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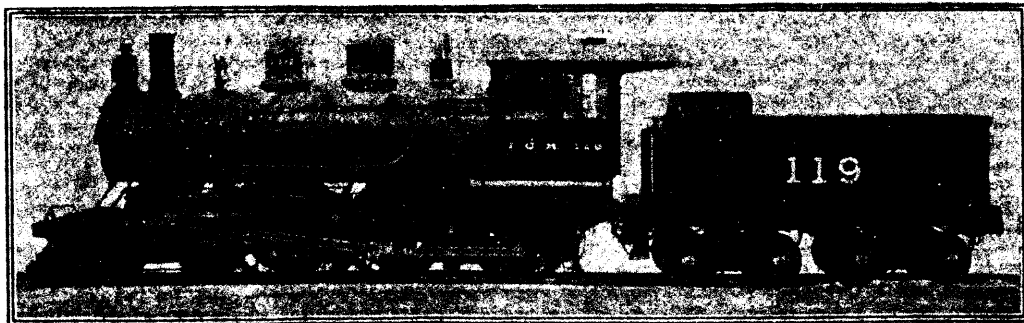
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TORONTO, CANADA, NOVEMBER, 1902.

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C.P.R. Annual Meeting.

Sir Wm. Van Horne, Chairman of the Board, presided at the annual meeting in Montreal, Oct. 1. Sir Thos. Shaughnessy, in moving the adoption of the report which was published in our last issue, said: "The report submitted for your approval furnishes most satisfactory and striking evidence of the Co.'s position and of the progress and prosperity of the territory served by its lines. Keen and growing interest in the fertility and productivity of Northwestern Canada is indicated by the increase in your land sales during the past year. Settlers, attracted by cheap lands and agricultural conditions that assure to them and their children farms and homes on a basis of investment not now possible in the thickly populated districts south of the International boundary, are coming into Manitoba and the Territories in gratifying numbers. Nearly all of them will make excellent farmers and most desirable citizens. As stated in the report, the last of the 5% land grant bonds are now being paid off. With the extinguishment of these, there will remain against your lands 3½% bonds to the amount of \$15,000,000. Under the terms of the statute and the mortgage by which these bonds are secured, the proceeds of land sales will be deposited with the Dominion Government until the amount reaches the face value of the bonds, the Government in the meantime paying interest on the deposits at the rate of 3½% per annum. By referring to the item in the balance sheet of "deferred payments on land sales," which yield 6% per annum, you will see that neither the principal of these bonds nor the interest need, for any lengthy period, give you much concern. When the subject of an improved Atlantic service between Great Britain and Canada was receiving consideration in London, your directors thought it wise to submit to the Canadian Government on behalf of the Co., a proposition to provide what they believe to be the best and most practicable service under existing conditions. The Co. offered, subject to certain traffic arrangements, to establish a weekly service of 20 knot steamships between Liverpool and a St. Lawrence port during the summer months, Halifax to be the Canadian port during the winter months, for a subsidy of £265,000 stg. per annum during the first ten years, with a graduated reduction in the amount of subsidy during each of the two following periods of five years, the ships to be most modern in every respect and to be built specially for the route. In addition to this, the Co. signified its willingness to furnish a fleet of modern

freight steamers of 10,000 tons capacity each, sailing at a speed of about 12 or 13 knots an hour, serving Canadian ports. Up to the present your directors have no information as to the policy likely to be adopted by the Government. It is evident, however, that whatever may be the outcome of the negotiations for the fast mail service, the rapid growth of your export tonnage and the necessity for being in a position to meet the rates of any of your competitors, make it imperative that your Co. be so situated on

and, therefore, there will be no restrictions to prevent your Co. from running them between such ports as may best suit the purposes of the Co.

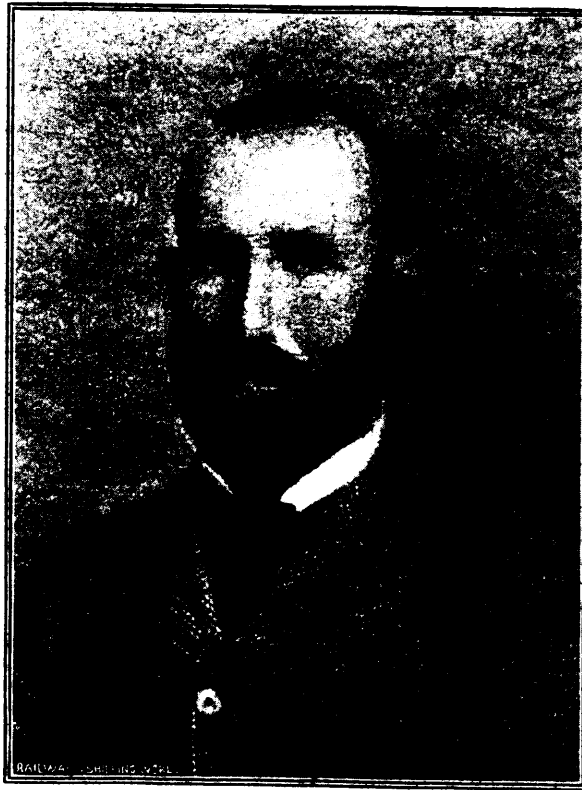
The rapid and pronounced increase in the volume of traffic leaving little opportunity to provide the additional facilities required for handling it economically, caused a perceptible increase in the ratio of working expenses for the year. Expenditures are being made as rapidly as possible to meet present and future requirements. While, of course, there will be years when, from uncontrollable causes, your revenue will suffer some diminution, it may be safely assumed that the settlement and development of territory now in progress, give promise of a general improvement in your earnings during the next few years even more satisfactory and gratifying than the advance made during the past seven years. Indeed, in moving the adoption of the annual report and congratulating the shareholders on the excellent position of their finances, I cannot help personally expressing my conviction that the Co. has barely entered upon the threshold of the expansion and success that the future has in store for it."

The report having been adopted, the lease of the Ottawa Northern and Western Ry. and amalgamated lines, and of the Interprovincial bridge at Ottawa for 999 years at an annual rental equal to the interest payable on the bonds, which the O.N. & W.R. Co., with the consent of the C.P.R. Co., is about to issue to retire the bonds now outstanding on the railways and bridge, and to aid in the extension and equipment of the line from Gracefield to Maniwaki and branches, and also on such bonds in excess of those above-mentioned as the O.N. & W. Ry. Co. may hereafter issue at the request of the C.P.R. Co., the total not to exceed \$20,000 per mile of railway and \$1,000,000 for the Interprovincial bridge and approaches, the bonds to bear interest at 4%, was submitted and approved.

The directors were authorized, after obtaining the necessary legislative authority, to issue 4% consolidated debenture stock not exceeding \$20,000 a mile for the construction and equipment of the branch from Kirkella, Assa., northwesterly 105 miles, and for extensions of the same westerly or northwesterly.

The directors were authorized to hold, charter, work and run such steamships as they may from time to time find necessary to provide for and to protect the Co.'s trans-Atlantic traffic.

A by-law passed by the directors was approved providing that at the annual meeting



EDWARD ARTHUR EVANS,

General Manager and Chief Engineer, Quebec Railway, Light and Power Co.

the Atlantic that it can quote through rates of freight and give through bills of lading without being compelled to negotiate for space and rates with independent steamship lines. To that end there will be submitted for your approval a resolution authorizing the directors to make arrangements for the charter or control of vessels, if and when, in their opinion, they are required for the protection of the Co.'s freight interests on the Atlantic ocean. It is not expected, of course, that these freight vessels, when provided, will receive any Government subsidy,

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TORONTO, CANADA, NOVEMBER, 1902.

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SECRETARY'S address care of Passenger Department C.P.R., Montreal.

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CAR SERVICE COMMITTEE.—J. B. Morford, M. C. Sturtevant, G. S. Cantlie, W. P. Hinton, E. Fisher, J. F. Chapman, K. R. Cameron, T. E. Henderson, E. F. Seixas.

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MEETINGS at Windsor Hotel, Montreal, and Tuesday of each month, 8 p.m., except in June, July and Aug.

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EXECUTIVE COMMITTEE, W. H. Harper, Chatham, Ont., Chairman; W. Bunton, Peterboro', Ont.; W. F. Egg, Montreal; T. Long, Port Hope, Ont.; C. C. Young, London, Ont.

NEXT ANNUAL MEETING at Sydney, N.S., Oct., 1903.
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SECRETARY, G. C. Wells, Montreal.
NEXT MEETING, at Detroit, Mich., probably in Jan. or Feb., 1903.

National Association Marine Engineers of Canada.

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NEXT ANNUAL MEETING of the Grand Council in Montreal, Jan. 1903.

Niagara Frontier Summer Rate Committee.

CHAIRMAN, J. M. Lyons, Moncton, N.B.
SECRETARY, G. C. Wells, Montreal.
NEXT MEETING, at New York, probably in Jan., 1903.

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THE RAILWAY AND SHIPPING WORLD,
Toronto.

C.P.R. Annual Meeting.

(Continued from page 365.)

in 1902, and at each subsequent annual meeting, one-fourth of the directors shall retire from office but shall be eligible for re-election. The directors for the current year are to decide which directors shall retire in 1, 2, 3 and 4 years respectively.

The directors were re-elected as follows: Chairman of the Board, Sir Wm. Van Horne; President, Sir Thos. Shaughnessy; other members of executive committee: Lord Strathcona, R. B. Angus, E. B. Osler; other

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directors, W. D. Matthews, G. R. Harris, Sir Sandford Fleming, T. Skinner, C. R. Hosmer. The vacancy caused by the death of J. W. Mackay was not filled and General S. Thomas was not re-elected.

The Fort William Elevator Fire.

The destruction of the iron working house of the C.P.R. elevator (steel tank storage system) at Fort William, Ont., in May last, while by no means inexplicable, although the plant was called and supposed to be fireproof, was as unexpected as it was complete. The effect of the fire, especially on insurance rates and reflectively on banking accommodations made on grain in fireproof elevators, so called, was immediate and serious, the banking law requirement of the insurance of grain in store in houses other than those known to be actually fireproof being again called into operation as against the so-called fireproof houses, and thus defeating the object of building steel elevators. The effects of the fire were, therefore, a cause of much apprehension among owners of steel houses as well as uneasiness to those contemplating the erection of that type of houses, which was not lessened by the meagre details received regarding the physical reasons for such complete destruction as was caused by the fire. In order, therefore, to know more particularly the condition of the house at the time of

the fire, the manager of the Electric Steel Elevator Co. of Buffalo went to Fort William to make a personal examination; and on his return submitted to his Co. the following report:

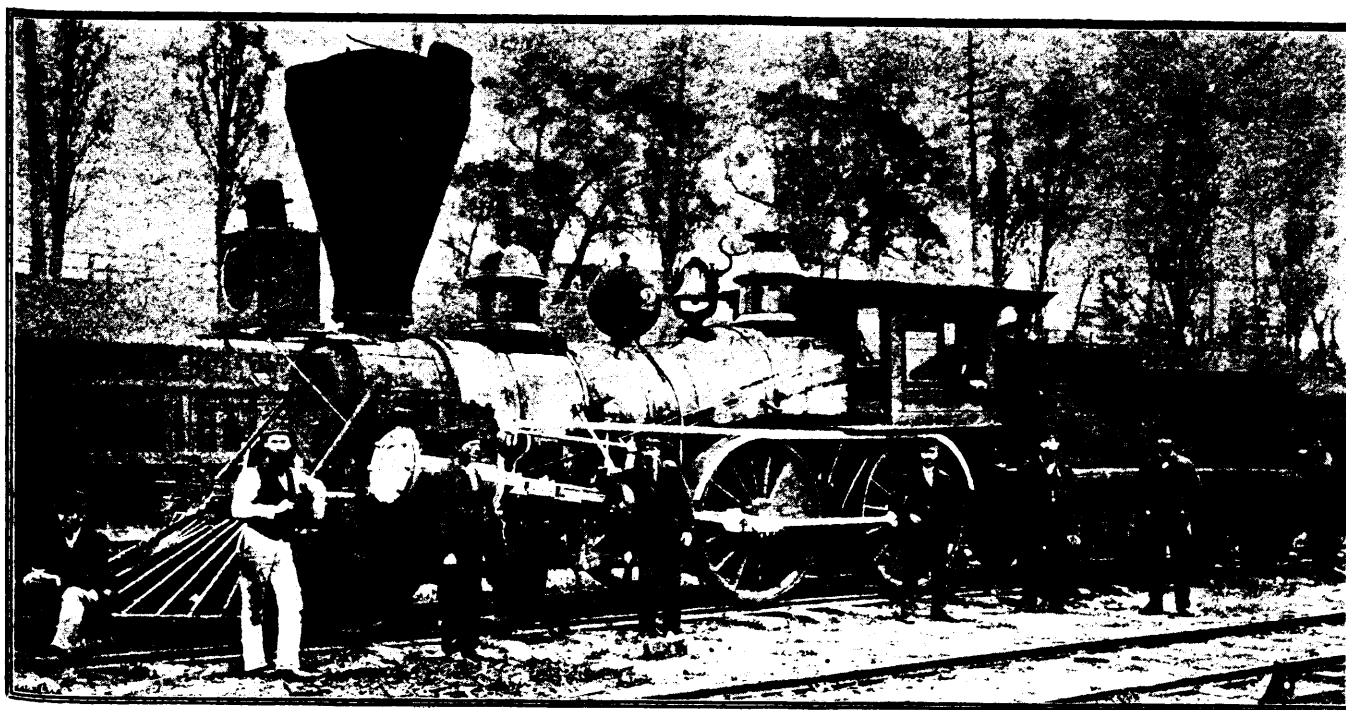
"The plant consisted of a light skeleton frame working house covered with corrugated iron, which contained two elevator legs, cleaning machinery, scales, garners, etc., in combination with a number of steel storage tanks. The receiving house was about 90 ft. long, 36 ft. wide and 150 ft. high. Through the house lengthways was a car track. At the side of the house and extending its entire length was a shed of like construction as the house, in which was a second car track. The elevator legs were between the tracks, and the arrangement was such that four cars could be set in at one time, two on each side of the elevator legs. There was no basement and the floor of this working room was of wood. Wooden strips were also used throughout the entire structure on which to nail the corrugated iron sheeting. About 22 ft. above

out of doors. There was no fire pump, fire hose, water barrels, hand grenades or device of any kind for extinguishing a fire.

"Owing to the fact that two of the other elevators at this place belonging to the C.P.R. were not in working order, this plant, known as D, had for some days previous to the fire been run almost constantly day and night. There was an accumulation of screenings, estimated by the Manager at 20 tons, on the cleaning floor. These screenings were to some extent prevented from occupying too much floor space by some boards. Testimony differs as to the amount of lumber used, varying from regular wooden bins down to a few loose boards. The house was in operation up to 10 o'clock of the night previous to the fire. The crew then quit, leaving the watchman in charge. Three loaded cars and one empty car were left inside the house and four more empty cars were left standing just outside of the house. The elevator doors were not closed. The watchman on his rounds at 12 o'clock found everything all right. Fire at

to warp the columns and bring down the building. The cleaning machines especially could not have been better arranged to produce this result, as they were very close to two or more of the supporting columns.

"The tanks were not greatly damaged. The two small tanks nearest the working house were the only ones hurt at all. The two large tanks, although only a few feet from the fire, appear not to be injured. The plates of the two small tanks for about one-third their circumference show the effects of the fire, and a number of these plates ranging from 15 to 30 ft. high, are ruined. With these plates replaced these two tanks will be as good as ever. A seam in one of these tanks opened during the fire and some of the wheat ran out into the burning building. The power house was not damaged, so they expect to get the wheat out soon. The tunnels under the tanks do not appear to be damaged, but the galleries overhead were badly hurt. It is the belief of Mr. Thayer that the two tanks adjoining the working-house would



THE TORONTO, THE FIRST LOCOMOTIVE BUILT IN ONTARIO. (See October issue, page 331.)

the working floor was a floor of light steel plates; this floor, called the cleaning floor, extended the entire length and breadth of the working house, but had openings through it for a stairway and hatchway, spouting holes, etc. Above this cleaning floor were three parts of floors for convenience in reaching machinery, but none of these upper floors extended the entire length of the building. Practically everything above the cleaning floor was open to the roof. On the cleaning floor were two wheat separators, and on a wooden platform directly over these two machines were two more separators, making four cleaning machines in all, so arranged that when desired grain could be spouted from the upper two machines directly to the two lower machines. Wooden spouts, lined inside with iron but exposed outside, extended upwards from these machines to each of the two scale hoppers. These scale hoppers were of wood, lined inside and outside with light iron, and the garners above the scale hoppers were of like construction. There was no dust-collecting system about the plant; the cleaning machines discharged

1 o'clock was discovered by the watchman on the cleaning floor. At this time the machines and the boards around the screenings were ablaze. The origin of the fire is not certainly known. * * *

"At no time during the conflagration was any fight worth mentioning made against the progress of the fire. The head of the fire department says that they did not get to work for more than an hour after the alarm; the elevator Manager says after 3 o'clock. Long before the firemen reached the place the working house was burning like a sheet-iron stove full of kindling. Every window belched smoke and flame. The supporting columns collapsed, the roof fell in and the wreck of the working house was complete. All testimony agrees that the cars burned fiercely after the roof fell in.

"The elevator was dirty and dusty, and every plate, crack and crevice was as full of dust as it would hold. This accumulation of dust, together with the four cleaning machines and their wooden platforms, and with the wooden spouts, hoppers and garners, contained fuel enough to generate sufficient heat

have been damaged but slightly had it not been for the cars which were close to them."

Commenting on the foregoing, the American Elevator & Grain Trade says:—"These details complete the demonstration that no steel house that contains wood in its machinery, elevator legs, platforms, etc., can be justly called or is a fireproof structure. In this case, in addition to the wood actually used in construction, a material quantity was used incidentally in the course of the operation of the plant, and this caused the destruction of the house—not by burning it, but by melting it down, the structural iron work not being protected by fireproof material. Another fact brought out was the unreasonable accumulation of dust and debris in the house as the result of extra heavy run of business, which supplemented the disproportionate amount of wood in and about the premises to make a most destructive fire. Naturally the fire has called into question the character of all so-called fireproof elevators and alarmed the banks and loaners in those states of the Union where the banking laws require grain used as collateral to be

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CHARLES MILLER,
PRESIDENT.

insured, and it has on that account been doubly unfortunate. In fact, however, the fire has pointed out in a singularly emphatic manner the defects that only need to be avoided and the omissions that must be supplied to make the steel house fireproof in fact as well as in name; and will prove a blessing to the trade to that extent."

Duluth, South Shore and Atlantic Ry.

The report of this subsidiary company of the C. P. R. for the year ended June 30, 1902, consists of tabular statements, which are presented without comment. The main line owned is 517.44 miles, branch lines owned 47.70 miles, total owned, 565.14; trackage rights leased, 9.59 miles, total mileage operated 574.73. The equipment is 91 locomotives, 58 passenger cars, 2,664 freight cars and 74 miscellaneous cars, of which 5 sleeping cars, 2 first-class coaches, 2 second-class coaches and 2 baggage cars were added during the year. The income account was as follows:

| | 1901-2. | 1900-1. |
|-------------------------|----------------|-------------|
| Gross earnings..... | \$2,690,569.36 | \$2,484,200 |
| Operating expenses..... | 1,688,818.38 | 1,654,931 |
| Net earnings..... | \$1,001,750.98 | \$829,279 |
| Other income..... | 6,285.22 | 5,900 |
| Net income..... | \$1,008,036.20 | \$835,179 |
| Interest on bonds..... | 859,700.00 | 860,023 |
| Taxes..... | 128,008.92 | 88,249 |
| Balance..... | +\$20,327.38 | -\$113,193 |
| + Surplus. - Deficit. | | |

EARNINGS AND OPERATING EXPENSES.

| | 1900-1901. | 1901-1902 |
|---|----------------|----------------|
| Gross Earnings..... | \$2,690,569.36 | \$2,484,200 |
| Merchandise freight..... | \$1,257,116.69 | \$1,339,325.68 |
| Iron ore freight..... | 248,475.88 | 253,936.26 |
| Passenger..... | 815,943.57 | 918,392.71 |
| Mail..... | 51,880.01 | 53,697.07 |
| Express..... | 54,389.31 | 57,528.09 |
| * Sleeping and observation cars | | 2,759.85 |
| Miscellaneous..... | 56,405.28 | 64,929.70 |
| Total..... | \$2,484,210.74 | \$2,690,569.36 |
| Operating Expenses..... | | |
| Maintenance of way and structures..... | \$421,388.88 | \$451,055.38 |
| Maintenance of equipment..... | 227,648.90 | 228,565.63 |
| Conducting transportation..... | 931,760.52 | 933,262.05 |
| General expenses..... | 74,132.69 | 75,935.32 |
| Total..... | \$1,654,930.99 | \$1,688,818.38 |
| Net earnings..... | \$829,279.75 | \$1,001,750.98 |
| Percentage of expenses to earnings..... | 66.6 | 62.7 |

The operating expenses above include the cost of rebuilding and filling bridges and putting in iron spans, which for the year ended June 30, 1901, was \$36,717.30, and for the year ended June 30, 1902, \$16,072.66.

* This road commenced operating its own sleeping cars on June 1, 1902, and the earnings shown above are for but one month.

FREIGHT TRAFFIC.

| | 1900-1901. | 1901-1902. |
|--|--------------|--------------|
| Tons of through freight carried, earning revenue..... | 829,758 | 852,106 |
| Tons of local freight carried, earning revenue..... | 1,561,896 | 1,459,358 |
| Tons of freight carried, earning revenue..... | 2,391,654 | 2,311,464 |
| Total mileage of through freight..... | 79,506,028 | 103,380,858 |
| Total mileage of local freight..... | 41,754,091 | 36,050,469 |
| Total freight mileage, or tons carried one mile..... | 121,260,119 | 139,431,327 |
| Average ton haul for through freight..... | 95.8 miles | 121.3 miles |
| Average ton haul for local freight..... | 26.7 " | 24.7 " |
| Average ton haul for all freight..... | 50.7 " | 60.3 " |
| Average amount received for each ton haul..... | 62.426 cents | 68.241 cents |
| Average receipts ton per mile for through freight..... | 1.128 " | .976 " |
| Average receipts ton per mile for local freight..... | 1.428 " | 1.575 " |
| Average receipts ton per mile for all freight..... | 1.231 " | 1.131 " |

Following is the percentage of the tonnage of the principal commodities carried:—Ores, 47.32; lumber, 11.95; logs, 11.03; other forest products, 6.94; merchandise, 5.22; flour, 3.14; bituminous coal, 2.72; cement, brick and lime, 1.53; grain, 1.07; iron, pig and bloom, 1.07.

PASSENGER TRAFFIC.

| | 1900-1901. | 1901-1902. |
|---|-------------|-------------|
| Through passengers carried, earning revenue..... | 109,709 | 126,450 |
| Local passengers carried, earning revenue..... | 442,636 | 455,218 |
| Total passengers carried, earning revenue..... | 552,345 | 581,668 |
| Passengers carried one mile..... | 28,806,517 | 32,816,802 |
| Average distance carried..... | 52.32 miles | 56.42 miles |
| Average amount received from each passenger..... | \$1.43513 | \$1.51852 |
| Average receipts per mile for through passengers..... | 2.550 cents | 2.549 cents |
| Average receipts per mile for local passengers..... | 3.006 " | 3.007 " |
| Average receipts per passenger per mile for all passengers..... | 2.743 " | 2.692 " |

BALANCE SHEET, JUNE 30, 1902.

| | |
|--|-----------------|
| Cost of road and equipment..... | \$45,384,401.66 |
| Mackinaw Transportation Co..... | 237,371.79 |
| Lake Superior Terminal & Transfer Ry..... | 19,900.79 |
| Lake Michigan and Lake Superior Ry..... | 7,662.68 |
| Duluth Manufacturing Co..... | 2,387.00 |
| Ropes Gold Mining Co..... | 260.00 |
| S. S. Marie Bridge Co..... | 250.00 |
| Mineral Range Rd..... | 351,195.00 |
| Sainte Marie Union Depot Co..... | 58,756.85 |
| Western Express Co..... | 25,000.00 |
| E. W. Allen, Treasurer..... | 69,920.88 |
| Bills receivable..... | 113.82 |
| Sundry account ledger..... | 139,063.45 |
| Rent ledger..... | 986.00 |
| Station ledger..... | 209,731.05 |
| Western Express Co. (current account)..... | 11,760.20 |
| Post Office department..... | \$13,417.27 |
| Material..... | 198,013.48 |
| Profit and loss..... | 1,936,566.07 |
| | \$48,666,757.91 |

| | |
|--|-----------------|
| Common capital stock..... | \$12,000,000.00 |
| Preferred capital stock..... | 10,000,000.00 |
| D. S. S. & A. consols, 4% gold bonds..... | 15,107,000.00 |
| D. S. S. & A. 1st mortgage 5% bonds..... | 3,816,000.00 |
| M. H. & O. 6% bonds of 1925..... | 1,077,000.00 |
| Income certificates..... | 3,000,000.00 |
| Car trust notes, 2nd series..... | 15,298.83 |
| Car trust notes, 3rd series..... | 35,697.27 |
| Car trust notes, 5th series..... | 236,213.19 |
| Car trust notes, 6th series..... | 59,356.79 |
| C. P. R. guaranteed interest advances..... | 2,241,275.18 |
| C. P. R. general account..... | 198,012.58 |
| South Shore Land Co..... | 95,994.30 |
| M. H. & O. lands..... | 15,931.18 |
| Bills payable..... | 16,000.00 |
| Vouchers payable..... | 227,931.01 |
| Labor..... | 145,776.60 |
| Coupon ticket ledger..... | 61,690.01 |
| Mileage ledger..... | 4,642.64 |
| Accrued fixed charges..... | 267,038.33 |
| Accrued taxes..... | 45,000.00 |
| | \$48,666,757.91 |

During the year \$81,442.22 were charged to construction account and \$50,035.70 was credited for sale of property, leaving \$31,406.52. The principal items were passenger station and grounds at Marquette, Mich., \$27,085.75, and new sidings \$36,279.05. The charges to equipment account were \$117,350.72.

Canada Atlantic Railway Report.

The annual meeting was held in Ottawa, Sept. 30. The report for the year ended June 30 shows the mileage operated was, main track, owned by Co., 400.3 miles, leased lines 61.4 miles, trackage rights, Albany Jct. to Swanton, Vt., 6.7 miles, total 468.4. In addition there were 97 miles of yard tracks, sidings and spur tracks.

EARNINGS.

| | 1902. | 1901. |
|------------------------|----------------|----------------|
| Passenger..... | \$310,096.83 | \$283,658.22 |
| Mails and express..... | 29,466.80 | 29,276.01 |
| Parlor cars..... | 5,934.06 | |
| Freight..... | 1,404,842.68 | 1,390,197.10 |
| Elevators, net..... | 26,366.91 | 43,916.61 |
| Telegraph..... | 3,712.00 | 3,627.64 |
| Rental terminals..... | 22,980.00 | 20,009.40 |
| Other rentals..... | 13,317.52 | 14,624.52 |
| Miscellaneous..... | 229.67 | 1,010.77 |
| Total..... | \$1,816,946.47 | \$1,786,338.27 |

WORKING EXPENSES.

| | | |
|---|----------------|----------------|
| Maintenance of way and structures..... | \$210,955.42 | \$250,491.62 |
| Maintenance of equipment..... | 213,108.29 | 236,046.04 |
| Conducting transportation..... | 739,881.71 | 842,874.71 |
| General expenses..... | 55,979.98 | 53,977.21 |
| Total..... | \$1,219,925.40 | \$1,383,389.58 |
| Net earnings..... | 597,021.07 | 402,948.69 |
| Taxes and rent leased lines..... | 28,000.00 | 28,043.46 |
| Net earnings of barges and lake steamers, season of 1901..... | \$31,401.24 | |
| | \$600,422.31 | \$374,905.23 |

FREIGHT TRAFFIC.

| Year ended | Tonnage. | Earnings. |
|--------------------|-----------|----------------|
| June 30, 1899..... | 1,395,095 | \$1,225,915.57 |
| " " 1900..... | 1,459,616 | 1,459,363.90 |
| " " 1901..... | 1,592,987 | 1,390,197.10 |
| " " 1902..... | 1,545,240 | 1,404,842.68 |

PASSENGER TRAFFIC.

| Year ended | Passengers. | Earnings. |
|--------------------|-------------|--------------|
| June 30, 1899..... | 274,585 | \$250,672.48 |
| " " 1900..... | 311,109 | 287,829.63 |
| " " 1901..... | 339,640 | 312,934.25 |
| " " 1902..... | 368,571 | 345,497.69 |

MILES RUN BY ENGINES.

| | 1901-2. | 1900-1. |
|--|-----------|-----------|
| On passenger trains..... | 494,197 | 560,400 |
| On freight trains..... | 828,980 | 897,869 |
| On mixed trains..... | 154,725 | 154,779 |
| Total train mileage earning revenue..... | 1,477,902 | 1,622,048 |
| Piloting, switching and light running..... | 204,944 | 242,566 |
| Work trains..... | 31,726 | 91,480 |
| Total engine miles run..... | 1,714,572 | 1,956,094 |

CAR MILEAGE.

| | | |
|----------------------|------------|------------|
| Passenger cars..... | 1,713,688 | 1,925,910 |
| Freight cars..... | 22,682,363 | 24,264,302 |
| Total car miles..... | 24,396,051 | 26,190,212 |

CLASSIFICATION OF TONNAGE.

| | 1901-2. | 1900-1. |
|-------------------------|-----------|-----------|
| Grain net tons..... | 475,973 | 482,531 |
| Flour..... | 50,110 | 67,959 |
| Coal..... | 112,443 | 162,843 |
| Hay..... | 50,558 | 17,200 |
| Live stock..... | 12,676 | 9,442 |
| Lumber..... | 428,843 | 438,202 |
| Manufactured goods..... | 103,755 | 99,964 |
| Merchandise..... | 11,405 | 113,746 |
| Pork..... | 2,605 | 2,942 |
| Stone and brick..... | 48,450 | 48,057 |
| Wood..... | 91,691 | 120,677 |
| Wood pulp..... | 20,780 | |
| All others..... | 35,741 | 29,334 |
| | 1,545,240 | 1,592,987 |

The directors, who were re-elected for the current year, are C. J. Booth, President; W. Anderson, Vice-President; J. F. Booth, J. A. Seybold, N. McIntosh, G. W. Mitchell, Ottawa; C. McLachlin, Arnprior,

Lumbering on the Newfoundland Ry.

