort William, Ont.

The following additional appointments to steamers have been made since the list in our last issue was made up: Charles Williams, Sr., Bay of Quinte Steamboat Co.; J. Ewart, captain and A. E. Foote, engineer, str. Neebing; M. Heffernan, captain, str. Niagara, Ontario and Quebec Navigation Co.; A. Simard, captain, G. Gagnon, engineer, str. Chicoutimi; L. Valois, captain, str. Chambly; Richelieu and Ontario Navigation Co.; E. Castonguay, captain str. Filgate; A. Hence, captain str. Garnet; O. Gillespie, captain, L. Marchand, engineer, str. Empire; Montreal and Cornwall Navigation Co., Cornwall, Ont.

Manitoba and the Northwest Territories.

The str. Frank Burton has been purchased by J. A. Howell, Selkirk, Man. She is being fitted up for passenger service on the river and Lake Winnipeg.

The first steamers arrived at Athabasca Landing, Alta., from Lesser Slave Lake, Artha., May 1, and the first return steamer left Athabasca Landing May 3.

A steamer is being built at Chippewyan, Artha., for which an engine and boiler is being taken in from Athabasca Landing, at which place a new steamer, Midnight Star, was launched May 2.

The Department of Marine has arranged to construct a 124 ft. twin screw launch at Sorel during the summer, for the use of the Mounted Police on Hudson Bay. The launch will have a speed of 12 knots an hour.

The Dominion Government str. Arctic will return to the Atlantic Ocean in the fall for the purpose of an overhaul, and will go back in 1906.

It has been decided to have an annual trip made to the Arctic Ocean and Hudson Bay, instead of permitting the steamer to remain there for two or more years at a time.

B.C. and Pacific Coast Shipping.

W. E. Laird, of Victoria, B.C., has been appointed shipping master there, succeeding Capt. H. G. Lewis, deceased.

Navigation opened on the Yukon River, May 1, when the first freight craft started out from Whitehorse for Dawson.

The tug Laura of Vancouver has been purchased by Pearce and Garfield of New Westminster, for their Fraser River trade.

S. A. Mandy has purchased a small tug in Vancouver and had it conveyed overland to the Three Valley Lake, near Revelstoke, B.C.

A. B. McNeill, Victoria, B.C., has been appointed Secretary-Treasurer of the Pilotage District of Victoria and Esquimalt, succeeding E. Crow Baker.

The Revelstoke Navigation Co. has placed its str. Revelstoke on the route between Revelstoke and the Big Bend country. The str. will make two round trips a week.

The Vancouver Skeena River Navigation Co. has been incorporated under the B.C. Companies' Act with a capital of \$100,000 to carry on a general navigation business.

The str. Columbia, built at Vancouver, B.C., for the Anglican Church Missions on the northern coast has been dedicated. The vessel is fitted with a gasoline engine of 20 h.p., and sails can also be used.

Capt. Balcom, who recently brought the str. Orion out from Norway to Victoria, with a view of engaging in whaling off Vancouver Island, is negotiating with the Department of Marine for the purpose of establishing a life saving station there.

The Merchants' Service Guild of Canada has called the attention of the Department of Marine to the conduct of a master mariner named Bonser, lately in charge of the str. Hazleton, alleging the ramming of opposition steamers and asking that a commission be appointed to investigate the complaints.

An order for another steamer has been placed at Glasgow, Scotland, for the Dollar Line, owned by R. Dollar, of San Francisco, Cal. Most of the steamers of the line are registered at Victoria, B.C.

The Dominion Government is asking for tenders for a 12 knot an hour steamship service between St. John, N.B., and London, Eng. They are to be fitted with accommodation for carrying perishable cargoes with cool temperatures and refrigerating apparatus and space of 2,500 cubic feet.

The Supreme Court has been asked by the Dominion Government to decide as to the validity of the act respecting ferries and its amendments. The case was argued by counsel for the Dominion Government, and for the Ontario Government, whilst the Quebec Government filed a factum. Judgment was reserved.

The management of the Manchester Liners, which have hitherto made Montreal their summer port in Canada, is contemplating changing to Quebec. At present a considerable quantity of cargo is taken on at Quebec, but it is stated that the Great Northern Ry. will provide a large proportion of cargo if the change is made. The steamers are owned in Manchester, Eng., and are among the largest freighters coming to Canada.

The question of the power of the International Waterways Commission to look into the question of the levels of the St. John River is being considered by the two Governments. The U.S. Government wants that river to be excluded from the scope of the Commissioners' enquiry whilst the Canadian Government holds otherwise. Residents in New Brunswick claim that trade is being injured on account of some obstructions placed in the river by residents in Maine, and a certain amount of friction has been occasioned thereby.

Among the Express Companies.

The headquarters of G. H. Waterhouse, Canadian Ex. Co.'s route agent, have been changed from Montreal to Kingston, Ont.

The Dominion Ex. Co. has published rates for summer routes on the lines of the Richelieu and Ontario Navigation Co., the Algonoma Steamship Line, Northern Navigation Co., and United States and Dominion Transport Co., as well as the summer route to Europe via Quebec.

The Dominion Ex. Co. announces that Emo, Fort Frances and other points in the Rainy River district of Ontario, formerly reached by its service during the season of navigation, will not be re-opened this year. All shipments for these points must be way-billed for transfer to the Canadian Northern Ex. Co.

The Canadian Ex. Co. placed its service on the lines of the Prince Edward Island Ry., May 1, opening the following offices there: Alberton, Bear River, Bloomfield, Breadalbane, Cardigan, Charlottetown, Freeton, Georgetown, Hunter River, Kensington, Miscouche, Morell, Mount Stewart Jct., New Wiltshire, O'Leary, Port Hill, St. Peters, Souris, Tignish, Wellington. The summer route between Point du Chene and Summer-side has been opened.

