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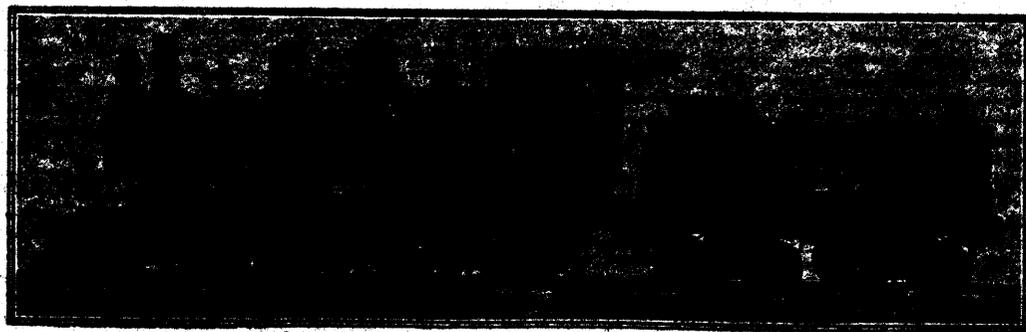
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THE MANITOBA GRAIN ACT.

The Dominion statute of 1900, known as the Manitoba Grain Act, is based largely upon the Minnesota Grain Law. In Minnesota, which has been a wheat-shipping state for many years, the conditions of production and transportation are almost identical with those on the Canadian side of the line. Moreover, practically all the wheat raised in Dakota finds its way to Minneapolis or Duluth, coming under the supervision of Minnesota officials and the jurisdiction of the Minnesota law. The experience which the people of these two states have acquired in the handling and shipments of immense crops of grain is quite unique; consequently, those who in framing the Manitoba law undertook to depart from the Minnesota law in one or two important particulars ran a good deal of risk.

The principal difference between the grain trade of Manitoba and that of Minnesota at present is that whilst the Minnesota farmer feels safe in the hands of the elevator man, and uses the elevators well-nigh exclusively, the Manitoba farmer clamors for loading platforms and flat warehouses. The platform or warehouse is to the elevator what the old-fashioned cradle is to the modern self-binder, in other words, its use greatly retards the shipment of the crop—a serious thing when one bears in mind that new wheat seldom begins to move until well into October, while lake navigation closes at the end of November, leaving not more than six or eight weeks for transportation.

In Minnesota, marketing and shipment are regulated by the general railroad law and the warehouse and grain laws, which are administered by the Railroad and Warehouse Commission, a body consisting of three members, assisted by a large staff of officers. When a complaint is made against an elevator, as, for instance, for using false weights, unfair grading, unreasonable dockage for dirt, discrimination, pooling or combination against the farmers, one of the travelling inspectors goes to the scene, and either holds an investigation himself or submits the principal facts to the commissioners, who forthwith hold one, the commissioners dealing with the more important matters. It has been found that prompt action in such matters is essential to the maintenance of good relations between farmers and elevator men. The commissioners and their officers are carefully chosen, stand aloof from politics, and are removable only for cause. During the discussion of the Manitoba Grain Act at Ottawa it was stated that the Minnesota officials were "dismissed

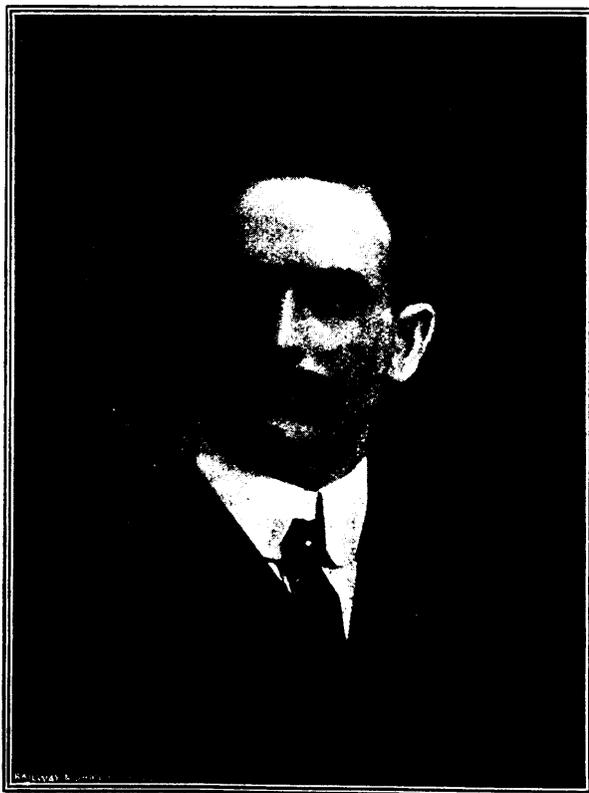
every three or four years, or whenever the State Government changed its political complexion." This is a mistake. The Republicans have held power in Minnesota for 40 years with the exception of one term; and since 1885, when the State took hold of the grain trade, every effort has been made to secure and retain good officials. The penalties for violating the laws are severe, ranging from cancellation of license to fine or imprisonment; further, on the report of the commissioners the District Attorney may bring civil

have confidence in the Commission and its employes, inasmuch as they can rely on an immediate and impartial investigation whenever friction arises. The farmers are at liberty to use loading platforms and warehouses or to load direct from wagons into cars; there is virtually no restraint upon the employment of such methods. As a matter of fact, however, platforms and warehouses are maintained more as a check upon the elevators than for general use. The farmer uses the elevator in preference simply because it facilitates the movement of the whole crop, and saves him, individually, much time, labor and anxiety.

The Manitoba Grain Act, on the other hand, while making elaborate provisions against improper practices by elevator men, contains no machinery worthy of the name for enforcing those provisions. The Chief Warehouse Commissioner, C. Castle, who is an excellent officer, is virtually left to apply the law all by himself. He has no staff to speak of, is kept too busy in his office at Winnipeg to be able to move about and hold enquiries, and has no inspectors under him to conduct investigations on the spot and get at the bottom of newspaper complaints, which, once started, have the faculty of a snowball for growing as they travel. The upshot is that the farmers are easily led to believe that the present Act is neither more nor less than a device got up in the interest of the elevator companies. This suspicion gives rise to the demand for loading platforms, and the use of platforms results in the locking up of rolling stock in station yards at a time when swift despatch is vital; then comes the "hold-up" of the farmer by unscrupulous buyers on the pretext that they will not be able to get the wheat east until spring. The farmer who is victimized is apt to lay the blame upon the railway, or upon the elevator companies in general, when in reality the fault is his own or that of Parliament in not having provided sufficient machinery for protecting him.

To take an actual case; for a while last fall there was a considerable difference in the price paid for wheat at Manitoba points and the price paid at adjacent points in Minnesota and Dakota. Certain Manitoba newspapers at once insisted that this was due to the extortionate rates charged by the C.P.R., and some of the farmers, as well as some of the grain buyers, joined in the cry. It was soon shown, however, that from all the Canadian points in question, C.P.R. rates to Fort William were precisely the same as Great Northern or Northern Pacific rates to Duluth from the

(Continued on page 111.)



E. A. JAMES,

General Superintendent, Canadian Northern Railway.

actions against elevators in the name of the complaining farmer, but at the expense of the State. On the opening of the shipping season, the commissioners travel up and down in order to see that a good start is made, to listen to grievances, and to ascertain if any new features have developed which may require special attention. The travelling inspectors are, however, the immediate instruments in protecting the farmer from the elevator man. A complaint in a newspaper is investigated as promptly as a formal complaint to the Commission. Farmers and elevator men alike

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NEXT MEETING, Toronto, Ont., date not decided.

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NEXT ANNUAL MEETING of the Grand Council in Kingston, Ont., Jan. 4, 1904.

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	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	465,955.62
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
Feb...	183,554.82	78,039.43	749,235.13	256,156.70
	1,722,427.37	782,431.67	\$5,986,770.59	\$2,503,274.36

The New York Central Rd.'s Montreal Passenger office, in charge of F. E. Barbour, General Agent, is to be removed on Mar. 1 from 2263 St. Catherine st. to the corner of St. James and St. Francois Xavier streets, to the premises now occupied by the Intercolonial Ry. freight department, which will remove to the new Board of Trade building. The N.Y.C. Rd.'s Montreal freight office, in charge of H. S. Phillips, Commercial Agent, is to be removed from the Stock Exchange building to the new Board of Trade building.

The Appendix to vol. 2 of the Annual Financial Review, just issued, completes the information regarding Canadian and other companies, the shares of which are dealt in on Canadian exchanges. The information is carefully prepared and arranged for ready reference. W. R. Houston, 22 St. John st., Montreal, is the publisher.

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Referring to the item in our last issue stating that the standard train rules went into effect on the Canadian Northern Ry., on March 1, we are informed that while it was intended that the rules should have come into effect on that date, the instruction of the employees in the new rules had not been completed, and that it would be about April 1 before they could be put in operation on the system.

The C.P.R.'s exhibit at the Sportsman's Show, which concluded at New York Mar. 7, attracted general interest. A special feature was a performance of Hiawatha, which formed an attraction during the summer of 1902 at Desbarats, Ont. The cast comprised 150 persons, of whom 25 were Indians from Sault Ste. Marie, Caughnawaga and Nova Scotia.

The application of the Duluth, South Shore and Atlantic Ry. for membership in the western interchangeable mileage bureau has been granted, and that road is now a member. Arrangements have been made whereby the rate for interchangeable mileage over its lines will be 2 1/2 c. a mile.

A paper on "Tide Level and Datum Planes in Eastern Canada," read by Dr. W. B. Dawson, of the Tidal Survey branch of the Department of Marine, at the recent annual meeting of the Canadian Society of Civil Engineers, has been published in pamphlet form.

The Manitoba Grain Act.*(Continued from page 109.)*

contiguous points on the U.S. side, and this, notwithstanding that in every instance the haul to Fort William was a good deal longer than the haul to Duluth. The difference arose in part, no doubt, from the exceptionally brisk demand for hard wheat by the Minneapolis and Duluth mills, which were paying a premium for the immediate delivery of futures in hard; as well, perhaps, as to the operations of Chicago "bull" speculators. Having discovered that the C.P.R. was not to blame, the Manitoba farmer along the frontier wheeled round and maintained, rightly or wrongly, that he was being robbed by the grain men; and, as no investigation was held, is probably of that mind still.

The farmer who has wheat to sell is not always the most reasonable man in the world. If his sample is poor, owing to the presence of dirt or from any other cause, and he is offered a lower price than that paid to a neighbour having a better sample, he is loth to blame himself, preferring to accuse the buyer of over-reaching him. So, too, he is disposed, if he cannot blame the railway, to blame the buyer, when, owing to exceptional circumstances, the price south of the line is higher than the price north. Those newspapers which pose as his champions, along with others having party ends to serve, encourage him in this belief, and in the end he accepts it as incontrovertible. From the press the grievance is transferred to Parliament, and dealt with by furious orators in search of his vote. There will be no chance of peace between farmers and buyers, or between the farmers and the railways, until Mr. Castle is in a position to dispatch inspectors to enquire into local grievances and to hold the more important enquiries himself. When that day arrives, provided the inspectors are men of probity, the farmer will begin to trust the elevator, and the scandal of having hundreds of cars held up day after day during the busy season at loading platforms or sidings will gradually disappear.

The President of the labor party in Manitoba, Wm. Scott, who cannot be accused of excessive friendship for the railways, dealt with the platform question in a letter to the Winnipeg Voice, in December last, in which he said:—

"The threats of our Ninga friends to blow up the elevators is an exact repetition of the machinery-smashing policy of the trades unions in the beginning of the last century. That policy, though mistaken, was not unjustifiable. Now, just as the improved machine took the bread out of the tradesman's mouth and sent him adrift as a tramp, or condemned him to factory wage-slavery, so the improved method of handling grain by means of elevators has been made the instrument of robbing the farmer of a large portion of the products of his fields. The robbery may have been sufficiently palpable to warrant the farmers in demanding remedial legislation, but legislation compelling the railway companies to load off the wagon is reactionary and parallel with the action of those economists who, perceiving the evils of the factory wage-slavery system, advise the people to go back to the good old times of hand manufacture."

Mr. Scott's criticism is sound, as far as it goes, but it does not go far enough—he should have condemned the Act for leaving the farmer at the mercy of the grain-buyer, that being the fount and origin of the whole trouble. When the Manitoba Grain Act was passed, one of the Minnesota commissioners pointed out this defect and predicted, what has come to pass, that it would arouse universal suspicion, lead the farmers to ship from platforms instead of elevators, and involve all concerned in an uproar, owing to the obstacles thus placed in the way of speedy shipment of the crop. Even without such artificial impediments, the Canadian railways would be at a serious disadvantage as compared with the railways south of the line, since the wheat-belt in Minnesota begins only 225 miles west of Duluth, whereas in Manitoba it begins at Winnipeg, 426 miles west of Fort William, though in reality not much wheat is grown

east of Portage la Prairie, 56 miles west. The western limit of wheat may be said to be Moose Jaw, over 800 miles from Lake Superior. Geography thus handicaps the Canadian lines, and when, on top of it, they are obliged to substitute the antiquated platform for the modern elevator, it is absurd to expect them to move the crop to Lake Superior as rapidly as the U.S. lines do.

In other instances, the authors of the Manitoba Grain Act, while trying to protect the farmer, have unwittingly done him harm. For example, section 58, as amended in 1902, provides that when cars are scarce they shall be apportioned to the applicants in order of their application, "until each applicant has received one car," after which, "the surplus cars, if any, shall be apportioned according to the requirements of each applicant." This section is copied from the Minnesota law, but an important variation has been made, the Minnesota law reading that in time of scarcity cars "shall be divided as equally as may be among the applicants until each shipper shall have received at least one car, when the balance shall be divided ratably in proportion to the amount of daily receipts of grain or other freight," etc.

An elevator of 30,000 bush. capacity, containing wheat belonging to 20 farmers, is full, and 20 other farmers are waiting to use it. Alongside is a platform or flat warehouse which affords accommodation to one-fifth of that number of farmers or probably less. Yet under the Manitoba Act the elevator is put on precisely the same footing as the platform in the distribution of cars. Imagine that an epidemic was raging at Ninga or Gretna, Man., that doctors were scarce and that the local hospital was crowded with patients, a few were in private houses; what would be said if, in the distribution of doctors, the law ordained that the few should rank with the many in receiving succor, one to the hospital, one to each private house? The Minnesota law takes note not of the order of the application alone, but of the quantity of grain being received at the elevators and platforms respectively, and bases distribution upon those proportions, the 20 farmers concerned in the elevator being, not unreasonably, favored with cars in preference to the four or five using the platform or warehouse. The effect of the Manitoba law last fall was to create a scarcity, which meant, of course, a cut in the price offered by grain-buyers, so that the last condition of the farmer was worse than the first. It was an every-day occurrence for elevator men and track-buyers to wire the General Superintendent of the C.P.R. at Winnipeg, offering to pay more for wheat than the current price if he would ignore section 58 and give them cars at once, instead of waiting until he had satisfied the requirements of the owner of a few wagon-loads of wheat at a platform. There was an unexpected demand for Manitoba wheat from Australia, where drought prevailed, but it could only be met in part. On this point the retiring President of the Board of Trade of Winnipeg said the other day:—

"Dealers have been handicapped in the Australian trade by the operation of the Manitoba Grain Act, which only permits an elevator to stand as one in a number of applicants for cars. In other words, if each of 20 farmers and an elevator place an order for cars with a railway station agent, the elevator can only secure one car in turn with all the other applicants, and, as farmers could not ship single cars to the Pacific Coast to meet the Australasian trade, it is apparent that either the grain buyer could not make any considerable shipment at one time, or else the railway company would have to violate the Grain Act by giving the number of cars necessary to transport a round lot of, say, 40,000 or 100,000 bush."

If the reader, who may not be a railway man, imagines that too much importance is attached to the absurd mode of distributing cars in Manitoba, let him reflect that for every car that can be loaded at a platform 60 can be loaded in the same space of time at an elevator. However, the farmers are not

likely to abandon platform-loading, with all its drawbacks to themselves and to the railways, until they have confidence in the elevator companies, and that can be restored, if at all, only by the reconstruction of Mr. Castle's department in such a manner as to insure the prompt treatment of complaints on the farmer's part by officials familiar with every phase of the grain trade, and honest and above-board in their findings.

Other defects in the Act might be pointed out, but probably these are sufficient to convince the Dominion Government that it needs amendment at the present session.

Putting aside the obstacles to rapid shipment thus artificially created, the railways had other difficulties to encounter. The unusually heavy spring rains filled the streams with alkali and vegetable matter, which found their way into the tanks and crippled the locomotives. In the fall, however, the rainfall was far below the average, so that towards the close of the season there was not water enough. Then, with the rush into the country of 40,000 settlers, who had to be fed and provided with other necessities and conveniences, west-bound traffic attained enormous proportions; while, on the other hand, the coal famine in the United States compelled the C.P.R. to haul an unusually large supply of fuel east from Lethbridge and Souris. It was quite as necessary that the people should be kept from freezing as that grain should be hurried to Lake Superior. Notwithstanding these and other adverse influences, the C.P.R. did splendid work in carrying wheat, the quantity taken to Fort William between Sept. 1 and the close of navigation on Dec. 6, 1902, being no less than 16,000,000 bush., or 3,000,000 more than during the same period of 1901. The Canadian Northern Ry. took to Port Arthur 4,283,946 bush. between Sep. 1 and Dec. 6, 1902.

April Birthdays.

Many happy returns of the day to Adam Brown, formerly President Wellington, Grey and Bruce Ry. (now G.T.R.), Vice-President G.N.W. Telegraph Co., and Postmaster of Hamilton, born at Edinburgh, Scotland, April 3, 1826.

A. H. Clark, Master Mechanic, Irondale, Bancroft and Ottawa Ry. at Irondale, Ont., born April 5, 1867.

G. M. Clark, K.C., Consulting Counsel C.P.R., Cobourg, Ont., born April 14, 1828.

A. P. Cockburn, ex-Manager and Treasurer Muskoka and Georgian Bay Navigation Co. at Gravenhurst, Ont., born in Finch tp., Stormont, Ont., April 7, 1837.

B. W. Folger, Manager Niagara Navigation Co. at Toronto, born at Kingston, Ont., April 8, 1872.

G. H. Garden, C.E., Chief Engineer Alberta Ry. and Coal Co. at Lethbridge, Alta., born at Woodstock, N.B., April 5, 1849.

J. P. Gay, Division Freight Agent, G.T.R. at Stratford, Ont., born at Hamilton, Ont., April 26, 1857.

E. A. Geiger, Superintendent, General Freight Agent and Treasurer Brockville, Westport and Sault Ste. Marie Ry. at Brockville, Ont., born at Newark, N.J., April 10, 1863.

B. C. Gesner, Air Brake Inspector, I.C.R. at Moncton, N.B., born at Cornwallis, N.S., April 23, 1859.

A. L. Hertzberg, Division Engineer C.P.R. at Toronto, born in Norway, April 30, 1855.

E. A. James, General Superintendent, Canadian Northern Ry. at Winnipeg, Man., born in London, Eng., April, 1865.

B. S. Jenkins, General Superintendent Telegraphs, C.P.R. at Winnipeg, Man., born April 8, 1859.

Thos. Long, Secretary, Northern Navigation Co. of Ontario, Toronto, born at Lime- rick, Ireland, April 7, 1836.

D. McNicoll, second Vice-President and General Manager C.P.R., at Montreal, born at Arbroath, Scotland, April, 1852.

E. V. Skinner, General Eastern Agent Canadian Pacific Ry. at New York, born in London, Eng., April 22, 1849.

A. M. Sutherland, Assistant Superintendent, Duluth, South Shore and Atlantic Ry. at Thomaston, Mich., born at Hartford, Conn., April 2, 1844.

J. E. Schwitzer, Resident Engineer, Western Division, C.P.R. at Winnipeg, Man., born at Ottawa, Ont., April 19, 1870.

J. R. VanCleve, Master Mechanic, White Pass and Yukon Route at Skagway, Alaska, born at Little Falls, Minn., April 6, 1859.

W. Wainwright, General Assistant and Comptroller, G.T.R. at Montreal, born at Manchester, Eng., April 30, 1840.

J. J. Wallace, General Freight Agent, I.C.R. at Moncton, N.B., born in Albert Co., N.B., April 20, 1847.

Hon. J. Wood, President and General Manager, New Brunswick and Prince Edward Island Ry. at Sackville, N.B., born at Sackville, N.B., April 18, 1843.

W. Woollatt, General Superintendent Lake Erie and Detroit River Ry. at Walkerville, Ont., born at Weedon, Hertfordshire, Eng., April 2, 1855.

The New Montreal Locomotive Works.

The site acquired by the Locomotive and Machine Co. of Montreal for its locomotive and machine shops at Longue Pointe, is situated between the Montreal Terminal Ry. and the St. Lawrence river. It covers the proposed extensions of Ontario and St. Catherine streets, and the turnpike road. There is a reservation alongside this road of 30 ft., with a view of widening it to 80 ft. The area

from the railway tracks to the turnpike road is 2,852 ft. 6 in., by 875 ft. along the tracks, making an area of about 57 acres. There will be siding connection from the railway to the various buildings that are to be erected. The total floor capacity of the buildings planned will be over 251,000 sq. ft. or over 5½ acres. The construction of the shops will be almost wholly of steel, with stone base extending 4 ft. from the ground level, the pilasters being hard brick. The sizes of the different buildings will be as follows:

Machine shop.....	420 ft.x132 ft.	
Forge.....	340 ft.x 66 ft.	4 in.
Erecting shop.....	340 ft.x 66 ft.	
Boiler shop.....	380 ft.x 66 ft.	10 in.
Foundry.....	180 ft.x 66 ft.	5 in.
Steel casting shop.....	(1) 240 ft.x 40 ft.	
	(2) 200 ft.x 66 ft.	
Structural shop.....	200 ft.x200 ft.	
Pattern storage.....	99 ft.x 66 ft.	
Carpenter's shop.....	100 ft.x 66 ft.	
Storehouse and office.....	280 ft.x 38 ft.	
Temporary shop.....	210 ft.x 80 ft.	
Boiler and engine house.....	65 ft.x100 ft.	

The contract for the brick and stone work and for the roofing and roof glazing for the several buildings has been let and substantial progress is being made in every particular. Three-fourths of the structural material is already on hand, and the structural shop is nearing completion. M. J. Butler is Chief Engineer in charge of the work, and E. R. Rolph is the architect of the buildings. Satisfactory progress is being made by the several manufacturers of the tools, and it is expected that the works will be in running order by Aug. 1.

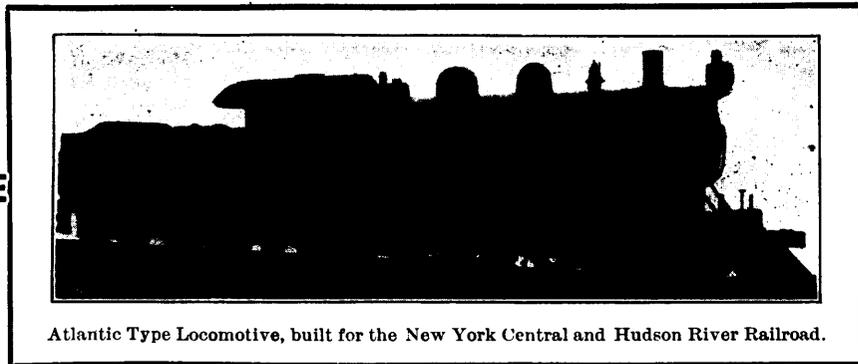
The Hudson's Bay Co. has been given the contract for the supply of carpets, china, glassware, etc., for the new additions to the C.P.R. hotels in the Rocky and Selkirk mountains.

When the commissioners on cattle-guards adjourned the testing of devices offered for approval in Feb., 95 different ideas had been tested, some of them having been tested three or four times. These additional tests were given to devices which had been fairly successful and in which defects brought out by the tests had been remedied. The commissioners resumed the work of testing devices at Ottawa Mar. 10, and all devices entered for test to Mar. 20 will be examined and tested prior to a report being made. The scope of the duties of the commissioners is defined in the order appointing them as being to examine into and report on the question of railway cattle guards, which was discussed by the Railway Committee of the House of Commons last session and held over at the request of the Minister of Railways pending the obtaining of further information on the subject, in order to the selection of one or more suitable to Canada. That examination be made of the guards in use on the principal lines both in Canada and the United States, and also of such inventions of this nature as may be presented.

The Engineers' Club of Montreal is applying for incorporation under the Quebec Companies' Act, with a capital of \$7,500, to establish a social, scientific and literary club in Montreal. The incorporators are: P. W. St. George, W. McL. Walbank, T. Lesage, L. J. Papineau, C. M. Strange, L. Skaife, C. de B. Leprohon, S. Howard, A. F. B. Austin, E. McG. Quirk, A. Furley, W. H. C. Musson, R. S. Lee and J. E. Hardman, of Montreal. The new club proposes to admit as members architects, contractors and builders in addition to engineers, and negotiations are in progress for suitable premises in the vicinity of Dominion square.

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.

STEAM RAILWAY STATISTICS FOR YEAR ENDED JUNE 30, 1902.

In this table the minus mark (-) before figures in the net earnings column shows that there was a deficit in the operations of the line to the extent of the figures given. The numbers in brackets—thus (1)—after the name of a railway refer to notes at the foot of the table on page 115.