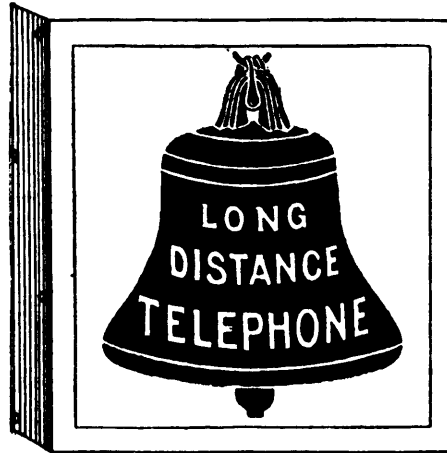
A correspondent at St. John's, Nfld., sends us the following interesting information: An immense impetus has been given to the traffic of this road in the past year by the establishment on a very large scale of a saw mill plant by John Miller, a Scotchman, who has for the past 25 years been operating in the spruce and pine forests of Sweden. Two years ago Mr. Miller found that his timber limits were about exhausted in Sweden and that he would have to look about for a new field for operation. Happening to meet in Scotland R. G. Reid, a family connection and then the proprietor of the Newfoundland Ry., Mr. Reid advised him there was ample field for large operations in the almost unknown and unexplored timber areas of Newfoundland. Mr. Miller immediately deputed one of his most experienced timber cruisers to go out to the colony and examine the areas in question. A few months later a most favorable report was received and Mr. Miller decided at once to move his plant and outfit from Sweden to

ENAMELED IRON TELEPHONE SIGNS.

Guaranteed Not to Fade or in any way to Perish from Exposure.



No. 1. Single, 17 x 18 inches. If made double with flange 18½ x 18 inches.



No. 4. Double, 18½ x 18 inches, including flange. If made single, without flange, 17 x 18 inches.



No. 2. Single, 17 x 18 inches. If made double, with flange, 18½ x 18 inches.



No. 5. Double, 19½ x 8 inches, including flange. If made single without flange, 18 x 8 inches.



No. 6. Double, 19½ x 8 inches, including flange.



No. 7. Double, 19½ x 8 inches, including flange. If made single, without flange, 18 x 8 inches.



No. 3. Single, 6½ x 7½ inches.



No. 8. Single, 18 x 8 inches.

These signs can be made in any colors. Blue and white are the most effective and are generally preferred.

Signs with any other design or lettering made to order.

PRICES ON ANY QUANTITIES FURNISHED ON APPLICATION.

The ACTON BURROWS COMPANY, 29 Melinda Street, TORONTO.

Newfoundland. Inside of a year from that date he had three large saw mills erected, some 25 miles of branch railways and sidings built, and the largest lumber wharf in the colony constructed at Lewisport, on Notre Dame Bay on the east coast. His shipments this year it is expected will reach 25,000,000 ft.; already some 700 men are employed in the woods cutting logs and operating the mills. It is expected that after this year the average cut will not be less than 40,000,000 ft. As all this lumber is hauled from 50 to 75 miles on the Newfoundland Ry., it can be seen that a great impetus must be given to its somewhat limited traffic. The lumber is principally spruce, but a considerable quantity of excellent white pine and tamarac is also turned off the limits. The striking feature of this great plant, says one who has recently seen it, is "that practically nothing is wasted except a surplus of bark and small clippings in excess of that required for the boilers." Most of the machinery is of the most modern type and of Canadian make. The largest mill is built on the Red Indian lake, on a branch line 21 miles off the trunk-line of the Newfoundland Ry., and almost in the centre of the colony, a village of dwellings, school house, church, and large stables for horses employed in the lumber woods (and all beautifully whitewashed) are grouped about this great mill that runs day and night. Over 300 people are employed here. Mr. Miller brought over about 70 Swedes with him, but most of them have gone home or to the west, and the employes now are, with few exceptions, natives of the colony. They are said to make excellent operators in all lines, after a few months' training under the experienced managers who have long been in Mr. Miller's employ in Sweden. The largest portion of the cut is deals. Material not large enough for deals is cut into pickets, box shooks, laths, and a variety of other small dimension stuff. Mr. Miller claims that barring fires he has limits that will yield a yearly cut of 40,000,000 ft. for 50 years. The Red Indian lake on which the mill is situated is over 40 miles long and at an average of three-quarters of a mile wide. Outside Mr. Miller's people there is not a habitation or a settler within many miles. He already has one steamer plying on this lake and another one about ready to launch. Much of the lumber is cut on the borders of the lake and towed to the mill by these steamers. Large rivers also discharge into the lake. After a time these rivers will be utilized for driving logs from the interior of the country to the lake and mill.

Talks to Ticket Agents.

By F. B. Sankey, Pittsburg, Pa.

(Continued from last issue)

FITNESS.—A ticket agent should aim to fit himself for the position which he occupies. This can be done by studying carefully the different forms of tickets furnished his office, and the rates at which they are to be sold. Then, when he has occasion to sell a ticket, he can promptly lay his hands on it, and quote the rate, without unnecessary delay to the passenger. This accomplishment is helpful, especially in case of a rush, when selling excursion tickets. A blockade at the window causes uncomplimentary remarks about your office, and reflects on the agent personally; while the handling of passengers courteously and expeditiously, merits favorable comment. Every office is furnished rate sheets pertaining to the stock of tickets in said office, and rules governing their sale. These rates and rules should be carefully studied and mastered, during leisure moments, so that in the course of time, an agent will be as familiar with them, as he is with the time of his daily meals. He has only to apply himself; results

are bound to come. It is not expected that agents at the smaller stations will be as perfectly well informed, as those at larger stations, simply because the former are not furnished the same amount of information by the general office; but an agent should thoroughly familiarize himself with the information he is furnished. The fact that he is familiar with his own duties will prove a stepping-stone, and fit him for advancement to a larger station, when opportunity presents itself. An agent should cultivate the acquaintance of the citizens of his town, and contiguous territory, and keep in touch with the conditions existing in the vicinity in which he lives. Your fellow townsman may be able to do you a good turn any moment; remember the old maxim, "It is better to have the good will of a dog, than his ill will." It is too often the case, when rate sheets and books of rules are received, they are carelessly thrown down and immediately forgotten; when required, they cannot be found. I would seriously recommend that a system be introduced in each office, if not already practiced, to first read over carefully all information received from authorized sources, and then file away in such manner that you can readily lay your hands upon it when required. "A place for everything and everything in its place." The agent who performs his duties faithfully and well, is bound to forge to the front. On the other hand, if he is careless and lax in his duties, he renders his position untenable, not only with the public, but with his superior officers.

COURTESY.—Ralph Waldo Emerson said "Life is not so short but there is always time for courtesy," and "Good manners are made up of petty sacrifices." Of all the requirements that go to make a successful passenger and ticket agent, courtesy stands out most prominently. We are public servants in our respective positions, and I am perfectly well aware the world is full of unreasonable people, who do not hesitate to insult you; people who naturally are irritable, and seem to delight in giving vent to their feelings at the least provocation; people who have grievances against corporations, with an inherent desire to complain; who hurl their gibes at the poor ticket agent, in nowise to blame, instead of forwarding their complaint, if they really have any, to the place where it properly belongs. It is no easy matter to curb one's temper, under the circumstances, but it is the only proper course to pursue. We must expect these rebukes, and the man who bears them, without retorting, is the man who will succeed. There is generally a way to pleasantly withdraw from such arguments, and he who knows how to do so, is a wise man and will succeed in life. If a passenger should ask for information relative to trains or tickets, when you have a rush at the window, give him a polite reply. If the information desired is for a trip at some future time, and you are busy selling tickets, politely ask him to wait a few minutes until the train you are selling for departs, when you can more conveniently wait on him, and satisfy his wants. Often questions cannot be answered off-hand, and a reasonable patron will be content to wait a few minutes. A curt reply will drive him off in a rage, and you will lose the business. A polite request, as suggested, will satisfy any fair-minded person. After the train has gone, spend a little time with him; give the desired information pleasantly; as a rule you will secure his patronage. Do not lose sight of the fact that there are other roads, and that frequently your competitor secures the business on account of your neglect. You may not have a rival road in your own town, but the passenger has the privilege of going to some nearby point, when not properly treated, where there is another line. Be charitably disposed towards the dear public. You know yourself,

when travelling, that one is liable to get a little excited for fear of missing a train. When in such condition a person is likely to ask all kinds of foolish questions, such as "What time does that three o'clock train go, or has it went?" It is quite as easy to respond courteously, and it undoubtedly displays wisdom on your part. Put yourself in the passenger's place, and how much more you will respect the agent who treats you courteously, than one who is "grouchy." No more of your time is consumed by giving a polite reply, than otherwise, and how much better you feel when the former tactic is pursued. Some persons are over-sensitive. Curt replies hurt awfully. The intrinsic value of courtesy is inestimable.

(To be continued.)

The C.P.R. Club, Toronto Jct., Ont., opened its season of 1902-3 on Oct. 9. T. W. Dow, General Air Brake Inspector, C.P.R., spoke on the maintenance, care and handling of air brakes, introducing the duties of engineer, trainman and inspector respectively. G. Robinson, foreman tinsmith, C.P.R., Toronto, Jct., demonstrated an address on locomotive headlamps. There was an attendance of about 150 members, which shows the club to be in a flourishing condition.

The Canadian Roadmasters' Association meeting which was called for Hamilton, Ont., Oct. 15, did not take place, the only members who went there being the President, A. McAuley, Toronto Jct.; the Secretary-Treasurer, J. Drinkwater, Winchester, Ont., and T. Graham, Depot Harbor, Ont.

At the recent convention of the Eastern Association of Car Service Officers, held at New York, the committee appointed to consult with belt lines, terminals and switch roads in reference to the method of notifying owners of cars, reported that the following, among other roads, had agreed to comply with the request made: Atlantic and Lake Superior Ry., Canada Eastern Ry., Cape Breton Ry. Co., Cumberland Ry. and Coal Co., Dominion Atlantic Ry., Dominion Coal Co., Inverness Ry. and Coal Co., Midland Ry. Co., Nova Scotia Steel and Coal Co., Salisbury and Harvey Ry., Temiscouata Ry. The following companies were reported among those as not having fallen into line: Canada Atlantic Ry., Ottawa Electric Ry., James Bay Ry., Canadian Pacific Ry.; Galt, Preston and Hespeler Ry., Grand Trunk Ry., Detroit and River St. Clair Electric Ry., Cornwall Electric Ry., Hastings Lumber Co.

The Nelson, B.C. town council recently passed a bylaw permitting the Nelson Electric Ry. Co. to retain its franchise by operating its line for three months in the summer until the town should have a population of 8,000. On being submitted to the ratepayers the requisite majority to confirm it was not obtained, and the manager is waiting instructions from London, England, where the headquarters of the Co. are, as to what is to be done.

For the year ended June 30th, 1902, the I.C.R. receipts from the Dominion Coal Co. amounted to \$81,122.73 for miscellaneous freight, and \$31,049.80 for coal; and from the Dominion Iron and Steel Co., \$94,994.42 on inward and outward freight, and \$32,229.04 on freight sent collect. The receipts from the two companies were \$289,395.69.

The car ferry International has been placed in operation between the Lake Erie and Detroit River Ry. Co.'s wharf at Sarnia, Ont., and the Flint and Pere Marquette Ry. Co.'s wharf at Port Huron, Mich., thus enabling these two companies to interchange traffic, without using the G.T.R. tunnel.

Terminal Passenger Car Cleaning.

By T. R. Cowan, *Master Painter C.P.R.*

To a car foreman this subject is of more than passing interest, day by day he strives to keep the equipment, under his charge, in a creditable condition, often with the poorest of facilities at hand, and little encouragement from those around him. First impressions are generally lasting. The travelling public care little as to what enters into the construction of a coach, but they do appreciate a clean, sweet smelling one. Some railways paint and varnish the outside of their cars; others varnish only in the natural wood, but which is the better method is not in the province of this paper to decide. When cleaning cars for the first few times after they come from the shops, the general method is to wash down the outside with cold water. This works all right for a while, but the soot and grease from the engine accumulates until you might just as well throw the water on a duck's back, for all the good it does. Cars in this condition are generally washed down with soap, or "soap washed" to cut the dirt and grease, but if you have inexperienced men on the job, they will let the soap burn into the varnish, killing the lustre. When soap washing in the sun, the soap will dry into the varnish, and there being a certain amount of caustic soda or potash in soaps, it eats into the varnish. This is one of the causes why new varnish often looks dead a short time after it is applied. Water washing in winter is one of the causes of varnish peeling off, by the dampness getting into the wood through bare spots or loose joints. In summer this would not happen, as the heat dries the water off quickly. Then the man with the brush does not scruple to break the corners off the stops, with the wooden part of his brush, nor does he get at the resting places of the dirt as he ought to.

Emulsion cleaners are very good if you can get a good cleaner, and have experienced men to use it. After cars have been washed down for two or three weeks after leaving the shops, thus hardening the varnish, they should be wiped down for a month or more, according to the condition of the car, with dry waste. The emulsion cleaner should now be used, by coating one side of the car at a time with it. Then use a painter's scrubbing brush to rub the dirt off, and if there are any dirty corners, use a piece of curled hair with a stick to clean same. The car should be then wiped down with cotton waste, great care being taken to see that the surface of the car is clean and dry. After each trip it should be wiped down with dry waste until such time as the car requires another cleaning with emulsion. Of course, some cars will run a great deal longer than others after each emulsion cleaning, so that the foreman will have to use his judgment as to when each car requires this cleaning. Cars that have been cleaned with emulsion have come into shops in better condition than those cleaned with soap and water, and do not require the same amount of labor to prepare them for re-varnishing. Cleaning cars with emulsion costs more than it does with brush and hose, unless there is a fixed place where you can do the work, and have scaffolding, etc., where the men can work from, but in the long run I am sure it would be found that emulsion, after all, was the cheaper of the two.

Inside cleaning should be faithfully attended to at each end of the run, as not only the health of the passengers, but that of the public at large is endangered if cars were allowed to go dirty. The use of compressed air has worked a revolution in car cleaning. Some use it to blow out all dust in car, especially back of steam pipes where a broom cannot be used, but it is thought by a great many that a too free use of air in the body of the car is apt to spoil the varnish. Carpets, seats and seat backs should all be blown out

with air as often as possible. A wide flat nozzle with 70 lbs. of air is the right thing to use. Floor washing is a matter that should not be neglected, and I would advise a slight disinfectant be used in the water, to kill any germs that it would come in contact with. All cars need a soap washing from ceiling to floor at times, and the better class of cars should be afterwards rubbed down with a good varnish feeder and polisher. The exit of oil in favor of gas or electric light, has lightened the cost of cleaning considerably, but as the old adage reads "What is worth doing at all is worth doing well," so in car cleaning, if each end of the road would do its work well, the burden would be lighter and one foreman would not be blamed for the fault of the other.

Locomotive drivers on the C.P.R. western division have been notified that when unfavorable conditions exist on road and engines cannot handle full tonnage, they can reduce according to allowances governing bad rails or weather conditions, but on doing so must wire superintendent reasons for reducing. When winds are severe enough to prevent reasonable progress of train, they are to telegraph conditions to superintendent and he will advise.

The Rideau, Beverley and Charleston lakes, on the Brockville, Westport and Sault Ste. Marie Ry. are becoming so popular with fishermen and campers that the Co. has decided to put a new train on next summer to accommodate and give close connection for passengers arriving by the New York Central trains and the R. and O.N. Co.'s boats each morning.

The most northerly railway in the world has its southern terminus at Lulea, on the Gulf of Bothnia, Sweden, and runs to a point 52 miles within the Arctic circle. This is about 450 miles north of Whitehorse, the northern terminus of the White Pass and Yukon Ry., and 200 miles north of Nome city, where the "Wild Goose" railway is in operation.

The Quebec Ry., Light and Power Co. provides a silver star and gives free insurance to the conductors and motormen who have been in its service since the line was opened in 1897.

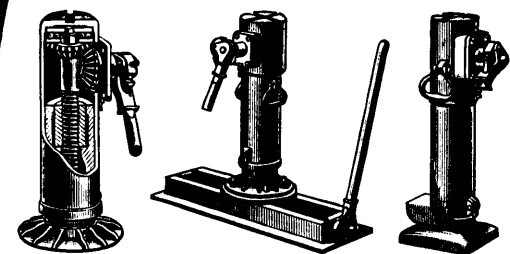
Railway Manager Wanted.

TO act as Manager of a fifty mile, principally ore carrying, railway line in the West, an experienced man having knowledge of all departments. To a suitable man a liberal salary will be paid. Apply box 479 this office, giving references, etc.

If you wish the Very Best

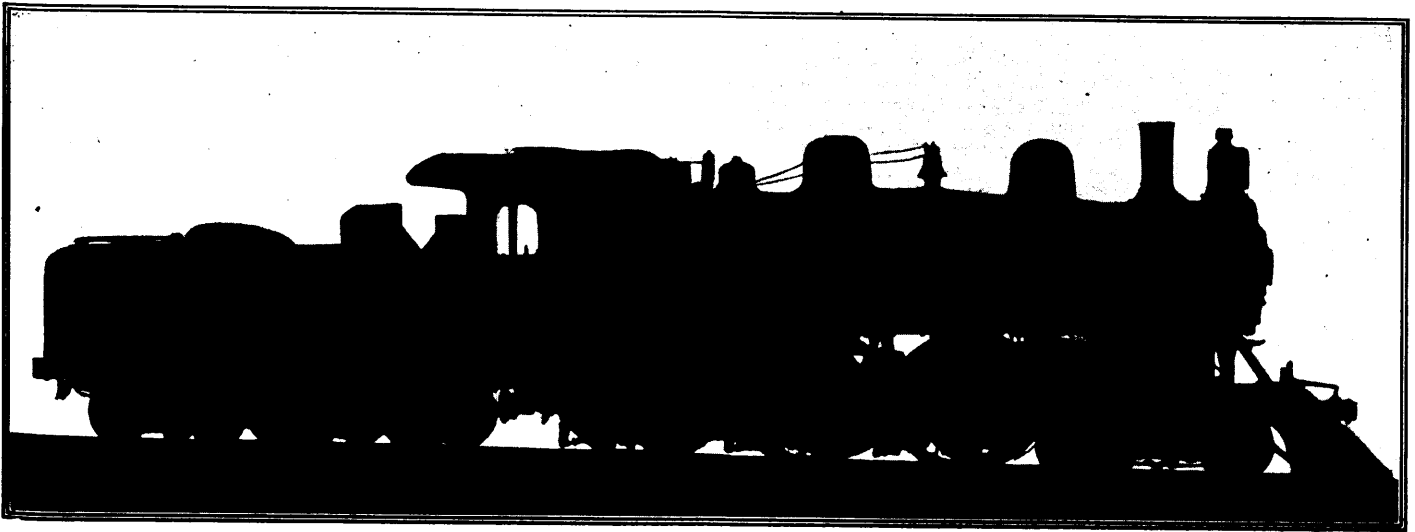
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Adapted to all classes of service.



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Illustrated Catalogue upon request.

A. O. NORTON, Manufacturer,
Costcook, Province Quebec, Canada.
Stock carried in Montreal by W. H. C. RUSSEN & CO.



C.P.R. Compound Passenger Locomotives.

The C.P.R. has recently had built at the Schenectady works of the American Locomotive Co. three 10-wheel compound passenger locomotives, of which four illustrations are given on this page and page 377. These locomotives have strikingly graceful lines, the curve contour of the cab and tender being especially noticeable, as something unusual in locomotive lines in general.

The locomotives are designed to burn bituminous coal and to operate at a working boiler pressure of 210 lbs. per sq. in.; having a total weight of 168,000 lbs., 44,000 lbs. of which is carried by the truck wheels, and 124,000 lbs. resting on driving wheels, and available for adhesion. The driving wheel centers are constructed of cast steel with Krupp crucible steel tires, having an outside diameter of 69 ins. The high and low pressure cylinders are respectively 22 and 35 ins. in diameter, with a 26-in. piston stroke. From the above details it is seen that the locomotive exerts a maximum tractive power of 25,000 lbs. and the adhesive ratio, 4.86. The total wheel base of the locomotive is 25 ft. 11 ins., driving wheel base 14 ft. 10 ins., and the total wheel base of locomotive and tender is 54 ft. 2½ ins. The length over all of the locomotive is 42 ft. 1½ ins., and the locomotive and tender 64 ft. 11½ ins. The height of the center of boiler above the rails is 8 ft. 6¼ in., and the distance from top of rail to top of stack is 14 ft. 6 ins. The driving-box

material is cast steel, the diameter and length of driving journals being 9x12 ins. The main crank-pin journals are 7 ins. in diameter by 6½ ins. long, the main side rod crank-pin journal being 7½ ins. by 4¾, and the front and back journals 5 ins. in diameter and 4½ ins. in length. The engine truck is of the 4-wheel swing bolster type, with 30-in. wheels having cast-iron spoke centers fitted with Krupp steel tires, the journals being 6 ins. in diameter by 10 ins. long. The horizontal thickness of high-pressure piston is 5¾ ins., and of the low-pressure 4¼ ins., the diameter of the piston rods being 3¾ ins. The main rod is 10 ft. 5 ins. long from center to center. The valves are of the piston type on both high and low pressure cylinders, having 6 ins. travel and an outside lap on the high-pressure side of 1¼ ins., and on the low-pressure side of 1 in. The inside clearance of the high-pressure cylinder is ¼ in., and the low-pressure cylinder ⅝ in., the valves being set line-and-line and in full gear.

The boiler is of the extended wagon-top type with radially stayed crown sheet, the three front rows consisting of expansion stays 14 in each row, and back head and front flue sheet being braced with rod braces. The material of the barrel and outside of firebox is steel, the outside diameter of the first ring being 62½ ins., and the thickness of material in barrel and outside of firebox ½ in. and ¾ in. The horizontal seams are butt joints, sextuple riveted, with inside and outside welt strips. The circumferential seams are double riveted lap joints. The firebox is set over the frame

and is 108 3-16 ins. long by 41⅞ ins. wide, the consequent grate area being 33.6 sq. ft. The depth of the firebox in front is 71½ ins., and at the back 64½ ins. The steel plates entering into its construction have the following thicknesses:—Side, back and crown sheets, ⅝ in.; tube sheet, ½ in. The water space in front is 4½ ins. and 5 ins., on the sides 3½ and 4 ins., and at the back 3½ and 4½ ins. The crown stays are 1¼ ins. in diameter, and the remaining staybolts 1 in. in diameter. There are 312 charcoal iron tubes no. 11, B. W.G., 2 ins. outside diameter and 14 ft. long over flue sheets. The tubes furnish 2,273.3 sq. ft. of heating surface, and the fire-box 171.96 sq. ft., the total heating surface being 2,445.26 sq. ft. This establishes a ratio of 1 sq. ft. of total heating surface for each 50.7 lbs. of weight on drivers. The grate is of the rocking type with plain ash-pan having dampers in front and behind. The exhaust pipe is of the single type, furnished with nozzles 5¼, 5½ and 5¾ ins. in diameter. The distance of tip above center of boiler is ¼ in. The smoke-box diameter is 65½ ins. outside, and its length 73¾ ins., containing netting composed of no. 11 steel wire with 2½ x 2½ mesh. The stack is of cast-iron 14 ins. in diameter, and the height of the top of stack above smoke-box is 3 ft. 3 ins.

The tender conforms in graceful outline to the general lines of the locomotive, and is of the C.P.R. standard hopper-tank type. The tank capacity is 5,000 imperial gallons, and the coal capacity of the tender is 10 tons. The tank is constructed of steel plate, the

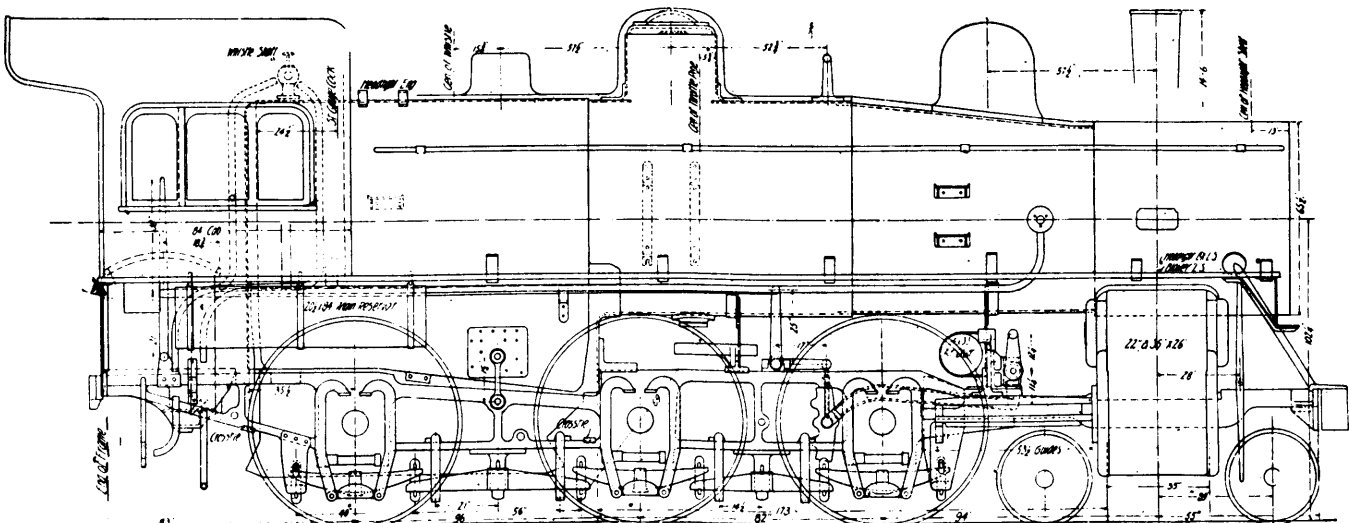


FIG. 2—SIDE ELEVATION, CANADIAN PACIFIC COMPOUND PASSENGER LOCOMOTIVE.

bottom sheets being 5-16 in. thick, and the side and top sheets ¼ in. thick. The under-framing is made up of 10-in. steel channels, and the trucks are of the 4-wheel center bearing style. The truck wheels are steel tired of 40 ins. diameter, the journals being 5½ by 10 ins. The length of the frame over bumpers is 23 ft. 8½ ins. The inside length of the tank is 22 ft. 7 ins., the inside width 9 ft. 4 ins., the height, not including wings, 5 ft. 7¼ ins. The total weight of the tender is 46,000 lbs. loaded and 16,000 lbs. light.

The frames are of wrought iron; driving box brasses, Damascus nickel bronze; the crossheads of cast steel; the cab of steel, wood lined; the axles, hammered open-hearth steel. The brake equipment consists of Westinghouse-American combined brakes on drivers, tender and for train, with 9½-in. left-hand air pump, and two main reservoirs 20½ ins. by 84 ins., having 50,000 cu. ins. capacity. The foregoing particulars were compiled by the Railway and Engineering Review, from information furnished by E. A. Williams, Superintendent of Rolling Stock C.P.R. and the American Locomotive Co.

The American Locomotive Co. has recently shipped from its Schenectady works 15 locomotives for the Japanese Government railways, the first instalment of an order for 30. The locomotives were shipped in parts boxed. The American Locomotive Co. has now about 300 of its locomotives in Japan.

The equipment of the Bay of Quinte Ry. now consists of 6 locomotives, 119 flat cars, 20 box cars, 9 box and cattle combination cars, 1 flanger, 2 conductors' vans, 2 mail, baggage and express cars, 7 passenger cars, 2 second-class passenger cars.

The G.T.R. added to its passenger and freight equipment during Sept.: 1 mail and baggage car, 5 baggage cars, 11 2nd class cars, 225 box cars, 60,000 lbs.; 10 box cars, 40,000 lbs.; 162 flat cars, 60,000 lbs.; 1 flat car, 40,000.

The Algoma Central and Hudson Bay Ry. added 11 flat cars, 80,000 lbs., and 25 iron ore cars, 80,000 lbs., to its equipment during Sept.

The Lake Erie and Detroit River Ry. has added to its equipment 300 gondola cars, 60,000 lbs., for use on the car ferry line.

G.T.R. SEMI-ANNUAL REPORT.

The following report for the ½-year ended June 30, was submitted at the meeting in London, Eng., Oct. 13.

The following summary shows a comparison of the ½-year's revenue account with that of the corresponding ½-year, ended June 30, 1901:

| June 30, 1901. | | June 30, 1902. |
|----------------|--|-----------------|
| £2,287,795 | Gross receipts..... | £2,377,201 10 3 |
| | Deduct— | |
| 1,544,612 | Working expenses, being at the rate of 67.45%, as compared with 67.52 in 1901... | 1,603,612 9 6 |
| | Net traffic receipts..... | 773,589 0 9 |
| | Add— | |
| 12,931 | Received from International Bridge Co..... | 12,930 12 9 |
| 3,262 | Interest on Toledo, Saginaw, and Muskegon bonds | 192 5 6 |
| 3,088 | Interest on bonds of Central Vermont Ry..... | 6,506 14 3 |
| 56,271 | Interest on securities of controlled lines and on St. Clair tunnel bonds acquired by issue of G.T. 4% debenture stock..... | 68,390 5 1 |

Pintsch System Car and Buoy Lighting.

This Company controls in the United States and Canada the celebrated Pintsch System of Car and Buoy Lighting. It is economical, safe, efficient, and approved by the railway managers and Lighthouse Board of the United States and Canada, and has received the highest awards for excellence at the World's Expositions at Moscow, Vienna, St. Petersburg, London, Berlin, Paris, Chicago, Atlanta and Buffalo. 112,000 cars, 4,500 Locomotives and 1,250 Buoys are equipped with this light. 160 Railroads in the United States and Canada have adopted this system of lighting, applied to over 19,000 cars.

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FOR STEAM AND ELECTRIC RAILWAYS.

