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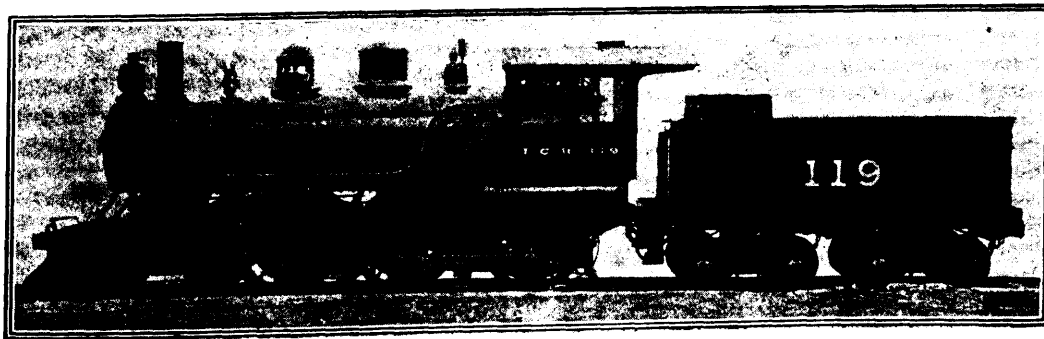
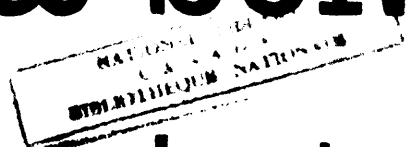
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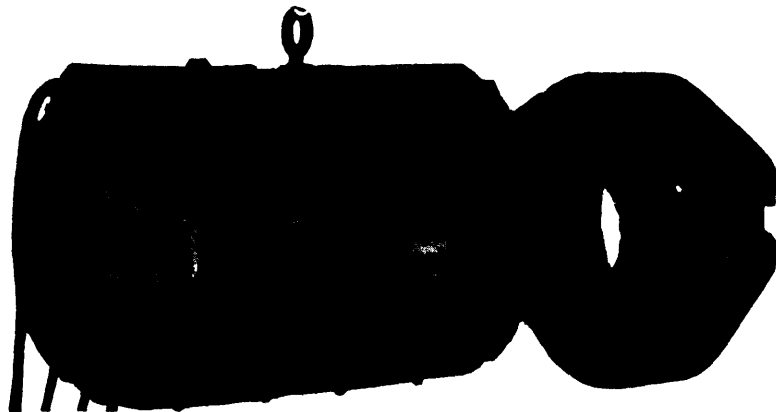
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## G.T.R. Semi-Annual Meeting.

In our October issue we gave a brief summary of the speech of the President, Sir C. Rivers Wilson, at the half-yearly meeting in London, Eng., Sept. 29. The full text is now at hand. The first part of the speech was devoted to the regular analysis of the figures contained in the half-yearly report. The temporary check to the almost uninterrupted progress of the company's business during the past eight years had been occasioned by circumstances of an abnormal character. While he thought they might look forward with every confidence to a continuance of the progress and prosperity of 1903, a recurrence of the trying experience of the first quarter of 1904 was hardly to be anticipated. After reviewing the figures in the report and statement of accounts, the President pointed out that the ratio of the increase of working expenses was in many respects much smaller than on lines in the U.S., and that on the C.P.R. the ratio of working expenses had been increased for the six months ended June 30 from 65.30% to 74.28%. The Central Vermont Ry. continued to pay its way, without entailing any charge upon the G.T.R. If the operations of the past half year were less satisfactory than could have been wished, the outlook was entirely encouraging.

The President then dealt with the question of the G.T. Pacific Ry., and detailed the negotiations to the approving of the amended agreement by the Dominion Parliament, July 18. "The proposals," he said, "met with strong opposition, expressed very much on the same lines as that which attended the introduction of the first measure in the year 1903. It was led with great ability and great determination by Mr. Borden, the leader of the Conservative party, and he was strongly supported by his party; but the attitude which he took was an effort to urge upon the Government and upon Parliament the necessity for adopting the principle of Government ownership of railways. These declarations of Mr. Borden, inasmuch as the former leaders of that party—Sir John Macdonald, Sir Charles Tupper, Sir Mackenzie Bowell—had recorded their emphatic dissent against the acceptance of that principle, caused some surprise. Therefore, I cannot say how far this principle has afforded him the vehicle for taking up an attitude of violent opposition to the measure introduced by the Government. Mr. Borden even went the length of saying—and he is since reported to have repeated it in a public speech which he has made since Parliament ceased sitting—that in the event of his party coming back into power they would certainly not repudiate any binding agree-

ments, but they could and would resort to expropriation. If Mr. Borden is correctly reported, that is the expression which he has used, and that is the threat which he has held out against ourselves and against the Dominion Government of what will take place in the event of his party being returned to power. Well, of course, what one Parliament has done another Parliament can undo; but I venture to think, although Mr. Borden may be legally correct in stating that expropriation does not imply the breaking of a contract, I cannot help thinking you will agree with me

you very much, and of which, perhaps, the most prominent exponent was Mr. Osler, a leading director of the C.P.R. Mr. Osler, for want, perhaps, of better arguments, indulged in personal abuse of the promoters of this undertaking, those promoters being your own directors; and he was also good enough to utter certain—what I should consider very silly—threats, of doubtful taste, against myself personally. Mr. Osler was answered very conclusively and emphatically by various members, who are well acquainted with him, who knew what weight was to be attached to his utterances, and who knew what his methods and what his motives were. Well, in spite of all this opposition, Sir Wilfrid Laurier persistently pressed his measure through, and it eventually passed both Houses, and received the Royal Assent on July 18. The first practical step for giving effect to this legislation was the constitution of the company and the appointment of a board. The board has been appointed according to the charter of incorporation. It will consist of not more than fifteen members, together with one director who is appointed by the Government so as to mark, as it were, the partnership and the interest which the Government has in the undertaking. Of these fifteen directors who had to be chosen in the first instance, it was decided that there should be ten resident in Canada, and that there should be a committee of five who would be members of our own board in London. The president of the company will be naturally Mr. Hays—and he will be supported on the board by four of his own most trusted lieutenants. In addition to the ten members that I have alluded to, there are five other directors, consisting of prominent business men in Canada. I am not yet aware who the Government director is to be, but he, no doubt, will be appointed very shortly. I think I need only just mention now that the surveys over the intended road are in good progress, and Mr. Hays will be over here very shortly—in the course of next month—and will be able to bring us the latest details; but there is little doubt, I think, as we state in the report, that work will be begun probably at more than one point of the line in the course of the ensuing spring. Let me only say this in conclusion, that while I have a firm conviction that the new railway will prove of great and enduring advantage and profit to the G.T. Company, I hold that it is an honor and privilege for all of us, both shareholders and directors, to be associated with the Government of the Dominion of Canada in an undertaking so



M. C. STURTEVANT,

Car Service Agent, Grand Trunk Railway.

that such a course on the part of the next Parliament would be contrary, at all events, to good faith, and very much opposed to the best traditions of constitutional government. I am no politician myself in Canada—the G.T.R. has, as far as possible, held aloof entirely from politics. It is not for us to consider whether one set of politicians should be in office or another, but I think that such declarations do not tend to enhance and uphold the dignity of a parliamentary body. There was other opposition of a different character which was also made in the House—opposition which, perhaps, will not surprise

(Continued on page 385.)

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The Intercolonial Ry. Employees Relief and Insurance Association, at its annual meeting at Moncton, Oct. 12, elected the following officers:—President, D. Pottinger, General Manager; Vice-President, J. J. Wallace, General Freight Agent; Auditor, W. Brown, chief clerk. It was decided to ask the Department of Railways to increase its contribution on the ground of the increased membership caused by the taking over of the Canada Eastern Ry.

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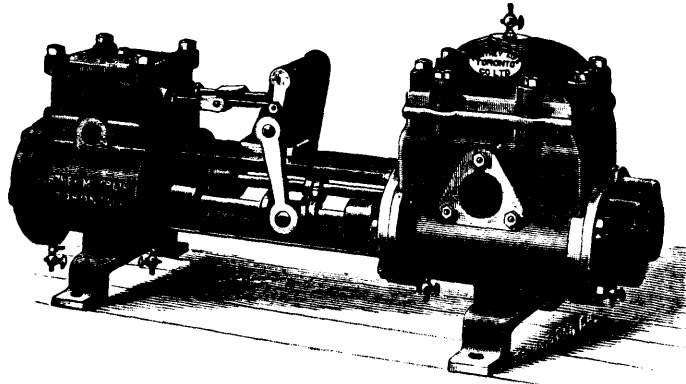
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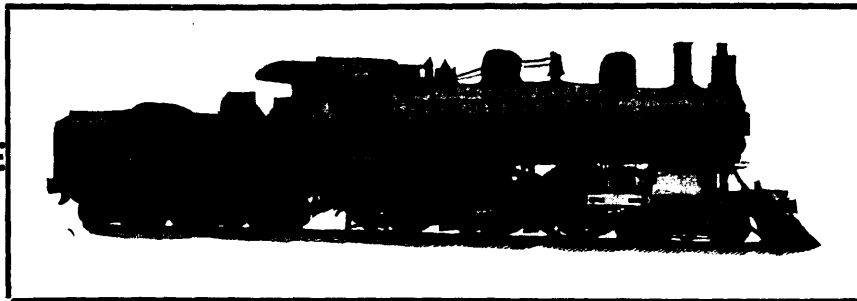
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**G.T.R. Semi-Annual Meeting.***(Continued from page 381.)*

important, so interesting, and so beneficial to this great province of the Empire."

The proposal to acquire the Canada Atlantic Ry. was next dealt with. The President, after giving details showing the mileage, etc., of the line, said: "The Canada Atlantic Ry. owes its existence to the energy and the enterprise of one man—Mr. Booth, one of the great merchant citizens of Canada, who has chiefly devoted himself on a very large scale to the development of the lumber industry. This railway he has developed partly by building and partly by absorbing other systems, until now it has assumed the position of one of the most useful and important roads in Canada, running, on the one side, to the frontier line of Quebec, where it effects a junction with the Central Vermont Ry., and on the other side through to Georgian Bay, where it communicates by means of the lakes with the great grain districts of Northwest Canada, and of the U.S. It has been reported on by our engineer, Mr. Hobson, as being in excellent condition; but it is especially with reference to its facilities for handling grain that it will prove an extremely useful adjunct to the G.T.R. At present we have access to no less than ten ports upon the Georgian Bay and Lake Huron, several of which, Midland, Collingwood, Meaford, Wiarton, Goderich, and Sarnia, possess adequate and important elevator accommodation. The terminus of the Canada Atlantic Ry. at Depot Harbor will really make the completion of the strong strategic position which we now occupy in those regions. During the season of 1903 there was handled through the elevator at Depot Harbor no less than 4,190,963 bush. of grain. There is another important attraction which it offers to the G.T.R. At present the G.T.R. has no terminus of its own in Ottawa. By becoming the possessors of this road we shall have what we ought to have had already, and which it is almost indispensable that our road should have—our own entrance to and our own terminals in the metropolis of Canada. As regards the finance of the matter, the company has a bonded debt of \$14,000,000, and upon the average of the last three years the earnings have been more than sufficient to pay the interest at 4% upon that amount. Well, what we propose to do is to ask you to guarantee those bonds with interest at 4%. It is further proposed, in consideration of the fact that it is desirable to have some money in reserve for future improvements of the road, that the mortgage should be extended by \$2,000,000. Therefore, with your agreement, we shall ask Parliament, first of all, to give us power to guarantee the bonds and the interest, and also to extend the mortgage by this odd \$2,000,000. I have pointed out to you the advantages that will accrue to us by obtaining the control of this road, and I will also mention what the additional assets will be which we shall obtain. We shall receive very nearly the whole—within a fraction—of the ordinary capital stock of the company; we shall receive the whole of the preferred capital stock; we shall receive the whole of the issue of the stock of the Canada Atlantic Transit Co. and of the Canada Atlantic Transit Co. of the U.S., of which I shall speak directly; and we shall also receive the whole of the capital of the small line of three miles which, proceeding from the boundary line, joins the Central Vermont Ry. You will see, therefore, that we receive certainly substantial assets as well as all the other advantages which I have pointed out to you. I should have mentioned that among the assets will be the valuable fleet of ships which belong to the two transit companies which I have mentioned—a valuable line of steamers which carry the grain from the ports of the U.S. and of Canada on Lake Superior and

Lake Michigan, across the lakes to our ports on Georgian Bay and Lake Huron. I think I have said enough to satisfy you that this will be a profitable and important adjunct to the company. As we have stated in the report, we consider it will greatly strengthen and consolidate our position in many ways, and I think we have reason to be gratified at the opportunity which has presented itself of acquiring this very important property."