The Western Ex. Co. has notified agents of the discontinuance of universal through billing of special traffic matter, May 1. Business for offices of other express companies must now be way-billed to and routed via the natural direct transfer point near destination; routing label has to be affixed to each shipment, showing point to which it is way-billed. Other express companies on same date discontinued through way-billing of special traffic matter, 7 lbs. and under, to all exclusive offices of the Western Ex. Co., and from all exclusive points to W. Ex. Co.'s common points.

The Canadian Ex. Co. announces that in addition to the facilities afforded by the Atlantic and Lake Superior Ry. from Metapedia to certain points in Gaspé county, Que., the Interprovincial Navigation Co. has arranged a summer steamer service from Campbellton, N.B., to Gaspé, Que., touching at a number of intermediate ports. The service will be twice a week; express matter for points reached by steamer only are to be routed via Campbellton, and for points reached by steamer and rail to be routed by shipper. No money, or valuables or C.O.D. parcels will be carried beyond Campbellton.

Telegraph and Cable Matters.

The Western Union Telegraph Co. has extended its money transfer system to foreign countries.

The C.P.R. Telegraph Department is stringing a new telegraph line between Guelph and Goderich, Ont.

The C.P.R. Telegraph Department is extending its call-box system to Halifax, N.S., and St. John, N.B.

The C.P.R. Telegraph Department has strung a second wire between Hochelaga and St. Agathe, Que., to accommodate the increased business.

The Great North-Western Telegraph Co. has established the Dominion Messenger and Signal Co. in connection with its business. S. B. McMichael is Superintendent.

M. Crean is reported to have been appointed Superintendent of the Dominion Government Yukon telegraphs, vice J. B. Charleson, appointed Dominion Inspector of Public Buildings.

The Newfoundland Legislature has passed an act providing for the payment of the amount awarded the Reid Newfoundland Co., in connection with the taking over of the telegraph lines by the Government.

E. H. James, B.Sc., of McGill University, son of N. James, in charge of the Anglo-American Cable Co.'s office at Heart's Content, Nfld., has been appointed to a position on the engineering staff of the Westinghouse Manufacturing Co., Pittsburg, Pa.

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Export Elevator, Buffalo, N.Y.	1,000,000	"
J. R. Booth Elevator, Depot Harbor, Ontario	1,000,000	"
Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	1,000,000	"
Erle 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 Landing, Que.	500,000	"
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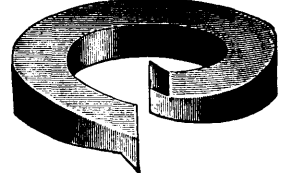
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Australia—will be held in London, Eng., in the fall. Sir Wm. Mulock will represent Canada. The conference is for the purpose of adjusting certain differences, and an effort will be made to institute a more vigorous policy, so that the Pacific cable may become a more important factor in bringing Australia, Canada and England closer together in trade matters.

The wireless telegraph stations (Marconi system), equipped by the Department of Marine, are situated at Fame Point, Belle Isle, Que.; Heath Point, Anticosti Island; Point Amour, Labrador; Cape Ray, Cape Race, Newfoundland; and were in operation prior to the close of navigation in 1904. Since then a station has been equipped on Sable Island, off Nova Scotia. In the official test made of the stations it was ascertained that they had a range of from 115 to 130 miles, although in the case of the Heath Point station, vessels were held for some miles further. From all of these stations vessels are reported and news supplied. The Belle Isle and Port Amour stations have proved exceptionally valuable in communicating to steamers coming through the Straits of Belle Isle, news as to weather conditions prevailing in the straits. It has been decided to increase the power at the St. Lawrence stations so that the stations may communicate with one another. In order to complete the chain of stations from Fame Point to Belle Isle or Cape Ray, two other stations will be established at suitable points. Three of the Government steamers—Canada, Minto and Stanley—have been fitted with the Marconi apparatus.

High Tension Wires on Railway Right-of-Way.

By W. J. Camp, Electrical Engineer C.P.R. Telegraphs.

Installations are being made at various points throughout the continent for generating electrical power and transmitting it to a distance; the voltage on the transmission wires varying from 10,000 to 70,000 volts according to conditions. Applications have been made to the different railway companies for the privilege of carrying the transmission line along the railway right-of-way, and it is altogether likely that the number of these applications will increase. The main object of this paper is to bring the subject up for discussion, as I have very little data.

The C.P.R. Telegraph Department has generally opposed granting permission, for various reasons, such as danger to life and property, induction on telephone lines, etc. Up to the present the working of the C.P.R. telegraph wires has not been affected, although there are several power lines paralleling the line, for instance, in British Columbia, 20,000 volts from Nelson to the power house, 16 miles; from the power house to Rossland, 55 miles; two power wires parallel the railway for 20 miles, then diverge for some distance, when they again parallel for 15 miles. The distance from the telegraph wires varies from 30 to 200 ft. On other sections in Eastern Canada power lines are on the right-of-way, in one case for 10 miles, but on the opposite side of the track and telegraph line.

I am informed that the Great North-Western Telegraph Co. has suffered somewhat from induction on a line between Chambly and St. Lambert, 20 miles, and between Shawinigan and Montreal, 95 miles. In the latter case the power line is on the opposite side of the track from Shawinigan to Joliette, 50 miles; from Joliette to L'Epiphanie, 12 miles, it takes a different route; from L'Epiphanie to Charlemagne, 10 miles, it is close to the telegraph line. No ill effects were experienced on the telegraph wires until they were transferred to the present route from

Joliette to Montreal, a new piece of railway, but since then it has been found very difficult to keep properly adjusted on account of a continual hum from the power circuit. The voltage of the power circuit is about 50,000.