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205 ST. JAMES STREET,

| | | | | |
|---|--|----------|----|---|
| 9,070 | Balance on general interest account..... | 13,566 | 4 | 1 |
| £827,805 | Net revenue receipts..... | £875,175 | 2 | 5 |
| NET REVENUE CHARGES FOR THE HALF-YEAR. | | | | |
| | Rents (leased lines)..... | £77,603 | 0 | 9 |
| | Interest on debenture stocks and bonds of the Co..... | 472,002 | 12 | 5 |
| | Interest on debenture stock and bonds of lines consolidated with the G.T. Co..... | 63,395 | 10 | 2 |
| | Advanced to D.G.H. and M. Co. towards payment of interest on its bonds, under agreements, ½-year to June 30, 1902..... | 613,001 | 3 | 4 |
| | Leaving a surplus of..... | £627,747 | 16 | 0 |
| | | £47,427 | 6 | 5 |
| | | £875,175 | 2 | 5 |

Adding the balance of £8,208 9s. 6d. at the credit of net revenue account on Dec. 31, 1901, to the surplus for the past ½-year of £247,427 6s. 5d., the total amount available for dividend is £255,635 15s. 11d., from which the directors recommend the payment of the following dividends, viz.:

| | | | |
|--|----------|----|----|
| ½-year's dividend on the 4% guaranteed stock..... | £104,395 | 17 | 6 |
| ½-year's dividend on the 1st Preference stock..... | 85,420 | 15 | 0 |
| ½-year's dividend on the 2nd Preference stock..... | 63,210 | 0 | 4 |
| | £253,026 | 12 | 10 |

leaving £2,609 3s. 1d. to be carried forward to next ½-year's accounts.

The net revenue surplus for the ½-year ended June 30, 1901, was £194,289 14s. 7d. The result of the past ½-year's operations shows an improvement of £53,137 11s. 10d.

GROSS RECEIPTS.

Comparison of receipts for ½-years ended June 30, 1902 and 1901:

| | 1902. | | 1901. | | Increase. | Decrease. |
|-------------------------------------|---------------|---------------|---------------|------------|-----------|-----------|
| | £ | ¢ | £ | ¢ | | |
| Passengers..... | 601,469 | 55,117 | 559,117 | 49,352 | | |
| Mails and express..... | 166,314 | 101,459 | 161,459 | 4,855 | | |
| Freight and live stock..... | 1,597,954 | 1,561,256 | 1,561,256 | 36,698 | | |
| Miscellaneous..... | 71,404 | 74,963 | 74,963 | 1,490 | | |
| | 2,377,201 | 2,287,795 | 2,287,795 | 89,406 | | |
| TRAFFIC STATISTICS. | | | | | | |
| Passengers carried..... | 3,555,855 | 3,405,444 | 3,405,444 | 320,414 | | ½ d. |
| Average fare per passenger..... | 3s. 5d. | 3s. 5¼d. | 3s. 5¼d. | 61,725 | | ¼ d. |
| Tons of freight and live stock..... | 5,675,338 | 5,613,613 | 5,613,613 | 61,725 | | ¼ d. |
| Average rate per ton..... | 3s. 7 1/2d. | 3s. 7 1/2d. | 3s. 7 1/2d. | 10,494 1/2 | | |
| Tons carried one mile..... | 1,284,973 3/4 | 1,244,481 1/2 | 1,244,481 1/2 | 66,332 1/2 | | |
| Earnings per train mile..... | 66.33d. | 66.33d. | 66.33d. | 7.78d. | | |

The average rate per ton per mile on the entire freight business was 0.62 of a cent, compared with 0.61 of a cent in the corresponding ½-year.

The working expenses, excluding taxes, amounted in the ½-year to £1,590,013, or 66.88% of the gross receipts, as compared with £1,531,261, or 66.93%; an increase in amount of £58,752, and a decrease in the proportion to the gross receipts of 0.05%.

Comparison of revenue expenditure, including taxes, for the ½-years ended June 30, 1902 and 1901:

| Description of Expenditure. | 1902. | | 1901. | | Increase. | Decrease. |
|---|------------|------------|------------|---------|-----------|-----------|
| | £ | ¢ | £ | ¢ | | |
| Maintenance of way and structures..... | 242,466 | 223,812 | 223,812 | 18,654 | | |
| Maintenance of equipment..... | 436,063 | 344,002 | 344,002 | 92,061 | | |
| Conducting transportation..... | 853,633 | 905,255 | 905,255 | 51,622 | | |
| General expenses..... | 37,851 | 58,162 | 58,162 | 311 | | |
| Taxes..... | 13,599 | 13,350 | 13,350 | 249 | | |
| Total..... | £1,603,612 | £1,544,611 | £1,544,611 | £59,001 | | 0.07 |
| Percentage of gross receipts..... | 67.45 | 67.52 | 67.52 | 5.21d. | | |
| Expenditure per train-mile..... | 45.95d. | 40.74d. | 40.74d. | | | |
| Train mileage for ½-years ended June 30 1901 and 1902: | | | | | | |
| Passenger..... | 3,315,697 | 3,313,169 | 3,313,169 | 2,528 | | |
| Freight..... | 4,522,674 | 5,250,887 | 5,250,887 | 728,213 | | |
| Mixed trains..... | 535,825 | 534,550 | 534,550 | 1,395 | | |
| Total..... | 8,374,196 | 9,098,576 | 9,098,576 | 724,380 | | |

The G.T. gross receipts for the ½-year show an increase of £89,406, or 3.90%; the working expenses, including taxes, an increase of £59,001, or 3.81%. The train mileage, however, shows a decrease of 724,380, or 7.96%.

The total charge to capital account during the ½-year was £136,668 14s. 7d., which, however, included £95,800 for the acquisition of that amount of Michigan Air Line 5% bonds, which matured Jan. 1 last. The outlay for new works, etc., on capital account during the ½-year was as follows:

| | | | | |
|--|---------|-----|----|---|
| Instalment on Portland city elevator loan..... | £ | 445 | 9 | 7 |
| New works, sidings, etc..... | 2,618 | 7 | 6 | |
| Double track..... | 30,068 | 11 | 6 | |
| Improvements to rolling stock..... | 2,735 | 17 | 1 | |
| Land purchased..... | 4,100 | 8 | 11 | |
| | £40,868 | 14 | 7 | |

£16,560 2s. 4d., being premium on debenture stock sold during the ½-year, has been placed to the credit of capital account, thereby reducing the charge of £136,668 14s. 7d. to £120,108 12s. 3d. Four per cent. debenture stock for £414,003 was issued during the ½-year as part provision for the repayment of £522,200 Northern Ry. 5% 1st mortgage bonds which matured on July 1 last; and £85,600 of Montreal and Champlain Jc. 5% bonds were repaid during the ½-year.

ROLLING STOCK.

No additions to the stock of locomotives and cars have been made at the expense of capital during the ½-year. During the ½-year 4 engines, which were built for the Central Vermont Co. in 1901, were taken into the stock of the Co., and 7 engines, 119 freight cars, and 2 road levellers were built in the Co.'s shops. The amount at the credit of the engine and car renewal funds at June 30 last was £313,181 11s. 9d., which is sufficient to provide for the replacement of the engines and cars out of service.

An additional 5 miles of the railway between Hamilton and Niagara Falls has been doubled, making a total of 30 miles of double track completed between those points, and it is anticipated that the remaining 11 miles will be finished during the present season, with the exception of certain bridges, the completion of which has been delayed owing to the difficulty experienced in obtaining delivery of the necessary material. The doubling of the line between Port Union and Oshawa, 15½ miles, has been completed, leaving only 29¼ miles of single track between Montreal and Toronto, the doubling of which

is in progress, and will, it is expected, be completed next season.

The gross receipts of the G.T. Western Ry. Co. for the ½-year were £464,654, against £436,796 in 1901, an increase of £27,858, and the working expenses were £398,375, against £386,518, an increase of £11,857, leaving a net profit of £66,279, against £50,278, an increase of £16,001, compared with the corresponding period of 1901. The net revenue charges for the ½-year were £73,322, against £56,499, so that there was a net revenue deficiency for the ½-year of £7,043, as compared with £6,221 for the corresponding ½-year of 1901. Deducting the net revenue deficiency for the ½-year of £7,043 from the net revenue credit of £10,591 at Dec. 31, 1901, there remains a surplus of £3,548 in respect of the year ended June 30, 1902, which will admit of the payment of 1% on the 2nd mortgage income bonds. The number of passengers carried during the ½-year was 634,893, against 641,600, a decrease of 6,707, or 1.04%, and the passenger train receipts, including mail and express receipts, were £129,107, against £115,993, an increase of £13,114, or 11.30%. The quantity of freight moved during the ½-year was 1,281,840 tons, against 1,286,586, a decrease of 4,746 tons, or 0.36%, and the receipts from this traffic were £334,957, against £320,217 in 1901, an increase of £14,740, or 4.60%.

The gross receipts of the Detroit, Grand Haven, and Milwaukee Ry. for the ½-year were £108,005, against £97,167 in 1901, an increase of £10,838; the working expenses were £85,578, against £78,071, an increase of £7,507; leaving a balance of £22,427, against £19,096, an increase of £3,331, compared with the corresponding ½-year of 1901. The net revenue charges for the ½-year were £37,174, against £37,306 in 1901, so that there was a net revenue deficiency of £14,747 against £18,210 for the corresponding period of 1901. The number of passengers carried during the ½-year was 271,988, against 280,832, a decrease of 8,844 or 3.14%; and the passenger receipts, including mails and express receipts, were £41,935, against £44,223, a decrease of £2,288, or 5.17%. The quantity of freight moved was 410,282 tons, against 439,563 in 1901, a decrease of 29,281 tons, or 6.66%; and the receipts from freight traffic were £64,369, against £50,150 in 1901, an increase of £14,219, or 28.35%.

Steady progress continues to be made in the improvement of the Co.'s property in every direction. The cost of operation has been reduced, increased dividends are available for distribution, and additions to capital have been maintained within the most reasonable limits. The directors venture to congratulate the shareholders on the results which they are thus able to lay before them.

The Chief Engineer reports that the expenditure for maintenance of the Co.'s property during the ½-year was \$90,635.07 more than during the corresponding period of 1901. The Superintendent of Motive Power reports the expenditure, mileage, etc., as follows:—

| ½-year ended | Total Expenditure. | Train Mileage. | Rate of Expenses per mile. | | |
|--------------|--------------------|----------------|----------------------------|-------------|------------|
| | | | Train | Engine | Car |
| June, 1902 | Dollars. 2,921,279 | 8,374,196 | Cents 34.88 | Cents 27.78 | Cents 2.07 |
| " 1901 | 2,954,871 | 9,098,576 | 32.48 | 26.01 | 1.88 |

A decrease in expenditure of \$33,592 or 1.14%, compared with a decrease in train miles of 724,380 or 7.96%.

| The average number of cars moved per train was..... | Passenger Freight Mixed Trains. Trains. Trains. | | |
|---|---|---------|-------|
| | Passenger | Freight | Mixed |
| And for the corresponding period..... | 4.2 | 27.0 | 10.1 |
| | 4.1 | 26.3 | 10.1 |

During the ½-year 15 engines were scrapped or sold. Of those sold 8 were purchased by the G. T. W. Ry. Five passenger and 2 mogul compound freight engines were built in the Co.'s shops, Point St. Charles. Four passenger engines built in the Co.'s works, Point St. Charles, in 1901, for the Central Vermont Ry., were returned, and are added to the stock of the G. T. R. The actual stock at June 30, 1902, was 790 locomotives, against the official stock of 803.

The comparative cost of repairs per train, engine and car mile was:

| Train | Repairs and renewals of locomotives. | | All repairing charges including shop machinery, tools and marine equipment, etc. | |
|-------------|--------------------------------------|-------------|--|-------------|
| | 1902. | 1901. | 1902. | 1901. |
| Train | Cents. 9.65 | Cents. 8.13 | Cents. 11.63 | Cents. 9.67 |
| Engine..... | 7.68 | 6.51 | 9.29 | 7.75 |
| Car | 0.57 | 0.47 | 0.62 | 0.56 |

The Superintendent of Car Department reports the expenditure, mileage, etc., as follows.

| ½-year ended | Cost of repairs and renewals. | | Miles run by cars. | | Cost per mile. | |
|--------------|-------------------------------|--------|--------------------|-------------|----------------|-------|
| | Dollars. | Cents. | Passenger. | Freight. | Car | Train |
| June, 1902 | 1,145,234 | 810 | 15,032,701 | 126,380,251 | 141.412,952 | 13.68 |
| " 1901 | 794,240 | 736 | 14,972,734 | 142,339,002 | 157,311,736 | 8.73 |

At cost of revenue, 45 box, 7 stock, 3 caboose, and 30 flat cars were rebuilt, and 34 flat cars and 2 road levellers built new at Co.'s shops. At cost of capital, 58 freight cars were equipped with automatic couplers and Westinghouse air brakes, and 60 freight cars were fitted with air brakes only.

The revenue account was as follows:

| June 30, 1901. | Train Mileage. | June 30, 1902. |
|----------------|------------------------|----------------|
| 3,313,169 | Passenger trains | 3,315,697 |
| 5,250,887 | Freight trains | 4,522,674 |
| 534,520 | Mixed trains | 535,825 |
| 9,098,576 | | 8,374,196 |

| RECEIPTS. | £ | s. | d. |
|---|------------|----|----|
| Passengers | 606,666 | 5 | 2 |
| Less—International bridge tolls | 932 | 0 | 7 |
| St. Clair tunnel tolls | 4,204 | 14 | 9 |
| Mails and express | 40,083 | 11 | 6 |
| Freight and live stock | 11,966 | 8 | 6 |
| Less—Cartage, etc. | 19,502 | 7 | 2 |
| International bridge tolls | 71,612 | 7 | 2 |
| St. Clair tunnel tolls | 1,597,953 | 17 | 9 |
| Miscellaneous receipts, rents, tolls, etc. | 71,464 | 4 | 10 |
| | £2,377,201 | 10 | 3 |

| EXPENDITURE. | £ | s. | d. |
|---|------------|----|----|
| Maintenance of way and structures | 242,465 | 15 | 0 |
| Maintenance of equipment | 436,063 | 3 | 2 |
| Conducting transportation | 853,632 | 11 | 2 |
| General expenses | 57,851 | 7 | 3 |
| Total working expenses | 1,590,012 | 16 | 7 |
| Taxes | 13,599 | 12 | 11 |
| Balance to net revenue account | 1,603,612 | 9 | 6 |
| | 773,589 | 0 | 9 |
| | £2,377,201 | 10 | 3 |

In moving the adoption of the report Sir C. Rivers-Wilson referred to the fact that the second preferreds, on which interest has not been paid since 1883, would receive a full dividend, and elicited hearty applause. Referring to the controversy on the merits of American and British methods of railway finance, he said that each road, whether in America or Great Britain, must necessarily be governed by its own circumstances. He believed that every step should be taken with the view of benefiting future shareholders, and that a hand-to-mouth policy should be severely avoided. He referred to the many new industries which had been started during the past year, adjacent to the G. T. R. lines, both in Canada and the U.S., and said the coal strike in the U.S. had not yet affected the Grand Trunk, though prices of coal would possibly increase.

Canadians in U.S. Railway Service.

In addition to the list of Canadians occupying prominent positions in the U.S. railway service, published in our Sept. issue, the following may be mentioned:

J. H. Jagoe, District Passenger Agent, Rutland Rd., at New York city, born at Hamilton, Ont., Aug. 2, 1852.

A. J. McDougall, General Eastern Passenger Agent, Illinois Central Rd., at New York, born in Waterloo County, Ont., Feb. 6, 1866.

J. W. Platten, Treasurer Erie Rd. Co., at New York city, born at Port Perry, Ont., Dec. 6, 1863.

The Canada Railway News Co. has acquired the Weldon News Agency, hitherto operating on the Great Northern Ry. of Canada, and on the Quebec and Lake St. John Ry.

The C.P.R. has started a daily express train service between Calgary and Strathcona, Alta., on the Calgary and Edmonton Ry.

STEEL RAILS

We have pleasure in offering highest grade Bessemer Steel Rails made by THE ALGOMA STEEL CO., Ltd., of Sault Ste. Marie, Ont.

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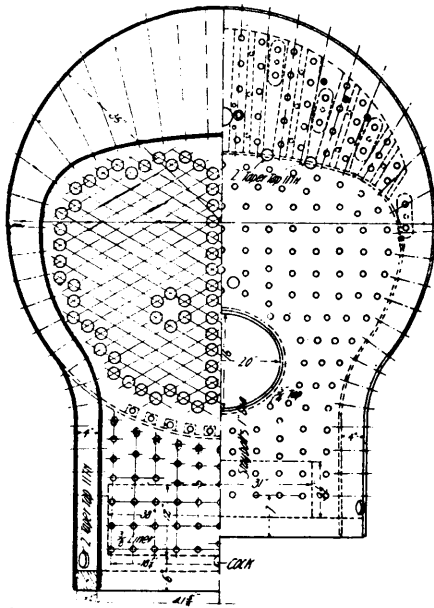


FIG. 4—CROSS SECTION THROUGH BOILER AND FIREBOX. CANADIAN PACIFIC LOCOMOTIVE.

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

St. John, N.B., Terminals.—Application has been made to the city council for a section of the market slip 180 by 12 ft. It is proposed to build a pile wharf, with warehouse, to be used for the local import and export trade, using the Sand Point warehouses for through traffic only.

A warehouse 200 ft. by 40 ft. is under construction on the Rodney wharf, and is expected to be completed this fall. D. C. Clark has the contract. Additional yard space for about 400 cars has been provided at the Bay shore yards. (Aug., pg. 270.)

Switches on Atlantic Division.—About 135 sets of southern pine ties were used in renewing ties on the switches on the Atlantic division this year.

McAdam Jet. Station.—We are officially informed that there is not the slightest foundation for the press report that the name of this station is to be changed to Van Horne Jet.

Sherbrooke, St. Guillaume and Newport Sections.—New bridges, consisting of masonry abutments and steel spans, are being completed at Richford, Stevens' Mills and East Richford, to replace lighter or wooden structures.

A siding has been put in between Sutton Jct. and Sutton to help trains that have to double the grade at this point; a siding, half-

a-mile long, has been put in between St. Philippe and L'Acadie, and the sidings at St. Constant, St. Philippe, Quebec Southern Jct., Cowansville, Mansonville, Newport, Foster and Eastman, have been lengthened by about 1,000 ft. each.

The work of double-tracking the line between Brigham Jct., and Farnham, 6 miles, was commenced on Oct. 2, and on Oct. 10, two miles of road-bed had been graded and ties laid ready for tracklaying and ballasting. The work, which is being done by day-labor under the supervision of the Co.'s officers, was expected to be completed by the end of Oct. The object of providing the double track is to facilitate the movement of traffic in and out of Farnham yard, as the haulage capacity of an engine between Farnham and Newport, and Farnham and Megantic, is 40% less than between Outremont and Farnham.

Increased accommodation for the storage and handling of freight has been provided at St. Guillaume, St. Pie, Eastman, Magog and Mansonville by additions to the freight sheds. The shed for storing flour at Richford, 80 by 360 ft., is being doubled; a new station and freight shed has been erected at Bulwer; the coal chutes at Farnham and Megantic have been increased to nearly double their capacity, and a new engine house is being built at Stanbridge, to replace one destroyed by fire last winter.

The line from Brigham Jct. to Sherbrooke, 58 miles, in being relaid with 80 lb. rails.

Montreal Shops.—The new locomotive and car shops are to be located in the eastern part of Montreal, adjacent to the Co.'s Quebec line. The grounds are about 350 acres in extent, being about 4,500 by 2,000 ft. The purpose of these shops is the concentration in one plant of a large part of the repairing of the locomotives and passenger coaches used on the road, at the same time making large provision for the manufacture of locomotives, passenger and sleeping coaches, as well as freight cars. The total floor space of the buildings planned for immediate construction, and shown on the plan on page 379, is about 750,000 square feet, or over 17 acres. The buildings will be of pressed brick on rubble stone and concrete foundations. The trusses will be combination trusses on steel columns for the shops of the car department, and steel trusses for the locomotive shops, the blacksmith shop and the foundry. The hot blast system of heating will be used throughout. The passenger car shops, when completed, will be able to turn out 100 new cars a year, and repair 900 old ones. The freight car shop will have a capacity of 25 to 30 new cars a day, and will be able to repair 100 cars a day. The locomotive erecting and machine shop and the boiler shop will have a capacity of 75 new locomotives a year, and will

be able to repair 400 a year. The wheel foundry is designed to turn out 250 wheels a day. The details of the power house and the power equipment have not yet been worked out, but electric transmission of power will be used throughout the individual machine and group motors in the several shops. The sizes of the buildings are as follows:—

| | |
|--|-------------|
| Freight car shop | 540x107 ft. |
| Planing mill | 500x127 " |
| Cabinet shop | 290x62 " |
| Hardware storage and upholstering shop (two stories) | 290x62 " |
| Passenger car paint shop | 672x100 " |
| Passenger car erecting shop | 672x100 " |
| Truck shop | 432x82 " |
| Car machine shop | 288x130 " |
| Blacksmith shop | 610x130 " |
| Grey iron foundry | 380x125 " |
| Machine and locomotive erecting shop | 900x160 " |
| Boiler shop | 300x120 " |
| Wheel foundry | 170x110 " |
| Frog shop | 250x100 " |
| Drying kiln | 250x100 " |
| Power house | 100x120 " |
| Office | 110x60 " |

Contracts have been let for seven of the buildings, and work has already been started. Lessard & Harris, of Montreal, are erecting two buildings for the construction of passenger cars, one for freight cars, and the planing mill, and Loomis & Sons, of Sherbrooke, are erecting three buildings for the furniture and upholstery shops. (Aug., pg. 270.)

Northern Colonization Ry.—Construction on the extension of this line from Labelle to Nominigues, Que., about 26 miles, was commenced in July, and it was expected that tracklaying would be commenced in Oct. D. R. McDonald & Co., Williamstown, Ont., are the contractors. (June, pg. 270, and Oct., pg. 333.)

Ste. Agathe and Beaconsfield Stations.—New stations have been completed at Ste. Agathe and Beaconsfield, Que. Both are larger buildings than the old stations, and have been equipped with enameled iron station name plates by the Acton Burrows Co., Toronto.

Main Transcontinental Line.—Sir Wm. Van Horne, who recently returned from a trip over the C.P.R. to Vancouver, his first for three years, says that the line was in fine condition throughout. Practically all of the original temporary structures have disappeared and the greater part of the main line has been relaid with rails of the heaviest description. Extensive additions have been made to the sidings, and there is every facility for handling traffic. The extent to which this work had been done was given more specifically by Sir Thos. Shaughnessy in a recent interview. He said that 80% of the line from Montreal to the Pacific coast had been transformed into a permanent road, millions of dollars having been spent in replacing the temporary structures; and that by the end of 1903 the whole

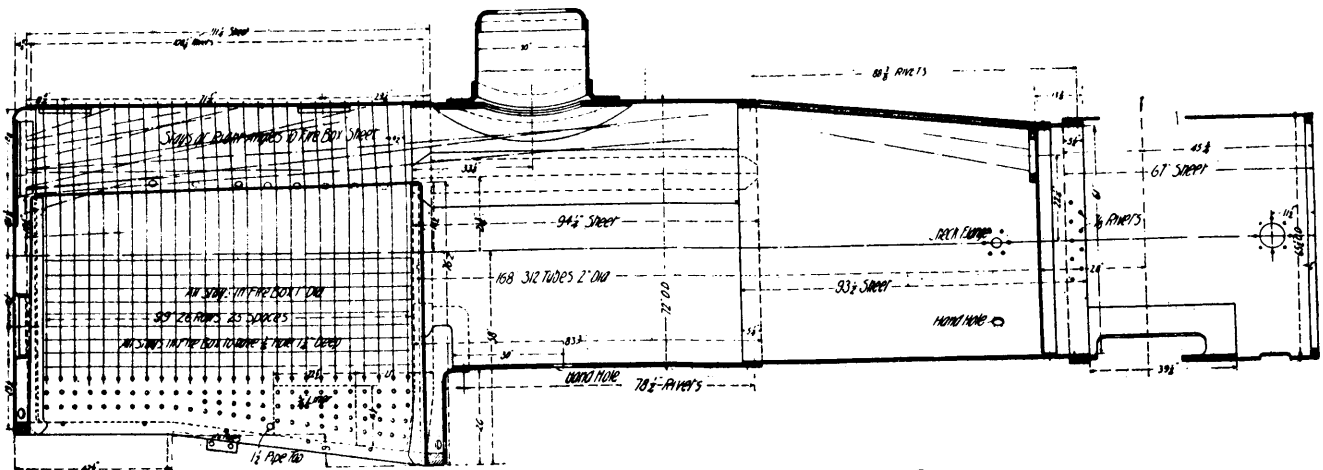


FIG. 3—LONGITUDINAL SECTION OF BOILER, CANADIAN PACIFIC LOCOMOTIVE.

of the transcontinental line will have been re-laid with 80 lb. rails, and the whole of the trestles and temporary structures replaced.

The work of reducing gradients and curvature on the transcontinental line will not be commenced until next year. E. H. McHenry, Chief Engineer, has completed an inspection of the line with the object of seeing what is required, and will during the winter have all the details worked out by the engineering staff so as to be ready to have the work started early in the spring.

Ottawa.—Surveys have recently been made in Ottawa with the object of improving the C.P.R. entrances into the city and of connecting the various lines with the Interprovincial bridge. The line surveyed for this connection leaves the Sussex st. terminal and runs via Nepean point to the Interprovincial bridge.

Mattawa Station, which was burned in May last, is being replaced by a more convenient and modern structure. J. B. Brennan, of Montreal, is the contractor.

Gould's Creek, Water Tank.—A 50,000 gall. water tank is being erected at Gould's

Creek, near Cobden, Ont., on the transcontinental line.

Perth Car Shops.—Temporary buildings have been erected at Perth, Ont., to replace those destroyed by fire in July last.

Montreal-Toronto Line.—There has been a great deal of ballasting done, and heavy steel laid on the Havelock section this season. The track from Perth to Smith's Falls has been ballasted with the best of gravel, hauled from the Mississippi pit, and also laid with 80-lb. steel rail with broken joints coupled with Bonzana splices; 80-lb. rails have also been laid from Bathurst east to near Perth, and nine miles more are being laid in that vicinity. All switches on the main line are being replaced with split switches and spring frogs. On the Toronto section all the banks have been widened and laid with 80-lb. rails from Manvers, half a mile west; from Brady to Dagmar, and from Claremont five miles west. In addition to this the sidings at Havelock, Tiffin, Peterson, Olden, Zealand and Kenebec on the Havelock section have been widened, and a track scale and new shunting track have been provided at Perth. On the

Toronto section Otonabee siding has been extended, and a transfer siding is being built at Peterboro to be 2,310 ft. in length, while the sidings at Sand Bank, Burketon and Dagmar have been extended 600 ft. each. Tracks have been built to the new cereal works at Peterboro, giving them yard accommodation. At the Toronto terminals the switches in the main line have been replaced with split switches; the Parkdale yard has been rearranged and a great deal of work has been done around the terminal, such as building new coach cleaning sheds, etc. (Aug., pg. 270.)

Peterboro to Midland.—In the course of a speech at Midland, Ont., on the occasion of his visit there in Aug., the Minister of Public Works said Midland was the terminus of the G.T.R. on Georgian bay, but what would they say if the C.P.R. should come also. He was not prepared to say that the C.P.R. was coming, but there was good reason to believe that it might. An arrangement could be made so that it could use the same rails as the G.T.R. The heads of the two railway companies interested were interviewed in reference to the statement. Sir Thos. Shaughnessy said that while the project had been

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discussed, nothing had been decided. C. M. Hays would not state how far negotiations had gone, but expressed an opinion that the development of C.P.R. traffic via Midland was a much preferable plan to the construction of the projected French river canal.

London Yards.—Considerable work is being done in the way of track extension at the London, Ont., yards of the C.P.R., particularly in connection with the new iron and steel works, which are situated adjacent to the line of the Lake Erie and Detroit River Ry.

North Bay Yards.—By arrangement with the town council the Co. has agreed to expend \$200,000 within 18 months in the erection of a new station, freight shed and roundhouse, in return for certain concessions. It is not likely that anything in the way of construction on the new station will be done until next year.

Lake Superior Division Sidings.—The sidings between White River and Port Arthur, Ont., are all being extended to 2,000 ft. in length.

Fort William Roundhouse.—A five-stall addition to the roundhouse at Fort William, and a new blacksmith and machine shop, 72 by 160 ft., of brick and stone, are expected to be completed early in Nov.

Fort William to Winnipeg.—A train weighing 2,140 tons, attached to which was a dynamometer car containing instruments for recording the amount of force exerted, the strength of drawbars, etc., recently went over the line between Fort William and Winnipeg and return, with a view of testing the gradients in connection with the track improvements in contemplation. The object of the trip is to ascertain different points on the present grades to which a 2,140 ton train can be drawn by a particular type of engine, at a given speed, and to start the reduction of gradients from that point.

Winnipeg Shops and Yards.—E. H. McHenry, Chief Engineer, on his recent trip of inspection over the line, inspected the yards and shops in Winnipeg with a view to an enlargement and rearrangement of the same, on which it is proposed to expend a considerable sum. The plans are now under consideration. (Aug., pg. 271.)

Souris River Bridges.—Contracts have been let for the masonry work on new bridges

over the Souris river at Mentieth and Treesbank, Man. J. Gunn, Stonewall, Man., has the contract.

Headingly Bridge.—A contract has been let for the substructure of a new bridge over the Assiniboine river at Headingly, Man. J. Gunn, Stonewall, is the contractor.

Winnipeg Bridge.—The bridge over the Red River at Winnipeg has been completed. The Louise bridge, which is owned by the city, and has been in use for 21 years, has been abandoned as far as C.P.R. traffic is concerned. (June, pg. 202.)

Winnipeg Beach Branch.—Tracklaying and ballasting has been completed, and the branch handed over to the operating department. (June, pg. 202.)

Snowflake Branch.—Tracklaying on the extension of 10 miles from Snowflake to Mowbray, was expected to be completed and handed over to the operating department in Oct. (June, pg. 202.)

Waskada Branch.—Tracklaying on the extension westerly from Waskada to Lyleton, was expected to be completed in Sept., and the line handed over to the operating department in Oct. (June, pg. 202.)

McGregor Branch.—Tracklaying was expected to be completed on the 10 miles graded last year from Wellwood to Brookdale, in Oct. (Aug., pg. 271.)

Branch from Forrest.—Tracklaying has been completed on the 22 miles from Wheatlands, to which point track was laid last year from Forrest, to Lenore and it was expected that ballasting would be completed in Oct. (June, pg. 202.)