The report and statement of accounts was then adopted, and a dividend of 2% to the holders of the 4% guaranteed stock was declared.

The President moved a resolution authorizing the G.T.R. to acquire the Canada Atlantic Ry. on the terms mentioned in his speech, and the making of an application next session of the Dominion Parliament for an act authorizing the acquiring of the line on a guarantee of bonds.

A. W. Smithers, Vice-President, seconded the motion, which was carried, after an amendment to defer the matter to the next half-yearly meeting was defeated.

**Fuel Economy.**

*By J. V. Paul, General Fuel and Locomotive Inspector, C.P.R.*

The cost of fuel consumed on railroads in the U.S. and Canada yearly approximates about \$90,000,000, and, next to the salary account, is the largest item of expense that railway companies have to meet. Steam is but an agency for conveying the energy stored up in the coal, in the form of heat, to the cylinders where the work is performed. Owing to the large number of locomotives in daily use, the enormous daily consumption of fuel, and the various conditions surrounding the generation of the steam and the conveying of it to the cylinders, there is bound to be a loss of a certain percentage of the energy of the fuel, and this loss is greater or less dependent upon the vigilance of those who have to do with the construction, maintenance and operation of locomotives. As an instance: Not long since, while in conversation with a leading official of one of the prominent roads to the south of us, I commented on the number of engines that could be seen popping. This road had previously passed through the hands of a receiver. After estimating the loss from this one source he remarked that if that one leak had been stopped the need for the appointment of a receiver would never have occurred. It was estimated that about \$45,000 were being wasted annually due to engines popping.

I do not propose to take up the construction of locomotive boilers with regard to their capacity for generating steam, but rather to go to the maintenance and economical operation of locomotives. As cold weather appears we are made visibly and painfully aware of every loose joint and faulty packing where steam can blow out to the atmosphere and be wasted. If it is at all convenient, valve stem and piston rod packing are usually renewed or closed, but it is not always so in the cases of steampipe joints and cab mountings that the leak of steam is stopped. This is strikingly so of engines that are assigned to pooled service, or where regularly assigned crews are unable to follow their engines. This necessarily means a waste of fuel inasmuch as fuel must be consumed to generate the heat which has evaporated the water and which is then lost. There are other leaks about an engine, however, which in the losses they cause are two-fold, in this, that not only is the steam wasted, but the effect produced on the engine is to increase its load. These leaks are those from main valves and pistons. Not only is the steam escaping unused, but it has been clearly demonstrated to me that an engine working heavy on one side and not maintain-

ing a constant or steady drawbar pull has the effect of increasing the train resistance. Any condition causing an engine to be heavier on one side than on the other, such as valves out of square, or restricted exhaust passage, will have this same effect, and this is much more noticeable on compound than on simple engines. For instance: Suppose that an engine is making ten miles an hour and working at her full capacity, one cylinder is doing more work than the other. When the cylinder takes steam on the heavier side, the slack of the train is entirely taken out, and when steam is taken on the weaker side the strain on the draught rigging perceptibly decreases with the tendency toward bunching the train. The effect to the hauling of the train is of the same nature as that produced by an engine slipping, but to a much lesser degree.

The labors of engine crews have been lightened from time to time in different directions until to-day about all that is asked of engineers and firemen is that they shall successfully operate their machines while on the road, and report at the end of the trip such defects as may have developed about the engine. Due to traffic or other conditions, it sometimes becomes necessary to send an engine out without all necessary repairs having been made. If the defective parts have a bearing on the generation and utilization of steam, the coal pile must suffer, for the steam is wasted, and a constant repetition or neglect on the part of the round house staff to keep engines in good repair has a demoralizing effect on the engine crew; and, as a result, their best efforts are not put forward to get economical results.

The question is often asked why two engines built from the same templates and supposedly alike in all respects will not do the same work under like conditions. The trouble is that they are not alike, and it seems to me to be largely a question of valves—a little more lead in one case than in the other, or a slight difference in the inside clearance, or, perhaps, a little more slack in the motion of the one than in that of the other. If you will ask the average engineer he will probably tell you that, generally speaking, a good steaming engine, whose draught appliances are in normal condition, is light on water; and an engine light on water will be light on fuel. The valves are the life of an engine, and this superior performance can be credited to the high efficiency obtained from the steam through the action of the valves. In cases of poor steaming engines, or of ones that are not giving satisfactory results, the indicator might be employed to good advantage.

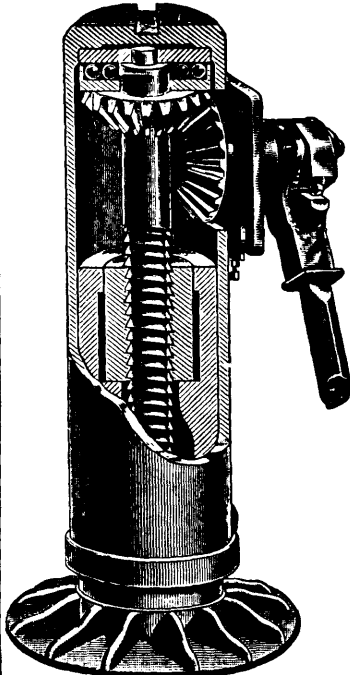
Leaks and blows from cab mountings, air and steam connections to air pumps, and air and steam train lines are other sources of fuel waste. It might be interesting to know that a 9½-in. pump, working at 60 double strokes a minute, will consume 216 pounds of coal an hour. Saying nothing of the annoyance and trouble of a leaky trainline, one that would require a pump to work at that speed would, in an ordinary eight hour run, eat up a thousand or more pounds of coal.

In the equipping of an engine it sometimes occurs that the fitness of things is lost sight of, and that injectors are used that are entirely out of proportion to the work that is required of them. Either they flood the boiler while the injector is working, and the fire must be forced to keep the pressure up, or the capacity of the injector is too small and the second one must be called upon to keep the crown sheet covered, which means the forcing of the fire for steam and a decided fluctuation of steam pressure. In either case it means an extra consumption of fuel.

But even though an engine be made perfect as regards leaks, blows and valve performance, there is another source of waste which could easily outrank all others in its inroads on the coal pile and that is the work of the



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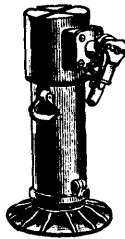
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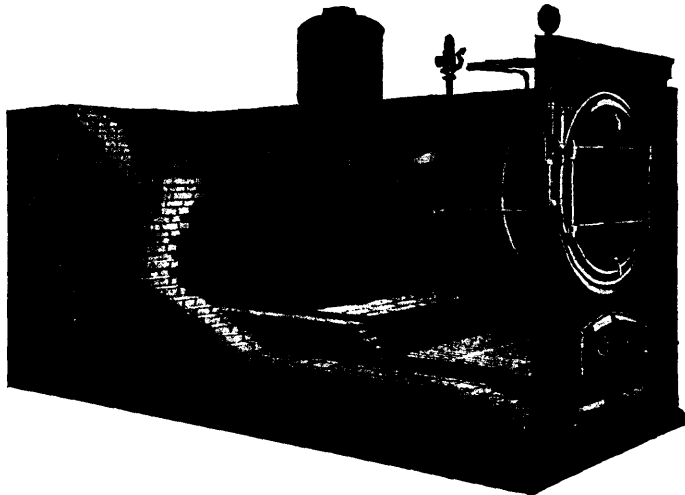
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"man behind the gun." Firing a locomotive can be reduced to a science, and sometimes is, but my observations have led me to the belief that this side of the question is too often lost sight of by the most interested persons. A few years ago the question of the one shovel system or smokeless firing was agitated over the country, and, judging from the expressions of firemen from off of many of the roads, but little good was accomplished, and, probably, in many cases, the results were more harmful than otherwise. This certainly was not the fault of the system, for there can be no doubt that the greater is the regularity with which the coal is fed to the fire the higher will be the efficiency attained. With certain kinds of Pennsylvania and West Virginia soft coals, which carry rather a high percentage of volatile matter of the nature of coal tar, it is impossible to fire the average locomotive and entirely avoid black smoke unless some special apparatus is provided for the purpose. But why dwell so strongly on the waste due to the escape of the carbon which gives color to the smoke? To be sure, black smoke is a nuisance about stations, but is the loss so great? I do not think so. Rather is it indicative of a condition in the firebox that is not conducive to high temperatures. And it is this condition that firemen, through practical demonstration and instruction, should be brought to understand, realize and avoid.

It occurs to me that the beginning of the trouble is with the hiring of the men. A young man presents himself at the office of the locomotive foreman or the master mechanic and makes application for a job of wiping. If business demands, he is hired and put to work, with but little thought having been given to his capacity for future advancement and success. After a period of wiping he is advanced to the left-hand side of the yard engine, where, through observation, casual remarks, or orders he may receive, he learns three things, namely: that to evaporate water in the boiler he must heave coal into the firebox; that to keep the crown sheet from burning it must be kept covered with water, and that it is expected that he will keep his head out of the cab window three-fourths of the time to take the signals of the switchmen. What, then, would naturally be his method of firing the engine? Get down from his seatbox; throw the firebox door open; reach for the scoop and heave from four to ten scoops of coal in on the fire. Then to the seatbox again. Pretty soon the steam pressure begins to drop, and as the fire has become too heavy or banked in places, and the grates may be seen at other places because of the method of firing, the poker is brought into action and the fire thoroughly raked. Or it may be that the injector is started, without regard to the amount of water it will throw, and when the boiler is filled up the injector is shut off. If the boiler does not make steam under these favorable circumstances the next step is to resort to the blower, and in a little time the whole process is repeated, and the poor engine must stand the brunt of it all. "As the twig is bent the tree's inclined." And so it is with the fireman. The ideas and habits he acquires as a student will stick to him, in seven cases out of ten, till he passes over to the right-hand side of the engine. The system of promoting wipers to the position of fireman does not appeal to one as being the best method. There are usually a sufficient number of men about who are incapacitated from doing heavier work, who make good switch engine firemen, and when a man is hired for road service he should be placed on a road engine forthwith, in company with the regular man, and at his own expense, and made to serve as an apprentice or student till he is pronounced competent by the crew with whom he is working. But his education should not stop at this point. A travelling fireman should then take him in hand and give him practical lessons and instructions on

his work and duties. Following out these lines in the making of firemen cannot but be pregnant with good results, and ultimately lead to the highest efficiency in fuel economy.

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

### C.P.R. Directors' Tour.

Sir T. G. Shaughnessy, President, C.P.R., accompanied by Sir G. A. Drummond, E. B. Osler, R. B. Angus, directors; and W. F. Tye, Chief Engineer, returned to Montreal recently, having completed an inspection of the company's transcontinental line, and of its subsidiary lines in the U.S. C. R. Hosmer, a director, accompanied the party to Winnipeg, and W. Whyte, 2nd Vice-President, joined it at Fort William, Ont., and went out to the Pacific coast. The trip was very largely one of inspection with a view of looking over the work which had been done in the way of reducing gradients, etc., on the line, extending and re-arranging the shops and terminal facilities at Winnipeg, and the new lines completed in the Northwest. The President and directors made a general inspection of all these works. At Winnipeg the President stated that it was not proposed to add very much more at present; it was thought that the company was doing quite enough for present needs, and should be sufficient to meet the requirements for a little while to come. Of course there would have to be further developments later, as it was not expected that the present work would be sufficient to meet the requirements for all time. In respect to the new short line now nearing completion by the Minneapolis, St. Paul and Sault Ste. Marie Ry., from Greenwood to the International boundary near Emerson, Sir Thomas said by it the C.P.R. would be able to cut the time between Winnipeg and St. Paul, Minn., and make as quick or better time between these points as any other road.

