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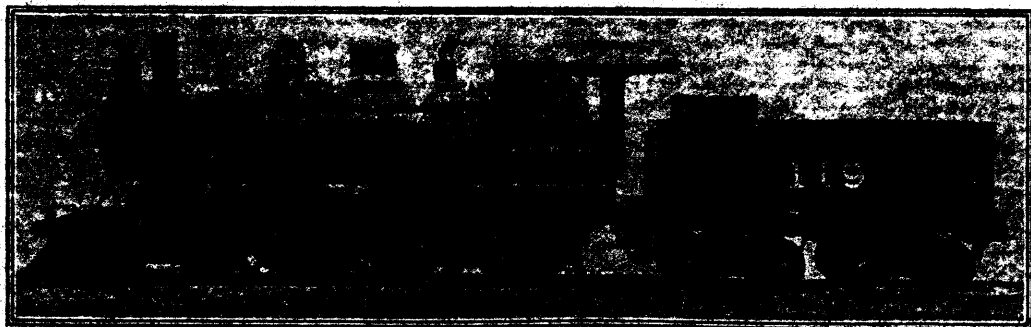
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TORONTO, CANADA, MARCH, 1903.

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The Overloading of Locomotives.

By G. J. Bury, General Superintendent Lake Superior Division, C.P.R.

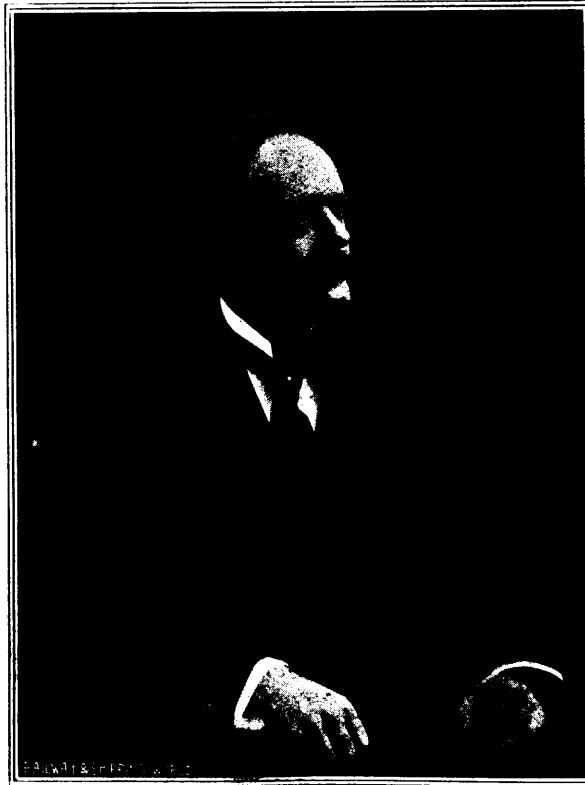
The average trainload in tons on our railways in 1889 was 179.35 and in 1901 it was 281.26, an increase of 101.91. This is due to three causes: reducing gradients, heavier locomotives and heavier loading of engines. These methods have increased the transportation capacity of the railways which adopted them and reduced expenses, but the third method was carried to such extremes that progressive railway managers have called a halt. The overloading of engines is a most expensive practice, occasioning more repairs than ordinarily needed and excessive fuel consumption, it lessens the capacity of a railway, is expensive in overtime and is indirectly the cause of train accidents.

The traffic of but few lines is constant, on the majority of roads fluctuating, by reason of the large freight movement following the garnering of the crops, etc. Officers closely identified with transportation recognize that the fewer additions that have to be made to the staff in moving a certain tonnage the better are the results. If freight trains average 15 miles an hour, train and enginemen in freight service can make 5,000 miles a month, while if the average be reduced to eight miles an hour (and I have known districts where the average was only four miles an hour), the men cannot stand more than 3,000 miles a month. Sixty crews under the former average will make 300,000 train miles in a month, while at an average of eight miles an hour it will take 40 more crews or 200 extra men to handle the same train mileage. Train and enginemen would be content to average 2,500 miles per month during slack season, or, for say eight or nine months in the year, provided they make 4,500 or 5,000 during the remainder. Therefore, when traffic becomes heavy the constant train staff could be looked to to handle double the freight traffic if the engines were loaded so that the former average speed be maintained. The more new men that have to be employed, and the longer hours train crews are kept on duty the greater the risk of train accident, as less care and watchfulness is displayed—and watchfulness and alertness has prevented many train wrecks. A man can only be expected to work a certain number of hours without rest, and when men are a long time on the road their duties are not as well performed as when fresh, resulting in extra fuel consumption, dilatory movements, etc.

Looking at the matter from a financial

standpoint, a consolidated engine hauls a train weighing 1,100 tons (tare and contents), over 118 miles in a district where there are several grades of 1% and taking into consideration time meeting trains, and letting faster trains pass, slowing up over grades, etc., averages eight miles an hour, the cost being as under:

Wages engineer and fireman	\$6 90
" " overtime.....	1 75
" conductor and brakemen	7 73
" " overtime	2 88



KENNET W. BLACKWELL,
President Canadian Society of Civil Engineers.

Oil and waste for locomotive.....	30
Fuel (7 tons at \$3.20)	22 40
	\$41 96

Or 32.3 cents per thousand ton miles.

The same train, if loaded with 1,000 tons (tare and contents) averages 15 miles an hour over the same district, and the cost is:

Wages engineer and fireman	\$6 90
" conductor and brakemen	7 73
Oil and waste for locomotives	30
Fuel (6 tons at \$3.20)	19 20
	\$34 13

Or 28.8 cents per thousand ton miles.

There is less strain on the engine in hauling the lighter train and engine repairs less, but what the difference would amount to could only be ascertained by actual tests carried over some period.

The economical engine load is variable and is governed, not only by the number and length of grades, but by the density of traffic. On a road where traffic is very light at certain periods and dense at other periods, it might be good transportation to load engines heavily during light traffic, but it would be suicidal to load engines heavily when traffic was dense, even one train staggering and doubling over a district will demoralize the trains following and those met, resulting in overtime, extra consumption of fuel, and the risk of train accident which increases when train and enginemen are long hours on duty. In loading engines it has been the practice on some roads to so load them that they would haul a train at seven miles an hour over the steepest grade. If the steepest grade were of short length, no great delays might result, but if the steepest grade for instance, was to be eight miles in length, an engine, with a run for it, would take one hour to make the eight miles and the longest time it takes to make the distance between two stations is what limits the traffic. With trains loaded in this way, the traffic would be greatly restricted.

In a general way locomotives should be so loaded when traffic is dense that they may make an average speed over a district of 15 miles an hour, providing there are no unusual delays, and while theoretical tests are all very well for a basis on which to work, the only way to arrive at the engine load is by actual tests in practice. After ascertaining what an engine will do in actual practice the load should be shaded slightly from this. No fixed rule can be given for the loading of engines, but the conditions of each district at each period must be closely studied and the load be made such that the train can make reasonably good time. It may be taken as a general principle (providing engines are in good condition) that, where trains are a long time on the road, and the dispatching is not at fault, that the engines are too heavily loaded. A live superintendent will hustle over his district on freight trains, see on the ground where the trouble lies, and fix the load to meet the conditions without delay.

The foregoing paper was read at a recent meeting of the Canadian Railway Club.

The Algoma Central and Hudson Bay Ry. has adopted central standard instead of eastern standard time for operating its trains.

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de Martigny; Owen Sound, J. M. Wilson.
NEXT ANNUAL MEETING of the Grand Council in
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Northern's Montana division, has been ap-
pointed Superintendent of the Northern Pa-
cific terminals at Winnipeg."—International
Railway Journal.

The Northern Pacific has no terminals in
Winnipeg, having withdrawn from Manitoba
in 1901, when its lines were leased to the
Manitoba Government and then re-leased to
the Canadian Northern Ry.

"The work of standardizing the Great
Falls & Canada, between Shelby Junction and
the Canadian line, having been completed, the

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Canadian Pacific is able to run through trains to
Great Falls, Mont."—International Rail-
way Journal.

The Canadian Pacific does not run through
trains to Great Falls. The line from Leth-
bridge to the International boundary is op-
erated by the Alberta Ry. & Coal Co., and
from the boundary to Great Falls by the Great
Northern Ry., U.S.A.

Grand Trunk Pacific.—"It is stated that
this company intends to utilize the Midland
Division down to the main line of the Grand
Trunk either at Port Hope or Belleville, from
which there is a double track to Montreal.
This means that there will be no line through
the Ottawa Valley for some time to come.
According to the present route named, the
line will pass through Maniwaki, the terminus
of the Ottawa, Northern & Western, now
controlled by the Canadian Pacific, and which
is about 100 miles north of the capital."
—Railroad Gazette.

In view of the fact that the notice of appli-
cation for a charter states that power will be
asked to build from Gravenhurst or North
Bay, northwesterly or westerly, the line will
certainly not get anywhere near Maniwaki,
which is some 200 miles northeast of North
Bay.

The C.P.R. Club at Toronto Jct., Ont., has
a membership of over 200. The report for
1902 shows a considerable surplus.

Railway Cattle-Guards.

The commissioners appointed by the Minister of Railways to enquire into the question of cattle-guards for railways, F. W. Holt, C.E., and G. Robertson, of St. John, N.B., issued a circular to designers and inventors stating that a good guard to be accepted by the commissioners would be judged by the following qualities:—

1. It must be tried by actual experience on some railway, to discover its adaptability as a track appliance.

2. It must then fulfil, as near as possible, the following conditions:—

(a) It must not be of such form or construction as to cause the derailment of rolling stock of a railway, or if derailed and passing over it, to cause any greater risk to the train and its contents than if it were not in place.

(b) It must be as efficient as is practicable in turning stock. When condition (a) is complied with this is the leading requirement.

(c) Quietness under a rapidly running train is a very desirable quality; that is, it should not rattle or give other audible noises when a high speed train is passing it.

(d) It should not be liable to disarrangement under the conditions of use, and consideration should be given to the fact that brake and other gear at times is dropped so low as to be in danger of tearing up projecting parts if not guarded against.

(e) The matter of expense of first cost and maintenance should be given careful consideration, including facility of repair by section men under ordinary conditions, and further as to the facility of keeping the track at the point occupied by the guard in equally good condition with that of the adjoining track and road-bed.

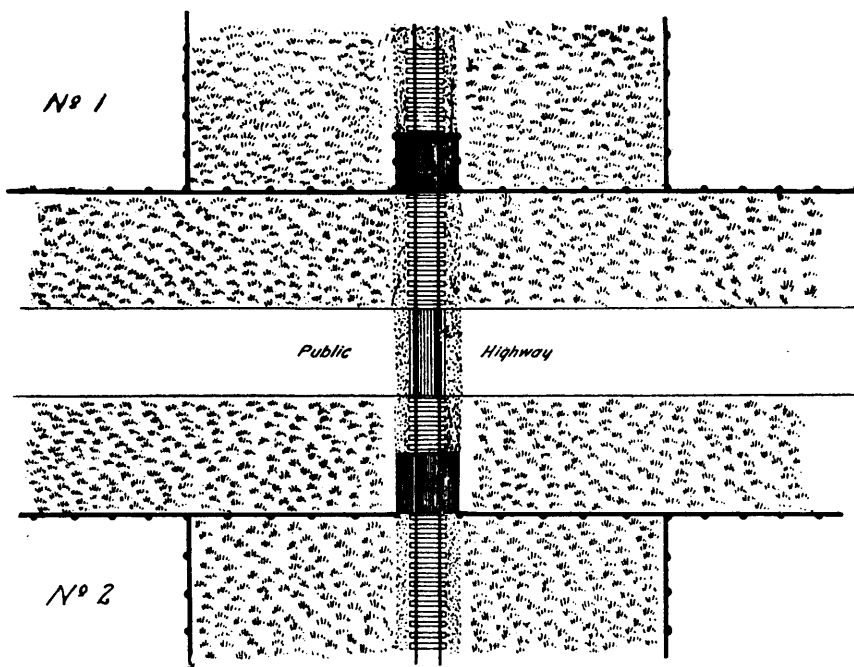
(f) To be easily and safely passed by trainmen on foot.

(g) Not to entrap animals by catching and holding their feet.

The commissioners also issued diagrams, copies of which are given on this page, showing a proposed change of location of cattle-guards at highway crossings, accompanied by the following memorandum:—

"Diagram 1 represents a cattle-guard of any type as it is usually set relative to the highway fence, the only difference being that in some cases the highway fence is brought to the middle of the guard instead of the highway end as shown.

"Diagram 2 shows the proposed change in the location of fences and guards, i.e., place the guard within 4 or 5 ft. of the ends of the crossing plank of the travelled way and bring the highway fence to within 7 ft. or 8½ ft. of the centre of track and return parallel with track to highway end of guard. The object being—in case of wandering animals feeding along the roadside, their attention will be directed away from the right of way of the railway, instead of finding an opening into which their curiosity tends to lead them, as now. It reduces the length of crossing upon which animals may gather, as is their tendency in some localities. At the same time it does not impair the usefulness of the highway in the least, since the part thus fenced is not used for travel. It will be additionally effective as a crossing signal and prevent teams under the guidance of irresponsible drivers from turning down the track. Of this there are several disastrous instances, particularly in reference to the old pit guard, as well as others. It offers no inducement for the animals to go on the right of way, because there is apparently only the track ties and ballast, protected by a guard, to the right or left, while there is the regular highway with no hindrance, left open to them, with further apparent open gateway which curiosity will tend to lead them to choose. In case of cattle being met on the crossing by a train, as is frequent, the fences will act as a shelter be-



ARRANGEMENT OF CATTLE GUARDS AND FENCE.

hind which the animals will dodge, instead of, as now, making a rush for the opening which the guard is called upon to protect."

The commissioners have been devoting considerable time to testing appliances offered by manufacturers and inventors at the exhibition buildings, Ottawa. A section of standard gauge track was laid for the purpose, and the invention put in place. A tempting feed of hay is put near one end of the guard, and half-a-dozen cattle are led into the area on the other side and left to their own devices. The efficiency, or otherwise, of the guard is thereby put to the test. The commissioners, railway men, inventors and others make note of the result. It is a question whether the later tests, at any rate, are just exactly fair, as the cattle have become "experts" in this line of business.

Color Sense, Sight and Hearing.

The C.P.R. Manager of Transportation, Thos. Tait, has issued a circular stating that the management recognizing the need of a uniform system of testing the color sense, sight and hearing of employes connected with the movement and handling of engines and trains and for the further safe-guarding of life and property, have, after careful consideration, adopted a standard of tests which are as simple as it is possible to have them, consistent with accuracy. On and after Jan 1, 1903, a standard of color sense, sight and hearing will be adopted, and everyone appointed to the occupations hereinafter named must be provided with a certificate showing that his color sense, sight and hearing measures up to this standard. R. J. E. Scott, Chief Inspector or Time Service, has been appointed Chief Examiner, and the certificate must be signed by him, or his designated representative, after he has tested the candidate in the manner prescribed.

COLOR SENSE will be tested by Prof. Holmgren's wools and Dr. Williams' lantern, but not by the matching of colors, as some have wrongly supposed. The purpose is not to find out how much technical knowledge of shades of color a man has, but simply to determine if he is dangerously defective in his perception of red or green. Sight will be tested by the reading of various test cards at a distance of 20 ft., each eye being tested sep-

arately. An employe requiring glasses to read a train order or a newspaper, may not be at all disqualified for seeing at a distance. Hearing will be tested by counting the ticks of a ratchet acoumeter at a distance of 20 ft., each ear being tested separately. Any employe who on being tested by the Chief Engineer is found to be seriously defective in color sense, sight or hearing, may appeal to a designated oculist specialist, and the cost of such examination will be paid by this Co. Re-examinations will be made every three years, or after a serious illness or accident; or yearly (for sight) in Class A if one eye is found to have less than half of normal vision. Employes will be notified locally as to dates on which the Chief Engineer will be at divisional headquarters for the purpose of making examinations and issuing certificates. The following standards of sight will be considered as satisfactory for the different classes of employes mentioned. These standards must be strictly observed, but if in the opinion of the Superintendent any exception should be made the matter must be referred to the General Superintendent for final decision, with full report containing the reasons therefor.

CLASS A—Engineers, firemen, signalmen. On entering the service, 20/20 in each eye tested separately without glasses. Re-examination of those in the service: not less than 20/30 with both eyes open, without glasses. Glasses not to be worn on duty, except for reading train orders, or similar use.

CLASS B—Conductors, train baggagemen, brakemen, yardmasters, yard foremen, yardmen, switchmen, road crossing flagmen. On entering the service, 20/20 in one eye, and not less than 20/40 in the other, tested separately, without glasses. Re-examination of those in the service: not less than 20/40 with both eyes open, without glasses. Glasses not to be worn on duty by men whose work requires them to be out of doors in all weather, but they may be worn for reading or similar use.

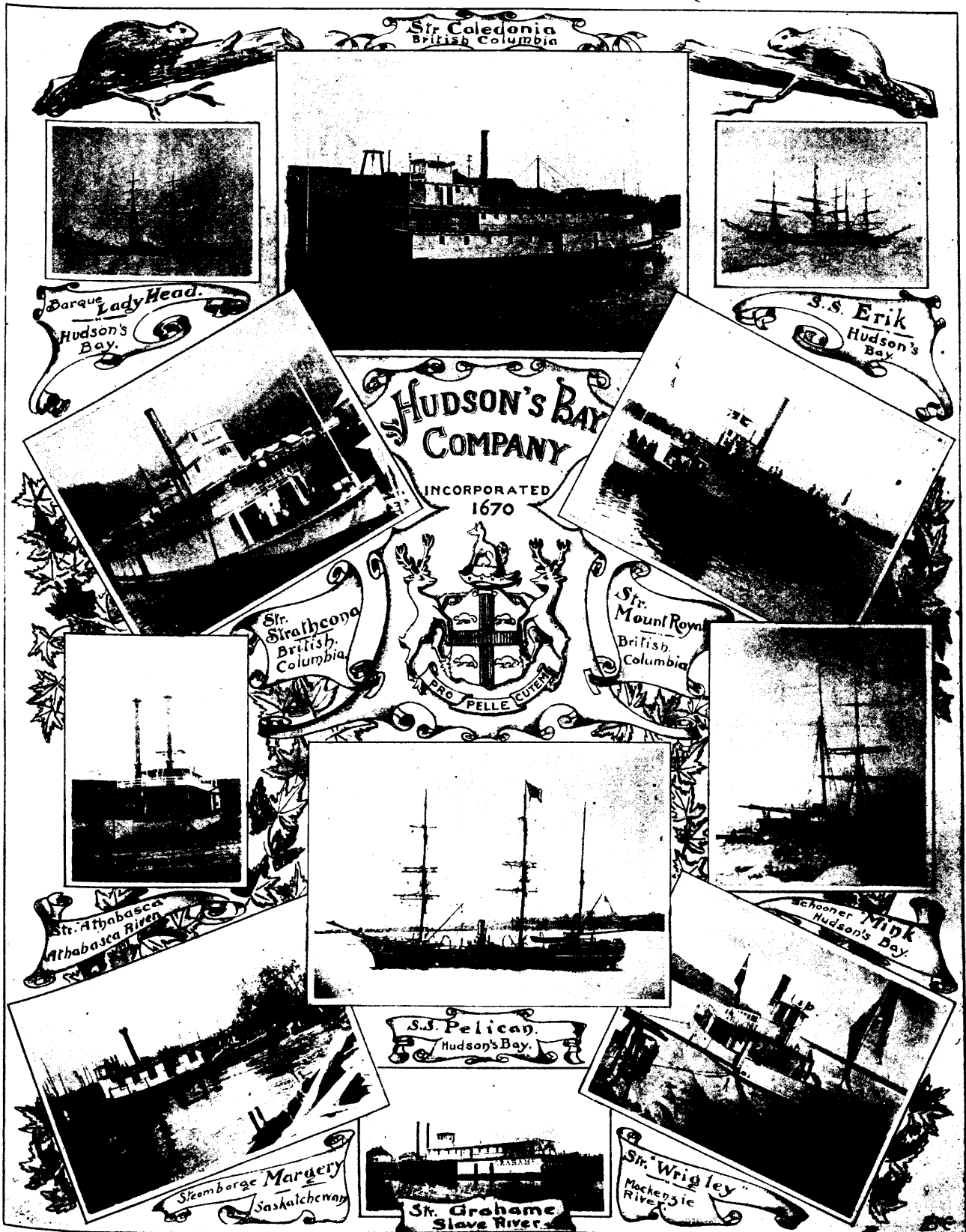
The Duluth, South Shore and Atlantic Ry., owing to the scarcity of fuel, has ceased hauling the dining cars of the Chicago and Northwestern Ry. and the Chicago, Milwaukee and St. Paul Ry. to Calumet and Marquette, but will do so again when navigation is reopened.

Galena-Signal Oil Company,

Franklin, Pa., and Toronto, Ont.

**Successor to Galena Oil Company and
Signal Oil Company, sole Manufacturer
of the celebrated Galena Coach, Engine
and Car Oils, and Sibley's Perfection
Valve and Signal Oils.**

CHARLES MILLER,
PRESIDENT.



TRANSPORTATION IN THE FAR NORTHWEST.
The Hudson's Bay Company's ocean, lake and river fleet.

The Engineers' Club of Toronto.

C. H. Rust, City Engineer of Toronto, in the course of his inaugural address as President of the Engineers' Club of Toronto, recently dealt with the work of the City Engineer, and gave a good deal of interesting informa-

tion about Toronto city works. Among other matters he alluded to the operations of the Bell Telephone Co. and the Toronto Ry. Co. "The Bell Telephone Co.," he said, "is the only telephone company operating in Toronto. The Co. has about 7,200 telephones in use and 11,000 miles of overhead wire, 10,000

miles of underground wire, 49,000 ft. of underground conduit and 6,000 ft. of ducts." Referring to the street railway, Mr. Rust said: "In 1861 the city council passed a by-law authorizing the construction of street railways under a proposal made by Alex. Easton. A flat rail of Philadelphia pattern

was used and the tracks were to be of such a gauge as would permit of their use by ordinary vehicles, which was fixed at about 4 ft. 11 in. The cars were to be run 16 hours daily in the summer and 14 hours in the winter, with a headway not greater than 30 minutes, the maximum fare to be 5c. on any route. The franchise was for 30 years. The only revenue derived by the city from the franchise was a yearly fee of \$5 a car. Between 1862 and 1869 the Co. constructed about 4 miles of single track in accordance with the terms of the lease, viz., on King st., from St. Lawrence Market to Yonge st.; on Yonge st., from King st. to the Yorkville town hall, and on Queen st., from Yonge st. to Dundas st. The road not proving prosperous, an act for its sale was secured in 1869 and a sale was made to Wm. and Geo. Kiely. The consideration was about \$49,000. The property then consisted of 4 miles of single track, 40 horses, 12 two-horse cars, 2 one-horse cars and 4 or 5 busses. The actual cash payment, however, was only \$7,500. The first year's business from 1869 to 1870 showed a net profit of \$11,200, with assets estimated at \$58,000. The net revenue in 1889 and 1890 was \$243,000, while between 1869 and 1890 the owners drew out of the Co. in dividends, bonuses and salaries, \$554,000. The corporation having decided, on the termination of the 30 years' lease, to acquire the property, in 1890, Judge Senkler, S. Barker and C. H. Ritchie were appointed arbitrators. The arbitration began on Sept. 2, 1890, and the arbitrators made their award April 15, 1891, allowing the Co. \$1,543,788. On May 16, 1891, the city acquired the property and engaged Jas. Gunn, Secretary of the Co., to act as Manager. The only change made was the reducing of the employees' time to 10 hours a day, at a minimum rate of wages of 15c. an hour. This increased the running expenses and reduced the net profits considerably. Notwithstanding, the city's management from May 16 to Aug. 31, 1891 showed a balance of \$61,863, the net profit being \$45,500. On Sept. 1, 1891, the contract and lease between the new company and the city was signed and the property handed over, the company agreeing to pay the city \$800 a mile of single track and 8% of the gross receipts; when the gross receipts exceed \$1,000,000 the company pays the city 10%. The company at present has in operation about 90 miles of single track and 696 cars of all kinds."

The Engineering and Contracting Co. of Canada (Ltd.) has been incorporated under the Dominion Companies' Act, with a capital of \$500,000, to carry on the business of general contractors, and among other purposes to acquire the business of Davis, Haney and Miller, of Depot Harbor, Ont. The provisional directors are J. T. Davis, of Montreal; M. J. Haney, C.E., Toronto; R. Miller, F. R. Miller, C.E., of Ingersoll, Ont.; and J. R. O'Neill, of Cardinal, Ont.

The action brought by the Taff Vale Ry. Co. against the Amalgamated Society of Railway Servants for damages caused by the Co.'s employees going on strike by order of the society, has been decided in favor of the Co. by the British courts, the question of the amount of damage being reserved. The Co. claims £28,000. The society has decided to accept the verdict, and to pay whatever damages are assessed against it.

The Simplex Railway Appliance Co. of Canada (Ltd.) has been incorporated under the Dominion Companies' Act, with a capital of \$500,000, to manufacture and deal in railway supplies and appliances of every class and description. The incorporators are: W. V. Kelley, G. E. Scott, R. P. Lamont, of Chicago, Ill.; W. W. Butler, of New York city; and R. D. McGibbon, of Montreal. The chief place of business is Montreal.

TWENTY-SECOND ANNUAL STATEMENT

—OF THE—



NORTH AMERICAN LIFE ASSURANCE COMPANY

HEAD OFFICE, 112-118 KING ST. WEST
TORONTO

For the Year Ended 31st December, 1902

Dec. 30, 1901. To Net Ledger Assets.....\$4,194,309 61

RECEIPTS

Dec. 31, 1902. To Cash for Premiums.....\$1,049,652 74
To Cash Income on Investments..... 221,187 47
1,270,840 21
\$5,465,149 82

DISBURSEMENTS

Dec. 31, 1902. By payment for Death Claims, Profits, etc.....\$374,413 14
By all other Payments..... 316,851 33
691,264 47
\$4,773,785 35

ASSETS

Dec. 31, 1902. By Mortgages, etc.....\$1,070,703 98
By Debentures (market value \$1,097,535 52)..... 1,080,601 92
By Stocks and Bonds (market value \$1,501,764.00)..... 1,455,729 87
By Real Estate, including Company's building..... 404,684 69
By Loans on Policies, etc..... 321,642 92
By Loans on Stocks (nearly all on call)..... 351,257 00
By Cash in Banks and on hand..... 89,165 17
\$4,773,785 35
By Premiums outstanding, etc. (less cost of collection)..... 198,982 10
By Interest and Rents due and accrued..... 38,045 76
\$5,010,813 21

LIABILITIES

Dec. 31, 1902. To Guarantee Fund.....\$ 60,000 00
To Assurance and Annuity Reserve Fund..... 4,385,565 00
To Death Losses awaiting proofs, etc..... 50,203 45
\$4,495,768 45
Net Surplus.....\$515,044 76

Audited and found correct,

JOHN N. LAKE, Auditor.

The financial position of the Company is unexcelled—its percentage or net surplus to liabilities exceeds that of any other Home Company.

New insurance issued during 1902.....\$6,600,265 00
Exceeding the best previous year in the history of the Company by over one million dollars.
Insurance in force at end of 1902 (net).....\$30,637,268 00

PRESIDENT—JOHN L. BLAIKIE.

VICE-PRESIDENTS—JAS. THORBURN, M.D., HON. SIR WILLIAM R. MEREDITH, K.C.

DIRECTORS—HON. SENATOR GOWAN, K.C., LL.D., C.M.G., E. GURNEY, Esq.,

L. W. SMITH, Esq., K.C., D.C.L., J. K. OSBORNE, Esq.,
D. McCRAE, Esq., Guelph.

MANAGING DIRECTOR—WM. McCABE, LL.B., F.I.A., F.S.S.

SECRETARY—L. GOLDMAN, A.I.A.

MEDICAL DIRECTOR—J. THORBURN, M.D. (Edin.)

The Report containing the proceedings of the Annual Meeting, held on January 29th last, showing marked proofs of the continued progress and solid position of the Company, will be sent to policy holders. Pamphlets explanatory of the attractive investment plans of the Company, and a copy of the Annual Report, showing its unexcelled financial position, will be furnished on application to the Head Office, or any of the Company's agencies.