Manitoba and North Western Ry.—The grading, tracklaying and surfacing of the extension of this line from Yorkton, Assa., northwesterly for about 40 miles towards Prince Albert, is expected to be completed by the end of Nov. This extension will carry the line nearly to the Quill lakes. (Aug., pg. 271.)

Pheasant Hills Branch.—Grading on about 120 miles of the branch from Kirkella, Assa., was completed in Sept., and tracklaying was expected to be completed by the end of Oct. 80-lb. rails are being used. The line runs northerly from Kirkella to near Fort

Ellice, then easterly and northerly, crossing the Qu'Appelle valley near Scissors Creek, serving the Pheasant Hills settlements. It is intended to continue the line to a junction with a short branch of the Qu'Appelle, Long Lake and Saskatchewan Ry. at Craven. (Aug., pg. 276.)

Calgary Yards.—The Co. has asked the city for land to increase its yard accommodation at Calgary from 30 to 45 acres.

Field-Ottertail Deviation.—C. Schreiber, Deputy Minister of Railways, recently inspected this seven-mile deviation, which has been completed. (Aug., pg. 271.)

Spurs at Phoenix.—Surveys have been made for the construction of a number of additional spur tracks to the mines near Phoenix, B.C.

Kootenay and Arrowhead Ry.—The line from Lardo to Gerrard, on Trout Lake, was put in operation, Aug. 1, and in connection with the railway service a small steamer, the Victoria, was put on a route between Gerrard and Trout Lake City. (Aug., pg. 271.)

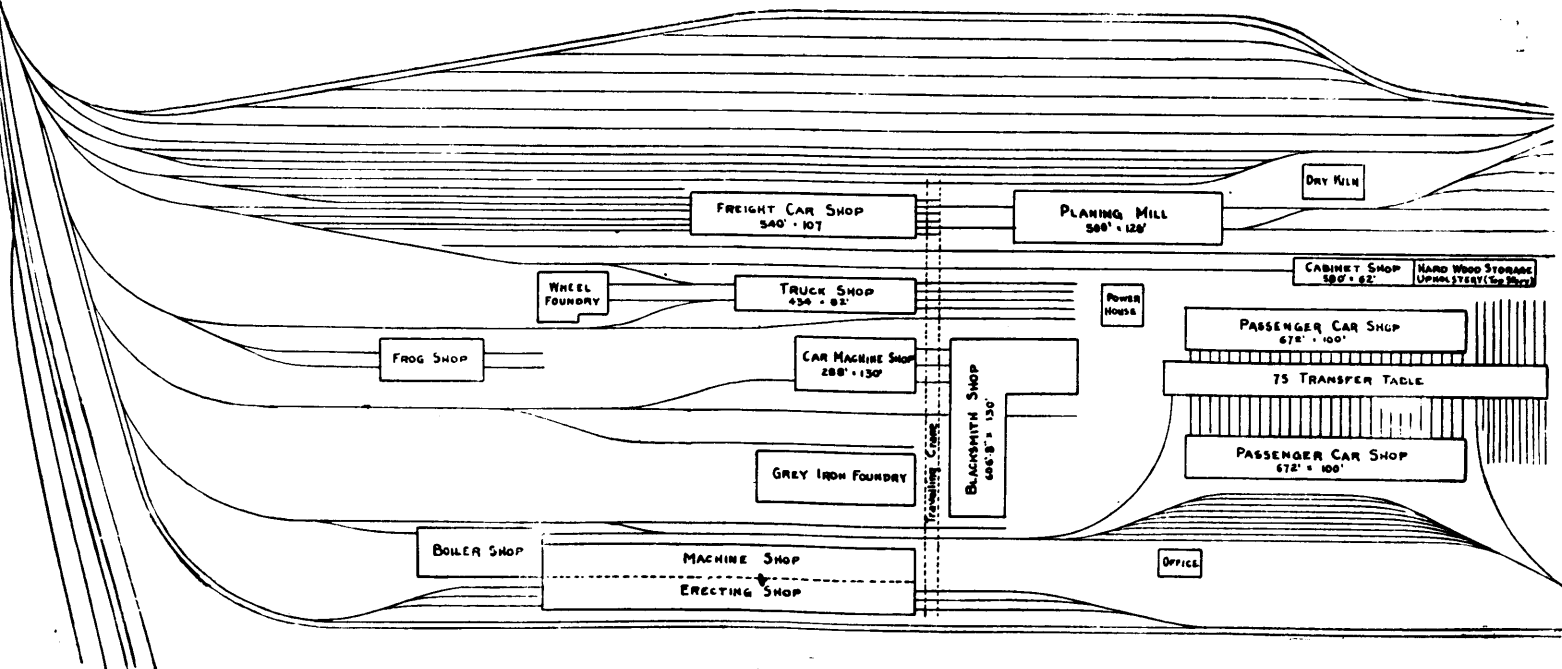
Hotel at Kamloops.—We are informed that it is not at the present time the intention of the Co. to build an hotel at Kamloops, B.C.

Hotels in B.C.—F. M. Rattenbury has completed an inspection of the Co.'s hotels in B.C., with a view to enlarging and remodeling some and of rebuilding others, work on which is not already in progress.

Vancouver Golf Links.—The C.P.R. has offered to provide a site for golf links at Vancouver, and to clear the same ready for play.

Branch to New Westminster Cattle Yards.—A branch is projected to run into the cattle yards and to the city market, and plans will shortly be submitted to the city council.

Vancouver Waterfront.—The C.P.R. has under consideration a comprehensive plan for the improvement of the waterfront of Vancouver. In connection with the project, negotiations are in progress with the city council respecting rights of way over certain streets, improvements to be effected on certain lots, etc. E. H. McHenry, Chief Engineer, is preparing plans for the improvements, but details have not been definitely decided. Press reports state that five new wharves, 600 ft.



GROUND PLAN OF THE CANADIAN PACIFIC RAILWAY SHOPS TO BE ERRECTED IN MONTREAL.—See page 377.

long, 175 ft. wide, with an intervening space of 150 ft., will be built in addition to large warehouses, coal docks and elevators. These wharves and warehouses are said to be for the use of the Oriental and Australasian trade only.

The Vancouver and Lulu Island Ry. is being operated from Vancouver to Steveston, B.C., as a branch of the C.P.R.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Alaska.—It is reported that surveys have been completed for the construction of the Alaska Central Rd., from Resurrection bay, on the southern coast of Alaska, to Rampart city, on the Yukon river, and that construction will be commenced next year. The location surveyors claim to have found large fields of hard coal.

The Valdez, Copper River and Yukon Ry. has been incorporated at Seattle, Wash., to construct a railway from Valdez, through the Copper river valley to Eagle City, about 100 miles from Dawson, Yukon. The line will be about 400 miles in length. (June, pg. 188.)

Alberta.—J. R. Costigan, K.C., Calgary, Alta., is organizing a company to open up some coal fields in the Red Deer river district, 20 miles north of Banff. A preliminary survey for a railway from the coalfields to a junction with the Calgary and Edmonton Ry. has been made, and press reports state that construction will be commenced next year.

The Algoma Central and Hudson Bay Ry.'s management, which used to furnish us with information as to its construction work, as other railways do, changed its policy towards the end of last year, and announced that it would not continue to do so. We are therefore unable to give any official information as to its construction during this year. The Official Guide has since early in the year been publishing a time table, presumably furnished by the Co.'s traffic department, which shows the main line in operation from Sault Ste. Marie to Pangissin, 70 miles, and a daily train is shown as running each way between the two points. We have, however, ascertained that up to Sept. at least, no track had been laid beyond Ogidaki, 48 miles from Sault Ste. Marie, to which point it was laid last year.

A representative of the Sault Ste. Marie Star recently walked from Michipicoten to Anjigomi, and thence over the grade to Ogidaki. He reports that he found 30 miles of grade ready for track laying, 20 more nearly ready, and that work on the remaining 20 to a junction with the line from Michipicoten, near the Josephine mine, was being rapidly pushed forward. It was expected that track-laying on the line would be commenced at Ogidaki Sept. 25, and continued for 17 miles. F. H. Clergue is reported to have stated in Toronto recently that 175 miles of the line will be completed this year.

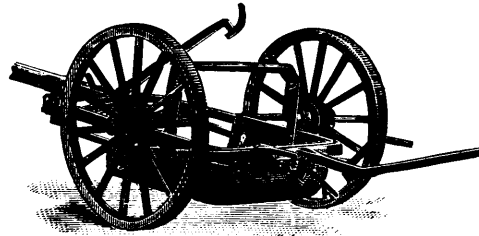
A contract has been let to the Dominion Bridge Co. for the erection of a steel bridge over the Co.'s tracks, connecting Cathcart st. and the base line roads in Sault Ste. Marie, Ont. The local authorities were prepared to be satisfied with a wooden bridge, but the Co. decided to erect a steel one. (Aug., pg. 262.)

Atlantic and Lake Superior Ry.—The grading to the 100th mile, together with the bridges were expected to be completed by the end of Oct. Two steam shovels have been engaged in ballasting, and the whole work was expected to be completed by the middle of Nov. The work has been very heavy, par-

ticularly the rock work. One mile of bank has had to be cribbed up, and the cribbing filled with rock to prevent inroads of the sea. The work has been done in a very thorough manner. We were advised Oct. 23, that it was expected to have the rails laid to the

100th mile by Oct. 25, and that 40,000 yards of ballast had been put out. (Aug., pg. 262.)

In connection with the practical completion of this line to the 100th mile, near New Carlisle, Que., it may be interesting to note that although labor has been scarce and hard



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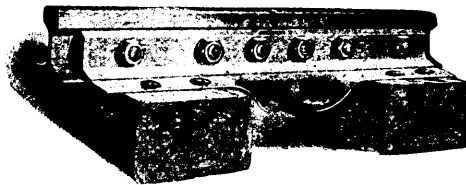
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to get on almost all construction work, at all times, C. R. Scoles, the contractor, has had a good supply. The men have been paid weekly, Mr. Scoles believing that by paying weekly a much better service can be got out of the men than by the ordinary monthly payment. The plan has worked well, the men are well satisfied, and Mr. Scoles says that certainly a much better and greater quantity of work has been done for the same money than under the ordinary system of paying monthly.

Bay of Quinte Ry.—We were recently advised that nothing had been determined on in reference to the proposed extension of the line northwards from Tweed. Work is reported to have been commenced on the construction of a line from Deseronto to Napanee, which will give direct connection with the main line north of Napanee and from Napanee to Sydenham. At present the Co. has running powers over the G.T.R. between Deseronto Jct. and Napanee. (Aug., pg. 262.)

The Brantford St. Ry.'s new owners have made a number of improvements on the line and at the power house. (Aug., pg. 262.)

British Columbia Electric Ry.—Extension of the lines in Vancouver on Powell st. to Cedar Cove, and on Mount Pleasant to the city limits have been completed.

W. Meredith, consulting engineer, recently paid a visit to the works in progress at the North Arm in connection with the power development scheme. He reports that work is going on satisfactorily, and that the Co.'s plans will take nearly two years to develop.

The people of Victoria desire to have the line extended round the Gorge. (Aug., pg. 262.)

Brockville, Westport and Sault Ste. Marie Ry.—A 3-stall engine shed and repair shops are being erected at Brockville. W. E. White is the contractor. A freight shed and platform are being built at Westport. (Jan., pg. 1.)

Bruce Mines and Algoma Ry.—The ballasting on the line from the C.P.R. track to Rock Lake has been completed. Stations on this line will be Bruce Mines, C.P.R., Rydal Bank, Otter Tail, Gordon Lake and Rock Lake. It has been decided not to extend the line north from Rock Lake this year. Southward from the C.P.R. the line is being extended to Lake Huron, about 2 miles, with a station at Bruce Mines. This extension was expected to be completed early in Oct. (Aug., pg. 262.)

Camborne, B.C.—Press reports state that an electric railway will shortly be constructed to connect Camborne with Arrow Lake.

Canada Atlantic Ry.—J. R. Booth, recently stated that work would be commenced on the new central station in Ottawa early next spring, possession of the site at the canal basin having been obtained.

Location surveys are reported to be completed for a spur, 4 miles in length, from Caldwell station to the Radnor iron mines. (Aug., pg. 262.)

Canada-Yukon, Western Ry. Co.—C. Archer, Dawson, Yukon, gives notice that application will be made at the next session of the Dominion Parliament for an act to incorporate a company under this title to construct a railway from Dawson, westerly, and along the Yukon river to connect with any line constructed on the U.S. side of the boundary; and with power to construct railway bridges over the Yukon, Forty Mile and Klondike rivers—such railway to be operated either by steam or electricity.

Cape Breton Electric Co.—Cars were run experimentally on the Sydney and interurban lines Oct. 1, when everything was found to be satisfactory, and it was expected that the regular service would be commenced in a few days. The Co. is reported to have bonded

the marine slip property at North Sydney, with the object of utilizing it for the ferry service. (Aug., pg. 269.)

Cape Breton Ry.—It is expected that the first 30 miles, from Port Hawkesbury to St. Peters, will be in operation at an early date. Tenders are being considered for the erection of five stations on the route.

Members of the reorganization committee of the Dominion Securities Co., of New York, M. E. Evans, a New York engineer, and officials of the Co., have been over the line constructed and the projected route to Louisburg, and it is understood that they will report in favor of the completion of the line through to Louisburg. (Aug., pg. 263.)

Chateaugay and Northern Ry.—J. G. Scott, General Manager Great Northern Ry. of Canada, writing to P. J. L. Bissonnette, M.L.A. for Montcalm, recently, says: "Arrangements are in progress for the construction of the line between Bout de l'Île and Joliette, and there is no doubt of the company soon being in a position to open a line between Joliette or Ste. Julienne and Rawdon, but at the present moment there are no funds available for that purpose." (Aug., pg. 263.)

Cowichan to Alberni.—D. R. Harris, C.E., has been instructed to make a survey with a view to the construction of a railway by way of Nitinat valley, between Cowichan and Alberni, on Vancouver island. A provincial government survey party, under F. Shepherd, Nanaimo, is also making a survey for a line to Alberni from Wellington, via Cameron Lake. (Nov., 1901, pg. 317, Aug., 1900, pg. 235.)

Crow's Nest Southern Ry.—The line from Gateway, on the International boundary, to Morrissey, B.C., has been completed and was placed in operation on Sept. 15. At Gateway, connection is made with the Montana and Great Northern Ry., from Jennings, Mont. The line from Jennings to Morrissey is 115 miles. A branch line, 4 miles in length, has been completed along Morrissey creek to the mines of the Crow's Nest Coal Co. (Aug., pg. 263.)

The Cumberland Ry. and Coal Co. is laying 80-lb. rails on its line between Parrsboro and Springhill Mines, N.S. (June, pg. 190.)

Drummond Colliery Ry.—The tender of J. W. MacDonald, Stellarton, N.S., has been accepted for the construction of an extension of $2\frac{3}{4}$ miles to the Drummond colliery railway, owned by the Intercolonial Coal Mining Co., Westville, N.S. The work to be done includes close cutting, grubbing, grading (about 23,000 cubic yards), pile trestling (about 520 ft.), track laying and ballasting. C. Fergie, Westville, is Vice-President and General Manager.

Duncan River.—J. C. Murray, formerly of Rossland, B.C., writing to the press, states that a syndicate of U.S. capitalists has in contemplation the construction of an electric tramway up the Duncan river valley, B.C. J. H. Gray has been making surveys in the district, with the object of locating a mono rail line to be operated by electricity. Judson and Loyhed, Minneapolis, Minn., are interested.

Edmonton, Yukon and Pacific Ry.—The location for the station and switches in Edmonton, Alta., for the line from Strathcona is under consideration. The track was ready for operation early in Sept., and on Oct. 17 we were advised that the Canadian Northern Ry. was sending a locomotive and other equipment to operate it. (Aug., pg. 263.)

Egerton Tramway Co. (Ltd.)—W. P. McNeill, G. A. Grant, of New Glasgow, and C. Fergie, Westville, were incorporated at the last session of the Nova Scotia Legislature under this title to construct an electric tramway or railway in New Glasgow, Stellarton, Westville, Trenton, Ferrona, and Thorburn,

and between any one or all of them, and to any other part of the county of Pictou. C. A. Flaherty, of Boston, the Co.'s engineer, has prepared plans for a line between New Glasgow, Westville, Stellarton and Trenton, with a branch to Abercrombie point, from whence a ferry service will be operated to Pictou. It is expected that construction will be commenced on an early date.

Esquimalt and Nanaimo Ry.—It is reported that construction will shortly be commenced on a spur from the E. and N. Ry. at Westholme, to Crofton, B.C., a distance of about five miles.

Some additional spurs and sidings have been constructed at Somenos and Stratford's crossing, to accommodate the mines, and a long trestle has been completed at Ladysmith to permit the ore to be dumped into the ore bins at the smelter by the overhead system.

Fraser River Bridge.—We were advised Sept. 26, that the pedestals for the New Westminster approach were practically completed, and that the earth embankments for the approach on the New Westminster side were also about finished. Piles have been driven for the foundation of piers 8, 9, 10 and 11 on the opposite side of the river from New Westminster. The high water in the river has prevented any work being done on the main channel piers. The substructure is expected to be completed by May 1, 1903. The material for the superstructure is being rolled and is all expected to be erected by Sept. 1, 1903. Work was suspended for a day or two recently on account of an alleged encroachment on the C.P.R. right-of-way, but a settlement has been arrived at by the Commissioner of Lands and Works, pending an application to the Railway Committee of the Privy Council. (June, pg. 190.)

Galt, Preston and Hespeler St. Ry.—We have been officially advised that it is not the intention of the Co. to do anything in the way of construction on the proposed extension to Puslinch this season. (Aug., pg. 263.)

Grand Valley Ry. Co. (Electric).—Track-laying was commenced on the line from Branford to Paris, Ont., at the end of Aug., and was expected to be completed by the end of Sept. For some distance out of Brantford the new line parallels the G.T.R. (Aug., pg. 263.)

The Great Falls Power Co. has intimated to the Winnipeg city council that it contemplates the construction of an electric line into the city, and asks that no exclusive rights be given to any company for trackage over the Louise bridge. (June, pg. 191.)

Great Northern Ry. of Canada.—Following are particulars of the new work done at the Co.'s elevator at Quebec: The belt conveyor gallery runs from the elevator to Pointe A. Carey wharf, some 500 ft., and from the end of this gallery, where a distributing tower is located, a conveyor gallery runs in each direction along the face of the wharf, one of these galleries being 225 ft. long, and the other 275 ft. The belts in these galleries are 3 ft. wide, and have a carrying capacity of about 15,000 bush. an hour. Vessels are loaded by means of 10 dock spouts, erected on the conveyor gallery running along the face of the wharf. This conveyor is driven by an electric motor. The conveyor galleries are all covered with galvanized corrugated steel. Some changes, necessitated by the erection of the conveyor, have been made in the present marine tower and other parts of the elevator. John S. Metcalf Co., Chicago, are the engineers in charge.

We were advised, Oct. 11, that no details had been arranged for the construction of a projected branch from Lachute to Ste. Philippe, and for an extension to tap the granite quarries of Argenteuil county. (June, pg. 191.)

Great Northern Ry. (U.S.)—The work of standardizing the gauge of the Great Falls and Canada Ry. from Great Falls, Mont., to the International boundary at Sweet Grass, is well forward, and was expected to be completed during Oct.

The Montana and Great Northern Ry., from Jennings, Mont., to the International boundary at Tobacco Plains, 51 miles, connecting there with the Crow's Nest Southern Ry. has been completed and is in operation. The C.N.S. Ry. is in operation from the International boundary at Gateway, to Morrissey, B.C. The whole line from Jennings to Morrissey will be operated as part of the G.N.R. system. Plans have been filed at Kalispel, Mont., for a proposed branch from near Columbia Falls, Mont., northwest to a point six miles south of the International boundary, thence southwest two miles, making a connection with the Jennings branch of the Great Northern Ry. No contracts have been let for this extension.

The Washington and Great Northern Ry. has completed a line from Marcus, Washington, to the International boundary at Russel, Wash., connecting there with the Vancouver, Victoria and Eastern Ry., 27 miles, and from the end of the 14-mile section in B.C., at Nelson on the boundary line, to Republic, Wash., 32 miles. The line is being operated by the Spokane Falls and Northern Ry., a subsidiary of the G.N.R. (Aug., pg. 263).

See also Crow's Nest Southern Ry., Vancouver, Victoria and Eastern Ry. and Navigation Co., Vancouver and Coast-Kootenay Ry., Vancouver, Westminster, Northern and Yukon Ry., and Victoria Terminal Ry. and Ferry Co.

Greenwood to Phoenix, B.C.—The project to connect these two points by an electric railway, first mooted in 1899, has been revived. The Cascade Water, Power and Light Co. is ready to deliver power, and the Greenwood council purposes to issue \$75,000 of debentures, or to guarantee 5% interest on that amount for the construction of an electric railway. (May, 1900, pg. 143.)

Halifax and South-Western Ry.—Location surveys have been completed under H. K. Wicksteed, C.E., for 100 miles, from Halifax to Liverpool, N.S., and are in progress for the remaining 70 miles from Liverpool to Barrington. The general route has been practically decided for the entire distance. Leaving the I.C.R. near Bedford the line will be constructed through Hammond's Plains, St. Margaret's Bay, Chester, Bridgewater, Liverpool, Shelburne and Barrington. The grading will be generally moderate to heavy with much loose rock. The principal bridges will be over La Have, Port Medway and Liverpool rivers. Plans and profiles have been filed with the Government departments for the first sections of the line. H. K. Wicksteed is going west to the Canadian Northern Ry., and T. H. White has been appointed Chief Engineer and is also taking charge of construction during the illness of T. H. Holt. A press report states that H. Sorette, of Bridgewater, N.S., has been given a contract for the construction of the section of the line between New Germany and Caledonia. This section is part of the line projected by the Nova Scotia Southern Ry. from Shelburne to New Germany, which was partially constructed, and the charter, etc., for which has been acquired by Mackenzie, Mann & Co., for the H. and S. W. Ry. (April, 1900, pg. 115.)

The Halifax county council has voted \$5,000 towards the cost of purchasing the right of way for the H. and S.W. Ry. from Halifax to the county boundary. The Halifax city council has decided to pay whatever the right of way through the county costs above this sum. (Aug., pg. 263).

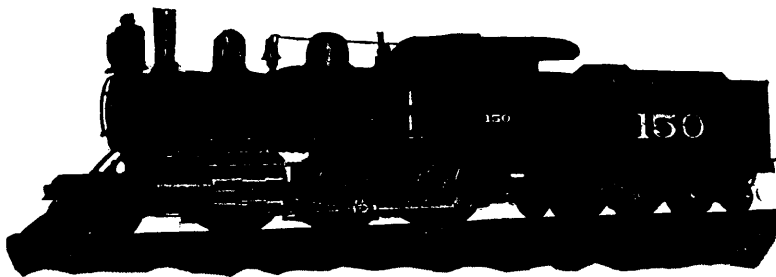
The Halifax Electric Tramway Co. is building a new power house 127 ft. by 110 ft., and 40 ft. high with a 10 ft. basement. The new engines to be installed will be of 1,500 h.p. (Aug., pg. 263).

Hamilton and Caledonia Ry. (Electric)—A right of way has been granted by the Wapole township council. The Co. has now secured most of the right of way and expects to commence construction work at an early date. (June, pg. 191.)

Hamilton, Grimsby and Beamsville Electric Ry.—The Lincoln county council, Clinton township council, and the Beamsville village council have passed by-laws giving franchises to this Co. for an extension of its line from Beamsville to Vineland. Grading is reported to have been started, Goodale Bros. being the contractors for grading, building culverts, track-laying, and ballasting. The extension will cost about \$40,000. (Aug., pg. 263).

Hull Electric Co.—The management is considering the question of developing additional power and the extension of its shops at Deschenes, Que., in connection with the general improvement of the roadbed and rolling stock. (Aug., pg. 263).

Huntsville and Lake of Bays Ry.—Some preliminary work was done this season on the portage between Peninsula lake and Lake of Bays, but no arrangements have yet been made for the construction of the railway,



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which will be about $1\frac{1}{2}$ miles in length. (Aug., pg. 263.)

Intercolonial Ry.—Tenders are under consideration for the erection of an engine house, etc., at Chaudiere Jct., Que.; a new station at Rockingham, N.S.; and for cribwork and protection walls between McKinnon's Harbor and Sydney, and Bedford and Rockingham, N.S.

The branch from Riviere Ouelle station, 35 miles west of Riviere du Loup, to St. Denis wharf on the shore of the St. Lawrence river, $6\frac{1}{2}$ miles, is under construction. It will traverse a well populated country and serve a good farming district, besides giving better access to Murray Bay, a summer resort across the river, 12 miles, with which steamer communication is to be maintained. The country for the most part is level, but as it nears the shore there is a heavy rock cut. The steepest grade northward is 1%, and southwards 1.5%; 62% of the line is level or under .5%, 14% is between .5 and .9%, and 24% is between 1 and 1.5%, 64% of the line is on tangent. The curvature varies from 1° to 6°, with a short curve of 10° leading to the wharf. It is intended to lay 58-lb. rails. The work is being carried out under the general directions of W. B. MacKenzie, Chief Engineer I.C.R., with J. S. O'Dwyer as Resident Engineer. P. Purcell and J. J. Fallon, of Cornwall, Ont., are the contractors.

The bridges over the Miramichi river are being replaced by heavier structures, and the old ones are to be taken to Prince Edward Island and erected over the Hillsboro' river at Charlottetown. The spans are built on trestlework and floated out to the bridge at high tide and lowered into position, the old spans being previously removed. The Dominion Bridge Co. has the contract.

The new station at Levis, Que., is about completed, and work has been commenced on a new station at Riverside, N.B.

The contract for the erection of an 18-stall roundhouse at St. John, N.B., has been let to Rhodes, Curry & Co., Amherst, N.S.

A great deal of work has been done at the new yards at Gilbert's Island, St. John, N.B., during the summer. Nine out of the nineteen tracks in the yard were laid up to the end of Sept., and it is expected to have the rest down before the snow comes. There will be about 14 miles of track in the yard, giving accommodation for 2,000 cars.

Surveys are reported to have been made for the construction of a branch from Dorchester, N.B., about $2\frac{1}{2}$ miles, in connection with the undertaking of the Intercolonial Copper Co.

A survey has been made to extend the track at the Copper Crown branch at Pictou, N.S., to a point at which a new wharf might be built, and further to a quarry. The total length of the extension will not exceed $1\frac{1}{2}$ miles. The press reports that a bridge would be built across the harbor, and we are informed, without foundation.

As a result of an inspection of the line by the Minister of Railways, consideration is being given to a project for changing the location of the line between Amherst and the Straits of Canso. The proposal, Mr. Blair said, is to change the location of the road to connect with the Canso bridge at Cape Porcupine, then run along the gulf coast to Harbor au Bouche, to Antigonish, thence to Pictou, passing to the north of New Glasgow at a slight distance. From Pictou, the proposed road would be continued over the short line to Pugwash, from which place a link will be built connecting that town with Amherst. (Aug., pg. 263.)

An addition of 200 ft. is being added to the terminal pier at North Sydney, N.S., at a cost of about \$20,000. K. McKay, North Sydney, is the contractor.

International Transit Co.—By supplemental letters patent this Co. has been authorized

to own and operate steam and other vessels; to hold stock in other similar companies, and to hold its meetings outside the province of Ontario. Under the new powers the Co. has purchased the ferry str. Fortune of Detroit, to ply between Sault Ste. Marie, Ont., and Sault Ste. Marie, Mich. The Fortune is 125 ft. over all, 39 ft. wide, and will carry 1,400 passengers.

J. H. McKnight, of Toronto, is the contractor for the grading of the $4\frac{1}{2}$ miles of the Co.'s electric railway in Sault Ste. Marie, Ont. (Aug., pg. 264.) See also Trans.-St. Mary's Traction Co.

Inverness Ry. and Coal Co.—The shipping pier at Port Hastings, N.S., is about completed. It is about 600 ft. in length, with a height of 60 ft. at high tide, and is being fitted with the latest appliances for handling coal. During the past year the Co. has been shipping 300 tons of coal daily from the mines at Broad Cove, but with the developments that have taken place, and the additional shipping facilities it is hoped to increase the output to 1,000 tons daily. (Aug., pg. 264.)

The Irondale, Bancroft and Ottawa Ry. will not do any construction work on the proposed extension this year. (Aug. pg. 264.)

James Bay Ry.—No construction has been done this season on the projected extension north from Parry Sound, Ont. Survey parties have been in the field the whole summer going over different routes, but nothing has been decided as to the location of the line. The country is a much more difficult one in which to locate a line than was expected. (June, pg. 192.)

Kettle Valley Lines.—The repairs to the line necessitated by the spring floods have been completed, and the line is again in operation from Grand Forks, B.C., to Republic, Wash. A number of spur tracks to the mines have been put in, and the construction of others is under consideration. We are advised that nothing has been done in reference to the proposal to extend the line from Republic to Spokane, Wash. (Aug., pg. 264.)

Kingston and Pembroke Ry.—C. W. Spencer, Vice-President and General Manager, recently said that there was no truth in the report that the car shops are to be removed from Kingston, Ont. He said that new machinery was being added at the shops so that the repairs to the Co.'s engines could be done there. (Feb., pg. 58.)

Klondike Mines Ry.—Location surveys have been made from Klondike city to Grand Forks and are in progress to the Dome. Ties and rails are on the ground, and other construction material, including a construction train, has reached Klondike city. We were advised Oct. 22, that matters were now in shape to rush construction next year. Some minor changes will be made in the contracts and organization during the winter. (Aug., pg. 264.)

Kootenay Central Ry.—An English syndicate is reported to have secured the charter for this line, and to be arranging for an early commencement of construction. The line projected is from near Elko on the C.P.R. Crow's Nest Pass line, to Golden, B.C., on the C.P.R. main line, about 50 miles. (June, 1901, pg. 175.)

Levis County Ry.—We were advised Oct. 14 that cars on the first three miles of this electric line were expected to be placed in operation in a week or ten days thereafter. The Co. has been delayed in completing its line owing to delay in receiving rails. The completion of the remaining 10 miles of the line will be pushed as rails are delivered. (Aug., pg. 265.)

Lindsay, Bobcaygeon and Pontypool Ry.—At the annual meeting recently held the retiring directors were re-elected, W. T. C.