W. F. Tye, Chief Engineer, speaking of the work in progress between Fort William and the western boundary of the Territories, said the most important improvement in the engineering department was the reduction of gradients between Fort William, Ont., and Winnipeg, and Swift Current and Moose Jaw, Assa. The work was of the highest importance and the gradients had been reduced from 50 ft. to the mile to 20 ft. to the mile. The reduction was more than one-half, and its effect was to enable the locomotives to haul double the tonnage formerly hauled. The subway at Winnipeg would soon be completed, and the work of altering the tracks in connection with it would shortly be commenced. It was the intention of the company to have the station, subway and freight sheds all completed by 1905, and the hotel during 1906. The harvesting and moving of the crop affected work on the line, as every available man was needed for that work and taken away from general construction work. The average weight of the rails on the line between St. John, N.B., and Vancouver, B.C., was 80 lbs. a yard, and compared favorably with old country lines. As fast as rails on the main line got too light for the increased traffic other and heavier rails were substituted and the light rails used on the smaller branches where the necessity for heavy rails was not so great.

At Vancouver the President said he considered the B.C. railway tax heavy and unjust, and because of it being so much of a burden he did not think the company would build any extensions of the railway in the interior unless they were paying propositions from the start. He further stated that the company had not a line through the Similkameen in view.

Regarding the improvement and alteration of the Hotel Vancouver, he said that the plans of the company are to reconstruct the older

portion and have it conform with the new section. The work will be carried out as soon as opportunity offers, but when a start will be made he could not say definitely. The party then made a trip to Victoria and inspected the site of the new hotel there, the foundations of which are being put in. In speaking of the work of extending lines in the Boundary country, Sir Thomas stated at Nelson, B.C., that the company had not decided on its western boundary extensions, and added that the plan eventually to be followed would be one not yet referred to by the press, and most probably not along any of the lines suggested heretofore. He added that one line from Fort Steele to a point on the main line, probably Golden, would be commenced very likely in the spring. The company did not propose at present to make any move in the Flathead River district. The lead corroding works in the east are to be commenced, the C.P.R. having sold lands to the corroding company upon which the new plant is to be erected.

The party returned east over the Minneapolis, St. Paul and Sault Ste. Marie Ry., and on reaching Montreal, Sir Thomas, in the course of an interview, said the works of improvement which have been in progress during the past two years are now practically completed. These include the arrangement of yards and terminals, the construction of shops, changes and improvements of the roadbed, laying of heavier rails, ballasting, etc. On these items the company had within the two years spent about \$32,000,000. There might come a time when the entire C.P.R. system might have to be double-tracked; they all looked forward to it, but the company at present had no intention of doing anything along that line.

### Cartage Charges for Freight.

The Canadian Freight Association has adopted new cartage arrangements to govern at cartage points on all lines in Ontario and Quebec, superseding all arrangements previously in effect.

Canadian Freight.—At all stations at which the railway companies undertake to perform a cartage service, through their cartage agents, the additional charge for the service will be: On 1st, 2nd, 3rd, 4th and 5th class freight, 1½c. per 100 lbs., subject to a minimum cartage charge of 12c. for any one consignment. When commodity rates lower than 5th class are made on cartage freight, such rates are entirely exclusive of cartage, and if cartage service is performed, the additional charge in such case shall be 2c. per 100 lbs., but the gross rate not to exceed 5th class rate, plus 1½c. per 100 lbs. On classes lower than 5th class (when cartage is undertaken) not less than 2c. per 100 lbs., but the gross rate not to exceed 5th class rate, plus 1½c. per 100 lbs. U.S. or Import Freight.—At all stations at which the railway companies undertake to perform a cartage service, through their cartage agents, the additional charge for the service will be: Governed by Canadian Freight Classification. On 1st, 2nd, 3rd, 4th and 5th class freight, also on raw cotton pressed in bales, 1½c. per 100 lbs. Subject to a minimum cartage charge of 12c. for any one consignment. Exceptions—When commodity rates lower than 5th class are made on cartage freight, such rates are entirely exclusive of cartage, and if cartage service is performed, the additional charge in such case shall be 2c. per 100 lbs., subject to the usual minimum. Should the cartage be undertaken of freight classifying 6th class, as per Official Classification, or of commodities which classify 5th class or higher (Official Classification) but upon which lower than 5th class tariff rates may be authorized, the additional charge for the service will not be less than 2 cents per 100 lbs.

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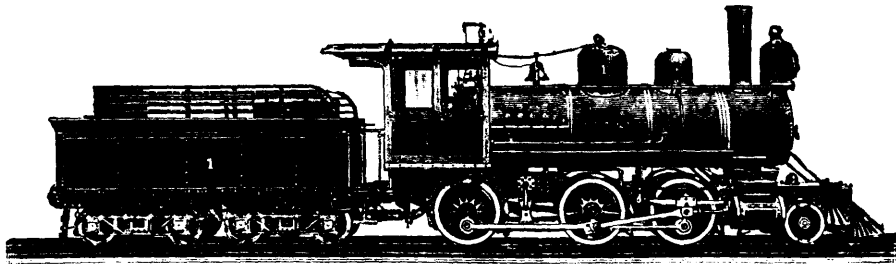


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## November Birthdays.

A. B. Atwater, Assistant to the 2nd Vice-President and General Manager G.T.R., for lines west of Detroit and St. Clair rivers, at Detroit, Mich., born at Sheffield, Ohio, Nov., 1845.

W. F. Brougham, Local Right-of-Way and Lease Agent, C.P.R., at Vancouver, B.C., born in Westmoreland, Eng., Nov. 25, 1865.

M. J. Butler, Assistant Chief Engineer National Transcontinental Railway at Ottawa, born at Deseronto, Ont., Nov. 19, 1856.

J. R. Cameron, Trainmaster, Canadian Northern Ry., at Kamsack, Assa., born at Truro, N.S., Nov. 5, 1865.

H. J. Coffin, Trainmaster C.P.R., at Brandon, Man., born at Gaspé Basin, Que., Nov. 23, 1859.

F. Conway, General Freight and Passenger Agent, Kingston and Pembroke Ry., at Kingston, Ont., born at Ernestown, Ont., Nov. 10, 1850.

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

W. Downie, General Superintendent, C.P.R., Atlantic Division, at St. John, N. B., born at Rock Currie, Ireland, Nov. 12, 1850.

L. Drago, Canadian Passenger Agent, New York Central Ry., at Toronto, born in Raleigh Tp., Kent County, Ont., Nov. 7, 1860.

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

F. W. Flanagan, General Passenger Agent C.P.R., London, Eng., born at Kingston, Co. Dublin, Ireland, Nov. 23, 1862.

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

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

Jas. McLerie, Northwest Agent, Montreal and Lake Superior Line, at Winnipeg, Man., born at Kilbarchan, Scotland, Nov. 6, 1850.

C. Murphy, Superintendent, C.P.R., at Toronto, Ont.; born Nov. 20, 1865.

P. A. Peterson, Chief Engineer, Guelph and Goderich Ry., at Goderich, Ont., born at Niagara Falls, Ont., Nov., 1839.

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

W. G. Roche, contracting freight agent, Canadian Pacific Despatch, Detroit, Mich., born Nov. 3, 1877.

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

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

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

F. M. Spaidal, Superintendent district 2, Eastern Division, and Montreal Terminals, C.P.R., at Montreal, born at Gananoque, Ont., Nov. 13, 1858.

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

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

Barrie, Ont., town council is petitioning the G.T.R. to rename Allandale station Barrie Junction.

"He's employed by the railway company now, I understand."

"Yes; he has charge of the puzzle department."

"The what?"

"He makes out the time-tables!"

## C.P.R. Annual Meeting.

At the annual meeting in Montreal, Oct. 5, the Chairman of the Board, Sir Wm. C. Van Horne, presided. The President, Sir Thos. G. Shaughnessy, in moving the adoption of the report for the year ended June 30, 1904, which was published in our last issue, said:— I am glad to be able to say, after an extended inspection of your Western Lines, that the conditions prevailing in the country served by your railway are generally very gratifying. Progress and thrift are apparent in every direction, and the result of the harvest in Manitoba and the Territories, while it will not meet the anticipation of the early summer, will be quite satisfactory and the return to the producers will, by reason of the enhanced price of wheat, be considerably larger than it was a year ago.

The works of improvement on the different sections of your railway, which have been in progress for the past three years, are practically completed, and, with a few exceptions, they are now being utilized to your great convenience and advantage. For some reasons it was unfortunate that so much important work had to be crowded into so short a period, but your directors are convinced that the prudent policy of postponing large capital expenditures, until your revenue was established upon a basis that would warrant them beyond peradventure, was in your best interests, and met with your approval.

A brief analysis of the changes in your balance sheet during the last three years may be interesting. Since June 30, 1901, there has been no change in your mortgage debt, but the total amount of debenture stock and share capital has been increased by \$13,788,468. During the same period 769 miles of railway have been added to your system, and 200 miles more are practically completed; the Atlantic and the Pacific Coast Steamship Lines have been acquired and supplemented at a cost of about \$8,000,000; your rolling stock equipment has been increased by nearly 40%, at a cost of over \$12,000,000; extensive and most modern shops and machinery have been provided at Montreal and other points on the system at a cost of nearly \$1,000,000; the yards and terminals at Montreal, North Bay, Fort William, Ignace, Winnipeg, Brandon, Broadview, Regina, Moosejaw and other points of lesser importance have been enlarged, in many cases more than doubled in size; additional grain elevators have been provided at Fort William and Port Arthur; an important amount has been expended for the reduction of gradients and improvement of alignment to enable you to increase the haulage capacity of your locomotives, and miles of new crossing sidings have been built and old ones lengthened so that they may accommodate longer trains.

During the three years your gross revenue from traffic has grown from \$30,855,000 in 1901 to \$46,469,000 in 1904, or about 51%. Your land grant bonds outstanding at the end of the fiscal year 1901 amounted to \$17,831,000, while at the end of 1904 only \$11,500,000 remained to be provided for, and in the intervening period the deferred payments on land sold increased from \$3,652,869 to \$15,252,308; so that your large capital expenditures to improve the standard of your property and fit it for the handling of much a greater volume of traffic came just at the time when the marked change in your affairs made it easy for you to provide the requisite funds.

With the construction of the second track between Fort William and Winnipeg, upon which work will be commenced this autumn, the main lines west of the Lakes will be in excellent shape, but many of the branch lines, upon which there has been a large increase of business, will require attention; some sections of the system east of Lake Superior can be improved with excellent results, and additions to

your locomotive and car equipment must continue to be made unless your directors are deceived as to the future. Hence your directors decided to recommend an increase in your ordinary share capital of \$25,500,000, to be issued from time to time in such amounts as they might consider desirable. If the requisite authority be given at the special meeting to be held to-day, it is the intention of your directors to offer to the shareholders of record, at a date to be forthwith fixed for the closing of the books for the purpose, \$16,900,000 of the new stock at par, being the equivalent of one share in five.

Reference is made in the annual report to the irrigation work now in progress on your lands in the vicinity of Calgary: Rather than select lands in remote districts to satisfy the final 3,000,000 acres of your grant, your directors arranged with the Government to take the lands along the line of your railway between Langevin and Calgary in solid blocks instead of alternate sections. The soil is good and the climate excellent, but the rainfall in that district is not reliable. To overcome this difficulty a system of irrigation canals is being provided. The present expenditure will cover the cost of lateral canals to serve about 300,000 acres only, but it will also complete the main canal for a much larger area. The money for the purpose has been appropriated from the proceeds of sales of lands not covered by the land mortgage, and if the project prove as successful, and the consequent value of your lands be enhanced as your directors anticipate, they will ask your authority to continue the work over the remaining 2,700,000 acres. Apart from the higher value that will be given to your lands, the advantage from a traffic standpoint of having this large area along your main line brought under cultivation cannot be over-estimated.

The report was adopted, and also the following resolutions:—

Approving a lease to the C.P.R. from the Tillsonburg, Lake Erie and Pacific Ry. Co., for 999 years, of its railway from Port Burwell to Ingersoll, and of all railways or branches heretofore or hereafter constructed by the T.L.E. & P.R. Co., at an annual rent equal to the interest on all bonds carrying interest at not more than 4% per year, which the lessor may issue at the request of the lessee, the aggregate of such bonds not to exceed \$25,000 per mile of railway.

Approving a lease to the C.P.R. Co. from the Northern Colonization Ry. Co., for 999 years, of its railways from near Labelle to Nominique, Que., and all other railways or branches heretofore or hereafter constructed by the N.C.R. Co., at an annual rental equal to the interest payable on all bonds carrying interest at not more than 4% per year, which the lessor may issue at the request of the lessee, the aggregate of such bonds not to exceed \$20,000 per mile of railway.