Name of Railway.	Mileage.	Gross earnings.	Net earnings.	Proportion of earnings to working expenses.	Earnings per train mile.	Operating per train mile.	Train mileage.	Engine mileage.	Passengers carried.	Tons of freight carried.
		\$ cts.	\$ cts.	p.c.	Cents.	Cents.				
Alberta Ry. & Coal Co.	64.62	140,035 72	38,551 26	138	284.68	206.30	49,191	50,986	6,774	60,077
Albert Southern (1).....	19.00									
Algoma Central & Hudson's Bay	70.50	469,981 90	212,661 20	183	567.86	310.90	82,764	231,777	36,209	1,004,469
Atlantic and Lake Superior (2)...	130.00	43,405 07	- 1,365 04	97	66.78	68.88	65,000	65,000	13,865	18,520
Bay of Quinte (3).....	64.82	219,940 67	107,789 75	196	161.72	82.46	136,003	136,003	82,736	353,599
Bedlington and Nelson (4).....	15.20	32,510 26	13,316 60	169	461.53	272.48	7,044	7,044	1,378	154,788
British Yukon	90.32	428,924 59	222,427 33	208	527.58	253.99	81,300	81,748	14,879	26,459
Brockville, Westport & Sault Ste. Marie.	45.00	39,232 28	6,115 81	118	116.52	98.35	33,670	33,930	39,695	17,649
Bruce Mines & Algoma (5).....	16.62									
Buctouche & Moncton.....	32.00	18,336 14	- 1,098 99	94	90.95	96.40	20,160	21,412	10,935	21,658
Calgary & Edmonton (6).....	295.93	547,826 17	274,781 18	201	194.45	96.92	281,729	316,596	65,876	131,469
Canada Atlantic.....	458.60	1,816,946 47	569,021 07	146	127.12	87.31	1,429,314	1,714,572	368,571	1,545,240
Canada Coals & Ry. Co.	12.00	26,545 46	13,371 66	202	132.73	65.86	20,000	25,000	10,152	56,762
Canada Eastern.....	136.00	116,633 69	- 9,115 62	93	68.70	74.07	169,772	178,500	47,198	110,800
Canada Southern (7).....	382.19	5,191,495 41	519,698 77	111	110.05	122.66	3,808,782	4,886,338	802,494	4,209,924
Canadian Northern (8).....	1,248.20	1,400,970 43	463,204 82	149	195.05	130.56	718,274	1,015,279	224,145	715,692
Canadian Government Rys.....										
Intercolonial (9).....	1,301.94	5,671,385 91	96,822 61	102	93.46	91.87	6,067,947	7,636,113	2,186,226	2,385,816
Prince Edward Island	209.00	197,999 93	- 72,160 04	73	72.46	98.87	273,238	369,881	184,748	75,381
Canadian Pacific (10).....	7,321.00	36,866,875 14	14,043,674 75	162	179.80	111.31	20,504,118	27,164,928	4,771,017	8,755,538
Caracquet.....	68.00	32,237 77	806 45	103	56.10	54.70	57,460	57,460	5,872	21,133
Carillon & Grenville.....	15.00	1,816 70	- 1,326 69	58	28.84	49.90	6,300	7,000	6,039	100
Central Ontario.....	134.60	183,991 17	57,721 05	146	146.90	100.81	125,250	172,276	81,486	197,848
Central of New Brunswick.....	45.66	7,332 37	- 29,394 72	20	63.90	320.06	11,475	12,151	3,565	5,672
Central of Nova Scotia (11).....	74.00	61,038 32	18,025 44	142	122.58	86.38	49,793	56,153	47,386	31,089
Cumberland Ry. & Coal Co.	32.00	123,164 18	43,905 07	155	175.49	112.93	70,183	133,691	26,698	413,961
Dominion Atlantic (12).....	220.50	1,044,975 31	255,419 95	132	193.82	146.44	539,161	539,161	264,416	258,774
Elgin & Havelock.....	28.00	7,911 92	- 2,608 31	75	53.47	71.10	14,796	14,796	3,849	9,503
Esquimalt & Nanaimo.....	78.00	243,634 30	15,153 29	107	107.10	100.43	227,492	227,492	131,520	98,838
Fredricton & St. Mary's Bridge Co. (13).....	1.33	4,796 27	2,546 97	213						
Grand Trunk (14).....	3,157.42	22,211,813 80	7,814,120 99	154	143.50	93.02	15,478,580	18,746,358	7,334,607	10,080,963
Great Northern (15).....	175.10	524,763 51	207,962 82	166	128.82	77.77	407,359	514,563	155,395	444,311
Gulf Shore.....	16.78	5,612 19	4,083 15	367	107.90	29.39	5,202	5,202	859	8,218
Halifax & Yarmouth (16).....	30.80	25,893 96	6,119 37	131	56.41	43.08	45,907	48,454	36,157	8,071
Hampton & St. Martin's.....	29.00	7,275 93	- 2,562 12	74	57.75	78.08	12,600	12,600	4,637	8,843
Hereford.....	53.30	51,830 88	- 37,771 75	58	86.38	149.32	60,006	85,950	18,325	101,048
Irondale, Bancroft & Ottawa.....	48.00	15,483 85	- 1,461 31	91	51.22	56.06	30,228	31,728	7,250	13,493
Interprovincial Bridge & Approaches.....	1.40									
Inverness Ry. & Coal Co.....	61.00	40,823 22	- 1,499 99	96	74.99	98.48	42,977	51,627	26,139	24,357
Kaslo & Slocan.....	31.80	55,470 13	11,744 56	127	234.05	184.50	23,700	39,493	10,694	23,680
Kent Northern (18).....	34.00	12,484 22	5,484 22	178	69.36	38.89	18,000	18,250	5,898	4,008
Kingston & Pembroke.....	112.85	166,293 76	27,356 63	120	117.93	98.53	141,008	141,008	37,704	100,955
L'Assomption.....	3.33	1,409 28	- 100 14	93	21.76	23.31	6,475	6,475	6,715	450
Lake Erie & Detroit River.....	222.35	615,810 74	183,813 82	143	98.69	69.24	623,951	919,354	546,058	651,247
Leonora Mount Sicker.....	11.50	2,999 35	- 12,742 88	19	22.83	119.80	13,140	13,140	424	12,773
Liverpool & Milton.....	5.00	9,431 88	4,562 18	194	110.96	57.29	8,500	8,500	23,200	33,818
Lotbiniere & Megantic.....	30.34	16,943 44	1,139 46	107	92.99	86.74	18,220	21,252	9,063	27,890
Manitoulin & North Shore.....	16.00	48,676 56	28,025 71	236	394.59	167.40	12,336	36,571	5,792	482,061
Massawippi Valley (19).....	35.46	139,283 70	29,181 11	126	85.93	67.92	162,096	223,339	122,795	302,641
Midland of Nova Scotia (20).....	57.50	23,653 10	4,038 68	121	69.36	57.54	34,104	34,104	20,025	19,880
Montford & Gattineau Colonization	33.00	20,826 78	- 2,057 57	91	39.82	43.76	52,300	52,300	8,000	27,338
Montreal & Atlantic (21).....	200.30	409,443 69	7,143 26	102	112.93	110.96	362,562	463,583	181,871	733,593
Montreal and Province Line (22).....	40.60	75,994 72	1,137 48	102	106.09	104.50	71,604	71,604	92,787	79,645
Montreal & Vermont Jct. (22).....	23.60	183,744 39	36,800 52	125	102.91	82.30	178,542	178,542	113,436	965,516
New Westminster Southern (24).....	24.10	16,812 74	- 17,420 90	49	55.69	113.40	30,188	30,188	12,965	7,991
Nelson & Fort Sheppard (23).....	54.70	141,158 44	25,859 85	122	232.06	189.55	60,828	60,828	21,552	52,407
New Brunswick & P.E.I.....	36.00	26,517 59	3,641 98	116	62.32	53.76	42,552	47,530	18,944	47,523
Nosbonsing & Nipissing.....	5.50	53,850 00	8,771 77	119	404.89	338.93	13,300	14,620		30,177
Nova Scotia Steel & Coal Co.'s Ry.	12.50	16,000 07	- 3,176 30	83	106.67	127.84	15,000	34,000	4,963	174,601
Orford Mountain.....	31.00	18,868 69	715 41	104	68.39	65.80	27,588	27,588	6,888	22,903
Ottawa, Northern & Western.....	59.10	84,143 23	18,886 61	129	176.25	136.69	47,740	48,325	66,565	20,448
Ottawa & New York.....	56.79	86,917 90	3,978 83	105	75.86	72.39	114,582	114,582	92,738	51,362
Phillipsb'g Ry. & Quarry Co.'s Ry.	7.50	7,157 28	4,660 98	287	513.43	179.07	1,394	1,394	16	6,254
Pontiac & Renfrew (25).....	4.25									
Pontiac Pacific Jct. (26).....	77.70	69,334 83	6,340 61	110	125.20	113.75	55,380	56,487	37,137	43,572
Qu'Appelle, Long Lake & Saskatchewan	253.96	194,986 94	57,416 18	142	209.82	148.03	92,932	92,932	14,754	65,055
Quebec Central (27).....	213.50	628,240 56	193,299 37	144	107.04	74.11	586,891	598,345	203,296	386,610
Quebec & Lake St. John.....	241.00	388,603 25	73,004 74	120	115.89	94.13	335,296	530,778	198,861	225,366

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.

STEAM RAILWAY STATISTICS FOR YEAR ENDED JUNE 30, 1902—Continued.

Name of Railway.	Mileage.	Gross earnings.	Net earnings.	Proportion of earnings to working expenses.	Earnings per train mile.	Operating per train mile.	Train mileage.	Engine mileage.	Passengers carried.	Tons of freight carried.
		\$ cts.	\$ cts.	p.c.	Cents.	Cents.				
Quebec Ry., Light & Power Co. (28)	30.00	41,229 68	10,010 75	132	90.99	68.90	45,310	50,622	214,808	18,565*
Quebec Southern	143.50	61,705 04	27,740 87	182	40.96	22 54	150,657	.....	434,279 †
Red Mountain	9.53	164,085 89	77,874 62	68	72.23	106.51	227,182	228,694	125,961	157,801
Restigouche & Western (29)	10.00	82,401 85	21,027 26	134	495.14	368.80	16,642	30,872	19,384	237,381
Rutland & Noyan (30)	5.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
Salisbury & Harvey	45.00	26,336 07	-9,735 75	73	87.17	119.39	30,212	31,821	11,342	37,319
Shore Line, N.B.	82.50	35,656 63	-13,224 64	73	62.43	85.58	57,116	57,116	15,097	20,462
South Shore (33)	.....	19,092 31	-7,354 81	72	63.72	88.27	29,962	29,962	53,635	15,737
Stanstead, Shefford & Chambly	43.00	73,847 64	9,123 50	114	93.53	81.98	78,952	78,952	141,634	981,452
St. Clair Tunnel, etc. (31)	2.23	208,595 55	107,407 29	206	.....	.....	.....	89,274	.....	.....
St. Lawrence & Adirondack (32)	32.82	203,383 67	79,788 70	165	104.07	63.24	195,427	155,517	202,545	232,328
St. Mary's River	30.00	14,442 11	4,033 89	139	117.46	84.65	12,295	12,295	2,606	8,839
Sydney & Louisburg	48.96	687,210 70	387,265 73	229	226.80	98.09	303,000	320,000	180,000	3,883,800
Temiscouata	113.00	126,027 51	17,300 49	116	132.45	113.82	95,528	90,783	31,308	96,300
Tillsonburg, Lake Erie & Pacific	20.00	13,769 17	2,653 17	124	34.40	27.79	40,000	40,000	19,000	12,848
Thousand Islands	6.33	32,076 46	10,557 95	149	82.05	55.05	39,088	39,088	34,249	23,818
Toronto, Hamilton & Buffalo (34)	87.39	511,572 57	204,322 66	167	171.33	102.90	298,591	457,132	281,474	653,402
Victoria & Sydney	17.40	24,062 51	1,466 85	106	92.87	87.21	25,910	25,910	26,703	23,255
York & Carleton	5.75	2,539 80	-31 20	99	362.83	367.29	700	700	1,800	3,583
	18,867.83	83,666,503 31	26,322,911 04				55,729,856	70,275,615	20,679,974	42,376,527

*Steam. †Electric.

(1) The Albert Southern was not in operation during the year.

(2) The Atlantic and Lake Superior mileage is:—Baie des Chaleurs, 100; Great Eastern, 23 and Ottawa Valley, 7; of which 98 miles on the Baie des Chaleurs is under traffic.

(3) The Bay of Quinte mileage includes the Kingston, Napanee and Western, 60.82.

(4) The Bedlington & Nelson has running powers over the C.P.R., from Creston Junction to Sirdar Junction, 8.7 miles.

(5) The Bruce Mines and Algoma was not in operation during the year.

(6) The Calgary & Edmonton is operated by the C.P.R.

(7) The Canada Southern has 132.38 miles of double track.

(8) The Canadian Northern includes the Lake Manitoba and Canal Co.'s line, Winnipeg Great Northern Railway, Manitoba South Eastern Railway, Ontario and Rainy River Railway, and Port Arthur, Duluth and Western Railway, 892.62 miles; and it also operates the Northern Pacific and Manitoba lines, 320.51 miles, and the Portage and North Western, 35.07 miles.

(9) The Intercolonial mileage is exclusive of the Windsor branch, 32 miles, but includes the Drummond County. The I.C.R. has running powers on the G.T.R., Point Levis to Hadlow, 1.50 miles; Chaudière Curve to Chaudière, 1.18 miles, and St. Rosalie Junction to Montreal, 37.62 miles. Total, 40.30 miles.

(10) The C.P.R. mileage comprises C.P.R. lines owned, 4,582.50; leased lines, Fredericton, 22.10; New Brunswick, 175; New Brunswick & Canada, 117.20; St. John & Maine, 92.10; St. John Bridge & Ry. Extension, 2; St. Stephen & Milltown, 4.60; Tobique Valley, 28; Cap de la Madeleine, 3.00; Montreal & Lake Maskinonge, 12.90; Atlantic & Northwest, 201.40; Montreal & Ottawa, 93.20; Ontario & Quebec, 473.00; St. Lawrence & Ottawa, 58.40; Credit Valley, 175.70; Guelph Junction, 15.00; Toronto, Hamilton & Buffalo, 2.70; Toronto, Grey & Bruce, 191.10; West Ontario Pacific, 26.60; Manitoba & Northwestern, including Saskatchewan & Western, 252.40; Manitoba Southwestern Colonization, 214.40; Columbia & Kootenay,

60.50; Nakusp and Slocan, 36.30; Shuswap & Okanagan, 50.80; Columbia & Western, 157.10; Great Northwest Central, 71; B. C. Southern, 202.40. The C.P.R. has 35.69 miles double track. The C.P.R. has running powers as follows:—Grand Trunk, Toronto to Hamilton Junction, 35.20 miles; Toronto, Hamilton & Buffalo, Hamilton Junction to Hamilton, 2.70 miles; Canada Atlantic, Montreal & Ottawa Junction to Ottawa, .80 miles.

(11) The Central of Nova Scotia has running powers on the Dominion Atlantic Railway, from Middleton Junction to Middleton, .33 miles.

(12) The Dominion Atlantic Railway has running powers over the Intercolonial Railway, Halifax to Windsor Junction. Its mileage includes the I.C.R. Windsor branch, 32 miles.

(13) The Fredericton and St. Mary's Bridge Co. has running powers on the Canada Eastern Railway, .17 miles. The earnings are toll on trains run across the bridge by the Canada Eastern Railway and C.P.R.

(14) The Grand Trunk mileage includes:—G.T.R., 883.79; Great Western, 561.80; Brantford, Norfolk and Port Burwell, 34.39; Buffalo & Lake Huron, 162; G.T., Georgian Bay and Lake Erie, 171; Owen Sound branch, 12.42; London, Huron & Bruce, 68; Waterloo Junction, 10.25; South Norfolk, 17; Wellington, Grey & Bruce, 168.13; Northern 172.10; North Simcoe, 33; Hamilton and Northwestern, 172; Northern Pacific Junction 111.37; Toronto Belt, 12.79; Midland, 166; Grand Junction, 85.21; Toronto & Nipissing, 85; Lake Simcoe Junction, 26; Victoria, 53; Whitby, Port Perry & Lindsay, 46; Cobourg, Blairton & Marmora, not operated, 15; Jacques Cartier Union, 6.50; Montreal and Champlain Junction, 61.73; Beauharnois Junction, 19.50. The G.T.R. has running powers over the Chaudière branch I.C.R., 5.77 miles. Its mileage also includes 468 miles of double track.

(15) The Great Northern Railway has running powers over the Quebec and Lake St. John Railway, from Quebec to Rivière à Pierre, 56.50 miles. The mileage includes the Lower Laurentian, 35 miles.

(16) The Halifax & Yarmouth Railway has also 19.30 miles not in operation.

(18) The Kent Northern mileage includes the St. Louis and Richibucto Railway, 7.00 miles, which was not operated during the year.

(19) The Massawippi Valley is leased to the Boston & Maine. It has running powers on the G.T.R., from Lennoxville to Sherbrooke, 2.95 miles.

(20) The Midland of Nova Scotia was in operation for 8 months only to June 30, 1902. It has running powers on the Intercolonial Railway, from the Midland Junction to Truro Station, .50 miles.

(21) The Montreal & Atlantic is operated by the C.P.R. Its mileage comprises the old Southeastern, 103 miles, and the Lake Champlain and St. Lawrence Junction, 60.70 miles. The M. & A. has 36.6 miles from Sorel to Drummondville not in operation.

(22) The Montreal & Province and the Montreal & Vermont Junction are leased by the Central Vermont.

(23) The Nelson & Fort Sheppard is operated by the Spokane & Northern, a subsidiary of the Great Northern, U.S.A. It has running powers on the C.P.R., from Five Mile Point to Nelson, B.C., 4.7 miles.

(24) The New Westminster Southern is owned and operated by the Great Northern, U.S.A.

(25) The Pontiac & Renfrew is not operated.

(26) The Pontiac Pacific Junction has also running powers over the Hull Electric Railway, 2.5 miles.

(27) The Quebec Central has running powers on the Intercolonial Harlaka Junction to Lewis, 5.00 miles.

(28) The Quebec Railway Light and Power Co. is operated both by electricity and steam. The figures in the first line are those for the electric operation, and those in the second line for the steam operation. It has also six miles of double track.

(29) The Restigouche & Western Railway is not in operation.

(30) The Rutland & Noyan is being operated by the Rutland Railroad under an agree ment.

(31) The St. Clair Tunnel earnings are from rents and tolls on vehicles hauled through the tunnel.

(32) The St. Lawrence & Adirondack has running powers on the G.T.R., from Valleyfield to Beauharnois, 13.30 miles, and on the C.P.R., from Adirondack Junction to Montreal, 8.70 miles.

(33) The South Shore earnings are up to Oct. 17, 1901, at which date the line was acquired by the Quebec Southern Railway. The earnings from that date are included in those of the Quebec Southern Railway.

(34) The Toronto, Hamilton & Buffalo has 4.69 miles of double track. It has also running powers over the Hamilton & Dundas Electric Railway, from Hamilton to Dundas, 3.67 miles.

The Bell Telephone Co. of Canada.

The report for the year ended Dec. 31, 1902, presented at the annual meeting in Montreal on Feb. 26, stated that 5,623 subscribers have been added during the year; the total number of sets of instruments earning rental being 48,481. The Company owns and operates 377 exchanges and 553 agencies. 2,655 miles of wire were added to the long distance system, 1,042 in the Ontario department, 1,240 in the Eastern department, and 373 in the Northwestern department. The long distance lines owned and operated by the Company comprised 26,848 miles of wire on 6,991 miles of poles. \$250,000 of 5% bonds were sold during the year at a premium of \$22,809.24. 10,000 shares of new stock were offered to shareholders at 25% premium, and 9,884 were applied for, on which two instalments of \$25 each were paid during the year, amounting to \$395,360 on account of stock and \$98,840 on account of the premium; this premium together with the premium on the bonds, \$22,809.24 (\$121,649.24), in accordance with the

custom in the past, has been carried to the contingent account. From the balance of revenue account, \$114,244.12, \$32,674.10 has been carried to insurance reserve account; \$18,133.75 to accident insurance reserve account, and \$40,000 to contingent account; leaving balance of revenue to be carried to 1903, \$23,436.27.

REVENUE ACCOUNT.

RECEIPTS.	
Exchanges (less unearned rentals).....	\$1,413,219 10
Long distance lines.....	534,581 70
Private lines.....	11,837 58
Miscellaneous.....	125,495 88
	\$2,085,134 26

EXPENSES.

Operating.....	\$1,436,888 20
Legal.....	20,411 80
Insurance.....	17,940 14
Bond interest.....	97,098 74
Miscellaneous.....	8,512 71
	1,580,851 39

Net revenue for 1902.....	504,282 87
Less dividends (Inc. Jan. 15, 1903).....	411,860 40
	\$ 92,422 47

Balance revenue from 1901.....	21,821 65
	\$114,244 12

Carried to insurance reserve account.....	\$ 32,674 10
Carried to accident reserve account.....	18,133 75
Carried to contingent fund.....	40,000 00
	90,807 85

Carried forward to 1903.....	\$ 23,436 27
------------------------------	---------------------

BALANCE SHEET.

Stock account.....	\$5,395,360 00
Bond account.....	2,000,000 00
Contingent account, 1901.....	\$ 933,361 00
Add premium on stock sold.....	98,840 00
" premium on bonds sold.....	22,809 24
From revenue account.....	40,000 00
	1,115,010 24
Revenue account.....	23,436 27
Unearned rental reserve.....	292,885 78
Insurance reserve.....	150,000 00
Accident reserve.....	50,000 00

Bond interest reserve.....	25,000 00
Sundry creditors.....	189,029 50
	\$9,240,721 79

Plant and patent account, 31 Dec., 1901.....	\$6,460,693 00
Plant and patent account, added in 1902.....	492,007 02

Plant and patent account, Dec. 31, 1902.....	\$6,952,700 02
Stores on hand.....	275,466 37
Real estate.....	832,240 44
Stock in other companies.....	817,256 50
Due from agencies.....	97,444 98
Debtors and cash.....	265,613 48
	9,240,721 79

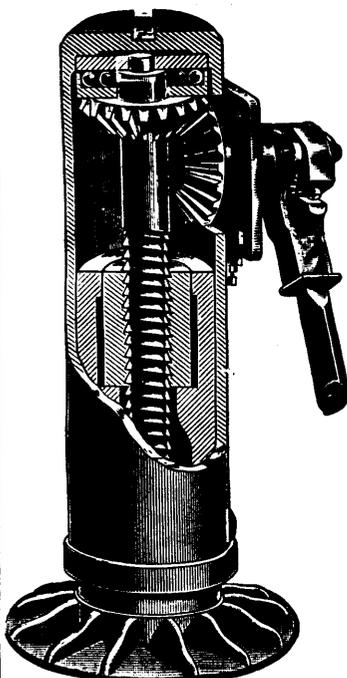
The directors and officers were all re-elected.

From Liverpool comes a story of an entertaining piece of repartee on the part of a poor woman at a small wayside station. She was accompanied by a hobbledehoy son for whom she gave up a half-fare ticket. "This boy of yours," said the collector, "is far too big for a half-ticket." "Well, maybe he is," was the reply, "but he wasn't when he left Liverpool. He's a growing lad, and yours is a slow line." And they passed without hindrance into the street.

The Canadian Northern Ry. has a novel law suit on its hands in Minnesota. Requiring gravel for ballasting its line, the Co. opened a pit on some land near Beaudette, Minn., owned by the U.S. Government, and removed therefrom some 100,000 cubic feet of gravel. While the gravel was being moved H. Sanborn took out homestead papers for the land in question, and now brings suit to recover \$17,000 for the gravel removed.

Lignite briquettes are being tested as a fuel on a locomotive of the Minneapolis, St. Paul and Sault Ste. Marie Ry. at Minneapolis. The engine ran 20 miles on a ton of the fuel, which is better than the mileage made per ton of soft coal.

Why The Norton Ball-Bearing Jack Is Better Than Any Other.



Sectional View of Norton Jack.

THE BALL-BEARINGS

reduce the friction and increase the power of the Jack.

THE GEARS

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

THE SCREW

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



Foot-lift Jack.



35 Ton Jack.



Journal Jack.

Made in 50 styles—8 to 70 tons capacity.

Manufactured by

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

Stock carried by

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

ELECTRIC RAILWAY STATISTICS FOR YEAR ENDED JUNE 30, 1902.

The following abbreviations are used in the names of railways,—E., electric; E. R., electric railway; E. S. R., electric street railway; R., railway; S. R., street-railway :

Name of Railway.	Mileage.	Gross earnings.	Net earnings.	Proportion of earnings to working expenses.	Earnings per train mile.	Operating per train mile.	Car Mileage.	Passengers carried.	Freight carried.
		\$ cts.	\$ cts.	p.c.	Cents.	Cents.			
Berlin & Waterloo S. R.	3.02	15,613 15	2,683 83	121	21.15	17.51	73,820	352,500	
Brantford S. R.	5.90	20,934 35	- 10,693 53	66	10.47	15.81	200,000	287,414	
British Columbia E. R. (1)	42.25	413,923 02	124,241 80	143	20.75	14.52	1,994,627	7,670,468	6,109
Cornwall E. R.	6.00	17,494 08	- 2,086 36	86	10.41	12.08	168,102	260,259	
Galt, Preston & Hespeler S. R.	9.00	26,227 57	5,547 39	127	31.11	24.53	84,300	277,236	24,935
Guelph S. R.	5.50	15,324 63	2,136 77	116	7.83	6.74	195,800	345,847	
Halifax E. Tramway	10.42	137,716 95	40,350 95	141	23.52	16.63	585,500	2,540,000	
Hamilton & Dundas S. R.	7.25	31,186 66	16,510 43	213	43.32	20.39	71,972	282,324	1,080
Hamilton, Grimsby & Beamsville E. R.	23.00	48,732 09	24,089 09	198	21.25	10.75	229,298	338,696	6,621
Hamilton Radial E. R.	12.00	72,191 69	18,508 76	178	14.17	7.96	297,677	525,315	1,900
Hamilton S. R.	22.00	162,570 59	67,649 78	171	12.64	7.38	1,286,686	3,845,789	
Hull E. Co. (2)	13.63	74,763 26	25,068 60	150	17.70	11.76	422,564	632,256	53,620
Kingston, Portsmouth & Cataraqui E. R.	7.40	38,347 58	13,780 72	156	39.94	25.59	96,011	591,150	
London S. R.	18.32	141,845 59	57,288 64	168	11.01	6.56	1,288,684	3,744,469	
Metropolitan (Toronto) R.	28.00	68,814 92	38,418 67	226	27.53	12.16	250,000	464,104	800
Montreal Park & Island R.	24.05	128,836 21	13,093 40	111	18.40	16.53	700,155	1,384,520	11,165
Montreal S. R.	64.64	1,990,834 56	880,143 99	179	18.74	10.45	10,624,453	48,858,373	
Montreal Terminal R. (3)	14.10	44,060 42	19,947 90	183	19.14	10.47	230,183	379,575	21,774
Nelson E. Tramway (5)	3.00	6,303 75	- 16,026 22	28	12.12	42.94	52,050	107,415	
Niagara Falls Park & River R.	13.68	258,092 24	190,030 05	379	59.62	15.72	432,935	1,659,464	5,400
Niagara, St. Catharines & Toronto R. (4)	17.79	91,429 37	22,496 01	133	42.29	31.88	216,220	553,184	79,337
Niagara Falls, Wesley Park & Clifton E. R.	4.50	15,428 61	5,751 29	159	13.00	8.15	118,681	333,536	
Ottawa E. R.	23.85	299,669 84	114,101 93	161	14.12	8.74	2,122,087	6,988,370	
Oshawa R.	8.02	36,742 07	11,314 88	145	63.09	43.66	58,241	119,706	53,441
Peterborough & Ashburnham E. R. (6)									
Port Arthur E. R.	7.60	16,312 19	3,149 91	124	21.08	17.09	77,000	343,528	
Port Dalhousie, St. Catharines & Thorold E. S. R.	6.82	16,019 62	4,625 24	141	5.62	4.00	284,700	246,024	
Quebec R., Light & Power Co. (Citadel Division)	17.22	179,110 98	52,098 50	141	16.10	11.42	1,112,361	4,192,799	
Sandwich, Windsor & Amherstburg R. (7)	15.00	37,844 07	14,799 65	164	15.05	7.95	290,000	914,781	
Sherbrooke S. R. (8)	7.00	26,500 00	10,375 00	165				60,000	
St. John (N. B.) R.	12.00	81,068 08	23,068 08	140	18.19	13.02	445,584	1,771,522	
Sarnia S. R.	4.50	20,392 98	3,960 62	124	24.68	19.89	82,632	357,520	
St. Thomas S. R. (8)	5.84	9,678 97	- 3,846 68	72				232,381	
Toronto Suburban S. R.	8.50	14,732 92	- 1,285 32	92	11.21	12.19	131,400	386,442	
Toronto & Mimico R.	5.87	23,268 72	9,681 79	171	14.05	8.21	165,560	428,042	
Toronto R.	49.35	1,733,943 60	833,432 35	192	17.19	8.93	10,084,904	41,689,258	
Toronto & Scarboro E. R.	5.07	14,167 65	4,151 68	141	8.94	6.32	158,556	363,931	
Winnipeg E. S. R.	13.00	159,305 13	60,034 23	160	15.43	9.62	1,032,119	3,845,668	
Woodstock, Thames Valley & Ingersoll S. R.	10.50	17,174 90	7,929 79	186	18.31	9.86	93,779	140,934	
Yarmouth S. R.	2.00	9,835 35	- 2,220 60	82	13.10	16.05	75,120	177,402	
	557.59	\$6,486,583 01	\$2,683,583 01				35,833,841	137,681,402	266,182

- (1) British Columbia Electric Railway. The figures given are for 15 months, from April 1, 1901, to June 30, 1902.
- (2) Hull Electric Co. Locomotive mileage over the track was 17,008 miles.
- (3) Montreal Terminal Railway. Locomotive mileage over track was 12,157.
- (4) Niagara, St. Catharines & Toronto Railway. Locomotive mileage 22,000.
- (5) Nelson Electric Tramway has also 35 miles of track not in operation.
- (6) Peterborough and Ashburnham Electric Railway not in operation.
- (7) Sandwich, Windsor and Amherstburg Railway. The figures given are for eight months only, from Nov. 1, 1901, to June 30, 1902.
- (8) Sherbrooke Street Railway and St. Thomas Street Railway did not give any mileage statistics.

Grain Elevator Notes.

The Western Elevator Co. (Ltd.) has been authorized to increase its capital from \$100,000 to \$300,000.

The Lake of the Woods Milling Co. proposes building elevators at Fanning and Hopper, Man., and at Newdale, Assa., this year.

The Dowd Milling Co. will build a 20,000 bush. elevator at Fardley, Que., and a 50,000 bush. elevator in Southern Manitoba, this year.

The Hartney Farmers' Elevator has been incorporated under the Manitoba Companies' Act, with a capital of \$20,000, to build an elevator at Hartney, Man.