Boyd, of Bobcaygeon, Ont., being President, and T. Stewart, Secretary. At a subsequent special meeting the directors were authorized to issue bonds or debentures so as to enable them to close promptly with any suitable offer to undertake construction. It is said that offers for the construction of the line are under consideration. (Aug., 1901, pg. 231.)

London Belt Line.—A proposition is understood to be under consideration for the construction of a belt switching line to connect all lines entering London, Ont., so as to provide more effectively for the interchange of traffic. It will also provide for facilities for handling shipments to and from the important industries now established and in prospect. The proposition has not yet assumed anything like a definite shape.

The London, Ont., Street Ry. Co. has entered an action against the city asking to have certain by-laws calling for the construction of new lines passed by the Council on July 21, declared invalid, and also to secure a mandamus compelling the Mayor to sign a by-law passed on June 21, approving of the abandonment of the Rectory st. line in return for certain extensions.

Lotbiniere and Megantic Ry.—We are advised that nothing definite has been decided as to the proposed extension from Lyster to Thetford, Que.

Mabou and Gulf Ry.—The first section of this line extends from the mines, 6 miles from Mabou village, N.S., to the North creek, $4\frac{1}{2}$ miles, and was reported to be ready for the rails in July. The North creek is crossed by a trestle 475 ft. long, at a considerable height. There is a depth of 35 ft. of water in the creek, and provision has been made at the trestle for the erection of pockets to contain 10,000 tons of coal, so that vessels may load at this point. A wharf is also to be erected at the trestle. Grading is proceeding on the extension of the line to Orangedale, on the I.C.R., and is expected to be completed this year. (Aug., pg. 265.)

Mantoulin and North Shore Ry.—No official information is available about this line, which is a subsidiary of the Algoma Central and Hudson Bay Ry. No reference was made to it in the recent annual report of the Consolidated Lake Superior Co., which, however, dealt at length with the A. C. and H. B. Ry. There were constructed and placed in operation in 1900, 13.50 miles from Sudbury to Gertrude mine, and in 1901, 3.9 miles from the Sudbury to Elsiemine; and in 1901 a piece of line 1.50 miles in length from the falls of the Spanish river to the C.P.R. Sault Ste. Marie line. Tenders were invited in 1901 for the section from Gertrude mines to crossing of Vermilion river, 5.50 miles, and from the falls of the Spanish river to the shore of Lake Huron, 16.25 miles; and in 1902 for the section from Vermilion river to C.P.R. Sault Ste. Marie branch, 6.25 miles; for a section of 20 miles from Sudbury to Lake Wahnapiatae; from Meaford to Owen Sound, 22 miles, and Warton to Tobermory, 50 miles, but no information has been given out as to the letting of any of the contracts, and, so far as we can learn, no construction has been done on any of these sections.

F. H. Clergue recently stated in Toronto that surveys had been nearly completed from Sudbury to Sault Ste. Marie. Survey parties are in the field between the two points. (Aug., pg. 265.)

Metropolitan Ry.—Nothing has been decided as to the projected extension of the line to the northern boundary of Newmarket, Ont. (Aug., pg. 269.)

Michigan Central Rd.—A new station, connected with which is a freight shed 70 ft. in length, has been completed at West Lorne, Ont.

The double-tracking of the line between Ridgeway and Bismarck, Ont., 18.17 miles,

has been completed. The Co. is extending its double track at Hagarville, Ont., westward, and across the G.T.R. track. (Aug., pg. 265.)

Middlesex and Elgin Suburban Ry.—(Electric). Engineers have been examining plans and making surveys with a view of securing a suitable entrance into St. Thomas, Ont. (April, pg. 141.)

Midland Ry. of Nova Scotia.—Nothing has yet been decided regarding the projected extension from Truro to Brule, and from Windsor to Middleton. (June, pg. 194.)

Midway and Vernon Ry.—At the last session of the B.C. Legislature an act was passed authorizing the Government to aid the construction of a railway from Midway to Vernon, not exceeding 152 miles, by a grant of \$5,000 a mile, together with a right of way 200 ft. wide, and whatever Crown lands might be necessary for stations, freight yards, terminals, etc., construction to be commenced within six months after the voting of a Dominion subsidy, and the line is to be completed in three years thereafter.

The Montreal Bridge Co., it is reported, will make application at the next session of the Dominion Parliament for the revival of its charter. The Co. applied at the last session for a renewal of the charter, but did not succeed in getting its act through parliament. (June, pg. 194.)

Montreal Street Ry.—The following new lines have recently been laid: along Commissioner st., over which a belt line service is operated; a spur track to the C.P.R. station at St. Louis du Mile End; and an extension of the Guy st. line westward. (Aug., pg. 265.)

Montreal Subway Co.—During July and Aug. a number of borings were made in the bed of the St. Lawrence between Montreal and Longueuil in connection with the projected tunnel. The result of these investigations shows that no serious physical obstacles have been found in the bed of the river, and that the soil and rock are suitable for tunnel construction. Plans are in preparation and will be deposited with the Government by the end of Oct. (Aug., pg. 265.)

Montreal Terminal Ry.—(Electric). The work of grading for the 10 miles of track in the city, for which a franchise has been ob-

tained, commenced in July, and considerable progress has been made. The track is being laid with cedar ties and 80 lb. T rails. The question of the opening of Forsyth st., and the construction of a subway under the C.P.R. on that street has not been settled. The track has been laid right up to this point and the Co. is asking the city council to open up the street and construct the tunnel. The cost of this work is estimated at \$25,000. The matter will come up before the Railway Committee of the Privy Council. (Aug., pg. 265.)

New Brunswick Coal and Ry. Co.—The line from Chipman to Newcastle, 15 miles, has been completed, and six miles of sidings to the different mines have been laid. The delay in the completion of the line was due to the center pier of the bridge at Chipman having been washed out, and the wet weather. Tracklaying was expected to be completed early in Oct. The location of the extension of the line from Newcastle to Gibson is being proceeded with, and construction will be gone on with at once. (Aug., pg. 266.)

Niagara Falls and River Ry.—It has been decided to fill in the gulch or canyon crossed by this line near the whirlpool. The gulch is about 130 ft. deep, and is at present crossed by an iron trestle. A. W. Campbell, Deputy Commissioner of Public Works for Ontario, has inspected the place to decide as to the size of the culvert necessary to be constructed before the filling in of the portion crossed by the railway is started.

Northern Pacific Rd.—R. MacCallum, C. E. of the Ontario Public Works Department, recently stated that a number of the directors of this line were interested in the development of power on the Rainy River at Koochiching, Minn., opposite Fort Frances, Ont., and that they stated it was intended to extend the N. P. R. to that point.

Nova Scotia Eastern Ry.—We are informed that nothing whatever has been decided as to routes, and that there is no prospect of any construction being undertaken this year. (June, pg. 195.)

Ottawa, Brockville and St. Lawrence Ry.—Two construction syndicates are said to be in negotiation with this Co. with a view to building the line, one composed of English and the other of New York capitalists. The



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route proposed to be followed is from Ottawa to Richmond, thence via Merrickville and North Augusta to Brockville, Ont., about 58 miles. Surveys have been made, and construction is likely to be started in the spring. (June, pg. 195.)

Ottawa Electric Ry. Co.—A sub-committee of the city council which was recently investigating the city's relations with the company, reported that there were three miles of line laid with 40-lb. rails, instead of 56-lb. rails called for in the charter.

Ottawa Northern and Western Ry.—We were recently advised that favorable progress had been made with grading on the extension from Gracefield to Maniwaki, Que., and that it was expected to have it completed this fall. Most of the rock excavation to the north of the Blue Sea Lake, 15 miles north of Gracefield, has been taken out. The tracklaying and ballasting will not be proceeded with until spring. (Aug., pg. 267.)

Picton and Wellington Electric Ry.—The township council of Hallowell, Prince Edward county, Ont., has granted a franchise for the construction of an electric railway from Picton to Wellington, to M. R. Allison, of Picton, and others.

The Preston and Berlin Ry. starts from the Galt, Preston and Hespeler Electric Ry. near the easterly limits of Preston, Ont., and runs westerly through the town, crossing the river Speed below the dam at King st., there forming a second junction with the G., P. and H.E. Ry.; continuing westerly the line runs through Freeport and Centreville to Cameron st., Berlin, where connection is made with the Berlin and Waterloo Electric Ry., the total distance being 8.95 miles. To provide for rapid passenger and freight service the route adopted was the most direct obtainable in such a hilly country, and with exception of a short distance along Railway st., Preston, and King st., Berlin, is on acquired right-of-way. The sharpest curves—573 and 716 ft. radii—occur at a junction where all trains stop; on other parts of the main line the curvature varies from 800 to 2,865 ft. radii. The ruling gradient is 2%, which was found unavoidable in the reach to the high lands west of Preston, and approaches to the depression of the Grand River valley. The construction of the road-bed is of first-class character, and every means employed to make it safe, up-to-date and serviceable for quick passenger traffic between terminals. Apart from a timber trestle at Preston, and a small timber structure near Berlin, all streams and water-courses are provided with cement culvert pipes crossing under the embankments. At Freeport the Grand River is bridged by four steel trussed spans of 140 ft. each supported by concrete abutments and piers, the latter having stone masonry cut-waters. The track generally is of new steel rails, 39 ft. average length, weighing 67 lbs. per yard, laid on cedar ties. The track will be thoroughly ballasted with gravel from cuttings and adjacent gravel ridges. The location of power-house and electrical equipment of the line is deferred to next spring, and also construction of a section of railway from the eastern terminus to the river Speed. The contractors for the foundations and building of abutments and piers, earthwork, culverts, timber work, tracklaying and completion of the railway, were A. A. McDonald & Co. The contractors have experienced much difficulty in completing the work owing to the scarcity of teams and labor. We were advised Oct. 20 that the track was laid and ready for ballasting from Preston to Freeport, which will be pushed ahead meantime, and that the grading to Berlin was expected to be completed by Nov. 1. T. E. Hillman, Hamilton, is engineer in charge. (Aug., pg. 267.)

Prince Edward Island Ry.—The grading for the straightening of the railway at Blue-shank has been completed, but it is unlikely that the rails will be laid until next year. T. Campbell, Charlottetown, was the contractor.

Steel rails are being laid on the Souris branch from Morell to Midgell, 4 miles.

Grading on the first section of 11½ miles on the Murray Harbor branch has been practically completed, and tracklaying is in progress. In connection with the bridge over the Hillsborough river, we were advised Oct. 18, that the pile piers, numbers 0, 1, 2, 3, 4, and 5 are completed, and no. 9 pneumatic caisson is sunk, and the concrete and masonry completed, while the piers 10 and 11 are finished, and, with one exception, the other pneumatic caissons were expected to be launched by the beginning of Nov. All the piling and cribs for the protection of the earth embankment approaches are also finished, so that substantial progress has been made during the season. If the weather continues good it is expected that the sinking of all the caissons will be completed this fall. (Feb. pg. 53.)

A new passenger and freight station is in course of erection at Georgetown. It has a total frontage to the track of 87 ft., 63 ft. representing the offices and passenger accommodation, and 24 ft. the freight and baggage room, and a depth of 25 ft. for the station building, and 42 ft. for the freight and baggage room. The passenger station contains a freight office 10 ft. by 16 ft. 6 in.; a ticket office 12 ft. 6 in. by 16 ft. 6 in.; general waiting room, 22 ft. by 24 ft.; ladies' waiting room, 12 ft. by 12 ft.; lamp room, lavatories, etc. Over the ladies' waiting room is a tower in which is one room. The building is of frame, the wall shingling being colored green, and the roof shingling bright red.

The station building at Mount Stewart is being altered and enlarged. The old freight room is being converted into a ladies' waiting-room and a baggage room, and a new freight room 55 ft. by 21 ft. 6 in. is being built.

At Morell station an addition 40 ft. by 21 ft. is under construction as a freight shed, and the old freight shed is being converted into a baggage room.

Nothing definite has been decided as to the erection of a new station at Charlottetown, for which \$30,000 was voted at the last session of the Dominion Parliament. (Aug., pg. 267.)

Quebec and New Brunswick Ry.—Grading is in progress on the first section of this line between Connor's and Tolun's Flat, N.B., 3 miles, and it is said track will be laid this fall. The remaining 15 miles to the Quebec boundary are being located, and grading is likely to be gone on with this fall. C. LeB. Miles, C.E., has charge of the surveys. (Aug., pg. 267.)

Quebec Bridge.—The report of E. A. Hoare, Chief Engineer, dated Aug. 23, presented at the recent annual meeting, showed that since the last annual report the abutment on the north bank, the anchorage pier, and main pier on the north side of the channel had been completed, with the exception of a small quantity of concrete for anchorage of the north approach span; the corresponding abutment on the south bank was expected to be completed by the end of Sept., and the south anchorage pier lacked only two courses to completion. The most important part of the work, the pier in the river on the north side of the channel, would take more time to complete than at first contemplated, owing to the extra depth to which the foundations would have to be carried. The operations connected with the sinking are carefully conducted, and progress under the circumstances is good. The cutting edge of the caisson is 44 ft. below low water, and some

38 ft. below the river bed. The masonry in all of the structures is of a very substantial and suitable character. The north approach span of the superstructure was being erected, and it was expected that this as well as one on the south side would be completed this season. Each span is 214 ft. in length, and their total weight is 2,540,000 lbs. The directors said they were much gratified in giving credit to the contractor, M. P. Davis, for the high standard of the work executed so far, which is generally considered in engineering circles as the best organized and most skillfully conducted that has ever been performed in works of that magnitude. The whole group of massive piers and abutments will, it is expected, be completed within a few weeks, and then the Co. will be justly proud of possessing such a high specimen of modern workmanship, representing an expenditure of over \$1,000,000, an investment which will be greatly beneficial to the financial standing of the Co.

Since the date of the report the contractor has continued sinking to find a suitable rock bottom, and on Oct. 1, a depth of 84 ft. below the river bed had been reached. It was expected that an additional 15 ft. would have to be excavated before a solid foundation was reached. The cause of the trouble was that shifting sand was struck at one side of the caisson bed, and it was decided not to run any risks, but to sink deeper so as to have a suitable foundation for the caisson to rest on. Collingwood Schriber, Deputy Minister of Railways, paid a visit to the works in connection with the trouble to confer with the Co.'s engineers. He says that while there will be some delay and an increased cost there need be no serious alteration in the plans as finally adopted. (June, pg. 196.)

Quebec Ry., Light and Power Co.—A project is under consideration with a view of having a line constructed on Champlain st., and signatures are being obtained to a petition asking the city council to request the Co. to make the extension. (June, pg. 196.)

Quebec Southern Ry.—We have been officially informed that the bridge over the St. Francois du Lac, on the extension of the line from Sorel to Chaudiere, Que., has been completed. It is between 800 and 900 ft. in length and has seven spans. There is a fill of about 900 ft. at the west end, and a short fill at the east end which it is expected to complete this fall. It is reported that a contract has been signed for the completion of the extension to Chaudiere, but H. A. Hodge, the President, has not disclosed the name of the contractor. (June, pg. 197.)

Reld Newfoundland Co.—A new station is being built in the western end of St. John's, Nfld., to replace the present temporary building in the east end of the city.

Restigouche and Western Ry.—It is said work will shortly be resumed on clearing up the right of way and putting the track, already laid, in order. The line was projected from the I.C.R. at Campbellton, N.B., to St. Leonards, 110 miles, where connection could be made with the C.P.R., and the Bangor and Aroostook Ry. Track was laid on 10 miles from Campbellton, and a Dominion subsidy of \$32,000, paid in respect thereof, in the financial year 1898-99, and a further 10 miles graded, when operations ceased. Financial arrangements have, it is said, been completed for the carrying on of the work, and T. Malcolm is arranging for re-starting work. D. W. Burpee is Assistant Engineer in charge of construction.

Sandwich, Windsor and Amherstburg Electric Ry.—The townships of Sandwich west and Anderson have voted against the by-laws bonusing the line, and the Co. is endeavouring to obtain the \$5,000 it desires from Amherstburg, which has already voted

a bonus of \$10,000. The surveys have been completed, and it is expected that construction will be commenced on the extension of the line from Ojibwa to Amherstburg, Ont., at an early date. (Aug., pg. 267.)

Sault Ste. Marie to St. Ignace.—Surveys are in progress for a line to connect Sault Ste. Marie and St. Ignace, Mich., and it is reported that construction is to be proceeded with at once, with a view of having the line in operation next year. The line will in reality be an extension of the Grand Rapids and Indiana Rd. from Mackinaw City, and will be connected with the Algoma Central and Hudson Bay Ry. at Sault Ste. Marie, Ont., by transfer steamers.

The Schomberg and Aurora Ry. (electric), from Bond Lake, on the Metropolitan Ry., to Schomberg, Ont., about 19 miles, has been completed, with the exception of the crossing of the G.T.R. north of King village, and in reference to which legal proceedings have been instituted. The Co. laid down a crossing, but it was removed by the G.T.R., and the S. and A. Ry. Co. is seeking an order to compel the restoration of the track. (Aug., pg. 267.)

Shore Line Ry.—Press reports state that considerable improvements will shortly be made at the St. John end of this New Brunswick line. The line still remains under the control of Russell Sage and the Mortons, of New York city. (Dec., 1901, pg. 358.)

The Southwestern Traction Co. has made application to the London, Ont., city council for permission to construct electric lines in the city, and promises to sell 10 tickets for 25c., good at all times. The Co. has a charter to build a line between London and Glencoe, and London and Hamilton, and has started construction on its line from London to Delaware, in the direction of Glencoe. (June, pg. 197.)

St. John Valley and Riviere du Loup Ry.—A representative of a New York syndicate recently went over the proposed line between St. John and Fredericton, N.B. Nothing appears to have been decided as yet in regard to construction.

Suburban Rapid Transit Co.—Construction has been started on the line from Winnipeg, Man., to Headingly, via Silver Heights, and Deer Lodge. It is expected to construct 3½ miles this year, reaching Sturgeon Creek, where the power house will be built. (Aug., pg. 267.)

Sydney Union Station.—It is reported that a union station is to be built between Pitt and Prince streets, Sydney, N.S., to be used by the Intercolonial and the Sydney and Louisburg railways.

Temiskaming and Northern Ontario Ry.—The Ontario Government has placed \$15,000 to the credit of the commissioners for the construction of this line pending the sale of the lands set apart for construction.

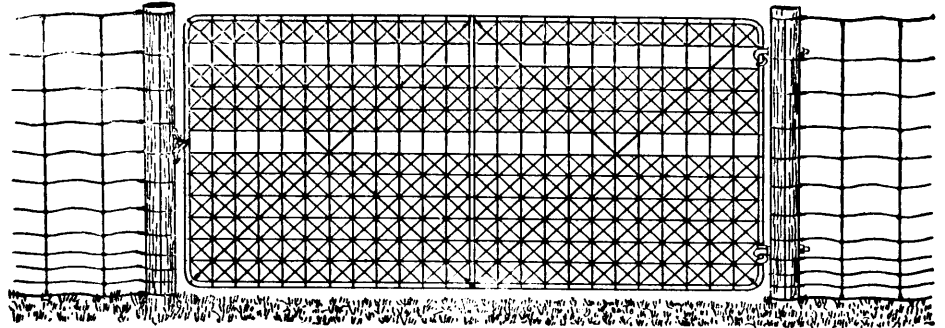
Fifty miles of location were expected to be completed early in Oct., and two parties are to be put in the field to locate the remaining 60 miles this winter. Preliminary lines had been run, and these were gone over recently by G. A. Mountain, Chief Engineer Canada Atlantic Ry., on whose report the commissioners decided to adopt the eastern route, which is some five miles from the western, or route surveyed for the Nipissing and James Bay Ry. This route gives easier gradients and less rock cutting than does the western route. The terminal points in North Bay, and on Lake Timiskaming have not yet been decided upon. W. B. Russel is Chief Engineer, and will be in charge of construction, with offices at North Bay. The office of the commissioners is at 24 King St. West, Toronto.

The Commissioners have let the contract for grading and track-laying for 110 miles

from North Bay, to the head of Lake Timiskaming, Ont., to A. R. Macdonell, of Glengarry county, Ont. The contract calls for clearing the right of way, grading, bridging, track-laying and ballasting, the commissioners supplying the rails, fastenings and the superstructure for the bridge over the Mont-

real river. The timber along the right of way is to be manufactured by the contractor into ties, culvert timber, fence posts and telegraph poles, but, as there will not be sufficient timber suitable for this along the right of way, a separate contract will be entered into for probably 175,000 ties, which will be sufficient

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for the first 60 miles of line, which have to be completed by Dec. 31, 1903; the whole contract has to be completed by Dec. 31, 1904. The cuttings on the line are to be 20 ft. wide, and the embankments 16 ft. wide. The maximum grade southward, and against the expected heavier traffic, is 1%, and northward, 1½%, with a maximum curvature of 6°. The line will be laid with 80-lb. rails. The building of stations and the construction of a telegraph line will be let in separate contracts.

Construction has been started about three miles out of North Bay, the question as to the point of junction, whether with the C.P.R. at North Bay, or with the C.P.R. and G.T.R. at Nipissing Jct., not having been determined. The following subcontracts have been let by A. R. Macdonell: first six miles, J. Donovan, Belleville; next four miles, — Murdoch; mileage 15 to 18, Westerdall & McDonald; mileage 18 to 21, J. Sherwood; mileage 21 to 23, Grant & Devine. It has been decided to lay the line with 80-lb. steel rails, which are to be procured, if possible, in Canada. Tenders are asked for 175,000 ties for the line.

At a recent meeting of the commissioners, B. W. Folger was authorized to interview the officials of the G.T.R. and the C.P.R. in regard to the terminal facilities and the interchange of traffic at North Bay, and submit a report to the commission. (Aug., pg. 267.)

Tilsonburg, Lake Erle and Pacific Ry.—The extension from Tilsonburg to Ingersoll, Ont., has been completed, and was to be put in operation early in Oct. J. Charlton, M.P., President, and J. H. Teall, General Manager, recently visited Collingwood, to which point the Co. has power to extend its line, to look over the ground. (Aug., pg. 268.)

Toronto, Hamilton and Buffalo Ry.—The improvements at the bridge over the Grand River, at Brantford, Ont., are practically completed. The old bridge has been raised 3½ ft.; a new 100-ft. through girder has been placed at the west end, and new concrete abutments built.

Toronto Radial Railways.—Negotiations have been in progress for some time between the Toronto city council and the officials of the Metropolitan and Toronto railways with a view to securing the entrance of the M. Ry. to St. Lawrence market. Several propositions have been under consideration, but no definite decision has been reached. The city desires a comprehensive plan admitting radial railways already in existence or to be constructed to the city, but declined to give a franchise for a longer period than that held by the Toronto Ry. Co.; which desires a more lengthened franchise for the radials. Meantime the proposition that the city should acquire the old belt line from the G.T.R., and operate it as an electric line, thus enabling the M. Ry. to get into the city, has been revived.

Toronto Ry.—Track laying on the Dupont St. extension is expected to be completed this fall.

The city council is making application to the Government to have the patent granted to the city in 1893 amended so as to permit tracks to be laid on Lake st. between York and Yonge streets. This would enable cars to run alongside the steamboat wharves and do away with the inconveniences now occasioned to passengers by shunting operations on the railway tracks at the foot of Yonge st.

Trans-Canada Ry.—We were recently advised that no construction had been done this year, but that it was hoped to complete the first 10-mile section from Roberval, Que., westerly, by Dec. Colonel Church, of London, Eng., one of the promoters of the line, was recently in Canada, and went to Roberval to see what had been done. He stated that contracts for further sections would be let in a few weeks. (June, pg. 197.)

Trans-St. Mary Traction Co.—A contract is reported to have been let to the Falk Co., of Milwaukee, for the construction and equipment of 8 miles of electric railway at Sault Ste. Marie, Mich. Tenders have been invited for the construction of two car barns, each 65 by 150 ft., masonry side walls, and steel trusses, the latter to be furnished by the Co., which is controlled by the Clergue interests which also control the International Transit Co., on the Ontario side of the river.

The United Gold Fields of B.C. (Ltd.), a British corporation, was incorporated at the last session of the Dominion Parliament to construct a railway from Frank, on the C.P.R. Crow's Nest Ry., to Grassy Mountain, about 7 miles. It is reported that the line is practically completed. J. J. Fleutot, Frank, Alta., is the resident representative of the Co. (June, pg. 197.)

Vancouver and Coast-Kootenay Ry.—An agreement has been signed with McLean Bros. for the construction of a railway from Vancouver to Midway, B.C. At the last session of the B.C. Legislature an act was passed authorizing the Government to grant \$4,500 a mile in aid of the construction of a railway from Vancouver easterly via New Westminster and the Fraser river bridge, now being constructed, thence south of the Fraser river, via Chilliwack to Midway, about 330 miles; and from a point on the line to the mouth of the Fraser river, connecting by a ferry with Victoria. Power was given the Lieut.-Governor-in-Council to incorporate a company to build the line. N. McLean, one of the signatories to the contract, has been in Ottawa recently arranging for the financing of the company. Construction has to be commenced by Sept., 1903.

It is reported that an agreement has been reached with the holders of the charter of the Vancouver, Victoria and Eastern Ry., which was incorporated to construct a line through the same country, under which all interests have been harmonized. (June, pg. 197.)

D. G. Macdonnell, solicitor, Vancouver, B.C., gives notice that application will be made at the next session of the Dominion Parliament for the incorporation of a company with the above title to construct a railway from Vancouver, south easterly to New Westminster and across the Fraser River; thence easterly by, to or near Midway from the main line south of the Fraser, to or near the mouth of the Fraser River; from the main line east of Hope, to or near Nicola Lake; and from the main line at or near Vancouver, across Burrard Inlet, to North Vancouver, thence westerly to or near the mouth of Capilano Creek, with power to construct branches and to maintain a ferry from the mainland to Vancouver island, so as to make connection with Victoria. See also Vancouver, Victoria and Eastern Ry. and Navigation Co.

Vancouver, Victoria and Eastern Ry. and Navigation Co.—The section of this Co.'s line, which forms a link in the Washington and Great Northern Ry.'s line (a subsidiary of the Great Northern Ry., U.S.A.), from Marcus to Republic, Wash., about 15 miles, including a branch into Grand Forks, B.C., has been completed and is being operated by the Spokane Falls and Northern Ry., another subsidiary of the G.N.R. The B.C. portion of the line is between Laurier near Cascade, and Carson, on the boundary.

Plans for a section of the line between Midway and the Similkameen river, about 100 miles, have been filed at Ottawa. The surveys were made under the direction of J. H. Kennedy, Chief Engineer, last year. Mr. Kennedy has completed a reconnaissance survey for the remainder of the line into Vancouver, working in company with A. M. Luffer, Locating Engineer, Great Northern Ry., U.S.A. The distance between Carson and Vancouver is about 370 miles, and location sur-

veys have been completed for a large portion of the distance. We are advised that construction will likely be commenced at both ends as soon as a thorough exploration of the route is made. (June, pg. 198. See also Great Northern Ry., U.S., and Vancouver and Coast-Kootenay Ry.)

Vancouver, Westminster, Northern and Yukon Ry.—Surveys are being made for construction between Vancouver and New Westminster, B.C., and it is reported that a contract has been let. J. Hendry, President, recently stated that construction would be commenced at an early date, and the line would be ready by the time the Fraser river bridge was completed. (Aug., pg. 268.) See also Victoria Terminal Ry. and Ferry Co.

Victoria Terminal Ry. and Ferry Co.—The charter of this Co., owning the Victoria and Sidney Ry., the new terminal station in Victoria, operating a ferry to the mainland, and having power to construct a line to Vancouver, has been acquired in the interests of the Great Northern Rd., U.S. It is stated that the V.T. Ry. and F. Co. will be amalgamated with the Vancouver, Westminster, Northern and Yukon Ry., and that the whole of the lines will be completed and operated under the auspices of the G.N.R. (Aug., pg. 268.)

Whitney to Big Opeongo Lake.—It is reported that this line is completed to within 4 miles of the lake, and is being operated to carry saw-logs to the mills of the St. Anthony Lumber Co., Whitney, Ont. (Aug., pg. 268.)

Windsor, Essex and Lake Shore Rapid Ry. Co.—Surveys are in progress for the construction of this line from Windsor to Kingsville, Ont. The Co. originally proposed to go to Leamington, but could not come to terms with the Leamington town council. Seligman, Burk & Co., of New York city, are financing the undertaking, and A. J. Nelles, late of the Hamilton, Grimsby, and Beamsville Electric Ry., is interested. (Aug., pg. 268.)

Winnipeg, Selkirk and Lake Winnipeg Electric Ry. Co.—Work has been commenced at St. Paul's, on the construction of an electric line from Winnipeg, Man., to Selkirk via Kildonan, and is being pushed in both directions. It is proposed to connect with the Winnipeg city system at Main st. north. The Kildonan township has given a franchise to the Co. for 25 years, dating from Jan., 1900, in place of a 15 year one previously given.

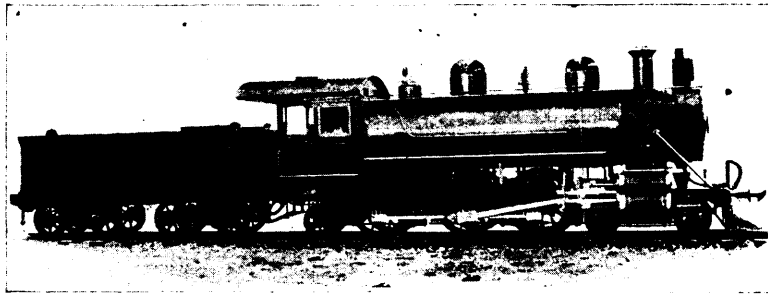
The Winnipeg Electric Street Ry. has been granted a franchise for 30 years to operate an electric railway in St. Boniface, Man. The Co. is to have 1½ miles of line in operation by Nov. 1, 1903. The Co. has laid a second track on Portage avenue, between Hargrave and Main streets. (Aug., pg. 269.)

The Wolfe, Megantic and Lotbiniere Ry. Co. was incorporated by the Quebec Legislature in 1901, to construct a railway from the Quebec bridge over the St. Lawrence, via the Thames valley, to Lime Ridge, the terminal point of the Quebec line of the Maine Central Rd., about 90 miles. We are advised that there will not be any construction this year, and that it is possible an arrangement will be made with the Portland and Rumford Ry. to run from South Ham, Que., to Rumford, Me., via Scotstown. W. H. Lambly, Inverness, Que., is interested. (Aug., pg. 269.)