Approving of a lease to the C.P.R. Co., for 999 years, from the Guelph & Goderich Ry. Co., of its railway now under construction from Guelph to Goderich, Ont., at an annual rental equal to the interest payable on all bonds carrying interest at not more than 4% per year, the aggregate of such bonds not to exceed \$25,000 per mile of railway.

Authorizing the directors to acquire two additional passenger steamships and equipment to supplement the company's existing ocean fleets.

Authorizing the directors, for the purpose of building and equipping a branch line from near Kleinburg to near Sudbury, Ont., to issue and sell consolidated debenture stock not exceeding \$30,000 a mile, bearing interest at 4% per year.

Approving a by-law passed by the directors authorizing the Fourth Vice-President, the Freight Traffic Manager and the Passenger Traffic Manager of the company, or such

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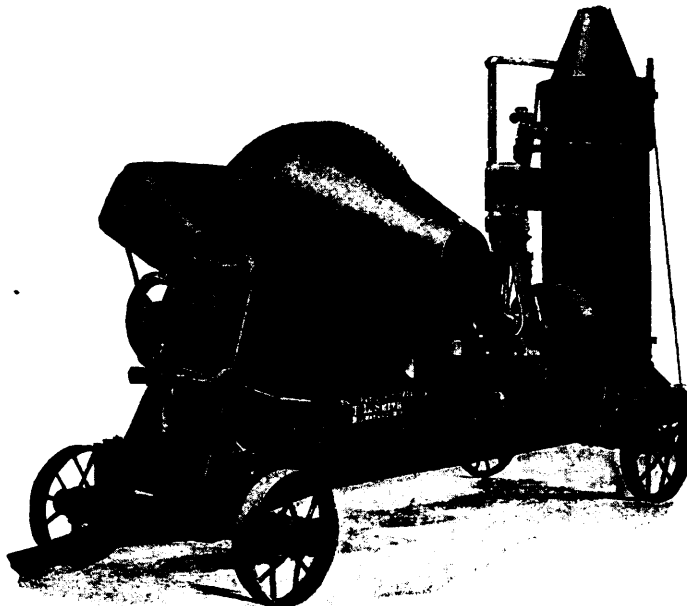
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other officers as may be designated, to prepare and issue tariffs of freight and passenger tolls to be charged as provided in the Railway Act, 1903.

The Hon. Sir Geo. A. Drummond, Sir Sandford Fleming, G. R. Harris, and W. D. Matthews, whose terms of office had expired, were re-elected directors.

The meeting having been made special, it was decided to increase the ordinary capital stock of the company by \$25,500,000, the same to be issued from time to time as the exigencies of the company may require, and at not less than par.

At a subsequent meeting Sir Wm. C. Van Horne was re-elected Chairman and Sir Thos. G. Shaughnessy President, the following being elected as the executive committee:—Sir Wm. C. Van Horne, Lord Strathcona, Sir Thos. G. Shaughnessy, R. B. Angus, E. B. Osler.

### Central Vermont Ry. Co.'s Report.

The fifth annual report of the directors of this company, which is controlled by the G.T.R. Co., for the year ended June 30, gives the following particulars:—

Gross receipts.....	\$3,524,291.10
Operating expenses.....	2,765,401.26
Balance.....	\$ 758,889.84
Taxes.....	99,296.79
Net earnings.....	\$ 659,593.05
Other income, interest on securities held by the company.....	10,840.00
Total income.....	\$ 670,433.05
Interest on bonds and rentals of leased lines.....	667,787.10
Net surplus over fixed charges.....	\$ 2,645.95

The gross earnings decreased \$112,090.81, which is accounted for by the very cold and stormy weather which prevailed during Dec., Jan., Feb., and March. Notwithstanding the difficulties experienced in operation during a winter of almost unparalleled severity, a decrease of \$121,373.07 has been made in the cost of conducting transportation, leaving a net surplus of \$2,645.95. The increase of \$125,000 in notes payable is in consequence of a loan obtained for the purpose of meeting payments on heavy purchases of supplies, which obligation has since the close of the fiscal year been fully discharged. The property has been efficiently operated and well maintained, and the policy inaugurated at the re-organization of the company, to make extensive bridge and rail renewals from revenue, has been continued. Improvements and extraordinary expenditures to the amount of \$133,169.59 have been included in operating expenses. While there was a decrease of \$41,898.01 in maintenance of way and structures, due to the fact that bridge renewals were not so extensive as during the previous year, there was an increase of \$49,461.74 in maintenance of equipment, arising from the purchase of three 10-wheel passenger locomotives and the building of a number of cabooses and freight cars in St. Albans shops. The renewal of bridges between St. Johns and White River Junction has been completed, and heavy modern power is now running on that portion of the line. At the last session of the Massachusetts Legislature, a bill was passed authorizing the removal of the joint railway and highway bridge over the Connecticut river at Northfield, Mass., and the erection of a steel bridge in place of it, for the exclusive use of the railway. The erection of the new bridge is now under way and should be completed by Jan. 1. The light iron bridge over the river at Millers Falls, Mass., will be replaced by a new steel structure and a few small bridges on the Southern Division will be strengthened during the current year, to enable the company to utilize heavier power, and reduce the cost of conducting transportation on that division, which has been abnormally heavy. With the completion of the work now in hand, and contem-

plated during the current year, the heavy renewals of bridges and rails will cease, and net revenue will then be available for the acquisition of new cars and locomotives which the proper handling of the traffic makes necessary. While the business conditions of the country are such that some decrease is anticipated in the freight receipts, it is hoped that the passenger earnings will at least equal those of the past year.

The report is signed by C. M. Hays, President. From the reports of the officials appended the following information is extracted:—

E. H. Fitzhugh, Vice-President and General Manager, states that there had been charged to operating expenses \$133,169.59, which had been expended on improvements on the line and additional equipment. Included in this were the following items: New bridges, \$26,672.01; new tracks, sidings and spurs, \$4,679.77; new fuel and water stations, locomotive houses and turntables, \$2,368.45; new stations and warehouses, \$12,069.06; new steel rails (difference in value of old rails taken up and new rails laid down), \$9,438.80; new docks and wharves, \$1,030; ballasting, \$15,464.69; new locomotives, \$42,000.61; new cabooses, \$3,538.52; new freight cars, \$11,814.97; new crossings, \$4,092.71. The train mileage was:—Passenger, 1,025,502 miles; freight, 1,359,843 miles; mixed, 176,199 miles; miles earning revenue, 2,561,544 miles; piloting, switching, light running and work trains, 740,453 miles; total engine miles run, 3,301,997, a decrease of 240,734. The passenger car mileage was 4,530,884 miles, and the freight car mileage 30,989,343, a total of 35,524,227, a decrease of 2,713,288. The percentage of expenses to earnings was 78.47%, compared with 79.05%\* in 1902-03, a decrease of .58%. The percentage of improvements included in operating expenses, to earnings, was 3.78%, compared with 4.22% in 1902-03. The percentage of ordinary expenses to earnings was 74.69%, compared with 74.83% in 1902-03. The number of tons carried one mile was 260,005,865, a decrease of 25,063,736; the earnings per freight train mile were \$1.59, an increase of 13c., and the earnings per ton per mile, 0.90c., an increase of 0.03c. The number of passengers carried one mile, 41,116,941, is a decrease of 826,145; the earnings per passenger train mile, \$1.02, an increase of 2c., and the earnings per passenger mile, 2.31c., an increase of 0.05c. Eight miles of track had been relaid with new 80-lb rails, the 75-lb rails taken up having been relaid on the southern division. Four miles of track on the Cambridge branch, three miles on the Rouses' Point branch, and half a mile on the Waterloo branch had been relaid with 56-lb rails released from the Southern Division. Sixteen miles of track on the Southern Division had been relaid, and 32 miles on the main line and branches had been ballasted. New sidings aggregating 3,714 ft. had been constructed, and improvements had been effected at various points on the line by the reconstruction and strengthening of bridges; the erection of a new turntable at St. Albans, a coal handling plant at White River Jct., and buildings for freight and passenger stations. Heavy repairs had been given to 64 locomotives and light repairs to 33, while eight old locomotives had been scrapped. Three new 10-wheel passenger locomotives had been purchased, and there had been constructed at the St. Albans shops, 25 flat cars costing \$9,223; four cabooses costing \$2,566; and one refrigerator car costing \$678.

The company owns 483.6 miles of track, including 6.2 miles of double track, and 105.9 miles of yard tracks, sidings and spur tracks, and operates 206.9 miles of track on leased lines, of which 7.8 miles has a third rail for narrow gauge traffic, and including 47.4 miles of yard tracks, sidings and spur tracks.

The condensed balance sheet is as follows:—

ASSETS.	
Cost of road and equipment.....	\$13,839,510.92
Bonds deposited with trustee.....	1,000,000.00
Materials and supplies on hand.....	230,528.31
Cash on hand and in transit.....	122,959.86
Investment in bonds.....	267,779.68
Sundry accounts collectible:—	
Due from agents.....	100,670.01
Due from U.S. and Canada, carrying mails.....	20,625.62
Due from sundry railways and individuals.....	302,796.73
Advances fast freight line, account working fund.....	9,950.00
	\$15,894,821.13
LIABILITIES.	
First mortgage bonds.....	\$12,000,000.00
Common stock.....	3,000,000.00
Interest due.....	12,176.00
Interest accrued not due.....	76,372.40
Taxes accrued not due.....	55,515.57
Sundry accounts payable:	
Vouchers and pay rolls.....	398,753.69
Sundry railroads and individuals.....	64,892.33
Notes payable.....	275,000.00
Profit and loss.....	12,111.14
	\$15,894,821.13

At the annual meeting at St. Albans, Vt., Oct. 11, the old directors were re-elected, with the exception of J. L. Martin, who retired, the vacancy thereby occasioned being filled by the election of C. W. Witters. Following are the chief officers for the current year: President, C. M. Hays; Vice-President and General Manager, E. H. Fitzhugh; Treasurer, W. H. Chaffee; Attorney, C. W. Witters.

### RAILWAY FINANCE MEETINGS, ETC.

**Alberta Ry. and Irrigation Co.**—The first annual meeting of shareholders will be held in London, Eng., Nov. 2, for the election of directors and the transaction of general business.

**Bellingham Bay and British Columbia Rd.**—Press reports state that options on the stock of this line have been acquired by what is known as the Rockefeller group of financiers, with the object of securing a Pacific coast terminus for the Chicago, Milwaukee and St. Paul Ry. The B.B. and B.C. Rd. is a short line in Washington which makes a junction with the C.P.R. at Sumas, B.C. The company has completed surveys for an extension of its line from Bellingham to Seattle, Wash.

**British Columbia Electric Ry.**—Railway earnings for Aug.:—Vancouver, \$22,701; Victoria, \$10,832; New Westminster, \$12,475; total, \$46,008, against \$41,071 for Aug., 1903. Gross earnings: railway and lighting, \$68,481, against \$61,893 for Aug., 1903. Working expenses, \$38,893; renewal funds, \$6,695; net income, \$22,893, against \$35,163, \$4,988 and \$21,742, respectively, for Aug., 1903. Aggregate net earnings for two months ended Aug. 31, \$48,599, against \$45,695, for same period 1903.

**Canada Atlantic Ry.**—It is unofficially stated that nothing will be done in the way of transferring the C.A. Ry. to the G.T.R. until after the necessary legislation has been secured from the Dominion Parliament. There are a number of reports being circulated as to the future of the line. One is that the general offices at Ottawa will be closed and the staff removed to Montreal, and another is that the line will be operated in connection with the Central Vermont Ry.

**Canadian Northern Ry.**—Gross earnings for Sept. \$292,700, against \$270,800 for Sept., 1903, making for three months ended Sept. 30, \$899,600, against \$776,400 for same period, 1903. Net earnings for Aug., \$99,500, against \$81,700 for Aug., 1903, making for two months ended Aug. 31, \$190,600 against \$170,900 for same period, 1903.

A Chicago firm is offering for sale \$450,000 C.N.R. first mortgage 5% car trust notes, series G, 1904, denomination \$1,000 each, issued to the Imperial Rolling Stock Co., and dated Sept. 1, 1904.

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**Canadian Pacific Ry.**—The directors have decided to issue to shareholders of record Oct. 27, \$16,900,000 of the \$25,500,000 of additional common stock authorized to be issued at the annual meeting held Oct. 5. The issue will be made at par on the basis of 20% of the present holdings of the respective shareholders.