The Souris Farmers' Elevator has been incorporated under the Manitoba Companies' Act, with a capital of \$15,000, to construct an elevator at Souris, Man.

The Canadian Elevator Co. will erect a number of additional elevators in Manitoba and the Northwest Territories. Press reports state that from 50 to 75 will be built.

The C.P.R. is having constructed a 500,000 bush. annex, composed of concrete-steel tanks, to the present elevator at Port Arthur, Ont., operated by J. G. King.

The Underhill Farmers' Elevator Co. has been incorporated under the Manitoba Companies' Act, with a capital of \$20,000, to build an elevator at Underhill, Man.

The Lauder Farmers' Elevator Co. has been incorporated under the Manitoba Companies' Act, with a capital of \$20,000, to construct an elevator at Lauder, Man.

The Crown Grain Co. (Ltd.) has been incorporated under the Dominion Companies' Act to erect elevators, mills, and to carry on a general grain buying business. The provisional directors are: F. H. Phippen, Winnipeg, Man.; J. A. Pease, Minneapolis, Minn.; S. P. Buchanan and J. Geddes, Chicago, Ill.

The Export Elevator Co. has been incorporated under the Manitoba Companies' Act, with a capital of \$500,000, to construct elevators at different points in Manitoba, the head office being in Winnipeg. The provisional directors are: F. M. March, of Winnipeg; G.

The G.T.R. has contributed \$500 to the proposed nurses' home in connection with the London, Ont., hospital, in recognition of the services of the staff to the injured in the Wainstead collision.

K. March, of Pierre, S.D.; C. H. March, N. D. March, of Litchfield, Minn.; H. H. Wells, of Morris, Minn.

Application will be made at the current session of the Ontario Legislature by the Fort William town council, for an act confirming the by-law approving the agreement with the Ogilvie Flour Mills Co. respecting the erection by that Co. of an elevator and a flour mill at Fort William. The plans and specifications for the elevator are being prepared by John S. Metcalfe Co., Chicago, Ill.

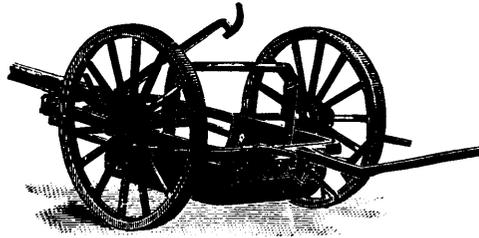
The Point Edward Elevator Co. has been incorporated under the Ontario Companies' Act, with a capital of \$200,000, to construct an elevator at Point Edward, Ont. The officers are: President, T. Long, of Toronto; Vice-President, D. Milne, of Sarnia; Secretary-Treasurer, T. H. Cook, Sarnia; other directors: J. J. Long, of Collingwood, Ont.; H. F. Mooers, of Kingston, Ont.; D. S. Lasier, J. K. Hooper, of Chicago, Ill. Press reports state that the elevator will be built of wood, will have at first a capacity of 500,000 bush., with machinery for 1,000,000 bush. capacity, and that it will be completed by July 15. This elevator will replace the G.T.R. elevator destroyed by fire in 1901. The G.T.R. is not directly interested in the present project, but is giving the company its moral support.

Muskoka Navigation Companies.

At the adjourned meeting of the shareholders of the Muskoka and Georgian Bay Navigation Co., a resolution was passed accepting the terms upon which it was proposed to amalgamate with the Muskoka Navigation Co., under a new title. The terms of amalgamation are that shareholders of the Muskoka and Georgian Bay Navigation Co. are to receive \$145 per \$100 for their shares, while those of the Muskoka Navigation were to receive par for theirs, payment being made in shares of the new company. As a result of the resolution the Ontario Government has approved of the amalgamation, and under date of March 3 a charter was granted, under the Ontario Companies' Act, for the Muskoka Lakes Navigation and Hotel Co. (Ltd.) The capital is fixed at \$250,000 in \$1 shares, and the head office is to be in Toronto. The provisional directors are: S. Barker, M.P.; Lieut.-Col. McLaren, R. A. Lucas, of Hamilton; A. P. Cockburn, H. C. McLean, F. J. Phillips, of Toronto; G. Homer, of Gravenhurst, and N. S. Wilson, of Dundas. S. Barker was President; Lieut.-Col. McLaren, Vice-President; A. P. Cockburn, Manager and Treasurer, and H. C. McLean, Secretary, of the two companies which have been amalgamated. A meeting of directors of the new company was held March 17, but owing to several being absent the permanent organization was deferred. S. Barker was elected President, pro tem., and A. P. Cockburn was elected Secretary, pro tem. Capt. C. H. Nicholson, of Rochester, N.Y., has been appointed Manager of Transportation.

In the article in our last issue giving particulars relating to the testing of color-sense, sight and hearing of C.P.R. employes, the words "Chief Engineer" appear by error in two places in the paragraph on color-sense as being the officer who will make the tests. They will be made by the Chief Examiner, R. J. E. Scott, who is also Chief Inspector of Time Service.

The New Brunswick Coal and Ry. Co. has sublet a portion of its coal areas near Newcastle, N.B., to the Aluminum Production Co. of New Brunswick, which proposes to erect a factory for the production of aluminum from the Queen's county clays.



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Wheel and Drag
SCRAPERS**

Wheelbarrows, Shovels.

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.

**"AMERICAN"
Woven Wire Railway Fencing**

58 INCH.	
49 IN.	8
41 IN.	6
34 IN.	7
28 IN.	6
	5
	4 1/2
	4
	3 1/2
	3
	2 1/2

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. : : :

Manufactured in Canada by

**THE CANADIAN STEEL & WIRE COMPANY, Limited
HAMILTON, CANADA.**

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Bruce Mines and Algoma Ry.—Application will be made at the current session of the Dominion Parliament for authority to construct a railway from Bruce Mines to a point on James Bay, with power to construct branches 18 miles in length east and west from Rock Lake. The Co. has constructed under an Ontario Act a railway from Lake Huron via Bruce Mines village to Rock Lake, 17 miles. (Jan., pg. 19.)

Colonial Portland Cement Co.—Application will be made at the current session of the Ontario Legislature for an act to enable the Colonial Portland Cement Co. to construct a tramway from its factory in Keppel township, Grey county, along and over highways to its marl pit.

Detroit River Bridge.—The capital of the Pere Marquette International Bridge Co. is \$500,000. F. W. Stevens, General Counsel of the Pere Marquette Rd., is reported to have said in an interview that the company has been planning for a long time to connect with a bridge its tracks on the U.S. side with those on the Canadian side, and this is a step in that direction. It is hoped to put the bridge down opposite Grosse Isle, near where the Michigan Central Rd. has bridged the U.S. channel. W. Livingstone, President of the Lake Carriers' Association, is quoted by the Marine Review as having stated that such a bridge would be a benefit to Detroit; about 125 to 135 ft. would be a sufficient height for a bridge; the location of a bridge is one that the railways must thresh out among themselves. The Review adds: "Undoubtedly the lack of adequate railway facilities at Detroit is a serious handicap both to the railways and to the city. This is shown by the falling off in the number of passengers and the volume of freight handled during the winter time. Both producer and consumer are equally interested in this question. When it is remembered that about 14 miles of railway trains are ferried across the river every day in the year the total loss of time becomes staggering. In winter, when ice fills the ferry slips, a general embargo in traffic occurs. The blockade of last January was felt from Chicago to Niagara Falls, and it was weeks before the railways had the congested freight moving again. There is not likely to be serious opposition to the bridge project by the vessel interests so long as the paramount right of navigation is safeguarded. Of course navigation has the right of way, but if both can be handled without one inconveniencing the other, there is no reason why the bridge should not be built. Mr. Livingstone is right in saying that the main cause of delay of late rests with the railways." (Mar., pg. 95.)

Grand Trunk Pacific Ry.—It is proposed in addition to the powers asked for, and referred to in the notices already published, to apply at the current session of the Dominion Parliament for authority to construct a railway from Gravenhurst or North Bay, Ont., to Quebec. (Mar., pg. 89.)

A press report states that the following will be the provisional directors of the Co.: Hon. G. A. Cox, E. R. Wood, Lieut.-Col. H. M. Pellatt, of Toronto; Hon. W. Gibson, Beamsville, Ont.; J. R. Booth, Ottawa; C. M. Hays, F. M. Morse, W. Wainwright, of the G. T. R., Montreal. It is stated that these names appear on the petition for the act of incorporation, and that other names may be used in addition to, or substitution for those mentioned. The Assistant to the 2nd Vice-President and General Manager of the G. T. R. is reported to have said, March 17, that the officials were not in a position to give out the

names of the proposed directors; the name of Hon. Mr. Rainville had inadvertently come out at Quebec, and he would probably be on the board.

Hamilton to Collingwood.—Application will be made at the current session of the Dominion Parliament for an Act incorporating a company to construct a railway to be operated by steam, electricity or other motive power from Hamilton to Collingwood, Ont. Clarke, Cowan, Bartlet and Bartlet, Windsor, Ont., are the solicitors.

Huntsville and Lake of Bays Ry.—It has been decided by the Huntsville, Lake of Bays and Lake Simcoe Navigation Co., which owns the charter, to proceed with the construction of the one mile of line at the portage of the Lake of Bays at once. It is expected that it will be in operation by July 1. (Jan., pg. 23.)

Imperial Coal Co.—C. G. Polleys, C. W. Robinson, R. F. Kinnear, of Moncton, N.B.; I. Purdy, H. VonHagen, of New York city, are seeking incorporation under the New Brunswick Companies' Act to operate coal mines, and to construct a railway in connection therewith. (Feb., pg. 39.)

Interprovincial and James Bay Ry.—Application will be made at the current session of the Dominion Parliament for an extension of the time limited for the commencement and completion of the authorized line from Lumsden's Mills on the Kippawa branch of the C.P.R., to Des Quinze river.

Kootenay Central Ry.—We were officially informed March 17 that T. T. McVittie, C.E., and J. T. Laidlaw, M.E., were running preliminary lines north and south from Fort Steele, B.C. The route as mapped out is from Elko, at the junction of the Great Northern Ry., U.S., and the C.P.R., or from Jaffray on the C.P.R., northerly to Golden on the C.P.R. transcontinental line. The route traversed is through the valleys of the Kootenay and Columbia rivers, and will open up considerable farming lands, tapping the mineral sections tributary to these rivers. It is expected that construction will be commenced in July and Aug. (Mar., pg. 95.)

Leeds and Eastern Townships Ry.—Application will be made at the current session of the Quebec Legislature for the renewal of the charter of this company, and enabling it to use electricity as a motive power.

The Levis County Ry. (Electric) will apply at the current session of the Quebec Legislature for authority to extend its lines on the north shore of the St. Lawrence. (Feb., pg. 42.)

The Lindsay, Bobcaygeon and Pontypool Ry. will apply to the Dominion Parliament at the current session for an act extending the time for the commencement and completion of its authorized railway in Ontario. (Nov., 1902, pg. 383.)

London Belt Line.—The erection of new factories in the southern section of London, Ont., and the consequent desire of the railway companies to construct lines along Trafalgar st., to connect their lines with the new works, has revived the talk about the belt line. The city council is being urged to refuse to grant privileges for lines over its streets unless the railway companies arrange for interswitching of freight, or arrange for the construction of a belt line connecting all lines. (Nov., 1902, pg. 383.)

Lotbiniere and Megantic Ry.—The directors have decided to extend the line from Lyster to Thetford and Black Lake, Que., about 40 miles, but surveys have not been made. (Feb., pg. 43.)

Magdalen Islands Co.—W. F. V. Atkinson, G. E. A. Jones, C. W. A. Walcot, of Quebec; K. W. Racey, of Johnsonville, Que.; and W. G. Tait, of Pictou, N.S., are applying for incorporation under the Quebec Co.'s act, with

the above title, for the purpose, among other things, of constructing tramways and railways. The Magdalen islands are situated in the Gulf of St. Lawrence and have been acquired by the syndicate mentioned to develop the iron ore mines there.

Manitoba Central Ry.—J. H. Urie, W. J. C. Tomlin, W. G. Montgomerie, of Deloraine; and A. S. Barton, Boissevain, are applying at the current session of the Manitoba Legislature for the incorporation of a company with this title 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. (Mar., pg. 95.)

The Manitoba Cement Co. is applying at the current session of the Manitoba Legislature for power to construct its railway to a point in range 6 so as to enable it to reach the marl deposits acquired by it. (Feb., pg. 43.)

Manitoulin and North Shore Ry.—Application will be made at the current session of the Dominion Parliament for an extension of time for the commencement and completion of the lines authorized, and for power to construct certain branch lines.

Application will be made at the current session of the Ontario Legislature for power to construct a line from Midland to Penetanguishene, thence to Perkinsfield on the G.T.R.

The surveying staffs are reported to have been paid off and no additional field work has been arranged. It is said the line will be completed during the year to the north shore of Lake Huron, thus completing a line from Sudbury to navigable water. This will enable the Co. to ship the ores from the mines in the vicinity of Sudbury to Sault Ste. Marie, entirely over its own lines and by its own steamers. The question of extending the line across Manitoulin island is one for future consideration. (Feb., pg. 43.)

Megantic Iron, Steam and Electric Ry. Co.—Application will be made at the current session of the Quebec Legislature by the Sherbrooke Iron and Manufacturing Co. for authority to change its name to the above, and with power to construct an electric railway from Lyster station, crossing the G.T.R. via Lysander Falls, Leeds, Kinnear's Mills, Thetford, with a branch to the iron mines in Leeds tp., and other branches.

The Michigan Central Rd. during 1902 laid 18.17 miles of second track between Bismarck and Ridgeway, Ont. (Feb., pg. 43.)

The Midland Ry. Co. of Manitoba was incorporated at the current session of the Manitoba Legislature, the act being passed through its last stages Mar. 12. The Provincial Minister of Public Works stated that the men behind the company were both responsible and competent; they did not ask for any subsidies, but simply for a charter, and so long as the government was assured of their responsibility and good faith, no benefit could be gained by putting obstacles in their way. This is the company promoted by C. S. Mellen, President of the Northern Pacific Ry., and his associates. (Mar., pg. 97.)

The Montreal Bridge Co. will apply at the current session of the Dominion Parliament for an extension of time to commence and complete its bridge, and also authorizing a change in its location. The secretary is L. A. Globensky. (June, 1902, pg. 194.)

Montreal and James Bay Ry.—Application is being made at the current session of the Quebec Legislature for the incorporation of a company to construct a railway from Montreal to Rupert's Bay, with a branch from Lake Obiska or Lake Shabogama to Lake Abitibi.

Montreal-Longueuil Bridge.—Application will be made at the current session of the Dominion Parliament for the incorporation of a

company to construct a bridge with tracks for steam and electric railways, and roadways for vehicle and passenger traffic between these points. Jules Allard, Montreal, is solicitor for the applicants. (June, 1902, pg. 194.)

Montreal and North-West Ry.—L. H. Boyd, C. A. L. Fisher, W. Patterson, G. A. Marsan and J. F. Miller, of Montreal, are applying at the current session of the Quebec Legislature for the incorporation of a company with this title to construct a railway through the townships of Beresford, Howard and Montcalm in the district of Terrebonne, Que.

Middlesex and Elgin Interurban Ry.—Application will be made at the current session of the Ontario Legislature for an act enabling the city of St. Thomas to enter into an agreement, binding on the St. Thomas Ry. Co., for running powers over that line, and for other purposes. T. H. Luscombe, London, Ont., is solicitor for the applicants. (Nov., 1902, pg. 383.)

Minnedosa Power Co.—F. MacG. Davies, H. M. Dyer, E. W. Pearson and H. F. Maul-

son have been incorporated at the current session of the Manitoba Legislature with this title to develop electrical power and to construct electric railways between any points within a radius of 50 miles of Minnedosa. (Feb., pg. 43.)

Nepigon Bay to Nepigon Lake.—Application will be made at the current session of the Dominion Parliament for the incorporation of a company to construct a railway to be operated by steam or electricity, from Nepigon bay, Lake Superior, via Black Sturgeon river and Black Sturgeon lake to Lake Nepigon. Cassels, Cassels and Brock, Toronto, are solicitors for the promoters.

Nepigon Ry. Co.—The promoters of this Co. are largely interested in the Nepigon Pulp Co., of which J. R. Barber, of Georgetown, Ont., is President. The N. Ry. Co. proposes to construct 14 miles of railway from Nepigon to Point Alexander or Cameron's pool, at which point it is proposed to erect pulp mills. A survey was made in 1902 for this piece of line by R. Hazlewood, of Port Arthur. The Ontario Legislature voted a subsidy towards its construction in 1902,

and it is expected that work will be started this year. (Feb., pg. 44.)

New Brunswick.—Application will be made at the ensuing session of the N. B. Legislature for the incorporation of a company to construct a number of railway lines, to enter into arrangements for the construction of several other lines, and to amalgamate with, or to enter into traffic arrangements with a number of other railway companies. If the powers asked for are obtained and the new company is able to carry out its plans the following independent lines may be merged: Quebec and New Brunswick Ry. (Feb., pg. 43); New Brunswick Ry. and Coast Ry. (Feb., pg. 44); Hampton and St. Martin's Ry., and the Moncton and Buctouche Ry., while contracts for the construction of the following lines would be entered into with the respective companies: Canada Ry. and Coal Co. (Sept., 1901, pg. 271); Shediac and Coast Ry. (April, 1902, pg. 145); St. John Valley Ry. (Oct., 1899, pg. 297); St. John Valley and Riviere du Loup Ry. (Nov., 1902, pg. 386), and Woodstock and Centerville Ry. (Aug., 1902, pg. 269). The new lines for which power is to be asked are: from the junction of the line of the

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New Brunswick Coal and Ry. Co. with the Central Ry. of N.B., at Chipman, to a junction with the Canada Eastern Ry., to a junction with the Restigouche and Western Ry. (Nov., 1902, pg. 385), thence to Edmundston, or a junction with the Quebec and New Brunswick Ry.; from the junction of the Central Ry. of N.B. with the Intercolonial Ry. at Norton to St. John, with power to acquire land in that city for terminal purposes; to extend the authorized line of the Canada Ry. and Coal Co. to a junction with the projected line of the Shediac and Coast Ry., and to extend the latter line to the boundary of New Brunswick and Nova Scotia. C. N. Skinner is solicitor for the promoters. The St. John Sun, referring to the proposed application, says: "Perhaps we ought to read in with the Quebec amendment of the Grand Trunk project the railway notices which stand in the name of C. N. Skinner in this Province. . . . All this may be the G.T.R.'s way of reaching this winter port." On the other hand, the Toronto News says "The move is supposed to be a part of Mackenzie, Mann & Co.'s big scheme, and an attempt to connect with their lines in Nova Scotia." Whoever is behind the project, it is on the face a direct endeavor to connect a number of small lines that are being operated with but indifferent success, and projects that have been hanging fire for a number of years and of binding them together into one system, and making a connection with the Nova Scotia lines on the one side and those of the rest of Canada, through the Province of Quebec, on the other.

The Nicola, Kamloops and Similkameen Coal and Ry. Co. will apply next session of the B.C. Legislature for an amendment to its act of incorporation authorizing the extension of its projected line from the western extremity of Nicola lake to Spence's Bridge, and from Nicola lake to Hope, thence south-westerly to Chilliwack, and extending the time within which the line may be commenced and completed.

Niagara, Queenston and St. Catharines Electric Ry.—Application will be made at the current session of the Dominion Parliament for the incorporation of a company to construct certain lines in the Niagara district. (Feb., pg. 44.)

The Nipissing and Ottawa Ry. Co. will apply at the current session of the Dominion Parliament for an act giving power to extend its previously authorized line from the east end of Lake Nipissing to the mouth of French river, and to change its name to the Nipissing, Ottawa and French River Ry. Co. (June, 1902, pg. 195.)

Nipissing and Pontiac Ry.—Application will be made at the current session of the Dominion Parliament for the incorporation of a company to construct a railway from New Liskeard, at the head of Lake Timiskaming, Ont., northeasterly to Lake La Quinze, Que., with power to construct branches. E. S. Senkler, North Bay, is solicitor for the promoters.

North Bay to James Bay and Missinable.—Application will be made at the current session of the Ontario Legislature for the incorporation of a company to construct a railway from North Bay northerly to New Liskeard, thence northerly and westerly to Iroquois falls on the Abitibi river, thence to James bay, and a branch from the Mattagami river westerly and southerly to Missinable on the C.P.R., with power to construct other branch lines. Curry and Eyre, Toronto, are solicitors for the promoters.

North Lanark Ry.—Application will be made at the current session of the Ontario Legislature for an act extending the powers of the Co. and authorizing the extension of the projected line eastward from near Arncliffe prior to Ottawa, and westwards from Mile

lake to the Madawaska river, in Bagot or Blythfield tp. (April, 1900, pg. 115.)

Nova Scotia Eastern Ry.—Application will be made at the current session of the Nova Scotia Legislature for authority to construct lines in the county of Antigonish, as well as in Guysboro and Pictou, and to extend the time for the commencement and completion of the lines. At the opening of the N.S. Legislature reference was made in the King's speech to the fact that a contract had been signed with the Co. for the construction of the line. (Feb., pg. 45.)

The Ontario Electric Ry. is applying at the current session of the Ontario Legislature for an act authorizing it to proceed with its organization as soon as 10% of its authorized capital has been paid in. (June, 1902, pg. 195.)

The Ottawa City Council will apply at the current session of the Dominion Parliament for an act authorizing it to construct a street railway within the city, and to acquire the lines of any existing company.

Ottawa Valley Ry. Co.—Application will be made at the current session of the Dominion Parliament for an act authorizing the construction of a branch to St. Côme and to extend its proposed line to Montreal, and to a junction with the Canada Atlantic Ry. J. R. Thibeaudau, of Montreal, is President.

Point Ann Ry. Co.—Application will be made at the current session of the Ontario Legislature for the incorporation of a company to construct a railway from the G.T.R., near Belleville, to Point Ann, Ont. Pinkerton and Cooke, Toronto, are solicitors for the promoters, the Belleville Portland Cement Co., which requires railway connection with its plant at Point Ann. Preliminary operations have been commenced on the grade.

Portage and South-Western Ry. Co.—H. Armstrong, A. H. Dickens, T. A. Newman, E. Anderson, of Portage la Prairie, Man., and M. Blake, of Toronto, have been incorporated at the current session of the Manitoba Legislature under the above title to construct a railway from Portage la Prairie, southwesterly to Belmont, on the Morris-Brandon branch of the Canadian Northern Ry., and from Portage la Prairie, westerly to Brandon. (Feb., pg. 45.)

The Preston and Berlin Ry. was placed in operation, Feb. 5, as a steam railway. (Feb., pg. 45.)

Prince Edward Island and New Brunswick.—Application will be made at the current session of the Dominion Parliament for an act incorporating a company to operate a car ferry between Cape Traverse or Carleton point, P.E.I., and Cape Tormentine or Cape Jourmain, N.B., with power to acquire or enter into agreements with the New Brunswick and P.E.I. Ry., or the Shediac and Coast Ry., or other railways. P. Poirier, Shediac, N.B., is solicitor for the promoters.

Prince Edward Island Ry.—When work is re-started in the spring on the Hillsboro' river bridge, H. A. Morrow will be in charge for M. J. Haney, the contractor. During 1902 he acted as assistant to M. J. Butler, C.E., who is now chief engineer of the Locomotive and Machine Co., of Montreal. (Feb., pg. 45.)

Princeton to Kamloops.—Application will be made next session of the B.C. Legislature for the incorporation of a company to construct a railway from Princeton to Quilchena, on Nicola lake, thence to the Thompson river at Kamloops, B.C., with power to construct branches. Morrison, Whiteside, McQuarrie and Briggs, Vancouver, are solicitors for the promoters.

Quebec Bridge.—Application will be made at the current session of the Dominion Parliament for authority to construct a line from the

northern terminus of the bridge into Quebec, and from the southern terminus of the bridge to near the point of intersection of the Intercolonial Ry. and the G.T.R. at Chaudière Curve; to change the name of the Co., to enable it to enter into agreements with railway companies on either side of the St. Lawrence and for other purposes in connection with the maintenance of transportation facilities in connection with the bridge. (Feb., pg. 46.)

The Quebec Central Ry. is trying to arrange for about 30 miles of 70 or 80 lb. steel rails to replace 56 lb. rails, but does not expect delivery can be secured until Aug. or Sept. (Feb., pg. 46.)

Quebec, New Brunswick and Nova Scotia Ry.—Application will be made at the current session of the Dominion Parliament for the incorporation of a company to construct a railway from Quebec to the Quebec bridge, and from the south shore of the St. Lawrence where the Quebec Bridge Co.'s lines end, to Edmundston, thence to Moncton, N.B.; thence via Pugwash to Country Harbor, N.S. Logan, Jenks & Outhit, Amherst, N.S., are solicitors for the applicants.

The Quebec Terminal and Ry. Co. will apply at the current session of the Dominion Parliament for an extension of the time within which its railways may be commenced and completed, and for power to amalgamate with the Quebec Bridge Co. (May, 1901, pg. 157.)

Riverside Park Ry. Co. (Electric).—H. H. Beck, J. S. Gray, of Winnipeg; E. Brown, of Portage la Prairie; J. O. Smith, of Eli; C. F. Hendrickson, of Grafton, N.D., and C. Winslow, of Hatton, N.D., are applying at the current session of the Manitoba Legislature for the incorporation of a company with this title to construct a railway from Winnipeg city limits to St. Norbert, with power to arrange with any other company for an entrance into Winnipeg.

Sandwich, Windsor and Amherstburg Ry.—Application will be made at the current session of the Ontario Legislature for an act confirming an agreement entered into between the Co., the Windsor city council and the City Railway Co., of Windsor, respecting the Co.'s operations, and for other purposes. (Feb., pg. 47.)

Sarnia, Petrolia and St. Thomas Ry.—Application will be made at the current session of the Ontario Legislature for the incorporation of a company to construct an electric railway from Sarnia to Petrolia and thence to St. Thomas, and to operate ferry boats in connection therewith. F. F. Pardee, Sarnia, is solicitor for the promoters.

Sault Ste. Marie Station.—Application will be made at the current session of the Ontario Legislature for an extension of time for the provision of a station, freight shed, docks and wharves, fixed in an agreement between the Lake Superior Power Co. and the Sault Ste. Marie town council.

Southwestern Traction Co. (Electric).—Application will be made at the current session of the Ontario Legislature for an act conferring various additional powers on the Co. in connection with its projected lines. No power is to be asked to construct additional lines. (Feb., pg. 47.)

The St. Chrysostome Ry. Co. will apply at the current session of the Quebec Legislature for an act extending the time for the commencement and completion of its railway and authorizing it to arrange with other companies for operating the line. J. P. Brown, Montreal, is acting for the Co. (April, 1902, pg. 145.)

St. Thomas.—The St. Thomas city council will apply at the current session of the On-

tario Legislature for power to extend the electric railway, it has lately acquired under mortgage, to Port Stanley. (Feb., pg. 47.)

Stratford Radial Railways.—Application will be made at the current session of the Ontario Legislature for the incorporation of a company to construct electric railways from Stratford to Mitchell, from Stratford to St. Mary's, and from Stratford to Embro station, on the C.P.R., with a branch to Embro. Idington & Robertson, Stratford, are solicitors for the promoters.

Suburban Rapid Transit Co.—Application will be made at the current session of the Manitoba Legislature for an act authorizing the use of steam or other motive power, as well as electricity, and for the extension of the line into the centre of the city of Winnipeg. (Feb., pg. 47.)

Sudbury, Copper Cliff and Clayton Electric Ry.—Application will be made at the current session of the Ontario Legislature for an act incorporating a company with this title to construct a railway to be operated by electricity, through the townships of Snyder and McKim and the towns of Copper Cliff and

Sudbury, Ont. J. A. Milligan, Sudbury, is solicitor for the applicants.

Tilsonburg, Lake Erie and Pacific Ry.—Application will be made at the current session of the Ontario Legislature by the town of Ingersoll for the confirmation of a by-law voting \$20,000 towards the extension of the Co.'s line from Tilsonburg to Ingersoll.