The offices of the White Pass and Yukon Ry. have been removed from Vancouver, B.C., to Seattle, Wash. The attention of the Minister of Railways has been called thereto by the Vancouver Board of Trade, it being alleged that it is a violation of the statutes of the Dominion.

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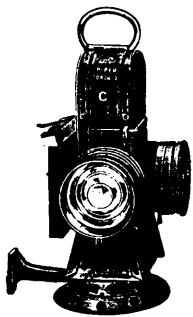


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- 160 acres at \$3.50 per acre, 1st instalment \$83.90, and nine equal instalments of \$70.
- 160 acres at \$4.00 per acre, 1st instalment \$95.85, and nine equal instalments of \$80.
- 160 acres at \$4.50 per acre, 1st instalment \$107.85, and nine equal instalments of \$90.
- 160 acres at \$5.00 per acre, 1st instalment \$119.85, and nine equal instalments of \$100.
- 160 acres at \$5.50 per acre, 1st instalment \$131.80, and nine equal instalments of \$110.
- 160 acres at \$6.00 per acre, 1st instalment \$143.80, and nine equal instalments of \$120.

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

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Port Arthur Terminals.—The new freight sheds on the docks at the foot of Arthur st. have been completed, and the extension to the elevator is approaching completion. The new station proposed to be erected will be at the head of the dock on South Water st. (Aug., pg. 269.)

Port Arthur to Winnipeg.—During the summer considerable ballasting has been done on the line from Port Arthur to Rainy River. Other work in connection with the erection of stations, laying out of yards, etc., has also been carried on. (Aug., pg. 269.)

Winnipeg Terminals.—W. Mackenzie, President, denies the report that it is the Co.'s intention to build a station in Fort Garry park, Winnipeg. (Aug., pg. 269.)

General Construction.—W. Mackenzie, President, and D. D. Mann, Vice-President, recently inspected the work being done on the main and branch lines, and in an interview Mr. Mackenzie said it was expected to have graded and the steel laid on about 250 miles of the track by the end of the season. The work had been delayed owing to the non-arrival of the rails, only 2,500 tons having been delivered to the end of Sept. There was also a difficulty in getting men on the different contracts. The rails used are 60 lbs., and will be replaced later by heavier ones. The 250 miles of track to which Mr. Mackenzie referred to as likely to be laid this season will include the extension of the line from Erwood towards Carrot river, the extension from Grand View towards the Riding mountains; the Neepawa branch, the completion of the Carman branch to Somerset, and the branch from Emerson easterly.

Emerson Branch.—The Co.'s trains commenced running into Emerson, Man., over the bridge constructed in 1883, and recently acquired by it, in Oct. Construction has been in progress for some time on the extension from Emerson, easterly, for about 20 miles, and nearly the whole distance has been graded. On Oct. 30 we were advised that 14 miles of track had been laid. This extension will tap a new district, and it is the intention of the Co. in time to extend the line to Sprague, on the main line from Port Arthur to Winnipeg, which will considerably reduce the mileage from points on the Morris-Brandon branch to Port Arthur. (Aug., pg. 269.)

Carman Branch.—The grading on the branch from St. Charles to Somerset, Man., via Carman, which was completed to 11 miles beyond Carman, and track laid, last year, has been completed this season and track has been laid. Nothing definite has been announced as to any future extension of the branch. (June, pg. 199.)

Branch to Oak Point.—The reconstruction of the old Winnipeg and Great Northern line from Winnipeg to St. Laurent, 40 miles, has been proceeded with during the summer. About 30 miles have been cleared, while about 25 miles of this to Lake Frances have been regraded. The line is expected to be completed to Oak Point, several miles beyond St. Laurent, next year. Some miles of track are expected to be laid this year. (Aug., pg. 269.)

Neepawa Branch.—Tracklaying has been completed on a branch line from Katrim, on the main line, 23.8 miles from Portage la Prairie to Neepawa, Man., about 33 miles. Grading has been completed for about 20 miles north of Neepawa, and it is expected that grading will be completed this year to another junction with the main line at McCreary, 84.6 miles from Portage la Prairie. At a meeting of the Railway Committee of the Privy Council, held at Ottawa Oct. 29, permission was given to cross the C.P.R. tracks at Neepawa, provided an interlocking switch

was put in. A station is under construction at Neepawa. A section of this line, from tp. 13 range 15 to Neepawa, about 11 miles, has been constructed under the charter of the Morden and Northwestern Ry., and the other sections under agreement between the C.N.Ry. and the Manitoba Government, approved by the Manitoba Legislature last session. The M. and N.W.Ry. Co. has a Manitoba charter to construct a railway from the International boundary between ranges 3 to 6 west, via Morden, Miami, Treherne, Carberry, to Neepawa, and thence westerly or northwesterly to the westerly boundary of the Province, with branches from Morden to Snowflake, and from Morden to Winnipeg, with a branch to Carman from a point in tp. 6, ranges 2 and 3 west.

The Gilbert Plains Extension, from Gilbert Plains Jct. to Grand View, Man., 26.6 miles, has ceased to be spoken of as a branch, and is referred to as the main line. M. H. McLeod, Chief Engineer, has completed a location survey from Grand View to within 150 miles of Edmonton, Alta., and A. G. McFarlane, C.E., is locating easterly from Edmonton. A contract for grading 50 miles from Grand View, let to G. H. Strevel, has been practically completed, and tracklaying is in progress. An additional contract for grading has been let and work will be pushed this season to as near the Assiniboine river, near the mouth of Little Boggy river, as possible. (Aug., pg. 269.)

Erwood Westerly.—Tracklaying has been commenced on the 20 miles of grade completed last year beyond Erwood, Sask. Grading has been pushed forward during the summer, 30 miles additional having been completed, and is expected to be completed to Crooked river, in range 12 of the 2nd principal meridian. Owing to the scarcity of labor and the wet season progress has been slower than was anticipated. (Aug., pg. 269.)

A Map of Newfoundland, recently published by W. H. Taylor, L.S., St. John's, Nfld., is based on the most recent surveys and contains a great deal of information not given on maps heretofore issued. The railway and telegraph lines are shown with the stations, etc., as well as the surveys for lines projected as far back as 1875, and the lands granted to R. G. Reid in connection with railway construction, etc. The geological features of the Colony are indicated by numbers, and their boundaries marked, but these boundaries and other indications show that there is a considerable area as yet unexplored. The lighthouses and other aids to navigation are all marked and particulars are given as to the distance to which the lights are visible, and the periods of the fog signals. The map is a complete one and will be found useful to explorers, navigators and others.

On the occasion of the recent trip of the general passenger agents over the G.T.R. to Portland, Me., a successful experiment was made in communicating by means of wireless telegraphy with St. Dominick station from the moving train. Dr. Rutherford, F.R.C.S., and Dr. H. T. Wilson, F.R.C.S., of the McDonald Physical Laboratory, McGill University, Montreal, conducted the experiments, and Dr. Bovey and Professor McLeod, also of McGill, were present. Communications were received eight miles from St. Dominick, and messages were exchanged from the rapidly moving train until beyond the range of influence, eight miles on the other side of the station. It is claimed that this is the first time that wireless telegraphy has been attempted from a moving train.

A train service was commenced on the Edmonton, Yukon and Pacific Ry. Co.'s line from Strathcona to Edmonton, Alta., Oct. 22.

An Illinois Central Departure.

On Nov. 2 the Illinois Central Rd. will inaugurate, in connection with the Minneapolis & St. Louis Rd., a new first-class through line between Chicago and Minneapolis and St. Paul via Dubuque, Waterloo and Albert Lea; the line being over the I.C.R. from Chicago to Albert Lea, and the M. & St. L.R. from Albert Lea to St. Paul. Over this line will be run a fast, wide-vestibule train, the "Chicago and Minneapolis and St. Paul Limited," leaving Chicago daily at 6.10 p.m., arriving at Minneapolis at 8.05 a.m. and St. Paul at 8.40 a.m. The southbound train will leave St. Paul daily at 7.10 p.m., and Minneapolis at 7.45 p.m., arriving at Chicago at 9.30 a.m. The equipment of the "Limited" will consist of sleeping car, buffet-library car and reclining chair car through without change between Chicago and Minneapolis and St. Paul. Dining car service will be furnished, supper being served out of Chicago and breakfast into Chicago. As the Minneapolis & St. Louis Rd. uses the union passenger station at St. Paul, connection for all diverging lines from Minneapolis and St. Paul for the North and Northwest will be made at the St. Paul union station.

The Halifax and Yarmouth Ry., which extends from Yarmouth to Barrington, N.S., has, since Jan., 1901, been operated only between Yarmouth and Pubnico. The service to Barrington was resumed in Oct.

The Canadian Locomotive Co. has purchased the Lang wharf, and the old railway cottages fronting the dry dock at Kingston, Ont., in order to extend its works.

The Kingston and Pembroke Ry. is adding to the machinery in its shops at Kingston, Ont., so that its locomotives can be repaired there.

The Midland Ry. of Nova Scotia has recently added 7 cars to its equipment, which on Oct. 1 comprised 51 cars.

The Minneapolis, St. Paul and Sault Ste. Marie Ry. has added 320 box cars, 60,000 lbs., to its equipment.

The Montreal Street Ry. Co. is now being operated by power generated at the Richelieu river.

The Thousand Islands Ry. has added a locomotive to its equipment.

TRANSPORTATION APPOINTMENTS.

Canadian Northern Ry.—D. B. Hanna, heretofore General Superintendent at Winnipeg, has been appointed Third Vice-President. Office at Toronto. It is said he will also be appointed Controller.

E. A. James has been appointed General Superintendent, vice D. B. Hanna. Office at Winnipeg.

W. A. Webster has been appointed acting Car Service Agent. Office at Winnipeg.

Canadian Pacific Ry.—The office of W. B. Bulling, Assistant Freight Traffic Manager, has been transferred from Montreal to Toronto.

M. H. Brown, heretofore Assistant General Freight Agent, Ontario Division, has been appointed General Freight Agent. Office at Toronto.

H. B. Miles has been appointed Resident Engineer districts 17 and 18. Office at Chapleau, Ont.

S. B. McConnell has been appointed Resident Engineer district 16. Office at North Bay, Ont.

J. H. Hughes has been appointed Trainmaster district 16, with office at North Bay, in place of W. Hewitt, who has been appoint-

ed to a similar position on the Western division.

E. A. James, Superintendent of Transportation of the Western division, having resigned to enter the service of the Canadian Northern Ry., the office of Superintendent of Transportation has been abolished.

Edw. McGuire, heretofore locomotive engineer, has been appointed Road Foreman district 19, in place of R. J. Armstrong, deceased. Office at Fort William, Ont.

T. J. Coulter, heretofore cashier in the freight office at Owen Sound, Ont., has been appointed chief clerk in the freight office at Fort William, Ont.

D. G. Ross, formerly Superintendent at Fort William, Ont., is recovering from his recent long illness, and, it is stated, when fully recovered, he will be appointed Superintendent at Brandon, Man.

Press reports state that F. A. Dillinger, Trainmaster of the Ottawa, Northern and Western Ry., has gone west to become Superintendent of one of the districts on the Western division.

W. Hewitt, heretofore Trainmaster at North Bay, Ont., has been appointed Trainmaster at Medicine Hat, Assa.

Press reports say that J. S. Dennis, chief engineer of the Northwest Territorial Public Works department, has resigned to take charge of the C.P.R. Co.'s irrigation works in Alberta.

A. C. Mesker has been appointed acting Trainmaster, and N. S. Fraser, acting Chief Train Dispatcher, Kootenay section, at Nelson, B.C., consequent on leave of absence having been granted to J. S. Lawrence, Trainmaster and Chief Train Dispatcher.

Central Vermont Ry.—W. G. Crabbe, heretofore Freight Accountant, has been appointed Auditor, vice M. M. Reynolds resigned. Office at St. Albans, Vt.

Grand Trunk Ry.—W. E. Costello, Assistant Superintendent, has been given charge of matters pertaining to transportation and stations in district 16 (between Toronto and Hamilton), districts 17, 18 and 19, and district 20 between Harrisburg and Tilsonburg Jct.

P. J. Lynch, Trainmaster, has been given charge of district 15, district 16 (between Hamilton and Port Dover), district 20 (between Buffalo and Goderich) and district 21. Office, Stratford, Ont.

John Irwin has been appointed Trainmaster of districts 22, 23 and 24. Office, Stratford, Ont.

Wm. Farrel, heretofore Yardmaster at Toronto, has been appointed General Yardmaster at Montreal.

J. Hamilton, General Yardmaster at Windsor, Ont., having resigned, C. Slaght, heretofore Night Yardmaster, has been appointed acting General Yardmaster, and I. Wheeler has been appointed acting Night Yardmaster.

The following agents have been installed:—Pownal, Me., H. E. Davis; South Durham, Que., J. A. Asselin; Mallorytown, Ont., R. H. McCalpin; Port Union, Ont., W. H. Godfrey; Beverton, Ont., J. W. Nicholson; Bracebridge, Ont., J. M. Bygott; Beachville, Ont., W. P. Pook; Wanstead, Ont., J. W. Young; Morrice, Mich., L. C. Jesmore; Drayton Plains, Mich., A. E. Ebner.

Great Northern Ry. of Canada.—A. Shee, Paymaster, is reported to have resigned to take a position in New York.

Halifax & Southwestern Ry.—T. H. White, C.E., who was Chief Engineer of Construction of the Canadian Northern Ry. between Port Arthur and Rainy River, Ont., has been appointed Chief Engineer of the Halifax and Southwestern Ry., and will also take charge of construction for the present at least, T. H. Holt being incapacitated by illness.

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| 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 " |
| Northern Grain Co., Manitowoc, Wis. | | 1,350,000 " |
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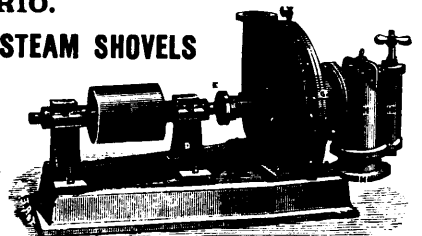
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Intercolonial Ry.—J. E. Price, who was recently appointed General Superintendent, with charge of the maintenance of way and works, and of the station and train services, has also been given charge of the mechanical department, which means that the position of Superintendent of Machinery and Rolling Stock, vacated by the recent resignation of J. E. Muhlfeld, will not be filled for the present.

W. J. Richardson, who was Assistant to the Superintendent of Machinery and Rolling Stock, has retired from the service.

J. D. Robb, heretofore in Locomotive Foreman Ashton's office, is reported to have been appointed chief clerk to the General Superintendent.

Inverness Ry. and Coal Co.—Roderick McNeil, formerly section foreman of the I.C.R. at West Bay Road, and latterly on the Halifax and Yarmouth Ry., is reported to have been appointed Trackmaster of the I.Ry. and Coal Co.

Kettle Valley Lines.—T. W. Holland, General Manager, has resigned. A successor has not yet been appointed. O. T. Skerratt, Freight and Passenger Agent, is in charge of the company's operations generally.

Rutland Rd.—The offices of Assistant Superintendent of Motive Power and Assistant Superintendent of Rolling Stock have been abolished. G. W. Kenney has been appointed General Foreman of Locomotive and Car Repairs, with office at Rutland, Vt., and C. J. McMaster, General Foreman of Locomotive and Car Repairs, with office at Malone, N.Y.

Temiskaming and Northern Ry.—T. Cahill, Jr., has been appointed Tie and Timber Inspector.

Toronto Ry.—S. Potter, Chief Electrician, has resigned. Up to Oct. 31 a successor had not been appointed.

The Washington & Great Northern Ry., a subsidiary of the Great Northern Ry., U.S., has recently been opened from Marcus to Republic, Wash., via Grand Forks, B.C., and is being operated by the Spokane & Northern Rd., another subsidiary of the G.N.R. The following appointments are reported: General Agent at Republic, W. R. Skey; General Agent at Grand Forks, H. P. Brown. C. P. Sheffield will, it is said, be in charge at the International boundary.

Mainly About People.

Capt. Cavers, a well-known lake captain, died at St. Catharines, Ont., recently, aged 55.

C. D. Thomson, Cashier of the I.C.R. since 1876, died at Moncton, N.B., Oct. 26, aged 62.

Sir Wm. Van Horne has been re-elected President of the Laurentide Pulp Co., Grand Mere, Que.

Mrs. Barlow Cumberland and her daughter have left Toronto to join Mr. Cumberland in London, Eng.

John Doty, founder of the modern ferry service between Toronto and the Island, died in Toronto recently.

J. A. Glassford, General Yardmaster, G.T.R. at Montreal, is seriously ill, and will take two months' rest.

J. A. Cheer, General Roadmaster, G.T.R., Allandale, Ont., is recovering from a severe attack of blood poisoning.

H. Hogan, President of the Montreal Bridge Co. and owner of the St. Lawrence Hall, died in Montreal, Oct. 9.

R. Kerr, Passenger Traffic Manager C.P.R., and his family, have removed to 178 University Street, Montreal.

Emilius Jarvis, Toronto, has been elected a director of the Dominion Telegraph Co., in place of the late H. Mackenzie, of Montreal.

John Moodie, sr., Treasurer of the Hamilton Electric Light and Cataract Power Co., died in Hamilton, Ont., Oct. 19, aged 65.

S. Burrows, C.P.R. Ticket Agent at Belleville, Ont., has purchased the handsome residence formerly owned by W. H. Biggar, ex-M.P.

Miss M. G. Dickson, daughter of M. C. Dickson, G.T.R. station agent at Woodstock, Ont., was married, Oct. 3, to G. W. Fraser, of Chicago.

The engagement is announced of G. H. Dodge, Superintendent of the Levis County Ry., Levis, Que., to Miss Gertrude Capewell, of Boston, Mass.

H. R. Stoughton, a native of Quebec, and for many years in the service of the Central Vermont Ry. at Barre, Vt., died suddenly at Ostego, Mich., recently.

A. J. Taylor, Canadian Freight and Passenger Agent, Chicago, Milwaukee & St. Paul Ry. at Toronto, is satisfactorily recovering from an attack of typhoid.

H. E. Whittenberger, formerly Trainmaster of the G.T.R. at London, Ont., has been appointed Superintendent 1st Division Denver and Rio Grande Ry., at Pueblo, Cal.

G. H. Ham, C.P.R. Advertising Agent, injured his knee-cap during the exhibition at New Westminster, B.C., and was a patient in the city hospital there in consequence.

F. H. McGuigan, Manager, G.T.R., was elected a member of the nominating committee of the American Railway Association, at its annual meeting in Detroit, Mich., Oct. 22.

R. G. Wilson, General Agent, Canadian Express Co., Toronto, was presented with a cabinet of silverware by the Toronto staff, on the 25th anniversary of his wedding, Oct. 17.

A. Piers, General Superintendent of C.P.R. Steamship Lines, in company with T. Skinner, a director of the Co., has recently been inspecting the ports of the Maritime Provinces.

W. B. Bulling, Assistant Freight Traffic Manager of the C.P.R., whose headquarters have been removed from Montreal to Toronto, has taken up his residence at 23 Spencer ave., Toronto.

J. Hamilton, General Yardmaster G.T.R. at Windsor, Ont., was recently presented with some articles of jewellery by the Co.'s employes at Windsor, on his leaving for Denver, Colo.

The late J. W. Mackay, promoter of the Postal Telegraph Co., and the Commercial Cable Co., and a director of the C.P.R., who died recently, left an estate valued at \$80,000,000.

T. M. Kirkwood, of the Algoma Navigation Co., who has recently been elected a director of the Central Ontario Ry. Co., was in the employ of the latter Co. 16 years ago as a brakeman.

F. W. Thompson, Vice-President and General Manager of the Ogilvie Flour Mills Co., has purchased the residence of Hon. A. Thibaudeau, Redpath st., Montreal, at a cost, it is said, of \$50,000.

A. C. Lancey, who was recently transferred to Montreal in the C.P.R. police service, was presented with a gold locket by the Winnipeg officials, on giving up the inspectorship of the Western division.

Mrs. G. R. Joughins, wife of an ex-Superintendent of Machinery and Rolling Stock of the I.C.R., and her family, recently left Moncton, N.B., for San Bernardino, Cal., where Mr. Joughins now resides.

B. Van Horne has sufficiently recovered from his recent attack of typhoid to be moved from New York to St. Andrews, N.B., where he spent October at the residence of his father, Sir Wm. Van Horne.

Miss Jennie Flock, daughter of J. H. Flock, K.C., of London, Ont., Honorary Counsel of the Canadian Ticket Agents' Association, was married on Oct. 24, to H. G. Kennedy, of St. Catharines, Ont.

Mrs. D. McNicholl, wife of the 2nd Vice-President and General Manager, C.P.R., has returned to Montreal from a trip to England. The Misses McNicholl remain in London, Eng., to complete their art studies.

S. Potter, late Chief Electrician in the employ of the Toronto Ry. Co., was recently presented with a travelling case, gold chain and locket by the employes of the Co., on his leaving the service to go to Chicago.

J. H. Geoghegan, Assistant Superintendent Kingston, Portsmouth and Cataract Street Ry. Co., at Kingston, Ont., was presented with a leather-covered couch by the employes on the occasion of his recent wedding.

L. Gorman, purser of the str. Toronto, who has been in the service of the R. and O. Navigation Co. for over 12 years, was recently presented with a purse by the Co.'s officials on the occasion of his marriage.

W. Cotter, at one time Superintendent G.T.R., at Montreal, and later at Detroit, who left the service in 1901, has been appointed Manager Missouri Pacific and St. Louis, Iron Mountain and Southern railway systems.

W. R. Baker, Assistant to the Second Vice-President of the C.P.R., returned to his office in Montreal on Oct. 15, after spending nearly a month in Manitoba, the change and rest having improved his health very materially.

J. Hardwell, Assistant General Freight Agent of the Intercolonial Ry., who was operated on at the Montreal General Hospital on Sept. 20, for fistula, has been staying at Atlantic City, N.J., and is making a good recovery.

C. McLean, son of C. McLean, of McLean, Kennedy & Co., steamship agents, Montreal, and chief clerk in the C.P.R. offices at North Bay, Ont., was accidentally shot dead by a companion while out shooting at North Bay, Oct. 12.

Capt. A. C. Cameron, who at different times was master of steamers for the Lake Superior Transportation Co., the Great Northern Transit Co., and the North Shore Navigation Co., died suddenly at Collingwood, Ont., Oct. 9.

Archer Baker, European Traffic Manager of the C.P.R., and Mrs. Baker, sailed from New York on the Teutonic on Oct. 22 for England, after spending several weeks in Canada, during which they went over the line to the Pacific coast.

H. G. Johnson, a C.P.R. clerk at Montreal, has been committed for trial on a charge of conspiracy to defraud the Co. by giving information to conductors as to the time when the secret audit of their trains was to be made by the Travelling Auditor.

G. W. Miles, generally known as "Paddy," who has been conductor on the Michigan Central Rd., between Niagara-on-the-Lake, Ont., and Buffalo, for 27 years, has retired. His grandfather, Geo. Miles, was the first steamboat captain on Lake Ontario.

Dr. W. B. Dawson, chief of the tidal survey section of the Department of Marine, has been awarded the Watt gold medal by the council of the Institute of Civil Engineers of Great Britain for a valuable paper on "Tide Gauges in Northern Climates and Isolated Situations."

J. E. Muhlfeld, formerly Superintendent of Machinery and Rolling stock I.C.R., was recently presented with an address and silver tea set by the locomotive firemen, and a diamond ring by the employes of the mechanical department on his removal from Moncton, N.B.

W. Mackenzie, President Canadian Northern Ry. and Toronto Ry., has given to entrance bursaries of \$100 each to Trinity University, Toronto, to be given as far as practicable to Presbyterian students. He has also given \$5,000 to the endowment fund of the Ross Memorial Hospital, Lindsay, Ont.

Mrs. Duchesney, widow of E. J. Duchesney, Assistant General Superintendent Pacific division, C.P.R., who was killed Sept. 4, 1901, by a fall of rock in a tunnel on the Co.'s line near North Bend, B.C., is seeking to recover \$25,000 damages from the Co. under the Families' Compensation Act, or in the alternative under the Employers' Liability Act.

W. H. Webster, who has been appointed acting Car Service Agent of the Canadian Northern Ry. at Winnipeg, was born in Canada, 27 years ago, and has been in railway service for ten years in the car service and transportation departments of the Chicago Great Western, and Chicago and North-Western Rys., with headquarters at St. Paul, Minn.

J. E. Muhlfeld, who recently resigned the position of Superintendent of Machinery of Rolling Stock of the I.C.R., has been appointed Assistant to the General Superintendent of Motive Power of the Baltimore and Ohio Rd., at Baltimore, Md. He is charged with the oversight and maintenance of locomotives at roundhouses and shops; the mileage of locomotives, improvements and designs of coaling stations and shops and the improvements of tools and machinery, and will perform such other duties as will be assigned to him.

E. A. James, who has been appointed General Superintendent of the Canadian Northern Ry. at Winnipeg, was born in London, Eng., April, 1865, and entered railway service on the C.P.R. in 1881 as operator at Winnipeg Jct., since which his record has been: 1882 to 1884, operator at Winnipeg; 1884 to 1892, train dispatcher at Winnipeg; 1892 to 1897, Chief Train Dispatcher at Winnipeg; 1897 to 1901, Superintendent Brandon section, Manitoba branch lines and Winnipeg terminals; 1901 to Oct., 1902, Superintendent of Transportation for the Western division, entire service with C.P.R.

J. K. McNeillie, who was recently appointed Car Service Agent, C.P.R., at Winnipeg, Man, was born at Toronto, Ont., Feb. 23, 1874, and entered railway service as assistant in the G.T.R. stores department at Lindsay, Ont., May, 1890, subsequently becoming an apprentice machinist and fitter, since which his record has been: 1891 to Sept., 1896, apprentice at Montreal shops; Sept., 1896, to Oct., 1897, clerk in C.P.R. Superintendent's office, Farnham, Que.; Oct., 1897, to Nov., 1899, chief clerk, same office; Nov., 1899, to April, 1900, clerk in General Superintendent's office, Winnipeg, April, 1900, to Aug., 1902, chief clerk, same office.

Among the Canadian representatives present at the Detroit convention of the American Street Railway Association early in Oct., were: C. K. Green, General Manager, T. B. Griffith, Superintendent, and D. N. Miller, representing the Hamilton Electric Light and Cataract Power Co.; C. E. A. Carr, J. Buak, R. H. Welburn and E. R. Carrington, representing the London St. Ry.; W. G. Ross, D. Roberts and T. W. Casey, representing the Montreal St. Ry.; E. H. Keating, A. W. Smith, W. H. Moore, W. H. Nix, H. Cowan, M. Power, D. Sutherland, G. H. Sweetlove

and R. C. Brown, representing the Toronto Ry. Co.; T. Ahearn and W. Y. Soper, representing the Ottawa Electric Ry. Co.

M. H. Brown, who has been appointed General Freight Agent of the Ontario division of the C.P.R. at Toronto, was born at Richmond Hill, Ont., Sept. 2, 1866, and entered railway service as a junior clerk in the general freight office of the Co. at Toronto, Oct. 1, 1887, remaining there until April, 1890. Since then his service has been: April, 1890, to Aug., 1893, chief clerk to District Freight Agent at Detroit; Aug., 1893, to Mar., 1896, chief clerk to the Freight Traffic Manager, Toronto; Mar., 1896, to July, 1899, chief clerk to the Freight Traffic Manager, Montreal; July, 1899, to June, 1901, District Freight Agent, Detroit; June, 1901, to Oct., 1902,

Assistant General Freight Agent, Ontario division at Toronto.

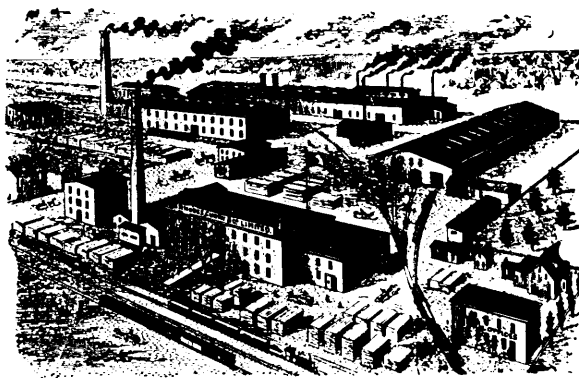
D. Blythe Hanna, who has been appointed Third Vice-President Canadian Northern Ry. at Toronto, was born Dec. 20, 1858, at Thornliebank, Scotland, and his railway service is as follows: 1874 to 1879, clerk and ticket agent with the Glasgow, Barrhead and Kilmarnock Ry., of Scotland, at Kinnishead, Pollokshaws and Barrhead stations; 1879 to 1882, cashier, Stobcross station, Glasgow, Caledonian Ry. of Scotland; 1882 to 1884, clerk in Auditor's office, and Travelling Auditor, G.T.R., Montreal; 1884 to 1886, clerk, General Auditor's office, New York, West Shore & Buffalo Ry., at New York, N.Y.; 1886 to 1892, Chief Accountant, Manitoba & North-Western Ry., at Winnipeg; 1892 to 1896,

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H. C. BURCH, Manager.

Treasurer and Land Commissioner, in addition to the duties of Chief Accountant with the same Co. In 1896 he was appointed Superintendent of the Lake Manitoba Ry. and Canal Co., and subsequently the Manitoba and South-Eastern Ry. was added to his jurisdiction. In March, 1899, these lines were amalgamated under the title of the Canadian Northern Ry. In Feb., 1900, he was appointed General Superintendent.

A U.S. contemporary has the following about A. B. Stickney, who was the first General Superintendent of the C.P.R. at Winnipeg in 1881:—"The 'Maple Leaf Route,' better known to the average speculator as 'Great Western,' is in the hands of one of America's greatest railway men—President Stickney, who of late has attracted the attention of America's bankers, owing to some views on modern banking. A study of Stickney will quickly excite the most benumbed of humans. He is a great man, in fact, the Vanderbilts want him, he is sought by Harriman, and Morgan is after him. The western contingent have a share of his good graces and want them all, and so it goes. Stickney keeps pegging away at 'Maple Leaf.' He adds quietly a new train now and then. His latest surprise to the railway world is his fast flying, electric lighted, Pullman Palace railway train between Chicago, St. Paul and Minneapolis. It is really a twentieth century wonder. It is a dream. It has wonderfully increased the passenger traffic between Chicago and the great Northwest. Stickney is adding new steel, new rolling stock, new ballast, and in fact doing everything to make this thousand-mile railway the foremost out of Chicago. The Vanderbilts want this property."