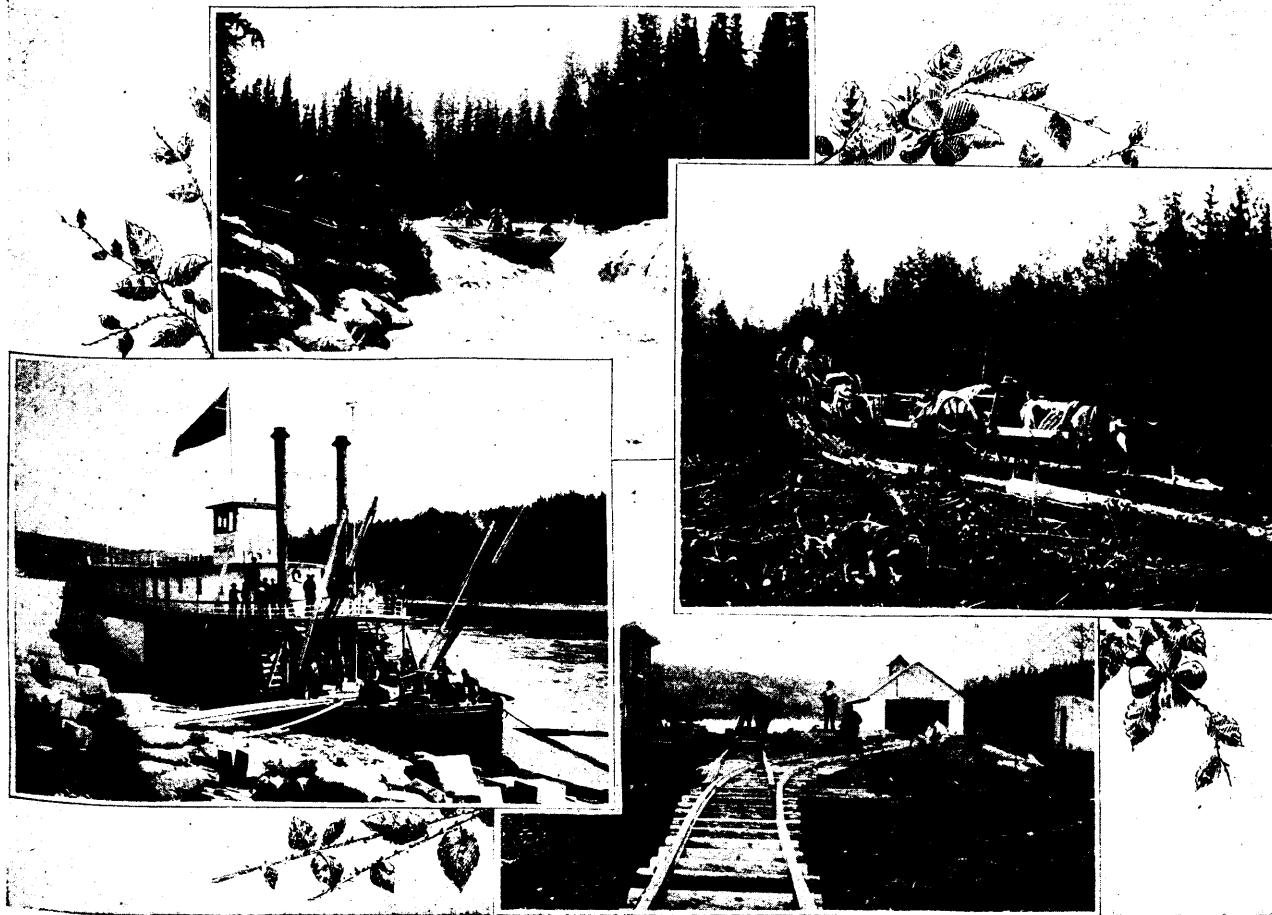
THE HUDSON'S BAY COMPANY.

The story of the Hudson's Bay Co. since Henry Hudson set sail from London in 1607 for the north coast of Greenland to discover the Northwest passage contains much that is highly romantic and exceedingly fascinating; indeed, it reads like a story from the Arabian Nights. The Company was incorporated by Royal Charter in 1670. It is the oldest corporation in the world, and when posterity shall demand the roll-call of the famous corporations which have done so much for this Dominion in its remote and almost inaccessible regions, the name of the Hudson's Bay Co. will stand out in letters of gold. Through this Company great advances were made in the civilization of Western Canada when the

and gave the Company the sole right of trading in Rupert's Land—which embraced all lands drained by Hudson's Bay and its tributaries. Here the Company carried on fur trading for two centuries. With the advance of civilization and the development of the Dominion, competition and strife came, which wrought many changes, to chronicle which would require several volumes. The history of the Hudson's Bay Co. since the amalgamation of the western territories with the Dominion is no longer that of a powerful trading corporation holding sovereign power over a vast region, but its history is inseparable from the history of the Dominion, and remains a proud record of progress, prosperity, and perseverance.

The Company still, however, continues to

and it has extensive branches at Battleford, Biscotasing, Calgary, Deloraine, Edmonton, Fort Frances, Fort William, Glenora, Kamloops, Lethbridge, Lower Fort Garry, Macleod, Mattawa, Missanabie, Nelson, Nipissing, Pincher Creek, Portage la Prairie, Port Simpson, Prince Albert, Qu'Appelle, Quessel, Rat Portage, Shoal Lake, Vancouver, Vernon, Victoria, Whitewood, Yorkton, and last and not least, Winnipeg. In addition to the above formidable array of business houses the Company owns a fleet of steamboats which ply upon the Athabaska, Slave, Mackenzie, Skeena, and Stikine rivers. It has steamers also plying between London, Eng., and York Factory, on Hudson's Bay; in fact, so widespread are the operations of the Company that the out-of-the-way traveller



THE HUDSON'S BAY COMPANY'S NORTHERN TRANSPORT SERVICE.

- (1) Scow running the rapids at Smith portage.
- (2) Carts on portage at Slave river.
- (3) Steamer Grahame, Athabasca river.
- (4) Tramway at the Grand Rapids of the Athabasca river

rest of the world considered it merely "a few acres of ice and snow."
 We would be glad to give the whole romantic story which preceded and followed the granting of the charter by that most bountiful of lavish donors—King Charles II., but time and space will only permit a few hard facts dealing with the present-day operations of this great Company. By his "especial grace, certain knowledge, and mere motion" Charles gave "to his beloved cousin, Prince Rupert," the Duke of Albemarle, the Earl of Craven, Lord Arlington, Lord Ashby, several baronets, knights and citizens—less than twenty in all—the territory which was henceforward to be the property of the Hudson's Bay Co. Worthy of notice is the high rank of the nobles and gentlemen associated with a prince of the Royal blood in this mercantile company. The charter was broad and liberal,

be the largest fur-trading corporation in the world, and its annual sales in London, Eng., attract buyers from all parts of the world. The Company has made giant strides in the mercantile world, and it is not too much to say that there is no concern of the kind in the old or new world that can be compared with it. Its business ramifications are so extensive and varied that they stretch from the Labrador coast to the boundary line between Alaska and British Columbia, and from the 49th parallel to the Arctic seas. It has trading posts, as one may say, in the uttermost parts of the earth, and has developed a mercantile trade which reigns supreme.
 It carries on a large milling business, and maintains flour mills at Winnipeg, at Prince Albert, Sask., and at Vermillion, in the Peace River Valley. The headquarters of its mercantile business in Canada is at Winnipeg,

who fancies himself "forty miles from soap, civilization, and whiskey" may suddenly be agreeably surprised to find that an agent of the H.B. Co., with all the conveniences of life, is within reach.
 The names given to some of the most distant and dreary of the northern posts of the Company on Mackenzie river and the Great Slave lake seem to have been designed to keep up the spirits of their isolated occupants. Thus we have "Providence," "Reliance," "Resolution," "Enterprise," "Good Hope," and "Confidence."
 Every Sunday the Company's flag floats from the office of the factor at each post, thus serving as a kind of calendar for the natives to mark the passing of another week of time. It is a plain white pennant, bearing upon its surface the crest of the Company, its motto, "Pro Pelle Cutem," and the initials

"H.B.C.," which one traveller, who came upon it for the first time in the wilderness, interpreted to stand for "Here before Christ."

As an illustration of what some of the outlying posts of the Company are like, a brief description may be given of the most northerly permanent dwellings of white men on the Atlantic side of the American continent. These are to be found at Fort Chimo and Fort George, on Ungava bay. Fort Chimo was established as a trading station by the Hudson's Bay Co. about 1828, and continued until 1841, when it was abandoned, and re-established in 1866. About a dozen log structures, covered with boards, in most instances whitewashed, are arranged upon no definite plan, while the population is exclusively that of the servants of the Company, several of whom have taken native Eskimo wives. The station is supported by the yield of furs from the district, by the capture of the white whale, of which some 200 are taken annually; by the dressed skins of the reindeer, of which over 2,000 are often killed in the course of a year, and by the large quantities of salmon taken for export, running from 25 to 50 tons annually, besides the export of about 120 barrels of porpoise and seal oil.

It is just 21 years since the Company moved its headquarters from old historic Fort Garry, now within the limits of the city of Winnipeg, to the corner of Main, York, and Fort streets. Here the Company erected a huge structure covering a whole block, which contains the general offices and the stores. There is no establishment on the American continent that carries a more complete or diversified line of merchandise than the Hudson's Bay Co.

The Governor of the Company is Lord Strathcona and Mount Royal, whose deep interest in the affairs of the great Company, as well

as in all that pertains to the best interests of Canada, is too well known to require to be more than mentioned.

The chief executive officer in Canada is the Commissioner, Mr. C. C. Chipman, whose headquarters are in Winnipeg, from which he controls the entire business of the Company in Canada. To stand at the head of such a time-honored, mammoth, and successful corporation, and guide its destinies with unerring judgment, is not only a high honor, but demands a rare amount of tact, judgment, business energy, acumen, and capacity. All these, combined with a high intelligence and sound reasoning powers, Mr. Chipman possesses to a high degree. He has, in addition, a marvellous mastery of details, and an intimate and far-reaching knowledge of the minutest workings of this great business. He is enterprising and progressive, and one of those with whom it is a pleasure to do business.

The C.P.R.'s Irrigation Project.

The proposed Bow river irrigation canal scheme, which is now being considered by the C.P.R. Co., is one of the largest irrigation projects on this continent. The proposed canal heads in the Bow river in the immediate vicinity of Calgary, and is designed to divert from the Bow river at that point some 2,000 cubic feet of water per second for the irrigation of the large area lying east of Calgary and adjacent to the main line, which, it is thought, if brought under irrigation will be rapidly settled and developed into one of the most prosperous districts in the west. Some 2,500,000 acres of land are embraced in the scheme, and the ultimate cost of the completion of the total scheme will be about \$4,500,000. It is not, however, proposed to expend all this sum at once, but to proceed with the

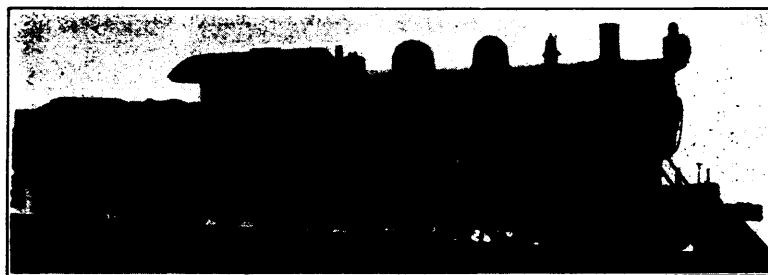
construction of the canal section by section, so that the possibility of colonizing and developing the land by the means of irrigation can be clearly demonstrated as the undertaking is extended.

Irrigation is largely a new work in Canada, because in the older Provinces and the larger part of Manitoba and the Northwest Territories there is sufficient rainfall to mature crops without the aid of the artificial application of water. In a large part of Southern Alberta and Western Assiniboia, however, the annual rainfall only amounts to about 11 ins., and while there are seasons such as those experienced during the last three years within which there has been sufficient rainfall to mature crops, experience has proved that in the large number of years crops can only be successfully raised when artificially watered, and with water diverted from streams through irrigating canals.

Over 500 miles of irrigation canals and ditches have been constructed in Southern Alberta and Western Assiniboia, and the results obtained from the application of water through these canals has conclusively proved that by irrigation all the fodder and coarse grain crops can be successfully produced. In fact, the transformation which has been worked in the Lethbridge district owing to the construction of the large irrigation system of the Canadian Northwest Irrigation Co. may be referred to as one of the most marvellous developments of the West, where rapid settlement and development are the rule rather than the exception, at least during the last three years, and it is thought that if anything like the same results can be obtained in the area which is proposed to be embraced in the Bow river canal scheme, that district, which is now practically unsettled, can be peopled with prosperous settlers and made revenue-producing from the traffic standpoint as far as railways are concerned. It

AMERICAN LOCOMOTIVE CO.

Builders of Single Expansion and Compound Locomotives for All Classes of Service, from Original Designs or from Specifications Furnished by Purchasers.



Atlantic Type Locomotive, built for the New York Central and Hudson River Railroad.

OWNING AND OPERATING THE

SCHENECTADY LOCOMOTIVE WORKS, Schenectady, N.Y.
BROOKS LOCOMOTIVE WORKS, Dunkirk, N.Y.
PITTSBURG LOCOMOTIVE WORKS, Allegheny, Pa.
RICHMOND LOCOMOTIVE WORKS, Richmond, Va.

COOKE LOCOMOTIVE WORKS, Paterson, N.J.
RHODE ISLAND LOCOMOTIVE WORKS, Providence, R. I.
DICKSON LOCOMOTIVE WORKS, Scranton, Pa.
MANCHESTER LOCOMOTIVE WORKS, Manchester, N. H.

President - - S. R. Callaway | Second Vice-President, R. J. Gross | Treasurer - - C. B. Denny | Mechanical Engineer - - - - - J. E. Sague
 Vice-President - A. J. Pitkin | Secretary - - - - - Leigh Best | Comptroller, C. E. Patterson | General Purchasing Agent, H. C. Hequembourg

GENERAL OFFICES ——— **25 Broad Street, NEW YORK CITY.**

will, of course, take some years to elaborate this scheme, but general satisfaction has been expressed throughout the whole West at the fact that the Co. is taking it up and purpose dealing with the matter in a vigorous manner. The work will be in charge of J. S. Dennis, who has been appointed Superintendent of Irrigation and B.C. Land Commissioner, with office at Calgary, Alta.

The C.P.R. has engaged W. W. Hubbard, an agricultural writer and an authority on stockbreeding, to lecture in the districts of the Maritime Provinces served by the line, on a number of topics of interest to farmers, with a view of developing stockraising, etc., and thereby bringing increased freight to the Co. Many U.S. railways have an elaborate system of promoting traffic along these lines, and for a number of years the Great Eastern Ry. in England has been building up the poultry and fruit raising industries of Essex and Suffolk by somewhat similar means.

By the purchase of the Lake Erie and Detroit River Ry., the Pere Marquette Rd. will be able to carry freight from its Detroit and Port Huron terminals as far east as St. Thomas, about 120 miles in each case. At St. Thomas the traffic will be handed over to the Michigan Central Rd., under a pro rata arrangement. This applies to freight only, but it is understood that the P.M. Rd. is after passenger business as well.

The Canadian Northern Ry. has been holding classes for the instruction of its employes in the standard train rules, which went into operation on its lines Mar. 1.

Canadian Society of Civil Engineers.

The annual meeting was held in Montreal Jan. 28 and 29, under the chairmanship of Martin Murphy, D.Sc., President, who, in the course of his presidential address, dealt with the growth of the science and practice of engineering in Canada, and pointed out that there were now over 18,000 miles of railway in the Dominion, built at a cost of a billion dollars, of which Dominion, Provincial and Municipal Governments had contributed something less than one-quarter. Canada had more railways in proportion to her population than any other country in the world, Australia being a close second, and the United States third.

The report of the council showed that during 1902 there had been elected 14 members, 27 associate members, 3 associates and 72 students, the roll now containing the names of 8 honorary members, 338 members, 341 associate members, 33 associates and 262 students, a net total increase over 1901 of 90. The report specially referred to the death of E. P. Hannaford, a past president, and for 30 years Chief Engineer of the G.T.R. The Treasurer's report showed a balance of \$1,024.06 on general account, and of \$742.51 on building account.

A proposition to change the name of the society by dropping the word "civil" was discussed, but was left over for the new council.

A number of papers were read, including the following: Tide Levels and Datum Planes in Eastern Canada, by W. B. Dawson, D. Sc., F.R.S.C.; The Hydraulic Dredge, King Edward VII., by A. W. Robinson; The economy of small gas engines using Montreal illuminating gas, by H. M. Jaquays; and

Some problems in connection with the erection of the Miramichi bridge, by H. D. Bush.

The election of officers, a list of whom will be found on the second page of this issue, the fixing of a standard for cement, and the transaction of general business concluded the meetings. The members dined together Jan. 28 and entertained a number of scientific men and railway officials, F. H. McGuigan, Manager, G.T.R., and C. J. Smith, Traffic Manager, Canada Atlantic Ry., replying to the toast of the guests.

Superintendent J. B. Morford, of the Michigan Central, recently appeared before Judge Hickey, of Niagara county, N.Y., to answer a charge of alleged violation of law in discharging clerks because they belonged to the Order of Railway Clerks. The law cited makes it a misdemeanor for an employer to compel or coerce an employe not to join a labor organization, as a condition of securing or retaining employment. The facts of the case showed that on Dec. 1, 1902, two clerks were discharged by the agent at Suspension Bridge, N.Y., and the other 22 threatened to leave work unless the discharged clerks were reinstated. On the fact being reported to Mr. Morford he directed the discharge of the 22 unless they returned to work on the following morning. They did not do so and were discharged. Some of the clerks went to Longport and had Mr. Morford indicted under section 171 of the Criminal Code, "Coercion of employes."

A passenger service has been established between Chicago, Ill., and Sault Ste. Marie, Mich., via the Chicago and Northwestern Ry. and the Minneapolis, St. Paul and Sault Ste. Marie Ry. The new service is via Milwaukee, Fond du Lac, Oshkosh and Green Bay, Marinette, Menominee and Escanaba to Larch, the junction point with the "Soo" line and thence via Gladstone, Manistique and Trout Lake to Sault Ste. Marie. The through sleeping car leaves Chicago at 8 p.m. daily, except Sunday, from the Northwestern's Wells st. station and reaches Sault Ste. Marie at 10.20 the next morning. Southbound, leaves the "Soo" at 3 p.m. daily except Sunday, arriving in Chicago next morning at 7.30.

The Inverness Ry. and Coal Co.'s collieries output for 1902 was 68,506 tons, of which 30,182 were mined between Oct. 1 and Dec. 31.



TRANSPORTATION IN THE FAR NORTHWEST.

Hudson's Bay Company's dog trains at Lower Fort Garry, Manitoba, bound north.

Fast Run on the Michigan Central Rd.

E. D. Bronner, Superintendent of Motive Power of the M.C.R., has supplied the record of a fast run recently made on the Canadian division. The locomotive was no. 483, of the 4-4-2 type, built at the Schenectady works of the American Locomotive Co., and similar to those of the same type on the New York Central. The train of 16 passenger equipment cars weighed 605.55 tons, and was hauled 168.22 miles in 127 minutes—at the rate of 55.8 miles an hour. There were eight slow-downs. Considering these and the weight of the train, this record is believed to be unsurpassed. The weight of the engine with a half tank of water and coal is 125.62 tons, making a total of 731.19 tons, including the engine and tender. The weight, 605.55 tons, is that back of the tender. This run demonstrates the value of this able boiler with 3,521 sq. ft. of heating surface, and of the large grate. The record of the run is as follows:

Station.	Time.	Mins.	Miles.	Miles per hr.
Bridgeburg.....	A8:13 a.m.			
	D8:19 a.m.			
Victoria	8:21	2	0.81	24.30 *
Niagara Jct.	8:24	3	1.27	25.40 *
Stevensville	8:30	6	5.06	50.60
Brookfield	8:35	5	5.44	65.28
Welland	8:40	5	4.71	56.52 †
Perry	8:50	10	9.34	56.04 †
Attercliffe	8:59	9	8.22	54.80
Canfield	9:07	8	7.33	54.98 †
Edward	9:12	5	4.82	57.84
Hagersville.....	9:24	12	11.57	57.85 †
Townsend	9:30	6	5.57	55.70
Villa Nova	9:32	2	2.25	67.50
Waterford	9:37	5	4.93	59.16 †
Windham	9:44	7	6.57	56.31
Pt. Dover Jct.	9:48	4	4.13	61.59 †
Hawtreay	9:49½	1½	1.23	49.20
Cornell	9:54½	5	5.08	60.96
Tillsonburg	10:00	5½	5.44	59.35
Brownsville	10:06	6	5.79	57.90
Springfield	10:11½	5½	5.47	50.67 †
Aylmer	10:14	2½	2.46	59.04
Kingsmill	10:17	3	2.74	54.80
Yarmouth Crossing †
St. Thomas.....	A10:26	9	7.99	53.27 *
		127	118.22	

* Yard limits. † Slow down for R. R. crossing.
‡ Slow down for double track switch.

The train consisted of eight New York Central coaches, one baggage and mail car, one express car, five Michigan Central coaches and one Pullman sleeper. The cars weighed 1,081,150 lbs. and the contents (estimated) 130,000 lbs. Such a train would require a tractive effort of about 13,000 lbs. at a speed of 55.8 miles per hour. This would call for a mean effective pressure of about 88 lbs. and the probable horse-power developed would be about 1,900 h.p. In the absence of indicator cards these figures are estimated, and also the figures of 142 lbs. of coal per square foot of grate per hour with which this work is believed to have been done.

Addresses Wanted.

We want to obtain the addresses of the persons mentioned below and shall be much obliged to any of our readers who can furnish the same.

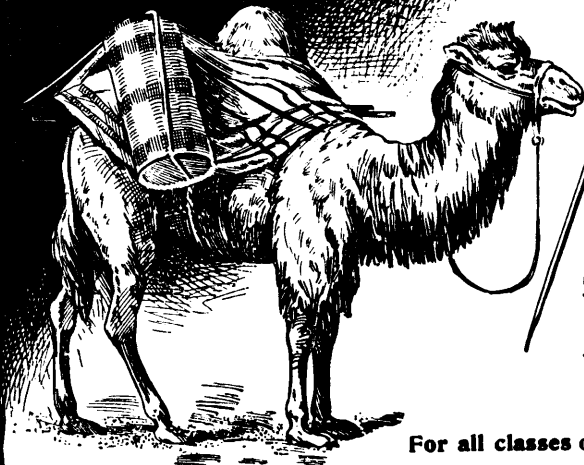
- Luke Maddigan, contractor; last known address, Savanne, Ont.
- J. A. McDonnell, contractor; last known address, Savanne, Ont.
- C. Halifax Hall, C.E.; last known address, Nelson, B.C.
- W. Storms. Last known address Roadmaster, C.P.R., Field, B.C.
- E. H. Wilcox. Last known address B.C. Electric Ry., Vancouver, B.C.

The Montreal Street Ry. Co. will operate a number of tourist cars on its system during the summer for the convenience of tourists visiting the city. Each car will be in charge of a guide who will describe the places along the route and give information about the city that the visitors may desire enlightenment about. Similar cars were operated in Quebec for a short period in 1901. They are operated in Washington and other U.S. cities and are largely patronized.

March Birthdays.

- Many happy returns of the day to P. S. Archibald, C.E., ex-Chief Engineer I.C.R. at Moncton, N.B., born at Truro, N.S., Mar. 21, 1848.
- C. N. Armstrong, ex-General Manager Atlantic and Lake Superior Ry. at Montreal, Que., born at Maskinonge, Que., Mar. 19, 1850.
- D. E. Brown, General Agent C.P.R. for China, Japan, etc., at Hong Kong, born at Owen Sound, Ont., Mar. 20, 1855.
- G. J. Bury, General Superintendent Lake Superior division C.P.R. at North Bay, Ont., born at Montreal, Que., Mar. 6, 1866.
- J. A. Cameron, ex-Superintendent C.P.R. at Cranbrook, B.C., born at Pictou, N.S., Mar. 5, 1855.
- F. G. J. Comeau, General Freight Agent Dominion Atlantic Ry. at Halifax, N.S., born at Meteghan River, N.S., Mar. 10, 1859.
- A. E. Cox, Storekeeper Canadian Northern Ry. at Winnipeg, Man., born at Huddersfield, Eng., Mar. 12, 1863.
- H. B. Curtis, General Superintendent Newfoundland Express Co. at St. John's, Nfld., born at Adrian, Ohio, Mar. 21, 1848.
- Hon. L. J. Forget, President Richelieu and Ontario Navigation Co., born at Terrebonne, Que., Mar. 11, 1853.
- C. O. Foss, Chief Engineer Nova Scotia Central Ry. at Bridgewater, N.S., born at Wentworth, N.H., Mar. 20, 1852.
- H. W. Gays, President and General Manager Ottawa and New York Ry., and Receiver New York and Ottawa Rd. at Ottawa, Ont., born at Brant, Erie co., N.Y., Mar. 21, 1848.
- F. Grundy, General Manager Quebec Central Ry. at Sherbrooke, Que., and President Temiscouata Ry., born at Bury, Lanc., Eng., Mar. 28, 1836.
- J. Hälstead, chief clerk to Assistant General Freight Agent C.P.R. at Vancouver, B.C., born at Bracebridge, Ont., Mar. 2, 1877.

It is Easier for a Camel



to go through the eye of an needle than for you to get a better Jack than

The Norton Ball-Bearing Jack

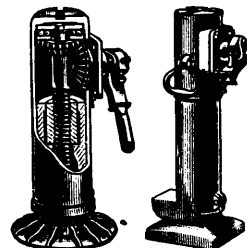
For all classes of Heavy Lifting.

Manufactured by

A. O. Norton, Coaticook, Quebec.

Stock Carried by

Canadian Agents: **W. H. C. MUSSEN & CO., Montreal**



W. Harty, M.P., President Canadian Locomotive Works, Kingston, Ont., born in Bid-dulph tp., Middlesex, Ont., Mar. 8, 1847.

H. S. Heydon, New York Agent Canada Atlantic Ry., at New York city, born at Newark, N.Y., Mar. 28, 1861.

C. B. Hibbard, Passenger Traffic Manager Rutland Rd. at Rutland, Vt., born at St. Johns, Que., Mar. 31, 1858.

J. Hobson, Chief Engineer G.T.R. at Montreal, born at Guelph, Ont., Mar., 1834.

C. E. Lytle, General Superintendent Duluth, South Shore and Atlantic Ry. at Marquette, Mich., born at Newark, Ohio, Mar. 2, 1859.

Owen McKay, Division Engineer Lake Erie and Detroit River Ry. division of the Pere Marquette Rdt, Walkerville, Ont., born in Ross tp., Renfrew co., Ont., Mar. 13, 1848.

R. Patterson, Master Mechanic G.T.R. at Stratford, Ont., born at Brantford, Ont., Mar. 13, 1860.

J. Ritchie, General Eastern Agent Canada Atlantic Ry. at Boston, Mass., born Mar. 16, 1860.

J. A. Sheffield, ex-Superintendent Sleeping and Dining Cars C.P.R. at Montreal, born at Columbus, Ohio, Mar. 16, 1845.

C. J. Smith, General Traffic Manager Canada Atlantic Ry. and Canada Atlantic Transit Co. at Ottawa, Ont., born at Hamilton, Ont., Mar. 10, 1862.

W. Y. Soper, Vice-President Ottawa Electric Ry. Co., Ottawa, Ont., born at Oldtown, Me., Mar. 9, 1854.

W. F. Tye, Assistant Chief Engineer C.P.R. at Montreal, born at Haysville, Ont., Mar. 5, 1861.

H. Wallis, ex-Chief Mechanical Superintendent G.T.R., Montreal, born at Derby, Eng., Mar. 10, 1844.

D. O. Wood, Western Agent at Toronto for Robert Reford Co., Steamship Agents, Montreal, born at Kleinburg, Ont., Mar. 16, 1864.

The "General Conditions of Carriage" for freight over the Canadian Government Railways, which have been in force since Oct. 26, 1889, have been cancelled, and new general conditions substituted therefor, by an order-in-council, dated Feb. 4.

Mainly About People.

Capt. Clapp, of the Niagara Navigation Co.'s str. Chicora, is recovering from a serious illness.