**The Cape Breton Electric Co. Ry.** owns the electric railway in the town of Sydney, N.S., the interurban line connecting Sydney and North Sydney; the ferry service operated on Sydney harbor; the electric lighting plant in Sydney and North Sydney; and jointly with the Dominion Coal Co., the Sydney and Glace Bay Ry., an electric line 15 miles in length. The company has issued \$850,000 out of a total authorized issue of \$1,500,000 of 5% 30-year gold bonds, due Jan. 1, 1932. A sinking fund of 1% is maintained and the bonds are callable as a whole at 105 and interest, on any interest day. There has also been issued \$234,000 of 6% non-cumulative preferred stock, redeemable at 120; and \$1,000,000 of common stock. The total authorized capital is \$2,000,000, of which there has now been issued \$1,234,000. The shareholders have sanctioned the issue altogether of \$250,000 of preference stock, and have power to declare more of its unissued stock to be preference stock. For the year ended Dec. 31, 1903, the financial statement showed the following results:—Gross earnings, \$171,596.14; operating expenses, \$110,983.50; net earnings, \$60,612.64; fixed charges, \$42,500; net profit, \$18,112.64.

**Caraquet Ry.**—Notice has been given to holders of original bonds of this line who have not already deposited them with the agents for the London, Eng., Bondholders' Committee, to do so forthwith, or their securities will be rendered valueless.

**Central Ontario Ry.**—A further meeting of shareholders has been called to be held at Trenton, Ont., Nov. 21, to consider the litigation pending in connection with the bonds and coupons outstanding under the mortgage dated April 1, 1882, and the judgment obtained in connection therewith, and for the sale of the railway; to take such action as may be necessary in connection therewith, and to contest the actions, and to set aside the judgment for sale; and to authorize the directors to take any actions that may be necessary against all persons, or the estates of such, who have held executive or professional relations with the railway, for any loss or damages that may have been sustained by any malfeasance of office. It is also desired to provide for the cancellation of existing bonds and coupons, and to provide for a new issue of bonds to pay off such indebtedness as the railway may be legally liable for, and to provide funds for the further extension of the line for 40 miles.

**Duluth, South Shore and Atlantic Ry.**—Following are the officers for the current year:—President, W. P. Fitch; First Vice-President, Sir Thos. Shaughnessy; Second Vice-President, G. H. Church; Assistant Treasurer and Transfer Agent, A. Starke; Secretary, E. W. Allen. The Executive Committee consists of the President and Vice-Presidents.

**Halifax Electric Tramway.**—Railway receipts for Sept., \$17,862.47, against \$18,494.60 for Sept., 1903, making for nine months ended Sept. 31, \$121,886.03 against \$114,951.68 for same period, 1903.

**Hamilton, Grimsby and Beamsville Ry.** Dividends have hitherto been paid quarterly. Since the change in control two dividend days—July 1 and Oct. 1—have passed and no cheques have been sent out. The vacancies on the board have not been filled.

**Kaslo and Slocan Ry.**—It is reported that the general offices at Kaslo, B.C., are to be closed up, and that the line will be taken over

by the Spokane Falls and Northern Ry., the Great Northern Ry. (U.S.) subsidiary, which operates the G.N. Ry. lines in B.C.

**Levis County Ry.**—The report for the year ended June 30, shows gross income, \$35,044.04; operating expenses, \$23,201; net income, \$11,843.04; interest and fixed charges, \$10,831.13; surplus from operation, \$1,011.91. The earnings for the three months since the closing of the report were \$7,879.75, against \$10,990.57; the decrease being due to the differences with the company supplying the power, which resulted in the stoppage of the lines from July 2 to Aug. 9. In consequence of this the L.C.R. Co. decided to build a steam power station of 700 h.p. in two parts of 350 h.p. each; one of which has been purchased and will be put in running order. On the settlement of the power question a five year contract for 600 h.p., at a charge of \$1.66 per h.p. less than formerly, was made. The following statement at June 30 showed:—Assets—cost of road and rolling stock, \$297,573.58; right of way and real estate, \$1,309.45; elevator property and equipment, \$29,394.32; buildings and fixtures \$15,837.23; substation equipment, \$29,677.00; shop tools, machinery and supplies, \$3,091.82; cash, \$906.00; total, \$380,820.00. Liabilities—Capital stock paid in, \$110,700.00; funded debt, \$193,000.00; accrued interest, \$1,608.33; bills payable, \$62,755.70; accounts payable, \$8,351.29; profit and loss (surplus), \$1,104.68; total, \$380,820.00. The directors and officers for the current year are: President, G. U. G. Holman, Quebec; Vice-President, C. Blouin, Levis; Treasurer, H. H. Morse, Levis; Secretary, A. E. Scott, Quebec; other directors: L. E. Thompson, P. E. Bourassa, Levis; E. Waller, New York.

**London and Port Stanley Ry.**—A special meeting of directors was held in London, Ont., Oct. 10, to meet W. Woollatt, Superintendent Buffalo Division, Pere Marquette Rd., which now operates the line, respecting the renewal of the lease. This matter has been discussed at various times within the past three or four years. While ordinary repairs are being made it is estimated that an expenditure of \$100,000 is required to bring the line up to the present requirements of the traffic. The present lease has 10 years to run, the rental being \$17,500 a year. The P.M. Rd. Co. asks for a renewal of the lease for 10 years at \$17,500 a year, and if this is done, it is prepared to expend the money necessary to rebuild bridges and relay the track between London and St. Thomas with heavy rails. In considering the fixing of the rental it pointed out that the company would shortly have to meet the competition of an electric railway running between London and Port Stanley, which would interfere with the excursion business. Nothing was accomplished at the meeting, and the matter will come up again.

**London Street Ry.**—Gross earnings for Sept., \$29,250.31, against \$19,536.26 for Sept., 1903.

**Montreal Park and Island Ry.**—Following are the officers and directors for the current year:—President, Hon. L. J. Forget; Vice-President, K. W. Blackwell; Manager, W. G. Ross; other directors: F. L. Wanklyn, D. McDonald, Sir H. M. Allan, Lieut.-Col. Henshaw; Secretary, P. Dubee.

**Montreal Street Ry.**—A dividend of 2½% for the quarter ended Sept. 30, will be paid Nov. 2, on which day the annual meeting will also be held. The percentage of earnings to be paid the city for the year ended Aug. 31, is \$127,483.29. This is calculated on the earnings within the city, but the city claims it is entitled to percentage on the gross receipts. The earnings in outside municipalities amounted during the year to \$257,296.19, and an action is pending in regard to the payment of percentage on these earnings.

**Montreal Terminal Ry. Co.**—At the annual meeting Oct. 13, reports were presented showing satisfactory operations for the financial year, and steps were taken with a view of extending the mileage of the company in the city. The directors and officers for the current year are:—President, D. Murphy; Vice-President, S. H. Ewing; other directors: D. B. Macaulay, H. H. Melville, J. P. Cleg-horn, C. H. Catelli, J. Tasker, J. P. Mullarky, M. Mackenzie.

**Nicola, Kamloops and Similkameen Ry.**—A mortgage deed to secure first mortgage bonds to the extent of \$30,000 a mile has been made to D. B. Crombie, as trustee, upon the whole of the property, assets, rents and revenues of the company, and a copy has been deposited with the Secretary of State at Ottawa.

**Noshonong and Nipissing Ry.**—Gross revenue for year ended June 30, \$49,040.64; expenses, \$43,953.92, against \$43,047.00 and \$37,397.66 respectively for same period 1902-03. The directors are the same as last year.

**Pere Marquette Rd.**—A U.S. press report states that the new combination is to be styled the Chicago, Hamilton and Dayton, and Pere Marquette System, Great Central Route.

**Qu'Appelle, Long Lake and Saskatchewan Ry.**—Net earnings for Aug., \$1,272.06, against a net loss of \$1,137.19 for Aug., 1903; making for nine months ended Aug. 31, net loss of \$40,155.11, against net earnings of \$15,003.81 for same period 1902-03.

**Quebec and Lake St. John Ry.**—Gross earnings for Aug., \$54,908, against \$54,169 for Aug., 1903; making for eight months ended Aug. 31, \$291,957, against \$283,837 for same period, 1903.

**Quebec Central Ry.**—Gross receipts for Sept. \$75,703, against \$68,968 for Sept., 1903. Net earnings for eight months ended Aug. 31, \$170,813, against \$134,082 for same period, 1903.

**St. Thomas, Ont., Street Ry.** Reports to the city council show that the gross receipts of its street railway for Sept. were \$1,545.92, against \$1,192.18 for Sept., 1903. Including \$4,361.90 advanced by the city to meet extraordinary expenses, the receipts for nine months to Sept. 30, were \$16,254.21, and the expenditure \$15,113.59.

**Sydney and Glace Bay Ry.**—Gross earnings for year ended Dec. 31, 1903, \$104,788.25; operating expenses, \$66,528.80; net earnings, \$38,259.45. The net earnings are divided equally between the Cape Breton Electric Co. and the Dominion Coal Co., which each own 50% of the bonds and common stock.

**Temiscouata Ry.**—Net earnings for Aug., \$1,271, making for eight months ended Aug. 31, \$13,093. At a meeting of shareholders and registered bondholders at Quebec, Oct. 18, it was decided to ask the Governor-in-Council to issue a proclamation bringing into force the act passed at the last session of the Dominion Parliament. The act deals with the finances of the company and has been approved by the general body of bondholders in London, Eng.

**Toronto, Hamilton and Buffalo Ry.**—Gross earnings for Sept., \$52,045.28, against \$49,511.48 for Sept., 1903, making for four months ended Sept. 30, \$216,728.03, against \$196,266.09 for same period, 1903.

A mortgage deed, dated June 1, 1904, made between the company and N. Kingsmill and C. F. Cox, trustees, for the purpose of securing second mortgage bonds to the amount of \$1,000,000, was deposited with the Secretary of State at Ottawa, Oct. 13.

**White Pass and Yukon Ry.**—Gross earnings for Sept., \$355,950, making for three months ended Sept. 30, \$1,181,204.

**Winnipeg Electric Street Ry.**—A dividend of 1½% for the quarter ended Sept. 30, was paid to shareholders of record of that date, Oct. 15.





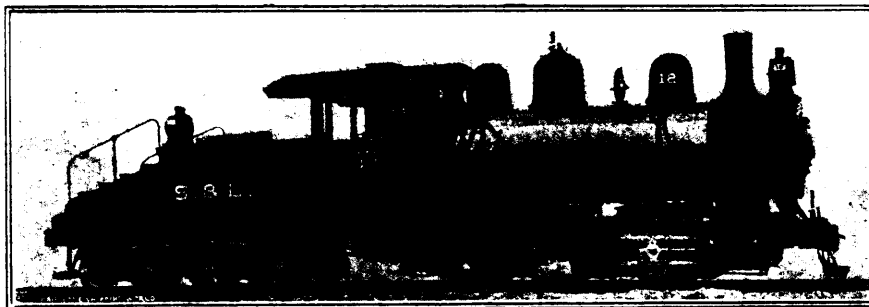
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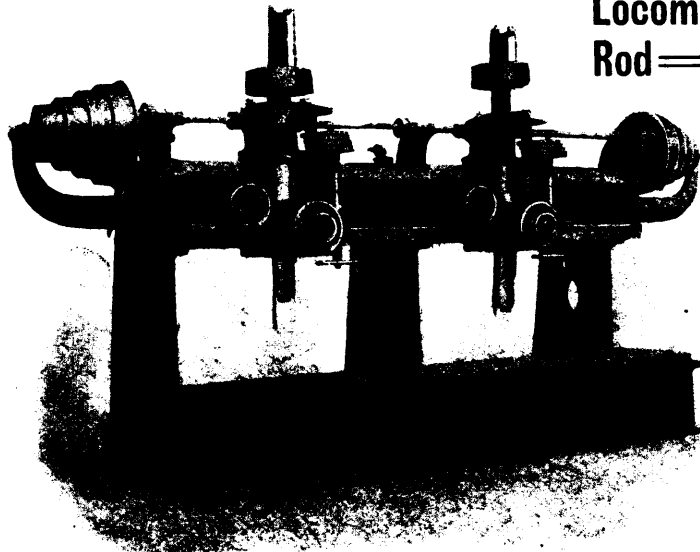
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## MAINLY ABOUT PEOPLE.

A. Putnam, formerly a large shipowner of Halifax, N.S., died there Oct. 12, aged 68.

A. W. Hepburn, of Picton, Ont., formerly owner of the str. Argyle, has gone to Cuba.

Jas. C. Fairgrieve, son of Capt. Fairgrieve, of Hamilton, Ont., died there Oct. 23, aged 47.