E. A. Evans, General Manager and Chief Engineer, Quebec Ry., Light and Power Co., at Quebec, whose portrait is published on the first page of this issue, was born at Kensington, London, Eng., Feb. 26, 1855. Between 1875 and 1883 he was engaged as engineer on construction for the Cheshire Lines Committee (managing lines jointly owned by the Midland, Great Northern and Grand Central Ry. companies), and the Lancashire and Yorkshire Ry. Co., and after a short stay in the U.S. came to Canada and was engaged in surveys on the Port Rowan and Lake Shore Ry., (which was never constructed) and the Pontiac Pacific Jct. Ry., in 1884-5; served for nearly a year on the Geological Survey of Canada, since which his record has been: Mar., 1886, to Jan., 1889, engineer on Pontiac, Pacific Jct. Ry., Gatineau Valley Ry., and on surveys for St. Lawrence bridge at Quebec; June, 1889, engineer in charge of realignment and improvement of grades, ballasting and general completion of Quebec and Lake St. John Ry., from Whitehorse trestle to Roberval, 178 miles, and in charge of construction of branch line from Chambord Jct. to Chicoutimi; on the completion of this he was appointed engineer in charge of construction of Quebec city electric railway and General Manager on the opening of the line.

November Birthdays.

Many happy returns of the day to S. Burke, Cleveland, Ohio, President Central Ontario Ry., born in St. Lawrence county, N.Y., Nov. 26, 1826.

M. J. Butler, Chief Engineer in charge of construction, Hillsboro' river bridge, Charlottetown, P.E.I., born at Deseronto, Ont., Nov. 19, 1856.

F. Conway, General Freight and Passenger Agent, Kingston and Pembroke Ry., at Kingston, Ont., born at Ernestown, Ont., Nov. 19, 1850.

W. L. Crighton, Advertising Agent, Intercolonial Ry., at Moncton, N.B., born at Derby, Eng., Nov. 9, 1871.

Wm. Downie, Superintendent, C.P.R., at Nelson, B.C., born at Rock Currie, Ireland, Nov. 12, 1850.

R. Doyle, Trainmaster, Buffalo division, Wabash Rd., at St. Thomas, Ont., born at Dudley, Ill., Nov. 12, 1862.

C. Drinkwater, Secretary and Assistant to the President C.P.R., at Montreal, born at Ashton-under-Lyne, Eng., Nov. 17, 1843.

W. Hendrie, Hamilton, railway promoter and contractor, and President of Hendrie & Co., cartage agents, G.T.R., born at Glasgow, Scotland, Nov., 1831.

C. R. Hosmer, director, C.P.R., born at Coteau Landing, Que., Nov. 12, 1851.

C. Murphy, Superintendent, C.P.R., at North Bay, Ont., born Nov. 20, 1865.

P. A. Peterson, Consulting Engineer, C.P.R., at Montreal, born at Niagara Falls, Ont., Nov., 1839.

J. Rennie, Master Mechanic, Carquet Ry. at Bathurst, N.B., born at St. John, N.B., Nov. 1, 1858.

W. B. Rosevear, General Traffic Manager, Algoma Central and Hudson Bay Ry., at Sault Ste. Marie, Ont., born at Belleville, Ont., Nov. 28, 1854.

J. D. Rowe, Treasurer, Central Ontario Ry., at Trenton, Ont., born in Ameliasburg, Ont., Nov. 7, 1864.

G. H. Shaw, Traffic Manager, Canadian Northern Ry., at Winnipeg, Man., born at Smith's Falls, Ont., Nov. 25, 1859.

J. C. Shields, Superintendent, Mineral Range Rd., at Hancock, Mich., born at St. Mary's, Ont., Nov. 29, 1863.

H. P. Timmerman, General Superintendent C.P.R., at Toronto, born at Odessa, Ont., Nov. 6, 1856.

Arthur White, ex-Division Freight Agent, G.T.R., at Toronto, born at Hadleigh, Suffolk, Eng., Nov. 17, 1840.

Taxation Decision.—The board of County Court Judges, before whom the appeal of the Toronto Ry. Co. and the Bell Telephone Co., against the value placed on their respective properties by the assessors for the city of Toronto, was argued, has delivered judgment. The main point of the appeal was the construction to be placed upon subsec. 4 of the act of 1902. This subsection provided that "save as aforesaid rolling stock, plant and appliances of companies mentioned in subsection 2 hereof shall not be 'land' within the meaning of the Assessment Act, and shall not be assessable." Under this subsection the Companies claimed exemption for all their plant and rolling stock not on the streets, but the judges decided that it only applied to the rolling stock of street railways not in actual use, and not to the plant and appliances of telegraph, telephone and other similar companies. The judges will receive evidence as to values, and will deliver a formal judgment later.

J. J. Gartshore, Toronto, has purchased the logging railway of Holland & Graves, at Wahnapiatae, Ont., comprising 3 locomotives; 68 logging, flat and box cars, 3 ft. gauge, and about 16 miles of track, principally 30-lb. steel rails, which is now in the market for disposal in lots to suit customers.

There has been a considerable shaking up among the conductors, porters and other employes on the Newfoundland Ry., and the pursers and other officials on the Company's steamers, by the discovery of a widespread system of robbery. Fares were collected from passengers boarding trains at flag-stations and steamers at way-ports and not accounted for; money was collected for meals and berths on sleepers and not handed in to the proper officials, and the allegation is made that stores have been sold at low figures or given away. There will, in all probability, not be any prosecutions.

Grain Elevator Notes.

The capital of the Winnipeg Elevator Co. has been increased from \$300,000 to \$750,000.

A number of improvements have been effected at C.P.R. elevator A, Fort William, Ont., so that the largest cars can now be unloaded there; hitherto only 20-ton cars could be handled.

The C.P.R. has put in faster handling machinery at all its elevators at Fort William, Ont., and with the completion of elevator D, about 600 cars a day can be handled. It is expected that elevator D will be ready by Nov. 1, and elevator E by Feb. 1, which will bring up the elevator capacity at the port to 10,000,000 bush.

Considerable progress has been made with the construction of the elevator at Montreal for the Harbor Commissioners. The pile foundations have been completed not only for the elevator, but also for the wharf, and about 7,000 cubic yards of concrete have been used in the foundation for the steel storage tanks. The tanks are supported on 45 concrete piers, and eight arches, which are connected by girders, upon which the concrete floor of the storage tanks is constructed. The steel tanks, which will be 36 in number, and 35 ft. high, are being put together. Each tank will have a capacity of 24,000 bush., and the spaces between the tanks will be enclosed by steel plates and give additional storage space. On the top of the tanks will be built a three-story cement building, in which will be the working house and the machinery necessary to operate the plant. The total height of the building will be 225 ft. The work is being done under the supervision of the Department of Public Works.

SHIPPING MATTERS.

Notices to Mariners.

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

No. 81. Sept. 15—British Columbia—276. Chatham Sound, Metlahcatlah harbor, hydrographic notes. Alaska—277. Chatham strait, Killisnoo harbor, light established.

No. 82. Sept. 16—Ontario—278. River St. Lawrence, foot of Cornwall island, St. Regis dyke, change in character of light. 279. Detroit river, Limekiln crossing, depth of water. 280. Lake Superior, Thunder bay, existence of shoal doubtful, caution.

No. 83. Sept. 19—Quebec—286. Gulf of St. Lawrence, Mingan channel, position of rock. 287. River St. Lawrence, south shore, Matane, buoy removed.

No. 84. Sept. 20—British Columbia—288. Vancouver island, Clayoquot sound, Templar channel, Lennard islands, hydrographic notes. 289. Vancouver island, Clayoquot sound, position of rock east of Clayoquot village. 290. Vancouver island, Clayoquot sound, island west of Browning passage, rock. 291. Vancouver island, Clayoquot sound, Browning passage, rock buoyed. 292. Vancouver island, Clayoquot sound, Browning passage, uncharted shoal.

No. 85. Sept. 24—Ontario—293. Lake Erie, Pelee passage, fog-signal at lighthouse.

No. 86. Oct. 1—Nova Scotia—295. Cabot strait, St. Paul island, east side, Atlantic cove, position of marine signal station. 296. Bay of Fundy, Chebogue ledge, buoy placed in position. New Brunswick—297. Bay of Fundy, Passamaquoddy bay, Navy island, change in character of buoy.

No. 87. Oct. 2—British Columbia—300. Fraser river, New Westminster bridge under construction.

No. 88. Oct. 2—Quebec—301. Gulf of St. Lawrence, Faure point light station, fog alarm established.

No. 89. Oct. 2—Ontario—302. Lake Erie,

wrecks. 303. Lake Superior, east end, Leach island, shoals.
 No. 90. Oct. 7—Quebec—305. River St. Lawrence, Orleans island, west end, Miranda rocks buoyed. 306. River St. Lawrence,

Orleans island, west end, extension of Miranda rocks. Newfoundland—307. Bay of Exploits, rocks reported.
 No. 91. Oct. 8.—Ontario—308. Lake Ontario, Frenchman Bay, lighthouse lowered.

309. Lake Erie, Point Pelee to Long Point, dangerous wreck. 310. Lake Erie, Pelee Passage, fog signal at lighthouse, erratum.
 No. 92. Oct. 9.—Quebec—311. Chaleur bay, north side, Point Echourie, (Souris point),



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 TORONTO and QUEBEC.

MANITOBA

The Government Crop Bulletin issued Dec. 12th, 1901, gives the following statistics for the year:

CROPS.

| ACRES. | AVERAGE YIELD. | TOTAL. |
|---------------------|----------------|-----------------|
| Wheat.....2,011,835 | 25 1 bus. | 50,502,085 bus. |
| Oats..... 689,951 | 40 3 " | 27,796,588 " |
| Barley..... 191,009 | 34.2 " | 6,536,155 " |
| Potatoes.. 24,429 | 196. | 4,797,433 " |

STOCK.

Number of stock in the Province, July 1, 1901:

| | |
|------------------------------|-------------------|
| Horses..... 142,080 | Sheep..... 22,960 |
| Cattle..... 263,168 | Pigs..... 91,680 |
| Value of Dairy Products..... | \$926,314 |

18,375 FARM LABORERS
 Came from Eastern Canada to assist in the harvest fields of Manitoba in 1899—and the demand was not fully satisfied.

MANITOBA FARMERS ARE PROSPEROUS.
 Farmers erected, this year, farm buildings valued at one and one-half million dollars.

MANITOBA LANDS—For sale by the Provincial Government. Over 1,600,000 acres of choice land in all parts of the Province are now offered at from \$2.50 to \$5.50 per acre. Payments extend over nine years. **Special Attention** is directed to 500,000 acres along the line of the Manitoba and Northwestern Railway at \$3.50 and \$4.00 per acre.

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 Or **JAMES HARTNEY**, Manitoba Emigration Agt., 77 York Street, Toronto, Ont.

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sell through tickets to the Old Country cheaper than if passengers bought railway tickets to New York or Montreal, and then re-booked.

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| St. Paul, Minn. | St. Louis, Mo. |
| Minneapolis, Minn. | Peoria, Ill. |
| Hot Springs. | Evansville, Ind. |
| Memphis, Tenn. | Nashville, Tenn. |
| Cincinnati, Ohio. | Atlanta, Ga. |
| Louisville, Ky. | Jacksonville, Fla. |
| New Orleans, La. | Vicksburg, Miss. |

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Call on nearest ticket agent of the C.P.R. or T.H. & B. for further information, or address

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|--|---|

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 Genl. Passr. Agent, Grand Central Station,
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lighthouse established. 312. Chaleur bay, north side, Port Daniel, position of Government wharf, lighthouse established.

No. 93. Oct. 9.—British Columbia—313. Vancouver Island, Barkley Sound, Bamfield Creek, trans-Pacific Cable terminus. 314. Vancouver Island, Barkley Sound, Bamfield Creek, wharf and tide gauge.

No. 94. Nova Scotia—315. South Coast, winter buoys. New Brunswick—316. East Coast, Buctouche, lighthouse established.

No. 95. Oct. 13.—New Brunswick—317. Bay of Fundy, St. John harbor, extent of Negro point breakwater. 318. Northumberland strait, Shediac harbor, Zephyr rock, lightship placed for autumn. Prince Edward Island—319. Hillsborough bay, entrance to Charlottetown harbor, position of Spithead bay.

The following notices have been issued by the U.S. Hydrographic Office:—

No. 38. Sept. 20—1342. Lake Superior, Apostle islands, shoal reported off Oak island. 1344. Detroit river, Limekiln crossing, south light vessel, no. 64, temporarily withdrawn and gas buoy substituted. 1345. Lake Erie, Point Pelee to Buffalo, dangerous wreck.

No. 39. Sept. 27—1397. Detroit river, Limekiln crossing, south light vessel, no. 64, temporarily replaced by relief light vessel. 1398. Detroit river, Limekiln crossing, north light vessel, no. 65, replaced on station.

No. 40. Oct. 4—Lake Erie—1451. Point Pelee to Buffalo, wreck of the W. H. Stevens. 1452. Buffalo to Detroit, dangerous wreck removed. 1453. South-east shoal lightship to Long point, dangerous wreck.

No. 41. Oct. 11—Lake Erie—1493. Coast near Fairport, dangerous drifting obstruction.

No. 42. Oct. 18.—St. Mary's river—1532. Haylake channel, Middle Neebish Cut gas buoy no. 34, established. St. Clair river—1533. Sarnia, location of shoal. Lake Erie—1534. Buffalo harbor approach, Waverly shoal gas buoy established, Acme tug wreck, gas buoy A 3 discontinued.

No. 43. Oct. 25.—St. Mary's river—1586. Haylake channel, buoy established. Detroit river—1591. Amherstburg reach, dredged channel, aids to navigation moved.

St. Lawrence Route Improvements.

The Elder Dempster Co., operating lines of passenger and freight steamers from Montreal to Liverpool, Bristol and London, has suggested to the Minister of Marine that the following additions and improvements should be made to the aids to navigation on the St. Lawrence route:

Rich Point—Should have a fog-signal, and the light improved.

Flower Ledges—Should have a powerful foghorn.

Heath Point—Interval at present 15 minutes should not be greater than every two minutes (fog-signal). Some captains suggest a lightship.

South Point—Fog-signal, at present a whistle, should be something more powerful.

Fame Point—Should have a powerful fog-signal.

Father Point—Fog-signal requires improving.

Cock Point—Should have a gas and bell buoy.

Cape Norman—Fog-signal at present not nearly powerful enough.

Bird Rock—Fog-signal at present every 15 minutes, should be less.

Sambro Fog-Signal—Should be improved, and the interval between the sounding of it should be lessened.

Cape Ray—Whistle not nearly powerful enough.

Halifax Harbor Buoys—Not nearly large enough; want considerably improving.

Cape Whittle—Should have a light.

St. Peter's Bay—Should have a light and foghorn.

Little Macattine—Should have a light and foghorn.

Matane—Should have a fog-signal.

Little Metis—Should have a fog-signal.

Some of the suggested improvements had already been adopted by the Department (see Oct., pg. 357). Capt. Thomas, one of the Co.'s oldest and most experienced masters, recently had an interview with the Minister of Marine upon the subject. It is also suggested that there should be a chart of the Belle Isle straits, taking in 60 miles round Belle Isle. At present, when in the vicinity of Belle Isle, captains have to consult three charts of different scales.

Registration of Foreign-Built Ships.

The Dominion Government has by proclamation brought into force the provisions of chap. 7 of the statutes of 1902, an Act respecting the Coasting Trade of Canada. This act declares that no foreign-built British ship, whether registered in Canada or otherwise, shall be entitled to take part in the coasting trade of Canada, unless such ship shall have obtained a license for that purpose, to be granted by the Minister of Customs, on payment of a duty of 25% on the fair market value of the hull, rigging, machinery, boilers, furniture, etc., of such ship. Vessels which shall have obtained a British registry prior to Sept. 1, 1902, will be exempt from the operations of the act. The intention of the act is to prevent the utilizing for the coasting trade of Canada, foreign bottoms, which shall have obtained a registry at some British port, such as St. John's, Nfld. The King Edward, one of the steamers belonging to the Algoma Central Steamship Co., was purchased in New York, and called into St. John's, where a British registry was obtained, and on reaching Canada was placed in the coastwise trade. The Newfoundland Legislature, at its last session passed an act imposing a 5% duty on the fair market value of foreign-built vessels on application for registration in the colony except in regard to vessels which shall be continuously employed in connection with the trade or fisheries of the colony. The Canadian act was submitted to the Imperial authorities prior to being put in force.

Maritime Provinces and Newfoundland.

The str. Ask has replaced the Bauta on the St. John, N.B., Jamaica run.

The People's Line Steamship Co. is negotiating for the construction of a sidewheel steamer to replace the Star, recently burned at Indiantown, N.B.

The str. Lady Laurier, now being completed at Paisley, Scotland, for the Department of Marine, is not expected to leave there for Halifax until the end of Nov.

Recent launches in Nova Scotia include a three-masted schooner of 200 tons burden at Meteghan; a three-masted schooner at La Have, and a 374-ton schooner at Spencer's Island.

The Nova Scotia Shipping Co. (Ltd.) has been incorporated under the Dominion Companies' Act with a capital of \$100,000, to carry on a general shipping business. The incorporators are H. Hading, St. John, N.B.; W. B. Ross, R. E. Harris, and C. H. Cahan, Halifax, N.S.

The St. John, N.B., city council is providing a low-water depth of 30 ft. between the northern end of the Furness line wharf and the southern end of the Lawton wharf. The work was expected to be completed by the end of

Oct., when further work would be undertaken at improving the water front.

The Premier of Nova Scotia recently paid a visit to Toronto, to inspect the ship building yards there, and also had an interview in Montreal with M. P. Richardson, an English shipbuilder. He stated that the Dominion Steel Co. would not be in a position to roll steel plates for shipbuilding for three years.

The New Brunswick Government has decided to grant a subsidy to W. Thomson & Co., St. John, to operate a steamer from St. John to Halifax, N.S., calling at Yarmouth and other South Shore ports, conditionally upon a Dominion subsidy being obtained, the placing on the route of a suitable steamer, and Government control of the tariff.

The Halifax and Canso Steamship Co. (Ltd.) has been incorporated under the N.S. Companies' Act to carry on a general navigation business. The head offices of the Co. are in Halifax, and the capital is fixed at \$50,000. The officers are: President, G. S. Campbell; Secretary-Treasurer, A. M. Bell; other directors, J. E. De Wolf, H. Brookfield, Halifax; St. R. Griffin, Goldboro', N.S.; J. McMillan, A. Reid, Isaacs Harbor, N.S. The Co. will place a steamer on a route from Halifax to Canso, calling at intermediate ports.

Province of Quebec Shipping.

The Tiber Steamship Co. (Ltd.), of Montreal, is being liquidated, under an order of the courts, granted on the application of the Co.'s officers.

The Department of Marine has placed an order with the Polson Iron Works, Toronto, for two lightships for the St. Lawrence river and Gulf service.

The Montreal Transportation Co. has decided to have a steel steamer built in England, and its officers recently went there to arrange the details of the contract.

Reports continue to be made to the Department of Marine as to the superiority of the gas buoys on the St. Lawrence, in which acetylene gas is used as an illuminant, over those formerly used.

The Montreal Pilots' Association recommends that the widening of the St. Lawrence channel between Cap Charles and Poullier a Royer be taken in hand at once, and the Montreal Harbour Commissioners have forwarded the recommendation to the Department of Public Works.

The report of Commander Spain, Capt. Clift and Capt. W. Simons, upon the stranding of a number of vessels in the St. Lawrence, has been submitted to the Minister of Marine. None of the mishaps, it is pointed out, were caused by inefficient or deficient aids to navigation, nor were there any complaints as to lights, fog signals or the buoy service. The accidents were due to inexperienced or careless officers, captains or pilots. It is quite clear that no blame is to be attached to the St. Lawrence route. The investigation was ordered for departmental purposes only.

Ontario and the Great Lakes.

Owing to the increasing traffic through the canals at Sault Ste. Marie, F. H. Clergue is advocating the construction of a third canal.

The str. Melbourne recently went ashore near Beamsville, Ont., and had two blades of her propeller broken. Repairs were made at Port Dalhousie.

The str. Rothsay, which was wrecked in Kingston harbor, has been blown up by the militia authorities, with the approval of the Department of Marine.

The U.S. Government is dredging out a number of shoal spots on the eastern side

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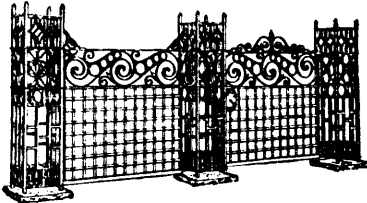
It was lately awarded the only Gold Medal in its section at the Pan-American Exposition, and was a prize winner at Paris.

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BRANCH IN QUEBEC.—Montreal.

BRANCHES IN NORTHWEST AND BRITISH COLUMBIA.—Brandon, Man.; Calgary, Alta.; Edmonton, Alta.; Ferguson, B.C.; Golden, B.C.; Nelson, B.C.; Fortage la Prairie, Man.; Prince Albert, Sask.; Revelstoke, B.C.; Rosthern, Sask.; Strathcona, Alta.; Vancouver, B.C.; Victoria, B.C.; Wetaskiwin, Alta.; Winnipeg, Man.

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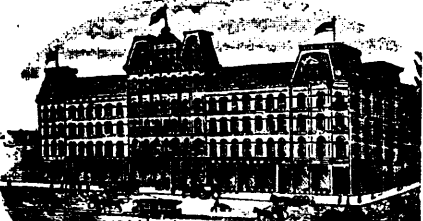
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of the river just below the St. Clair flats canal, right opposite Sarnia docks.

The narrows of Lake Simcoe, at Orillia, are being dredged in connection with the approaching completion of the Trent Valley canal to Lake Simcoe at Cambridge.

Oldfield Bros., Point aux Barils, are reported to have placed an order for a new passenger steamer to run between that point and Parry Sound, to be delivered in June, 1903.

The Department of Marine has let a contract to J. Battle, Thorold, for the construction of two bridges over the Welland canal at Stone bridge and Junction bridge respectively.

It is reported that F. W. Wheeler, a former shipbuilder at Bay City, Mich., has been negotiating with F. H. Clergue regarding the location of a shipyard at Sault Ste. Marie, Ont.

The Rainy River Navigation Co., which operates steamers on the Lake of the Woods, Rainy river, and Rainy lake, Ont., has been licensed under the Ontario Companies' Act, G. A. Graham, of Fort William, being named its attorney.

The Midland Navigation Co. has been awarded \$4,590 damages, less expenses of the vessel, against the Dominion Elevator Co., for failing to furnish a cargo of grain at Fort William, in Dec., 1901, for the Midland Queen, according to charter.

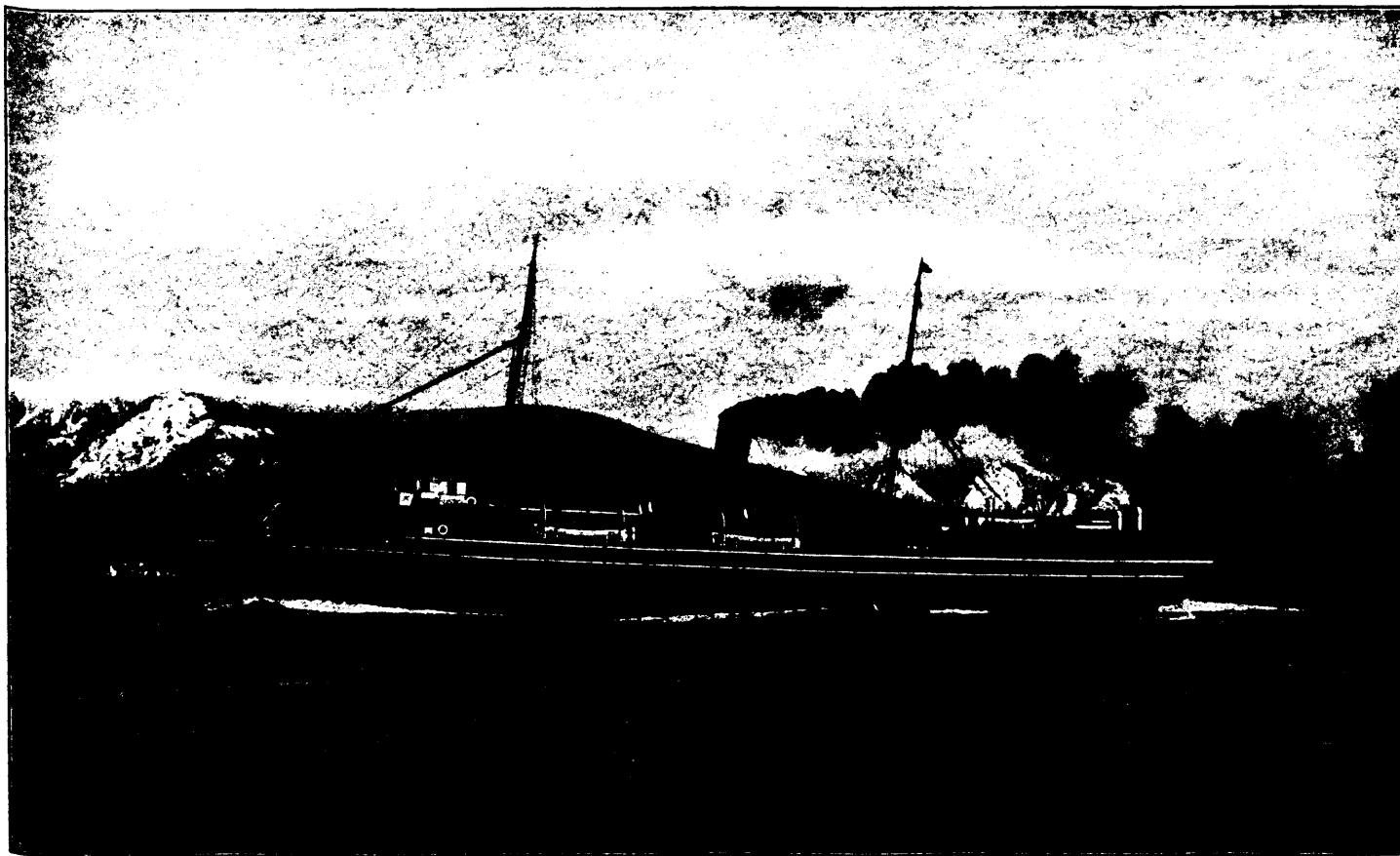
The Algoma Central Steamship Co. is reported to be negotiating for the construction of an additional steamer for passenger and package freight for service on a run to take in Parry Sound, Midland, Penetanguishene and other Georgian bay ports.

The U.S. Government has invited the Can-

W. J. Brown states that it is his intention to keep the str. Pittsburg on the run from Owen Sound to Sault Ste. Marie, Ont., as the first of a new line of steamers. Hitherto the Pittsburg has been engaged in the excursion traffic from Detroit, Mich., to Sault Ste. Marie during the summer months, and in the freight business from Owen Sound during the balance of the season of navigation.

The dipper dredge Sir Wilfrid, built by the Polson Iron Works, Toronto, for W. J. Poupore, Montreal, while being towed there, encountered a storm off Port Hope, Ont., and sank in about 65 ft. The dredge cost \$62,000 and was insured for \$40,000. The loss will fall on the builders, as their contract called for delivery at Montreal. An effort will probably be made to raise the dredge.

The traffic passing through the Canadian



THE CANADIAN PACIFIC NAVIGATION CO.'S STEAMSHIP PRINCESS MAY, ON THE VICTORIA-VANCOUVER-SKAGUAY ROUTE.

The Knapp tubular boat has finally sailed from Lake Ontario, and is being taken to Sydney, N.S., where it is proposed to establish a shipyard to build this type of steamer for freight purposes.

Capt. Roys, of the str. Rival, was recently fined \$100 and costs at the instance of the Department of Marine, for navigating his steamer to ports in Ontario beyond those for which he held a certificate.

The Rideau Lakes Navigation Co. has decided to order a new steamer for the Kingston-Ottawa route. It will be 3 ft. narrower than the Rideau Queen, but similarly fitted, and will be ready by June, 1903.

The schooner H. A. Barr, with iron ore for Buffalo, N.Y., sank off Long Point, Lake Erie, recently, the crew being saved by the Theano. Both vessels are owned by the Algoma Central Steamship Co., Sault Ste. Marie, Ont.

adian Government, through the British embassy, to appoint commissioners to cooperate with U.S. commissioners, to investigate and report upon questions connected with changes of level of the Great Lakes.

The Turret Chief landed her first cargo of grain from Fort William at Midland, Ont., Sept. 29. The fourth of the vessels has now arrived on the lakes, and they will all be engaged to the end of the season. They will probably be laid up on the Georgian Bay for the winter and refitted.

A writer in a recent issue of the Globe points out that although there has been such a great increase in the tonnage passing through the Sault Ste. Marie canals, the percentage carried by Canadian bottoms in 1901 was 4%, an increase of 1 1/2% since 1898, while in 1896 and 1891 the percentage was also 4%.

and the U.S. canals at Sault Ste. Marie, from the opening of navigation to Sept. 30, was 26,312,925 tons against 20,369,065 tons in 1901. The following are the figures for the Canadian canal:

| | 1902. | 1901. | Increase or Decrease. |
|---------------------|-----------|-----------|-----------------------------|
| Apl. 5 to May 31 .. | 532,188 | 151,679 | 380,509+ |
| June | 1,118,564 | 1,235,055 | 116,491- |
| July | 523,936 | 276,624 | 247,312+ |
| Aug | 639,858 | 295,175 | 344,683+ |
| Sept | 560,031 | 201,229 | 358,802+ |
| | 3,374,577 | 2,159,762 | 1,214,815+ |

+Increase. -Decrease.

The masonry of the hydraulic lift lock at Nassau lake, on the Peterboro-Lakefield section of the Trent Valley canal, which has been under construction for about six years, was completed Oct. 8. The lock is constructed entirely of cement and concrete—30,000

ASSESSMENT SYSTEM



INDEPENDENT ORDER OF FORESTERS.

THE BEST FRATERNAL BENEFIT SOCIETY IN EXISTENCE.

Cost to Join the I.O.F.

(For \$1,000 Mortuary Benefit.)