J. W. Moyes, General Manager of the Metropolitan Ry., Toronto, is convalescent after a lengthened illness.

Arthur White, formerly District Freight Agent, G.T.R. at Toronto, has returned there after a trip to Japan.

J. D. Reid, Manager of the Prince Edward Island Telephone Co. at Charlottetown, died there Feb. 4, aged 61.

E. V. Skinner, General Eastern Agent C.P.R. at New York, was married there, Feb. 11, to Mrs. A. C. Flynn.

W. H. Rosevear, General Car Accountant G.T.R., was recently elected by acclamation as Mayor of St. Lambert, Que.

J. Kennedy, Chief Engineer to the Montreal Harbor Commission, left Montreal recently on a three months' vacation.

Hon. A. W. Harvey, largely interested in the shipping and marine insurance business in St. John's Nfld., died there Feb. 7.

M. P. McKinnon, Manager of the Eastern Telephone Co., Glace Bay, N.S., was married there Feb. 15 to Miss A. R. McNeill.

Sir Wm. Van Horne returned to Montreal Feb. 16 from Cuba, where he had been for some time in the interests of the Cuba Co.

W. Mackenzie, of Mackenzie, Mann & Co., and President of the Canadian Northern Ry., has returned to Toronto from London, Eng.

F. P. Belcher, Travelling Agent, Northern Navigation Co. at Winnipeg, Man., was married in Toronto, Feb. 9, to Miss J. M. Bailey.

Capt. W. B. Anderson, son of Lt.-Col. Anderson, Deputy Minister of Marine, was married to Miss L. W. Taylor, at Toronto, Feb. 14.

W. Mackenzie, President of the Canadian Northern Ry., was present at the regular dinner of the Canada Club in London, Eng., Feb. 4th.

Capt. Griggs, who died in Wenatchee, Wis., recently, ran the first line of steamers

on the Red River to Fort Garry, Man., from Minnesota.

T. H. Hurd, Right-of-Way Engineer of the Minneapolis, St. Paul and Sault Ste. Marie Ry., died suddenly at Minneapolis, Minn., recently, aged 70.

Jas. Playfair, of the Midland Navigation Co. and the Midland Towing and Wrecking Co., has been elected a member of the Montreal Board of Trade.

J. J. Scully, Chief Clerk to the General Superintendent Western division C.P.R. at Winnipeg, was married in Toronto, Feb. 24, to Miss Celia Mallon.

Miss J. Smith, daughter of the Manager of the C.P.R.'s Kaministiquia hotel, Fort William, Ont., was recently married to J. L. Davidson, of Toronto.

D. Willard, recently appointed 1st Vice-President and General Manager of the Erie Rd., entered railway service as a track laborer on the Central Vermont Rd. in 1879.

T. H. Creedon, General Manager of the Cape Breton Electric Co., Sydney, N.S., was married there recently to Miss G. Worgan, daughter of Capt. H. H. Worgan, R.N.R.

A. Patriarcho, General Traffic Manager Pere Marquette Rd., and R. W. Leonard, Manager Cape Breton Ry., have been elected members of the Canadian Freight Association.

Capt. W. Ross, an old commander of the Allan Line of steamers, and for a number of years on the Great Lakes and St. Lawrence river, died at Westmount, Que., Feb. 7, aged 75.

Among those who contributed paintings to the recent loan exhibition in the Art Gallery, Montreal, were Sir Wm. Van Horne, C. R. Hosmer, Jas. Ross, R. B. Angus and H. Paton.

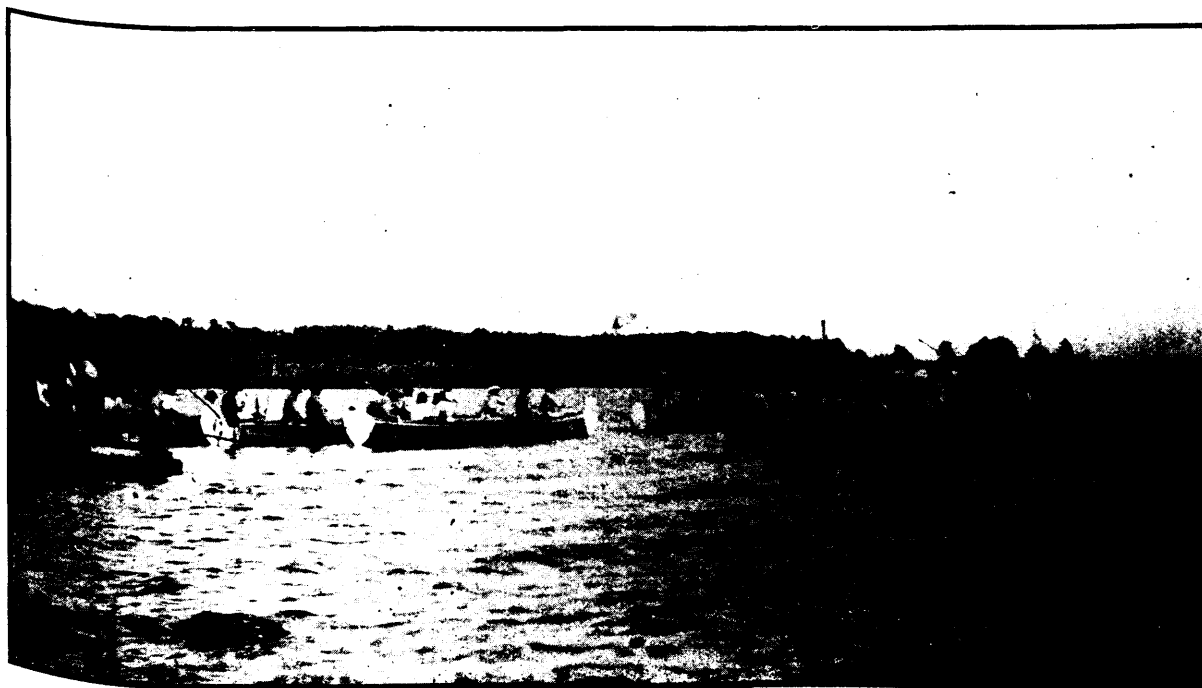
G. P. Maclaren, C.E., in the employ of Mackenzie, Mann & Co. on the Halifax and Southwestern Ry. surveys, was married recently at St. Margaret's Bay, N.S., to Miss G. J. Rankine.

J. W. Harkom, formerly Assistant to the Manager C.P.R. Eastern Lines, Mechanical Department, has been appointed General Superintendent of the Canada Foundry Co.'s works, Toronto.

H. G. McMicken, European Traffic Agent of the Great Northern Ry., U.S., is a director of the Imperial Food Supplies (Ltd.), which recently offered its stock for subscription in England.

C. H. Temple was the recipient of a presentation from the shopmen and engineers at the C.P.R. shops at Revelstoke, B.C., on his recent promotion to the position of Master Mechanic there.

Barlow Cumberland is retiring from the ticket agency business in Toronto, which has been carried on in his name since he went to



TRANSPORTATION IN THE FAR NORTHWEST.

Hudson's Bay Company's abitois or freight canoes. The original large Northwest canoe; each canoe carries two tons of freight.

London, Eng., last year as Deputy Supreme Secretary of the Independent Order of Foresters.

J. G. Scott, General Manager Quebec and Lake St. John Ry. and Great Northern Ry. of Canada, Quebec, is a director of a company recently formed to publish a newspaper at Roberval, Que.

C. Dallas has been presented with two easy-chairs by the sectionmen of the Wingham, Ont., district, on resigning the position of Roadmaster there. He was in the G.T.R. service for 45 years.

H. J. Pettypiece, C.P.R. ticket agent at Forest, Ont., who is also M.L.A. for East Lambton, and publisher of the Forest Free Press, has been elected President of the Canadian Press Association.

A. O. Norton, of Boston, Mass., and Coaticook, Que., has purchased the Howard, Suffield and King copper mines at Suffield and Ascot, near Sherbrooke, Que., the price paid being, it is said, \$17,000.

P. W. Clement, ex-President of the Rutland Rd., and President of the Clement Na-

tional Bank of Rutland, Vt., has become a special partner of the firm of Haven & Clement, stockbrokers, New York.

J. F. Stevens, General Manager and Chief Engineer, Great Northern Ry., U.S., has resigned from both positions, and it is reported that after a short vacation he "will head an important engineering enterprise."

Mrs. H. Abbott, wife of the ex-General Superintendent of the Pacific Division, C.P.R., died at Vancouver, B.C., Feb. 16. She was a daughter of the late Hon. Mr. Justice Sicotte, St. Hyacinth, Que.

H. W. Brodie was entertained at dinner by the Winnipeg staff of the C.P.R. general passenger department on the occasion of his appointment as Assistant General Passenger Agent of the Co.'s Western lines.

V. Bartram, of the Canada Atlantic Ry.'s purchasing department, and who acted as private secretary to Col. Steele in South Africa, was married recently to Miss E. E. Welch, at Cheshunt, Hertfordshire, Eng.

Fireman Ord, of the C.P.R. express train which jumped the track at Greenville Jct.,

Me., Feb. 9, who received serious injuries, is a son of C. R. Ord, Master Mechanic of the C.P.R. Atlantic division at McAdam Jct.

W. Campbell, formerly private secretary to C. R. Hosmer, of the C.P.R. directorate, was presented with a leather travelling case by his Montreal friends, on leaving the C.P.R. service to enter that of the Ogilvie Flour Mills Co.

The Royal Canadian Humane Society has awarded medals to a number of residents of Kincardine, Ont., for conspicuous heroism in saving the crew of the schooner Ann Maria, stranded near that port during a heavy gale Oct. 7, 1902.

J. P. Vance, in charge of one of the C.P.R. survey parties on the route of the projected line from Saskatoon to Battleford, Sask., got separated from his party, Feb. 14, shortly before a blizzard and was found frozen dead in the snow.

L. W. Powers was presented with a cabinet of silver by the officers and employees of the Atlantic division C.P.R. on leaving St. John, N.B., recently for Montreal, where he has

There are No Substitutes for "Ogilvies" Flour.

== IT STANDS ALONE ==

The BEST in the WORLD.

STEEL RAILS

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

Offices—
CANADA LIFE BUILDING,
Montreal.
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Toronto.

Drummond, McCall & Co.,
General Sales Agents,
The Algoma Steel Co., Ltd.

been appointed chief clerk to the Manager of Transportation.

E. H. McHenry, Chief Engineer C.P.R., is one of the directors of the British Canadian Wheat Raising Co., Ltd., which purposes to cultivate 10,000 or 20,000 acres of land in Assiniboia, and recently offered its stock for public subscription.

J. E. Muhlfeld, formerly Superintendent of Machinery and Rolling Stock, I.C.R., has been appointed Superintendent of Motive Power of the Baltimore and Ohio Rd., for the Cleveland, Chicago and Newark districts. Office at Newark, N.J.

B. Holman, town agent of the C.P.R. and of the Dominion Express Co. at Windsor, Ont., was arrested there recently charged with the theft of some \$800 from the latter Company. He was committed for trial, and released on \$1,600 bail.

C. W. Spencer, General Superintendent Eastern division C.P.R., is a director of the Rosemount Land and Improvement Co., recently formed to develop a building estate close to the new shops being erected by the C.P.R. in Hochelaga, Montreal.

R. Potts was recently presented with an address, an easy chair, and an oak cellaret, by the employes of the car department of the Michigan Central Rd., St. Thomas, Ont., on his resignation of the position of Master Car Builder for the Canadian division.

W. C. Gage, agent of the Boston and Maine Ry. at Sherbrooke, Que., was presented with a gold watch, chain and locket by the staff of the B. and M. Ry., the G.T.R. and the Quebec Central Ry., recently, on the occasion of his removal to St. Johnsbury, Vt.

C. Cameron, of Collingwood, Ont., Vice-President of the Northern Navigation Co., was married at Guelph, Ont., Feb. 7, to Miss J. Penfold, sister-in-law of T. F. Savage, Travelling Freight Agent of the C.P.R. Mr. and Mrs. Cameron have gone to California for a trip.

F. W. Peters, recently appointed Assistant Freight Traffic Manager C.P.R. western lines at Winnipeg, was presented with a cut glass punch bowl and set of punch glasses by the wholesale merchants of Vancouver, B.C., on leaving there to take up the duties of his new position.

A. J. McDougall, recently appointed Division Passenger Agent of the Illinois Central Rd., and Yazoo and Mississippi Valley Rd., at New Orleans, La., has been presented by the general eastern passenger agents of New York city with a loving cup on leaving to take up his new duties.

Lieut. R. Salmon, R.N.R., has been appointed Chairman of the Board of Examiners of Masters and Mates for Canada. He will also act as nautical adviser of the Department of Marine, and as a commissioner to enquire into any shipping casualties that may occur in Canadian waters.

J. Porteous, who was connected with the G.T.R. freight service for about 40 years, acting as General Freight Agent from 1877 to 1887, and as General Manager of the National Despatch Fast Freight Line at Boston, Mass., to 1896, when he retired from active service, died recently in Boston.

M. Keenan, Bridge Inspector Canadian Northern Ry., died in Winnipeg Feb. 9, as the result of injuries received in an accident on the

line at Marchand some days previously. He had charge of the bridges on the Northern Pacific lines in Manitoba before they were transferred to the Canadian Northern.

Capt. P. M. Campbell, who has been engaged in the steamship trade from Collingwood, Ont., in connection with the Great Northern Transit Co., and its successor, the Northern Navigation Co., for over 30 years, is retiring. During his lake service he has had command of the steamers Francis Smith, Northern Queen, Manitoulin, Atlantic, Pacific and Germanic.

A. Shields was presented with a silver tea service by the C.P.R. engineers and firemen at Winnipeg, and an onyx and gold clock by the employes of the C.P.R. roundhouse, on his resigning the position of locomotive foreman in the C.P.R. service at Winnipeg to become Master Mechanic of the Canadian Northern Ry. at Winnipeg.

W. M. Kirkpatrick, who was recently appointed Assistant General Freight Agent Pacific Division C.P.R., was unable to go to Vancouver to assume his new duties on Jan. 1, as he had to undergo an operation in Toronto General Hospital early in Jan. He made a very satisfactory recovery and entered on his duties at Vancouver early in Feb.

J. U. Shepherd, who is said to have been Purchasing Agent for Mackenzie, Mann & Co. during the construction of the Ontario and Rainy River Ry., has filed a petition in bankruptcy at St. Paul, Minn., with debts amounting to \$8,654 and assets of \$70. The only debt is a judgment and costs obtained by Miss A. A. Armit, of Fort Frances, Ont., for breach of promise of marriage.

W. P. Dempsey, who has been appointed Travelling Agent of the Chicago and North Western Ry. at Toronto, was born at Belleville, Ont., Nov. 3, 1871, and entered railway service in May, 1896, as clerk in the office of the General Agent Great Northern Ry., U.S., at Toronto, and from May, 1899, to Jan. 16, 1902, was clerk in the office of the General Agent Chicago and North Western Ry. at Toronto.

A Moncton, N.B., dispatch says the following increases in salary dating from Jan. 1 have been granted on the Intercolonial Ry.: J. E. Price, General Superintendent, increased from \$2,400 to \$3,000 a year; Y. C. Campbell, District Superintendent, New Glasgow, from \$1,800 to \$2,



TRANSPORTATION IN THE FAR NORTHWEST.

Hudson's Bay Company's Indian tripmen and voyageurs.

ooo; E. Price, District Superintendent, Campbellton, from \$1,700 to \$1,980; W. A. Dube, District Superintendent, Riviere du Loup, from \$1,800 to \$2,100; G. M. Jarvis, District Superintendent, Truro, from \$1,800 to \$2,100.

Nathan Pushie, who has been appointed Local Superintendent of the I.C.R. at the Strait of Canso, N.S., was born at Antigonish, N.S., May 3, 1853, and entered railway service Feb. 14, 1873, since which his record has been: Feb., 1873, to Sept., 1876, brakeman I.C.R.; Sept., 1876, to Dec., 1880, conductor I.C.R.; Dec., 1880, to June, 1886, conductor Halifax and Cape Breton Ry. He retained this position when the H. and C.B.Ry. was taken over by the I.C.R., until his present appointment Jan., 1903.

H. W. Brodie, who has been appointed Assistant General Passenger Agent of the Western Division of the C.P.R. at Winnipeg, was born at Fredericton, N.B., June 8, 1874, and entered railway service Jan. 1, 1895, as junior clerk and stenographer in the C.P.R. passenger department at St. John, N.B. He was moved to the Boston office in July, and came to the Toronto office in August in the same year as stenographer to the Assistant General Passenger Agent, acting in that capacity until Feb., 1898, when he was appointed chief clerk in the same office. In Oct., 1899, he was transferred to Winnipeg as chief clerk to the General Passenger Agent of the Western Lines.

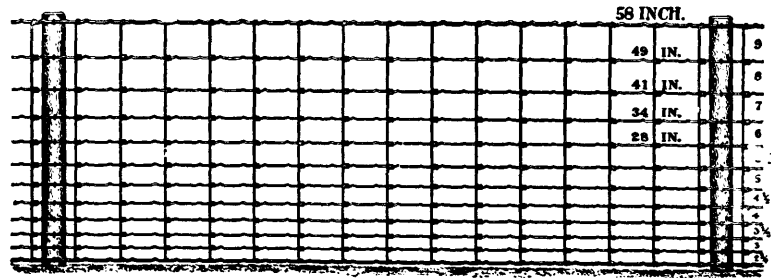
W. P. Hinton, who has been appointed General Freight and Passenger Agent of the Canada Atlantic Ry., was born at Hintonburg, Ont., Aug. 30, 1871, and was educated at Ottawa Collegiate Institute. He entered railway service May, 1887, and was consecutively to Aug., 1891, clerk freight, passenger and car accounts and travelling auditor Canada Atlantic Ry.; Sept., 1891, to Mar., 1898, rate clerk, general freight and passenger departments, same road, and accountant Canada Atlantic Fast Freight line; April, 1898, to June 30, 1901, Assistant General Freight Agent, same road, and Canada Atlantic Transit Co.; June 30, 1901, to Jan. 30, 1902, General Freight Agent, same road.

A. E. Cox, who has been appointed storekeeper of the Canadian Northern Ry. at Winnipeg, Man., was born at Huddersfield, Eng., Mar. 12, 1863, and entered railway service in 1883, since which his record has been: 1883 to 1887, timekeeper on Western Division C.P.R. at Moose Jaw, Assa., and other points; Mar., 1887, to Mar., 1893, chief clerk stores department Manitoba and Northwestern Ry.; Mar., 1893, to May, 1900, when the M. and N.W. Ry. was absorbed by the C.P.R., storekeeper; July, 1900, to Jan., 1902, Assistant to Superintendent of Construction Ontario and Rainy River section of Canadian Northern Ry.; Jan., 1902, to Jan., 1903, chief clerk stores department C.N.R. at Winnipeg.

G. H. Hedge, who has been appointed locomotive foreman, Canadian Northern Ry., at Port Arthur, Ont., was born at Neath, Glamorganshire, Wales., May 26, 1865, and entered railway service, 1879 as letter boy in the mechanical department of the Great Western Ry., at Neath, and learned his trade as a fitter in that company's shops there, coming to Canada in 1884, since which his record has been: Mar. 1884 to 1887, fitter, Ottawa shops, C. P. R.; 1887 to 1891, leading fitter, Ottawa shops; 1891 to 1893, foreman at Megantic, Que.; April 1893 to 1895, locomotive foreman, Windsor st. station, Montreal; 1895 to 1897, general locomotive foreman, Farnham, Que.; 1897 to 1900, locomotive foreman Medicine Hat, Assa.; 1900 to Jan. 1903, locomotive foreman, Brandon, Man., entire Canadian service with C. P. R. up to present appointment.

Kennet W. Blackwell, who has been elected President of the Canadian Society of Civil Engineers, was born in Wiltshire, Eng., July

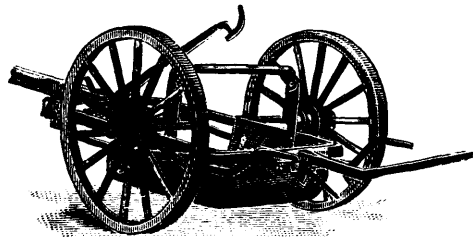
"AMERICAN" Woven Wire Railway Fencing



Special Steel * Special Treatment * Special Galvanizing * Extra Heavy Wire * Perfect Hinge Joints * Tension Curves amply provide requisite elasticity to successfully combat varying temperature. "AMERICAN" FENCES have a world-wide reputation; quality the best. * Write to us and we will save you money. : : :

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K. & J. Wheel and Drag SCRAPERS

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All kinds of Contractors' Supplies. Large Stock carried.

CAMMELL'S MARION RODGER
STEEL STEAM BALLAST
RAILS. SHOVELS. CARS.

BARRETT TRACK JACKS.
TRACK TOOLS.

CANADIAN SALES AGENT:

JAMES COOPER, - Montreal.

16, 1850, and came to Canada in 1857. He was educated at Bishop's College, Lennoxville, Que., and in England, and took up the study of mechanical engineering at the age of 17, spending five years in the drawing office of the G.T.R. shops at Montreal, since which his record has been: 1872 to 1875, shop foreman G.T.R. shops, Montreal; 1875 to 1879, Assistant Mechanical Superintendent G.T.R.; 1879 to Sept., 1881, Mechanical Superintendent Chicago and Grand Trunk Ry.; 1881 to 1883, Superintendent Locomotive and Car Department C.P.R., at Montreal. In 1883 Mr. Blackwell retired from that position to enter business in connection with the manufacture of railway supplies in Montreal. He is now President and Managing Director of the Canada Switch and Spring Co., which employs some 700 men in the manufacture of steel goods, many of which are of a very important and interesting nature from an engineering point of view. He is also a director of the Montreal Street Ry. Co.

TRANSPORTATION APPOINTMENTS.

Canada Atlantic Ry.—W. P. Hinton, heretofore General Freight Agent, has been appointed General Freight and Passenger Agent.

M. J. Horsey, heretofore draughtsman in the Canadian locomotive works at Kingston, Ont., is reported to have been appointed chief draughtsman for the C.A.R. at Ottawa.

Canadian Northern Ry.—E. Langham, of Mackenzie, Mann & Co.'s staff, has been appointed Purchasing Agent. Office at Winnipeg.

G. H. Hedge, formerly C.P.R. locomotive foreman at Brandon, has been appointed locomotive foreman of the C.N.R. at Port Arthur, Ont., succeeding J. W. Blythe, resigned.

J. Riordan, heretofore C.P.R. roadmaster at Winnipeg, is reported to have been appointed C.N.R. roadmaster.

E. W. Warner, heretofore C.P.R. local freight agent at Winnipeg, has been appointed C.N.R. local freight agent at Winnipeg.

Canadian Pacific Ry.—A. H. Harris, who recently resigned his position as General Traffic Manager of the Quebec Southern Rd., is reported to have received an appointment in the C.P.R. freight department, but no announcement has been made as to the position he has been given. Enquiry at his residence in Montreal recently elicited the information that he had gone to the Pacific coast and was not expected to return until early in April. The Edmonton, Alta., Bulletin says he arrived there Feb. 19 in company with Superintendent Niblock, of the C.P.R., and remained over "to get certain information which the C.P.R. officials require."

W. B. Brown, heretofore Chief Train Dispatcher at St. John, N.B., has been appointed Trainmaster there.

W. Noble, heretofore dispatcher at St. John, N.B., has been appointed Chief Train Dispatcher there.

W. C. Casey, heretofore ticket clerk at Halifax, N.S., has been appointed Travelling Passenger Agent, with headquarters at St. John, N.B.

H. W. Brodie, chief clerk, General Passenger Agent's office, Winnipeg, has been appointed Assistant General Passenger Agent, Western division. Office at Winnipeg.

G. A. Walton has been appointed chief clerk, General Passenger Agent's office, Winnipeg.

R. Kay, heretofore of the Paymaster's office at Winnipeg, has been appointed Cashier of the Western division, succeeding H. B. Bridges, appointed Local Treasurer, Western division.

H. Sullivan has been appointed local freight agent at Winnipeg, vice E. W. Warner, who

has been appointed local freight agent of the Canadian Northern Ry. at Winnipeg.

J. Riordan, heretofore roadmaster at Winnipeg, is reported to have resigned to enter the Canadian Northern Ry. service.

S. Newmarsh has been appointed locomotive foreman at Winnipeg, vice A. Shields, resigned to enter the Canadian Northern Ry. service.

S. J. Hungerford, heretofore general foreman at Revelstoke shops, has been appointed Acting Master Mechanic west of Broadview, Assa. Office at Calgary, Alta.

H. J. L. Roberts has been appointed general foreman of the shops at Revelstoke, B.C.

The office of Assistant Superintendent of Sleeping, Dining and Parlor Cars and Hotels, at Winnipeg, heretofore held by W. Pratt, Jr., has been abolished.

W. Bell has been appointed District Superintendent of Sleeping, Dining and Parlor Cars and Hotels for the Western division. Office at Winnipeg.

R. J. Cherry has been appointed Division Superintendent of Sleeping, Dining and Parlor Cars and Hotels for the Pacific division. Office at Vancouver.

J. Sparks, heretofore chief clerk in the general baggage department at Vancouver, has been appointed chief clerk in the same department at Winnipeg, vice J. Langlois, resigned.

F. E. Quinn, heretofore chief clerk in the general baggage department, Montreal, has been appointed chief clerk in the same department at Vancouver, vice J. Sparks, transferred to Winnipeg.

R. E. Larmour, heretofore station agent at Port Arthur, has been appointed Assistant Freight Claims Agent of the Pacific division, exclusive of lines south of Arrowhead. Office at Vancouver, B.C. All claims for lost and damaged freight which have hitherto been submitted by agents on the Pacific division to the Vancouver office of the General Claims Agent for Western lines, W. H. D'Arcy, and all reports in relation to freight short, over, damaged, unclaimed and refused, should hereafter be sent to Mr. Larmour.

Since this circular was issued a further change has been made as follows: W. H. D'Arcy, has been appointed Claims Agent Western division, comprising main line and branches west of Port Arthur to Laggan and Kootenay Landing. Office at Winnipeg.

R. E. Larmour has been appointed Claims Agent of the Pacific division, comprising main line and branches west of Laggan and Kootenay Landing. Office at Vancouver, B.C.

Grand Trunk Ry.—J. R. Stephens has been appointed Assistant Chief Engineer. Headquarters at Montreal. He will have direct charge of surveys and preliminary work on new lines.

W. W. Ashald has been appointed Superintendent of Telegraph, with office at Montreal.

He will have charge of the telegraph and telephone service of the Co. He will give special attention to the issue and handling of telegraphic train orders and will frequently visit the several train dispatching and telegraph offices and inspect the work and records. He will keep a record of the service of all operators and employes, and approve all applications for employment in the telegraph department. Operators will send to him on the 7th, 14th, 21st and last day of each month their office copies of all train orders received during the preceding period. If no orders, report to that effect will be sent.

W. D. Hall has been appointed Electrical Engineer. Headquarters at Montreal.

C. W. Johnston has been appointed Travelling Passenger Agent, with headquarters at Montreal, vice W. H. O'Donnell.

J. H. Dull has been appointed Trainmaster 4th and 5th districts, with headquarters at

Montreal, vice W. W. Ashald, assigned to other duties.

W. Holmes has been appointed Assistant Trainmaster, 7th district. He will report to and receive instructions from U. E. Gillen, Trainmaster, and will have charge of matters pertaining to transportation. Office at Belleville, Ont.

The following agents have been installed: Bryson's, Que., W. D. Cairns; Barrington, Que., F. T. Clayland; West Bay City, Mich., A. B. Covey; Royal Oak, Mich., C. R. Cox; Owosso, Mich., J. H. Aldrich; Gooding, Mich., A. Speirs.

J. Nichol, station agent at Brantford, Ont., has resigned and has been succeeded by G. A. Stokes, of Wiarton.

Great Northern Ry., U.S.—J. F. Stevens, heretofore General Manager and Chief Engineer, has resigned.

A. H. Hogeland, heretofore Assistant Chief Engineer, has been appointed Chief Engineer. Office at St. Paul, Minn.

Intercolonial Ry.—Press reports recently stated that Kemp Stewart had been appointed Chief Train Dispatcher for Sydney district. We are advised that he has been located at Sydney temporarily.