It may be well to introduce here the subject of foreign wires crossing the railway right-of-way. In Canada there is a Railway Commission consisting of three persons who are appointed by the Governor-General-in-Council. All matters concerning the construction and operation of railways must be brought before this Commission. The Railway Act, 1903, amends and consolidates the law respecting railways and includes the duties and scope of the Railway Commission. Section 194 reads as follows:—"No lines or wires for telegraphs, telephones, or the conveyance of light, heat, power or electricity, shall be erected, placed or maintained across the railway without leave of the Board. Upon any application for such leave, the applicant shall submit to the Board a plan and profile of the part of the railway proposed to be affected, showing the proposed location of such lines and wires and the works contemplated in connection therewith; and the Board may grant such application and may order by whom, how, when, and on what terms and conditions, and under what supervision, such work shall be executed; and upon such order being made such lines and wires may be erected, placed and maintained across the railway subject to and in accordance with such order." The usual procedure is for the company desiring to cross, to make application to the railway company, and after the two companies have reached an understanding, it is submitted to the Railway Commission.

We have tried various devices for protection from high tension wires crossing the right-of-way, generally using something in the form of a cradle. An article in the *Electrical World*, May 21, 1904, recommended the use of high poles and short span, so that if the high tension wire broke, neither end would be long enough to reach either the track or telegraph line. We have a crossing arranged on this principle in British Columbia. The power wires are 400 ft. above the track; parallel with the track on each side, a heavy iron rod is supported on poles and earthed. Generally this plan is impracticable. The article also mentions a wire screen over the telegraph wires, but no protection for the railway. Another article proposed a somewhat similar arrangement, but using iron pins and arms which are earthed; and also a grounded cradle device. The Transactions of the American Institute of Electrical Engineers for Sept., 1904, contain a committee report on high tension transmission, which includes a list of protection devices for crossing other wires, highways and railways. From the discussion of the report it appears that the system of using a screen under the power wires was the one most in use, but many objections were raised, although nothing better was suggested.

In conclusion, I would ask—Should high tension lines be kept off the railway right-of-way, and if so, why? Also, what is the best device for protection where high tension currents cross the railway, and should the same be used for telephone and other wires also?

Since writing the above I received the following advice from our Superintendent in British Columbia, referring to the line between Nelson and Rossland: "No appreciable induction, excepting when power wires partially grounded between stations, then quite bad, even when location of ground is two or three miles away and across the river." I also find that the Postal Co. experiences a similar effect in the neighborhood of Detroit.

The foregoing paper was read before the American Association of Railway Telegraph Superintendents at Chattanooga, Tenn., May 17th.

General Telephone Matters.

The Quebec Legislature has passed an act amending the charter of the Bellechasse Telephone Co.

The Bell Telephone Co. is extending its line to Quoyne, Que., and along the Gatineau to Wakefield, Que.

The Bell Telephone Co. has constructed a rural telephone line between Stratford and Sebringville, Ont.

The Portneuf Telephone Co. has been authorized to increase its capital from \$10,000 to \$49,500, by supplemental letters patent under the Quebec Companies' Act.

Brantford's city council telephone committee has recommended the granting of an exclusive franchise to the Bell Telephone Co. for three years at \$800 a year.

The Canadian Machine Telephone Co. expected to complete stringing its wires in Peterboro', Ont., by the end of May. It will have 400 instruments in connection when the plant is ready for operation.

The Bell Telephone Co. has made application to the Montreal city council for permission to open up three miles of streets for the extension of its conduit system. It is also laying conduits in Kingston, Ont., and is extending its conduit system in Toronto and London, Ont.

The Provincial Telephone Co. has been incorporated under the New Brunswick Companies' Act with a capital of \$9,000 and offices at Andover, N.B., to carry on a general telephone business in Victoria county. The provisional directors are: D. Fraser, Fredericton, N.B.; H. S. Giberson, J. F. Tweedale, H. W. Beveridge, Gordon, N.B.; J. Burgess, Grand Falls, N.B.; A. Straton, Andover, N.B.

The Campobello Island Telephone Co. has been incorporated under the New Brunswick Companies' Act, with a capital of \$2,000, and offices at Wilson's Beach, N.B., to construct telephone lines between Wilson's Beach and Welchpool, N.B. The incorporators are: W. E. Ludlow, A. Matthews, J. L. Savage, J. Brown, Jr., J. W. Matthews, M. Calder, W. Osborne, Wilson's Beach; J. M. Johnston, Welchpool, N.B.

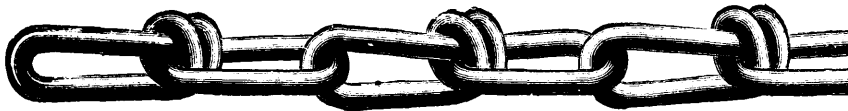
The Burgessville Telephone Co. of Ontario has been incorporated under the Ontario Companies' Act, with a capital of \$40,000, and offices at Burgessville, Ont., to carry on a general telephone business within Oxford county. The incorporators are M. Emigh, J. G. Corless, North Norwich tp.; H. E. Service, H. Sneath, Burgessville; A. E. Wilson, E. F. Park, East Oxford tp.; W. T. Nutt, Dereham tp., all of Oxford county, Ont.

The commissioners of the Temiskaming and Northern Ontario Ry. have decided to construct a telephone line between North Bay and New Liskeard, Ont., for its own purposes, and also to serve local customers. It is probable that the proposed line will be used as a trunk line connecting the independent companies now being established at Haileybury and New Liskeard, and possibly will connect at North Bay with the Bell Telephone Co.

The Ontario Telephone Co. is the title of a company which is applying for a charter of incorporation at the current session of the Ontario Legislature. The applicants are N. Andrews, J. Muir, T. Elliott, R. Ryerson, W. S. Brewster, of Brantford; the proposed capital is \$200,000, and the offices are to be at Brantford, Ont. The company desires to carry on a general telephone business, and to make connections with the lines of any other telephone company.