Toronto, Hamilton and Buffalo Ry.—Fuller particulars of the extensive improvements made last year on the bridge over the Grand River at Brantford, Ont., have been supplied us. The river was formerly crossed by a bridge of three 100 ft. through trusses carried by two pairs of cylindrical piers and two masonry abutments with a pile trestle approach at the west end 340 ft. long. One 100 ft. through plate girder span was added at the west end, and the three trusses were raised 4 ft., being supported on the cylindrical piers by steel pedestals. The easterly abutment was raised with masonry construction, and the westerly abutment torn down to its foundations and replaced by a concrete pier, which now carries one end of the new span, the other end being carried by a new

concrete abutment. The remaining 240 ft. of trestle was filled in and heavily rip-rapped on the up-stream side of the embankment. The whole work was done without accident or delay to trains, and the bridge is now well above the extremest floods. These improvements have proved beneficial to the city of Brantford in giving 100 ft. more clear waterway, allowing the ice to escape to a lower level more rapidly and thereby lessening the possibility of ice jams. (Feb., pg. 48.)

Toronto and Mimico Electric Ry. and Light Co.—Application will be made at the current session of the Ontario Legislature for authority to extend the railway from its present terminus at Long Branch to Hamilton, and also for a change of name.

An arrangement has been made with the local authorities for the erection of a new bridge across Etobicoke creek on the boundary of York and Peel counties, and it is expected that work will be commenced on the extension to Oakville this summer.

Toronto Suburban Ry. (Electric.)—Application will be made at the current session of the Ontario Legislature for power to construct a

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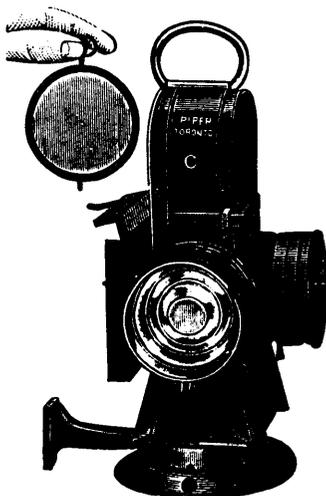
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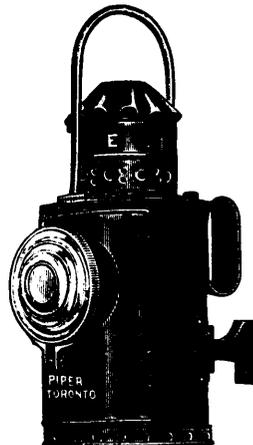
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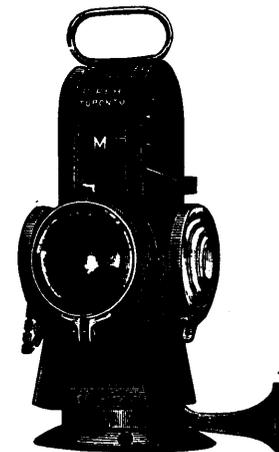
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branch from the Davenport road line to East Toronto. (Feb., pg. 49.)

The Trans-Canada Ry. Co., we are officially informed, is now busily engaged locating its proposed route from Roberval to Port Simpson, B.C. The work has been started in three places: at the eastern and western ends and also in the middle at Lake Winnipeg. It is the intention to start other parties in the spring, and the directors expect to have the whole line located in two years. The engineer in charge of location at Port Simpson is A. E. Hill, who started work at Port Simpson, and is working towards the Skeena river. C. E. Perry, C.E., has charge of the parties working east and west of the crossing of the northern end of Lake Winnipeg at Warren's island. A good crossing of the outlet of Lake Winnipeg has been secured, and the parties are now about 30 miles east and west respectively of the crossing. Mr. Perry reports that, though the weather was severe in Feb., the men were able to work every day, and that snowshoes hardly had to be used, as there was not sufficient snow on the ground. He reports level ground, well timbered and fit for agriculture. Both Messrs. Hill and Perry have had their parties outfitted by the Hudson's Bay Company, to which they are indebted for help and necessary information. V. M. Roberts is the engineer in charge at the eastern end, and is working about 60 miles west from Roberval, having started from the end of the located line, plans of which are already filed with the Dominion Government at Ottawa. He reports a good agricultural country, with easy gradients and curvature. Except frost-bites, no mishaps have occurred to any of the members of the survey parties. Good work has been done and the directors appreciate the progress which has been made during the winter.

Victoria Lumber Co.'s Ry.—Press reports state that construction has been started at a point 2½ miles north of Ladysmith, on Vancouver Island, for a railway inland to the limits of the Victoria Lumber Co. A wharf 400 or 500 ft. in length is to be constructed for shipping the lumber. Mr. Fry, C.E., is in charge of the work.

Western Extension Ry. Co.—H. Sutherland, E. A. James, G. H. Shaw and J. H. Munson, all officials of the Canadian Northern Ry. at Winnipeg, are applying at the current session of the Manitoba Legislature for the incorporation of a company to construct the following lines: from Sperling, on the Canadian Northern Ry., southerly and easterly to Morris, thence to a point on the C.N. Ry. between St. Anne 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.

Application will be made at the current session of the Dominion Parliament for authority to amalgamate the Western Extension Ry. with the Canadian Northern Ry. (Mar., pg. 95.)

The Winnipeg and Fort Alexander Ry. is applying at the current session of the Manitoba Legislature for an act extending the time for the commencement of the line from Winnipeg to 1906, and for its completion to 1913.

The Winnipeg General Power Co. is making progress with its project for the development of power on the Winnipeg river. The location of the plant is on the Pinawa branch of the river, about 56 miles from Winnipeg, where there is an excellent site and an adequate fall. The pole line will run directly from the power plant to Winnipeg, crossing the C.P.R. at Beausejour. This line

is now being surveyed. The Co. also proposes to construct in connection with this power plant a standard gauge tramway along the route of the pole line. (June, 1902, pg. 198.)

Winnipeg to St. Agathe.—Application will be made at the session of the Manitoba Legislature for the incorporation of a company to construct a railway from Winnipeg to St. Agathe. McPherson & Saunderson, Winnipeg, are solicitors for the promoters.

The Winnipeg and Stony Mountain Ry. is about 2 miles in length, and was constructed by the Winnipeg city council to connect its stone quarries with the C.P.R. tracks. The proposed extension would start from the C.P.R. tracks, and would reach William ave. in the city, passing through Brookside cemetery. The city would thus be able to bring all the stone required for its use over its own line, and the City Surveyor estimates that a considerable saving would be effected over the present system of having the stone brought in over the C.P.R. (Feb., pg. 49.)

Yale Northern Ry.—Application will be made next session of the B.C. Legislature for an act extending the time for completing surveys and for commencing the construction of the line, as well as for amending the list of incorporators.

Malgly About People.

C. A. Pison, Toronto, has been appointed agent for Thos. Cook & Son's tourist agency.

Sir Wm. Van Horne sailed from New York for Cuba Mar. 7, in the interest of the Cuba Co.

J. H. Hanna, Division Freight Agent G.T.R. at Hamilton, Ont., has gone to Florida owing to ill health.

W. C. Kennedy, C.P.R. ticket agent at Charlottetown, P.E.I., died there rather suddenly Mar. 7.

Lady Van Horne and Miss A. Van Horne recently returned to Montreal after a visit to Minneapolis, Minn.

J. Muir, inventor of the paper car wheels now in use on railways, died at Morristown, N.J., Mar. 6, aged 91.

Dr. W. Seward Webb, President Rutland Rd., is in ill-health and is confined to his hotel in San Francisco, Cal.

Mrs. Hutchinson, wife of T. J. Hutchinson, foreman painter G.T.R. car shops, London, Ont., died there recently.

H. R. Charlton, G.T.R. Advertising Agent Montreal, has returned from a tour to the Western and Southern States.

Mrs. M. P. Lee, widow of the late U. C. Lee, agent of the old Canada Central Ry. at Ottawa, died there Mar. 14, aged 80.

T. Wilson, one of the C.P.R. guides in the Rocky and Selkirk mountains, B.C., is visiting Montreal after an absence of 23 years.

P. Gifkins, General Manager of the Dominion Atlantic Ry., Kentville, N.S., is in England to attend the annual meeting of the Co.

J. G. Cameron, father of K. R. Cameron, Trainmaster of the Lake Erie and Detroit River Ry., died in Toronto recently, aged 88.

The residence of P. L. Naismith, Manager of the Alberta Ry. and Coal Co., Lethbridge, Alta., was partially destroyed by fire Mar. 6.

H. R. Mallison, of the Montreal Street Ry. Co.'s service, has been appointed Comptroller of the Light, Heat and Power Co. at Mexico city.

I. G. Ogden, third Vice-President C.P.R., had sufficiently recovered, after a serious operation to one of his eyes, to return to his office Mar. 17.

A. J. Stevens, heretofore assistant engineer in the I.C.R. construction department, Mon-

ton, N.B., has entered private practice as an engineer at Toronto.

S. Matthews, who for 40 years had been connected with the G.T.R. mechanical department at Point St. Charles, Montreal, died there recently, aged 85.

The only daughter of W. Duperow, Manager of the Huntsville, Lake of Bays and Lake Simcoe Navigation Co. at Huntsville, died in Toronto recently.

H. Bell, Travelling Freight and Passenger Agent Canadian Northern Ry. at Montreal, has been proposed for membership on the Montreal Board of Trade.

Capt. A. McBride, from 1838 to 1873 prominent in marine circles on Lake Erie at Port Stanley and Port Burwell, Ont., died at St. Thomas recently, aged 83.

S. Dunn, cashier for Mackenzie, Mann & Co. at Winnipeg, was married there recently to Miss M. M. Strevel, daughter of G. H. Strevel, railway contractor.

Mrs. Keating, wife of Wm. Keating, formerly G.T.R. ticket agent at Toronto, and now of Missoula, Montana, died in Toronto recently while on a visit there.

H. H. Gildersleeve, steamboat manager, Kingston, Ont., is a director of the British Whig Publishing Co. (Ltd.), Kingston, which has recently been incorporated.

Prof. J. G. G. Kerry, of McGill University, Montreal, delivered a very interesting address on railway location before the Engineers' Club of Toronto on Mar. 20.

J. N. Sutherland, Division Freight Agent, C.P.R., at St. John, N.B., is one of the Fenian raid veterans who has received a grant of 160 acres from the Ontario Government.

C. Carton, who has been 29 years in the G.T.R. service, the last seven as station agent at Port Dover, Ont., has resigned, and will in future reside at Bridgeport, Ala.

Press reports state that Sir Wm. Van Horne has been offered the position of Chairman of the Transportation Commission which the Dominion Government proposes to appoint.

C. Shields, 2nd Vice-President and General Manager of the Dominion Coal Co. (including the Sydney and Louisburg Ry.), has been elected President of the Mining Society of Nova Scotia.

A. McDougall, formerly G.T.R. station agent at Newtonville, Ont., has been appointed agent of the Canadian Express Co. at Bowmanville, succeeding W. A. Neads, retired after 46 years' service.

M. J. Kennedy, who recently resigned his position as Superintendent of the Montreal Street Ry., proposes establishing a restaurant in Montreal. It is reported that the directors voted him \$4,000 on his resignation.

J. Riordan was presented with a gold watch and an address by the employes of the maintenance of way department of the C.P.R. at Winnipeg, on leaving to become General Roadmaster, Canadian Northern Ry.

N. L. Newcomb, President of the Manhattan Steamship Co., New York, and well known in the Maritime Provinces in connection with the promotion of steamship companies, died suddenly in Brooklyn, N.Y., recently.

R. Binney, Roadmaster C.P.R. at Napinka, was entertained at dinner at Morden, Man., and presented with an address by the members of the Brotherhood of Railroad Trainmen, on being transferred to Winnipeg.

J. H. Manning, who has been appointed Second Assistant Superintendent of Rolling Stock, C.P.R., was formerly Master Mechanic, Union Pacific Rd. at Cheyenne, Wyo., and since 1901 has been with a business firm.

E. L. Clarke, who died in Montreal, Mar. 12, was for a number of years engaged in

surveying work for the Dominion in the Northwest, and was employed as an engineer on the construction of the C.P.R., north of Lake Superior.

E. W. McLean was recently presented by the employes of the C.P.R. advertising department at Montreal with a travelling bag, on leaving to take the position of private secretary to R. G. Reid, President of the Reid Newfoundland Co

S. Brent has succeeded to the ticket agency heretofore carried on in Toronto by Barlow Cumberland, and has removed to 8 King St. East. He retains the agencies for the Hamburg-American and North German Lloyds Steamship Cos.

A. W. Horsey, chief draughtsman C.P.R. mechanical department, Montreal, has gone to Glasgow, Scotland, and Chemnitz, Germany, to inspect the locomotives being constructed there, prior to their being packed and shipped to Montreal.

D. W. Campbell, who has been appointed General Superintendent of the C.P.R. Atlantic steamers, has been presented with a cartoon of himself, in uniform appropriate to his

new position, by his fellow members of the Montreal Board of Trade.

J. F. Stevens, who recently resigned as General Manager and Chief Engineer of the Great Northern Ry., U.S.A., has been appointed Chief Engineer Chicago, Rock Island and Pacific Rd., and Choctaw, Oklahoma and Gulf Rd., at Chicago, Ill.

A. F. Campbell, who has been appointed Manager of the Muskoka Lakes Navigation and Hotel Co.'s Royal Muskoka Hotel, is a son of the late C. J. Campbell, of Toronto, and has been connected with the Hotel Chamberlin, Old Point Comfort, Va.

R. L. Whyte, of Hamilton, Ont., writes that he is 93 years old, that, when 14 years of age, he was in the drawing office of Robert Stephenson & Co., locomotive builders, Newcastle-on-Tyne, and that he helped to build two engines for the Newcastle and Carlisle Ry.

M. C. Colcleugh, heretofore accountant to the General Superintendent Western division C.P.R. at Winnipeg, has entered into partnership with P. Langlois, formerly chief clerk in the C.P.R. baggage department Winnipeg,

and will conduct a real estate office in Winnipeg.

F. E. Ward, who has been appointed General Manager, Great Northern Ry., U.S.A., commenced his railway career in the G.T.R. offices in Montreal in 1881, and was taught shorthand by J. Osborne, now General Superintendent C.P.R. at St. John, N.B. He joined the G.N. Ry. in 1886.

J. E. Muhlfeld, formerly Superintendent of Rolling Stock and Machinery, Intercolonial Ry., who has been appointed Superintendent of Motive Power, with jurisdiction over the Chicago, Newark and Cleveland divisions of the Baltimore and Ohio Rd., has his headquarters at Newark, Ohio, and not Newark, N.J., as stated in our last issue.

S. Phipps, at one time G.T.R. locomotive foreman at Belleville, Ont., died at Ailsa Craig, Ont., recently, aged 85. One son is Assistant Master Mechanic C.P.R. at Winnipeg, four other sons are in the mechanical service of the C.P.R., G.T.R. and Wisconsin Central Rd., and the only daughter is married to a dispatcher on the Chicago and North Western Rd.

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Toronto.

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

W. J. Miller has been elected Secretary of the C.P.R. Club, Toronto Jct., Ont., vice G. B. Williams, removed to Winnipeg.

J. X. Perrault, Montreal, and C. N. Bell, Winnipeg, will, it is said, be secretaries of the Transportation Commission to be appointed by the Dominion Government. This Commission must not be confounded with the proposed Railway Commission, the bill for which will be considered by Parliament at the current session.

J. J. Scully, chief clerk to the General Superintendent, Central Division, C.P.R., was presented with an onyx clock, onyx candelabra and other articles by the chief clerks of the divisional offices; with a cabinet of silverware by the other officials of the division, and a set of hand-painted china by the Brotherhood of Locomotive Engineers at Winnipeg recently, on the occasion of his marriage.

L. W. Powers, who was recently promoted from the position of trainmaster, Atlantic division C.P.R., to that of chief clerk to the Manager of Transportation, has been in the Co.'s employ for about 22 years, filling the positions of junior clerk, superintendent's clerk, car distributor and trainmaster. He learned telegraphy in 1872 when he was 13 years old, and was for some years in the employ of the Western Union Telegraph Co.

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

R. R. Jamieson, who has been appointed General Superintendent of the Western Division C.P.R. at Calgary, Alta., was born in Wentworth county, Ont., Dec. 12, 1856, and entered railway service in 1871 as telegraph operator Great Western Ry., since which he has been consecutively: 1874 to 1879, telegraph operator G.T.R.; 1879 to 1880, in charge of construction of telegraph Indianapolis, Delphi and Chicago Ry. at Delphi, Ind.; 1880 to 1884, agent Credit Valley Ry., Ont. In 1884 the C.V. Ry. was absorbed by the C.P.R. and Mr. Jamieson was appointed train dispatcher, and Assistant Superintendent in 1890, subsequently being Superintendent at Farnham, Que., until Mar. 1902. From Mar., 1902, to Mar., 1903, he was Superintendent C.P.R. at Cranbrook, B.C.

S. J. Hungerford, who has been appointed acting Master Mechanic, C.P.R., at Calgary, Alta., was born at Bedford, Que., 1872, and entered railway service in 1886 as apprentice in the machine shops of the old South-Eastern Ry., at Farnham, Que. From 1890 to 1893, with the exception of a period with the C.P.R. at Chapleau, in 1891, he was not in railroad service, and re-entered railway service in 1893 as machinist and airbrake man, Central Vermont Ry., St. Albans, Vt., remaining there until 1894, since which his record has been: 1894 to 1897, charge hand, C.P.R., Windsor st., Montreal; 1897 to 1900, charge hand, C.P.R., at Farnham, Que.; 1900 to 1901, locomotive foreman, C.P.R., at Megantic, Que.; 1901, general foreman, C.P.R., McAdam Jct., N.B.; 1902 to 1903, locomotive foreman at Cranbrook, B.C.

D. W. Campbell, who has been appointed General Superintendent of the C.P.R. Atlantic steamers, was born in Montreal, July

15, 1860, and entered transportation service in 1876, as clerk in the office of the Beaver Line of steamships to Liverpool, being made Freight Manager in 1892, and General Manager, with full control of the line in England as well as Canada, in 1897. In 1899 the Beaver Line was sold to Elder, Dempster & Co., and Mr. Campbell was appointed Canadian Manager, with charge of all vessels of that Co. sailing from Canada and other North Atlantic ports, this including the regular lines to Liverpool, Bristol and London. He was instrumental in obtaining a Dominion subsidy for the establishment of a winter line from St. John, N.B., to Liverpool, which was inaugurated by the steamers then owned by the Beaver Line.

B. W. Folger, who has been appointed Manager of the Niagara Navigation Co., is a son of M. H. Folger, of Kingston, Ont., where he was born April 8, 1872. He has been connected with steamboat affairs practically since he was 17 years old. For eight years he was General Passenger Agent of the Thousand Islands Steamboat Co., and General Manager of the St. Lawrence River Steamboat Co., embracing the American line to Montreal, both of which companies operate among the Thousand Islands and across the foot of Lake Ontario in connection with the New York Central Rd. He was then appointed General Superintendent of the elevated lines of the Brooklyn Rapid Transit Co., where he remained for 18 months prior to his present appointment. Mr. Folger and his family have taken up their residence at 74 Prince Arthur ave., Toronto.

R. E. Larmour, who has been appointed Freight Claims Agent, Pacific division C.P.R., was born at Brantford, Ont., Sept. 26, 1868, and entered railway service Aug., 1884, at Stratford, Ont., as office boy in the office of his father, who was then Division Superintendent, G.T.R., remaining there until 1886; since which his record has been: 1886 to 1888, clerk in office of General Manager, Great Eastern Fast Freight Line, Detroit, Mich.; 1888 to 1890, accountant to General Superintendent, Chicago and Grand Trunk Rd., Detroit, Mich.; 1890 to 1892, G.T.R. local freight department, Detroit, Mich.; 1892 to 1898, transfer clerk, through freight from Wabash Rd. to G.T.R., at Windsor, Ont.; 1898 to Nov., 1899, chief clerk, freight office, C.P.R., at Fort William, Ont.; Nov., 1899, to May, 1900, acting agent, C.P.R., Fort William; May, 1900, to Aug., 1900, chief clerk, Superintendent's office, C.P.R., Fort William; Aug., 1900, to Feb., 1903, agent, C.P.R., Port Arthur, Ont.

J. E. Schwitzer, who has been appointed Division Engineer of the C.P.R., at Winnipeg, was born at Ottawa, Ont., April 19, 1870. During his undergraduate days at McGill College, Montreal, and at intervals of private practice and general survey and engineering work, he was engaged in the following railway works: 1888, rodman on location of the Vaudreuil and Ottawa Ry., and the Lake Timiskaming Colonization Ry.; 1889, Assistant Engineer on construction of the latter line; Aug., 1891, to Feb., 1892, Assistant Engineer on location and construction of the Ottawa and Gatineau Ry.; July, 1893, to Jan., 1894, Assistant Engineer in charge of location and construction, Ottawa, Arnprior and Parry Sound Ry.; Feb., 1894, to Dec., 1896, same position, same road; Engineer in charge of Central Counties Ry. from South Indian, for Canada Atlantic Ry.; and on surveys, Hull Electric Ry.; July, 1899, to Nov., 1900, Engineer in charge of construction, Rat Portage yards, C.P.R.; Nov., 1900, to Nov., 1901, Assistant Engineer in charge of maintenance of way, same road, Winnipeg; Nov., 1901, to March, 1903, Resident Engineer, same road, Winnipeg.

C. H. Nicholson, who has been appointed Manager of Transportation of the Muskoka Lakes Navigation and Hotel Co., was born at Belleville, Ont., and was educated there, at Queen's University, Kingston, Ont., and at the University of Maryland, Baltimore, Ohio. He entered transportation service with the Richelieu and Ontario Navigation Co., and subsequently became purser on one of the steamers operated by C.



C. H. NICHOLSON.

F. Gildersleve, on the Bay of Quinte and River St. Lawrence. He remained as purser for three years, and became captain, having charge successively of the Hero, Hastings, Norseman and North King. When C. F. Gildersleve organized the Lake Ontario and Bay of Quinte Steamboat Co., he became General Freight Agent, and during the last five years he has represented the Co.'s interests in the U.S., with headquarters at Rochester, N.Y.

TRANSPORTATION APPOINTMENTS.

Canadian Express Co.—The following appointments have been made: J. F. Bryce, Assistant to Vice-President; J. S. Patch, General Agent, Montreal; J. H. Moore, General Agent, Hamilton, Ont.; R. G. Wilson, General Agent, Toronto; R. A. Mitchell, Assistant to General Agent, Toronto; R. Murphy, acting Route Agent portion of Central division, vice G. Severs, assigned to other duties. W. P. Stericker, Agent Bonaventure Station, Montreal, vice R. Murphy. A. D. Gillis, Assistant to Agent, Bonaventure Station, Montreal.

Canadian Lake and Ocean Navigation Co.—Capt. J. B. Foote, hitherto Superintendent of the Algoma Central Steamship Line, at Sault Ste. Marie, Ont., has been appointed Marine Superintendent of the C. L. & O. N. Co., succeeding Capt. Thos. Donnelly.

Canadian Northern Ry.—E. Langham has been appointed Purchasing Agent and General Storekeeper. Office at Winnipeg.

J. P. Driscoll, heretofore Car Accountant of the C.P.R. at Montreal, has been appointed Superintendent of Car Service of the C.N.R. Office at Winnipeg.

John Riordan, heretofore Roadmaster, C.P.R., at Winnipeg, has been appointed General Roadmaster of Winnipeg terminals and lines west.

The Winnipeg Tribune of Mar. 16 announced that W. Pratt, Jr., formerly Assistant Superintendent of C.P.R. Sleeping, Dining and Parlor Cars at Winnipeg, had been appointed Superintendent of the Passenger Car Department of the C.N.R. On Mar. 25 we were informed at the head office of the C.N.R. in Toronto that nothing was known there of the appointment.

Canadian Pacific Ry.—F. A. Gascoigne has been appointed Car Accountant, vice J. P. Driscoll, resigned. Office at Montreal.

W. A. Cooper, Assistant Superintendent of Sleeping, Dining and Parlor Cars and Hotels at Montreal, has had his jurisdiction extended over the whole system.

J. H. Manning has been appointed Second Assistant Superintendent of Rolling Stock. At present he is located at Winnipeg.

D. W. Campbell, heretofore Manager of Elder, Dempster & Co. at Montreal, has been

appointed General Superintendent of the C.P.R. Atlantic steamers. Office at Montreal.

Max Toltz, heretofore Mechanical Engineer of the Great Northern Ry, U.S.A., has been appointed Consulting Engineer to assist the Superintendent of Rolling Stock, especially on the new shops which are being built at Montreal.

Gordon Henderson, heretofore ticket agent at Goderich, Ont., has been appointed town ticket agent, telegraph agent, and agent of the Dominion Express Co. at Windsor, Ont., vice B. Holman.

Jos. Kidd has been appointed ticket and telegraph agent at Goderich, Ont., vice G. Henderson, promoted.

J. E. Schwitzer has been appointed Division Engineer of the Central division, vice J. Woodman, resigned. Office, Winnipeg.

J. A. MacGregor has been appointed Car Service Agent at Winnipeg, vice J. K. McNeillie, transferred to Montreal.

E. J. Bulgin has been appointed General Superintendent's Accountant, Central Division, vice M. C. Colcleugh, resigned. Office, Winnipeg.

R. Binney, heretofore Roadmaster at Napinka, Man., has been transferred to Winnipeg as Roadmaster, vice J. Riordan, resigned.

W. Cooper has been appointed Roadmaster at La Riviere, Man.

P. E. Barry has been appointed Assistant Roadmaster at Winnipeg, vice W. Cooper.

G. B. Williams, heretofore chief clerk in the Master Mechanic's office, Ontario division, Toronto Jct., has been appointed chief clerk, Master Mechanic's office, Central division, Winnipeg. He is succeeded at Toronto Jct.

by K. McConnell, hitherto clerk in the Master Mechanic's office there.

S. J. Hungerford, who has been appointed acting Master Mechanic C.P.R., at Calgary, Alta., was formerly locomotive foreman at Cranbrook, B.C., and not general foreman at Revelstoke, B.C., as stated in our last issue. He is succeeded at Cranbrook by A. H. Eager, formerly locomotive foreman at Megantic, Que.

A. S. Dawson has been appointed Division Engineer, Western division. Office, Calgary, Alta.

J. G. Taylor, heretofore Superintendent at Brandon, Man., has been appointed Superintendent of district 26, from Dunmore Jct., Assa., to Kootenay Landing, B.C., with the Fernie, North Star and Marysville branches, vice R. R. Jamieson, promoted. Office, Cranbrook, B.C.

James Brownlee, locomotive foreman at Medicine Hat, Assa., has been appointed Superintendent district 22, succeeding J. G. Taylor, transferred to Cranbrook, B.C. Office, Brandon, Manitoba.

Cape Breton Ry.—Press reports state that R. W. Leonard, Chief Engineer and General Manager, has resigned and been succeeded by Jay Downer, with office at Port Hawkesbury, N.S.

Grand Trunk Ry.—Nicol McNicol has been appointed Locomotive Foreman at Fort Erie, Ont., vice C. Battley, resigned.

W. Wells is reported to have been appointed foreman of the wheel shop at Montreal, vice A. Dutton.

A. Patterson, foreman of the G.T.R. blacksmith shop at Montreal, has retired after 35 years' service with the Co.

The following agents have been installed: Stanfold, Que., F. E. Poitras; Doucets Landing, Que., J. I. Delisle; Newtonville, Ont., L. Buller; Kerwood, Ont., F. B. Hodgins; Watford, Ont., D. O'Neil; Appin, Ont., W. G. Hacking; Brantford, Ont., G. A. Stokes; Port Dover, Ont., W. Faskin; Allenford, Ont., J. L. Taylor; Ayton, Ont., F. D. Stewart; Hepworth, Ont., D. McBride; Wiarton, Ont., R. Laurie; Lucknow, Ont., H. Ham; Brussels, Ont., J. Milhausen; Milverton, Ont., C. Totten; Denfield, Ont., J. W. Gray; Brucefield, Ont., D. Alair; Haslett Park, Mich., J. G. Marsh; South Bend, Mich., J. C. Graham; Griffith, Ind., C. J. Wheaton; Armada, Mich., F. H. Wilder.

Great Northern Ry. of Canada.—Consequent on Mackenzie, Mann & Co., having obtained control of this line, a number of changes in the officials are imminent. As this is written (Mar. 28), D. B. Hanna, Third Vice-President of the Canadian Northern Ry., is in Quebec, in connection with the matter. It is likely that some of the present officials will be replaced by Canadian Northern men and some of the officials' headquarters may be removed to Toronto.