A. Ardagh, cashier Canadian Ex. Co., Toronto, died at the Western Hospital, Toronto, Oct. 21.

B. C. Meddaugh, City Passenger Agent, G.T.R., at Milwaukee, Wis., died there Oct. 6, aged 65.

J. B. Rumbalt, local manager of the Bell Telephone Co., Clinton, Ont., had a paralytic seizure, Oct. 13.

The will of the late Marcus Smith, C.E., who died at Ottawa, Ont., in Aug., has been proved at \$84,000.

C. M. Hays, Second Vice-President and General Manager, G.T.R., left Montreal for London, Eng., Oct. 5.

Dr. J. Finlay, of the Bermuda and Halifax Cable Co., Halifax, N.S., was married there Oct. 11, to Miss B. Keene.

J. T. Dunstan, chief draughtsman of the I.C.R., Moncton, N.B., was married there Oct. 19, to Miss A. E. Penna.

F. C. Robins has been appointed district superintendent of the Canadian Railway Accident Insurance Co., Ottawa.

W. T. Peters, father of F. W. Peters, Assistant Freight Traffic Manager, C.P.R. at Winnipeg, died there recently aged 87.

H. D. Lumsden, Chief Engineer Transcontinental Ry. Commission, is giving up his Toronto residence to go to Ottawa.

A portion of the outbuildings at the residence of Barlow Cumberland, at Port Hope, Ont., were destroyed by fire, Oct. 4.

G. Drinkwater, of Toronto, son of C. Drinkwater, Secretary C.P.R., was married to Miss M. Greenshields, at Montreal, Oct. 6.

J. V. McDonald, a contractor on the Halifax and Southwestern Ry., was married at Chester, N.S., Oct. 3, to Miss P. Butler.

The will of the late Alex. Lumsden, shipowner and lumber merchant, Ottawa, who died there recently, has been proved at \$935,042.

L. R. Henderson, formerly of the C.P.R. engineering staff, who is engaged in railway contracting in South Africa, is on a visit to Montreal.

W. S. Kennedy, who died in South Africa, Sept. 29, was the eldest son of J. Kennedy, C.E., Chief Engineer of the Montreal Harbor Commission.

G. A. Ritchie, who has been appointed superintendent engineer of the Metropolitan Steamship Co., New York, is a native of Halifax, N.S.

Miss A. B. Mills, daughter of J. Mills, Railway Commissioner, was married at Guelph, Oct. 11, to R. A. Hamilton, of Palmerston, Ont.

E. Wragge, consulting engineer, formerly local manager G.T.R. in Toronto, who has been in England for several years, has returned to Toronto.

Hon. W. Harty, President Canadian Locomotive Co., Kingston, Ont., is the Liberal candidate for that constituency at the pending Dominion election.

D. E. Brown, General Agent, C.P.R., for China, Japan, etc., returned to Montreal, Oct. 11, from England, and left for Hong Kong at the end of Oct.

J. Charlton, President Tillsonburg, Lake Erie and Pacific Ry., has retired from Parliamentary life, and is not a candidate for North Norfolk at the pending election.

D. S. Crawford, of the Boston and Albany Rd. engineering staff, Boston, Mass., and a native of Sussex, N.B., was married at Halifax, N.S., Oct. 11, to Miss H. G. Burford.

E. S. Senkler, solicitor to the Temiskaming and Northern Ontario Ry. Commission at North Bay, Ont., was married to Miss McLaughlin, at Bowmanville, Ont., Oct. 6.

T. H. McCauley, Superintendent of the Railway and Lighting Department of Port Arthur, Ont., has been voted an increase of salary on account of his efficient services.

W. C. Brown, Vice-President New York Central, Lake Shore and Michigan Southern Railroads, press reports state, will be elected President, and will take over the duties Jan. 1.

J. A. Crawford was recently presented with a Morris chair by the business men of Simcoe, Ont., on retiring from the position of station agent, G.T.R. and Wabash Rd. there.

W. G. Ross, Managing Director Montreal Street Ry., was elected President of the Street Railway Accountant's Association of America at the annual meeting held at St. Louis, Mo., Oct. 17.

Capt. J. Dandy, for many years engaged on Upper Lake steamers, and later in command

down by a street car in Winnipeg, Sept. 30, and slightly injured.

G. V. Reed, assistant electrical engineer, Quebec Ry. Light and Power Co., was presented with a purse of gold by the employes of the company, on leaving Quebec for Moose Jaw, Assa., Sept. 30.

V. G. Snell, agent at Montreal of the National Despatch and Great Eastern Line, was, on Oct. 13, presented with a Morris chair by the G.T.R. freight staff, Montreal, on the occasion of his marriage.

Capt. Gaskin, formerly outside manager of the Montreal Transportation Co., Kingston, Ont., is the Conservative candidate for that constituency for the Dominion Parliament at the pending election.

E. A. Geiger, formerly Superintendent, etc., Brockville, Westport and Northwestern Ry., Brockville, Ont., has removed to New York. Mrs. Geiger and family will remain at Brockville for the present.

A. McIntyre, who died recently at Princeton, Ont., aged 71, was in the employ of the Great Western Ry., and its successor the G.T.R., for 35 years, and left four sons, all of whom are employed on the G.T.R.

E. Peterson was presented, Oct. 4, with a gold watch by the residents of St. Hilaire, Que., on his being promoted from the position of station master, after eleven years' service, to a similar position at St. Lambert.

Jas. Connee, railway contractor, Port Arthur, Ont., has resigned his seat in the Ontario Legislature to become Liberal candidate for Thunder Bay and Rainy River District in the Dominion Parliament.

Jos. Riele, C.E., Montreal, was presented with an address and a gold-headed cane by members of the Canadian Society of Civil Engineers, Oct. 6, on the occasion of the completion of 50 years' practice in the city.

Jno. Byrne, foreman mechanical department, Dominion Iron and Steel Co., Sydney, N.S., was given a purse of gold by the employes, Oct. 15, on leaving for Buffalo, N.Y., to take a similar position with another company.

G. H. Smith, chief clerk in the C.P.R. Freight Traffic Managers' office, Montreal, was recently made the recipient of a gift by the members of the freight staff on the occasion of his marriage to Miss A. Emery, Toronto.

J. A. Shaw, heretofore of the engineering staff of the Montreal Light, Heat and Power Co., was presented with a cabinet of silver Oct. 11, on the occasion of his recent marriage, and his joining the C.P.R. electrical engineering staff.

J. H. Black was given a silver service by the officials of the Kingston and Pembroke Ry., Oct. 6, on giving up his position as Auditor to take up that of General Freight and Passenger Agent of the Temiskaming and Northern Ontario Ry.

H. Sutherland, executive agent, and E. A. James, Manager, Canadian Northern Ry., were thrown from a motor car on the line near Winnipeg, Man., recently, and Mr. Sutherland sustained a wrenched wrist and shoulder, as well as other injuries.

J. L. Bartlett, general foreman of the Pere Marquette Rd. shops at Walkerville, Ont., was presented with a gold-headed umbrella, and Mrs. Bartlett was given a gold watch, by the shop employes, recently, on the occasion of their departure for California.

A press report states that E. H. Fitzhugh, Vice-President and General Manager Central Vermont Ry., will be appointed Fourth Vice-President G.T.R., and that E. J. Chamberlin, General Manager Canada Atlantic Ry., will be appointed to the Central Vermont Ry.



C. A. YOUNG,

Commissioner National Transcontinental Ry.

of the Jessie Bain, of the St. Lawrence River Steamboat Line, died at Kingston, Ont., Oct. 13.

W. T. Jennings, Chief Engineer of the Toronto and Hamilton Ry., was elected an officer of the Upper Canada College Old Boys' Association, Toronto, at its 13th anniversary gathering.

W. Griffith, shop foreman, was recently presented with a gold chain and Masonic emblem by the employes of the Pere Marquette shops at Walkerville, Ont., on leaving for California.

Major-General A. C. Bunbury, late of the Bengal staff corps, who died suddenly in England, Sept. 29, was father of W. B. Bunbury, of the B.C. Electric Ry. Co.'s staff, Vancouver, B.C.

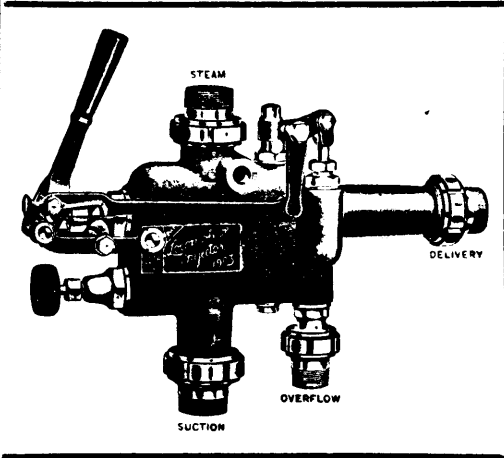
J. H. Macpherson, paymaster of the C.P.R., Winnipeg, Man., was recently presented with a cabinet of silver and table cutlery by the staff, on the occasion of his marriage to Miss Forrest of Quebec.

J. D. Beatty, President of the Sarnia, Ont., Street Ry., and formerly Manager of the Northwest Transportation Co., was knocked

THE BEST

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is the one that always does everything expected of it whenever it is expected. Such an INJECTOR is our special



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### C.P.R. LANDS.

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

#### TERMS OF PAYMENT.

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

- 160 acres at \$4.00 per acre, 1st instalment \$95.85, and 9 equal instalments of \$80.
- 160 acres at \$4.50 per acre, 1st instalment \$107.85, and 9 equal instalments of \$90.
- 160 acres at \$5.00 per acre, 1st instalment \$119.85, and 9 equal instalments of \$100.
- 160 acres at \$5.50 per acre, 1st instalment \$131.80, and 9 equal instalments of \$110.
- 160 acres at \$6.00 per acre, 1st instalment \$143.80, and 9 equal instalments of \$120.00.
- 160 acres at \$6.50 per acre, 1st instalment \$155.80, and 9 equal instalments of \$130.00.
- 160 acres at \$7.00 per acre, 1st instalment \$167.80, and 9 equal instalments of \$140.00.

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

#### DISCOUNT FOR CASH.

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

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

#### CANADA NORTH-WEST LAND CO.

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

## TORONTO BOLT AND FORGING CO.

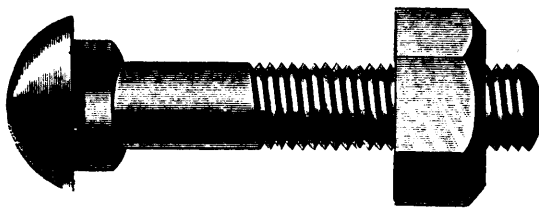
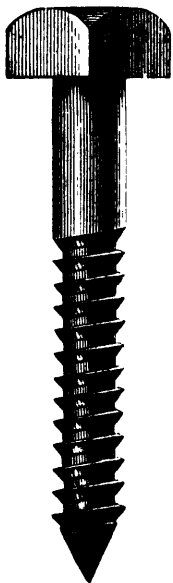
Manufacturers of

LIMITED

### BOLTS AND NUTS

OF ALL KINDS, INCLUDING

**Track Bolts**  
**Track Spikes**  
**Lag Screws**  
**Boiler and**  
**Bridge Rivets**



TORONTO

CANADA

### DEPARTMENT OF AGRICULTURE AND IMMIGRATION

**MANITOBA** with its network of railways, giving markets near at hand for all farm products, offers unrivalled opportunities for investment.

**PROVINCIAL GOVERNMENT LANDS** can still be purchased at from \$3 to \$6 per acre. **IMPROVED FARMS** in all districts of the province can be purchased at from \$10 to \$40 per acre. These prices are advancing every year.

#### A FEW POINTERS.

On arrival at Winnipeg the wisest policy for any new settler to adopt is to remain in Winnipeg for a few days and learn for himself all about the lands offered for sale and to homestead.

There are districts that have been settled for many years in which land can be purchased. Some of this may be unbroken prairie which still possesses all the richness and productive powers of our virgin prairies. Other lands, cultivated and having comfortable farm buildings, are ready for immediate possession.

There are Provincial Government lands, Dominion Government homesteads, and railway lands to be secured.

The price of land varies from \$3 to \$40 per acre. Location with respect to railways, towns, timber and water determines the price of land.