Lake Erie and Detroit River Ry.—Consequent on the purchase of this line by the Pere Marquette Rd., W. Woollatt, heretofore General Manager, has been appointed General Superintendent; O. McKay, heretofore Chief Engineer, has been appointed Division Engineer, and S. Austin, heretofore Mechanical Superintendent, has been appointed Master Mechanic. Offices at Walkerville, Ont. Dr. McKillop is reported to have resigned his position as Surgeon.

Michigan Central Rd.—H. J. Broderick has been appointed Ticket Accountant, with office at Detroit, Mich., vice L. D. P'Pool, resigned.

A. G. Dailey, Superintendent of Tracks at Detroit, Mich., has retired after a service of fifty-three years with the Co.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—W. L. Martin, heretofore General Freight Agent, has been appointed Freight Traffic Manager.

Montreal Street Ry.—J. C. Kennedy, Superintendent of the M.S. Ry. and the Montreal Park and Island Ry., has resigned and is succeeded by L. Robinson, formerly Superintendent of the M.P. and I.Ry., and latterly Assistant Superintendent of the M.S. Ry. and the M.P. and I.Ry.

Niagara Navigation Co.—John Foy, heretofore General Manager, has been elected President, vice J. J. Foy, resigned. B. W. Folger has been appointed Manager. R. H. McBride, who is a director and heretofore has been Auditor, has been appointed Passenger Agent and Treasurer. J. M. Sullivan has been appointed Secretary.

Northern Navigation Co. of Ontario.—C. Cameron has been elected Vice-President; C. T. Long has been appointed Manager; W. Askin remains Assistant Manager of the Northwest Transportation Co. at Sarnia, and A. B. Pratt remains Assistant Manager of the N.N. Co. at Collingwood.

Orford Mountain Ry.—H. C. Cleveland, who has been succeeded as General Superintendent and General Freight and Passenger Agent by A. C. Lytle, retains his position as Chief Engineer. Office at Kingsbury, Que.

Pere Marquette Rd.—A. M. Smith has been appointed General Superintendent, vice S. T. Crapo, resigned. Office at Detroit, Mich.

A. L. Sanger has been appointed Purchasing Agent. Office, Detroit, Mich.

J. E. Williams has been appointed Chief of Tariff Bureau, to whom all correspondence

pertaining to tariffs and percentage divisions should be addressed.

Quebec Southern Ry.—A. H. Harris, having resigned to accept service with another company, the position of General Traffic Manager is abolished. All correspondence on traffic matters must be addressed to C. S. Papps, acting Assistant General Freight and Passenger Agent, Montreal.

Rutland Rd. — Rutland Transit Co. — Ogdensburg Terminal Co.—F. Owen has been appointed general agent of these companies, with headquarters at Ogdensburg, N.Y. The traffic and operating departments at Ogdensburg will be directly under his charge. He will continue in charge of lake and rail traffic under the direction of the General Freight Agent, and will perform such other duties as may be assigned him by the General Manager. Correspondence pertaining to claims, heretofore addressed Mr. Owen, will hereafter be addressed G. Cassidy, General Freight Agent, Rutland, Vt. The office of Assistant General Freight Agent, in connection with lake and rail traffic, is abolished.

St. Thomas, Ont., St. Ry.—The city council, which is operating this line, has appointed C. Johns, heretofore of London, Ont., as Electrician and Manager at a salary of \$65 a month.

Sherbrooke, Que., St. Ry.—F. E. Smith, heretofore Superintendent, has resigned. The duties are being performed by General Manager Denio.

Spokane Falls and Northern Ry.—G. H. Emerson has been appointed Superintendent of Motive Power, with entire charge of the mechanical department. Office, St. Paul, Minn.

The N. L. Piper Railway Supply Co., Toronto, successors to the old firm of Noah L. Piper & Son, has issued an up-to-date illustrated catalogue of standard railway lamps, ship lamps, patent railway signals and general steam and electric railway and ship supplies, many of the articles being the invention of the President, E. S. Piper, who is well and favorably known to transportation officials throughout Canada.

Grand Trunk Ry. Betterments, Etc.

Portland, Me., Station and Offices.—The new station and freight office building is expected to be completed by April 1. Work is being rapidly pushed forward by the contractor, J. W. Burrows. (Dec., 1902, pg. 403.)

An office building 92 ft. long, 45 ft. wide, and 33 ft. high, has recently been completed in connection with the shipping business. The steamship companies and the customs officers are given rooms on the ground floor, and the upper floor is entirely devoted to railway officials.

Montreal Shops.—Recent press reports stated that concurrently with the enlargement of the repair shops at Stratford, Ont., the shops at Point St. Charles would be enlarged and devoted entirely to building locomotives. In connection with the report the residents of Laprairie, Que., offered the Co. a free site for the erection of locomotive shops, if new ones were to be laid out. No official announcement has been made in reference to any proposed enlargement of the shops at Montreal, but the Assistant to the 2nd Vice-



THE SMITH CONICAL CONCRETE MIXER ON TRUCKS COMPLETE WITH ENGINE AND BOILER.

The Smith Mixer

IS COMPACT, PORTABLE, EASY TO OPERATE, REQUIRES FEW DUPLICATES, AND HAS NO MOVING PARTS IN THE MIXING DRUM. — CAN BE SUPPLIED IN 5 SIZES, OPERATED BY STEAM, ELECTRICITY, GASOLINE, OR HAND POWER, AND

IS THE BEST MIXER FOR RAILROAD WORK

SUCH AS CULVERTS, PIERS, PLATFORMS AND FOUNDATIONS.

W. H. C. MUSSEN & CO., Montreal, P.Q.

**INTERCOLONIAL
RAILWAY**

EUROPEAN "MARITIME
MAIL THE
SERVICE EXPRESS"

CANADA'S FAMOUS TRAIN

Leaving Montreal (Bonaventure Depot) 12.00 noon Sunday, carrying the English Mail, lands

Passengers, Baggage and Mail

alongside the Royal Mail Steamships at Halifax the following Monday evening.

**INTERCOLONIAL
RAILWAY**

FAST
FREIGHT VIA
TRAINS



RUNNING DAILY BETWEEN

**MONTREAL, QUEBEC, ST. JOHN,
HALIFAX and the SYDNEYS**

Give every satisfaction to shippers

President, in an interview, stated that Montreal would always remain the location of the principal shops of the Co. The successful carrying out of the projected G. T. Pacific Ry. will probably have an important bearing on the matter.

Kingston Subway.—The Railway Committee of the Privy Council has ordered the construction of a subway under the tracks at the Montreal st. crossing, just outside Kingston, Ont. The Co. will have to bear the expense of the subway, about \$25,000, and the city of Kingston and the county of Frontenac the cost of the approaches, \$5,000. The Kingston city council is not satisfied with the arrangement, and is making application to the Railway Committee of the Privy Council to have the question reopened. (Dec., 1902, pg. 403.)

Toronto Yard Accommodation.—Plans have been prepared for the extension of the yards at Toronto, and laying out the site of the old Parliament buildings as additional yard accommodation. Negotiations are going on with the city authorities with a view of obtaining rights across certain streets between the present tracks and the old Parliament buildings and adjacent thereto. (Dec., 1902, pg. 405.)

Magnetawan River Ry.—The official inspection of this line from Burk's Falls to the Magnetawan river at the wharf, 1.32 miles, was recently made by R. McCallum, Inspector for the Ontario Department of Public Works, and a certificate permitting its operation was given. Freight is being moved over it.

Collingwood Improvements.—A number of additional sidings have been constructed at Collingwood, Ont., and press reports say other improvements are contemplated, with a view of shortening the run between Toronto and Collingwood.

Burlington Swing Bridge.—The swing bridge over the canal at Burlington beach, Ont., on the old Northwestern line, is being reconstructed.

Hamilton Improvements.—The Co. and the city council have reached an agreement respecting the matters in regard to which the council desired to obtain an order from the Railway Committee of the Privy Council. Under the agreement the Co. has permission to connect its main line and the old Northwestern railway near Strachan st., where the Co. will construct sidewalks and jointly with the council will construct bridges over the line at Ferrie st. and at Wellington st. A by-law confirming this agreement has been passed.

Hamilton-Niagara Falls Double-tracking.—The double track between Hamilton and Niagara Falls, Ont., has been finished with the exception of the bridgework at Twelve Mile creek, and over the Welland canal. The Twelve Mile creek is situated about two miles east of St. Catharines, and work on this was somewhat delayed owing to a fire at the tool house of the bridge building company, which caused some \$10,000 damage. The track is laid up to the bridge, and pending its completion the single track is being used between St. Catharines and Merriton. The Welland canal will be crossed by a double-track swing bridge. A temporary single track bridge has been erected, and is in use for east bound traffic, west bound trains going through the tunnel under the canal. When the bridge is completed the tunnel will be abandoned, except in cases of emergency. These two bridges are expected to be completed early in the spring. (Dec., 1902, pg. 405.)

Brantford Deviation.—The right-of-way for the deviation from Lynden to the Harrisburg branch, has been fenced in, and some grading had been done when the condition of the weather brought about a suspension of operations. The grading is expected to be

completed within a month or six weeks after work is resumed in the spring. (Dec., 1902, pg. 405.)

Brantford Station.—In connection with the bringing of the Niagara Falls-Windsor main line through Brantford, a new station is to be erected there during the summer. The Manager, F. H. McGuigan, recently informed the city council that plans were being prepared, and would be sent to the council at an early date.

Woodstock Station.—The question of a site for the projected new station has not been decided. C. M. Hays, 2nd Vice-President and General Manager, recently had an interview with the city council, but no agreement could be reached. The Co. proposes a site on the south side of the line with a subway, while the city desires to have the station on the north side of the line without a subway.

Stratford, Ont., Shops.—Plans for extending and modernizing the Stratford locomotive repair shops are under consideration, and it is expected that work will be begun on the new buildings in the spring. The plans were prepared under the direction of Master Mechanic Patterson, who recently inspected a number of shops in the U.S. The recent press reports referring to the concentration in Stratford shops of the whole of the repair work of the line, and the consequent erection of large additions to the shops, are said to be somewhat premature, as nothing has been definitely decided on.

The Stratford, Ont., Y.M.C.A. directors have accepted the offer of the Co. of a free site and \$4,500 towards the erection of a new building for the Y.M.C.A. A building was erected in 1898, when the railway branch of the work was taken up, and this has been so successful that a bigger building is required.

Buffalo Grain Elevator.—Press reports recently stated that a steel elevator was to be built at Buffalo, N.Y., at the joint cost of the G.T.R., the Michigan Central Rd., and the Pere Marquette Rd. The M.C.R. management states that other railways are not interested in the project.

Port Huron to Chicago Double Track.—We were recently advised that 172 miles of the double track had been completed between Port Huron and Chicago, and trains were being operated over it. During 1902 the second track was laid 79.43 miles. (Dec., 1902, pg. 407.)

G. T. Pacific Ry.—According to the original notice respecting the application to the Dominion Parliament for an act of incorporation the main line was to be carried to the north of Winnipeg, and a branch was to be constructed into that city. It has since been decided to locate the main line "through or near" Winnipeg, thence westerly and north-westerly through Manitoba and Assiniboia to a point near Prince Albert, Sask.

Apart from the change in the location of the projected line referred to in this notice, nothing has been done, although there has been and is a great deal of newspaper conjecture as to what the intentions of the G.T.R. and those associated with it are. It is suggested in one quarter that the Temiskaming and Northern Ontario Ry. will be acquired from the Ontario Government, and that the Ontario section of the line will be constructed through the great clay belt of the province, north of the height of land, so opening up an entirely new country, and preventing the duplication of the C.P.R. round the north shore of Lake Superior, which would be an expensive and unremunerative piece of line. Another project outlined is the provision of an entirely new port on the Gulf of St. Lawrence for the G.T.R. and the new line, the suggestion being that the G.T.R. will purchase the Quebec Bridge Co.'s undertaking, the charter of the Quebec and New

Brunswick Ry., now under construction from Levis to Connors, on the New Brunswick boundary; the Quebec and Oriental Ry. Co., which is applying for a Quebec charter to construct a railway from Connors to Metapedia, on the Intercolonial Ry.; and the Atlantic and Lake Superior Ry., now in operation from Metapedia to New Carlisle, Que. The latter line has power to extend to Gaspe Basin, but at New Carlisle there is said to be open water sufficient to float the largest Atlantic liners for 10 months in the year, the harbor being closed by ice during Feb. and March in each year. A third and the most recent report was to the effect that the G.T.R. had abandoned the project for an extension to the Pacific. In reference to this statement C. M. Hays is reported to have said: "The rumor is simply ridiculous. There is no truth in it at all. The position in so far as the G.T.R. is concerned is unchanged, and until the necessary legislation is obtained there is nothing else to be said." J. R. Stephens has been appointed Assistant Chief Engineer of the G.T.R., with direct charge of surveys and preliminary work on new lines.

Railway Statistics for 1901-2.

The report of the Department of Railways for the year ended June 30, 1902, states that the number of steam and electric railway companies reporting was 118, with 19,426 miles of railway completed, of which all but 155 were in operation. The paid-up capital of both classes of companies was \$1,140,445,269. The gross earnings were \$90,152,940, working expenses \$61,146,447, and net earnings \$29,006,493. In all 158,361,376 passengers were carried, and 42,642,709 tons of freight. The number of steam railways in operation, including the Government lines, was 165, but some of these are amalgamated or leased, so that the actual number of controlling lines, exclusive of the I.C.R. and P.E.I.R., was 79. On June 30, 1902, the completed steam railway mileage was 18,868, an increase of 574 miles, not counting 2,829 miles of sidings. The number of miles laid with steel track was 18,761, of which 647 were double track. The number of miles of railway in operation was 18,714, of which the C.P.R. comprises 7,321 miles; G.T.R., 3,157.48; I.C.R., 1,333.94; Canadian Northern, 1,248.20, and Canada Atlantic, 458.60. The paid-up capital of the steam railways was \$1,098,852,206, an increase of \$56,066,667. The main items of this increase were:—Canadian Northern, \$19,810,480; C.P.R., \$9,345,156; G.T.R., \$2,996,558; Intercolonial, \$4,670,590. The gross earnings of all the steam lines were \$83,666,502, a gain of \$10,767,574. The working expenses were \$57,343,592, an increase of \$6,974,866, leaving net earnings \$26,322,911, an increase of \$3,792,888. The number of passengers carried was 20,679,974, an increase of 2,294,252, and the freight traffic was 42,376,527 tons, a gain of 5,377,156. The total number of miles run on trains was 55,729,856, an increase of 2,380,402. The aggregate rolling stock was 78,891 cars, of which 58,111 were equipped with air brakes, and 66,882 with automatic couplers, a gain of 5,748. The locomotives numbered 2,444.

The accident returns show 1,328 persons injured during the year. Of these 176 were passengers, 932 employes and 220 others. Three hundred and thirty persons were killed, 19 being passengers, 146 employes, and 165 others. Forty-two passengers, 70 employes, and 32 other persons were injured, and five passengers, 11 employes, and five others were killed through jumping on or off trains or engines when in motion. Fifty-four employes and 84 other persons were injured, and 36 employes and 106 other persons were killed through walking or being on the track. Thirteen passengers, 156 employes and nine others were

injured, and four passengers, 21 employes and five others were killed through falling from cars or engines. Two employes and 58 other persons were injured, and one passenger, one employe and 39 other persons were killed by being struck by engines or cars at railway crossings. The accidents due to the work of coupling cars were 241 (15 being fatal), against 290, 363, 355 and 343 in the four preceding years.

Of electric railways there were 558 miles completed, of which 553 were laid with steel rails, 169 miles being double track. The paid-up capital was \$41,593,063, of which the municipal aid amounted to \$173,000 (including \$100,000 subscriptions to shares and \$40,000 loans). The gross earnings were \$6,486,438, an increase of \$718,155, working expenses \$3,802,855, an increase of \$367,692, and net earnings \$2,683,583, an increase of \$350,463. The number of passengers carried was 137,681,402, an increase of 16,744,746, and the freight carried was 266,182 tons, a decrease of 21,744. The car mileage was 35,833,841 miles, an increase of 4,083,087. Eight persons were killed. Power was supplied in 13 cases by water, and in 27 cases by steam.

Ontario has 334 miles; Quebec, 140; New Brunswick, 12; Manitoba, 13, and British Columbia, 45 miles. One company has ceased operation.

The gross earnings of the Intercolonial Ry. were \$5,671,383, an increase of \$699,150, and working expenses \$5,574,563. Comparing the earnings with those of the previous year, the passenger traffic produced \$1,770,94, or 31.23% of the gross earnings, an increase of \$163,777. The freight traffic produced \$3,624,513, or 64.26% of the gross earnings, an increase of \$523,507, and the carriage of mail and express freights produced \$255,93, or 4.51% of the gross earnings, an increase of \$11,868, and the earnings per mile of railway were \$4,313.92. The working expenses per mile (including the rental of the extension to Montreal) were \$4,240.25, an increase of \$86.81.

A series of biograph pictures taken along the line of the C.P.R. is being utilized for lectures, etc., in Great Britain. For the opening exhibition the C.P.R. invited 1,200 prominent people, among the guests being the Duke of Argyll.

Great Northern Ry. of Canada.

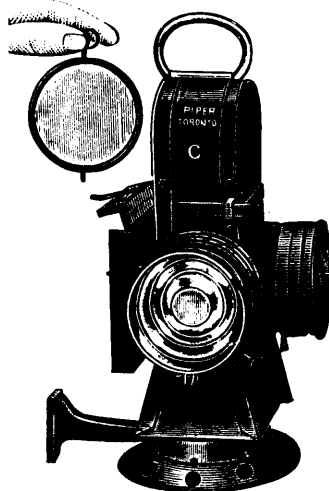
Press reports since the end of Jan. have been current to the effect that Mackenzie, Mann & Co. have purchased the Great Northern Ry. of Canada outright, or that they have acquired a controlling interest in the line, by the purchase of the shares held by Col. J. McNaught, 1st Vice-President; H. H. Melville, 2nd Vice-President, and their associates in the U.S. D. B. Hanna, 3rd Vice-President of the Canadian Northern Ry., was in Quebec, in consultation with G.N. Ry. officials at the end of Jan., and D.D. Mann, Vice-President, joined him on Feb. 7 at Quebec. Whatever arrangement may have been under consideration has not been definitely concluded, but there is no doubt that Mackenzie, Mann & Co. are negotiating in the interests of the Canadian Northern Ry. for a controlling interest in the G.N. Ry.

The passing of the G.N. Ry. under the control of Mackenzie, Mann & Co. would have an important effect on the transportation of grain from Manitoba and the Northwest Territories over the Canadian Northern Ry. at the opening of navigation. In 1902 the

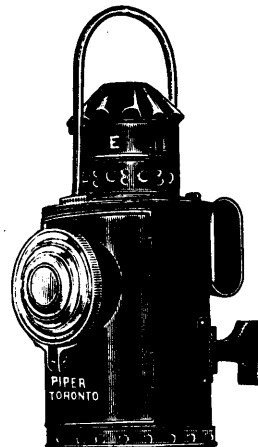
THE N. L. PIPER RAILWAY SUPPLY CO., LIMITED

— TORONTO —

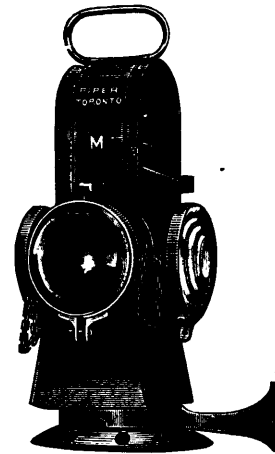
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Pintsch System Car and Buoy Lighting.

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.

Car Heating.

This Company's Systems have been adopted by 120 of the principal Railroads of the United States and by the great Sleeping Car Company. They consist of The Steam Jacket System of hot water circulation, The Direct Steam Regulating System and Straight Steam (plain piping).

Automatic Steam Couplers. Straight Port Type.

THE SAFETY CAR HEATING and LIGHTING CO.,

General Offices: 160 Broadway, New York.

Branch Offices: Chicago, 1017 Monadnock Building - - - St. Louis, 1015 Union Trust Building.
Montreal, Stock Exchange Building.

C.N.R. carried grain to its elevator at Port Arthur, from which point it was shipped by lake carriers to eastern points, and reached the ocean-going vessels over different routes. In Oct. the Canadian Lake and Ocean Navigation Co., in which Mackenzie, Mann & Co. are interested, put four steamers of the turret type on the upper lakes to carry grain from Port Arthur to Georgian bay ports. By making Depot Harbor the Georgian bay terminal of the steamship line on the opening of navigation this year, the grain could be handed over to the Canada Atlantic Ry., with which the G.N.R. has a traffic arrangement, and carried to Hawkesbury, Ont., where it would be handed over to the G.N.R. carried to Quebec, and shipped to Great Britain by the steamers of the Leyland line, one of the lines owned by the International Mercantile Marine Co. of New York, which has contract arrangements with the G.N.R. Or the grain might be handed over at Quebec to the Canadian Lake and Ocean Navigation Co., in which Mackenzie, Mann & Co. are interested, and which it is understood will add ocean-going vessels to its fleet this year.

The G.N. Ry. owns 169.38 miles of main line from Hawkesbury, Ont., on a branch of the Canada Atlantic Ry., to Riviere à Pierre, on the Quebec and Lake St. John Ry., with 5.72 miles of branch lines; it has running powers over the Quebec and Lake St. John Ry. from Riviere à Pierre to Quebec, 58 miles; and own an elevator and other terminal facilities on the Louise basin, Quebec. It has lately acquired the Montford and Gatineau Colonization Ry. from Montford Jct. to Arundel, Que., 33 miles, which it is proposed to connect with the main line by an extension from St. Sauveur to St. Jerome, 13 miles; and will operate the Chateaugay and Northern Ry., now under construction from Bout de L'Isle to Joliette, 38 miles, which will provide an entrance and terminal facilities in Montreal. Surveys have been made for a cut-off from Garneau Jct. to St. Catherines, Que., 58 miles, and for an extension from Hawkesbury to South Indian, Ont., on the main line of the Canada Atlantic, 38 miles. The subscribed and paid-up capital of the G.N.R. was on June 30, 1901, the date of the last Government report, ordinary shares, \$4,175,000; preferred stock, \$581,625; bonds, \$4,084,000; the Dominion, Provincial, and municipal subsidies paid amounted to \$2,066,244.77; and there was a floating debt of \$138,196.17. The Co.'s annual report for the year ended June 30, 1902, showed gross earnings, \$524,763; operating expenses, \$316,801; net earnings, \$207,963; 5% bonds outstanding, \$4,040,000; equipment bonds outstanding, \$300,000, the interest and sinking fund for which is provided out of a special fund, The Montford and Gatineau Colonization Ry. had on June 30, 1901, a paid-up capital of \$18,317, a bonded debt of \$231,000, and a floating debt of \$287,748.76.

When this was written, on Feb. 25, the negotiations had not been closed, and the matter was being held open pending the return from England of W. Mackenzie, who was expected to reach Toronto about Mar. 1.

The Hiram L. Piper Co., of Montreal, has issued its calendar for 1903. The different lines of railway and shipping supplies handled are mentioned, but the attractive feature of the calendar is the portrait of Advance Guard, a celebrated horse owned by J. Carruthers, the President of the Company.

The U.S. House of Representatives has passed the Senate bill providing for the erection of a union railway station in Washington, D.C., at a cost of \$4,000,000. The members of the Canadian Ticket Agents' Association who visited Washington recently were considerably surprised at the shabby and inconvenient Baltimore and Ohio station at which they landed.

International Mercantile Marine Co.

A circular has been issued announcing the personnel of the reorganized staffs of the various steamship companies which have been merged into the I.M.M. Co., as follows:

Corporate Organization—President, C. A. Griscom; Vice-President in Great Britain, Sir C. E. Dawkins; Vice-President in America, P. A. S. Franklin; Treasurer, J. S. Swartz; Assistant Treasurer, J. F. Fahnstock, Jr.; Secretary, E. E. Parvin; Assistant Secretary, J. J. Hope; Assistant to the President and Manager Insurance Department, R. E. Griscom; Comptroller, M. W. Tingley; General Counsel, F. L. Stetson.

White Star Line—Organization for conducting business: Chairman and Managing Director, J. B. Ismay, Liverpool; General Manager, H. A. Sanderson, Liverpool; Assistant Manager, American trade, H. Concanon, Liverpool; Assistant Manager, Colonial trade, L. Fletcher, Liverpool; Freight Manager, J. Whiting, Liverpool; Saloon Manager, A. B. Cauty, Liverpool; Second and Third Class Manager, J. W. Thompson, Liverpool; General Agent, United States, J. Lee, New York; Cabin Passenger Agent, New York, D. D. Wierpert; Second Cabin Passenger New York, J. B. A. Hostage; Steerage Passenger Agent, S. S. Cortis.

American and Red Star Lines—Organization for conducting business: General Manager, C. A. Griscom, Jr., New York; Manager Freight Department, S. Bettle, New York; Manager Passenger Department, J. A. Wright, New York (especially charged with management of first cabin and second cabin business); Assistant Manager Passenger Department, A. S. Anderson, Philadelphia (specially charged with management of third class business); Manager American Line in Europe, H. Wilding, Liverpool; Assistant Manager American Line in Europe, J. E. Willett, Liverpool; Assistant Manager American Line in Europe, P. E. Curry, Southampton; Manager Red Star Line in Europe, E. Strasser, Antwerp; Manager Pacific coast, G. H. Higbee, San Francisco; Cabin Passenger Agent, New York, J. M. Kirk; Steerage Passenger Agent, New York, A. Lederer.

Atlantic Transport Line—Organization for conducting business: President and General Manager, P. A. S. Franklin, New York; Manager, New York, J. H. Thomas; Manager, Philadelphia, P. F. Young; Manager, Baltimore, J. C. C. Gorman; Manager in Europe, C. F. Torrey, London; Passenger Agent, New York, H. L. Mead.

Leyland Line—Organization for conducting business: Chairman, H. Wilding, Liverpool; Managing Director, W. Glynn, Liverpool; General Manager, H. B. Roper, Liverpool; Manager, Boston, G. Bray; Agent, New Orleans, M. J. Sanders; Manager and Agent, Montreal, J. Torrance; Assistant Manager, Montreal, J. Thom; Manager and Agent, Quebec, W. M. MacPherson; Manager and Agent, Portland, J. Torrance, Jr.

Dominion Line—Organization for conducting business: Chairman and Managing Director, H. Wilding, Liverpool; Manager, J. E. Willett, Liverpool; Manager, Boston, C. P. Jameson, Manager, Montreal, J. Torrance; Manager, Quebec, W. M. MacPherson; Manager, Portland, J. Torrance, Jr.

Advisory committees in America—Freight committee: S. Bettle, Chairman, New York; A. C. Fetterolf, Assistant to Chairman, New York. Passenger committee: J. A. Wright, Chairman, New York; W. W. Jeffries, Assistant to Chairman, New York.

Freight agents of the several companies: Chicago, W. E. Lawrence, Western Freight Agent; Chicago, W. G. Sickel, Assistant Western Freight Agent; Minneapolis, T. O. Martin, Freight Agent.

Passenger Agents of the several companies: Boston, F. O. Houghton, Cabin Passenger Agent; Boston, R. H. Farley, Steerage Pas-

senger Agent; Philadelphia, George H. Stuart, Jr., Passenger Agent; Washington, D. Lindsay, Passenger Agent; Toronto, C. A. Pison, Passenger Agent, Ontario; Chicago, F. C. Brown, Western Passenger Agent; San Francisco, C. D. Taylor, Passenger Agent, Pacific coast; St. Louis, R. E. M. Bain, Southwestern Passenger Agent.

In connection with the above it may be mentioned that C. A. Pison, heretofore General Agent for Ontario for the White Star line, is now Passenger Agent for Ontario, and sole agent for Toronto for the White Star, American, Red Star, Atlantic Transport and Leyland lines. He has taken a handsome and convenient office on the ground floor of the King Edward Hotel, 41 King St. East, Toronto. W. A. Webster, heretofore agent at Toronto for the Dominion line, has been appointed local agent at Toronto for that line. The other lines were heretofore represented at Toronto as follows:—American and Red Star, Barlow Cumberland; Atlantic Transport, R. M. Melville.

Jno. Torrance, Montreal, will handle the business of all the lines in the I.M.M. Co. for Quebec, Manitoba, the Northwest Territories and British Columbia. The Boston office will have charge of New Brunswick, Nova Scotia and Prince Edward Island.

Profit Sharing on B C. Electric Ry.