A. J. Gorie, now Superintendent of the C.N.R. at Port Arthur, Ont., is mentioned as is likely to take charge of G.N.R. operating.

Great Northern Ry., U.S.A.—J. D. Farrell, formerly President and General Manager of the Pacific Coast Co., who was recently chosen President of the Northern Steamship Co., has been appointed Assistant to the President of the Great Northern Ry., with headquarters at St. Paul, Minn. He was formerly Assistant General Superintendent

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Etc., Etc.

and afterward General Superintendent of the Western district of the G.N.R.

F. E. Ward, heretofore General Superintendent, has been appointed General Manager.

G. B. Smith, formerly ticket agent at Tacoma, Wash., is reported to have been appointed soliciting freight agent at Vancouver, B.C.

Intercolonial Ry.—A. J. Stevens, Assistant Engineer of Construction, is reported to have resigned to engage in general engineering and contracting at Toronto.

T. W. Hennessy has been appointed Mechanical Foreman at Truro, N.S.

Some changes are said to be imminent in the Toronto office, but up to Mar. 25 no definite information was obtainable.

Kettle Valley Lines.—Warrington has been appointed Superintendent. Office, Grand Forks, B.C.

Lake Erie and Detroit River Ry.—R. J. Tait, heretofore city soliciting freight agent at London, Ont., has been appointed local freight agent at Walkerville, Ont.

Montreal Street Ry.—E. Blair, heretofore Assistant to the General Manager of the Quebec Ry., Light and Power Co., has been appointed Assistant Superintendent of the Montreal Street Ry. and the Montreal Park and Island Ry., and will report direct to the Superintendent.

The Montfort and Gatineau Colonization Ry. having been acquired by the Great Northern Ry. of Canada, all communications pertaining to traffic, car service and operation of same should be addressed to the officers of the respective departments of the G.N.Ry.

Muskoka Lakes Navigation and Hotel Co.—The Muskoka and Georgian Bay Navigation Co. and the Muskoka Navigation Co. have been amalgamated under this title. The officers are: President, S. Barker, Hamilton, Ont.; Secretary-Treasurer, A. P. Cockburn, Gravenhurst, Ont.; General Manager of Transportation, C. H. Nicholson, Gravenhurst, Ont.; Manager of Royal Muskoka Hotel, A. F. Campbell.

Toronto, Hamilton and Buffalo Ry.—H. J. Broderick has been appointed ticket accountant, with office at Detroit, Mich., vice L. D. P'Pool, resigned. Mr. Broderick is also ticket accountant of the Michigan Central Rd.

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	\$2,070,909.25	\$1,175,711.25	\$79,844.32+
Aug.	3,554,184.56	2,191,283.11	1,362,901.45	57,269.36+
Sept.	3,651,481.42	2,240,726.02	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+
Jan.	3,148,455.27	2,231,684.50	916,770.77	96,309.97+
	\$25,663,358.85	\$15,950,404.16	\$9,712,954.69	\$661,654.27+

Approximate earnings for Feb. \$2,795,000, against \$2,338,000 for Feb., 1902.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Jan., \$197,279.63; net earnings, \$65,734.42, against \$192,156.32 gross and \$63,042.35 net for Jan., 1902. Net earnings for seven months ended Jan. 31, 1903, \$598,969.54, against \$569,833.36 for same period, 1901-02. Approximate earnings for Feb. \$184,990, against \$195,175 for Feb., 1902.

MINERAL RANGE RY.—Approximate earnings for Feb., \$40,627, against \$41,259 for Feb., 1902.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Jan., \$455,

576.34; net earnings, \$168,681.89, against \$400,715.05 gross and \$191,184.98 net for Jan., 1902. Net earnings for seven months ended Jan., 1903, \$2,287,271.58, against \$2,130,457.48 for same period 1901-2. Approximate earnings for Feb., \$441,737, against \$387,681 for Feb., 1902.

Grand Trunk Ry. Earnings, Expenses, &c

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

	1903.	1902.	Increase.	Decrease.
Jan.	\$2,634,200	\$2,278,978	\$355,222	.....
Feb.	2,432,661	2,018,926	413,735	.....
	\$5,066,861	\$4,297,904	\$768,957	.....

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

GRAND TRUNK RY. CO.

Revenue for Jan.:

	1903.	1902.	Increase.	Decrease.
Gross receipts....	£428,300	£364,000	£64,300	.....
Working expenses	319,500	253,400	66,100	.....
Net profit....	£108,800	£110,600	.....	£1,800

GRAND TRUNK WESTERN RY.

Revenue for Jan.:

	1903.	1902.	Increase.	Decrease.
Gross receipts....	£93,400	£81,000	£12,400	.....
Working expenses	82,500	65,800	16,700	.....
Net profit....	£10,900	£15,200	.....	£4,300

DETROIT, GRAND HAVEN AND MILWAUKEE RY.

Revenue for Jan.:

	1903.	1902.	Increase.	Decrease.
Gross receipts....	£19,500	£23,100	.....	£3,600
Working expenses	14,700	13,200	1,500	.....
Net profit....	£4,800	£9,900	.....	£5,100

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from Jan., to Feb. 28, 1903:

	1903.	1902.	In-crease.	De-crease.
Grand Trunk....	£837,611	£703,131	£134,480	.....
G. T. Western....	164,274	143,590	20,684	.....
D. G. H. & M....	39,250	36,410	2,840	.....
Total.....	£1,041,135	£883,131	£158,004	.....

Taxation of C.P.R. Lands.

The question of the taxation of the C.P.R. Co.'s lands, which has recently been before the Manitoba Court of King's Bench, is of considerable interest, and as the reports which have appeared in the daily papers have been very meagre and in many cases incorrect, the following statement will be of interest. The cases were The Municipality of North Cypress vs. The C.P.R. Co., The Municipality of Argyle vs. The C.P.R. Co. and the Springdale School District, no. 263 of the Northwest Territories vs. The C.P.R. Co.

In the contract entered into between the Dominion Government and the C.P.R. Co. for the construction of the railway, it was agreed that the railway and all stations, station-grounds, workshops, buildings, yards and other property, rolling stock and appurtenances required and used for the construction and working of the railway, and the capital stock of the company, should be forever free from taxation by the Dominion or by any Province thereafter to be established or by any municipal corporation therein, and that the lands of the company in the Northwest Territories until they were either sold or occupied should also be free from such taxation for 20 years "after the grant thereof from the Crown."

A couple of years ago R. L. Richardson, then M.P. for Lisgar, moved a resolution in the House of Commons to have it declared that the 20 years' exemption of the company's lands from taxation commenced to run on Feb. 15, 1881, when the contract was ratified by Parliament. Strong objection was taken to this resolution by members on both sides of the House, on the ground that the interpretation of the contract was a matter for the courts and not for Parliament, and it was almost unanimously rejected. The Government, however, promised to arrange with the company for the submission of a case to the courts for the purpose of determining from what date the 20 years were to run, and the three actions above named were instituted with that object.

These cases came before Mr. Justice Richards at Winnipeg Feb. 11 last, when judgment was entered pro forma in favor of the C.P.R. Co., so as to facilitate an appeal to the full court of King's Bench, which was then sitting. An order was thereupon made consolidating the three cases, and the appeal was argued on Feb. 13, 14, and 18, before Chief Justice Killam and Judges Dubuc and Richards. H. M. Howell, K.C., and T. J. Mathers appeared for the plaintiffs, and J. S. Ewart, K.C.; J. Stewart Tupper, K.C., and F. H. Phippen represented the C.P.R. Co.

Counsel for the plaintiffs submitted that the exemption period ran from either the date when Parliament ratified the contract, or when the company earned the lands, or when it selected them. Counsel for the company, on the other hand, contended that the exemption ran from the issue of the letters patent granting the lands to the company. The court unanimously decided in favor of the company's contention, holding that the company's lands were not taxable until after 20 years from the issue of the patent therefor, and the judgment in the Argyle and Cypress cases was affirmed.

In the Springdale school district case, however, counsel for the plaintiffs submitted that they were entitled to succeed on another ground, viz.: that the exemption conferred on the company did not preclude school districts in the Northwest Territories from taxing the company's lands, inasmuch as at the time when the contract between the Government and the company was ratified by Parliament, the Territories had power to establish a system of local taxation for the support of schools, and that the contract with the company was not intended to bind the Dominion to restrict that power. The same question had been raised in the Supreme Court of the Northwest Territories about two years ago in a case instituted by the Government of the Territories in the case of the Protestant school district of Balgonie vs. the C.P.R. Co., which was heard before Judges Richardson, Rouleau, Wetmore, Macguire and Scott. Mr. Justice Rouleau died before judgment was delivered. Judges Richardson and Wetmore both decided that the contention was untenable. Judge Macguire was inclined to sustain the contention, but concurred in giving judgment for the company on another ground, while Judge Scott concurred without giving any reason. No appeal, however, to the Supreme Court was taken from this judgment, and it was supposed that the question was settled until it was again raised by counsel in this case during the argument, without it having been suggested in the reasons for appeal filed by the plaintiffs as a ground for a decision in their favor.

It was urged by counsel for the company that the intention to exempt the company's lands in the Territories from all taxation which the Dominion could then or thereafter control was clearly expressed. Parliament could not and did not attempt to restrict the taxation of the company's station grounds, workshops, etc., for Provincial or municipal

purposes in any of the then established Provinces, but in the Northwest Territories its authority was supreme and unlimited, and in exempting the company's station grounds, workshops, etc., and lands from taxation "by the Dominion" it was intended that those words should be interpreted in a broad sense, as including taxation by Parliament itself as well as taxation imposed by any authority delegated by Parliament or which Parliament had the right to control. The Territorial Legislative Assembly, and consequently a territorial school district, acts merely by authority delegated by the Dominion Parliament, and, therefore, taxation by the territorial school district is "taxation by the Dominion" within the meaning of the exemption. It was admitted by the plaintiffs that the company's lands would be exempt from taxation by this school district the moment they were included in a Province hereafter established in the Territories, which is a strong argument to show that the Territories, with only delegated and limited powers, were not to be permitted to tax these lands, while the Provinces to be thereafter carved out of them were admittedly restricted from such taxation. It was further pointed out that the interpretation contended for by the company had been accepted by the Territorial Legislature from 1884, when the first school ordinance was passed, down to the school ordinances of 1901, in all of which ordinances the exemption of the C.P.R. lands had been recognized. Then again it was strongly urged that when the contract was ratified by Parliament the Territories did not possess the right to tax for school purposes and had never attempted up to that time to exercise such a power. If, however, such power did exist it was subject to the express proviso that no ordinances to be made should be inconsistent with or alter or repeal any provision of any act of the Parliament of Canada then or thereafter expressly referring to the Territories, and its power (if any) to tax these lands was expressly limited by the C.P.R. Act, 44 Victoria, chap. 1, sec. 16.

Chief Justice Killam, with whom Judge Richards concurred orally, held, with much doubt and hesitation, that the plaintiffs were entitled to succeed on the ground that when the contract was made the Territories had power to establish the system of local taxation for the support of schools under which the plaintiffs' claim arose, and that the contract with the company was not intended to bind the Dominion to restrict that power. Judge Dubuc dissented from the Chief Justice on the ground that the taxation of school districts was taxation by the Dominion within the meaning of the clause exempting the company's lands from taxation by the Dominion, as the Territorial Legislative Assembly acts merely by authority delegated from the Dominion Parliament.

The three cases have been appealed to the Supreme Court of Canada, and will be heard at its May sittings.

An officer of the Great Northern Ry., U.S.A., states that that company is saving \$4,000 a day on its importations from the Crow's Nest pass mines in B.C., owing to the removal of the duty on coal imported into the U.S.

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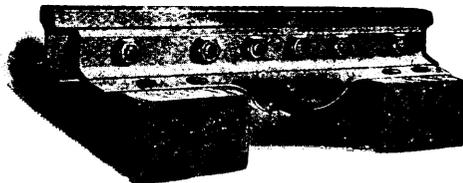
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Canadian Northern Ry. Construction.

Port Arthur Easterly.—Beyond stating that survey parties are in the field in the vicinity of Port Arthur with a view of locating a suitable line easterly, the officials have no information to give out. Press reports recently stated that H. K. Wicksteed, C.E., was running a preliminary line from the south end of Lake Nepigon to Shebandowan on the C.P.R. main line west of Port Arthur. (Feb., pg. 50.)

Winnipeg Shops.—A temporary building has been erected at Winnipeg to be used for the repairing of passenger cars, and the permanent car shops is being utilized for building freight cabooses.

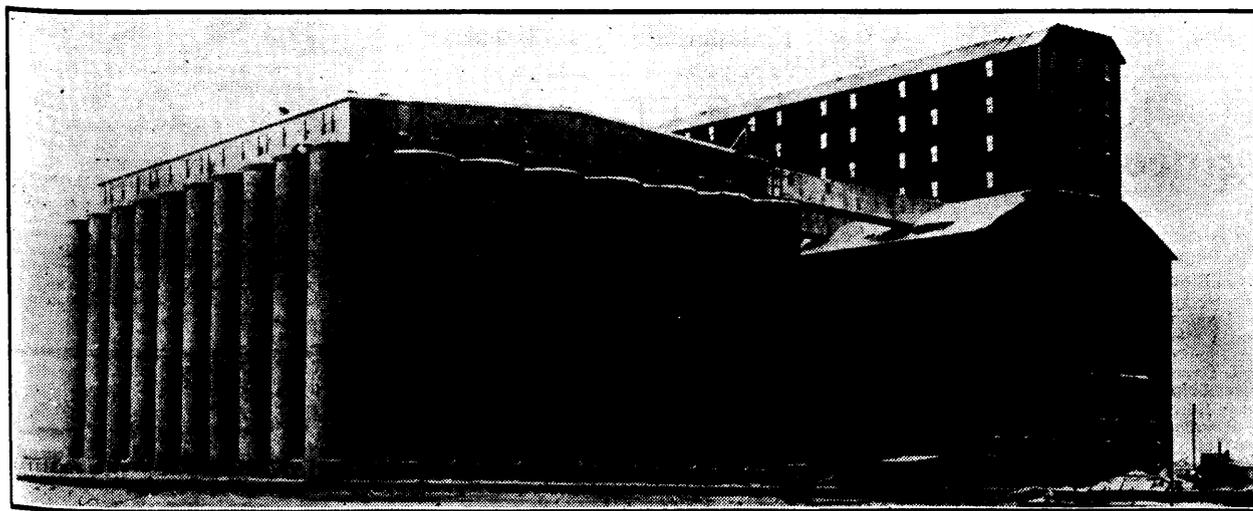
Winnipeg Terminals.—The Co. has acquired Fort Garry Park, about 24 acres, from the Hudson's Bay Co., and some additional property on the east side of Main st., adjoining the park, so that it now owns, with the exception of a few lots on Main st., all the land east of Main st. and south of Water st. to the Red and Assiniboine rivers, respectively. It was intended to utilize this area for terminal purposes, and to erect a station and

struction of 343 miles of branch railways by Nov. 15. The aid to be given is in the nature of a guarantee of bonds to the extent of \$10,000 a mile, of which one-fifth has to be expended upon rolling stock. The Commissioner of Railways, in explaining the act, stated that previous guarantees of bonds had been at the rate of \$8,000 a mile, but in consequence of the increased cost of labor and material the Government now proposed to give the additional guarantee of \$2,000 a mile. The additional \$2,000 a mile was to be expended upon equipment so that there would be sufficient rolling stock for the branch lines to be constructed. The time limit was fixed because the Government had been assured by President Mackenzie that the Company was in a better position to proceed with construction than last year, and because of the rapid changes that were taking place in the Province the Government realized that the time might shortly come when it might be possible for the people of the Province to secure the construction of railways without a guarantee at all. The contract, it was explained, had been made with the Western Extension Ry. Co., which had agreed to amalgamate with the Canadian Northern Ry. Co., but the

ed and track laid in 1902, leaving 6 miles to be completed by Nov. 15 in order to carry out the terms of the contract. (Feb., pg. 51.)

Sperling to Morris and Easterly.—A projected branch, for which sanction is being asked at the current session of the Dominion Parliament is from Sperling, on the Carman branch, to Morris, on the Morris-Brandon branch, and thence easterly to the main line from Winnipeg to Port Arthur, between St. Anne and the southern boundary of the Province. This line, with the other extensions of the Morris-Brandon branch subsidized by the Manitoba Legislature or projected by the bill before the Dominion Parliament would give a short line from the head of Lake Superior, through Southern Manitoba to Regina, Assa. (Feb., pg. 51.)

Roland or Myrtle to Morden.—The Manitoba Legislature has passed an act guaranteeing interest on bonds to the extent of \$10,000 a mile for the construction of a line from Roland or Myrtle, on the Morris-Brandon branch southwesterly to Morden, 20 miles. The line is required to be open for traffic by Nov. 15.



CANADIAN NORTHERN RAILWAY COMPANY'S ELEVATOR AT PORT ARTHUR, ONT.

hotel on the Fort Garry park property. Plans for the station and hotel have been submitted to the city council for approval, as it is proposed to close up some streets. The new station will be located on the northwest corner of the park property, fronting on Main st. and Broadway, and will contain the Winnipeg offices of the Co. The hotel building, it is suggested, will be on the northeast corner of Main st. and Broadway, and will be connected with the station by an arch, provided the city agrees. The estimated cost of the buildings and other improvements is about \$2,000,000, and they will be completed within a couple of years. In order to obtain an entrance to the new station a new steel bridge will be erected over the Assiniboine river. This bridge, it is proposed, shall be a double track bridge, one track for passenger and the other for freight traffic. When this work is completed the old Northern Pacific station on Water st. will be abandoned for passenger purposes, and will probably be utilized as a freight shed.

Manitoba Branches.—The Manitoba Legislature on Mar. 18 passed an act for aiding the construction of certain lines of railway in the Province, which provides for the con-

provisions of that act do not come into effect until after the amalgamation has taken place. As a matter of fact the provisional directors of the Western Extension Ry. Co. are all officials of the Canadian Northern Ry., which company has a bill before the Dominion Parliament giving the C.N.Ry. power to construct the several lines named, and authorizing the amalgamation. The following are the lines for which the act authorizes the guarantee of bonds :

	Miles.
Emerson easterly	20
Roland or Myrtle to Morden.....	20
Greenway southwesterly	40
Minto or Elgin southwesterly.....	30
Fairfax to Souris	15
Hartney to Virden and western boundary...	40
Portage la Prairie southwesterly.....	40
Carberry to Neepawa branch.....	20
Through Clanwilliam, Rosburn and Hartiston to the western boundary.....	80
McCreary southerly.....	18
Swan River to western boundary.....	20
	343

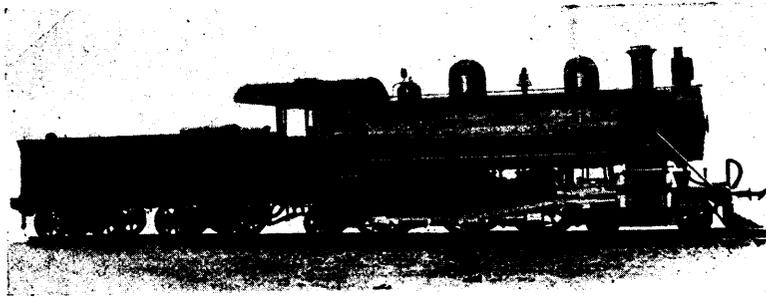
Emerson Branch.—The Manitoba Legislature has passed an act guaranteeing interest on bonds to the extent of \$10,000 a mile for an extension from Emerson, easterly for 20 miles. Fourteen miles of this was construct-

Greenway Southwesterly.—The Manitoba Legislature has passed an act guaranteeing interest on bonds to the extent of \$10,000 a mile for the construction of a line from Greenway, on the Morris-Brandon branch, southwesterly, for 40 miles. The route has not been definitely located, press reports stating that either a route to the International boundary will be followed, where a junction could be arranged with the Great Northern Ry. branch line, at present terminating at St. John, N.D., or via Killarney to Wakopa, at the base of the Turtle mountains. The line is required to be open for traffic by Nov. 15.

Minto or Elgin Southwesterly.—Among the lines for which the Manitoba Legislature has guaranteed bonds to the extent of \$10,000 a mile is a branch either from Minto or Elgin, on the Hartney extension of the Morris-Brandon branch, southwesterly for 30 miles. The route has not been definitely located, but a 30-mile branch from Elgin southwesterly would reach close to the International boundary, where a connection could be made with the Great Northern Ry. branch, now terminating at Souris, N.D. The branch has to be open for traffic by Nov. 15.

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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	"
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- 160 acres at \$5.00 per acre, 1st instalment \$119.85, and 9 equal instalments of \$100.
- 160 acres at \$5.50 per acre, 1st instalment \$131.80, and 9 equal instalments of \$110.
- 160 acres at \$6.00 per acre, 1st instalment \$143.80, and 9 equal instalments of \$120.00.

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

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

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

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Fairfax to Souris.—A guarantee of bonds to the extent of \$10,000 a mile has been authorized by the Manitoba Legislature for the construction of a line from Fairfax, on the Hartney extension of the Morris-Brandon branch, to Souris, 15 miles. The line has to be open for traffic by Nov. 15.

Hartney to Virden, Etc.—The Manitoba Legislature has voted a guarantee of bonds to the extent of \$10,000 a mile for the construction, by Nov. 15, of a continuation of the Hartney extension of the Morris-Brandon branch, from Hartney, for 40 miles. The proposal is to construct the line to Virden, and to continue it to the western boundary of the Province. Among the powers being asked for from the Dominion Parliament is authority to construct a line from Hartney northerly and westerly to Regina, Assa. (Feb., pg. 51.)

Portage la Prairie Southwesterly.—A guarantee of bonds to the extent of \$10,000 a mile has been voted by the Manitoba Legislature towards the construction of a line 40 miles in length, from Portage la Prairie, southwesterly, the line to be completed by Nov. 15. Speaking at Carberry prior to the meeting of the Legislature, the Minister of Public Works stated that among the lines for which contracts would be made by the Government this year was one from Portage la Prairie, through the Rosendale district, and that it would effect a junction with the Carberry-Neepawa line. The route of the branch has not been definitely located.

Carberry to Neepawa.—The Manitoba Legislature has authorized the guarantee, by the Government, of bonds to the extent of \$10,000 a mile for the construction of a line from Carberry to a junction with the Neepawa branch, constructed in 1902, about 20 miles.

Rosburn Branch.—A guarantee of bonds to the extent of \$10,000 a mile has been given by the Manitoba Legislature for the construction of 80 miles of line via Clanwilliam, Rosburn and Harriston to the western boundary of the Province, the line to be completed by Nov. 15. Grading on such a line was completed in 1902 for 25 miles from Rosburn jct., 5 miles north of Neepawa, and track was laid for practically the whole of that distance. The Macdonald and McMillan Contracting Co. has the contract for the grading on the remaining 65 miles. This branch will effect a junction at or near the boundary with the extension from Gilbert Plains. (Feb., pg. 51.)

McCreary Branch.—Provision has been made by the Manitoba Legislature for guaranteeing bonds to the extent of \$10,000 a mile for the completion of the line from Neepawa to McCreary, for which there was a guarantee of bonds of \$8,000 a mile in 1902. During 1902 the whole of the construction called for was completed and the grading of the line into McCreary, 18 miles beyond the point mentioned in the contract, was practically completed. The uncompleted portion of the grade and the tracklaying will be completed at once. (Feb., pg. 51.)

Swan River Branch.—The Manitoba Legislature has passed an act authorizing the guarantee of bonds to the extent of \$10,000 a mile for a branch from Swan river, 280 miles from Winnipeg, to the western boundary of the Province, 20 miles, the line to be completed by Nov. 15. The Dominion Parliament is being asked to authorize the construction of a line from Swan river westerly to a junction with the Co.'s authorized line at the crossing of the Saskatchewan river.

Grand View Extension.—Construction will be continued westerly from the point to which grading was completed in 1902. G. H. Strevel, of Winnipeg, who was the contractor in 1892, will probably be given the contract this year, and work will be pushed as

fast as possible. Vice-President D. D. Mann recently stated that tenders were being asked for the construction of steel bridges over the Saskatchewan at the three points of crossing. (Feb., pg. 51.)

Erwood, Westerly.—Construction will be pushed this year on the line from Erwood to Prince Albert, and it is expected that the grading will be completed and track laid well on to Prince Albert by the end of the year. N. & D. Keith, who did the grading on the line in 1902, will, it is understood, be the contractors this year also. (Feb., pg. 51.)

Edmonton.—At a meeting of the town-people Mar. 5, the Mayor reported that the Hudson's Bay Co. had offered to sell 68 acres as a site for station buildings, yards and workshops, for \$25,000, and that the cost of the land to the town would be \$15,000, the H. B. Co. and the C.N.R. contributing \$5,000 each towards the total amount. The \$15,000 has been provided pending the passing of the necessary by-law to raise the money by taxation.

Edmonton, Westerly.—Two survey parties are in the field looking over routes westerly from Edmonton, and W. Burns, one of the surveyors, is investigating a reported pass through the mountains, which has as yet not been surveyed. (Feb., pg. 51.)

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

Nova Scotia. Reports are current in Halifax that in the event of the Company securing the contract for the fast trans-Atlantic line an extension of its railway will be built from a point in New Brunswick to Dartmouth, where terminals will be constructed. The Second Vice-President and General Manager says the reports are without foundation.

St. Andrews, N.B.—The Co. has acquired the property of the St. Andrews Land Improvement Co., and Sir Thos. Shaughnessy says this is with a view of extending railway facilities and providing new summer attractions.

The Atlantic and Northwest Ry. Co., which owns a line operated under lease by the C.P.R., is the defendant in a suit instituted by the heirs of the late Hon. R. Jones, who desire an injunction restraining the Co. from crossing the approaches to a toll bridge over the Richelieu river at St. Johns, Que. The Quebec Court of Appeal has reversed the decisions of the lower courts, and the injunction will be issued. The Co. has obtained leave from the Railway Committee of the Privy Council to cross streets and bridge approaches along the Chambly canal. The plaintiffs objected to this and applied for an injunction, but it was refused by the court at St. Johns, it being held that the Jones' interests had no title to the land on which the approaches to the bridge were erected.

Montreal Shops.—Tenders are being considered for the erection of three more buildings in connection with the new shops at Hochelaga. The buildings will be used for the making of car wheels. (Feb., pg. 52.)

St. Denis Subway, Montreal.—An arrangement has been completed between the C.P.R., the Montreal St. Ry. and the city council for the construction of a subway on St. Denis st., at a cost of \$30,000, to be paid one-half by the C.P.R. and one-quarter each by the city and Street Ry. Co.

Northern Colonization Ry.—Track is reported laid to Riviere Rouge, 6 miles from Labelle. An application is being made to the Quebec Legislature for an additional subsidy, so as to permit the line being extended from Nominique, to which point it is now under

construction, for a further distance of 30 miles. (Feb., pg. 52.)

Brockville Yards.—Plans have been prepared for new buildings in the freight yards, and the general improvements of the docks and wharves.

Ontario Division.—It is intended to replace the 72-lb. rails on a considerable mileage of the Ontario division with 82-lb. rails. These heavier rails will be laid on sections of the main line, between London and Embro, and on sections east of Toronto, while the 72-lb. rails taken up are being used to replace lighter rails on the Owen Sound branch and other lines.

Fort William-Winnipeg Gradients.—We are officially informed that the contract entered into with Foley Bros. and Larson, is solely for the reduction of gradients on the present line and not for double-tracking as reported. The gradients both east and west bound are at present 0.75%, and it is intended to reduce them to 0.4%. The contractors have commenced work at Rat Portage. Where new tracklaying is required 80-lb. rails will be used. The engineers in charge of the work are F. S. Darling, Division Engineer, with headquarters at Montreal, and J. B. L. McDonald, Assistant Engineer, with headquarters on the work. (Mar., pg. 94.)

Macgregor.—Press reports state that it has been decided to erect a roundhouse, coal sheds and a water tank at Macgregor, Man.

Brandon.—A press report states that it is proposed to erect a 3,000,000 bush. grain elevator at Brandon, Man.

Glenboro-Lauder Extension.—Grading is reported to have been completed in 1902 for 15 miles beyond Lauder, Man., towards the western boundary of the Province. (Aug., 1902, pg. 271.)