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

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

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

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

For situations as farm laborers apply to:  
**J. J. GOLDEN,**  
PROVINCIAL INFORMATION BUREAU  
617 MAIN ST., WINNIPEG

"I must confess," said Maud, "that I am disappointed in Harold. He isn't a bit original or quick at repartee."  
"How do you know?" asked Mamie.  
"I said I couldn't express my feelings, and he didn't tell me to send them by freight."

N. W. Bethune was presented with an address and a set of 216 pieces of silver plate by the citizens and the telegraph staff of Ottawa, Oct. 21, on the occasion of his retirement from the position of Superintendent G.N.W. Telegraph Co., there, after many years' service.

Press reports that C. M. Hays had resigned as Second Vice-President and General Manager, G.T.R., have been denied from London, Eng., where Mr. Hays is. The position which it was stated he was to accept was that of President of the New York Central and Hudson River Ry.

A. H. Notman, Assistant General Passenger Agent, C.P.R., left Toronto Oct. 12 for California, where he will spend a couple of months or so for the benefit of his health. G. C. Wells, of the Passenger Traffic Manager's office, Montreal, is taking Mr. Notman's place in his absence.

A. O. Norton, manufacturer of lifting jacks, has arrived at Lake Massawippi, Que., in his 24 h.p. automobile, and is entertaining a party of railway friends at his fishing preserves in the Lake St. John district and at his unique and appropriately named summer home, "The-House-that-Jack-Built."

C. S. McCarthy, who was recently appointed General Air Brake Inspector, Intercolonial Ry., at Moncton, N.B., was born there Jan. 29, 1858, and entered railway service in 1876 as fireman, being promoted to be an engineer, Oct., 1880, which position he held continuously until his present appointment.

T. Crockett, the Liberal-Conservative candidate for the representation of Bonaventure county, Que., in the Dominion Parliament, was in the I.C.R. service from 1871 to 1889, when he went to the Temiscouata Ry., as General Superintendent, becoming General Manager in 1894 and remaining in that position until 1901.

C. R. Coutlee, who was recently appointed to have charge of road improvement work in Nova Scotia, on behalf of the Provincial Government, has been appointed engineer in charge of the survey of the Montreal, Ottawa and Georgian Bay Canal for the Montreal district, in place of G. P. Brophy, who declined to act.

U. E. Thompson, who was G.T.R. city ticket agent, Canadian Ex. Co. agent, and local manager of the G.N.W. Telegraph Co., as well as a private banker at Belleville, Ont., died recently, and application has been made to the courts to wind up the estate. The total liabilities are \$86,000, and the assets have a face value of \$30,000.

J. D. Purkis and Mrs. Purkis, of Prescott, Ont., celebrated their golden wedding there, Sept. 29. Mr. Purkis was for a couple of years General Manager of the British North American Telegraph Co., at Quebec; from 1870 to 1875 was General Manager of the Dominion Telegraph Co., Toronto, and since returning to Prescott, has been associated with the ferry company there.

A. S. Begg, Superintendent of Terminals, G.T.R., at Port Huron, Mich., was suffocated by coal gas in the Sarnia tunnel, Oct. 11. Owing to the breaking in two of a freight train in the tunnel the train crew were left in danger, and rescue parties went in from both the Sarnia and the Port Huron ends of the tunnel, with the result that six men, including Mr. Begg, were brought out dead.

Dr. Hans Goldschmidt, the eminent chemical scientist of Essen-Buhr, Germany, was in Montreal recently, the guest of W. Abbott, his representative in Canada, and delivered a lecture, illustrated by lantern slides, at McGill University, on the Alumine-Thermit process of welding, as well as on its use in metallurgy and in the foundry, with practical demonstrations.

W. F. Brougham, who has recently been appointed Local Right of Way and Lease Agent, C.P.R., at Vancouver, B.C., was born in Westmoreland, Eng., Nov. 25, 1865; graduated B.A. with honors at Cambridge University, Eng., 1888; was admitted a solicitor in England in 1894, and in R.C. in 1898. He entered railway service Aug., 1902, as clerk to the General Superintendent, C.P.R., at Vancouver, remaining there until appointed Local Right of Way and Lease Agent, in July, 1904.

W. J. Croasdale, C.E., who died at Moncton, N.B., Oct. 6, aged 78, was for 50 years engaged in railway survey and construction in the Maritime Provinces. Among the lines he was associated with were the St. Andrews and Quebec Ry.; St. John to Point du Chene, N.B., for the European and North American Ry.; Sydney to Louisburg, N.S.; Londonderry to Truro, N.S., for Londonderry Iron Works; Intercolonial Ry. from Moncton to Newcastle, N.B.; Montreal, Ottawa and Occidental Ry., from Ste. Theresa to Granville, Que.; Albert Ry., Albert Southern Ry., Kent Northern Ry., Moncton and Buctouche Ry.

C. A. Magrath, who has been appointed Land Commissioner and Assistant to the President, Alberta Railway and Irrigation Co., Lethbridge, Alta., was born at North Augusta, Ont., April 22, 1860, and in 1878 removed to the Northwest Territories. He is a Provincial Land Surveyor for Ontario, a Dominion Land Surveyor, and a Territorial Surveyor, and practised his profession in the Northwest until 1878, when he was appointed Land Agent for the Alberta Ry. and Coal Co. He sat in the Northwest Assembly for Lethbridge, from 1891, and became a member of the Territorial Government in 1897, subsequently retiring from political life.

M. C. Sturtevant, whose portrait appears on the first page of this issue, was born at St. Albans, Vt., Aug. 28, 1866, and entered railway service in 1880, as messenger in the office of the Trainmaster, Central Vermont Ry., since which he has been consecutively to Nov. 1, 1889, clerk to General Manager and clerk to General Superintendent, same road; Nov., 1889, to Jan., 1890, clerk General Passenger Agents' department, Chicago, Rock Island and Pacific Ry., at Chicago, Ill.; Jan. to Mar., 1890, clerk to Superintendent Illinois Central Rd., at Chicago; Mar., 1890, to Nov., 1892, clerk and agent Pullman's Palace Car Co., at Chicago; Nov., 1892, to Feb., 1898, clerk and chief clerk to Superintendent of Transportation, Illinois Central Rd., at Chicago; Feb., 1898 to date, Car Service Agent, G.T.R., at Montreal.

J. McGillivray, who has been appointed Superintendent of the railway lines of the Inverness Ry. and Coal Co. at Inverness, N.S., was born at Nairn, Scotland, Nov. 13, 1867, and entered railway service in 1887, his record being: Stenographer to the Assistant Superintendent C.P.R. lines between Port Arthur, Ont., and Winnipeg; secretary to the General Superintendent Western Division C.P.R.; secretary to the Manager of C.P.R. lines west of Lake Superior; chief clerk and accountant to the Superintendent C.P.R., Manitoba Division; chief clerk to the C.P.R. Superintendent of Transportation at Winnipeg. In June, 1902, he left the C.P.R. service with E. A. James, Superintendent of Transportation, and remained with him as chief clerk, on his appointment as General Superintendent, and afterwards as Manager Canadian Northern Ry. at Winnipeg. July, 1904, to Aug. 30, 1904, Trainmaster, C.N. Ry., at Kamsack, Assa.

S. J. McLean, M.A., Ph.D., an arts and law graduate of the University of Toronto, and recently Professor of Political Economy at the Leland Stanford University, Cal., has been appointed by the U.S. Government an

expert special field agent in connection with the Census Bureau, under the Department of Commerce and Labor, in obtaining data for the valuation of railway property in the U.S. This work is being done by the Bureau and the Interstate Commerce Commission in co-operation, under the direction of Prof. H. C. Adams, statistician of the Interstate Commerce Commission. The results will appear in the census volume on wealth, debt and taxation, which will be published next year. Mr. McLean is dealing particularly with the Pacific slope, and is carrying on this work jointly with his duties as professor in Leland Stanford University, having just returned to the university from St. Louis, after having attended a conference of the field agents engaged in the work. In 1902 his services were obtained by the Dominion Government to report upon railway rate matters, railway commissions and regulative legislation.

Cornelius Shields, General Manager Lake Superior Corporation, who died suddenly at Sault Ste. Marie, Ont., Oct. 28, was President of the Consolidated Lake Superior Co. from the early part of 1903 until it went into the hands of a receiver, and was active in working out the plans for its reorganization under its present title. He was born at Albany, N.Y., Jan. 1, 1856, and entered railway service May, 1871, since which he has been consecutively to Mar. 9, 1882, on the Southern Minnesota Rd. and its successor, the Chicago, Milwaukee & St. Paul Ry.; to Oct., 1871, waterboy tracklaying train; Oct., 1871, to Sept., 1873, section hand; Sept., 1873, to Oct., 1874, telegraph operator; Oct., 1874, to Feb., 1881, station agent; Feb. to July, 1881, train dispatcher; July, 1881, to March, 1882, chief train dispatcher; March, 1882, to May, 1883, chief train dispatcher, C.P.R., western division; May, 1883, to Feb., 1887, assistant superintendent same division, same road; March, 1887, to March, 1888, Superintendent, Montana division, St. Paul, Minneapolis & Manitoba Rd.; Mar., 1888, to Mar., 1889, assistant General Superintendent, Chicago, St. Paul & Kansas City Ry.; Mar., 1889, to April, 1892, General Superintendent, same road; May, 1892, to Sept., 1893, General Superintendent, western division, Great Northern Ry.; Sept., 1893, to April, 1898, General Superintendent, Chicago, Great Western Ry.; July, 1898, to Dec., 1899, Vice-President, Spokane Falls & Northern, Nelson & Fort Sheppard, and Columbia & Red Mountain Rys., and President, Red Mountain Ry.; Dec., 1898, to Dec., 1899, also assistant General Superintendent, western division, Great Northern Ry.; Dec., 1899, to April, 1901, Vice-President and General Manager, Virginia Southwestern Ry. and Virginia Iron, Coal and Coke Co.; April, 1901, to May, 1903, General Manager, Dominion Coal Co.; and when the D. Coal Co. and the Dominion Iron and Steel Co. were merged, Vice-President and General Manager.

The extension of the C.P.R. Pheasant Hill branch from Esterhazy to Lipton, Assa., was opened for traffic Oct. 9. It is being operated in connection with the third district, Central Division.

The Canadian Westinghouse Co., Hamilton, Ont., has issued illustrated pamphlets describing the Westinghouse generators for three wire direct current service, and the Westinghouse multiple alternating arc lamp.

The office of H. Moody, London, Eng., Secretary of the C.P.R., is now located in the company's new building in Trafalgar Square, and the office in Queen Victoria St. formerly occupied by him has been given up. The company's old offices on King William St., London, are being utilized as a branch freight and passenger office in connection with the Atlantic steamship service, on account of its proximity to the docks. The office is in charge of G. S. Jones, City Freight Agent.

# JAS. W. PYKE & COMPANY

CANADIAN REPRESENTATIVES

**FRIED. KRUPP, ESSEN, GERMANY.**

Steel Rails.

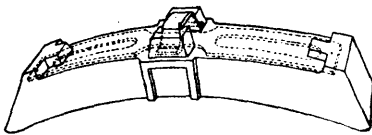
Wrought Iron Steel-Tyred Disc Wheels

Locomotive and Car Wheel Tyres.

Axles, Crank Pins, Forgings, Etc.

FOR STEAM AND  
ELECTRIC RAILWAYS.

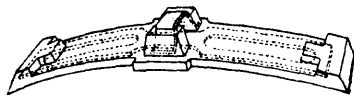
OFFICE: MERCHANTS BANK BUILDING **MONTREAL.**  
205 ST. JAMES STREET,



New, 25 Pounds

**STEEL BACK CAR BRAKE SHOE**

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



Scrap, 5 Pounds

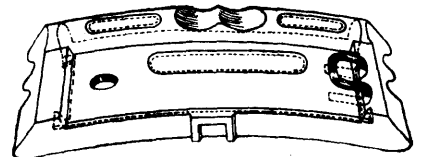
## Steel Back Brake Shoe

ONLY SAFE SHOE FOR HIGH SPEED BRAKES

More dense and durable than common Cast Iron

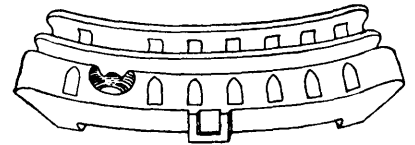
## Perfecto Driver Brake Shoe

THE BEST SHOE FOR GENERAL LOCOMOTIVE  
SERVICE



Back View

**PERFECTO DRIVER BRAKE SHOE**



Contact Surface

**AMERICAN BRAKE SHOE & FOUNDRY CO.**

N. J. HOLDEN, Agent, 18 ST. PETER ST., MONTREAL

MISCELLANEOUS IRON AND  
STEEL CASTINGS

FOR SHEATHING ELEVATORS  
FREIGHT SHEDS AND  
ALL KINDRED  
BUILDINGS



**BUILDING PAPER**

PLAIN,  
RESIN SIZED,  
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Correspondence Solicited

**THE SAULT STE. MARIE PULP & PAPER CO.**  
SAULT STE. MARIE, - ONTARIO

**Railway Equipment Notes.**

The James Bay Ry. has invited tenders for 200 flat cars, 60,000 lbs., four cabooses, and five 10-wheel locomotives.