J. Buntzen, General Manager of the B.C. Electric Ry. Co., has supplied the following information:—

"The profit-sharing idea is, of course, not a new one. It has been tried many times before, sometimes successfully, sometimes otherwise. But I am not aware that it has so far been attempted by a street railway company, although this particular class of business appears to offer a specially attractive field for its adoption. The men in charge of the street cars are to a great extent left to their own devices. To supervise their work continually is an impossibility, and even to inspect and check it occasionally requires a distasteful system of espionage. Still, on the spirit in which the men carry out their work hinges the success of the company very largely. I am not sanguine enough to imagine that a participation in profits will immediately change a careless man to a watchful one, and a lazy fellow to a hustler, but I do believe that, given a fair chance to prove what it amounts to, the system will gradually create a partnership feeling in the employes that will eventually make them take the same interest in the company's welfare as they would in their own business, for the simple reason that, having the proof in their pockets, they cannot help realizing that the company's welfare is their business.

"Attempts are being made by parties who do not believe in good relations between employes and employers to belittle the profit-sharing idea by calling it wages sharing, and claiming that it is only granted by employers to get better work out of the men. Certainly, the system is based on the assumption that better and more careful work will be done, and that it will result in benefit to the employer. But if it does, it also benefits the employe, and that is exactly where its strength lies. It is a system of mutual benefit, the only fair method of co-operation. Under the arrangement with our employes we pay them union wages for skilled labor, and best local wages for unskilled labor. If, in addition to getting best local wages for their work, our men receive a substantial cash bonus, it can hardly be denied that they are better off than those who receive no such bonus. And if they have really done better work than some others—with no longer working hours—is that something to reproach them for? Does it not add to the self-respect of any decent man to feel that he is doing his duty well, and that

he is paid not only for the quantity of his work, but also for its quality.

"Shortly, our arrangement is as follows: After the ordinary shareholders have received a 4% dividend the balance of profits available for dividends yearly will be divided as follows: two-thirds to the shareholders, one-third to the employees. Every employe who has worked regularly for the company during the 12 months ending June 30 each year, will participate in the division, and their proportion of the profits will be divided equally among them. Our arrangement being yet in its infancy, it is, of course, impossible to prophesy whether or not it will turn out a success. It is an experiment, heartily approved by our directors, and, I think, also by most of the men. If it is allowed to pursue its even course for three years I will venture to predict it a long and prosperous life.

"The principal cause of friction between employer and employe to-day is undoubtedly lack of mutual understanding and consideration. With proper understanding must come proper consideration. The employe must understand that capital is entitled to fair interest, and the employer must recognize that when he has had that fair interest he owes it to the producers to give them a fair share in the success so largely due to their efforts.

"I may add that we have about 200 regular employes, and that our men have an organization of their own which the management has recognized from its start. So far no differences have arisen that a quiet talk has not been able to adjust, without loss of dignity to either side, and without any break in our friendly relations."

Sir T. G. Shaughnessy, President C.P.R., left Montreal, March 3, for England, expecting to return early in April.

Canadian Pacific Ry. Changes.

Circulars announcing the following changes have been received since "Transportation Appointments" on page 87 were made up:—

The Western division between Port Arthur, Ont., on the east, and Laggan, Alta, and Kootenay Landing, B.C., on the west, will be divided into two divisions on April 1.

The main line and branches between Port Arthur and Pasqua and Estevan will be known as the Central division, with J. W. Leonard, heretofore General Superintendent of the Western division, as General Superintendent.

The main line and branches between Port Arthur and Laggan, and Kootenay Landing will be known as the Western division, with R. R. Jamieson, heretofore Superintendent at Cranbrook, B.C., as General Superintendent.

H. J. Cambie, heretofore Division Engineer Pacific division, has been appointed Special Assistant Engineer, with headquarters at Vancouver, B.C., and duties as assigned.

F. F. Busted has been appointed Division Engineer Pacific division, vice H. J. Cambie, promoted.

The Pere Marquette Rd. has adopted a new scale of wages for locomotive engineers, after a conference between the General Manager and the men. The scale is: Passenger engineers, 3¼c. a mile; through freight, 3¼c. a mile; local freight, \$4 a day; switch engines, \$2.60 a day of 10 hours. On engines having a cylinder larger than 18 x 24 ins. the rate will be \$4.50 per 100 miles.

The Mexican Light and Power Co. is being organized in Canada, with Sir Wm. Van Horne and J. Ross, of Montreal, and W. Mackenzie, of Toronto, among its directors, to develop power near the city of Mexico.

Appointment of Thomas Tait.

Thomas Tait, Manager of Transportation, C.P.R., at Montreal, has been appointed Chairman of the Board of Railway Commissioners for Victoria, one of the states of the Commonwealth of Australia. The appointment was made on the recommendation of J. Coates, C.E., of Ottawa, who is well known in Melbourne, the capital of Victoria, and who was asked by the Premier to recommend an all-round railway man for the position. Mr. Tait was suggested, and negotiations have been going on since Nov., with the result that the position was formally offered him at the end of Feb., and he accepted it. Sir Thos. G. Shaughnessy said that the offer made Mr. Tait was so flattering that he could only be congratulated on the honor conferred on him. Mr. Tait will leave Montreal in May, for Melbourne, travelling via Vancouver, and the Canadian-Australian line of steamers, to take up the duties of his new office.

The various state governments in the island continent own practically all the railways within their borders, and manage them by boards of commissioners. That for Victoria consists of three members, of whom the chairman has the controlling voice. While each state system of railways is separate, there are a number of points where they touch, and where company owned lines come into competition, but, owing to the fact that the lines are of a variety of gauges considerable difficulty is experienced in handling freight, etc., going from one state to the other. Under the act establishing the Commonwealth, power was given to take over all the railways and operate them as an undertaking for the general benefit of Australia. Nothing has been done in this direction at present, and it is not anticipated that anything will be done for a few years.

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Projected Lines, Surveys, Construction, Betterments, Etc.

Algoma Central and Hudson Bay Ry.—During 1902 the Co. laid 16 miles of track beyond Ogidaki, carrying the line to within 9 miles of Pangissin. The regular train service is not in operation beyond Ogidaki, but a mixed train is run three times a week to the end of the track.

Under the arrangement with the syndicate of bankers for financing the operations of the Consolidated Lake Superior Co. it is said the line will be completed to a junction with the C.P.R. main line. (Feb., pg. 37.)

Atlantic, Quebec and Western Ry.—The New Canadian Co., which is incorporated under the Companies' Acts of Great Britain, will apply next session of the Dominion Par-

this latter plan will be followed, as the G.T.R. has recently been considering the raising of its tracks at Napanee station several feet in order to reduce a heavy gradient directly east of the town. Some discussion has recently taken place between engineers representing the Department of Railways, the G.T.R., and the B. of Q. Ry. on the matter, and it will be further discussed at an early date before the Railway Committee of the Privy Council.

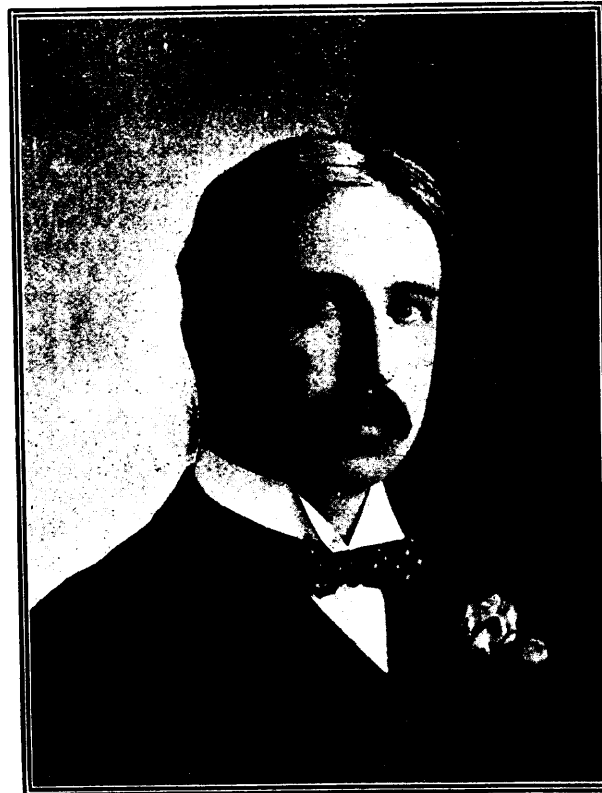
The Co. deposited plans of this piece of line with the Ontario Government, but they were found to be irregular in several particulars upon examination at the survey branch of the Crown Lands Department, and after some correspondence they were returned to the Co. for correction, etc. (Jan., pg. 19.)

Berlin and Bridgeport Electric Street Ry.—This Co. has in operation $2\frac{1}{4}$ miles of electric railway, extending from Berlin to Bridgeport, Ont., of which .8 miles is on the Berlin streets and 1.45 on a private right of way. The line is being operated under lease by the Berlin and Waterloo Street Ry. Co., which also constructed the line, the only outside contractor being P. Weber, Berlin. It is proposed to extend the line to Fergus, via Bloomingdale, Conestoga and West Montrose.

Berlin, Waterloo, Wellesley and Georgian Bay Ry.—Application will be made next session of the Dominion Parliament for the incorporation of a company to construct a railway from Berlin, via Waterloo, Wellesley, Glen Allen, Drayton, Mount Forest, and Markdale to Collingwood, Ont., with power to construct branches to Owen Sound and Wiarton. C. R. Hanning, Ont., is solicitor for the applicants.

Brandon, Saskatnewan and Hudson's Bay Ry.—Application will be made next session of the Dominion Parliament for the incorporation of a company with this title to construct a railway from the International boundary, between ranges 23 and 25, west of the principal meridian in Manitoba, via Brandon, Man., and Pas Mission, Sask., to Fort Churchill or York Factory, on Hudson's Bay; from the International Boundary between ranges 16 and 18, west of the principal meridian in Manitoba, north-westerly to a point on Souris river; and from near Brandon to Neepawa, Man., with power to construct branches. Clement and Clement, Brandon, are solicitors for the promoters.

Brockville, Westport and Sault Ste. Marie Ry.—Notice has been given of three applications to be made next session of the Dominion Parliament respecting this Co. In one case the application is said to be in the interests of the judgement creditors, who have taken steps to have the recent sale set aside, and who desire incorporation under the title of the Brockville and Western Ry. (See Feb., pg. 37.) The other two applications are in the interests of the purchasers at the recent sale. In the first of these C. F. Hohn, J. Gerken, V. Schmitt, of New York, and C. P. King, of Philadelphia, Pa., ask to be incorporated under the title of the Brockville and Sault Ste. Marie Ry. Co., and empowered to exercise all the powers conferred in the act relating to the B. W. and S.S.M. Ry., and also for an extension of time to complete the line authorized. In their second application the incorporation of a company to be called the Brockville and North-Western Rd. is asked for, with power to take over the B. W. and



THOMAS TAIT,

Who has been appointed Chairman of the Board of Railway Commissioners for the State of Victoria, Australia.

Victoria, while one of the smallest and youngest of the several states of the Commonwealth, is the most important in regard to wealth, population and commerce, and Melbourne, the capital, is not only the largest city on the continent, but is claimed to possess some of the finest public buildings in the world. The great proportion of the population is resident in the cities, the country population being scattered over the great sheep farms in the interior. Wheat and oats are also largely grown, and a large trade in fruit has been built up, whilst Australian wines have obtained a considerable sale in Great Britain. The gold-fields at Ballarat were discovered in 1851, and were responsible for the very rapid growth of the colony. Victoria has an area of 87,884 square miles, about two-thirds the area of Manitoba, of which one-tenth is under cultivation, outside the area leased to the sheep farmers, some of whom have 100,000 acres or more under their control.

The statistics for the Victoria State railways for 1901, give the following particulars: Miles in operation, 3,237. Equipment: 544 locomotives (including 16 building); 1,179 passenger coaches, 302 vans, 9,392 freight wagons, and 227 miscellaneous vehicles. Total number of employes, 11,956. The expenditure on capital account was £40,145,404, equal to £12,402 per mile for construction and equipment. The operations for the year show receipts from passenger traffic, £1,560,894, and from freight traffic, £1,711,894, making £3,337,794, equal to £1,034 a mile. The working expenses were: maintenance of track, £518,488; locomotive power, £646,192; car repairs, £147,153; traffic, £609,000; compensation, £7,945; general, £56,018; total, £1,984,796. The net revenue was £1,353,001, equal to 3.37% on the total capital cost, or 3.64% on the total of loan money expended. The pensions and gratuities amount to £90,443. The train mileage was 11,066,016; passengers carried, 54,704,062; freight carried, 3,155,697 tons; live stock carried, 226,163 tons.

Mr. Tait is a son of Chief Justice Sir Melbourne Tait of Montreal, and was born at Melbourne, Que., July 24, 1864. He was educated at the High School, Montreal, and entered railway service as a clerk in the audit office of the G.T.R., Sept., 1880, since which time his service has been:—July, 1881, to Oct., 1881, clerk in the office of the Assistant to the President, Chicago and G.T. Ry.; Oct., 1881, to April, 1882, clerk in solicitor's office G.T.R., Belleville; April to Oct., 1882, clerk, General Manager's office, same road; Oct., 1882, to Sept., 1886, private secretary to Vice-President and General Manager C.P.R.; Sept., 1886, to May, 1887, clerk, General Traffic Manager's office, same road; May, 1887, to Feb., 1889, Assistant Superintendent, same road, at Moose Jaw, Assa.; Feb., 1889, to Mar., 1890, Superintendent Ontario division, Toronto, same road; Mar., 1890, to Mar., 1893, General Superintendent Ontario and Quebec division, Toronto, same road; Mar., 1893, to May, 1897, Assistant General Manager, same road; May, 1897, to April, 1901, Manager of lines east of Fort William, same road; April, 1901, to Mar., 1903, Manager of Transportation, same road, at Montreal. In 1890, he married Emily St. Aubert, daughter of G. R. R. Cockburn, Toronto.

F. E. Ward, General Superintendent, has been appointed General Manager Great Northern Ry., U.S.A.

liament for an act of incorporation, and to enable it to provide terminal facilities at Gaspé Bay, Que. The N.C. Co. will have a capital of \$500,000, and may increase it to \$1,000,000. The Co. controls the charter of the A.Q. and W. Ry.

H. O'Sullivan, C.E., F.R.G.S., is making a preliminary survey from Causapsal, on the I.C.R., to Gaspé Basin, about 270 miles. (Feb., pg. 37.)

Bay of Quinte Ry. The direct line between Deseronto and Napanee, Ont., about 6 miles, has been completed, but trains are not being operated over it, as connection has not been made with the B. of Q. line at Napanee. To do this the G.T.R. main line will have to be crossed, and no arrangement has been announced in this regard. One proposition is to put in a diamond crossing, similar to that at Trenton, where the Central Ontario Ry. crosses the G.T.R. tracks, and another is to construct a subway under the G.T.R. tracks. It is not at all unlikely that

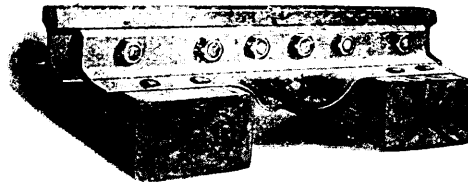
S.S.M. Ry. from J. Gerken and his associates, and to construct a line to the shores of Georgian Bay and Sault Ste. Marie, with branches to Barry's Bay, Mattawa, North Bay, Parry Sound or other points.

Members of the syndicate recently made an inspection of the line, and arrangements are being made for carrying out an extensive scheme of improvement. The work proposed to be done will consist of reducing some of the heavy grades, ballasting the greater part of the line, placing an additional 24,000 ties under the rails, renewing about a mile of track originally laid by the G.T.R., to connect that Co.'s line at Lyn Jct. with Lyn station; lengthening the sidings at Athens, Delta, Elgin, and Westport stations, from 4 to 8 car lengths; putting in a turntable at Brockville, repairing and completing the fences with woven wire fence instead of barbed wire, building snow fences, placing surface cattle guards at all crossings instead of the old pits, rebuilding two small bridges in Brockville yard, reducing the curve and putting an iron bridge over the creek at Lyn, repairing every station on the line, and probably taking down the Brockville station and rebuilding it in a more suitable position, erecting semaphores, switch lamps, and sign boards at all stations. Some preliminary surveys have been made for extensions on behalf of the syndicate, but nothing in the way of construction will be done until after the additional powers are obtained. The first section of the additional lines to be constructed, W. S. Buell, solicitor to the syndicate, says, will be from Westport to a junction with the Canada Atlantic Ry. at Barry's Bay. The syndicate also proposes to establish traffic relations with U.S. lines at Morristown, N.Y., either by a bridge over the St. Lawrence or a ferry, (Nov., 1902, pg. 380.)

The Canada Fish Co. is under an agreement with the Ontario Government either to "build or cause to be built" a railway from the C.P.R. to Lake Nepigon. It is proposed to enter into an arrangement with the Nepigon Ry. Co. to construct the line. Application will be made this year to the Dominion and the Ontario Governments for subsidies. A Mr. Noble, of Nepigon, Ont., and formerly of Collingwood, is one of the chief promoters of the C.F. Co. (Jan., pg. 19.)

Canadian Pacific Ry.—A contract is reported to have been let for double-tracking the line from Fort William to Rat Portage, Ont., 293.5 miles, to Foley Bros. & Co., St. Paul, Minn., who will commence work as soon as the camps can be started. For some three or four years past the Co. has been lengthening its sidings and other crossing places at different points on this section of the line to about a mile in length each, and so arranging them that they would form part of the double-tracking whenever it was decided to undertake it. At the same time the yards at Rat Portage were very greatly enlarged, a 20-stall roundhouse was erected, a modern coal-handling plant put up, and other improvements carried out which would provide for the rapid handling of freight trains at that point. Survey parties have been almost continuously at work on the line between Fort William and Rat Portage since this work was commenced, preparing for the double-tracking, and during the winter experimental freight trains have been run over the line with a view of determining to what extent gradients must be cut down to permit of the handling of such trains. All the data necessary having been obtained, E. H. McHenry, Chief Engineer, made a thorough inspection of the line, and the final plans were prepared and approved. The work will be pretty heavy all through, and will involve a large amount of rock-cutting, some long fills and trestle work. A representative of the contractors is in Win-

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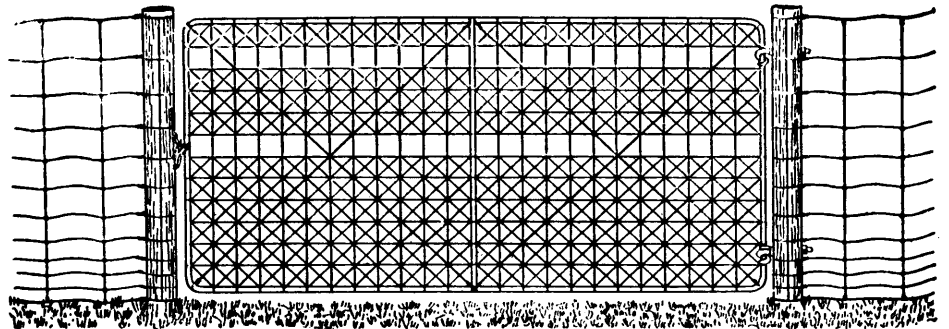
Nearly one million of these joints are now in use. None of the splices have broken, and no rails have broken inside the splices. Low joints are impossible, nor can spreading of tracks take place at the splice. The joint is absolutely as strong as the rail. By its use the track labor saved will alone amount to a sum that will pay the cost of renewals of rails and splices.

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nipeg engaging men to make an immediate start.

Chatham, Wallaceburg and Lake Erie Ry.—Application will be made next session of the Dominion Parliament for the incorporation of a company to construct a railway from Chatham to Wallaceburg, Ont., from Chatham to the shore of Lake Erie, and from Wallaceburg to Petrolia, Ont., and with power to generate electricity for motive and other purposes. Denton, Dunn & Boulbee, Toronto, are solicitors for the promoters. G. H. Stevens, of Chatham, and W. N. Warburton, formerly with the Niagara, St. Catharines and Toronto Ry., are understood to be among those promoting the Co.

Central Alberta Ry. Co.—Application will be made next session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from Calgary southerly and easterly to Lethbridge, Alta. F. Villeneuve, Montreal, is solicitor for the promoters.

Deloraine to Neepawa, etc.—Application will be made at the current session of the Manitoba Legislature for the incorporation of a company to construct a railway from the International boundary, in range 25 west, via Deloraine, Elgin, Brandon and Neepawa to the northern boundary of the province. Macdonald, Haggart & Whittle, Winnipeg, are solicitors for the applicants.

Detroit River Bridge.—As a result of the recent conference between the G. T. R., Michigan Central Rd. and Pere Marquette Rd. officers at Detroit, it is likely that an arrangement will be effected concerning the location of a bridge over the Detroit river, for the construction of which several charters, held by the different lines, are in existence. Press reports state that the G. T. R. and Michigan Central Rd. have appointed G. S. Morrison to locate a suitable site, his report to be prepared by Aug. 1. (Jan., pg. 20.)

Application will be made next session of the Dominion Parliament for the incorporation of a company to construct a bridge for railway and general traffic across the Detroit river at or near Amherstburg, Ont. Blake, Lash and Cassels, Toronto, are solicitors for the promoters. It is believed that the project is being promoted by the Pere Marquette Rd., which, through the Lake Erie and Detroit River Ry., its recently purchased Canadian extension, is applying for power to construct various branch lines, including one to Amherstburg. In Detroit, Mich., a company with the title of the Pere Marquette International Bridge Co. is being organized for the purpose of constructing a railway bridge across the Detroit river, near Grosse island, 20 miles below Detroit. Such a bridge would have its Canadian end at or near Amherstburg. A bill has been considered by the U.S. Congress respecting this projected bridge.

Dinorwic to Albany River.—Application will be made next session of the Ontario Legislature for the incorporation of a company to construct a railway from Dinorwic on the C. P. R., 193 miles west of Fort William, Ont., to Lake St. Joseph, or the Albany river, via Big Sandy, Minnetakie and Lac Seul lakes, with a branch line to Sturgeon lake. Shelton, Wallbridge and Martin, Toronto, are solicitors for the applicants. The Ontario Legislature at its 1902 session voted a subsidy of \$3,000 a mile for a railway from Dinorwic to Lake Minnetakie, 15 miles, and surveys were made over a route for such a line by the C. P. R., but nothing definite was done.

Elgin and Havelock Ry.—P. S. Archibald, C. E., who recently inspected the line for the new owners, reported as to what was required to bring the line up to modern requirements. Temporary repairs have been made on several bridges, and tenders have been called for to

supply timber for the reconstruction of two others, one 600 ft. long, and the other 400 ft. If the prices for timber structures are too high, solid embankments and culverts will be constructed.

Notice has been given that application will be made next session of the Dominion Parliament for an act authorizing the extension of the line from Havelock to Chipman, N. B., and from Elgin to Alma, N. B. (Feb., pg. 39.)

Embryo Radial Ry.—Application will be made next session of the Ontario Legislature for the incorporation of a company to construct a radial system of electric railways from Embro to Beachville; to Woodstock; to lot 15, con. 8, West Zorra tp.; to West Zorra town-line; to Stratford; and to St. Marys. Wallace & Little, of Woodstock, Ont., are solicitors for the applicants.

Flathead River to Elko.—Application will be made at next session of the B. C. Legislature for the incorporation of a company to construct a railway from the Flathead river on the International boundary to Elko on the Crow's Nest Pass section of the C. P. R. Gallier & Wilson, Vancouver, are solicitors for the promoters.

Guelph and Georgian Bay Ry.—Application will be made next session of the Dominion Parliament for the incorporation of a company to construct a railway from Guelph, Ont., via Elora, Fergus, Arthur and Mount Forest, to Owen Sound or Meaford; with power to construct branch or radial lines from Guelph to Erin, and Orangeville. D. Guthrie, Guelph, is solicitor for the promoters.

Guelph Ry. Co.—Application will be made next session of the Ontario Legislature for an act changing the name of this Co. to the Guelph Radial Ry. Co., with power to construct extensions from Guelph to Mount Forest and Erin, via Elora and Fergus; from Puslinch lake or Hespeler to Preston; with power to amalgamate with other companies; to maintain parks, to own and operate vessels and to maintain wharves; to confirm a by-law of the city of Guelph taking \$25,000 of stock in the Co.; and extending its borrowing powers.

Grandes Piles to La Tuque.—Application will be made at the current session of the Quebec Legislature for the incorporation of a company to construct a railway from Grandes Piles to La Tuque with power to construct branches to connect with the Great Northern Ry. of Canada, and the Quebec and Lake St. John Ry.

The Hamilton and Caledonia Ry. (Electric) will apply next session of the Ontario Legislature for authority to extend its railway through Dunnville, and the townships of Oneida, Canborough and Moulton, and for an extension of time for the commencement and completion of its lines.

It is expected that contracts for the construction for the first section of the line will be let early in the spring. The motive power of the line will be electricity generated by water power from the Grand river, either at Caledonia or Indiana. (Jan., pg. 23.)

Hamilton to Toronto.—Application will be made next session of the Dominion Parliament for the incorporation of a company to construct a railway from Hamilton to Toronto, to be operated by steam, electricity or other motive power. H. B. McGivern, Ottawa, is solicitor for the promoters.

Hardy Bay to Muchalet Lake.—Application will be made next session of the B. C. Legislature for the incorporation of a company to construct a railway from Hardy bay, on the north-east coast of Vancouver island, to Quatsino sound, thence to Forward inlet, and also from Hardy bay, via Port McNeill, to Muchalet lake; with power to construct branches. C. H. Lugin, Victoria, is solicitor for the promoters.

Hardy Bay to Quatsino Channel.—Application will be made next session of the B. C. Legislature to incorporate a company to construct a railway from Hardy bay, at the north end of Vancouver island, westerly to West or Rupert arm of Quatsino sound, with power to construct branch lines. C. A. Bury, Victoria, is acting for the promoters.

Hudson's Bay and Pacific Ry.—Application will be made next session of the Dominion Parliament for an extension of time for the commencement and completion of the Co.'s railway. The Co. was incorporated in 1896, to construct a railway from Fort Churchill, on Hudson's Bay, to Calgary, with branches to Edmonton, and other points. (May, 1901, pg. 155.)

Hudson's Bay to Port Simpson.—Application will be made next session of the Dominion Parliament for the incorporation of a company to construct a railway from Hudson's Bay, at or near Fort Churchill, to the south shore of Lake Athabasca, thence westerly via Peace river pass to Port Simpson on the Pacific coast. D'Arcy Scott, Ottawa, is solicitor for the applicants.

Hudson's Bay and Western Ry.—Application will be made next session of the Dominion Parliament for the incorporation of a company to construct a railway from Calgary to Fort Churchill, on Hudson's Bay. McMurrich, Hodgins and McMurrich, Toronto, are solicitors for the promoters.

The Huron, Bruce and Grey Electric Ry. Co. will apply next session of the Ontario Legislature to change its name to the Ontario West Shore Electric Ry. Co., and for authority to construct the following lines: from Dunganon to Lucknow, to Walkerton, to Wingham to connect with the C. P. R.; from the boundary of Huron county to London, with a branch from Parkhill on this line to Sarnia.

The taxpayers of Colborne township have defeated, by four votes, the proposal to take \$25,000 of stock in the Co. (Jan., pg. 23.)

The International Transit Co. will make application next session of the Ontario Legislature for the confirmation of its incorporation under the Ontario Companies' Act. (Feb., pg. 41.)

The Kootenay Central Ry. Co. will apply next session of the Dominion Parliament for an extension of the time within which its authorized line may be commenced and completed.

J. T. Laidlaw, C. E., T. T. McVittie, C. E., and C. N. Pollen have recently been employed in making surveys on this projected line from Fort Steele to Golden, B. C., about 160 miles. The preliminary surveys showed that there were no engineering difficulties along the route. (Nov., 1902, pg. 383.)

Kootenay Landing to B. C. Boundary.—Application will be made next session of the B. C. Legislature for the incorporation of a company to construct a railway from Kootenay Landing, southerly, along the west side of the Kootenay river to the International boundary. Gallier and Wilson, Victoria, are solicitors for the promoters.

Lake Erie and Detroit River Ry.—Application will be made next session of the Dominion Parliament for authority to construct a branch from near Walkerville to navigable waters of Detroit river or Amherstburg; also from Walkerville to near Sandwich, Ont.; and also for the incorporation of a company to construct a railway from Sarnia to St. Thomas, and from St. Thomas to Niagara river; with power to construct or lease a bridge over Niagara river.