The Nova Scotia Telephone Co. has resumed work on the construction of its trunk lines between Amherst and Springhill Jct. Of these lines, one will be for the through line to Halifax; one for the through line to Oxford,

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- Culvert Pipe (Cast Iron)**
Gartshore-Thompson Pipe & F'dry Co... Hamilton.
- Cuts**
Acton Burrows Co..... Toronto.
- Derrick Ropes**
Dominion Wire Rope Co..... Montreal.
The B. Greening Co..... Hamilton, Ont.
- Derricks**
F. H. Hopkins & Co..... Montreal.
W. H. C. Mussen & Co..... Montreal.
- Diving Outfits**
W. H. C. Mussen & Co..... Montreal.
- Door Signs**
Acton Burrows Co..... Toronto.
- Drawing Materials**
Eugene Dietzgen Co..... New York.
James Foster..... Toronto.
- Drilling Machines**
The John Bertram & Sons Co..... Dundas, Ont.
- Drills**
W. Abbott..... Montreal.
- Dry Goods**
The Hudson's Bay Co.....
- Dynamo and Electric Castings**
American Brake Shoe & F'dry Co.... Mahwah, N.J.
- Economizers**
Babcock & Wilcox (Ltd.)..... Montreal.
- Electric Car Fenders**
The G. B. Meadows Wire, etc., Co. Toronto.
- Electric Car Route Signs**
Acton Burrows Co..... Toronto.
- Electric Car Wire Guards**
The G. B. Meadows Wire, etc., Co..... Toronto.

- Electric Cranes**
Canada Foundry Co..... Toronto.
Dominion Bridge Co..... Montreal.
W. H. C. Mussen & Co..... Montreal.
- Electric Ry. Brake Shoes**
American Brake Shoe & F'dry Co.... Mahwah, N.J.
- Electric Railway Builders**
F. T. Ley & Co..... Springfield, Mass.
- Electric Ry. Supplies**
J. A. Dawson & Co..... Montreal.
- Electric Supplies**
J. A. Dawson & Co..... Montreal.
- Enameled Iron Signs**
Acton Burrows Co..... Toronto.
- Engineers' Supplies**
The Canadian Rubber Co. of Montreal.
Williams & Wilson..... Montreal.
- Engines, Automatic**
Robb Engineering Co..... Amherst, N.S.
- Engines, Corliss**
Robb Engineering Co..... Amherst, N.S.
- Engines, Stationary and Marine**
Canada Foundry Co..... Toronto.
H. W. Petrie..... Toronto.
Polson Iron Works..... Toronto.
Robb Engineering Co..... Amherst, N.S.
- Engines, Steam**
Erie Heating Co..... Chicago, Ill.
Williams & Wilson..... Montreal.
- Engraving**
Rolph & Clark (Ltd.)..... Toronto.
Toronto Engraving Co..... Toronto.
- Engraving (Copper and Steelplate)**
Rolph & Clark (Ltd.)..... Toronto.
- Express Office Signs**
Acton Burrows Co..... Toronto.
- Feedwater Heaters**
Babcock & Wilcox (Ltd.)..... Montreal.
H. W. Petrie..... Toronto.
Robb Engineering Co..... Amherst, N.S.
Williams & Wilson..... Montreal.
- Fencing**
Canada Foundry Co..... Toronto.
Canadian Steel and Wire Co..... Hamilton, Ont.
Cyclone Woven Wire Fence Co..... Toronto.
Owen Sound Wire Fence Co..... Owen Sound, Ont.
Page Wire Fence Co..... Walkerville, Ont.
- Fire Brick**
Garden Sand Co..... Chicago, Ill.
W. H. C. Mussen & Co..... Montreal.
- Fire Escapes**
The G. B. Meadows Wire, etc., Co..... Toronto.
- Fire Insurance**
Dale & Co..... Montreal.
- Flags**
The Hudson's Bay Co.....
- Flour**
The Hudson's Bay Co.....
- Forgings**
Crosen Car Mfg. Co..... Cobourg, Ont.
General Railway Signal Co..... Buffalo, N.Y.
Standard Steel Works..... Philadelphia, Pa.
- Gas Pipe (Cast Iron)**
Gartshore-Thompson Pipe & F'dry Co., Hamilton
- Gates**
Canada Foundry Co..... Toronto.
Cyclone Woven Wire Fence Co..... Toronto.
Owen Sound Wire Fence Co..... Owen Sound, Ont.
Page Wire Fence Co..... Walkerville, Ont.
- Gears (Heavy)**
W. Kennedy & Sons (Ltd.)..... Owen Sound Ont.
- Grain Elevators**
John S. Metcalfe Co..... Chicago, Ill.
- Groceries**
The Hudson's Bay Company.....
- Handcars**
Crosen Car Mfg. Co..... Cobourg, Ont.
W. H. C. Mussen & Co..... Montreal.
- Hardware**
The Hudson's Bay Company.....
- Headlights**
N. L. Piper Railway Supply Co..... Toronto
- Headlinings**
Crosen Car Mfg. Co..... Cobourg, Ont.
- Heaters**
Erie Heating Co..... Chicago, Ill.
- Heating for Power Plants**
Erie Heating Co..... Chicago, Ill.
- Hose, Air Brake and Steam**
The Canadian Rubber Co. of Montreal.
- Hose, Fire**
The Canadian Rubber Co. of Montreal
- Hose, Suction**
The Canadian Rubber Co. of Montreal.
- Illustrations**
Acton Burrows Co..... Toronto.

(Continued on page 279.)

and the third the local metallic line to Springhill. Other work to be taken in hand during the season includes a through line to Parrsboro, via Southampton; a direct metallic line from Amherst to Pictou; and the reconstruction of the line to Pugwash. Negotiations are in progress with the New Brunswick Telephone Co. for the construction of a through line to Moncton, N.B.