Pipestone Branch.—This branch, starting from Menteith jct., Man., was completed to Arcola, Assa., 94.9 miles, in 1900. Press reports say it is now intended to extend the line from Arcola to Regina, about 120 miles, that the work will be commenced at an early date, prospective contractors having been over the route in Jan.

Pheasant Hills Branch.—Work on the grading of this branch will be resumed at an early date, and it is said the line will be pushed northerly and westerly to Newdorf, 105 miles. Tracklaying on the grade completed in 1902, from the point where work ceased, to Scissors creek, is expected to be gone on with as soon as possible. (Feb., pg. 53.)

Saskatoon.—Press reports state that a roundhouse will be built at Saskatoon, Sask., on the Qu'Appelle. Long Lake and Saskatchewan Ry., and that the station will be enlarged in view of the putting on of a daily train service.

Alberta-Saskatchewan branches.—Under the charter of the Calgary and Edmonton Ry. there will probably be considerable construction during the year, the details of which have not been announced. Survey parties have been in the field all winter surveying routes for lines connecting Wetaskiwin easterly to Saskatoon on the Qu'Appelle, Long Lake and Saskatchewan Ry., and southeasterly. It is reported that if a line is constructed southeasterly it will join the transcontinental line at Swift Current, Assa. A line is also projected northerly from Strathcona, and negotiations are in progress for a site for a station in Edmonton. An act obtained by the C.P.R. last year would also cover some of the lines projected in this territory and for which surveys are in progress.

Pacific Division.—R. Marpole, General Superintendent, stated on returning to Vancouver from a recent visit to Montreal, that 13,000 tons of 80-lb. rails were to be delivered

during this year for the purpose of replacing the present 60-lb. rails between Vancouver and Revelstoke.

Vancouver Hotel.—Among the improvements which will be carried out this year will be the taking down of the old wing of the hotel, and rebuilding it to conform to the new design. (April, 1902, pg. 123.)

Winnipeg Station and Subway, Etc.—After lengthened negotiations between the city council and the company an agreement was reached a short time ago in reference to the construction of a subway on Main st., the erection of a station building and hotel, etc. The agreement provided for the closing of certain streets, and if ratified by the Manitoba Legislature work was to be commenced within a month thereafter. The Legislature refused the required ratification, and negotiations have been started over again. The plans submitted to the city council provided for the erection of a station and office building on Higgins ave., between Main and Mede sts., an hotel on the corner of Main st. and Higgins avenue, and a subway 100 ft. wide on the west side of Main st., the latter to be completed by Jan. 1, 1904. (Feb., pg. 53.)

The str. Montreal, built at Toronto in 1902, and being completed for the Riche-lieu and Ontario Navigation Co., was burned at Montreal recently. The loss is estimated at about \$400,000. A new steamer will be built.

Railway Track Laid in 1902.

In our Feb. number we published a table giving details of the mileage of steam and electric railways constructed in Canada during 1902. Owing to the fact that official information was not available from one or two companies, approximate figures were given in those cases. Some additional information is appended in regard to the electric rail-ways:

Cape Breton Electric Co.:	Miles.
Town of Sydney.....	7.20
North Sydney to Sydney Mines.....	2.00
Sydney and Glace Bay Ry.....	9.20
Winnipeg Electric St. Ry.....	19.00
	1.252

These figures reduce the total given from 78,589 miles to 77,041 miles of electric track laid. This includes, with one exception, the whole of the track laid by electric railway companies during 1902. We have been unable to obtain any information from the Mont-real Terminal Ry., and cannot say what track, if any, it laid last year. The Suburban Rapid Transit Co. of Winnipeg completed the grad-ing and bridging of 3½ miles of track from Winnipeg to Sturgeon Creek.

The following figures give the double track laid on steam railways:

Canadian Pacific Ry.:	
Brigham Jct. to Farnham, Que.....	6.40
Grand Trunk Ry.:	
Whitby Jct. to Darlington.....	9.86
Jordan to St. David's.....	14.01
	—23.87

The G.T.R. also constructed 79.43 miles of double track between Port Huron, Mich., and Chicago.

Michigan Central Rd.:	
Ridgetown to Bismarck	18.17
	48.44

Canadian Merchant Marine Meeting.

A convention of those interested in the Canadian inland mercantile marine will be held at Ottawa, Ont., April 7, for the purpose of discussing matters of importance to the shipbuilding and shipping interests on the St. Lawrence river and Great Lakes. The convention has been called at the instance of the Kingston Board of Trade, which has recently been considering the taxes, fees and tolls levied upon Canadian transportation com-panies and carriers. The charges specially complained of are tonnage dues and inspec-tion fees; fees payable to customs officers for services after hours and on holidays, and canal tolls. Upon the first point it is urged that the inspection service was established in the public interest and, therefore, it should be a charge on the general revenue and not on the shipowners; it is also asked that there should be a reciprocal arrangement with the United States regarding inspection. In re-gard to the second point it is pointed out that it is illogical to ask shipowners to pay for the hours customs officers work overtime in order to meet steamers at night, when no charges are made during the official hours of business of the customs houses. The canal tolls, it is

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urged, are an additional tax upon shipping and work against the development of the Canadian shipping trade. The receipts from tolls on the Welland and the St. Lawrence canals represent about one-fifth of 1% on the capital expended, and form so small an item in the general revenues of the country that its loss would not be apparent, while the benefit to the Canadian shipping trade would be considerable. The Kingston Board of Trade has invited other Boards of Trade to join in asking Parliament for legislation along the lines suggested and to be represented by a delegate at the meeting on April 7.

Shipping Matters.

The Canadian Pacific Ry., Sir Thos. Shaughnessy says, does not propose adding to its Pacific fleet at present. Additional steamers are to be added to the recently acquired Atlantic fleet, and it is said that A. Piers, the Co.'s General Superintendent of Steamships, will place orders for three or four large steamers while he is in Great Britain.

The Merchants Line, managed by Jacques & Co., of Montreal, have completed arrangements for operating an additional line from Montreal to Port Arthur, calling at Toronto, Hamilton, Windsor, Sault Ste. Marie and Fort William. This line will consist of three screw steamers: The Advance, built at St. Catharines in 1884, and having a register tonnage of 358 tons; the Glengarry, rebuilt at Kingston in 1886, and having a register tonnage of 438 tons, and one under construction in Scotland. It is understood that this steamer is the Wahconda, launched at Port Glasgow, Scotland, Mar. 13, for the New Ontario Steamship Co., in which Mackay Bros. are interested. This company is having a second vessel built at Port Glasgow to be ready by Sept. 1.

In 1901 several branches of the Canadian Order of Masters and Mates were organized in Toronto, Parry Sound, Collingwood, Midland, Penetanguishene, Owen Sound and Sarnia. Recently a Grand Association for Canada was formed with the following officers: Grand President, J. Wilson, Collingwood; Grand Vice-President, W. C. Jordan, Collingwood; Secretary, W. Ireland, Parry Sound; Grand Treasurer, M. McKay, Owen Sound; Grand Conductor, M. Leroux, Midland; Grand Tyler, W. Bell, Penetanguishene; Grand Auditors, G. H. Playter and A. McIntyre, Collingwood. Toronto and Sarnia did not send representatives to the meeting at which these officers were elected. Since this meeting was held an additional branch has been formed at Kingston. One of the objects of the association is to prevent improperly qualified men obtaining certificates. It is claimed that incompetent men have been given certificates enabling them to command steamers. While nominally in command these officers invariably hire a competent man to do the navigating.

The Canadian Lake and Ocean Navigation Co., which placed the four turret type steamers on the upper lakes in 1902, will add three new steamers to the line this season. These steamers are being built at different yards in England and will be named after three of the directors of the Co., but which of them has not yet been decided. Delivery will be made early in the summer. In connection with this line there will be operated, but owned independently though under the management of W. Petersen, President Canada Lake and Ocean Navigation Co., a line of steamers between Montreal and Quebec and Rotterdam. The inwards cargo of these steamers will be steel rails for the Canadian Northern Ry. Co., for which W. Mackenzie, the President, says 40,000 tons have been ordered. Return cargoes of grain are to be provided at Montreal and Quebec, and will be transport-

ed from Port Arthur via the Canadian Lake and Ocean Navigation Co.'s fleet to Depot Harbor, and thence over the Canada Atlantic and Great Northern lines of railway. The first steamer of this line sails from Rotterdam April 15.

Recent Manitoba Legislation.

The Manitoba Legislature passed the following acts relating to transportation interests at the session which closed Mar. 18:

Amending an act providing for the construction of a railway from Brandon north-westerly to the western boundary of the province by the Railway Commissioner, by authorizing the construction of an additional line from Darlingford southwesterly 10 miles.

Providing for the construction of a number of branch lines by the Canadian Northern Ry.

Incorporating the Avondale-Brandon Central Ry. Co.

Respecting the Manitoba Cement Co.'s railway.

Incorporating the Midland Ry. Co. of Manitoba.

Incorporating the Minnedosa Power Co.

Amending the Municipal Electric Light, Gas and Telephone Act.

Incorporating the Portage and South Western Ry. Co.

Incorporating the Riverside Park Ry. Co.

Incorporating the Western Extension Ry. Co.

Amending the act incorporating the Winnipeg and Fort Alexander Ry.

Canadian Shipping on the Pacific.

The securing of the whole of the freight-carrying trade of Canada for Canadian bottoms is a question in which all shipping and railway men are specially interested. Every effort put forward to this end is met with the steady opposition of the U.S. shipping interests, and those residing in Canada who are interested in handling its traffic. An instance of the manner in which Canadian freight is handed over to be carried from a Canadian port to another part of Canadian territory is to be found on the Pacific coast, where the great bulk of the freight for the Yukon is carried from Vancouver, B.C., in U.S. steamers to Yukon ports. Two reasons why this is the case are urged: one, the scarcity of Canadian bottoms on the coast, and the other, the U.S. coasting regulations restricting the ports in Alaska to which Canadian vessels may run. It is hardly to be expected that there will be any increase in the number of Canadian vessels on the Pacific coast, if the Canadian coasting regulations continue to permit U.S. vessels to load freight at Vancouver and Victoria intended for Dawson and other points in the Yukon territory. The order-in-council passed in Jan. directed that goods taken from one part of Canada to another, even when transported through U.S. waters, should be carried in Canadian vessels. If its operations had been made applicable all over the Dominion it would have been sufficient to have diverted a considerable trade from U.S. to Canadian steamers, but the Department of Customs has given notice that the new order is not at present intended to interfere with the transit privileges now accorded U.S. vessels on the Pacific coast. A Pacific coast paper says that 80% of the shipments of Canadian goods to the Yukon territory are carried in U.S. vessels. If there was any attempt at a reciprocal arrangement by which Canadian vessels were accorded privileges in U.S. waters, in or around Puget Sound, or in Alaskan waters, there would be some ground for continuing the present arrangement, but seeing that the U.S. waters are strictly closed to Canadian coasting vessels, the concession is a one-sided one.

When Canadian steamship owners are assured by law that they will have the Canadian carrying trade then the number of Canadian vessels on the coast will increase, but it is doubtful if they will until then.

Incorrect Government Maps.

The Department of Railways and Canals publishes, in connection with its annual report, a series of maps showing the various railways and canals in the Dominion. The value of maps rests in their absolute accuracy to the date of their preparation. No date is mentioned on the maps, but it may be taken for granted that they are intended to show the railways as they existed on June 30, 1902. The first map purports to show the Dominion with the lines of railway indicated thereon. The Dominion is shown accurately enough, but the lines of railway as shown would not count up to anything like the mileage which the report shows to have been constructed up to June 30, 1902. The scale to which the map is drawn is too small to give the lines fully, and even those that are given do not accurately convey the information sought to be given. For instance, there is only one main-line shown as running between Montreal and Windsor, via Toronto, and this is lettered G.T.R., whereas the C.P.R. also has a line from Montreal to Windsor; the G.T.R. also has a line from Toronto to Sarnia, Ont., but this is not shown, neither are large numbers of branch lines, and the whole of the small lines throughout the Dominion. That this is not an old map, issued because it has always formed part of the report, is shown by the fact that the Canadian Northern Ry. is shown to have a railway stretching from Port Arthur, Ont., very near to Prince Albert, Sask. If this map is to be published in future it should be prepared on a sufficiently large scale to permit all the lines to be shown; but perhaps the best plan would be to drop it altogether, and perfect the five sheets, giving the lines on a larger scale, in such a way that when pasted together they would form a good railway map. The lines as shown on these sheets are by no means correct, there are a number of omissions of lines in operation, while others are included which have not been placed in operation. The transportation interests of Canada are waiting the production by the Government of a reliable map showing not only the railways, but the whole of the navigable waterways of the Dominion in relation to the railway system and to the ocean.

Toronto City and Suburban Railways.

The report of W. T. Jennings, M.I.C.E., presented to the Toronto City Council recently, on the radial and city railways, has been issued in pamphlet form. It contains a large amount of interesting information, and we regret that pressure on our space prevents us reproducing considerable portions of it.

The first section of the report deals with the suburban electric railways and the city railway. It is pointed out that the present city system is contained in an area seven miles long and 2½ miles deep from the lake side; that the suburban lines projected will in time be extended so as to cover the small towns and growing villages round about Toronto. With the exception of the Metropolitan Ry., the city and suburban electric railways are 4 ft. 11 in. gauge. A number of suggestions are made for extending the city lines, the most important being from Sunnyside, westerly by a new driveway into High Park. The routes mapped out for giving an entrance to the city of the different suburban lines, and enabling them to reach St. Lawrence market are:

TORONTO AND MIMICO Ry.—By changing the present location at Grenadier pond and cross-

ing the G.T.R. and along the suggested new driveway to Pearson ave., thence to Brock ave., and by Florence, Dufferin, Alma, Argyle, Czar, Armour, Defoe, Tecumseth, Duro, Wellington and Church streets to the market.

TORONTO SUBURBAN RY.—An extension to Regent st., thence eastward by Ruskin, Perth, Wallace and Margueretta sts. and Brock ave. to a junction with Mimico line at Florence st.

METROPOLITAN RY.—From present terminus on Yonge st., via Cottingham and Rathnelly streets, across the waterworks property to Macpherson avenue, thence under C.P.R. and Dupont st. by a subway, and along Bedford and Davenport roads, and Severn st., along the back of Collier st., across Park Road, thence to Bloor and Church streets to Maitland st., eastward to McMillan ave., and North Mutual st., to Shuter st., Jarvis st. and St. Lawrence market.

TORONTO AND SCARBORO' RY.—By widening Queen st. from Kingston road for 750 ft., thence along Eastern ave., over the Don to Water st., and by Front, Princess, Duke and Jarvis streets to the Market.

The second section of the report deals with steam railways. In this is a suggestion that the old belt line be completed by constructing a section 1½ miles long from Toronto Jct. to Fairbank, and utilizing it as a transfer route for freight and for an electric passenger service in connection with the city street railway system; that the Esplanade be relieved of the G.T.R. through freight traffic by the construction of a line from York station westward to a junction with the C.P.R. at Leaside, thence by trackage to Toronto Jct., and by constructing lines to the Humber at Lambton, and a short branch to connect with the Hamilton line near Mimico. To provide access to the water front in Toronto bridges or subways are suggested at a number of points, thus doing away with level crossings. The report shows that on the operated steam railways in and around Toronto there are 105 crossings, of which 22 are absolutely safe, being either by overhead bridge, or subway; 34 are protected by being provided with gates or watchmen, or both, and 49 are unguarded.

Labor Organizations and Their Effect.

L. R. Johnson, Assistant Superintendent Rolling Stock, C.P.R., read a paper on "Labor organizations and their effect on Shop Practice," before the Canadian Railway Club at Montreal, Mar. 3. The subject was discussed under three heads: What are labor organizations? Are they necessary? Their effect. The organizations of to-day were very different and more comprehensive and far-reaching in their constitutions and influences than the guilds or companies of generations ago, or the more recent trades unions; they were labor organizations, and their protection of members was not so much a trades protection as it was a protection of the employed against the employer. Upon a review of his experience of 30 years as a workman, and as official of large corporations in different parts of the world, he found that if they wanted those under them to be men and do men's work they must be men themselves, and treat those under them as men, and let them see it was expected they should be men, and he had been very rarely disappointed. If officers were not prepared to act up to these principles they must not be surprised if the men organized; in fact, admit that there was a necessity for organization, and they must carry the responsibility of it. But is it not a fact that in the railway service to-day the directors and higher officials recognize the importance of a loyal staff of capable and efficient employes. The workman had also a very

powerful ally in public opinion, voiced by the public press, so that on this score there is not the necessity for unions or organizations that there was years ago. The most serious effect of the labor organizations is their effect on the men themselves as tradesmen or craftsmen, their loss of individuality and individual

liberty. Another serious effect was that the standard of our mechanics as to capabilities and workmanship is falling off; the organization is not breeding mechanics, the best men are dropping to the common level, instead of trying to lift up the poor man to the plane with the good ones.

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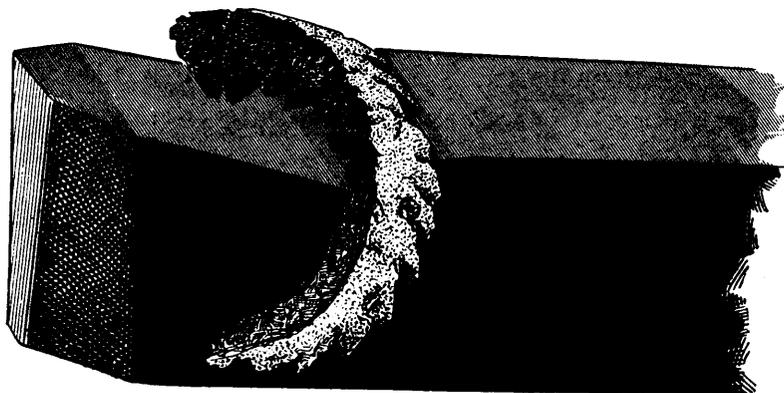
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Monorail Railways for B.C.

The application to be made next session of the British Columbia Legislature for authority to construct railways in that province on the monorail system, brings forward a system of railway construction hitherto unknown in Canada. F. Moberly, C.E., who is the principal promoter of the project, has been studying the operations of the monorail system in Great Britain and elsewhere, and is of opinion that it is one which is admirably adapted for use in a country like B.C. The proposal made for B.C. is a modification of

much in excess of the intention and estimate, a speed on curves of over 25 chains radius of 83 miles an hour, and a speed of 70 miles an hour on an ascent of 1 in 90, were attained.

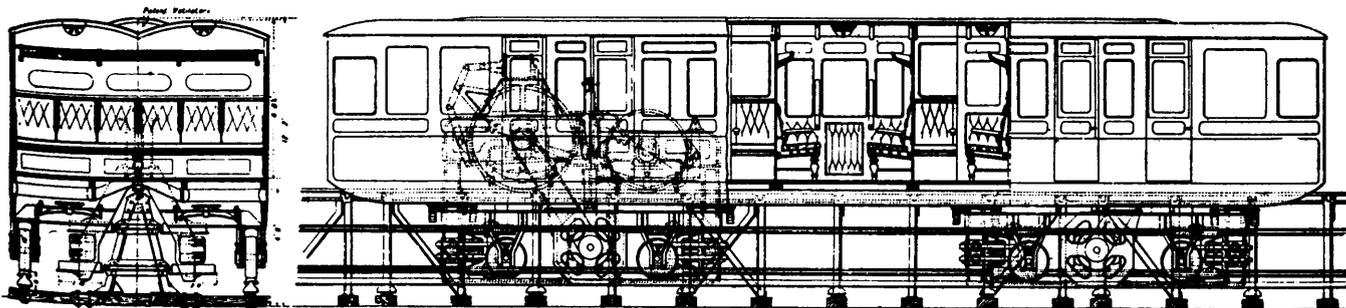
The system calls for the use of five rails, the principal one of which is the main track rail, or monorail, the others being guide rails. The monorail is supported on a continuous trestle-like structure, or succession of trestles, 3 ft. 1 1/2 in. above the surface of the ties on which it is constructed, 2 ft. 8 in. wide at the base, and narrowing to 12 in. at the top. The rail will be 103 1/2 lb. to the yard, and will be fixed on the top of

track rail. These wheels will be 5 in. wide, having a groove 2 in. deep and 3 in. wide to admit the track rail. The motor wheels of the car are to be driven by chains from the motors.

Railway Equipment Notes.

The Grand Valley Ry. is reported to have placed an order for 5 motor cars.

The Lake Erie & Detroit River Ry. has purchased five freight locomotives in the U.S.



ELEVATION AND SECTION MONORAIL CAR.

the system used in Ireland, the motive power being electricity instead of steam. Whatever lines may be constructed by the company, if it be incorporated, will be utilized as feeders for existing railways, and to open up sections of the country that cannot be reached by the ordinary railway or tramway.

The monorail system was first patented in 1821; in 1825 a short piece of line was constructed and operated successfully on the London, Eng., docks, and in 1864 the system was adopted to some extent in the Philadelphia coal regions. These lines were more or less experimental in their character, and used only for freight, and no attempt was made to bring it into use as a passenger line until after the improvements made by Latricque had been effected. As the north of Ireland was the pioneer in Great Britain in the adoption of electricity as a motive power for railways, on the line from Portrush to the Giant's

the trestle. The guide rails will form a provision for preventing an undue lateral or vertical movement of the cars. They will be double-headed, 30 1/2 lb., and will be fixed on the sides of the trestle 1 ft. 1 1/2 ins. and 2 ft. 9 11-16 ins. respectively, above the ties on which the trestle is built, two on each side. On the Irish line the cars are built more pronouncedly in the form of a saddle than are those proposed to be built for the Liverpool and Manchester line, plans of which are given on this page, and are hauled by a locomotive, also saddle built. For the high speed lines, such as the Liverpool-Manchester one, three classes of cars have been designed, to accommodate 72, 50 and 38 passengers respectively and each train will consist of a single car. The cars will be formed with long pointed ends in order to reduce the resistance of the wind, and with full machine equipment will, for each of the smallest size, weigh 39 tons. The chief

The G.T.R. is reported to be in the market for 1,000 coal cars and 300 stock cars.

The Canadian Northern Ry. is building 30 freight cabooses at its Winnipeg shops.

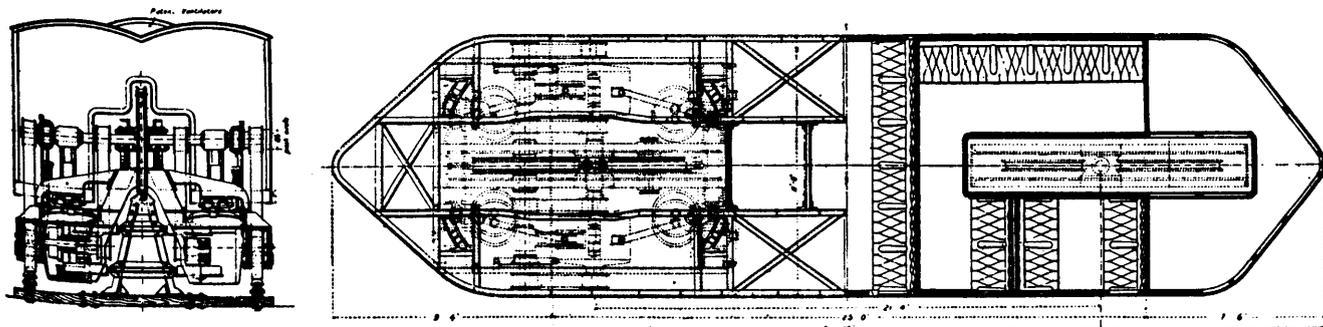
The G.T.R. is contemplating building 25 switching locomotives at its Montreal shops.

The C.P.R. has placed an order for 100 refrigerator cars to be built at its Perth, Ont., shops.

The G.T.R. is reported to be building 10 1st class passenger cars at its Montreal shops.

The G.T.R. recently built 4 cabooses at its London, Ont., shops, and 15 more will be built there.

The Minneapolis, St. Paul and Sault Ste. Marie Ry. has ordered 4 10-wheel 20 in. cylinder locomotives from the Baldwin Locomotive Works.



PLAN AND SECTION OF MONORAIL CAR.

Causeway, the south of Ireland took up the monorail, and in 1887-88 the first railway on that system was constructed from Listowel to Ballybunion, county Kerry, under the direction of F. B. Behr, who has been retained as consulting engineer by the promoters of the B.C. company. The Irish line was constructed after experiments in London, in 1886, had proved the value of the Behr improvements, and in 1897, after further experiments had been made, a high speed line was constructed at Brussels, Belgium. The Irish line has proved to be a safe and speedy means of conveyance in a rugged and sparsely populated district, and on the Belgian line with a carriage weighing about 70 tons, which was

feature of their construction is the main central frame of steel, forming the lower part of the car, and so built as to admit of being placed like a deep saddle over the trestle, the sides of the frame extending downwards to within 6 in. of the sole plate of the trestle. The interior of the car will be 6 ft. 8 1/4 in. in height from roof to floor, and the seats will be arranged, some across the width of the car and others along its length. The motor, 2 1/2 tons in weight, will be placed in the front of the car, low down, thus keeping the center of gravity low. At each side of the car, on the inside of the saddle, will be small wheels to work on the guide rails, and in the centre of the car four vertical wheels bearing upon the

The Nova Scotia Steel Co. has ordered 100 coal cars from Rhodes, Curry & Co., Amherst, N.S.

The Intercolonial Coal Mining Co. has ordered 30 coal cars from Rhodes, Curry & Co., Amherst, N.S.

The Metropolitan Ry., Toronto, is adding a number of motor cars and freight cars to its equipment.

The G.T.R. has recently added to its equipment 5 first class passenger cars, 94 box cars, and 284 flat cars.

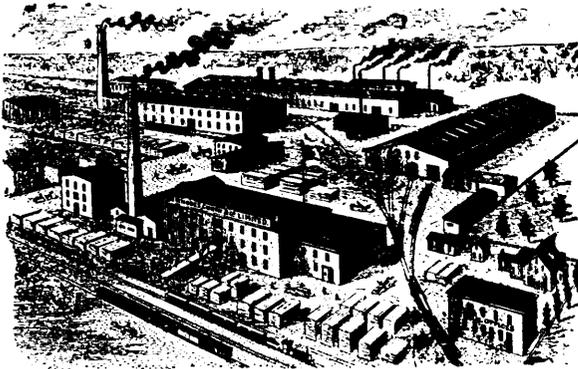
The B.C. Electric Ry. car shops in Vancouver have been completed, and car building has been commenced.

The Montreal Street Ry. is adding to its equipment 25 double truck motor cars; the bodies are 28 ft. long.

The Intercolonial Ry. is reported to have added to its equipment an official car, no. 75, for General Manager Pottinger.

The Kettle Valley Lines are reported to be in the market for 20 wooden hopper bottom ore cars of 30 or 40 tons capacity.

The Pere Marquette Rd. has brought two mogul locomotives into Canada, to be used on the Lake Erie and Detroit River Ry.



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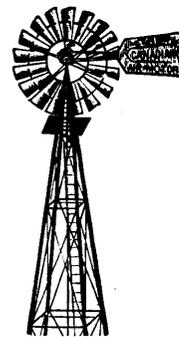
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The Toronto Ry. is building 30 large closed cars similar to those in use on Yonge st., and 10 open cars with a seating capacity of 60.

The Lake Erie & Detroit River Ry.'s equipment will continue to be lettered with that Co.'s name, and not with that of its owner, the Pere Marquette Ry.

The Reid Newfoundland Co. will, according to press reports, add a number of motor cars to its street railway equipment in St. John's in the spring.

The I.C.R. order for 5 locomotives, which the Canadian Locomotive Co. is now working on, is for simple 10-wheelers, cylinders 20 by 26 ins., total weight 175,000 lbs.

The Intercolonial Ry. expects to add to its passenger equipment this year 20 1st-class vestibuled passenger cars, 5 tourist cars, 3 parlor cars and 6 sleeping cars.

The G.T.R. has completed at its London, Ont., shops 200 flat cars, making a total of 800 built there since June last. They are 36 ft. long and 60,000 lbs. capacity.

The Irondale, Bancroft and Ottawa Ry. has bought from the G.T.R. a locomotive with 17x24 in. cylinders, and with air brake and steam car heating equipment.