Nothing has been decided as to the location of the extension of the line between St. Thomas and Niagara river; surveyors are still in the field at different points.

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C. P. R. LANDS.

The Canadian Pacific Railway lands consist of the odd-numbered sections along the Main Line and Branches, and in Northern Alberta and the Lake Dauphin District. The Railway Lands are for sale at the various agencies of the company in Manitoba and the North-West Territories at the following prices:

Lands in Manitoba and Assiniboia average \$3 to \$6 an acre.

Lands in Alberta and Saskatchewan with the exception of some special locations where prices range from \$3.50 to \$5.00 per acre, generally \$3.00 per acre.

TERMS OF PAYMENT.

In the case of an actual settler who goes into residence upon and cultivates the land, the aggregate amount of purchase money and interest is divided into ten instalments, as shown in the table below; the first to be paid at the time of purchase, the second two years from date of purchase, and the remainder annually thereafter.

- 160 acres at \$3.00 per acre, 1st instalment \$71.90, and nine equal instalments of \$60.
- 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.

DISCOUNT FOR CASH. If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. of the amount paid in excess of the usual cash instalment.

Interest at six per cent. will be charged on overdue instalments.

Write for maps and full particulars.

F. T. GRIFFIN, - Land Commissioner,
WINNIPEG.

Edward L. Drewry

REDWOOD BREWERY,

Winnipeg, Manitoba

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... AND ...

PREMIUM LAGER.

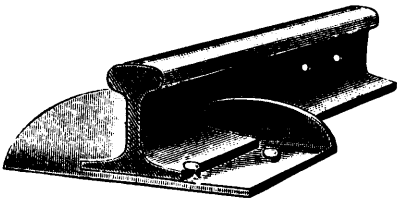
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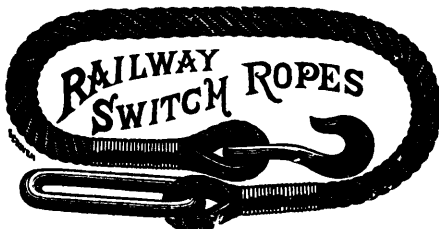
- Canada - - - 74062. December 10th, 1901.
- United States - 690235. December 31st, 1901.
- Great Britain - 22735. November 11th, 1901.
- Germany - - - 164694. November 13th, 1901.
- Belgium - - - 159783. November 30th, 1901.

For particulars apply to

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TORONTO ENGRAVING CO.
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92 BAY ST.

The St. Thomas yards are being considerably enlarged in order to accommodate the increased traffic, since the Pere Marquette Rd. acquired the line. A through Y connection with the M.C. Rd., is to be laid down with an electric signalling system governing the same. The yard at Sarnia is being enlarged, and the crossing places along the line are being lengthened.

With respect to passenger business negotiations are reported to be in progress with the G.T.R. looking to the joint handling of the L.E. and D.R. Ry. and the G.T.R. business at the G.T.R. station in St. Thomas, and if the arrangement is made the L.E. and D.R. Ry. station will be moved further south and used for freight business exclusively. (Feb., pg. 41.)

L'Amable to Mayo Township.—We were advised, Feb. 12, by an officer of the Mineral Range Iron Mining Co. (Ltd.) that it was intended to apply for the incorporation of a company to construct a railway from L'Amable station, on the Central Ontario Ry., east and north to the mining property, which is from four to seven miles from that place, and thence to a point on the route of the projected extension of the Irondale, Bancroft and Ottawa Ry. No engineer has been appointed to make surveys, but the Co. hopes to be in a position to commence work in the spring. (Feb., pg. 41.)

Manitoba Lines.—Application will be made at the current session of the Manitoba Legislature for the incorporation of a company to construct the following lines: from Winnipeg to Gretna, with a branch from Plum Coulee to Brandon; from Winnipeg via Tyndall to the mouth of the Winnipeg river; from Winnipeg to Brandon, thence southerly to the International boundary, with a branch from Elgin via Hartney and Virden to the western boundary of the province, and another branch from Deloraine to the western boundary of the province; from Carman to Portage la Prairie, to Lake Winnipegosis; from Gretna to Crystal city, thence to Elgin, with a branch near tp. 4 to the western boundary of the province; from Carberry southerly to the International boundary; from Carberry to Neepawa, to the westerly boundary of the province, with a branch from Neepawa northwesterly; from Carberry via Morden to the International boundary; from Carberry to Rapid City and thence to the western boundary of the province; from Brandon to Baldur; from Plum Coulee easterly to the Lake of the Woods; from Winnipeg to a junction with the last mentioned line, and thence to Emerson; from Winnipeg to the narrows of Lake Manitoba, thence to Lake Winnipeg. Hon. T. M. Daly, Winnipeg, is solicitor for the promoters.

Application will also be made at the current session of the Manitoba Legislature for the incorporation of a company to construct the following lines of railway: from Sperling on the Canadian Northern Ry., southerly and easterly to Morris, thence to a point on the C.N. Ry. between St. Ann and the International boundary; from a point on the old Northern Pacific Ry. line between Winnipeg and Portage la Prairie westerly to Brandon; from near Swan river on the Canadian Northern Ry. along the valley of the Swan river westerly to the provincial boundary; and from near Greenway, on the old Northern Pacific Ry. southerly to tp. 1 range 17, west of the principal meridian. Munson and Allan, Winnipeg, are solicitors for the applicants. They are also the solicitors for the Canadian Northern Ry.

Midland Ry. of Manitoba.—The re-entry of the Northern Pacific Ry. into Manitoba will be effected, if the application for incorporation passes the Manitoba Legislature, under this title. The incorporators and provisional directors named in the bill are: C. S. Mellin, President, Northern Pacific Ry., St. Paul, Minn.; H. P. Upham, President, First

National Bank of St. Paul; C. E. Hamilton, St. Paul; J. S. Ewart and J. Fisher, of Winnipeg. Mr. Hamilton has had several interviews with the Manitoba Government in reference to the bill, and on Feb. 23 said that the Government had promised to consider the bill as quickly as possible, and would give facilities for getting it passed. While the company wished to have the act passed as speedily as possible it did not want to have any undue haste about it, and wished to let the public understand just what it was proposed to do. No conditions are attached to the bill, all that the promoters desired being what other applicants for railway charters were allowed. In another interview Mr. Hamilton stated that Duluth would be the terminal point of the line, and that it would be reached over the Northern Pacific Ry. Co.'s lines. The projected railways as set out in the notice of application are: from Winnipeg to Emerson; from Winnipeg to Beausejour and to Fort Alexander at the mouth of Winnipeg river; from Winnipeg to the western boundary of tp. 9, range 15, thence via Brandon and Souris to the westerly boundary of the Province; from Emerson to Lake Winnipegosis, via Carman and Portage la Prairie; from Emerson to the westerly boundary of the Province, via Crystal City and Lauder, with branches to the southern boundary of the Province; from Morden southerly to the International boundary, and northwesterly to Carberry, thence via Neepawa to the northern boundary of the Province, and via Rapid City to the western boundary of the Province, and from Brandon to the International boundary.

One press report states that 2,500 miles of railway are contemplated by the company, and another puts the mileage projected at 800. (Feb., pg. 43.)

On returning to Toronto Mar. 2 from England, President W. Mackenzie, of the Canadian Northern Ry., said in an interview in the Globe:—"The Northern Pacific Ry. does not propose re-entering Manitoba with new lines. I have been assured of this. I saw J. J. Hill in New York, and he said he was not going into Canada. Mr. Hill has always said that he did not want to build into Canada; that he had his own territory. The Vice-President of the Northern Pacific told me that the matter of building into Manitoba had not even been considered by the road." In answer to a further question Mr. Mackenzie said the people who were applying for a charter in Manitoba were "private parties." It is significant, however, that one of them, C. S. Mellen, is President of the Northern Pacific Ry.

Temiskaming and Northern Ontario Ry.—The commissioners were notified that the Algoma Steel Co. would not be in a position to fulfil its contract to deliver the steel rails required for the first 60 miles of the railway, and new tenders were asked for. As a result a contract has been let to Jas. Cooper, of Montreal, for 8,200 tons of 80 lb. English steel rails at \$28.85 a ton delivered at North Bay. A contract for fish and tie plates has also been placed.

The location is being revised between the 60th and 70th mile, a new route of easier curvature and gradients having been found. The following additional sub-contracts have been let: mileage 46 to 49, J. Sherwood, who has again sublet it; mileage 49 to 54, Murdock Bros.; mileage 54 to 60, Donovan and Doheny. These two latter firms have completed the former contracts let to them. (Feb., pg. 47.)

White Pass and Yukon Ry.—We are officially informed by the press reports that the Co. propose to construct a line from Dawson through Fortymile to the U.S. boundary line, are absolutely without foundation. The Co. has no intention of extending its railway line beyond Whitehorse.

Miscellaneous Notes.

The Recorder of Montreal has decided that the Montreal Street Ry. Co. may sidetrack or turn back a car before it has reached the end of its route, thereby compelling passengers to dismount and take the next car, provided transfers are given.

The Canada Railway News Co., lessee of the news privileges on the G.T.R. lines east of the Detroit and St. Clair rivers, has bought out the Central News Co., of Durand, Mich., which operated on the lines west of the rivers. This gives the Canada Railway News Co. the privileges over the entire G.T.R. system. F. Knowlins has been placed in charge of the western lines business, with office at Durand, Mich.

The Pere Marquette Rd. is operating the car-ferry International between its terminal at Port Huron, Mich., and the terminal of the Lake Erie and Detroit River Ry. at Sarnia, Ont., and is receiving freight and empty cars at Buffalo and Suspension Bridge, consigned via Michigan Central Rd., St. Thomas and Pere Marquette system. A press report states that the passenger trains of the Co. will enter Canada via Detroit and not via Port Huron.

Mackenzie, Mann & Co. have secured a valuable concession in Venezuela, South America. The concession covers what is known as the Orinoco tract, an area of about 11,000,000 acres, in which are forests of mahogany and other valuable woods, gold and copper mines, asphalt deposits and valuable water powers. Several attempts have been made by the original holders of the concession to have the lands developed, but they were hampered by law suits, as to title, etc., and no practical work was done.

The C.P.R. recently reported to the Italian Immigration Aid Society of Montreal that it would need during the coming season 5,000 Italian laborers, and the G.T.R. informed the Society that it would employ whatever Italian laborers it required through it. The Society is endeavoring to ascertain the number of Italians in Canada without employment, and to place them in work, and to make representations to the Italian Government as to the number and class of Italian immigrants required in Canada in the future.

The C.P.R. has purchased the patent rights for Canada covering a system of utilizing acetylene gas for lighting cars, the inventors of which were M. Toltz, late Mechanical Engineer of the Great Northern Ry., U.S.A., and A. Lipschutz, of St. Louis, Mo. This system differs from other systems of acetylene gas lighting in that the cylinders and piping in which the gas is stored and carried are fitted with fusible plugs, which at a certain temperature open and allow the contained gas to escape, rendering it practically impossible for the cylinder to explode when subjected to fire. It is the C.P.R.'s intention to at once proceed with the erection of plants and the equipment of its passenger rolling stock with this system of lighting. It is probable that the Safety Car Heating and Lighting Co., which controls this system of lighting in the United States, will furnish the equipment to be placed upon some of the cars. It is expected that during the coming season all the Co.'s passenger cars in service between Chicago and St. John will be equipped.

The development of power on the Canadian side of Niagara Falls is being undertaken by three companies. Two companies are at work excavating for their wheel pits and power houses, and the Queen Victoria Niagara Falls Park Commissioners have had before them the application of the third company. This company desires to develop 145,000 h.p. for delivery in Toronto and other points in Ontario. In Toronto the power would be used by the Toronto Ry. and the Toronto Electric Light Co. Among the pro-

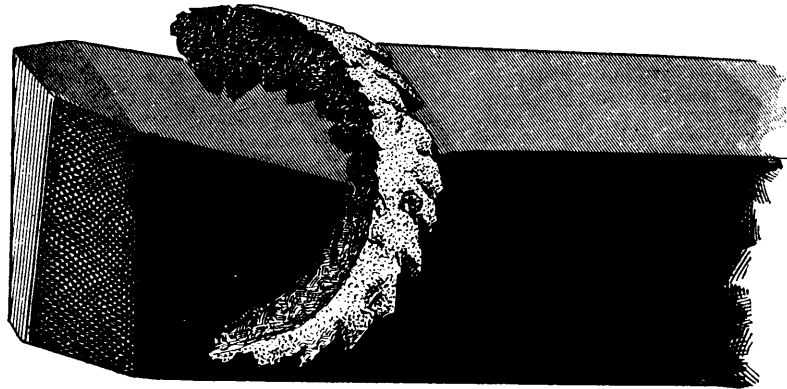
motors of the Company are W. Mackenzie and F. Nicholls.

The Locomotive and Machine Co. of Montreal, Ltd., which was incorporated last year with an authorized capital of \$1,000,000, has the following board:—President, M. J. Haney, Toronto; Vice-President, J. T. Davis, Montreal; Directors: M. Conolly, Montreal; G. P. Brophy, Ottawa; H. Miller, Ingersoll, Ont. The officers are: Chief Engineer, M. J. Butler; Superintendent, R. T. Shea; architect of buildings, E. R. Rolph. The Co. has bought about 70 acres of land at Longue Pointe, on the St. Lawrence near Montreal, and plans have been completed for the buildings, which will be principally of steel, and work on which will be commenced in March. A considerable quantity of the machinery has been bought. It is expected the work will be ready by Sep. 1 to start building locomotives, afterwards the manufacture of structural steel will be taken up, and ship-building is also likely to be gone into.

The National Association of Marine Engineers of Canada held its annual meeting at Montreal Jan. 27 to 29. The list of officers elected is given on pg. 74. It was decided to hold the next convention in Kingston, in Jan., 1904. The reports of the President and Secretary showed that the organization had made considerable progress during the year both numerically and financially, about 300 certificated engineers having joined the order in Canada during the year. A number of matters of interest to marine engineers were discussed, and resolutions were framed for presentation to the Government with a view to obtaining better protection by having the law relating to the inspection of boilers and engines amended. The chief subject of discussion was the desirability of having the Steamboat Act amended in so far as it related to the trading of foreign and British built vessels coastwise on the inland waters of Canada, to the detriment of Canadian shipbuilders and engineers holding certificates from the Canadian Government. Resolutions were framed, which will be presented to the Minister of Marine favoring the rescinding of the clauses complained of. The engineers of Montreal entertained the Grand Council at dinner; among the specially invited guests being Hon. J. I. Tarte, ex-Minister of Public Works; Mayor Cochrane, and Dr. Guerin, M.P.P.

The Upper Columbia Navigation and Tramway Co. (Ltd.), in which Capt. F. P. Armstrong, of Golden, B.C., has the controlling interest, operates two steamers on the upper reaches of the Columbia river, on the Golden-Windermere route. The str. North Star, which was brought over from Jennings, Mont., during the summer of 1902, is being fitted up as a first-class passenger boat with cabin accommodation for 100. The Co.'s second str., Duchess, which has the following dimensions: length, 81.6 ft.; breadth, 17.3 ft.; depth of hold, 4.6 ft., is being entirely rebuilt, the new dimensions being: length, 110 ft.; breadth, 21 ft.; depth of hold, 4 ft. The hull is built entirely of spruce sawn by the Columbia River Lumber Co., of Golden, B.C., and very carefully selected. The estimated draft, light, is 9 ins., and she will carry a paying load on a draft of 14 ins., the depth of water on the bars of the Upper Columbia river during low water. The upper works are to be of light cedar, and while giving very comfortable quarters for 25 passengers, the cabin space has been so well utilized that the size and weight of the house are relatively small. The business on the route has grown considerably during the last two or three seasons, which made it necessary to improve the steamers on the route. The mines of the Winermere district are becoming heavy shippers, and provide a good deal of business for the steamers on the route.

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

Gross earnings, working expenses, net profits, increases or decreases over 1901-02, from July 1, 1902:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease
July	\$3,246,620.51	\$2,070,900.25	\$1,175,711.25	\$79,844.32+
Aug.	3,554,184.56	2,191,283.11	1,362,901.46	57,269.36+
Sept.	3,651,481.42	2,240,726.92	1,410,754.50	58,022.78+
Oct.	4,127,402.07	2,511,267.44	1,616,134.63	149,095.41+
Nov.	3,976,068.87	2,417,828.63	1,558,240.24	117,362.10+
Dec.	3,959,146.15	2,286,704.31	1,672,441.84	103,750.33+

\$22,514,903.58 \$13,718,719.66 \$8,796,183.92 \$565,344.30+

Approximate earnings for Jan. \$3,147,000, against \$2,620,000 for Jan., 1902.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Dec., \$202,265.30; net earnings, \$59,437.26, against \$203,800.41 gross and \$65,008.04 net for Dec., 1901. Net earnings for six months ended Dec. 31, \$533,235.12, against \$506,791 for same period, 1901. Approximate earnings for Jan. \$197,279, against \$192,156 for Jan., 1902.

MINERAL RANGE RY.—Approximate earnings for Jan., \$45,329, against \$42,380 for Jan., 1902.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Dec., \$513,450.23; net earnings, \$232,715.81; against \$510,401.87 gross and \$288,081.94 net for Dec. 1901. Net earnings for six months ended Dec. 31, \$2,118,589.69, against \$1,939,272.50 for same period 1902. Approximate earnings for Jan. \$441,219, against \$365,491 for Jan., 1902.

Canadian Pacific Railway Land Sales.

	Acres.		Amount.	
	1902-03	1901-02	1902-03	1901-02
July	155,344.93	49,089.96	\$562,876.50	\$154,646.84
Aug.	130,723.83	50,747.82	473,064.85	165,871.16
Sept.	145,535.83	60,060.46	542,811.11	197,057.61
Oct.	270,616.23	150,572.96	952,645.35	465,655.62
Nov.	146,687.83	151,922.89	598,788.99	512,862.94
Dec.	577,382.61	132,151.16	1,683,289.45	403,261.78
Jan.	102,581.29	109,846.99	428,611.21	347,761.91
	1,538,872.55	704,392.24	\$5,237,535.46	\$2,247,117.86

Grand Trunk Ry. Earnings, Expenses, &c

The accounts for the half-year to Dec. 31, 1902, show the following results:

Gross receipts	£2,812,000
Working expenses, including special appropriation of £30,000 to bridge renewal account	1,975,000
Net receipts	837,000
Net revenue charges, less credits	509,000
Balance	£328,000
Deduct Detroit, Grand Haven and Milwaukee Ry. deficiency for half-year	2,000
Surplus	£326,000

This surplus added to the balance of £2,600 from June, 1902, makes £328,600 available for dividend, which will admit of the payment of the full dividends for the half-year on the 4% guaranteed stock and 1st and 2nd preference stocks, and a dividend of 1% for the year on the 3rd preference stock, leaving about £4,000 to be carried forward. The accounts of the G. T. Western Ry. for the half-year show a surplus of £600, which is carried forward to the current half-year.

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

	1903.	1902.	Increase.	Decrease.
Jan.	\$2,634,200	\$2,278,978	\$355,222	

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

GRAND TRUNK RY. CO.

Revenue for Nov.:

	1902.	1901.	Increase.	Decrease.
Gross receipts	£457,600	£419,400	£38,200	
Working expenses	399,000	271,400	27,600	
Net profit	£158,600	£148,000	£10,600	

Aggregate from July 1 to Nov. 30:

	1902.	1901.	Increase.	Decrease.
Gross receipts	£2,333,900	£2,174,300	£159,600	
Working expenses	1,515,600	1,405,600	110,000	
Net profit	£818,300	£768,700	£49,600	

GRAND TRUNK WESTERN RY.

Revenue for Nov.:

	1902.	1901.	Increase.	Decrease.
Gross receipts	£82,000	£66,600	£14,400	
Working expenses	10,800	55,400	15,400	
Net profit	£10,200	£11,200		£1,000

Aggregate from July 1 to Nov. 30:

	1902.	1901.	Increase.	Decrease.
Gross receipts	£406,000	£363,700	£42,300	
Working expenses	361,200	312,200	49,000	
Net profit	£44,800	£51,500		£6,700

DETROIT, GRAND HAVEN AND MILWAUKEE RY.

Revenue for Nov.:

	1902.	1901.	Increase.	Decrease.
Gross receipts	£21,500	£20,300	£1,200	
Working expenses	17,000	15,000	2,000	
Net profit	£4,500	£5,300		£800

Aggregate from July 1 to Nov. 30:

	1902.	1901.	Increase.	Decrease.
Gross receipts	£110,100	£100,900	£9,200	
Working expenses	78,400	73,000	5,400	
Net profit	£31,700	£27,900	£3,800	

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from July 1 to Dec. 31:

	1902.	1901.	Increase.	Decrease.
Grand Trunk	£2,805,937	£2,565,359	£240,578	
G. T. Western	493,443	444,785	48,658	
D. G. H. & M.	131,087	126,225	4,862	
Total	£3,430,467	£3,136,369	£294,098	

London, Ont., Street Railway Company.

The report for the year 1902 shows the following results as compared with 1901:

	1902.	1901.
Gross earnings	\$154,703.97	\$141,845.59
Operating expenses	\$93,248.40	\$84,556.95
Net earnings	\$61,455.57	\$57,288.64
Passengers carried	3,887,598	3,744,469
Mileage	1,227,283	1,228,684
Transfers	637,267	568,255
Percentage of operating expenses and earnings	60.3	59.6

The net earnings, after paying all charges, were 8.35% of the capital stock, and the directors feel that had the summer been favorable this would have been considerably increased. The Springbank line has been much improved during the year by double-tracking at Woodland cemetery; cutting down of Railway st. hill and double-tracking same; the opening up of Beaconsfield ave. and the laying of a single track through to Wortley road and connecting with the tracks on York st., enabling the park service cars to make their round trip in 20% less time than formerly. These improvements have greatly facilitated the handling of large crowds to the park, and are much appreciated by the public. During the year an agreement was arrived at between the city and the Co. whereby consent was given to abandon a portion of Rectory st., the population to be fixed at 40,000 and the Co. to build certain extensions. A by-law to that effect was prepared and passed by the council and was accepted by the Co. and the Rectory st. track torn up, but before the formal agree-

ment was executed, the city, owing to a technicality, declined to carry it out. The city later passed certain compulsory by-laws regarding extensions of tracks, routes and service, which the directors felt could not be complied with, and an application was made to the courts to have the by-laws declared invalid. These matters are now before the courts and decision pending. The amount set aside for insurance protection against accident claims has proved ample to pay all ordinary claims and accumulate a surplus. The assessment of the Co.'s property, which has been more or less of a troublesome question for years, appears now to be amicably adjusted. The power plant is in good repair, the boilers having all been re-tubed and the three small engines re-valved and adjusted. The trucks of all the combination motor cars have been thoroughly overhauled and the tracks, right-of-way and other equipments maintained. The Co.'s business continues to increase steadily, and from estimates submitted by the management, the directors look for a continuance of this increase during 1903.

ASSETS.

Road and equipment	\$884,696.35
Cash account	15,006.91
Accounts receivable	235.40
Injuries and damages	1,136.60
Suspense account	1,339.77
Stores account	19,371.67
Uniform account	564.75
	\$922,351.45

LIABILITIES.

Capital stock	\$448,880.00
Bond account	450,000.00
Ticket account	710.76
Accounts payable	9,383.87
Profit and loss	13,376.82
	\$922,351.45

INCOME ACCOUNT.

Dividend paid Jan. 22, 1902	\$16,000.00
" " July 5, 1902	16,000.00
Income above all expenses and fixed charges to Dec. 31, 1902	13,376.82
	\$45,376.82

Following are the officers, etc., for the current year: President, H. A. Everett, Cleveland, Ohio; Vice-President, T. H. Smallman; other directors, E. W. Moore, H. S. Holt, C. W. Mason, W. M. Spencer, P. W. D. Broderick; Secretary-Treasurer and General Manager, C. E. A. Carr.

Toronto Railway Company's Report.

Following are extracts from the report for the year 1902:

That the financial statement does not show a larger net revenue than \$506,442.83 is accounted for mainly by the higher prices paid for material used in maintenance and repairs, by the abnormally high price of coal, a very large increase in wages of employes in the several departments and a large outlay of money, occasioned in the detection and punishment of systematic thieving, which was depriving the Co. of a considerable portion of its net revenue.

The Co. declared four quarterly dividends of 1/4% each. The expenditure on capital account during the year was \$191,656.13, which has been devoted to the purchase of motor equipments and the construction of additional track, overhead system, new rolling stock and buildings, to accommodate the increased business. The roadbed, rolling stock and other property have been maintained in a high state of efficiency. The directors consider it advisable to set aside a portion of the accumulated earnings for the purpose of providing against heavy or special renewals, and have adopted the policy of establishing an account for such contingencies by transferring

Cash on hand.....	\$2,302 66	
	<u>\$2,520,551 07</u>	
LIABILITIES.		
Capital stock paid in.....	\$1,250,000 00	
Bonds 5% payable Jan. 1, 1927.....	1,000,000 00	
Accounts payable.....	\$51,416 15	
Wages for December.....	8,733 35	
Dividend due Jan. 5, 1903.....	18,750 00	78 899 50
Car license due Feb. 1, 1903.....	900 00	
City of Winnipeg, do.....	9,986 44	
Unredeemed tickets.....	10,886 44	
Bank of Montreal.....	3,417 46	
Suspense.....	10,208 49	
Surplus.....	14,550 13	
	<u>152,580 05</u>	
	<u>\$2,520,551 07</u>	

REVENUE AND EXPENDITURE.		
Gross earnings.....	\$395,825 65	
Gross expenses.....	210,984 86	
Net earnings.....	\$184,840 79	
Earnings from gas stoves.....	1,266 22	
	<u>\$186,107 01</u>	
Fixed charges.....	\$ 70,404 53	
Directors' fees.....	1,750 00	
Dividends.....	64,962 74	
Construction contingent account (transfer).....	25,000 00	
	<u>164,117 27</u>	
Surplus for year.....	<u>\$ 23,989 74</u>	

PROFIT AND LOSS ACCOUNT.		
Balance at credit, Dec. 31, 1901.....	\$128,590 31	
Surplus, 1902.....	23,989 74	
Balance at credit, December 31, 1902.....	<u>\$152,580 05</u>	

The board was re-elected as follows: President, W. Mackenzie; Vice-President, W. Whyte; Secretary, F. M. Morse; other directors, Sir W. C. Van Horne, D. D. Mann, A. M. Nanton, D. D. Hanna.

1902 was the first year under the agreement, for which the Co. paid a percentage to the city on the gross earnings of the railway. At 5% on \$199,728.80 this amounted to \$9,986.44.

British Columbia Electric Railway Co.

The report to June 30, 1902, embraces 15 months' operations from April 1, 1901. The directors report increased business in all departments, the profits again show an increase, and future prospects continue satisfactory. For the 15 months the gross receipts from the electric railways in Vancouver, Westminster, and Victoria, from electric lighting in Vancouver and Victoria, and from miscellaneous sources were \$691,487, an increase of \$80,369 over the corresponding period. The working expenses were \$426,760, an increase of \$52,929; and the net earnings were \$264,727, an increase of \$27,440. The net profits of 15 months, after deducting London office expenses, writing £1,000 off preliminary and issuing expenses, and providing £10,036 11s 6d for renewals, were £39,544 5s 6d, to which add balance from previous year, £63 13s 10d, making £39,607 19s 4d. Deduct debenture interest to June 30, 1902, £14,032 6s, and dividend on preferred ordinary stock for 12 months to March 31, 1902, £10,000, leaves £15,575 13s 4d available for distribution and reserves. From this the directors have decided to provide for the balance of dividend on the preferred ordinary stock (3 months to June 30, 1902) £2,500; to recommend the payment of a dividend on the deferred ordinary stock of 4% per annum, which, including income tax, will absorb for the 15 months £10,628 18s 3d; to transfer to capital amortization account £1,913 3s 6d; and to carry forward to next account a balance of £533 11s 7d.