The Bell Telephone Co., according to a statement presented by C. F. Sise, President, to the Parliamentary Committee now sitting at Ottawa, holds shares in other telephone and allied companies in Canada as follows:—

No. of Shares.	Value.
Telephone Company of P.E.I. 369	\$ 8,725
New Brunswick Telephone Co. 1,599	79,950
Nova Scotia Telephone Co. 6,975	69,750
Federal Telephone Co. 1,879	28,185
North American Telegraph and Telephone Co. 2,000	200,000
Northern Electric and Manufacturing Co. 2,790	279,000
The Wire and Cable Co. 2,600	260,000

The Temiskaming Telephone Co. has been incorporated under the Ontario Companies' Act, with a capital of \$25,000, and offices at New Liskeard, Ont., to carry on a general telephone business there and in the district of Nipissing. The provisional directors are: T. McCamus, F. S. Brickenden, W. J. Middleton, W. Hugh, Rev. J. J. Sparling, D. Stewart, D. T. K. McEwen, New Liskeard. The commissioners of the Temiskaming and Northern Ontario Ry. propose to construct a telephone line along the railway from North Bay to New Liskeard, which will afford long distance connection for the Temiskaming Telephone Co., and for the Haileybury and Cobalt Telephone Co.

The Bell Telephone Co. has completed long distance lines as follows:—Eastern Department—Montreal to Ottawa; St. Anne de la Perade to St. Prosper; Ottawa to Alexandria; Lachine to Pointe Claire; Actonvale to Richmond; Richmond to Windsor Mills; Montebello to Papineauville. It is proposed to open offices at St. Prosper and Papineauville, Que., and Eastman's Springs, Ont. Ontario Department—Chatham to Blenheim; London to Chatham; Toronto to Galt; Hamilton to Jarvis; Toronto to Bowmanville; Toronto to King Jct.; Toronto to Hamilton; Hamilton to Brantford. Northwest Department—Carberry to Brandon; Winnipeg to Portage la Prairie; Morden to Pilot Mound. The following long distance lines are to be constructed during the current season, work on some of them having been already started. Eastern Department—Nicolet to Doucet's Landing; Three Rivers to Doucet's Landing; Three Rivers to Quyon; St. Tite to St. Thecle; Spencerville; Montreal to St. Jerome; Lorette to Cap Sante; Ottawa to North Wakefield. Ontario Department—Toronto to Georgetown; Bradford Jct. to Collingwood; Barrie to Orillia; Bracebridge to Huntsville; Toronto to Brampton; Ripley to Bervie; Dutton to Wallacetown; St. Thomas to Sheldon; Drayton to Palmerston; Hamilton to St. Catharines. Northwest Department—Brandon to Rapid City; Killarney to Deloraine; Lacombe to Bentley; Regina to Lumsden; Winnipeg to Wawanessa; Winnipeg to Carman; Brandon to Moosomin.

The Standard Inspection Bureau has been incorporated under the Ontario Companies' Act with a capital of \$40,000 and offices at Toronto, "to carry on the business in all their branches of civil, mechanical and electrical engineers, analysts, surveyors, examiners and inspectors." J. Galt, C.E., is President; A. L. Reading, Manager; T. C. Irving, Jr., Secretary; the other director being H. E. Redman. The Bureau has opened offices at 23 Toronto St.

JOHN DONNELLY, President H. B. FOLGEE, Treasurer THOS. DONNELLY, Secretary

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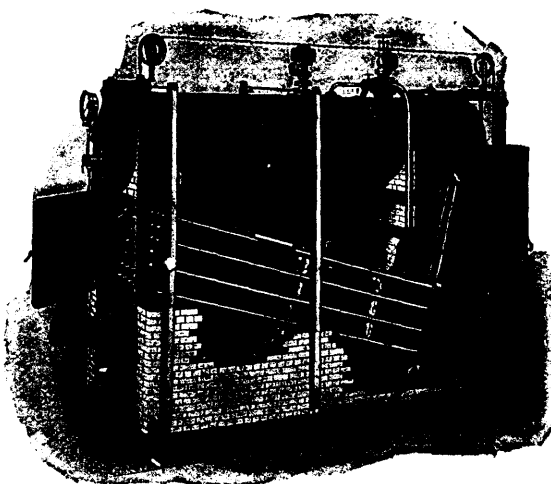
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PURCHASING AGENTS' GUIDE.

(Continued from page 277.)