The Toronto Ry. is utilizing a number of its small cars by splicing two together, thus making one car, having about 30% more accommodation than any car hitherto on the line.

The Cape Breton Ry.'s equipment consists of 3 locomotives, 52 flat cars, 1 1st class passenger car, 1 2nd class passenger coach, and 2 combination passenger, mail and express coaches.

The Quebec Central Ry. has, within the last few months, built at its shops 25 box cars, 36 ft. long, 60,000 lbs. capacity, equipped with Westinghouse air brakes; and will build a number more.

The C.P.R.'s order for 10 locomotives, which the Canadian Locomotive Co. recently commenced delivering, is for compound moguls, cylinders 22 and 35 by 26 ins., total weight 162,200 lbs.

The Elgin and Havelock Ry. has bought a locomotive from the Intercolonial Ry. It has not been decided what additional cars will be required, and for the present I.C.R. cars will be hired as needed.

The International Transit Co., Sault Ste. Marie, Ont., has received 5 motor cars and 3 trailers. It is expected its line will start operating in the spring. A snow-plough and a sweeper are said to have been ordered.

The G.T.R. placed the following equipment in service during 1902: 40 locomotives, 1,906 box cars, 650 flat cars, 122 gondola cars, 10 baggage cars, 5 1st class passenger cars, 10 2nd class passenger cars, total 2,703 cars.

The C.P.R. placed the following rolling stock in service during 1902: 92 locomotives, 51 passenger cars, 3,934 freight cars, 119 vans, 35 miscellaneous, including boarding cars, snow ploughs, steam shovels, etc., total 4,213.

The St. Anthony Lumber Co.'s railway from Whitney to Big Opeongo lake, Ont., is being operated by locomotives leased from the Canada Atlantic Ry. A number of 34 ft. flat cars have also been supplied by the Canada Atlantic Ry.

The Algoma Central and Hudson's Bay Ry. is having built by the Canadian Locomotive Co. one simple consolidation locomotive, cylinders 21 by 28 ins., total weight 164,300 lbs., and one simple 10-wheeler, cylinders 20 by 26 ins., total weight 150,000 lbs.

The Schomberg and Aurora Ry. has purchased a light locomotive, and is in treaty for another. It has also secured 12 box cars, and is arranging for a passenger equipment, to consist of combination passenger and baggage cars and combination passenger and freight cars.

The Huntsville, Lake of Bays and Lake Simcoe Navigation Co. is in the market for 1 locomotive, 1 passenger coach and 1 box car. The Co. will build 15 flat cars at its machine shop at Huntsville, Ont., for the mile of railway it is about to construct at the portage of the Lake of Bays.

The Temiskaming and Northern Ontario Ry. contractor, A. R. Macdonell, has ordered 75 flat cars, 60,000 lbs. capacity, from Rhodes, Curry & Co., Amherst, N.S. He also ordered a rapid unloader, a ballast plow, and a steam shovel, and on Mar. 21 was about to order 4 locomotives.

The Brockville, Westport and Sault Ste. Marie Ry. is about to add to its equipment one locomotive, one 1st class passenger car, one combination passenger and baggage car,

building its own cars in future, and it is reported will build six double truck open cars 45 ft. in length, for the summer trade.

The Baldwin Locomotive Works record of recent construction, no. 39, contains illustrations of a number of locomotives completed during the past year, including a compound mogul locomotive for the Quebec and Lake St. John. Ry. Record no. 40 is devoted to "The proper handling of compound locomotives," a paper read by W. J. McCarroll before the Travelling Engineers' Society.

The Baldwin Locomotive Works, Philadelphia, are now turning out six complete locomotives daily. The plant is being operated day and night, and President Converse says it is impossible to meet the demands of the railways for motive power. The Baldwin Works employ 13,000 men, and are now delivering seven locomotives every six days upon the order of the Pennsylvania Rd. for 350.

The Cumberland Railway and Coal Co. has ordered six side-dump coal cars of 80,000 lbs. capacity from Rhodes, Curry & Co., Amherst, N.S. The cars will weigh 43,500 lbs., and measure 34 ft. long, 8 ft. 6 in. wide and 9 ft. 2 in. high, to be built of wood, lined with steel, and have wooden underframes. The special equipment includes Simplex bolsters and 33 in. cast-iron M.C.P. standard Rhodes, Curry & Co.'s wheels.

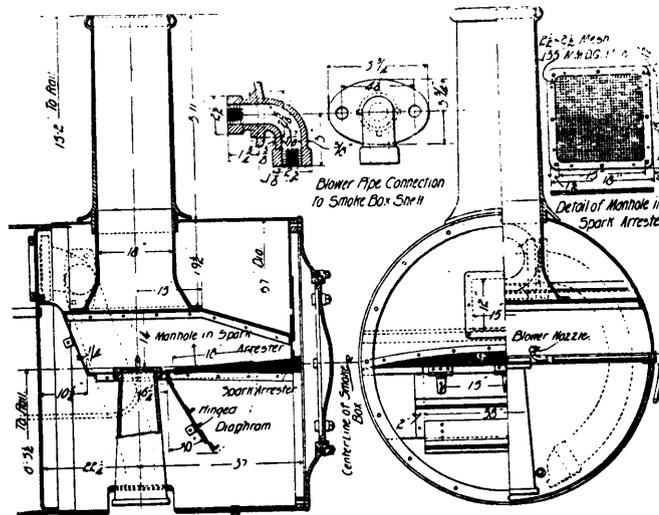
The C.P.R.'s 10 1st class passenger cars, which are being built by Rhodes, Curry & Co., Amherst, N.S., are exact duplicates of the 1st class cars which the C.P.R. has been building at its Hochelaga shops, particulars of which we have already published. The 10 1st class cars, 6 sleeping cars and 2 dining cars being built for the Co. in the U.S. are also duplicates of the same classes of cars the Co. has been building at Hochelaga.

The St. Thomas, Ont., Street Ry. equipment consists of six closed and two open motor cars and two trailers. When the city council took over the line, under its mortgage, it was estimated that it would take about \$1,600 to put the cars in thorough repair. Several of the cars have been overhauled and fitted with new fenders. Additional equipment will be required as soon as the city council obtains the necessary powers to spend money on the line.

The Canadian Northern Ry. has placed the following orders for delivery during the current year: 27 locomotives from the Canadian Locomotive Works, 6 2nd class cars, and 3 baggage and mail cars to be built in Canada; 4 1st class passenger cars, 3 sleeping cars, and 2 tourist cars, to be built in the U.S.; 250 30-ton box cars from Rhodes, Curry & Co., Amherst, N.S.; 600 30-ton box cars and 50 stock cars, to be built in Canada; and 200 30-ton box cars to be built in the U.S.

The C.P.R.'s 1,500 flat cars now being built, of which 500 were ordered from Rhodes, Curry & Co., Amherst, N.S., and 500 from Sault Ste. Marie, Ont., are 36 ft. 8 in. long, 8 ft. 10 ins. wide over frame, and of 60,000 lbs. capacity. The special equipment includes Simplex truck and body bolsters, Simplex inside hung brake beams, Westinghouse air brakes, Canada Switch and Spring Co.'s springs, St. Thomas Brass Mfg. Co.'s M.C.B. standard journal bearings, Susemihl roller side bearings.

The C.P.R. has settled the details of the order for the 50 locomotives placed with the American Locomotive Co., in Dec., 1902, as follows:—4 tandem compound 10-wheeled



MUHLFELD SPARK ARRESTER

one combination baggage and express car, 8 box cars, 50,000 lbs. capacity; and 3 stock cars, 40,000 lbs. capacity.

The annual report of Rhodes, Curry & Co., Ltd., Amherst, N.S., for 1902, presented at the recent annual meeting, showed the year's business, aggregating \$2,400,000, to be the largest in the Co.'s history. A dividend of 12% was declared. It is proposed to increase the capital to \$1,000,000.

The Intercolonial Ry. has ordered from Rhodes, Curry & Co., Amherst, N.S., 2 baggage cars, 300 box cars, 80,000 lbs. capacity; 70 box cars, 60,000 lbs. capacity; 8 refrigerator cars and 9 auxiliary cars. Further orders have been placed for 70 box cars, 60,000 lbs. capacity, and 21 stock cars.

The Temiskaming and Northern Ontario Ry. Commissioners have ordered 4 locomotives from the Canadian Locomotive Co.; these are in addition to those the contractor, A. R. Macdonell will buy. The Commissioners contemplate ordering a few passenger, combination baggage and mail, box and flat cars.

The Winnipeg Electric Street Ry., press reports state, has had a heavy freight truck built for use in construction work, and is having six double truck open motor cars, and six closed cars, built in Toronto. The Co. proposes

freight locomotives, to be delivered 2 in June and 2 in July; 34 22 and 35 x 30 in. two-cylinder compound 10-wheeled freight locomotives, to be delivered, 24 in June and 10 in July; 10 20 x 26 in. 10-wheeled passenger engines, to be built during June; 2 15 and 28 x 26 in. tandem compound 10-wheeled passenger locomotives, to be built during June and July. All the locomotives will be built at the Schenectady Works.

The Galt, Preston & Hespeler Ry. has equipped its freight motor with a Westinghouse quick-action automatic air brake. The apparatus is identical with that used for equipping locomotives in steam railway service, except that the air compressor is operated by a small independent motor instead of steam. The capacity of the compressor will give sufficient air to operate successfully the brakes on 25 ordinary freight cars. Similarly equipped freight motors are in service on the Niagara, St. Catharines & Toronto Ry., and the Ottawa Electric Ry. The Oshawa Ry. is about to place an order.

The Sydney & Louisburg Ry. has ordered two simple consolidation locomotives from the American Locomotive Co. Weight about 178,000 lbs. Size of cylinder, 21 in. x 26 in.; driving wheels, 50 in. dia.; prairie type fire box. Engine to be supplied with 8 wheel tender. Water capacity, 4,000 galls.; coal capacity, 8 tons; pilot and headlight both back and front; two sand boxes. Dia. boiler, smoke box end, 72 in.; width of firebox, 70 in.; length of firebox, 76 in; working pressure, 200 lbs. per sq. in. Fire box crown, side, and back sheets, steel; 368 two-inch tubes 13 ft. 11 in. long. Westinghouse automatic air brakes; driving brakes applied at back side of wheel. Delivery is to be made in Sept.

Rhodes, Curry & Co., Amherst, N.S., received the following orders for equipment during 1902:—C.P.R.: 10 passenger coaches; 1,100 box cars, 80,000 lbs. capacity; 100 refrigerator cars, 80,000 lbs. capacity; 100 stock cars, 60,000 lbs. capacity; 500 flat cars, 60,000 lbs. capacity. Cumberland Ry. and Coal Co.:—6 side-dump cars, 80,000 lbs. capacity; 75 coal cars, 32,000 lbs. capacity. Dominion Atlantic Ry.:—2 passenger cars, 20 flat cars, 60,000 lbs. capacity. Intercolonial Ry.:—2 postal cars, 300 box cars, 80,000 lbs. capacity; 70 box cars, 60,000 lbs. capacity. Inverness and Richmond Ry.:—75 coal cars, 60,000 lbs. capacity. Midland Ry. of Nova Scotia:—4 box cars, 60,000 lbs. capacity. Quebec and Lake St. John Ry.:—100 box cars, 80,000 lbs. capacity. Shore Line Ry.:—5 flat cars, 40,000 lbs. capacity. Temiscouata Ry.:—10 flat cars, 60,000 lbs. capacity.

The C.P.R.'s 32 single 10-wheel passenger locomotives, which are being built in Scotland, have the following general dimensions:

Weight on drivers.....	126,000 lbs.
Total weight.....	165,000 lbs.
Diameter of cylinders.....	20 in.
Stroke of pistons.....	26 in.
Diameter of drivers.....	69 in.
Type of boiler—Radial stayed extended waggon top.	
Working steam pressure.....	210 lbs. per sq. in.
Heating surface—total.....	2,421 sq. ft.
Tubes—number.....	328
" outside diameter.....	2 in.
" length.....	13 ft. 2 1/2 in.
Firebox—length.....	9 ft. 6 in.
" width.....	3 ft. 5 1/2 in.
" material.....	Steel
Grate area.....	33.2 sq. ft.
Tank capacity—water.....	5,000 imp. gall.
Coal capacity.....	10 tons

The special equipment includes Krupp steel

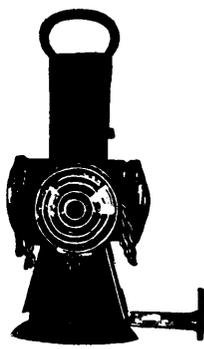
axles, crucible driving wheel tires, disc steel-tired truck wheels and tender wheels, Canada Switch and Spring Co.'s spring and wheel centres.

The C.P.R. has placed an order in Saxony for 20 compound freight locomotives, two cylinder Pittsburg system, to be delivered by Sept. 15. They are duplicates of the Co.'s 10-wheel passenger locomotives, except that the driving wheels are 63 ins. over tire instead of 69, and the tender truck wheels are 34 ins. over tire instead of 40. Following are the general dimensions:

Weight on drivers.....	128,000 lbs.
Total weight.....	169,000 lbs.
Diameter of cylinders.....	28 in. and 33 in.
Stroke of pistons.....	26 in.
Diameter of drivers.....	63 in.
Type of boiler—Radial stayed extended taper course.	
Working steam pressure.....	210 lbs.
Heating surface—total.....	2,421 sq. ft.
Tubes—number.....	328
" material.....	Swedish steel
" outside diameter.....	2 in.
" length.....	13 ft. 2 1/2 in.
Firebox—length.....	9 ft. 6 in. inside
" width.....	3 ft. 5 1/2 in.
" material.....	Krupp steel
Grate area.....	33.2 sq. ft.
Tank capacity for water.....	5,000 imp. gall.
Coal capacity.....	10 tons
Tender frame.....	10 in. steel channels

The special equipment includes Krupp axles, driving, truck and tender wheels, steel crank pins, connecting rods and side rods, nickel steel piston rods and cast steel piston heads, and Simplex brake beams.

J. E. Muhlfeld, Assistant to the General Superintendent of Motive Power, Baltimore & Ohio Rd., formerly Supt. of Machinery and Rolling Stock of the Intercolonial Ry., has contributed to the Railway Age a paper on locomotive draft appliances, which is accompanied by an original design which he claims has several important improvements over present practice. The principal features are: First, the use of a stack extending down into the smoke box; second, the baffle plate is divided, the upper portion above the top of the exhaust nozzle and the lower portion hinged near the top of the nozzle and in front of it; third, a dead plate extending across the smoke box on a line with the bottom of the stack, thus reducing the volume of the smoke box occupied by gases. The netting is horizontal and on the center line of the boiler. Mr. Muhlfeld believes in a self-cleaning smoke box, and his design shows a successful one. The use of large boilers has resulted in a more general use of the stack extended into the smoke box, but this is probably the first design which has partitioned off the space between the bottom of the stack and top of the smoke box, thus reducing the volume of the smoke box to that extent. Mr. Muhlfeld states that if this space is left open, it results in eddies, above the natural line of induced currents, and an accumulation of non-circulating gases, which cannot escape as they do when a petticoat pipe is used. The fact that



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a free steaming boiler has been obtained where such a design has been used is an important one, and will have its effect on the future designs of draft appliances for large modern boilers. Mr. Muhlfeld's design is reproduced on pg. 137.

The Trans-Canada Railway.

A deputation from Quebec, consisting of J. G. Scott, General Manager of the Quebec and Lake St. John and the Great Northern railways, L. Evans, O. E. Talbot, M.P.; Lt.-Col. B. A. Scott, Hon. C. Langelier and Lt.-Col. Roy, with whom was G. T. Blackstock, K.C., of Toronto, addressed the council of the Toronto Board of Trade, on Mar. 10 in the interest of the Trans-Canada Ry. project.

J. G. Scott, who was the principal speaker, said:—Making use of the Lake St. John Ry., which is constructed and will form the first link in the project, the mileage will be as follows: Quebec to Port Simpson, 2,830 miles; Chicoutimi to Port Simpson, 2,700 miles; Quebec to Vancouver by C.P.R., 3,078 miles; Quebec to Yokohama via Vancouver C.P.R., 7,367 miles; Chicoutimi to Yokohama via Port Simpson, 6,645 miles, so that in point of distance the Trans-Canada will be about 370 miles shorter from tidewater to tidewater than any other transcontinental road, and about 700 miles shorter to Japan than the C.P.R., or 2,200 miles shorter from Liverpool to Japan than the New York-San Francisco route.

The summit between Lake St. John and the James Bay district is 1,200 ft., and the highest point reached in crossing the Rockies will be 2,850 ft. The enormous advantage of this low summit will be appreciated by comparing it with 5,200 ft. on the C.P.R., 5,800 on the Northern Pacific, and 8,200 on the Union Pacific. The country is so uniformly level that the elevation at Waswanipy, on the Nottaway river, south-east of James Bay, is 680 ft. above tide, and at Norway House on Lake Winnipeg, 900 miles further west, it is 710 ft. From the information so far obtained, our Chief Engineer is of opinion that we shall get a line having no grade exceeding 1% ascending west, and no grade exceeding six-tenths of 1% ascending east, at least on this side of the Rockies. The advantages of such grades and low summits in the cheapening of freight rates will be readily appreciated.

By a branch line from Winnipeg to the Albany river, southern Manitoba will get the shortest outlet to the sea, the distance from Winnipeg to Chicoutimi by such a line being less than 1,300 miles, and to Quebec 1,410 miles, as against 1,572 by the C.P.R. A short branch from Waswanipy to Nottaway will give Manitoba, Ontario and Quebec access to a good port on James Bay, a very important matter as the west coast of James Bay is very shallow. A short branch from the Saskatchewan river, east of Prince Albert, to the north end of Lake Winnipeg, will not only give the Canadian Northern Ry. the shortest outlet to the sea by several hundred miles, but it will also give it the shorter line from the Saskatchewan to Toronto—using part of the Ontario Government's Temiskaming and Northern Ontario Ry.—than if they built another line around the north of Lake Superior.

It has been contended that the location of the Trans-Canada is too far north. A glance at the map before you will prove that at no point will this road go north of the line of possible wheat cultivation, as established by the reports of the Geological Survey. In fact, in the Peace and Mackenzie river districts, wheat comes to maturity in latitude 61, about 300 miles farther north than our proposed line. The records of the Meteorological Service prove that the average summer temperature at every point between Quebec and Port Simpson is warmer than at Rimouski

on the lower St. Lawrence, and yet the county of Rimouski grows more wheat than any other county in the Province of Quebec. The same official reports show that the average snowfall in the James Bay territory is less than half that of Montreal, and we have had a remarkable proof of the correctness of this statement during the present winter by the fact that C. E. Perry, in charge of one of our engineering parties at the north end of Lake Winnipeg, reported that they had not enough snow for snowshoeing, and were able to do their work without using them. The soil of the whole of the country from Lake St. John to the Rockies is fit for cultivation. The Lake St. John district grows magnificent crops of wheat of a similar quality to that of Manitoba. In the wooded sections the forests of spruce are very valuable, and the rivers abound in magnificent water powers to turn them into pulp and paper.

Bishop Bompas, of the Anglican diocese of Selkirk, who has lived in those territories all his life, writes us that he approves of the location of the Trans-Canada from one end to the other, except that he would have liked to see the line a little farther north for the better development of the country. Sir Sandford Fleming approves of this location and says: "I regard the shortest line obtainable between the tidewater of the two oceans as quite long enough," and adds: "Regarded from a Canadian standpoint, I cannot conceive any public undertaking which would better meet the wants of the Dominion throughout its whole extent."

Sir William Van Horne says in a press interview: "The Trans-Canada road has started with better prospects than the C.P.R. had once. We would hail with delight a parallel route from the Atlantic to the Pacific to help us to develop the country. There is enough of it up there for us all."

So that the location of the Trans-Canada is not too far north.

But this enterprise has special advantages for Ontario. Not only will it give Toronto a short route to the Saskatchewan and Peace river countries, but it will develop by an east and west line the best part of New Ontario from the Quebec boundary line to the crossing of the Albany river, a distance of 350 to 400 miles. It has been contended that the Trans-Canada will have many miles to build, and that what is wanted is immediate relief for the freight blockade in the West, but our intention is to begin construction from the Ontario Government railway westward as soon as that road reaches the point of intersection; so that there is no reason why the Trans-Canada cannot reach the Northwest as soon as any other projected road. And by this mode of construction Toronto will be one of the principal bases of supplies during the building of the road, and after its completion will be the nearest city to the interior, an important point in connection with the sale of manufactures, agricultural implements, etc.

The Trans-Canada will be splendidly situated as regards seaports. On the Atlantic side it will have the choice of Quebec, with its deep-water docks and splendid accommodation for the largest vessels that can be built; at Chicoutimi, with the safe deep-water navigation of the Saguenay, the closest shipping-point to the Northwest wheat-fields; at Montreal by a branch line which the charter provides for; and in winter, the new bridge, now being built across the St. Lawrence at Quebec, will give the shortest possible line to Halifax and St. John, which very justly claim the winter export trade of the vast Northwest, which the Maritime provinces have paid their full share to pay for and to develop. The Trans-Canada is the only road which can safely be depended upon to give the winter trade to Halifax and St. John without danger of diversion to U.S. ports. And it is not unnatural that the disappointments of the past

should have made these ports very jealous of Portland. On James Bay there is a good port, with some dredging of a bar, at the mouth of the Nottaway, which will give access to 4,000 miles of coast-line of that great inland sea, with its vast undeveloped resources in fisheries and minerals. On the Pacific coast, Port Simpson is said to be the finest harbor north of San Francisco.

The Trans-Canada will not only help to remove the freight congestion in the Northwest, but its level gradients will very materially reduce freight rates on grain, a relief for which the farmers of the Northwest have long been crying out. A reduction of 3c. a bushel on the present freight rates would save them enough money annually to pay the interest on the whole cost of the road, and we hope to be able to reduce rates much more than that.

A most important consideration in connection with this road is its military advantage. Situated from 300 to 400 miles from the frontier at all points, protected, if need be, by fleets at Halifax, at Quebec, at Chicoutimi, at Nottaway and at Port Simpson, the Trans-Canada Ry. would be simply impregnable. We Canadians are a peace-loving people. We want to give all our time and all our energies to the development of our country, the finest in the world. We want to live at peace with our neighbors and with the world. We are averse to militarism, and although we enjoy the protection of the British army and navy, paid for by heavy taxes on the British ratepayer, there seems to be a sentiment in the country against contributing anything towards the cost of the army and the navy. At the same time we know that the exposed condition of our frontier, with our only rail connection with the west running close along the border for hundreds of miles, and sometimes across it, is a source of weakness to the Empire, and perhaps the cause of many weak bargains with the U.S. which we seem at times to resent. We know, or we should know, that a border raid could at any time destroy our railway communication at Winnipeg and at many points further east, and not only our railway, but also our telegraphic communication, and thus completely isolate the west from the east. Surely if we are going to build another transcontinental line it would be wise to locate it in such a way as to guard against this danger. It is a cowardly people that will not take any precaution for its own safety in case of trouble. If we will not contribute to the army and the navy what better contribution could we offer to the Mother Country than a line of railway which will cause Canada to cease to be the source of weakness and anxiety which she now is to the Imperial Government?

We have four parties of engineers in the field, one working from Roberval towards James Bay, another from Norway House eastward, one from Norway House westward, and a fourth laying out the terminal at Port Simpson, and working from there towards the Peace river pass. We do not pretend to be very strong capitalists, but I may say, without boasting, that the directors of our company, as a whole, are as strong financially as was the directorate of the C.P.R. during the first years of the existence of that company. All we ask from the Toronto Board of Trade is a fair and impartial consideration of this important question from a Canadian and patriotic point of view. I may say that we presented our case to the boards of trade of Halifax and St. John. We did not ask any expression of opinion from them. We left the question entirely in their hands and to their good judgment, and I am happy to say that shortly afterwards both boards, without solicitation on our part, passed resolutions completely endorsing the Trans-Canada project and recommending it to the Government.

RAILWAY FINANCE, MEETINGS, ETC.

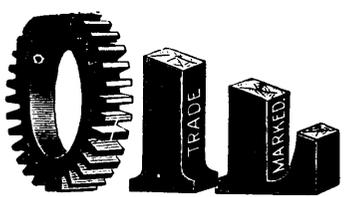
Algoma Central Ry. and Steamship Lines.—The directors of the Consolidated Lake Superior Co. have given out a statement showing that \$27,790,200 have been expended in connection with the company's undertakings. Of this \$9,482,200 appear under the head of "transportation interests."

The mortgage deed to the Central Trust Co. of New York, securing the issue of bonds of the Co., which was approved at a recent meeting of shareholders, was deposited with the Secretary of State at Ottawa, Mar. 10. The bonds on the railway are for \$6,750,000, and on the steamships \$725,000. (Mar., pg, 104.)

Bate des Chaleurs Ry.—The retiring directors were re-elected at the annual meeting in Montreal, Mar. 17, and a press report quotes one of the directors as stating: "The business was entirely informal, and the project may be considered dead for the present."

Bracebridge and Trading Lake Ry.—The annual meeting was held at Bracebridge, Ont., Mar. 9. The officers for the current year are: President, F. P. Warne; Vice-President, W. W. Kinsey; Managing Director, W. H. Brown; other directors: P. A. Smith, G. N. Wickins, P. Hutchison, C. J. C. Crump, S. Bridgeland, M.L.A.; J. W. Gilpin; Secretary-Treasurer: R. P. Perry, Bracebridge, Ont.; Solicitor, T. Johnson.

Brockville, Westport and Sault Ste. Marie Ry.—The reorganization syndicate consists of 25 members, the following being the officers: Chairman, John Gerken; Treasurer, H. W. Gennerick; counsel, Hohn and Smith. The temporary offices of the syndicate are 90 World Building, New York. The syndicate paid the balance of the purchase money into court Mar. 20. The cash paid was \$3,374.08, the balance of the \$154,500 being in securities. The syndicate will operate the line after April 1st. L. S. Lewis, of Newboro, Ont., has entered an action in the Ontario courts asking for an order directing the Philadelphia Investment Co. to complete the construction of the line, for an injunction restraining them from proceeding with the



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MANITOBA

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

CROPS.		AVERAGE	
ACRES.	YIELD.	TOTAL.	
Wheat.....2,011,835	25.1 bus.	50,502,085	bus.
Oats..... 689,951	40.3 "	27,796,388	"
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.

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

FREE HOMESTEADS are still available in many parts of the Province.

For full information, maps, etc., FREE, address Hon. R. P. ROBLIN, Minister of Agriculture and Immigration, Winnipeg, Manitoba. Or JAMES HARTNEY, Manitoba Emigration Agt., 77 York Street, Toronto, Ont.

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General Passenger Agent, Grand Central Station,
New York.

H. PARRY,
General Agent, BUFFALO, N.Y.



FARMING IN THE SOUTH.

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!

G. B. WYLLIE,
Canadian Passenger Agent,
210 ELLICOTT SQUARE, BUFFALO, N.Y.

ONTARIO JOCKEY CLUB

TORONTO, CANADA

SPRING MEETING

— MAY 23rd to JUNE 6th —

TWELVE DAYS

Six or More Races Each Day

THE KING'S PLATE

WILL BE RUN ON
SATURDAY MAY 23rd.

WM. HENDRIE W. P. FRASER
President Sec.-Treas.

GOD SAVE THE KING

sale of the line to the reorganization syndicate, and to set aside the incompleated sale. Mr. Lewis is a bondholder, and also a judgment creditor.