Work on the Vancouver water-power plant has been undertaken and vigorously and successfully pushed since last July, and the board hopes to have the use of the first 1,000 horse-power early in 1903, and 5,000 horse-

power more in about two years' time. On the advice of the engineers the dead-work is being constructed of considerably larger dimensions than was at first contemplated, and will be sufficient to provide water for an electrical plant of a capacity of 20,000 horse-power, the electrical machinery for which can be added in units of 1,000 horse-power as required. Owing to lack of capital, pending the issue of the new preference shares, additional rolling stock, which is most urgently needed, has not been built, and, in consequence, a considerable amount of profitable freight business had to be refused during the last half of 1902. The directors have instituted a scheme by which the employes in B.C. will in future participate in the Co.'s profits after the payment of a dividend to the deferred ordinary stockholders. They feel sure that the shareholders will approve of the principle of the Co. giving to its employes a direct interest in its fortunes, as a mark of appreciation for their loyal and zealous services, and that the institution of this profit-sharing scheme will conduce to the future prosperity of the Co. During the 15 months the Co. expended \$256,131.06 on capital account.

At the annual meeting in London, Eng., Jan. 21, the Chairman stated that in the report the directors stated that it was their intention to recommend the payment of a dividend on the deferred ordinary stock of 4% per annum for the 15 months ended June 30, 1902. Since the report was issued they had received advices from B.C. stating that the Co.'s business was increasing again in a manner which had not been anticipated. A large number of important buildings which required lighting were being erected in the city. In view of this fact, and of other expenses, the directors had consulted with the principal holders of the deferred ordinary shares, and it has been thought advisable, instead of paying the whole of the dividend in cash, that the 15 months' dividend should be paid in deferred ordinary shares representing the amount, and, further, that on Jan. 28 the usual (interim) dividend of 4% per annum on the deferred ordinary shares should be paid in cash. The necessary resolutions approving of the action of the directors were passed. The directors were re-elected as follows: R. M. Horne-Payne, Chairman; Hon. M. R. Gifford, G. P. Norton, R. K. Spurling, London, Eng.; F. S. Barnard, Vancouver.

The Co. recently offered for subscription to existing preferred and deferred ordinary shareholders and 4½% first mortgage debenture-holders 7,500 5% cumulative perpetual preference shares of £10 each, to provide additional working capital.

Calgary & Edmonton Railway Co.

A meeting of certificate-holders in this Co. was held in London, Eng., Feb. 6, Wm. Trotter, chairman of the bondholders' committee, presiding, for the purpose of considering and approving a provisional agreement between the C.P.R. Co. and the committee, as holders of deposited bonds and interest certificates, providing for the delivery to that Co. of the 6% first mortgage bonds and interest certificates in exchange for C. and E. Ry. 4% registered debenture stock for £1,121,700, the interest on such stock to be payable half-yearly by the C.P.R. Co. direct to the stock-holders, and to authorize the committee as holders of the deposited bonds and interest certificates to enter into a definitive agreement with the C.P.R. Co.

Mr. Trotter recapitulated the history of the Co. up to Oct. 7, 1902, when the bondholders' committee was appointed, and the negotiations that had since taken place with the C.P.R. The agreement entered into as a result of the negotiations was one upon which

the bondholders might be congratulated. The committee wished to obtain more, but they hardly hoped or expected to get it. The new stock was to be a 4% debenture stock, and the C. and E. Ry. was to be put on the list of the lines of the C.P.R. for 99 years at a rental which would give 4% on the whole of the debenture stock. This the C.P.R. guaranteed to pay, and at the end of the 99 years the C.P.R. would either repay the principal of the bonds at par, or would enter into a new lease for another similar period of 99 years. The value of these bonds should be worth at least as a minimum 106%. Taking the value as £106, the £94 10s stock would produce about £100 3s 5d, or just over par for the C. and E. Ry. bonds, but the committee anticipated that the price of the stock would range above 106, and that would be the amount of profit to the bondholders. The total amount of stock to be received from the C.P.R., supposing every one of the bonds and certificates came in, was £1,121,700. Of this new stock £1,060,006 would be required to be distributed at 94½%; that left £61,693 10s of stock to be sold by the committee, which would provide for the expenses, and about 34% of the outstanding arrears of certificates and interest, which made a total of £168,225. Of the total amount of £1,121,700 bonds, there had been deposited £1,095,900, and there were only really about £25,000 outstanding. That was less than they could possibly have expected. Out of the £168,000 in scrip issued they had got in nearly £148,000, leaving a balance of a bare £20,000, which was very satisfactory. It was only on this large show of trust in the committee that the C.P.R. keenly entered into the negotiations. At the outset the C.P.R. laid down two indispensable conditions, namely, that the whole of the common stock of the C. and E. Ry. Co. should be acquired by it on satisfactory terms, and transferred to it, and that would take considerable time and trouble to arrange. The stock-holders did not reside in this country, and it was impossible that they should have others remaining as proprietors. He thought the committee was to be congratulated on having been able to arrange such a purchase. The other point was that the whole of the bonds issued and held in connection with the unpaid interest should be handed over to them. If, therefore, any of the bonds or interest certificates were not forthcoming, an equivalent amount of stock would be retained in the hands of the C.P.R. Co., which would be ready to make the exchange, as the small balance might be presented. The final contract and details had been arranged for signature, and the payment of interest would be made on Jan. 1 and July 1, and the first payment would be made on July 1 next; that was to say, on the understanding or basis of an agreement that the net receipts of the C. and E. Ry. Co. from Jan. 1 were to be handed over to the C.P.R. Co., and kept by it. He concluded by moving: "That the provisional agreement submitted to this meeting, and dated Jan. 29, 1903, and made between the C.P.R. Co. and the London committee of bondholders of the C. and E. Ry. Co., appointed Oct. 7, 1902, providing for the issue to the committee of £1,121,700 C. and E. Ry. 4% registered debenture stock in exchange for all the 6% first mortgage bonds and unpaid interest certificates of the last-named company be, and the same is hereby approved, and the committee is hereby authorized to enter into a definitive agreement upon the terms of the provisional agreement, and such other terms and conditions as the committee and the C.P.R. Co. may agree." This was adopted.

It was also resolved: "That the committee be, and they are hereby authorized to distribute to their certificateholders C. and E. Ry. 4% registered debenture stock at the rate of £94 10s of stock in exchange for each £100

bond, and to sell the remainder of the said stock and distribute cash at the rate of £34, or thereabouts, in exchange for each £100 of unpaid interest certificates," and that Messrs. Keyser receive £5,000 for their services, instead of the ½%, as originally proposed.

In connection with this settlement, application will be made next session of the Dominion Parliament for an act confirming the issue of debenture stock, and the exchange of such stock for the Co.'s bonds, and to approve and validate any arrangement made or which may be made between the bondholders and the Co. (Jan., pg. 27.)

The C. and E. Ry. runs from the main line of the C.P.R. at Calgary, Alta., northerly to Strathcona 190.6 miles, and from Calgary southerly to Calgary Jct., near McLeod, 105.6 miles. It was opened in 1822, and has been operated by the C.P.R. for the C. and E. Ry. Co.

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A partial list of elevators which have been designed and constructed by us and under our supervision.

	Capacity	
Burlington Elevator, St. Louis, Mo.	1,300,000	Bushels
Grand Trunk Elevators, No. 2 and No. 3, Portland, Me.	2,500,000	"
Export Elevator, Buffalo, N.Y.	1,000,000	"
J. R. Booth Elevator, Depot Harbor, Ontario	1,000,000	"
Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	1,000,000	"
Erie R. R. Transfer & Clipping House, Chicago, Ill.	100 cars in 10 hrs.	"
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	1,500,000	"
Burlington Elevator Co., Peoria, Ill.	500,000	"
Canada Atlantic Railway Elevator, Coteau Landing, Que.	500,000	"
Northern Grain Co., Manitowoc, Wis.	1,350,000	"
Union Elevator, East St. Louis, Ill.	1,100,000	"
Montreal Warehousing Co.'s Belt Conveyor System		

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**Engineers, Boilermakers and
Steel Shipbuilders.**

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The Canadian Pacific Railway Company.

Dividends for the half year ended 31st December, 1902, have been declared as follows:

On the Preference Stock two per cent.
On the Common Stock two and one-half per cent.

Warrants for the Common Stock dividend will be mailed on or about 1st April to Shareholders of record at the closing of the books in Montreal, New York and London respectively.

The Preference Stock dividend will be paid on Wednesday, 1st April, to Shareholders of record at the closing of the books at the Company's London office, No. 1 Queen Victoria Street, London, E. C.

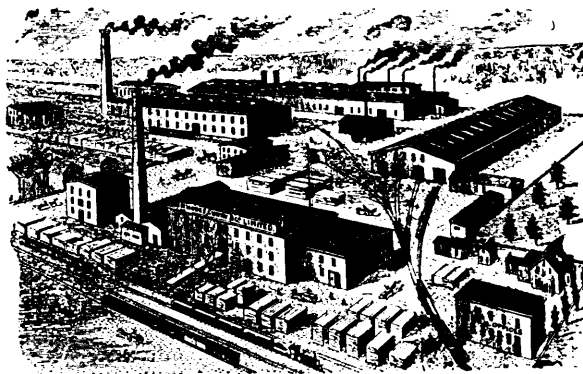
The Common Stock Transfer Books will close in Montreal, New York and London, at 1 p.m., on Saturday, 28th February. The Preference Stock Books will also close at 1 p.m. on Saturday, 28th February. All books will be reopened on Thursday, 2nd April.

By order of the Board,

CHARLES DRINKWATER,

Montreal, 9th February, 1903.

Secretary.



Rhodes, Curry & Co.,

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of all descriptions.

Special Cars for Coal, Ore,
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Car Wheels, Castings, Forgings, &c.
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FOR STEAM AND ELECTRIC RAILWAYS.

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206 St. James St., Montreal.

New and Secondhand Contractors'
Plant, etc.

Richelleu and Ontario Navigation Co.

The following report for the year ended Dec. 31, 1902, was presented at the annual meeting in Montreal, Feb. 19:—

	1902	1901	1900
Gross receipts	\$1,036,666 27	\$1,109,458 09	\$901,331 80
Operating expenses	840,449 03	920,569 32	748,105 33
Fixed charges	21,632 32	22,792 16	23,993 51
Net profit	\$ 174,584 92	\$166,097 51	\$129,322 96

ASSETS.

Steamers, real estate and buildings, wharves, etc.	\$3,607,181 44
Coal, stores, provisions, etc.	93,849 59
Accounts receivable	23,244 46
Cash	9,262 00
	<u>\$3,733,537 49</u>

LIABILITIES.

Capital stock	\$3,132,000 00
Bonds 5% sterling	\$571,833 33
Less cancelled	143,079 98
Accounts payable	428,753 35
Unclaimed dividends	33,947 69
Accrued interest on bonds	141 00
Surplus	7,145 91
	131,549 54
	<u>\$3,733,537 49</u>

INCOME ACCOUNT.

Two dividends of 3% each	\$ 174,224 70
Carried to surplus	360 22
Net income over and above expenses, fixed charges and income for 1902	<u>\$ 174,584 92</u>

Two semi-annual dividends of 3% each were paid. The gross receipts are less than those of 1901 (which are unusually large in consequence of the Pan-American exposition at Buffalo) but are well in excess of those of 1900, the largest up to that period, in spite of the fact that last summer was exceptionally cold and wet. The expenses show a satisfactory decrease. The fleet and other properties have been maintained in first-class condition, and all repairs and improvements have been charged against operating expenses. The Lower St. Lawrence Route continues to increase in popularity, and the Co.'s hotels have assisted largely in this result. The new steamer Montreal was not in commission during the past year as expected; the builders state that she will be ready for the early part of the ensuing season. The iron steamer Virginia has been purchased and will be placed on the route between Quebec and Chicoutimi during the ensuing season. She is a sister vessel to the Co.'s steamer Carolina, but newer and with larger passenger accommodation. The additional wharf property purchased at Quebec for the Saguenay line steamers will be in use during the ensuing season. Under the deed of trust securing the bonds issued in 1895, \$23,360 have been withdrawn and cancelled during the year, making the total cancelled to date \$143,079, and leaving \$428,753.36 outstanding. With the improvement of the Co.'s service its relations with connecting lines are being correspondingly strengthened and promise to continue of the most cordial character.

The following were elected directors: Hon. L. J. Forget, R. Forget, W. Wainwright, C. O. Paradis, J. K. Osborne, H. M. Molson, F. C. Henshaw, G. Caverill, E. B. Garneau, H. M. Pellatt, W. Hanson.

Gold watches were presented at the meeting to Captains Batten and Ouillette, who took the new steamer Montreal through the Lachine rapids last May.

The Provincial Bank has decided to build a branch at Hochelaga, Montreal, at a cost of \$20,000, for the convenience of employees of the C.P.R. shops, who are to be paid by cheque on that bank. The amount involved will be from \$250,000 to \$300,000 a month.

Muskoka Navigation Companies.

The annual meeting of the shareholders of the Muskoka and Georgian Bay Navigation Co. was held recently in Toronto. No printed report or financial statement has been issued to the shareholders as in previous years, but the directors reported that the net earnings for 1902 were \$10,826, or 16½% on the capital employed, notwithstanding the unfavorable season. The net earnings for 1901 were \$12,546.88, or 19% on the capital, and a dividend of 10% was paid. For 1902 a dividend of 7% was declared. It was decided to authorize the directors to secure the construction of an additional steamer for the Rosseau route at a cost not to exceed \$40,000. This steamer will not be on the route this season, the intention being to arrange for building during next winter, and to put the boat on the route at the opening of navigation in 1904. The following were elected: President, S. Barker, M.P., Hamilton; Vice-President, Lieut.-Col. McLaren, Hamilton; Manager and Treasurer, A. P. Cockburn, Toronto; Secretary, H. C. McLean, Toronto; other directors: G. Homer, Gravenhurst, and F. J. Phillips, Toronto.

The persons above mentioned are also officers and directors of the Muskoka Navigation Co., which was formed in 1901 for the purpose of acquiring the M. and G.B.N. Co., enlarging its operations and erecting hotels. The M.N. Co. acquired a controlling interest in the M. and G.B.N. Co., and built the Royal Muskoka hotel on a site acquired from a company formed in Hamilton to erect hotels in the Muskoka country. The business of the hotel for 1902, it is reported, was not so large as was anticipated, owing to the incompleteness of the building, the somewhat unfavorable season and other causes. A proposition has been laid before the shareholders of the two companies to amalgamate their interests by the formation of a new company, which it is suggested shall be called the Muskoka Lakes Navigation and Hotel Co., and the basis proposed for the amalgamation is the exchange of stock in the new company at the rate of 45% premium for the stock of the M. and G.B.N. Co., and par for stock in the M. N. Co. In connection with this question a circular was issued to the shareholders of the M. and G.B.N. Co. by A. P. Cockburn, in which he referred to the changing conditions of the navigation business on the Muskoka lakes, and points out that many of the leading transportation companies, both by land and water, have found it expedient in the interest of their passenger traffic to provide hotels along their respective routes. He claims that the Royal Muskoka hotel has already demonstrated its great value to every interest upon the lakes, and that with the G.T.R. guarantee, which is understood to be 5% on the cost of construction for 10 years, and other assistance, its success, financial and otherwise, seems to be assured beyond doubt.

Since the above was put in type we have been informed that the amalgamation of the two companies had been agreed to by the shareholders, and that application has been made to the Ontario Government for a new charter.

Manitoba and Northwest wheat to the extent of about 13,000,000 bush. is being sent to Duluth, Minn., where the necessary storage can be obtained. Sir Thos. Shaughnessy said that the arrangement was that all foreign cars going into the wheat-growing territories returned with grain; it had been in force heretofore, and had worked satisfactorily. The Great Northern Ry., U.S., had been moving large numbers of settlers into Northwest Canada, and up to the middle of Jan. had taken in 300 carloads of settlers' effects; these cars had been returned carrying wheat.

Transportation Between Canadian Ports.

The following order-in-council was passed at Ottawa Jan. 23:—"Goods imported in bond or duty paid, and products or manufactures of Canada, when transported or towed in or by vessel from one port or place in Canada to another port or place therein over any waters outside the limits of Canada, shall be transported or towed only in or by vessels permitted to engage in the Canadian coasting trade, and under special customs manifests in such form and subject to such conditions as shall be prescribed by the Minister of Customs, except as otherwise authorized by the Governor in Council; provided that the goods when transported or towed in conformity with this regulation, shall upon arrival in Canada, from any place beyond the limits of Canada, be treated, with regard to the liability or exemption from duty, as if the transportation or towing had taken place entirely within the limits of Canada; provided further that goods transported or towed in or by any vessel not permitted to engage in the Canadian coasting trade, contrary to this regulation, shall be seized and forfeited."

Customs officers in British Columbia have been notified that the regulations given above are not intended to interfere at present with transit privileges accorded heretofore on Pacific coast waters. It was at first thought the regulations would prevent U.S. vessels carrying Canadian goods from Vancouver, Victoria and other B.C. ports to the north for the Yukon, etc. The circular to B.C. customs officers reads as follows:—"You are instructed that U.S. steamers may transport from customs ports in B.C. goods destined for the Yukon territory or Alaska via St. Michael, during 1903. Goods arriving at seaports in B.C. in transit in bond may be entered for exportation to St. Michael on the usual form. Goods of Canadian origin, or foreign goods, duty paid in Canada, when transported as aforesaid, may be admitted into the Yukon territory free of duty if the invoices thereof are certified by the Canadian exporter before the customs officer."

The C.P.R. has 47 watch inspectors located along its lines from the Atlantic to the Pacific. They are watch dealers of high standing, and some of them have as many as 400 of the Co.'s employes submit watches to them twice a month for careful comparison, rating and regulation, as all watches of train employes require to be kept within a limit of 30 seconds from actual standard time. R. J. E. Scott, Chief Inspector of Time Service, recently made an inspection trip from Montreal to Vancouver and checked all the comparison clocks on the way. As a proof of the accuracy of the system it may be stated that the average error from actual standard time was slightly less than four seconds.

The new railway arbitration bill, which Sir W. Mulock will bring before the Dominion Parliament, has been prepared, and proposes the establishment of a special board of arbitrators to deal with each case as it arises. Each party to the dispute is to appoint an arbitrator, and these two will appoint the third. It is proposed to give the board power to summon witnesses to give evidence. Witnesses will get free transportation. The arbitrators will be paid their travelling expenses, and, exclusive of the chairman, will be paid \$10 a day. The allowance of the chairman will be fixed by the Government.

The Leeds and Grenville county council has decided to petition the Ontario Legislature to amend the Assessment Act so as to enable municipalities to assess railways, taking into consideration the value of the roadbed, having regard to the improvements placed on the right of way.

RAILWAY FINANCE, MEETINGS, ETC.

Alberta Ry. and Coal Co.—Application has been made to the Committee of the London, Eng., Stock Exchange for the listing of this Co.'s £250,000 4% A. debenture stock and £650,000 B. debenture stock.

Algoma Central and Hudson Bay Ry.—A special general meeting of shareholders was held at Sault Ste. Marie, Ont., Feb. 10, to authorize the issue of bonds.

We are officially informed that the issue of these bonds is merely one incident of the readjustment of the affairs of the Consolidated Lake Superior Co. and its relation to its subsidiary companies. There will be no public is-

sue of these bonds, and if issued at all they will be simply issued to the C.L.S. Co. to represent advances made to the respective subsidiary companies. They will in no way change the position of the railway company before the public.

British Columbia Electric Ry. Co.—Earnings and expenses for Dec., 1902:—

GROSS EARNINGS.	1901.	1902.	Increase or Decrease.
	Railway—Vancouver division	\$10,205	\$12,572
Victoria	9,399	9,583	184+
Westminster	8,144	9,019	875+
Lighting—Vancouver division	18,828	22,877	4,049+
Victoria	10,355	11,827	1,472+
	56,931	65,878	8,947+

Less working expenses	30,816	35,943	5,127+
	26,115	29,935	3,820+
Renewal funds	3,458	4,222	764+
Net income	22,657	25,713	3,056+
Gross earnings, July 1 to Dec. 31	304,744	342,511	37,767+
Net earnings, July 1 to Dec. 31	\$111,948	\$119,708	\$7,760+

Brockville, Westport and Sault Ste. Marie Ry.—A New York syndicate purchased this line for \$160,000 at the sale recently held at Brockville, under the foreclosure proceedings instituted by the Knickerbocker



For Steamboats AND RAILWAYS

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

VACUUM 600 W. CYLINDER
VACUUM No. 1 MARINE ENGINE (better than Lard)
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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.....94,680

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.

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The Passenger Department of the Illinois Central Railroad Company is issuing monthly circulars concerning fruit growing, vegetable gardening, stock raising, dairying, etc., in the States of Kentucky, West Tennessee, Mississippi, and Louisiana. Every Farmer or Homeseeker, who will forward his name and address to the undersigned will be mailed free, Circulars as they are published from month to month.

The Local Agent is asked to note Cheap Rates to all the North West, also to California from February 15 to April 30, nearly \$20 less than regular second class fare and ordinary Pullman service from Chicago or Cincinnati. Special folders for St. Paul, Minneapolis, California and West, and regular folders with it all in. December folder is a good one. Get it!

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GOD SAVE THE KING

Trust Co. of New York, trustee for the bondholders. Of the \$1,125,000 of bonds outstanding there are only \$160,000 held in Brockville and vicinity. The litigation, resulting in the sale, was initiated by the Philadelphia Investment Co. in 1897, when a receiver was appointed, and has been fought by a number of judgment creditors. The syndicate, which comprises J. Gerken, C. P. King, H. W. Gennerich and a number of others, obtained control of the bonds held by the Philadelphia Investment Co., for \$150,000, which sum was bid by the representative of the P. I. Co. at the sale, the New York representative bidding \$160,000 and securing the property. The new owners propose putting the line in thorough order, adding new equipment and making an extension. It is proposed to issue \$1,000,000 of 4% bonds, \$500,000 of 6% preferred stock, and \$500,000 of ordinary stock. The judgment creditors, of whom the principal has a claim for \$90,000 for rails supplied, are taking action, with a view of having their claims satisfied in some way or other. An extension of one month has been granted the purchasers to complete the purchase in order to enable an agreement to be made. (Jan., pg. 27.)

Calgary and Edmonton Ry.—Net earnings for Dec., 1902, \$29,938.96, against \$30,694.50 for Dec., 1901. Net earnings for 12 months ended Dec. 30, 1902, \$279,519.63, against 189,425.19 for same period 1901.

Canada Atlantic Ry.—In connection with the negotiations between the Canadian Northern Ry. and the Great Northern Ry. of Canada, press reports stated that negotiations were also in progress by which the C.A. Ry. was also to become part of the C.N. Ry. system, and that C. J. Booth, the President, would become a director of the C.N.R. Mr. Booth states that no negotiations to this end are in progress.

Canada Coals and Ry. Co.—The bondholders met recently in Montreal to consider resolutions passed by the shareholders at the annual meeting, with the object of providing working capital.

Canada Eastern Ry.—Alexander Gibson (Ltd.), is the name of the Co. to which a charter has been granted, under the New Brunswick Companies' Act, to take over the property of the Alexander Gibson Ry. and Manufacturing Co., which includes the Canada Eastern Ry. The capital of the Co. is \$5,000,000, of which \$3,000,000 is to be ordinary and \$2,000,000 preferred stock. (Jan., pg. 27.)

Canadian Northern Ry.—Gross receipts are as follows:—

	1902.	1901.	Increase.
July.....	\$132,300	\$ 87,200	\$45,100
Aug.....	139,900	97,000	33,900
Sept.....	209,300	123,300	106,000
Oct.....	190,200	120,610	69,590
Nov.....	259,800	119,142	140,658
Dec.....	202,300	129,918	72,382
	\$1,124,800	\$657,170	\$467,630

Working expenses for Dec., 1902, \$146,300, against \$68,746, leaving net earnings \$56,000, against \$61,172 in 1901. Working expenses for six months from July 1 to Dec. 31, \$816,034; net earnings \$398,766, against \$382,780 gross and \$274,390 net for same period 1901.

Canadian Transfer Co.—At the recent annual meeting at Montreal the following were elected:—President, Col. Henshaw; other directors: H. Paton, C. Cassils, G. R. Starke, H. M. Allan; Manager and Secretary, F. M. McRobie.

Central Ontario Ry.—The end of the litigation in connection with this Co. is not in sight, and the recent efforts to bring about a settlement, when the line was ordered to be sold upon the application of the Toronto General Trusts Corporation, appear to have been

of no avail. The board of directors, acting up to the time of the ordering of the sale, through T. G. Blackstock, is making application to the Dominion Parliament to re-arrange the bonded indebtedness of the Co. and for other purposes. On the other hand, S. J. Ritchie, of Akron, Ohio, and his associates, who acquired the control about the time the sale was ordered, elected a new board on Oct. 2 last, but there was an allegation that the meeting was not legally called. Subsequent to the publication of the notice of application to Parliament by T. G. Blackstock, another appeared in the official gazettes of Canada and Ontario, signed by S. J. Ritchie, T. M. Kirkwood and R. Fraser, calling a meeting of shareholders to be held at Trenton on Feb. 2. This notice states that the subscribers, who represent one-fourth in value of the subscribed stock, had requested the directors (i.e., the board acting at the time the sale was ordered), to call a special meeting; that the directors had failed to do so, and the subscribers now did so under the statutory right conferred on them. At this meeting directors were elected, S. J. Ritchie being named Vice-President, and the position of the Company was considered. As a result of the meeting application was made Feb. 10, to Chief Justice Meredith for an injunction to restrain the new board from taking any steps in the matter, but it was refused. (Jan., pg. 27.)

The Chignecto Marine Transport Ry. Co. has re-appointed its trustees for a further period of three years, and the holders of deposited securities have passed the following resolution: "That the period mentioned in condition 4 of the conditions endorsed on certificate of deposit be and it is hereby extended to Jan. 1, 1906, or such further period as may be determined at a subsequent meeting of the holders of deposited securities of the C.M. Transport Ry. Co., and that the said condition be henceforth read and construed as if 1906 were therein inserted instead of 1902." The Co. expended about \$4,000,000 upon its project for the construction of a ship railway to connect the Bay of Fundy and Northumberland strait, when the work had to be abandoned owing to the refusal of the Dominion Government to grant further extensions of time or subsidies. Negotiations are pending with a view of some compensation being given to the Co. for the large expenditure made, and it is reported that the Government is prepared to allow something.

Consolidated Lake Superior Co.—The New York banking firm of Speyer Bros. have advanced on loan to the C.L.S.Co. \$3,500,000 to cover present requirements, and negotiations are in progress for a permanent loan of a larger amount, in order to provide for the completion of all the enterprises which have been undertaken by the Co. T. C. Search, Vice-President, who has given up his other office as Treasurer, states that every effort will be devoted to the completion of the works under construction, the placing of all the Co.'s operations upon a paying basis, and that no further expansion of its undertakings is contemplated.

J. P. Hood succeeds T. C. Search as Treasurer, and G. Abbott, of Boston, has been elected a director, succeeding T. D. Culyer, counsel for Spryer & Co.

Dominion Atlantic Ry.—Gross earnings for Dec., 1902, \$61,000, against \$68,606 for Dec., 1901; making for the year ended Dec. 31, \$977,040, against \$953,828 for same period 1901.

Press reports, which recently stated that Mackenzie, Mann & Co. were negotiating for the purchase of the D.A.R., are said by D. D. Mann to be without foundation.

Elgin and Havelock Ry.—The new officers are: President, R. E. Harris; Secretary-Treasurer, H. F. Stairs; other directors: R.

E. Harris, J. F. Stairs and B. F. Pearson. The syndicate which purchased the line consisted of B. F. Pearson, J. F. Stairs, R. E. Harris and C. H. Cahan, and they acquired the entire capital of \$100,000. The E. and H. Ry. has no bonded indebtedness. (Jan., pg. 27.)

Fort Erie Ferry Ry. Co.—The following were elected at the annual meeting recently held at Fort Erie, Ont.: President, F. J. Webber; Vice-President, P. Will; Treasurer, F. J. Webber; Secretary, E. A. Konzelman, all of Buffalo, N.Y.; Superintendent, W. H. Whar-ton, Fort Erie, Ont.

Great Northern Ry. of Canada.—A meeting of shareholders was called for Mar. 2, to approve and sanction the agreement for the purchase of the Montford and Gatineau Colonization Ry. (Jan., pg. 27. See also pg. 107.)

Guelph Jet. Ry.—The following were elected at the annual meeting at Guelph, Feb. 4: President, W. Bell; Vice-President, Mayor Hamilton; Secretary-Treasurer, Lt.-Col. Macdonald; Executive Committee, the President, Vice-President and J. M. Bond. The share of the receipts paid to the Guelph city council for 1902, was \$8,200. The line is operated by the C.P.R.