- Inspections**
E. W. Hunt & Co. Montreal.
H. Jarvis & Co. Chicago, Ill.
Standard Inspection Bureau. Toronto.
- Instruments, Surveying and Engineering**
Eugene Dietzgen Co. New York.
James Foster. Toronto.
- Insurance (Fire and Marine)**
Dale & Co. Montreal.
- Interlocking and Signalling**
General Railway Signal Co. Buffalo, N.Y.
- Interlocking Signals**
Montreal Steel Works. Montreal.
- Iron Fencing**
The G. B. Meadows Wire, etc., Co. Toronto.
- Iron and Steel Castings**
American Brake Shoe & F'dry Co. Mahwah, N.J.
- Iron Signs**
Acton Burrows Co. Toronto.
- Japans**
McCaskill, Dougall & Co. Montreal.
- Journal Bearings**
Canada Foundry Co. Toronto.
Crosden Car Mfg. Co. Cobourg, Ont.
Jas. W. Pyke & Co. Montreal.
St. Thomas Brass Co. St. Thomas, Ont.
- Lager Beer, &c.**
E. L. Drewry. Winnipeg.
- Lamps, Incandescents**
Canadian Westinghouse Co. Hamilton, Ont.
- Lamps and Lanterns**
The Hudson's Bay Company.
N. L. Piper Railway Supply Co. Toronto.
- Lathes**
The John Bertram Sons Co. Dundas, Ont.
H. W. Petrie. Toronto.
Williams & Wilson. Montreal.
- Launches**
Polson Iron Works. Toronto.
- Lights, Contractors' and Wrecking**
F. H. Hopkins & Co. Montreal.
W. H. C. Mussen & Co. Montreal.
- Lithographing**
Rolph & Clark (Ltd.). Toronto.
- Locomotive Boiler Washer, Automatic**
Erie Heating Co. Chicago, Ill.
- Locomotive Driver Brake Shoe**
American Brake Shoe & F'dry Co. Mahwah, N.J.
- Locomotives (Compressed Air)**
Baldwin Locomotive Works. Philadelphia, Pa.
Locomotive and Machine Co. of Montreal.
- Locomotives (Electric)**
Baldwin Locomotive Works. Philadelphia, Pa.
Canada Foundry Co. Toronto.
Locomotive and Machine Co. of Montreal.
- Locomotives (Logging)**
Lima Locomotive and Machine Co. Lima, Ohio.
- Locomotives (Rack)**
Baldwin Locomotive Works. Philadelphia, Pa.
Locomotive and Machine Co. of Montreal.
- Locomotives (Steam)**
Canada Foundry Co. Philadelphia, Pa.
Canadian Locomotive Co. Kingston, Ont.
F. H. Hopkins & Co. Chicago, Ill.
The W. H. Kelson Co. Montreal.
Lima Locomotive and Machine Co. Lima, Ohio.
Locomotive and Machine Co. of Montreal.
- Locomotive Stack Netting**
The G. B. Meadows Wire, etc., Co. Toronto
- Locomotive Tile**
Garden City Sand Co. Chicago, Ill.
- Machine Tools**
W. Abbott. Montreal.
H. W. Petrie. Toronto.
Williams & Wilson. Montreal.
- Machines Screws, Set Cap and Planer**
John Morrow Machine Screw Co. Ingersoll.
- Machinery, Marine**
Sheriffs Mfg. Co. Milwaukee, Wis.
- Machinery Repairs, Marine**
Sheriffs Mfg. Co. Milwaukee, Wis.
- Manassese Steel Castings**
Montreal Steel Works. Montreal.
- Manhole Frames and Covers**
American Brake Shoe & F'dry Co. Mahwah, N.J.
- Maps**
Rolph & Clark (Ltd.). Toronto.
- Marine Insurance**
Dale & Co. Montreal.
- Mats and Matting**
The Canadian Rubber Co. of Montreal.
- Mechanical Draft Fans**
Babcock & Wilcox (Ltd.). Montreal.
- Milepost Numbers**
Acton Burrows Co. Toronto.
- Milling Cutters**
W. Abbott. Montreal.
Williams & Wilson. Montreal.
- Milling Machines**
The John Bertram Sons Co. Dundas, Ont.
H. W. Petrie. Toronto.
- Mills, Boring and Turning**
The John Bertram Sons Co. Dundas, Ont.
H. W. Petrie. Toronto.
- Mill Tools and Supplies**
J. A. Dawson & Co. Montreal.
- Moulding Sand**
Garden City Sand Co. Chicago, Ill.
- Nickel**
The Orford Copper Co. New York.
- Nickel for Nickel Steel**
The Orford Copper Co. New York.
- Numbers**
Acton Burrows Co. Toronto.
- Nuts, Cold Pressed**
John Morrow Machine Screw Co. Ingersoll.
- Nuts, Square and Hexagon**
Canada Foundry Co. Toronto.
Toronto Bolt and Forging Co. Toronto.
- Oakum**
The Hudson's Bay Company.
- Office Desks**
Canadian Office & School Furniture Co., Preston, Ont.
- Office Fittings**
Canadian Office & School Furniture Co., Preston, Ont.
- Office Railings**
The G. B. Meadows Wire, etc., Co. Toronto.
- Office Signs**
Acton Burrows Co. Toronto.
- Oils**
Galena Signal Oil Co., Franklin, Pa., and Toronto.
- Packing**
The N. L. Piper Railway Supply Co. Toronto.
Williams & Wilson. Montreal.
- Packing, High Pressure Sheet**
The Canadian Rubber Co. of Montreal.
- Packing, Piston**
The Canadian Rubber Co. of Montreal.
- Paints, Acid Proof and Anti-rust**
American Asphaltum & Rubber Co. Chicago, Ill.
- Paints, Asphaltum**
American Asphaltum & Rubber Co. Chicago, Ill.
- Paints, Bridge**
American Asphaltum & Rubber Co. Chicago, Ill.
- Paints, Locomotive Front end**
American Asphaltum & Rubber Co. Chicago, Ill.
- Paints, Mineral Rubber**
American Asphaltum & Rubber Co. Chicago, Ill.
- Paints, Structural Iron**
American Asphaltum & Rubber Co. Chicago, Ill.
- Pinch Bars**
The N. L. Piper Railway Supply Co. Toronto.
- Pipe**
Erie Heating Co. Chicago, Ill.
- Pipe and Pipe Coverings**
W. C. Baker. New York.
- Pipe Covering**
Mica Boiler Covering Co. Montreal.
- Planers**
The John Bertram Sons Co. Dundas, Ont.
H. W. Petrie. Toronto.
- Ploughs, Contractors'**
W. H. C. Mussen & Co. Montreal
- Porter**
E. L. Drewry. Winnipeg
- Portable Boilers**
Babcock & Wilcox (Ltd.). Montreal.
Canada Foundry Co. Toronto.
Robb Engineering Co. Amherst, N.S.
- Portland Cement**
Thorn Cement Co. Buffalo, N.Y
- Power Plants, Contractors'**
Erie Heating Co. Chicago, Ill.
- Printing**
The Hunter, Rose Co. Toronto.
The Mail Job Printing Company. Toronto.
- Propeller Wheels**
W. Kennedy & Sons (Ltd.). Owen Sound, Ont.
Sheriffs Manufacturing Co. Milwaukee, Wis.
- Pumps**
Canada Foundry Co. Toronto.
Erie Heating Co. Chicago, Ill.
- Punches**
F. J. Myers Mfg. Co. Hamilton, Ohio.
- Punching and Shearing Machines**
The John Bertram Sons Co. Dundas, Ont.
- Rail Benders, Roller**
Montreal Steel Works. Montreal.
- Rails (new)**
Drummond, McCall & Co. Montreal.
F. H. Hopkins & Co. Montreal.
J. J. Gartshore. Toronto.
- Rails (for relaying)**
F. H. Hopkins & Co. Montreal.
J. J. Gartshore. Toronto.
T. A. Morrison & Co. Montreal.
W. H. C. Mussen & Co. Montreal.
Jas. W. Pyke & Co. Montreal.
- Railway Equipment**
F. M. Hicks & Co. Chicago, Ill.
- Railway Interlocking**
General Railway Signal Co. Buffalo, N.Y.
- Railway Pile Drivers**
W. H. C. Mussen & Co. Montreal.
- Railway Signalling**
General Railway Signal Co. Buffalo, N.Y.
- Railway Supplies**
J. A. Dawson & Co. Montreal.
The W. H. Kelson Co. Montreal.
The N. L. Piper Railway Supply Co. Toronto.
- Reamers**
W. Abbott. Montreal.
- Refrigerators**
Geo. R. Prowse. Montreal.
- Ribbons and Carbon Paper**
United Typewriter Co. Toronto.
- Rivets, Boiler and Bridge**
Canada Foundry Co. Toronto.
Toronto Bolt and Forging Co. Toronto.
- Rolled Wheels**
Standard Steel Works. Philadelphia, Pa.
- Rolls, Plate Bending**
The John Bertram Sons Co. Dundas, Ont.
- Roof Trusses**
Canada Foundry Co. Toronto.
Dominion Bridge Co. Montreal.
- Roofing Composition**
American Asphaltum & Rubber Co. Chicago, Ill.
- Roofing Pitch**
American Asphaltum & Rubber Co. Chicago, Ill.
- Roofing, Beady**
American Asphaltum & Rubber Co. Chicago, Ill.
- Roofs, Car**
American Asphaltum & Rubber Co. Chicago, Ill.
- Rope**
The Hudson's Bay Co.
- Rotary Snow Ploughs**
Crosden Car Mfg. Co. Cobourg, Ont.
- Rubber Tiling, Interlocking**
The Canadian Rubber Co. of Montreal.
- Sand, White**
Garden City Sand Co. Chicago, Ill.
- Saw Steel**
Montreal Steel Works. Montreal.
- Scrapers (Wheel and Drag)**
W. H. C. Mussen & Co. Montreal.
- Screws, Coach and Log**
Toronto Bolt and Forging Co. Toronto.
- Semaphore Arms**
Acton Burrows Co. Toronto.
- Semaphores**
The N. L. Piper Railway Supply Co. Toronto.
- Sewer Pipe (Cast Iron)**
Gartshore-Thompson Pipe & F'dry Co. Hamilton.
- Shaking Grates**
Babcock & Wilcox (Ltd.). Montreal.
- Shaping Machines**
The John Bertram Sons Co. Dundas, Ont.
- Ship Lamps**
The N. L. Piper Railway Supply Co. Toronto.
- Ships**
Canadian Shipbuilding Co. Toronto.
Polson Iron Works. Toronto.
- Shovels**
F. H. Hopkins & Co. Montreal.
The Hudson's Bay Co.
- Side Bearings**
Simplex Railway Appliance Co. Montreal
- Signal House Numbers**
Acton Burrows Co. Toronto.
- Signals**
General Railway Signal Co. Buffalo, N.Y.
N. L. Piper Railway Supply Co. Toronto.
- Signs**
Acton Burrows Co. Toronto.
- Slack Adjusters**
Chicago Railway Equipment Co. Chicago, Ill.