(For more than \$1,000 Mort. Benefit.)

| | | | |
|-------------------------------|--------|---|--------|
| Initiation fee (minimum)..... | \$1 00 | Cost to take \$2,000 Mort. Benefit..... | \$6 00 |
| Certificate fee..... | 1 00 | " " \$3,000 " " " " " " | 7 00 |
| Registration fee..... | 1 00 | " " \$4,000 " " " " " " | 9 00 |
| Medical Examination fee..... | 1 50 | " " \$5,000 " " " " " " | 10 00 |
| | | Sick benefits, when required, cost extra. | |
| Total minimum cost..... | \$4 50 | | |

Benefits given by the I.O.F.

- 1.—The Mortuary Benefit of \$500, \$1,000, \$2,000, \$3,000 \$4,000 or \$5,000.
- 2.—A Total and Permanent Disability Benefit of one-half of face value of policy, with exemption from further payment of premiums or Court Dues.
- 3.—An Old Age Benefit consisting of exemption from payment of premiums and Court dues after age 70.
- 4.—An Old Age Disability Benefit of one-tenth of face value of policy payable yearly for ten years, on being declared totally and permanently disabled by infirmities of age after the seventieth birthday.
- 5.—An Old Age Pension payable during disability, which may be taken as a substitute for the Old Age Disability Benefit.
- 6.—Free Medical Attendance by Court Physician where not dispensed with by Court by-law; also trained nurses in certain cases.
- 7.—A Sick Benefit of \$3 to \$5 per week, subject to provisions of the Constitution and Laws of the Order; optional, and when taken costs extra.
- 8.—A Burial Benefit of \$100 at death of a Pensioner.
- 9.—A Funeral Benefit of \$50 at death of a member enrolled in Sick and Funeral Benefit Department.
- 10.—Social and Fraternal Privileges of the Court Room.

The Members, the Benefits, and the Surplus

At 31st December Each Year.

| Year. | Total Membership. | Benefits Paid. | Total Surplus. | Surplus per Capita. | Death Rate per 1,000. |
|-------|-------------------|----------------|----------------|---------------------|-----------------------|
| 1881 | 1,019 | \$ 1,300 00 | \$ 4,568 55 | \$ 4 48 | 4.50 |
| 1882 | 1,134 | 12,058 86 | 2,967 93 | 2 61 | 11.00 |
| 1883 | 2,210 | 9,493 68 | 10,857 65 | 4 91 | 4.73 |
| 1884 | 2,558 | 13,914 31 | 23,081 85 | 9 01 | 4.23 |
| 1885 | 3,642 | 26,576 99 | 29,802 42 | 8 18 | 7.76 |
| 1886 | 5,804 | 28,489 82 | 53,981 28 | 9 30 | 4.85 |
| 1887 | 7,811 | 59,014 67 | 81,384 41 | 10 44 | 5.78 |
| 1888 | 11,800 | 89,018 16 | 117,821 96 | 9 98 | 6.43 |
| 1889 | 17,349 | 116,787 82 | 188,136 36 | 10 84 | 5.85 |
| 1890 | 24,604 | 181,846 79 | 283,967 20 | 11 54 | 5.18 |
| 1891 | 32,303 | 261,436 21 | 408,798 20 | 12 65 | 6.40 |
| 1892 | 43,024 | 344,748 82 | 580,597 85 | 13 40 | 6.25 |
| 1893 | 54,484 | 392,185 93 | 858,857 89 | 15 76 | 5.47 |
| 1894 | 70,055 | 511,162 30 | 1,187,225 11 | 16 94 | 5.47 |
| 1895 | 98,521 | 685,000 18 | 1,560,783 46 | 18 03 | 5.67 |
| 1896 | 102,836 | 820,941 91 | 2,016,484 38 | 19 60 | 5.50 |
| 1897 | 124,685 | 992,225 60 | 2,558,832 78 | 20 52 | 5.56 |
| 1898 | 144,000 | 1,176,125 14 | 3,186,376 36 | 22 12 | 5.67 |
| 1899 | 163,610 | 1,430,200 33 | 3,778,543 58 | 23 09 | 6.30 |
| 1900 | 180,717 | 1,545,145 64 | 4,483,364 44 | 24 81 | 6.53 |

For Further Information Respecting this Great Fraternal Benefit Society, Apply to
 Oronhyatekha, M.D., S.C.R., Toronto, Ont. John A. McGillivray, K.C., S.S., Toronto, Ont.
 James Marshall, 24 Charing Cross, London, Eng. A. E. Stevenson, 431 E. Sixty-Third St., Chicago, Ill.
 Or Any Officer or Member of the Order.

barrels of cement having been required—and is to be operated by a hydraulic ram. The lock has a lift of 65 ft., thus making it the largest of its kind in the world. Similar locks, though not with such a big lift, are being constructed on other sections of the canal. The iron and steel work, the contract for which has been let to the Dominion Bridge Works, Montreal, will be placed, and the lock will be in operation next year.

The annual agitation for the suspension of the coasting regulations so as to permit U.S. vessels to carry grain from Fort William and Port Arthur to other Canadian ports has been set going by interested persons. It will be remembered that last year the Government refused to consider the matter at all, and that experience showed that cargoes could not be found at Fort William for the vessels offering. This year the tonnage available has already been increased by the four turret steamers with a capacity of 110,000 bush. each, the barge Agawa, 228,000 bush., and the Tadenac, with a capacity of 110,000 bush., is expected to be able to make several trips; so that Canadian vessels can easily handle some millions of bushels more than last year. A. G. Thompson, of Montreal, says that the real trouble is the lack of elevator and other terminal facilities at Montreal and Georgian bay ports. While the Canadian fleet could easily handle 15,000,000 bush. by the close of navigation, the elevators on Georgian bay and Montreal could not care for more than 5,000,000 bush., consequently the other 10,000,000 bush. would have to be carried out via Buffalo or some other U.S. port. Other shipowners express the opinion that there is more Canadian tonnage than will be required, and that additional vessels will be built as fast as they are needed for the trade.

B.C. and Pacific Coast Shipping.

The Pacific Steam Navigation Co. has decided to abandon its service to Victoria and Vancouver, from San Francisco.

The C.P.R. Co.'s str. Swatska, built during the early rush to the Yukon, and which has been lying unused for some time below Lulu island bridge, is reported sold to U.S. owners.

The C.P. Navigation Co.'s str. Queen City will leave Victoria, B.C., for Ahouset and way ports Nov. 1, for Cape Scott and way ports on Nov. 10, and for Quatsino and way ports on Nov. 20, and the 1st, 10th and 20th of each succeeding month until further notice.

Col. Anderson, Chief Engineer of the Department of Marine, on his recent visit to the Pacific coast, made a number of inspections in connection with the hydrographic and tidal survey work, and will recommend the placing of tidal gauges at Bamfield Creek, and at either Nanaimo or Port Simpson. There are gauges at Esquimalt and the Sand Heads.

P. E. Mercier, C.E., who has had charge of the improvement works on the Yukon river, says that the new channel is giving satisfaction, and that by the end of Nov. the work on the river will have been completed. Everything possible will then have been done by the Department of Public Works to make the river navigable and safe, unless it should be decided to place a dredge on it.

Col. Anderson, Chief Engineer of the Department of Marine, has completed an inspection of the steamship routes centering on Victoria and Vancouver, and has interviewed the shipping men there with a view to recommending desirable locations for lights and other aids to navigation. It is understood that five new lighthouses will be erected, viz.: at the entrance to Ladysmith; on the inner channel of the Gulf of Georgia, on the Victoria-Vancouver route; at the entrance to

Queen Charlotte sound; at Chatham straits; and on Leonard island at the south-east entrance of the eastern channel to Clayoquot sound. There are at present 32 lights in service on the B.C. coast. It is the intention to place a number of gas buoys at the mouth of the Fraser river.

Among the Express Companies.

The Dom. Ex. Co. has cancelled the notice that the office at St. Guillaume, Que., would be closed on Oct. 14.

The Dominion Ex. Co. has opened offices at Boundary Falls and Granby, B.C.; Rockcliffe, Ont.; and Kipawa, Que.

The Canadian Ex. Co. has no arrangements for cashing its money orders in France, Germany and Italy, and agents are notified not to issue orders payable in those countries.

The Canadian Ex. Co. will cash money orders issued by the Newfoundland Ex. Co. Canadian Ex. Co.'s money orders payable in Newfoundland will be cashed by the Reid Newfoundland Co., and must be so endorsed.

The Great Northern Ex. Co. has opened offices on the Crow's Nest Southern Ry., connecting with the Montana and Great Northern Ry., at Gateway, Mont., at Elko, Swinton and Morrissey Jct., B.C. The M. and G.N. Ry. connects with the Great Northern Railway, U.S., at Jennings, Mont.

The Dominion Ex. Co. has opened the following additional routes: from Vancouver to Steveston, B.C., on the Vancouver and Lulu Island Ry.; from Lardo to Gerrard, B.C., on the Kootenay and Arrowhead Ry., and from Gerrard to Trout Lake, B.C., on the steamer line established between these points.

Telegraph and Cable Matters.

Construction on the Government Alberni-Clayoquot telegraph line in B.C. has been nearly completed.

The cable to be laid between Anticosti island and the Magdalen islands, has been delivered at Halifax, N.S., and will be laid by the str. Tyrian this fall.

The perfecting of the equipment of the Marconi wireless telegraph station at Glace Bay, N.S., is being pushed forward. Press reports recently stated that complete messages had been received from Poldhu, Cornwall, Eng., but the officers deny this, as the receiving station at Glace Bay had not been completed.

By an arrangement made between the British Government and the Pacific Commercial Cable Co. the former will lay a cable from Fanning island to Honolulu, connecting the all-British trans-Pacific cable with the U.S. cable from San Francisco to the Philippines. The cost of the cable will be about \$1,000,000.

The Halifax and Bermudas Cable Co. held its annual meeting recently in London, Eng. The net profits for the year ended June 30 were £3,362 against £4,904 in 1901. A dividend of 5% was declared and £862 was carried to the reserve, which now stands at £16,100. The debentures outstanding amount to £70,000, there having been £8,000 redeemed during the year.

A. Boyer, C.E., has been appointed Superintendent of the Dominion Government telegraph and cable lines in Quebec and the Maritime Provinces, reporting to the General Superintendent and to the Minister of Public Works. E. Pope, Agent for the Government telegraph at Quebec, remains as consulting officer of the Department. We are informed

that the growth of the telegraph department has made it necessary to appoint a Superintendent for the north shore lines, cables and Marconi stations, etc.

The G.N.W. Telegraph Co. recently brought an action against H. Dalby, Conservative organizer in Quebec during the Dominion elections in 1900, to recover \$458 for telegrams sent during the campaign. Mr. Dalby pleaded that the Co. had no right of action as the expense was incurred for election purposes, but the Quebec courts have held that the Election Act contemplated barring only the right to bring actions to recover expenses for corrupt practices. The main action has not been disposed of.

The cable str. Colonia sailed from Bamfield creek, Vancouver island, Sept. 18, and completed laying the section of the all-British trans-Pacific cable to Fanning island Oct. 11. The time occupied in laying the 3,445 knots of cable was 17 days, 21½ hours, averaging 8 knots an hour. The distance traversed was 85 knots less than that estimated on soundings. The Colonia will next be employed in laying the 2,100 knots of cable from San Francisco to Honolulu for the Pacific Commercial Cable Co.'s cable to the Philippine islands.

J. Wilson, Superintendent of the C.P.R. telegraph department at Vancouver, B.C., in a recent interview stated that telegraph poles lasted longer in a wet climate than in a dry one. Poles on the Vancouver island lines would last 10 years, while similar poles on the line between North Bend and Sicamous were destroyed in three years by the alkali. In Ontario where a superior cedar was used and the conditions favorable, poles would last for 20 to 25 years, and in New Brunswick a still longer period. Mr. Wilson mentioned having seen a pole in N.B. that was still sound and good after having been in service for 30 years.

The differences between the operators and linemen on the Government telegraph line to Dawson have been settled by J. B. Charleson, who was deputed by the Minister of Public Works to arrange the matter. The Yukon Sun says that under the settlement the wages of the men at Dawson have been restored to the original rates: Manager, \$150; operators, \$125, and office clerk, \$100 a month, and the men on the stations to Cariboo crossing have had their pay fixed at \$82.50 and \$75 a month for operators and linemen respectively, with board. It was reported that a general cut of one-third had been made in the pay of all the men.

Western Union Telegraph Co.

Comparative statement for years ended June 30, 1901 and 1902:

| | 1902. | 1901. |
|--------------------------|--------------|--------------|
| Revenue | \$28,073,005 | \$26,354,151 |
| Expenses and taxes | 20,760,766 | 19,668,903 |
| Net revenue | \$7,292,239 | \$6,685,248 |
| Interest | 992,580 | 959,160 |
| Balance | \$6,299,749 | \$5,720,088 |
| Dividends | 4,868,031 | 4,868,007 |
| Surplus | \$1,431,718 | \$861,081 |
| Previous surplus | 9,319,285 | 8,458,204 |
| Total surplus | \$10,751,003 | \$9,319,285 |

The capital stock remains at \$93,370,000. The funded debt is \$21,504,000. The Co. now has 1,029,984 miles of wire and 23,567 offices. During the past year 69,374,883 messages were sent. The average tolls for the messages transmitted were 31 cents and the average cost 25.7 cents. \$2,188,101 were expended for construction during the year, 2,526 miles of poles, 57,218 miles of wire and 329 offices being added. Howard Gould and J. J. Mitchell have been elected directors in place of Messrs. Perkins and Fish.

General Telephone Matters.

The Levis County Electric Ry. Co. has installed a telephone line along its railway from Levis, Que.

The New Brunswick Telephone Co. is stringing a third wire between St. John and Moncton, N.B.

The Bell Telephone Co. has opened an office in Gretna, Man., in the County Court office building.

The Eastern Telephone Co. has completed the installation of a central energy switch-board at its new exchange, Sydney, N.S.

The Bell Telephone Co. has made application to the Ottawa city council to open up a number of streets for the purpose of laying conduits.

The Bell Telephone Co.'s new line from Winnipeg to the U.S. boundary has been completed, the connection being made at Neche, N.D.

The Alaska Central Rd. Co. purposes constructing a telephone line along its projected railway, from Resurrection Bay to Rampart City, Alaska.

The telephone line operated on St. Joseph Island, Ont., referred to in our last issue, connects Marksville, Carterton, Kentvale, Encampment and Richard's Landing.

The Nova Scotia Steel Co. has completed the installation of a telephone system connecting its different departments with the central office at Queen's colliery, North Sydney, N.S.

A local telephone company is operated at L'Islet, Que. It has 25 subscribers connected on the bridging system, and the line extends for several miles in the country in several directions. The annual subscription is \$15.

The Bellechasse Telephone Co., Que., has the following directors for the current half-year:—G. Demers, A. B. Dupuis, G. Tanguay, M.P.P., Quebec; E. Couture, J. Lawlor, J. Thompson, Levis; Rev. J. H. Frechette, Dorchester; Dr. J. U. Ross, M.P.; Ste. Flavie; J. McWilliams, Pöinte-au-Pere.

The Telephone Co. of Kamouraska gives notice of application for incorporation under the Quebec Companies' Act, with a capital of \$10,000, to carry on an electric and telephone business in the counties of L'Islet, Kamouraska and Temiscouata, "and the transmission of telephone and electric messages." The offices will be at St. Paschal, Que.

The Harrietsville Telephone Co., which operates a circuit of 20 miles, gives Harrietsville, Ont., connection with the C.P.R. station at Moseley, Crampton, Avon, Putnam, Gladstone and Dorchester station. The officers for the current year are: President, Dr. W. Doan; Secretary-Treasurer, J. Smith; other directors, J. McNiven, Dorchester station, and W. Dafoe, Avon.

The People's Telephone Co., of Sherbrooke, Que., was incorporated in 1888 by the Quebec Legislature to do a general telephone business in the province. Some negotiations have recently been in progress for the formation of a new company to take over the P. T. Co., as well as the street railway and lighting company, and operate them under one management. C. Skinner, Sherbrooke, is General Manager of the P. T. Co.

The committee appointed by the Hamilton, Ont., city council to investigate the telephone situation has gathered a great deal of information, and has submitted a series of questions to O. W. Rogers, promoter of the Modern Telephone Co., which is seeking a franchise in the city. Mr. Rogers reported, Oct. 2, that he was not ready to demonstrate his automatic duplex system, but hoped to be in a few weeks. The committee will meet again when there is something definite to go before it.

The Ottawa city council has approved of the recommendation giving a five years' contract to the Bell Telephone Co. on the following terms: An annual cash payment of \$4,000 to the city, and an increase at the rate of \$2 a 'phone when the subscribers exceed 2,500. The rate for stores is to be \$40 a year, for residences, \$25 with a reduction to \$20 where three-year contracts are entered into. A citizens' meeting was held a few days later when a resolution was passed criticising the action of the council and favoring municipal ownership.

The Eastern Telephone Co.'s line from Sydney to Canso, which was mentioned in our Aug. issue, will run from Sydney via Grand Narrows, to Orangedale, necessitating 56 miles of new construction. From Orangedale existing lines will be used through Marble Mountain and West Bay to Port Hawkesbury and Port Hastings, where connection will be made by cable with the Nova Scotia Telephone Co.'s system, which now terminates at Antigonish, but which will be built to Mulgrave next spring. The Eastern Telephone Co. will do its best to complete its part of the work this season.

Established 1849

CHAS. F. CLARK, Pres. JARED CHITTENDEN, Treas.

BRADSTREET'S

Capital and Surplus \$1,500,000

OFFICES THROUGHOUT THE CIVILIZED WORLD

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NOS. 346 and 348 BROADWAY, N.Y. CITY, U.S.A.

THE BRADSTREET COMPANY gathers information that reflects the financial condition and the controlling circumstances of every seeker of mercantile credit. Its business may be defined as of the merchants, by the merchants, for the merchants. In procuring, verifying and promulgating information, no effort is spared, and no reasonable expense considered too great, that the results may justify its claim as an authority on all matters affecting commercial affairs and mercantile credit. Its offices and connections have been steadily extended, and it furnishes information concerning mercantile persons throughout the civilized world.

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|----------------|----------------|-----------------|
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| St. John, N.B. | Toronto, Ont. | Vancouver, B.C. |
| | | Winnipeg, Man. |

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Asst. Gen. Pass. Ag't, New York. Gen. Pass. Ag't, New York.

G. R. CHESBROUGH,
West'n Pass. Ag't, Buffalo, N.Y.

PURCHASING AGENTS' GUIDE.

(Continued from third page of Cover.)

| | |
|---|--|
| Steel Buildings | Dominion Bridge Co. Montreal. |
| Steel Plate | Jas. W. Pyke & Co. Montreal. |
| Steel Tyres | Jas. W. Pyke & Co. Montreal. |
| Structural Metal Work | Dominion Bridge Co. Montreal. |
| | Jas. W. Pyke & Co. Montreal. |
| Switches | Canada Switch and Spring Co. Montreal. |
| Switch Lamps | The Hiram L. Piper Co. Montreal. |
| Switch Targets | Acton Burrows Co. Toronto. |
| Telegraph and Telephone Office Signs | Acton Burrows Co. Toronto. |
| Tobacco and Cigars | The Hudson's Bay Company. |
| Toilet Paper | The Hudson's Bay Company. |
| Tools | Rice Lewis & Son. Toronto. |
| Track Jacks | James Cooper. Montreal. |
| | Duff Manufacturing Co. Allegheny, Pa. |
| | W. H. C. Mussen & Co. Montreal. |
| | A. O. Norton. Coaticook, Que. |
| Track Tools | Canada Switch and Spring Co. Montreal. |
| | James Cooper. Montreal. |
| | Rice Lewis & Son. Toronto. |
| | W. H. C. Mussen & Co. Montreal. |
| Tramway Equipment | James Cooper. Montreal. |
| | J. J. Gartshore. Toronto. |
| Trucks (Electric Car) | Baldwin Locomotive Works. Philadelphia, Pa. |
| | Canada Switch and Spring Co. Montreal. |
| Trucks (Warehouse and Express) | Rice Lewis & Son. Toronto. |
| Turntables | Dominion Bridge Co. Montreal. |
| Varnishes | McCaskill, Dougall & Co. Montreal. |
| Vessels | Poison Iron Works. Toronto. |
| Waste | Rice Lewis & Son. Toronto. |
| | N. L. Piper Ry. Supply Co. Toronto. |
| | The Queen City Oil Co. Toronto. |
| Wheelbarrows | James Cooper. Montreal. |
| | Rice Lewis & Son. Toronto. |
| Window Blinds | The Hudson's Bay Company. |
| Wines and Liquors | The Hudson's Bay Company. |
| Wire & Wire Rope | Dominion Wire Rope Co. Montreal. |
| | Rice Lewis & Son. Toronto. |
| | W. H. C. Mussen & Co. Montreal. |
| | The Wire and Cable Co. Montreal. |
| Wire, Copper | E. F. Phillips Electrical Works, Ltd. Montreal. |
| Wire, Electric | E. F. Phillips Electrical Works, Ltd. Montreal. |
| | The Wire and Cable Co. Montreal. |
| Wire, Insulated Copper | E. F. Phillips Electrical Works, Ltd. Montreal. |
| Wire, Telegraph and Telephone | E. F. Phillips Electrical Works, Ltd. Montreal. |
| | The Wire and Cable Co. Montreal. |
| Yachts | Poison Iron Works. Toronto. |

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NIAGARA NAVIGATION CO'Y.

The Purchasing Agents' Guide

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

| | | |
|---|--|--|
| Accident Insurance Travelers' Insurance Co. Montreal. | Dry Goods The Hudson's Bay Company. | Mohair The Hudson's Bay Company. |
| Aerated Waters E. L. Drewry. Winnipeg. | Electric Car Route Signs Acton Burrows Co. Toronto. | Numbers Acton Burrows Co. Toronto. |
| Air Brakes & Fittings Westinghouse Mfg. Co. Hamilton, Ont. | Electric Cranes Dominion Bridge Co. Montreal. | Oakum Rice Lewis & Son. Toronto. |
| Ales E. L. Drewry. Winnipeg. | W. H. C. Mussen & Co. Montreal. | The Hudson's Bay Company. |
| Anchors Rice Lewis & Son. Toronto. | Enameled Iron Signs Acton Burrows Co. Toronto. | Oils Galena-Signal Oil Co., Franklin, Pa., & Toronto. |
| Axles Jas. W. Pyke & Co. Montreal. | Engines, Stationary & Marine Polson Iron Works. Toronto. | The Queen City Oil Company. Toronto. |
| Rhodes, Curry & Co. Amherst, N.S. | Engraving Acton Burrows Co. Toronto. | Office Signs Acton Burrows Co. Toronto. |
| Babbit Rice Lewis & Son. Toronto. | Toronto Engraving Co. Toronto. | Packing Gutta Percha and Rubber Mfg. Co. Toronto. |
| Blankets & Bedding The Hudson's Bay Company. | Expanded Metal Expanded Metal and Fireproofing Co. Toronto. | Pinch Bars The Hiram L. Piper Co. Montreal. |
| Block & Tackle Dominion Wire Rope Co. Montreal. | Express Office Signs Acton Burrows Co. Toronto. | Pipe Covering Mica Boiler Covering Co. Montreal. |
| Rice Lewis & Son. Toronto. | Fencing Page Wire Fence Co. Walkerville, Ont. | Plushes The Hudson's Bay Company. |
| Boat Fittings & Hardware Rice Lewis & Son. Toronto. | Fireproofing Expanded Metal and Fireproofing Co. Toronto. | Porter E. L. Drewry. Winnipeg. |
| Boiler Covering Mica Boiler Covering Co. Montreal. | Flags Rice Lewis & Son. Toronto. | Portland Cement Rice Lewis & Son. Toronto. |
| Boilers Polson Iron Works. Toronto. | The Hudson's Bay Company. | Printing The Hunter, Rose Co. Toronto. |
| Boiler Tubes Jas. W. Pyke & Co. Montreal. | Flour The Hudson's Bay Company. | The Mail Job Printing Company. Toronto. |
| Bolsters Simplex Railway Appliance Co. Montreal. | The Ogilvie Flour Mills Co. Montreal. | Pumps Rice Lewis & Son. Toronto. |
| Bolts Rice Lewis & Son. Toronto. | Foghorns Rice Lewis & Son. Toronto. | Rail Joints Montreal Rolling Mills Co. Montreal. |
| Brake Beams Simplex Railway Appliance Co. Montreal. | Gates Page Wire Fence Co. Walkerville, Ont. | Rails (New) James Cooper. Montreal. |
| Brass Castings St. Thomas Brass Co. St. Thomas, Ont. | General Supplies The Hudson's Bay Company. | Drummond, McCall & Co. Montreal. |
| Bridge Numbers Acton Burrows Co. Toronto. | Grain Elevators John S. Metcalfe Co. Chicago, Ill. | J. J. Gartshore. Toronto. |
| Bridges Dominion Bridge Co. Montreal. | Groceries The Hudson's Bay Company. | Rice Lewis & Son. Toronto. |
| Buoy Lighting Safety Car Heating and Lighting Co., New York | Hardware Rice Lewis & Son. Toronto. | Jas. W. Pyke & Co. Montreal. |
| Cables, Electric E. F. Phillips Electrical Works, Ltd., Montreal. | The Hudson's Bay Company. | Rails (for relaying) James Cooper. Montreal. |
| The Wire and Cable Co. Montreal. | Headlights N. L. Piper Railway Supply Co. Toronto. | J. J. Gartshore. Toronto. |
| Cables, Feeder E. F. Phillips Electrical Works, Ltd., Montreal. | Hose Gutta Percha and Rubber Mfg. Co. of Toronto. | Roof Trusses Dominion Bridge Co. Montreal. |
| Car Heating Safety Car Heating and Lighting Co., New York | Rice Lewis & Son. Toronto. | Rope Rice Lewis & Son. Toronto. |
| Car Jacks James Cooper. Montreal. | Illustrations Acton Burrows Co. Toronto. | The Hudson's Bay Company. |
| W. H. C. Mussen & Co. Montreal. | Interlocking Plants Canada Switch and Spring Co. Montreal. | Rubber Goods Gutta Percha and Rubber Mfg. Co. of Toronto. |
| Car Lighting Safety Car Heating and Lighting Co., New York | Iron Rice Lewis & Son. Toronto. | Semaphore Arms Acton Burrows Co. Toronto. |
| Carpets The Hudson's Bay Company. | Iron Signs Acton Burrows Co. Toronto. | Semaphores The Hiram L. Piper Co. Montreal. |
| Cars Rhodes, Curry & Co. Amherst, N.S. | Japans McCaskill, Dougall & Co. Montreal. | Shafting Rice Lewis & Son. Toronto. |
| Car Wheels Jas. W. Pyke & Co. Montreal. | Journal Bearings Jas. W. Pyke & Co. Montreal. | Shipbuilders' Tools & Supplies Rice Lewis & Son. Toronto. |
| Rhodes, Curry & Co. Amherst, N.S. | St. Thomas Brass Co. St. Thomas, Ont. | Ship Lamps The Hiram L. Piper Co. Montreal. |
| Castings Canada Switch and Spring Co. Montreal. | Lager Beer, &c. E. L. Drewry. Winnipeg. | Ships Polson Iron Works. Toronto. |
| Rhodes, Curry & Co. Amherst, N.S. | Lamps & Lanterns The Hudson's Bay Company. | Shovels James Cooper. Montreal. |
| Cement Machinery Jas. W. Pyke & Co. Montreal. | Rice Lewis & Son. Toronto. | The Hudson's Bay Company. |
| Chains Rice Lewis & Son. Toronto. | The Hiram L. Piper Co. Montreal. | Rice Lewis & Son. Toronto. |
| Concrete Mixers W. H. C. Mussen & Co. Montreal. | N. L. Piper Railway Supply Co. Toronto. | Side Bearings Simplex Railway Appliance Co. Montreal. |
| Contractors' Plant M. Beatty & Sons. Welland, Ont. | Launches Polson Iron Works. Toronto. | Signal House Numbers Acton Burrows Co. Toronto. |
| James Cooper. Montreal. | Life Insurance Independent Order of Foresters. Toronto. | Signals The Hiram L. Piper Co. Montreal. |
| Cross Arms, Top Pins & Side Blocks The Firstbrook Box Co. Toronto. | Travelers' Insurance Co. Montreal. | N. L. Piper Railway Supply Co. Toronto. |
| Curtains The Hudson's Bay Company. | Lights, Contractors and Wrecking James Cooper. Montreal. | Signs Acton Burrows Co. Toronto. |
| Cuts Acton Burrows Co. Toronto. | W. H. C. Mussen & Co. Montreal. | Snow Ploughs Rhodes, Curry & Co. Amherst, N.S. |
| Ditchers M. Beatty & Sons. Welland, Ont. | Linoleum and Floor Coverings The Hudson's Bay Company. | Spikes Rice Lewis & Son. Toronto. |
| Derricks M. Beatty & Sons. Welland, Ont. | Locomotives (Compressed Air) American Locomotive Co. New York, N.Y. | Springs Canada Switch and Spring Co. Montreal. |
| James Cooper. Montreal. | Baldwin Locomotive Works. Philadelphia, Pa. | Station Name Signs Acton Burrows Co. Toronto. |
| Door Signs Acton Burrows Co. Toronto. | Locomotives (Electric) American Locomotive Co. New York, N.Y. | Steamboats Polson Iron Works. Toronto. |
| Dredges M. Beatty & Sons. Welland, Ont. | Baldwin Locomotive Works. Philadelphia, Pa. | Steamboat Signs Acton Burrows Co. Toronto. |
| | Locomotives (Steam) American Locomotive Co. New York, N.Y. | Steam Couplers Safety Car Heating and Lighting Co., New York |
| | Baldwin Locomotive Works. Philadelphia, Pa. | Steam Shovels M. Beatty & Sons. Welland, Ont. |
| | Locomotives (Rack) American Locomotive Co. New York, N.Y. | James Cooper. Montreal. |
| | Baldwin Locomotive Works. Philadelphia, Pa. | W. H. C. Mussen & Co. Montreal. |
| | Machine Tools John Bertram & Sons Co. Dundas, Ont. | Steel James Cooper. Montreal. |
| | Matches The Hudson's Bay Company. | Rice Lewis & Son. Toronto. |
| | Milepost Numbers Acton Burrows Co. Toronto. | |

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