Halifax Electric Tramway Co.—Gross receipts from railway:

	1903.	1902.	Increase or Decrease.
Jan.....	\$10,867.33	\$10,764.58	\$102.75+

A dividend of 2% for the quarter was paid Jan. 2.

Hamilton Electric Light and Cataract Power Co.—At the annual meeting in Hamilton, Feb. 9, the retiring directors and officers were re-elected, and the following official statement was made: "With a view to extensions of the Co.'s plant at DeCew Falls and general enlargement of power-producing capacity, the Co. has decided to reincorporate with a view to enlargement of capital and general expansion. This the Co. is enabled to do, having secured a considerable addition to its water supply." On Feb 5 the Hamilton Cataract Power, Light and Traction Co. was incorporated under the Ontario Companies' Act, with a capital of \$5,000,000, to take over the business of the H.E.L. and C.P. Co., and to extend the various businesses of the Co. The incorporators are Hon. J. M. Gibson, Attorney-General for Ontario; J. Dixon, J. W. Sutherland, J. Patterson, W. C. Hawkins, of Hamilton, Ont.; John Dickenson, of Glanford, Ont., and J. A. Kammerer, of Toronto.

Hamilton, Grimsby and Beamsville Electric Ry.—The following were elected at the annual meeting in Hamilton Jan. 26: President, C. J. Myles; Vice-President, W. J. Harris; Treasurer, A. H. Myles; other directors, L. Bauer, R. Ramsay, R. S. Morris, W. N. Myles; Manager and Secretary, G. Walker. The only change in the officers is that A. H. Myles succeeds R. S. Martin as Treasurer. No financial statement has been made public, but it is stated that the balance sheet shows the year's operations to be the most successful in the history of the line.

The Kent Northern Ry. was recently sold under an order of court, and was bought in by T. Ritchie, of Halifax, N.S., for \$3,500. It is understood that the purchase was made in trust for interested parties. (Dec., 1902, pg. 409.)

Kingston and Pembroke Ry.—The following officers were elected at the annual meeting Feb. 11: President, M. H. Folger, Kingston; Vice-President and General Manager, C. W. Spencer, Montreal; other directors: A. R. Creelman, K.C.; T. Tait, W. R. Baker, Montreal; B. W. Folger, W. D. Hart,

Kingston; W. D. Matthews, H. P. Timmerman, Toronto. It was decided to devote the surplus earnings to the improvement of the line.

Lake Erie and Detroit River Ry.—At a meeting of the shareholders of the Pere Marquette Rd., held recently, the purchase of the L. E. and D. R. Ry. was ratified. Press reports say that the entire capital stock of the latter Co. was acquired by the Pere Marquette Rd., at \$200 a share, payment for which will be provided by the issue of collateral trust bonds at 97½, the total issue being limited to \$2,870,000, bearing interest at 3% to 1905, and 4% thereafter until maturity Nov. 1, 1922. The National Trust Co., of Toronto, is trustee. The L. E. and D. R. Ry. has outstanding about \$3,000,000 of 1st mortgage bonds, equal to \$15,000 a mile. The new directors and officers are: President, F. H. Price; Vice-President and General Manager, M. J. Carpenter; other directors, F. H. Walker,

N. Erb and M. T. Cox. The President, in an interview after the meeting, stated that the Canadian offices of the Pere Marquette Rd. would be maintained at Walkerville, Ont. (Jan., pgs. 9 and 27.)

London and Port Stanley Ry.—The annual meeting was held in London, Ont., Jan. 28. The financial statement showed receipts of

\$13,168.12, made up of rental from Lake Erie and Detroit River Ry. for 12 months to Dec. 30, \$10,000; interest as rental to same date, \$2,596.60, and percentage in surplus earnings of 1901, \$571.52. The payments were: miscellaneous, \$553.40, and city of London interest account \$12,614.72. The report of the directors referred to certain matters in dis-

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E. HAY - - - - Asst. General Manager.
W. MOFFATT - - Chief Inspector.

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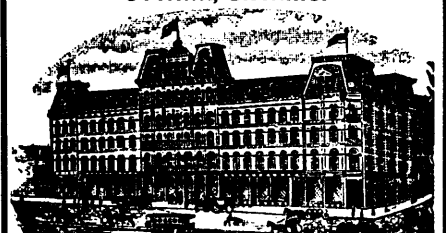
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pute between the Co. and the L.E. and D.R. Ry., and the G.T.R., and they were given further powers to deal with the same. The following were elected: President, Mayor Beck; Vice-President, Alderman Cooper; other directors: W. H. Winnett, C. B. Hunt, H. M. Douglas, Aldermen Campbell, Judd, Greenlees, Matthews and Abram. The board was authorized to issue \$85,000 of debentures in favor of the city of London, to pay for bridges and other alterations on the line, and the city solicitor was instructed to take the necessary steps to secure the consolidation of the Co.'s debt.

Application will be made next session of the Dominion Parliament for an act authorizing the calling in of the mortgage bonds and debentures outstanding and redeeming them by the issue of 5% 1st mortgage bonds or debentures, redeemable in Aug., 1913, and other financial powers in relation thereto.

Manitoba Ry. Co.—The Northern Pacific and Manitoba Ry., the Portage and North Western Ry., the Waskada and North Eastern Ry., and the Winnipeg Transfer Ry. companies, have been amalgamated under an agreement of Dec. 6, 1902, under the title of the Manitoba Ry. Co., and the agreement has been approved by the Governor-in-Council.

Manitoulin and North Shore Ry.—A meeting of shareholders was held at Sault Ste. Marie, Ont., Feb. 10, to authorize the issue of bonds.

Midland Ry. of Nova Scotia.—W. G. Reid, who had the general contract for the construction of this line, had a claim for \$76,000 against the Co. for work done, and the Co. had a counter-claim for a similar amount. As a result of a conference between W. D. Reid, Vice-President of the Reid Newfoundland Co., representing the contractor, and the officials of the Co., it was decided to refer all matters in dispute to Messrs. Lyall and Massey, who had power to call in a third arbitrator. Press reports state that a settlement of all the questions involved has been effected.

Montford and Gatineau Colonization Ry.—Application will be made Mar. 3 to the Governor-in-Council for the approval of the agreement for the sale of this line to the Great Northern Ry. of Canada. The copies of the deed of sale were filed with the Secretary of State, at Ottawa, Feb. 10, on which day a meeting of shareholders held in Montreal approved of the sale.

Montreal Street Ry.—Earnings and expenses for Jan.

	1903.	1902.	Increase.
Passenger earnings	\$168,882.69	\$153,374.20	\$15,508.49
Miscellaneous earnings	3,260.46	1,655.58	1,604.88
Total earnings	172,143.15	155,029.78	17,113.37
Operating expenses	110,610.98	100,538.82	10,072.16
Net earnings	61,532.17	54,490.96	7,041.21
Fixed charges	16,516.48	15,094.14	1,422.34
Surplus	45,015.69	39,396.82	5,618.87
Expenses % of car earnings	65.49	65.55	

Oct. 1 to Jan. 31, 1903.

	1903.	1902.	Increase.
Passenger earnings	\$692,191.01	627,827.46	64,363.55
Miscellaneous earnings	11,507.41	6,371.48	5,225.93
Total earnings	793,788.42	634,198.94	159,589.48
Operating expenses	424,575.83	387,845.93	36,729.90
Net earnings	279,212.59	246,353.01	32,859.58
Fixed charges	65,900.25	59,630.20	6,260.05
Surplus	213,312.34	186,722.81	26,589.53
Expenses % of car earnings	61.28	61.78	

Interest on M.P. & I. Ry. Co.'s bonds owned by the Co. not included.

In the action brought by the city to recover \$21,050.87 on percentage account, the Co. submitted that it was not called on to pay the city a percentage on the receipts for that portion of its lines outside the city limits. This view was taken by the Court of King's Bench, and has been affirmed by the Court of Appeal. It is expected that the city will take the case to a higher court.

The recent strike resulted in a net loss to the Co. of \$5,000, and the extra cost of operation on account of the 10% increase in wages is estimated to be \$75,000 a year.

Morden and Northwestern Ry.—The agreement amalgamating this Co. with the Canadian Northern Ry., under the latter title, has been filed with the Secretary of State at Ottawa.

Niagara Gorge Rd.—The following are the officers for 1903: President, J. T. Jones; Vice-President, H. P. Bissell; Treasurer and General Manager, B. L. Jones; other directors: C. M. Bushnell, J. H. Metcalfe, J. A. Jones, R. R. Hefferd, W. H. Hotchkiss, R. E. Powers, and W. C. Cornwell. At the annual meeting it was decided to keep the line open all winter.

Niagara, St. Catharines & Toronto Ry. Co.—The annual meeting was held at St. Catharines, Ont., Feb. 18. Following are the results of the operation, for the year 1902, of the railway and of the subsidiary, the Niagara, St. Catharines & Toronto Navigation Co., which operates the steamers Lakeside and Garden City between Port Dalhousie and Toronto:

	1902.	1901.
Gross earnings	\$172,840 11	\$155,553 28
Operating expenses	126,752 82	104,257 58
Net earnings	\$46,087 29	\$51,295 70

The large increase in the operating expenses is stated to be due to the fact that, in addition to handling increased business, considerable sums were charged to earnings on account of improvements and betterments which formerly were charged to capital, and in addition some expenses incurred in 1901 were wiped out in 1902. The authorized capital is \$1,000,000, of which \$925,000 has been issued. The mileage is 34.73 miles, on which 5% bonds have been authorized at \$20,000 a mile, amounting to \$694,000. Of these \$100,000 remains in the treasury. The officers for the current year are: President, J. W. Herbert, New York; Vice-President, A. P. Colvin, Glen's Falls, N.Y.; Secretary-Treasurer, A. E. Jarvis, Toronto; other directors: J. A. Powers, Lansingburg, N.Y.; Z. A. Lash, J. W. Flavelle, and J. H. Plummer, Toronto; General Manager, E. F. Seixas; Assistant Secretary-Treasurer, C. E. A. Goldman.

Nipissing and James Bay Ry.—Mackenzie, Mann & Co., who own the charter for this line, and started construction near North Bay, Ont., in 1901, will, it is reported, apply to the Ontario Government for compensation, on the ground that the construction of the Government railway to Temiskaming has rendered their charter valueless.

Nosbonsing and Nipissing Ry.—The earnings for the past year were \$53,850, and the operating expenses \$45,076.23. The line is 5½ miles in length, and is a lumber-carrying line, between lakes Nosbonsing and Nipissing, Ont. T. Darling, of Wisawasa, is Superintendent.

Nova Scotia Central Ry.—A recent press report stated that Mackenzie, Mann & Co. were negotiating for the purchase of the N.S.C. Ry., which extends from Middleton, on the Dominion Atlantic Ry., to Lunenburg, N.S. The N.S.C. Ry. was acquired by Mackenzie, Mann & Co., in June, 1902.

Ottawa Electric Ry. Co.—At the annual meeting, recently held, the following were elected: President, T. Ahearn; Vice-President, P. Whalen; other directors: G. P. Brophy, W. Y. Soper, T. Workman, A. Lumsden, and Hon. G. A. Cox; Secretary-Treasurer, J. D. Fraser. The annual report showed that 7,097,232 passengers had been carried during 1902. This was a slight decrease as compared with the previous year, due largely to the long extended rainy season of the summer. Among the items of ex-

penses were the following: Snow clearing, \$12,000; taxes paid to city and county, \$4,925; mileage paid to city, \$8,490; total, \$25,415. Four quarterly dividends of 2% each were paid.

Application will be made next session of the Dominion Parliament for an Act increasing the bonding powers of the Co. and for other purposes.

Pere Marquette Rd.—By the purchase of the Lake Erie and Detroit River Ry., the P.M. Rd. has been enabled to complete arrangements to operate through traffic, delivering freight in Buffalo, N.Y., from Chicago and the west, via the Michigan Central Rd., from St. Thomas, Ont. The published earnings for the first week in Feb., 1903, for the extended road show an increase of \$31,500 against the total of the earnings of the two lines for the same period in 1902.

Preston and Berlin Ry.—Negotiations are reported to have been going on for some time between J. Patterson, of Hamilton, who constructed the P. and B. Ry., and the C.P.R., with a view to the purchase of the line by the latter. Mr. Patterson recently stated that no decision had been reached.

Qu'Appelle, Long Lake and Saskatchewan Ry.—Net earnings for Dec., 1902, \$1,274.75, against \$5,673.43 for Dec., 1901. Net earnings for year ended Nov. 30, 1902, \$68,160, against \$6,583 for same period, 1901.

In respect of the interest on the 6% 1st mortgage bonds due Feb. 1, £1 is. was paid in cash, and certificates given for the balance of £1 19s.

Quebec Bridge Co.—A deed of mortgage on the Co.'s property to secure an issue of bonds has been deposited with the Secretary of State at Ottawa. (Jan., pg. 27.)

Quebec Ry., Light and Power Co.—Application will be made next session of the Dominion Parliament for an act authorizing the issue of preference stock, defining the respective rights of the holders of preference and common stock, and to authorize, under certain circumstances, the cancellation of the common stock.

Press reports state that negotiations are in progress with a view of the amalgamation of the Q. R., L. and P. Co. and the Jacques Cartier Power Co.

Quebec Central Ry.—Gross earnings for Dec., 1902, \$45,464.23; working expenses, \$41,859.60; net earnings, \$3,604.63; against \$42,647.11 gross and \$8,756.01 net for Dec., 1901. Gross earnings for 12 months ended Dec. 31, 1902, \$667,621.59; net earnings \$201,669.48, against \$622,716.13 gross and \$200,551.28 net for same period 1901.

Quebec and Lake St. John Ry.—Gross earnings for Dec., 1902, \$33,600, against \$30,917 for Dec., 1901; making for 12 months \$414,652, against \$381,534 for same period 1901.

Quebec Southern Ry.—The employees on a section of this line from Sorel to Noyan Jct., struck Jan. 20, on account of their wages being in arrears, and traffic was suspended. The South Shore division, from St. Lambert to St. Francois du Lac, was not affected, neither was the operation of the Rutland Rd.'s trains between Noyan Jct. and Iberville Jct., except that the R. Rd. had to find its own signalmen. Up to Feb. 20 traffic had not been resumed.

This is not the only difficulty confronting the Co., as in addition to the action instituted on behalf of the holders of shares in the South Shore Ry., to have the amalgamation quashed, four other actions have been entered in the Quebec courts. The Rutland Rd. has taken summary action to recover \$51,150 for money advanced; the George Hall Coal Co. wants to recover \$2,800 balance of a coal bill; J. N. Greenshields, K.C., is suing for \$5,888 for professional services; and the St. Hyacinthe

Bank, is seeking to recover from the United Counties Ry., a former title of the Q.S.R., several thousand dollars on a promissory note. The action re the South Shore Ry. amalgamation came before the courts Feb. 18 on a motion to commit H. A. Hodge, President, for contempt of court in neglecting to produce certain books, and the motion was enlarged, Mr. Hodge having attended court and promised to produce the books.

The South Shore division is also involved in some legal difficulties of its own. The Hochelaga Bank secured judgment for \$56,247 for money advanced, and a writ for the seizure of the property has been in the hands of the sheriff since Jan. 1. Suit has also been commenced by Hon. R. Prefontaine, Minister of Marine, to recover \$54,000 money advanced at the time of the purchase of the Great Eastern Ry. some years ago.

Suggestions have been made that the Dominion Government should purchase the South Shore line and operate it in conjunction with the I.C.R.

The Shawinigan Falls Terminal Ry. Co. will apply at the next session of the Quebec Legislature for power to borrow to the extent of 75% of its paid-up capital, and pledge its property as security therefor.

Shuswap and Okanagan Ry.—Net earnings for nine months ended Sept. 30, 1902, \$10,838, against \$9,839 for same period 1901.

The St. John's, Nfld., Street Ry. was in operation for nine months to Dec. 31, 1902, the gross receipts being \$23,102.95, out of which 2% or \$462.05 has been paid to the city.

St. Thomas Electric Ry.—The city clerk of St. Thomas recently stated that the line was doing one-third more business than it had done under the old company's management.

Teniscouata Ry.—Net earnings for Nov., 1902, \$197.

Toronto, Hamilton and Buffalo Ry.—Earnings for Jan. \$41,379.78, against \$34,405.15 for Jan., 1902; making for eight months ended Jan. 31 \$300,801.20, against \$312,325.50 for same period 1901-2.

Vancouver, Victoria and Eastern Ry. and Navigation Co.—It is understood that the V. V. and E. Ry. and N. Co. is now entirely controlled by the Great Northern Ry., U.S. Mackenzie, Mann & Co. previously held a considerable interest in the charter.

An action is before the courts at Victoria concerning the share capital of the Co. Dr. Milne at one time held about one-half of the stock, and during his absence in England gave R. Hall, of Victoria, power of attorney to dispose of it. Hall sold the stock for \$22,000, a depreciated value under the then existing circumstances, and it is alleged by Dr. Milne that D. G. Macdonnell, a Vancouver barrister, wrongfully misrepresented facts to Hall, and so induced him to sell the stock. The action is for damages.

Vancouver, Westminster and Yukon Ry.—Application will be made Mar. 12 at Ottawa for the approval of the purchase by the V.W. and Y. Ry. Co. of the charter and assets of the Vancouver, Westminster, Northern and Yukon Ry. Co.

White Pass and Yukon Ry.—Gross earnings from July 1 to Dec. 31, 1902, \$1,133,978.

We were officially informed recently that the press reports sent out from Seattle, Wash., that the transfer of the offices to Vancouver, B.C., had been made with a view of transferring the line to the C.P.R., were without foundation.

Yarmouth Street Ry.—This Nova Scotian street railway, the third to be operated by electricity in the Dominion, has been in operation since 1892. It has not paid, and was closed down Feb. 3. The Co., in addition to running the street car service, supplied current for lighting, heating and power purposes in the own.

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PURCHASING AGENTS' GUIDE.
(Continued from third page of Cover.)

Steam Shovels
James Cooper..... Montreal.
W. H. C. Mussen & Co..... Montreal.

Steel
James Cooper..... Montreal.
B. J. Coghlin & Co..... Montreal.
Wm. Jessop & Sons..... Sheffield, Eng.
Rice Lewis & Son..... Toronto.

Steel Buildings
Dominion Bridge Co..... Montreal.

Steel Plate
Jas. W. Pyke & Co..... Montreal.

Steel Tires
B. J. Coghlin & Co..... Montreal.
Latrobe Steel Co..... Philadelphia, Pa.
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.
The N. L. Piper Railway Supply Co..... Toronto.

Switch Ropes
The B. Greening Co..... Hamilton, Ont.

Switch Targets
Acton Burrows Co..... Toronto.

Tanks and Tank Fixtures
Ontario Wind Engine and Pump Co..... Toronto.

Telegraph and Telephone Office Signs
Acton Burrows Co..... Toronto.

Tie Plates
B. J. Coghlin & Co..... Montreal.

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.
W. H. C. Mussen & Co..... 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
Polson Iron Works..... Toronto.

Waste
B. J. Coghlin & Co..... Montreal.
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.

Windmills
Ontario Wind Engine and Pump Co..... Toronto.

Window Blinds
The Hudson's Bay Company.....

Wines and Liquors
The Hudson's Bay Company.....

Wire & Wire Rope
Dominion Wire Rope Co..... Montreal.
The B. Greening Co..... Hamilton, Ont.
Rice Lewis & Son..... Toronto.
W. H. C. Mussen & Co..... Montreal.
The Wire and Cable Co..... Montreal.

Wire Cloth
The B. Greening Co..... Hamilton, Ont.

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
Polson Iron Works..... Toronto.

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.	Derricks James Cooper. Montreal.	Milepost Numbers Acton Burrows Co. Toronto.
Aerated Waters E. L. Drewry. Winnipeg.	Door Signs Acton Burrows Co. Toronto.	Mohair The Hudson's Bay Company.
Air Brakes & Fittings Wastinghouse Mfg. Co. Hamilton, Ont.	Dry Goods The Hudson's Bay Company.	Numbers Acton Burrows Co. Toronto.
Ales E. L. Drewry. Winnipeg.	Electric Car Route Signs Acton Burrows Co. Toronto.	Oakum Rice Lewis & Son. Toronto.
Anchors Rice Lewis & Son. Toronto.	Electric Cranes Dominion Bridge Co. Montreal.	Oils Galena-Signal Oil Co., Franklin, Pa., & Toronto.
Axles Jas. W. Pyke & Co. Montreal.	W. H. C. Mussen & Co. Montreal.	The Queen City Oil Company. Toronto.
Rhodes, Curry & Co. Amherst, N.S.	Enamelled Iron Signs Acton Burrows Co. Toronto.	Office Signs Acton Burrows Co. Toronto.
Rabbitt Rice Lewis & Son. Toronto.	Engines, Stationary & Marine Polson Iron Works. Toronto.	Packing Gutta Percha and Rubber Mfg. Co. Toronto.
Blankets & Bedding The Hudson's Bay Company.	Engraving Acton Burrows Co. Toronto.	The N. L. Piper Railway Supply Co. Toronto.
Block & Tackle Dominion Wire Rope Co. Montreal.	Toronto Engraving Co. Toronto.	Finch Bars The Hiram L. Piper Co. Montreal.
Rice Lewis & Son. Toronto.	Expanded Metal Expanded Metal and Fire-Proofing Co. Toronto.	The N. L. Piper Railway Supply Co. Toronto.
Boat Fittings & Hardware Rice Lewis & Son. Toronto.	Express Office Signs Acton Burrows Co. Toronto.	Pipe Covering Mica Boiler Covering Co. Montreal.
Boiler Covering Mica Boiler Covering Co. Montreal.	Fencing Canadian Steel and Wire Co. Hamilton, Ont.	Flashes The Hudson's Bay Company.
Boilers Polson Iron Works. Toronto.	Page Wire Fence Co. Walkerville, Ont.	Porter E. L. Drewry. Winnipeg.
Boiler Tubes B. J. Coghlin & Co. Montreal.	Fire-Proofing Expanded Metal and Fire-Proofing Co. Toronto.	Portland Cement Rice Lewis & Son. Toronto.
Jas. W. Pyke & Co. Montreal.	Flags Rice Lewis & Son. Toronto.	Printing The Hunter, Ross Co. Toronto.
Bolsters Simplex Railway Appliance Co. Montreal.	The Hudson's Bay Company.	The Mail Job Printing Company. Toronto.
Boils Rice Lewis & Son. Toronto.	The Ogitivie Flour Mills Co. Montreal.	Pumps Rice Lewis & Son. Toronto.
Brake Beams Simplex Railway Appliance Co. Montreal.	Poghnorns Rice Lewis & Son. Toronto.	Railway Supplies The N. L. Piper Railway Supply Co. Toronto.
Brass and Copper Cloth The B. Greening Co. Hamilton, Ont.	Gates Page Wire Fence Co. Walkerville, Ont.	Rail Joints Montreal Rolling Mill Co. Montreal.
Brass Castings St. Thomas Brass Co. St. Thomas, Ont.	General Supplies The Hudson's Bay Company.	Rails (New) James Cooper. Montreal.
Bridge Numbers Acton Burrows Co. Toronto.	Grain Elevators John S. Metcalfe Co. Chicago, Ill.	Drummond, McCall & Co. Montreal.
Bridges Dominion Bridge Co. Montreal.	Greceries The Hudson's Bay Company.	J. J. Gartshore. Toronto.
Buoy Lighting Safety Car Heating and Lighting Co., New York	Hardware Rice Lewis & Son. Toronto.	Balls (for relaying) James Cooper. Montreal.
Cables, Electric E. F. Phillips Electrical Works, Ltd., Montreal.	The Hudson's Bay Company.	J. J. Gartshore. Toronto.
The Wire and Cable Co. Montreal.	Headlights N. L. Piper Railway Supply Co. Toronto.	T. A. Morrison & Co. Montreal.
Cables, Feeder E. F. Phillips Electrical Works, Ltd., Montreal.	Hose Gutta Percha and Rubber Mfg. Co. of Toronto.	W. H. C. Mussen & Co. Montreal.
Car Couplers Latrobe Steel and Coupler Co., Philadelphia, Pa.	Rice Lewis & Son. Toronto.	Rice Lewis & Son. Toronto.
Car Heating Safety Car Heating and Lighting Co., New York	Illustrations Acton Burrows Co. Toronto.	The Hudson's Bay Company.
Car Jacks James Cooper. Montreal.	Interlocking Plants Canada Switch and Spring Co. Montreal.	Rubber Goods Gutta Percha and Rubber Mfg. Co. of Toronto.
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Car Lighting Safety Car Heating and Lighting Co., New York	Iron Signs Acton Burrows Co. Toronto.	Semaphores The Hiram L. Piper Co. Montreal.
Carpets The Hudson's Bay Company.	Japans McCaskill, Dougall & Co. Montreal.	The N. L. Piper Railway Supply Co. Toronto.
Cars Rhodes, Curry & Co. Amherst, N.S.	Journal Bearings Jas. W. Pyke & Co. Montreal.	Shafting Rice Lewis & Son. Toronto.
Car Wheels Jas. W. Pyke & Co. Montreal.	St. Thomas Brass Co. St. Thomas, Ont.	Shipbuilders' Tools & Supplies Rice Lewis & Son. Toronto.
Rhodes, Curry & Co. Amherst, N.S.	Lager Beer, &c. E. L. Drewry. Winnipeg.	Ship Lamps The Hiram L. Piper Co. Montreal.
Castings Canada Switch and Spring Co. Montreal.	Lamps & Lanterns The Hudson's Bay Company.	The N. L. Piper Railway Supply Co. Toronto.
Rhodes, Curry & Co. Amherst, N.S.	Rice Lewis & Son. Toronto.	Ships Polson Iron Works. Toronto.
Cement Estate of John Battle. Thorold, Ont.	The Hiram L. Piper Co. Montreal.	Shovels James Cooper. Montreal.
Cement Machinery Jas. W. Pyke & Co. Montreal.	N. L. Piper Railway Supply Co. Toronto.	The Hudson's Bay Company.
Chains Rice Lewis & Son. Toronto.	Launohes Polson Iron Works. Toronto.	Rice Lewis & Son. Toronto.
Coal Haulage Ropes The B. Greening Co. Hamilton, Ont.	Life Insurance Independent Order of Foresters. Toronto.	Side Bearings Simplex Railway Appliance Co. Montreal.
Concrete Mixers W. H. C. Mussen & Co. Montreal.	Travelers' Insurance Co. Montreal.	Signal House Numbers Acton Burrows Co. Toronto.
Contractors' Plant James Cooper. Montreal.	Lights, Contractors and Wrecking James Cooper. Montreal.	Signals The Hiram L. Piper Co. Montreal.
J. A. Morrison & Co. Montreal.	W. H. C. Mussen & Co. Montreal.	N. L. Piper Railway Supply Co. Toronto.
W. H. C. Mussen & Co. Montreal.	Linooleum and Floor Coverings The Hudson's Bay Company.	Signs Acton Burrows Co. Toronto.
Cross Arms, Top Pins & Side Blocks The Firstbrook Box Co. Toronto.	Locomotives (Compressed Air) American Locomotive Co. New York, N.Y.	Acton Burrows Co. Toronto.
Crossing Gates The N. L. Piper Railway Supply Co. Toronto.	Baldwin Locomotive Works. Philadelphia, Pa.	Snow Ploughs Rhodes, Curry & Co. Amherst, N.S.
Curtains The Hudson's Bay Company.	Locomotives (Electric) American Locomotive Co. New York, N.Y.	Spikes Rice Lewis & Son. Toronto.
Cuts Acton Burrows Co. Toronto.	Baldwin Locomotive Works. Philadelphia, Pa.	Springs Canada Switch and Spring Co. Montreal.
Derrick Ropes The B. Greening Co. Hamilton, Ont.	Locomotives (Reak) American Locomotive Co. New York, N.Y.	B. J. Coghlin & Co. Montreal.
	Baldwin Locomotive Works. Philadelphia, Pa.	Station Name Signs Acton Burrows Co. Toronto.
	Canadian Locomotive Co. Kingston, Ont.	Steamboats Polson Iron Works. Toronto.
	James Cooper. Montreal.	Steamboat Signs Acton Burrows Co. Toronto.
	W. H. C. Mussen & Co. Montreal.	Steam Compressors Safety Car Heating and Lighting Co., New York
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