Slotting Machines The John Bertram Sons Co. Dundas, Ont.	Superheaters Babcock & Wilcox (Ltd.) Montreal.	Underwriters Dale & Co. Montreal.
Snow Ploughs Crossett Mfg. Co. Cobourg, Ont. Rhodes, Curry & Co. Amherst, N.S.	Switches Montreal Steel Works. Montreal.	Valves, Iron and Brass Canada Foundry Co. Toronto.
Specialties in Brass and Iron Wire The G. B. Meadows, Wire, etc., Co. Toronto.	Switch Lamps The N. L. Piper Railway Supply Co. Toronto.	Valves, Rubber The Canadian Rubber Co. of Montreal.
Speedicut High Speed Steel Montreal Steel Works. Montreal.	Switch Ropes The B. Greening Co. Hamilton, Ont.	Varnishes McCaskill, Dougall & Co. Montreal.
Spikes, Railway and Ship Toronto Bolt and Forging Co. Toronto.	Switch Targets Acton Burrows Co. Toronto.	Vessels Polson Iron Works. Toronto.
Springs Montreal Steel Works. Montreal. Standard Steel Works. Philadelphia, Pa.	Tanks and Tank Fixtures Canada Foundry Co. Toronto. Ontario Wind Engine and Pump Co. Toronto.	Waste N. L. Piper Railway Supply Co. Toronto.
Station and Tower Heaters W. C. Baker. New York.	Telegraph and Telephone Office Signs Acton Burrows Co. Toronto.	Water Filters Geo. R. Prowse. Montreal.
Stationery Rolph & Clark (Ltd.) Toronto.	Tests R. W. Hunt & Co. Montreal. H. Jarvis & Co. Chicago, Ill. Standard Inspection Bureau. Toronto.	Water Pipe (Cast Iron) Gartshore-Thompson Pipe & Foundry Co., Hamilton.
Station Name Signs Acton Burrows Co. Toronto.	Ticket Punches F. J. Myers Mfg. Co. Hamilton, Ohio.	Water Softeners Babcock & Wilcox (Ltd.) Montreal.
Steam Attachments for Car Heating W. C. Baker. New York.	Ticket Wickets The G. B. Meadows Wire, etc., Co. Toronto.	Wheelbarrows F. H. Hopkins & Co. Montreal.
Steam Couplers Safety Car Heating and Lighting Co. New York.	Time Table Racks The G. B. Meadows Wire, etc., Co. Toronto.	Wheels, rolled, solid forged Standard Steel Works. Philadelphia, Pa.
Steam Hammers The John Bertram Sons Co. Dundas, Ont.	Tires Standard Steel Works. Philadelphia, Pa.	Wheels, steel tired Standard Steel Works. Philadelphia, Pa.
Steam Shovels F. H. Hopkins & Co. Montreal. W. H. C. Mussen & Co. Montreal.	Tool Steel W. Jessop & Sons. Sheffield, Eng. Montreal Steel Works. Montreal.	Windmills Ontario Wind Engine and Pump Co. Toronto.
Steamship Supplies The W. H. Kelson Co. Montreal.	Track Jacks F. H. Hopkins & Co. Montreal. Montreal Steel Works. Montreal. W. H. C. Mussen & Co. Montreal. A. O. Norton. Coaticook, Que.	Wire and Wire Rope Dominion Wire Rope Co. Montreal. The B. Greening Co. Hamilton, Ont. W. H. C. Mussen & Co. Montreal. The Wire and Cable Co. Montreal.
Steamships Canadian Shipbuilding Co. Toronto. Polson Iron Works. Toronto.	Track Tools F. H. Hopkins & Co. Montreal. Montreal Steel Works. Montreal. W. H. C. Mussen & Co. Montreal.	Wire Cloth The B. Greening Co. Hamilton, Ont. F. J. Myers Mfg. Co. Hamilton, Ont.
Steamship Signs Acton Burrows Co. Toronto.	Tracklaying Lorries Crossett Car Mfg. Co. Cobourg, Ont.	Wire, Copper E. F. Phillips Electrical Works, Ltd. Montreal. The Wire and Cable Co. Montreal.
Steam Steering Engines for Tugs Sheriffs Mfg. Co. Milwaukee, Wis.	Tramway Equipment J. J. Gartshore. Toronto.	Wire, Electric Canadian General Electric Co. Toronto. E. F. Phillips Electrical Works, Ltd. Montreal. The Wire and Cable Co. Montreal.
Steel W. Abbott. Montreal. F. H. Hopkins & Co. Montreal. Wm. Jessop & Sons. Sheffield, Eng. Williams & Wilson. Montreal.	Trucks (Electric Car) Baldwin Locomotive Works. Philadelphia, Pa. Canada Foundry Co. Toronto. Montreal Steel Works. Montreal.	Wire, Insulated Copper Canadian General Electric Co. Toronto. E. F. Phillips Electrical Works, Ltd. Montreal. The Wire and Cable Co. Montreal.
Steel Buildings Canada Foundry Co. Toronto. Dominion Bridge Co. Montreal.	Turbine Waterwheels W. Kennedy & Sons (Ltd.) Owen Sound, Ont.	Wire Lockers (Employees) The G. B. Meadows Wire, etc., Co. Toronto.
Steel for Springs James Hutton & Co. Montreal.	Turnbuckles Montreal Steel Works. Montreal.	Wire, Telegraph and Telephone E. F. Phillips Electrical Works, Ltd. Montreal. The Wire and Cable Co. Montreal.
Steel Plate Jas. W. Pyke & Co. Montreal.	Turntables Canada Foundry Co. Toronto. Dominion Bridge Co. Montreal.	Wire, Transmission and Trolley The Wire and Cable Co. Montreal.
Steel, Nickel for Nickel The Orford Copper Co. New York.	Typewriters United Typewriter Co. Toronto.	Woodworking Machinery H. W. Petrie. Toronto.
Steel Rolling Doors W. H. C. Mussen & Co. Montreal.	Typewriter Repairs United Typewriter Co. Toronto.	Wrecking Cranes W. H. C. Mussen & Co. Toronto.
Steel Tyres James Hutton & Co. Montreal. Jas. W. Pyke & Co. Montreal.	Typewriter Supplies United Typewriter Co. Toronto.	Wrought Steel Piping Babcock & Wilcox (Ltd.) Montreal. Canada Foundry Co. Toronto.
Structural Metal Work Canada Foundry Co. Toronto. Dominion Bridge Co. Montreal. Locomotive and Machine Co. of Montreal. Montreal. Jas. W. Pyke & Co. Montreal.		Yachts Polson Iron Works. Toronto.