The judgment creditors and outside bondholders allege that their interests are being sacrificed by the Philadelphia Investment Co., and that the sale to the reorganization syndicate should be annulled. The defendants in the action are: the Philadelphia Investment Co., the B., W. and S.S.M. Ry. Co. and the members of the re-organization syndicate. The allegation of the plaintiffs is that the Investment Co. is not an ordinary bondholder, but is practically the successor to R. G. Hervey, the contractor for the line. The B., W. and S.S. M. Ry. Co. was incorporated by the Ontario Legislature in 1884, and in April, 1886, a contract was entered into with the Dominion Government by which a subsidy of \$128,000 was to be paid for the construction of 40 miles of railway from Brockville towards Westport. R. G. Hervey engaged to construct the line, and, according to the judgment creditors, was, in fact, the company as well as the contractor. He proceeded with the work, obtained subsidies of \$3,200 a mile from the Dominion Government to construct the line from Newboro' for 20 miles towards Palmer's Rapids, and \$116,000 of aid from the Municipalities. The financing of the project was done by pledging the subsidies as security for rails, etc., with certain of the judgment creditors, and by pledging the shares and bonds of the Co. with the Philadelphia Investment Co. Later on, it is alleged that the Investment Co. took over the interests of R. G. Hervey as contractor, shareholder and bondholder. The line has been constructed from Brockville to Westport, about 45 miles, and the Dominion Government has paid \$105,200, equal to \$3,200 a mile on 32.875 miles. Upon their showing of the facts the judgment creditors, in their statement of claim, ask the court for a declaration that the Investment Co. stands in the same position as did R. G. Hervey, the original contractor, with the Ry. Co. for the construction of the railway, and is liable to complete the line; that the Investment Co. be directed to proceed with the construction and completion of the railway, and that, in default of its so doing, its claim as bondholder be postponed to that of all other creditors, and that the bonds be charged with a lien for the payment of debts incurred in the construction and equipment of the line; that the Investment Co. is not entitled to interest on the bonds until the line is completed; for an injunction restraining the Investment Co. from proceeding with the sale; and for an order that the present Receiver be discharged and a new one appointed; and for an order setting aside the purchase of the line on Jan. 20 by the re-organization syndicate. (Mar., pg. 105.)

British Columbia Electric Ry. Co.—Earnings and expenses for Jan.:—

	1902.	1903.	Increase or Decrease.
GROSS EARNINGS.			
Railway—Vancouver division	\$9,176	\$12,028	\$2,852+
Victoria "	8,374	9,023	649+
Westminster "	7,301	8,558	1,257+
Lighting—Vancouver division	16,192	20,751	4,559+
Victoria "	9,016	10,366	1,350+
	50,059	60,726	10,667+
Less working expenses	31,976	35,149	3,173+
	18,083	25,577	7,494+
Renewal funds	3,458	4,222	764+
Net income	14,625	21,355	6,730+
Gross earnings, July 1, 1902, to Jan. 31, 1903	354,803	493,237	138,434+
Net earnings, July 1 to Jan. 31, 1903	126,573	141,063	14,490+

Calgary and Edmonton Ry.—Net earnings for Jan. \$20,678.51, against \$30,368.34 for Jan., 1902.

Canadian Northern Ry.—Gross earnings:—

	1902-03.	1901-02.	Increase.
July.....	\$132,300	\$ 87,200	\$45,100
Aug.....	130,900	97,000	33,900
Sept.....	209,300	103,300	106,000
Oct.....	190,200	120,610	69,590
Nov.....	259,800	119,142	140,658
Dec.....	202,300	129,918	72,382
Jan.....	154,700	102,067	52,633
	\$1,279,500	\$759,237	\$520,263

Working expenses for Jan., \$103,090; net earnings \$51,610, against \$36,737 for Jan., 1902; net earnings for seven months to Jan. 31, \$450,366, against \$311,127 for same period, 1901-02.

It is said that the principal purpose of President W. Mackenzie's visit to London, Eng., was to raise money by the sale of bonds to finance construction for this year, that large quantities of the Co.'s bonds have recently been shipped from Toronto to London, and that they were sent to fill orders secured by Mr. Mackenzie. It is believed that all the stock of the C.N.R. is closely held in the hands of Mackenzie, Mann & Co., and that the sale of bonds form their main source outside of present earnings to obtain money with which to carry through the construction. The Canadian Bank of Commerce, which is sometimes said to be behind the Canadian Northern, occupies no other position than that of ordinary bankers.

(See also Great Northern Ry. of Canada.)

The Cape Breton Electric Co., in addition to owning the electric railway in Sydney, is constructing an electric railway from North Sydney to Sydney Mines, and owns jointly with the Dominion Coal Co. the Sydney and Glace Bay Ry., which it operates; it also owns the ferry service in Sydney harbor, and the electric light works in Sydney. The Co. has issued \$850,000, out of an authorized issue of \$1,500,000 of first mortgage, 30 year, 5% gold bonds, due 1932; \$234,000 of 6% preferred stock (redeemable at 120) out of an authorized issue of \$250,000, and \$1,000,000 of common stock. The bond issue is callable as a whole at 105 and interest, on any interest day, and a sinking fund of 1% a year on outstanding bonds is accumulating. The gross earnings for the ferry department for the year ended Dec. 31, 1902, were \$33,219.49, and of the electric light department \$46,125.11; net earnings: ferry, \$9,549.50; electric light, \$21,276.53. The railways, the franchises of which expire in 1931 and 1932, have been put in operation too recently to permit of any earnings being published. The annual meeting is fixed for the first Tuesday in May. Stone & Webster, Boston, Mass., who are interested in a large number of electric railway and light projects in different parts of the United States, are General Managers.

Central Ontario Ry.—The action of the Toronto General Trusts Corporation against the C.O. Ry. Co., which was directed to be entered by order of the court in order that conflicting interests may be unified so that a clear title can be given on a sale, came before the non-jury assizes at Toronto, Mar. 15, and has not been decided.

Chateauguay and Northern Ry.—Application is being made at the current session of the Dominion Parliament for an act confirming the issue of debentures, and the mortgage given to secure the same. The debentures were issued for the purpose of enabling the Co. to proceed with the construction of its line from Montreal to Joliette, Que., and the bridge at Bout de l'Île.

Dominion Atlantic Ry.—Gross earnings for Jan. \$48,500, against \$61,051 for Jan., 1902.

Great Northern Ry. of Canada.—The negotiations respecting the purchase of stock in this company by Mackenzie, Mann & Co., have been completed and the board of direct-

ors has been re-organized. By the purchase Mackenzie, Mann & Co. are placed in control, and will at once look into the entire service with a view of making such improvements as may be necessary to meet the requirements of their traffic. The reorganized board of directors consists of: Hon. P. Garneau, Hon. S. N. Parent, V. Chateauvert, J. G. Scott, of Quebec; Colonel McNaught, of New York; H. H. Melville, of Boston, Mass.; J. T. Ross, Montreal; D. B. Hanna, Z. A. Lash, K.C., W. H. Moore, F. E. Annesley, and A. J. Mitchell, of Toronto. D. B. Hanna is Third Vice-President Canadian Northern Ry., and the other Toronto directors are in Mackenzie, Mann & Co.'s offices. The directors who have retired are Hon. J. Tessier, E. E. Ling, of Quebec; W. L. Bull, of New York; H. E. Mitchell, of Philadelphia, Pa.; and J. Joyce, of Boston, Mass. Hon. P. Garneau has been elected President, Col. J. McNaught 1st Vice-President, and H. H. Melville 2nd Vice-President. (Mar., pg. 90.)

It is said that a holding company, the Great Northern of Canada Consolidation Securities Co. has been formed with a capital of \$8,000,000 to take over the securities of the Great Northern Ry. Co. of Canada, the Chateauguay & Northern Ry. Co., the Montreal and Gatineau Colonization Ry. Co., and the Montreal Terminal Ry. Co., and that the control of the new company is held by Mackenzie, Mann & Co., J. McNaught and H. H. Melville. It is also said that a contract has been entered into between the Canadian Northern and the Great Northern railways by which they interchange all export and import traffic possible.

Great Northern Ry., U.S.—In taking over the Nelson and Fort Sheppard Ry. the G.N.R. came into possession of the land grant of 600,000 acres voted by the B.C. Legislature to the Co. in 1893, free of taxes for 10 years. Not more than 50,000 acres are reported to have been sold, leaving 550,000 acres still to be disposed of. Local press reports state that the G.N.R. is considering the question of allowing these lands to revert to the Government by not paying taxes thereon. The lands consist of mountainous stretches, remote from settled camps, which are most unlikely to be acquired by ranchers or lumbermen, and which are hardly worth the amounts for which they may be taxed.

Halifax Electric Tramway Co.—Gross receipts from railway:

	1903.	1902.	Increase or Decrease.
Jan.....	\$10,867.33	\$10,764.58	\$102.75+
Feb.....	9,321.75	8,498.39	823.36+
	\$20,189.08	\$19,262.97	\$926.11+

Kettle River Valley Ry.—Application will be made at the current session of the Dominion Parliament for an act authorizing amalgamation with any other railway company, or to acquire the stock or bonds of any other company, or to guarantee its bonds. The K.V. Ry. Co. is the Dominion incorporation covering the Kettle Valley Lines from Grand Forks, B.C., to Republic, Wash., and the projected extensions of the same.

Lake Superior Co.—Application will be made at the current session of the Ontario Legislature for an act consolidating under the above title the following Sault Ste. Marie companies: International Transit Co., Algoma Dry Dock Co., Lake Superior Power Co., Sault Ste. Marie Pulp and Paper Co., Tagona Water and Light Co., Algoma Steel Co., Algoma Tube Co., Algoma Commercial Co. and the Canadian Electrical Chemical Co.

The Levis County Ry. Co. is applying at the current session of the Quebec Legislature for an act ratifying the issue of debentures, when made, and the trust deed passed on the subject.

Quebec Southern Ry.—The section of the line from Sorel to Noyan Jct., closed since Jan. 20, had not been re-opened Mar. 20, but H. A. Hodge, President, said he hoped to be able to arrange for its re-opening very shortly. F. D. White, of Burlington, Vt., Secretary of the South Shore Ry., has brought an action against the Q.S. Ry. to recover \$49,000 in connection with the purchase of the former line. Press reports state that a syndicate of New Yorkers is being organized to take over the Q.S. Ry. as well as the South Shore Ry., in the interests of the Rutland Rd.

The Minister of Public Works for Quebec has received a formal petition asking the Quebec courts to appoint a sequestator for the United Counties, the Quebec Southern, and Richelieu Valley railways, amalgamated under the title of the Quebec Southern Ry. The petition was set down for argument April 2. (Mar., pg. 107.)

The St. Mary's River Ry. Co. will apply at the current session of the Dominion Parliament for authority to move its head office to Montreal.

Temiscouata Ry.—Net earnings for Dec., 1902, \$912.

White Pass and Yukon Ry.—Gross earnings from July 1, 1902, to Feb. 14, 1903, \$1,167,978.

Winnipeg Electric Street Ry.—Gross earnings for Jan. \$44,515, against \$32,060 for Jan., 1902.

The Shipping Federation of Canada.

This is the title under which representatives of the various shipping firms of Montreal are seeking incorporation at the current session of the Dominion Parliament. The names appended to the application for incorporation are: H. A. Allan, representing H. and A. Allan; J. R. Dining, representing Furness, Withy & Co. (Ltd.); J. Thom, representing the Hamburg-American Packet Co.; Wm. I. Gear, representing the Robert Reford Co. (Ltd.); F. A. Routh, representing F. A. Routh & Co.; D. W. Campbell, representing Elder, Dempster & Co.; J. G. Brock, representing J. G. Brock & Co.; C. McLean, representing McLean, Kennedy & Co., and J. Torrance, representing the Dominion and the Leyland lines. The firms mentioned include practically the whole of the firms engaged in the trans-Atlantic steamship business in Canada. As set out in the notice of application, the objects of the federation are to amalgamate and federate shipowners, steamship and ship managers and agents, whether individuals or corporations, and such other persons or corporations as may be interested in the shipping trade of Canada; to act jointly and in co-operation with any other association to consider all questions affecting the shipping trade of Canada, or other trades allied therewith, and to take such steps as may be deemed advisable to protect all such interests.

For many years past those interested in the shipping trade have acted together in an informal manner, and without organization, as regards pilotage, channel, lighting, harbor accommodation, harbor dues, cargo, and a multitude of other questions of interest to the trade as a whole. This method of procedure has been found to have its inconveniences, in view of the fact that there was no individual who could officially speak for the whole, and that it was difficult sometimes to get the trade to act as a unit. The purpose of the incorporation is to overcome these inconveniences and to create a body similar in purposes and formation to the Canadian Manufacturers' Association. We are informed there is nothing in the nature of a combine in the proposed federation, and that the or-

ganization will in no way attempt to affect or influence rates nor interfere in any way with the autonomy of the several firms and companies.

Talks to Ticket Agents.

By F. B. Sankey, Pittsburg, Pa.

LETTER WRITING.—In writing letters to your general office on any subject, be brief. Write all you have to say, but put it in as few words as possible, so that the person with whom you are corresponding can see at a glance the facts in the case. Remember the general passenger agent of a large line receives hundreds of letters daily, not only from employes, but from the public in general. It is no easy matter to reply to all such letters; hence the importance of brevity and conciseness. State facts and use the official company letter head. Be charitably disposed toward your general passenger agent. By this I mean, do not feel chagrined because the answer to your communication is not always as lengthy as you may anticipate. Your general passenger agent, as explained, has too many letters to write each day, and has not the time to expatiate, as it were, when a few words to the point will answer the questions you have raised. Guard against repetition in your letters. So many of us repeat the same facts throughout a letter, which is entirely unnecessary. In writing letters we should have regard for precision—that is to say exactly what we mean; to state our thoughts plainly; to avoid ambiguity. We should have regard for propriety, or the use of words in their proper sense. The rules for unity should govern us in our composition. The letter-writer whose diction is good is bound to stand out pre-eminent among his fellows in the eyes of his superior officers, and quite frequently is the man sought for to fill more lucrative positions. Never let a letter go unanswered. If a person thinks enough of your opinion on any particular subject, to write you a letter asking your advice, it is as little as you can do to reply promptly and courteously.

ASK FOR ASSISTANCE WHEN NECESSARY.—An agent should always ask for assistance when in need of it. He should first use every means within his power to handle the business himself. He should not ask for help from any source whatever until he has exhausted his own stock of knowledge. After doing this, if he feels he is not capable of handling the transaction, or if he is in doubt as to the information he has given the passenger, or the correctness of his decision in the matter, then, by all means, he should ask for assistance or advice on the subject in question. Quite frequently it occurs, an agent fails to ask for advice pertaining to passenger business, fearing he will show his ignorance on the subject, or that he will be criticised by his superior officers for not knowing better. Rather than write a letter requesting advice, he goes ahead blindly, makes a mistake or loses the business by default. Always ask for assistance when in doubt. Mistakes frequently cost the railroad company money, and oftentimes could be avoided by asking questions. Sometimes an agent feels if he asks for assistance, the travelling passenger agent will be sent out, and if the business is secured, the travelling passenger agent will get all the credit and the local agent none. The above surmises are all wrong. Every agent will be credited for the business done at his station by his superior officers, regardless of who assisted him. The travelling passenger agent gets credit for the business done in his territory as a whole. The general office is too busy with more important questions to keep tabs on each and every movement of its travelling representatives, and scarcely ever knows the individual cases

handled by the travelling men. It judges the travelling man's work by the showing made in his territory. Therefore, as the travelling man is on the road to assist the agents, no agent should hesitate to call upon him for help on account of any of the reasons mentioned, when his services are necessary.

Ontario and the Great Lakes.

The strs. Urania and Imperial, which were operated in 1902 between Cleveland, Ohio, and Port Stanley, Ont., and Cleveland and Rondeau, by the Lake Erie Navigation Co., may be so'd this spring.

The Montreal Transportation Co. has closed a contract for the construction at Collingwood, Ont., of a steel screw, lake and river tug, having the following dimensions: length, 117 ft. over all, 107 ft. keel; beam, 23 ft.; moulded depth, 13 ft. 9 in. She will be fitted with triple expansion engines, with cylinders, 15, 25½ and 43 in. diameter, by 36 in. stroke, supplied with steam at 185 lbs. pressure from two Scotch marine boilers, 11 ft. diameter by 11 ft. 6 in. long.

Waldie & Wright are having built by the Bertram Engine Works Co., Toronto, a full Welland canal size, steel, bulk cargo steamer, a duplicate of the Iroquois, built for the St. Lawrence and Chicago Steam Navigation Co. Her dimensions are: length, over all, 262 ft. 2 in.; breadth, 43 ft.; moulded depth, 25 ft. 6 in.; and she is to be fitted with a vertical triple expansion engine 17, 28 and 46 in. cylinder, by 36 in. stroke, and two Scotch boilers, each 11 ft. 6 in. by 12 ft., built for a working pressure of 176 lbs. of steam.

The C.P.R. and the Northern Navigation Co. have entered into an arrangement by which there will be a daily steamship service on the upper lakes to Port Arthur and Fort William this season. Hitherto the C.P.R. service has been three times a week from Owen Sound, and the Northern Navigation Co.'s service has been operated without special reference to railway connections. Under the new arrangement the Northern Navigation Co. will operate on its North West Transportation line four steamers from Sarnia and other Lake Huron ports to the head of Lake Superior, the sailing being alternately with the C.P.R. sailings from Owen Sound and Fort William, thus maintaining a daily service, Sundays excepted. The four steamers of the Northern Navigation Co. which will be on the service will be the Huronic, Majestic, United Empire and Monarch.

The steel hull for the first of the two side-wheel steamers for the Upper Ottawa Improvement Co., has been put together at Timiskaming, and the hull for the second steamer has been shipped from Toronto for erection on the lake. The hulls were built in sections and set up in the yard of the builders—the Bertram Engine Works Co., Toronto—all parts properly marked, then taken down and shipped on cars for Timiskaming. They have the following dimensions: (1) length over all, 146 ft. 6 in.; breadth, 26 ft.; depth 8 ft. 5 in.; fitted with inclined compound engines 24 and 48 in. cylinders, by 60 in. stroke and two locomotive type boilers, 5 ft. 4 in. by 23 ft. 4½ in.; (2) length over all, 140 ft. 6 in.; keel, 133 ft.; breadth, 24 ft.; depth, 8 ft. 3 in.; fitted with inclined compound engines 20 and 38 in. cylinders, by 54 inch stroke, and two locomotive type boilers, 4 ft. 10 in. by 21 ft. These tugs have been built for the Co.'s logging trade on Lake Timiskaming. Hitherto the Co. has had a contract with the Lumsden Co. to do the towing on the lake, but this having expired, the Co. will now do its own towing. The tugs are to be on the lake for the opening of navigation, and are being put together on the lake. The Up-

per Ottawa Improvement Co. is also having built by the Bertram Engine Works Co., a steel tugboat, 66 ft. long, 12 ft. 6 in. beam, to be fitted with fore and aft compound engine and Scotch boiler. The tug will be shipped on cars completed, with machinery installed, early in the summer.

The annual meeting of the Huntsville, Lake of Bays and Lake Simcoe Navigation Co. was held in Toronto Mar. 19. It was reported that the business for 1902 was very satisfactory. The passenger business was more than double that of 1901; the general freight business, which includes the carrying of large quantities of bark, showed an increase, but the towing of logs showed a falling off owing to the early spring of 1901. The net earnings are reported to have been 9% on the capital employed. It was decided not to declare a dividend, but to utilize the amount in increasing the Co.'s facilities. It is anticipated that there will be a considerable increase in the log-towing business during the coming season, as in addition to the logs held up in the bush in 1901, there has been a heavy cut last winter, which will be got out this season. The Co. has also closed a contract for carrying 7,000 tons of bark during the season. The following officers and directors were elected: President, G. T. Marsh, Huntsville; Vice-President, W. H. Patton, Toronto; Manager and Secretary-Treasurer, W. Duperow, Huntsville; other directors: W. F. Cockshutt, W. R. Turnbull, Brantford; E. J. B. Duncan, Toronto. The Co. is building at the portage of the Lake of Bays a steamer 65 ft. long, 13 ft. beam, and 5 ft. depth of hold, fitted with compound engines and having accommodation for about 200 people, to be completed by July 1. The str. Maple Leaf is being lengthened from 37 to 52 ft. for the coming season's trade, and arrangements are being made for the construction of a steamer from 100 to 115 ft. long and 23 ft. beam, for 1904.

The Railway Department of the Y.M.C.A. will hold its 11th annual convention at Topeka, Kan., from April 30 to May 3. Each association is entitled to send two delegates, and unorganized centers may also send two railwaymen as representatives.

The C.P.R. transcontinental service will be augmented for the summer by the Imperial Limited, the bi-weekly express service inaugurated in 1902, which made the trip in 97 hours. It is understood that the schedule will be practically the same as last year.

THE GRAND TRUNK RAILWAY COMPANY OF CANADA

NOTICE is hereby given that the Ordinary General Half-Yearly Meeting of the Grand Trunk Railway Company of Canada will be held at the City Terminus Hotel, Cannon Street, London, E.C., on Thursday, the 16th day of April, 1903, at Two o'clock, p.m., precisely, for the purpose of receiving a Report from the Directors, for the election of Directors and Auditors, and for the transaction of other business of the Company.

Notice is also given that the Transfer Books of the Company, in London and Canada, will be closed from Monday, the 16th day of March, to the day of Meeting, both days inclusive.

By order,

C. RIVERS WILSON, President.
H. H. NORMAN, Secretary.

Dashwood House,
9 New Broad St., London, E.C.,
12th March, 1903.

Established 1849

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

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Subscriptions are based on the service furnished, and are available only by reputable wholesale, jobbing and manufacturing concerns, and by responsible and worthy financial, fiduciary and business corporations. Specific terms may be obtained by addressing the Company at any of its offices.

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Halifax, N.S.	Hamilton, Ont.	London Ont.
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St. John, N.B.	Toronto, Ont.	Vancouver, B.C.
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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.	Derrick 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 Weatinghouse 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.	Enameled Iron Signs Acton Burrows Co..... Toronto.	Office Signs Acton Burrows Co..... Toronto.
Babbitt 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.	Pinch 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.
Bolt & 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.	Flushes 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, Rose Co..... Toronto.
Boilers Simplex Railway Appliance Co..... Montreal.	The Hudson's Bay Company.....	The Mail Job Printing Company..... Toronto.
Bolts Rice Lewis & Son..... Toronto.	Flour The Hudson's Bay Company.....	Pumps Rice Lewis & Son..... Toronto.
Brake Beams Simplex Railway Appliance Co..... Montreal.	The Ogilvie Flour Mills Co..... Montreal.	Railway Supplies The N. L. Piper Railway Supply Co..... Toronto.
Brass and Copper Cloth The B. Greening Co..... Hamilton, Ont.	Foghorns Rice Lewis & Son..... Toronto.	Rail Joints Montreal Rolling Mills Co..... Montreal.
Brass Castings St. Thomas Brass Co..... St. Thomas, Ont.	Gates Page Wire Fence Co..... Walkerville, Ont.	Balls (New) James Cooper..... Montreal.
Bridge Numbers Acton Burrows Co..... Toronto.	General Supplies The Hudson's Bay Company.....	Drummond, McCall & Co..... Montreal.
Bridges Dominion Bridge Co..... Montreal.	Grain Elevators John S. Metcalfe Co..... Chicago, Ill.	J. J. Gartshore..... Toronto.
Buoy Lighting Safety Car Heating and Lighting Co., New York	Groceries The Hudson's Bay Company.....	Balls (for relaying) James Cooper..... Montreal.
Cables, Electric E. F. Phillips Electrical Works, Ltd., Montreal.	Hardware Rice Lewis & Son..... Toronto.	J. J. Gartshore..... Toronto.
The Wire and Cable Co..... Montreal.	The Hudson's Bay Company.....	T. A. Morrison & Co..... Montreal.
Cables, Feeder E. F. Phillips Electrical Works, Ltd., Montreal.	Headlights N. L. Piper Railway Supply Co..... Toronto.	W. H. C. Mussen & Co..... Montreal.
Car Couplers Latrobe Steel and Coupler Co., Philadelphia, Pa.	Hess Gutta Percha and Rubber Mfg. Co. of Toronto.	Rice Lewis & Son..... Toronto.
Car Heating Safety Car Heating and Lighting Co., New York	Rice Lewis & Son..... Toronto.	Boof Trusses Dominion Bridge Co..... Montreal.
Car Jacks James Cooper..... Montreal.	Illustrations Acton Burrows Co..... Toronto.	Rope Rice Lewis & Son..... Toronto.
W. H. C. Mussen & Co..... Montreal.	Interlocking Plants Canada Switch and Spring Co..... Montreal.	The Hudson's Bay Company.....
Car Lighting Safety Car Heating and Lighting Co., New York	Iron Rice Lewis & Son..... Toronto.	Rubber Goods Gutta Percha and Rubber Mfg. Co. of Toronto.
Carpets The Hudson's Bay Company.....	Iron Signs Acton Burrows Co..... Toronto.	Semaphore Arms Acton Burrows Co..... Toronto.
Cars Rhodes, Curry & Co..... Amherst, N.S.	Japans McCashill, Dougall & Co..... Montreal.	Semaphores The Hiram L. Piper Co..... Montreal.
Car Wheels Jas. W. Pyke & Co..... Montreal.	Journal Bearings Jas. W. Pyke & Co..... Montreal.	The N. L. Piper Railway Supply Co..... Toronto.
Rhodes, Curry & Co..... Amherst, N.S.	St. Thomas Brass Co..... St. Thomas, Ont.	Shafting Rice Lewis & Son..... Toronto.
Castings Canada Switch and Spring Co..... Montreal.	Lager Beer, &c. E. L. Drewry..... Winnipeg.	Shipbuilders' Tools & Supplies Rice Lewis & Son..... Toronto.
Rhodes, Curry & Co..... Amherst, N.S.	Lamps & Lanterns The Hudson's Bay Company.....	Ship Lamps The Hiram L. Piper Co..... Montreal.
Cement Estate of John Battle..... Thorold, Ont.	Rice Lewis & Son..... Toronto.	The N. L. Piper Railway Supply Co..... Toronto.
Cement Machinery Jas. W. Pyke & Co..... Montreal.	The Hiram L. Piper Co..... Montreal.	Ships Polson Iron Works..... Toronto.
Chains Rice Lewis & Son..... Toronto.	N. L. Piper Railway Supply Co..... Toronto.	Shovels James Cooper..... Montreal.
Coal Haulage Ropes The B. Greening Co..... Hamilton, Ont.	Launches Polson Iron Works..... Toronto.	The Hudson's Bay Company.....
Concrete Mixers W. H. C. Mussen & Co..... Montreal.	Life Insurance Independent Order of Foresters..... Toronto.	Rice Lewis & Son..... Toronto.
Contractors' Plant James Cooper..... Montreal.	Travelers' Insurance Co..... Montreal.	Side Bearings Simplex Railway Appliance Co..... Montreal.
F. A. Morrison & Co..... Montreal.	Lights, Contractors and Wrecking James Cooper..... Montreal.	Signal House Numbers Acton Burrows Co..... Toronto.
W. H. C. Mussen & Co..... Montreal.	W. H. C. Mussen & Co..... Montreal.	Signals The Hiram L. Piper Co..... Montreal.
Cross Arms, Top Pins & Side Blocks The Firstbrook Box Co..... Toronto.	Linoleum and Floor Coverings The Hudson's Bay Company.....	N. L. Piper Railway Supply Co..... Toronto.
Crossing Gates The N. L. Piper Railway Supply Co..... Toronto.	Locomotives (Compressed Air) American Locomotive Co..... New York, N.Y.	Signs Acton Burrows Co..... Toronto.
Curtains The Hudson's Bay Company.....	Baldwin Locomotive Works..... Philadelphia, Pa.	Snow Ploughs Rhodes, Curry & Co..... Amherst, N.S.
Cuts Acton Burrows Co..... Toronto.	Locomotives (Electric) American Locomotive Co..... New York, N.Y.	Spikes Rice Lewis & Son..... Toronto.
Derrick Ropes The B. Greening Co..... Hamilton, Ont.	Baldwin Locomotive Works..... Philadelphia, Pa.	Springs Canada Switch and Spring Co..... Montreal.
	Locomotives (Reck) American Locomotive Co..... New York, N.Y.	B. J. Coghlin & Co..... Montreal.
	Baldwin Locomotive Works..... Philadelphia, Pa.	Station Name Signs Acton Burrows Co..... Toronto.
	Locomotives (Steam) American Locomotive Co..... New York, N.Y.	Steamboats Polson Iron Works..... Toronto.
	Baldwin Locomotive Works..... Philadelphia, Pa.	Steamboat Signs Acton Burrows Co..... Toronto.
	Canadian Locomotive Co..... Kingston, Ont.	Steam Compliers Safety Car Heating and Lighting Co., New York
	James Cooper..... Montreal.	
	W. H. C. Mussen & Co..... Montreal.	
	Matches The Hudson's Bay Company.....	

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