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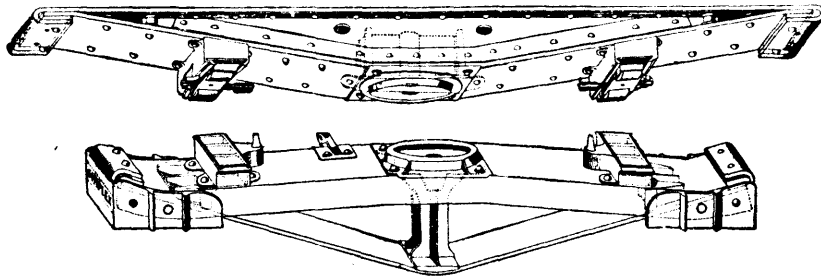
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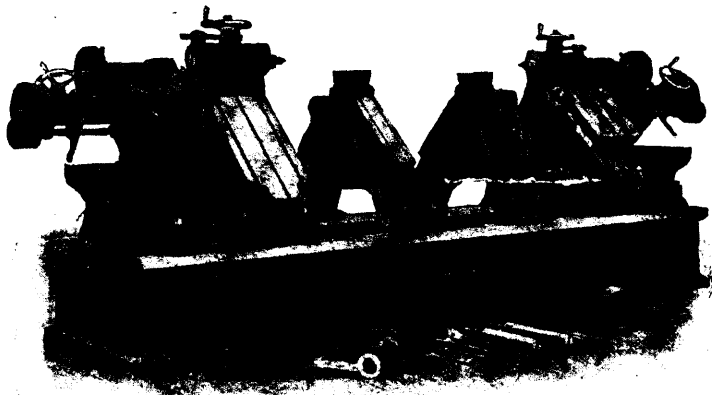
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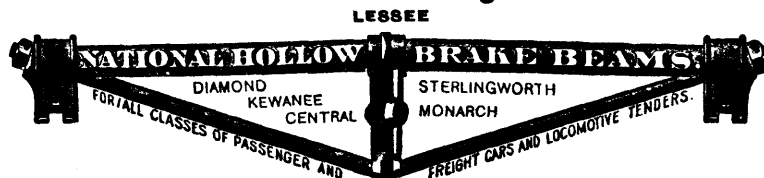
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