The Winnipeg, Selkirk and Lake Winnipeg Ry. has converted one of its flat cars into a box car, and is using it for the conveyance of fish from Selkirk, Man., to Winnipeg.

The Intercolonial Ry. added to its equipment between Aug. 22 and Oct. 24, 40 4-wheel hopper cars, 30,000 lbs. capacity, from Rhodes, Curry & Co., Amherst, N.S.

The G.T.R. has recently added to its equipment two switching locomotives, 13 Richmond compound locomotives, five 10-wheel locomotives and 30 refrigerator cars.

The Bertram Engine Works Co., Toronto, has completed three large locomotive boilers, 5½ ft. diameter, and 23 ft. long, for a steam pressure of 180 lbs. to the square inch, for the Canada Atlantic Ry.

The Locomotive and Machine Co., of Montreal, has delivered to the G.T.R. five of the locomotives, the general dimensions of which were given on pg. 355 of our Oct. issue, and five more are in process of construction. An illustration of one of these locomotives is given on this page.

The Egerton Tramway Co., which opened its line between Westville and Trenton, N.S.,

138 flat cars, and 12 flangers, at its Angus shops; and 34 vans at its Farnham, Que., shops.

The Simplex Ry. Appliance Co.'s plans for its new plant at Montreal show 15 buildings, including machine, general appliance and blacksmith shops, power plant, etc. Employment will be given to 1,500 hands, and Vice-President Butler told a press representative, Oct. 9, that the plant would have a capacity of 25 cars a day, and that steel cars would be turned out if orders were received. The plant would turn out structural steel of all kinds.

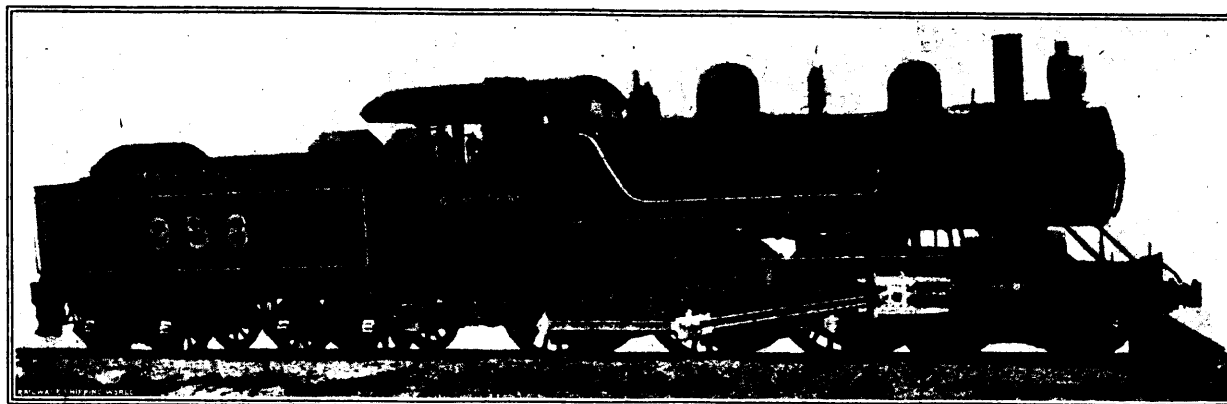
The C.P.R., from Aug. 12 to Oct. 19, received the following new rolling stock: 20 freight locomotives from the American Locomotive Co.'s Schenectady works; six freight locomotives from the Canadian Locomotive Co.; two freight locomotives from the Locomotive and Machine Co., of Montreal; two first-class cars and eight tourist cars, from its Angus shops; 95 box cars, 100 stock cars, and 85 flat cars from its Perth, Ont., shops; and 24 vans from its Farnham, Que., shops.

Among the matters of which the Ontario fruit growers complained to the Board of Railway Commissioners, was the damage to fresh fruit caused by the cars in which they are transported by the railways. This matter has been given over to the Commissioners' Chief Traffic Officer, J. Hardwell, who went

Safety valves	.....muffled
Brakes	.....Westinghouse
Weight of tender, loaded	.....143,000 lbs.
Capacity of tank	.....5,800 imp. gals.
Style of tank	.....C shaped
Coal capacity	.....10 tons
Style of truck	.....diamond
Diameter of wheel	.....34 in.
Kind of wheel	.....steel tired
Diameter and length of journal	.....5½ in. x 10 in.
Brake beam	.....metal. R. R. Co.'s standard

The Schenectady works of the American Locomotive Co. is building five locomotives for the G.T.R. They are of the 460-178 type, and have the following general dimensions:

Gauge	.....4 ft. 8½ in.
Fuel	.....Bituminous coal
Weight in working order	.....182,000 lbs.
" on drivers	.....137,000 lbs.
" engine and tender in working order	.....325,000 lbs.
Wheel base, driving	.....15 ft. 8 in.
" rigid	.....15 ft. 8 in.
" total	.....26 ft. 11 in.
" total, engine and tender	.....56 ft. 8½ in.
Diameter of cylinders	.....20 in.
Stroke of piston	.....26 in.
Size of steam ports	.....20 in. x 1½ in.
" exhaust ports	.....20 in. x 3 in.
" bridges	.....18 in.
Kind of slide valves	.....American balanced
Greatest travel of slide valves	.....5½ in.
Outside lap of slide valves	.....1 in.
Inside lap of slide valves	.....1½ in.
Lead of valves in full gear	.....Line and line.
No. of driving wheels	.....6
Diameter of driving wheels outside of tire	.....73 in.
Material of driving wheel centres	.....main, cast steel, others cast iron
Thickness of tire	.....3½ in.
Driving box material	.....cast steel.



LOCOMOTIVE BUILT BY THE LOCOMOTIVE AND MACHINE CO., OF MONTREAL, FOR THE G.T.R.

Oct. 11, purchased five 40-ft. double truck vestibuled cars from a Canadian firm. Each car is fitted with two 25 h.p. motors, Sterling safety brakes, panel and cylinder electrical heaters. Three cars have longitudinal seats and two have cross seats. Each car will seat 50 persons.

The Michigan Central Rd., built during Aug. and Sept., at its St. Thomas, Ont., shops, 26 merchandise cars, 80,000 lbs. capacity. It has also added to its equipment in Canada one compound consolidation locomotive, built at the Schenectady works of the American Locomotive Co., of the same general dimensions as those described on pg. 161 of our May issue.

The Intercolonial Ry. has placed the following orders for equipment between Aug. 22 and Oct. 24: 10 first-class cars and 100 platform cars from Rhodes, Curry & Co., Amherst, N.S.; four 2nd-class sleeping cars, four postal cars, four baggage cars, four parlor cars, and 50 box cars from the Crossen Car Mfg. Co., Cobourg, Ont.; and 25 box cars also ordered in Canada.

The C.P.R., between Aug. 12 and Oct. 19, placed the following orders for new equipment: 20 freight locomotives from the American Locomotive Co.'s Schenectady works; 20 switching locomotives, four colonist cars, two first-class cars, two baggage cars, 14 snow plows, 170 box cars, 27 stock cars,

to New York, Oct. 27, for the purpose of examining the various kinds of cars in use in the U.S. for the carriage of fruit and other perishables. J. M. Riddell, local freight agent, G.T.R., Montreal, and W. H. Bunting, President of the Ontario Fruit Growers' Association, joined Mr. Hardwell in New York, to look over the cars.

The G.T.R. has placed an order with the Canadian Locomotive Co., Kingston, Ont., for 25 Richmond compound mogul freight locomotives, to be delivered between June 1 and Aug. 31, 1905. Following are the general dimensions:—

Fuel used	.....Bituminous coal
Weight in working order, drivers	.....140,750 lbs.
" total	.....163,700 lbs.
Wheel base of engine, rigid	.....15 ft. 8 in.
" total	.....24 ft. 3 in.
" and tender	.....54 ft. 0 in.
Length over all, engine and tender	.....61 ft. 11½ in.
Width	.....10 ft. 6 in.
Height	.....15 ft. 1¼ in.
Heating surface, firebox	.....188 sq. ft.
" tubes	.....1,803 sq. ft.
" total	.....1,991 sq. ft.
Diameter of driving wheels	.....63 ins.
Material of driving wheels, centres	.....four cast iron, two cast steel
Diameter and length of driving journals	.....9½ in. x 12 in.
Diameter of cylinders	.....H.P. 22½ in., L.P. 35 in.
Stroke	.....26 in.
Type of boiler	.....Radial stayed, wagon top
Working pressure of boiler	.....200 lbs.
Number of tubes	.....283
Diameter of tubes	.....2 in.
Length of tubes	.....11 ft. 11 in.
Injectors	.....R. R. Co.'s standard

Diameter and length of driving journals	.....9½ in. x 12 in.
" main crank pin journals (main)	.....side 7½ in. x 5½ in. 6½ in. x 6 in.
" side rod crank pin journals,	.....5½ in. x 4 in.
Engine truck, kind	.....four wheel, swing centre
" journals	.....6½ in. x 10½ in.
Diameter of engine truck wheels	.....38 in.
Kind of engine truck wheels	.....cast iron spoke.
Boiler, style	.....extended wagon top, radial stay.
Outside diameter of first ring	.....62½ in.
Working pressure	.....225 lbs.
Thickness of plates in barrel and outside of fire box	.....¾ in., ¾ in., ¾ in. and 1½ in.
Horizontal seams	.....Butt joint, sextuple riveted.
Circumferential seams	.....double
Firebox, length	.....110½ in.
" width	.....40 in.
" depth, front	.....76½ in.
" back	.....64½ in.
" plates, thickness, sides, ¾ in.; back, ¾ in.; crown,	.....1½ in.; tube sheet, ¾ in.
" water space, 4 in. front, 3½ in. sides, 4 in. back.	.....radial.
" crown staying	.....radial.
" stay bolts	.....best quality double refined iron,
" tubes, material and gauge	.....Lap welded charcoal iron, 125 thick
" number	.....283
" diameter	.....2 in.
" length over tube sheets	.....15 ft. 0 in.
Fire brick, supported on	.....water tubes
Heating surface, tubes	.....2206.5 sq. ft.
" water tubes	.....23.1
" firebox	.....185.9
" total	.....2415.5
Grate surface	.....33.4
Grate, style	.....rocking
Ash pan, style, ¼ in. steel plate. Dampers F. & B.	.....open, in dampers covered with netting.
Exhaust pipes	.....single cast iron.
" nozzles	.....5 dia.
Smoke stack, inside diameter	.....16½ in.
" top above rail	.....14 ft. 7½ in.

Tender, style..... Hopper  
 Weight, empty..... 63,500 lbs.  
 Wheels, number..... 8  
 " diameter..... 43 in.  
 Journals, diameter and length..... 5 1/2 in. x 10 in.  
 Wheel base..... 19 ft. 3 1/2 in.  
 Tender frame..... 10 in. steel channels  
 " trucks..... 2 1/4 whl. cen. bear. R. R. std.  
 Water capacity..... 7000 U.S. gallons.  
 Coal..... 10 tons.  
 Brake, West. Amer. Comb. on all drivers, including truck  
 and tender with H.S. red. valve on drivers and tender.  
 Signal sched. Westinghouse J.....  
 Two main reservoirs..... 20 1/2 in. x 90 in.  
 Air pump..... 11 in., L.H.

**Retirement of Hon. A. G. Blair.**

The retirement of Mr. Blair from the Board of Railway Commissioners is undoubtedly a public calamity. As the framer of the Railway Act of 1903, with great experience in railway questions gained during his occupancy of the Ministry of Railways, with a legal training and judicial mind, with great tact, diplomacy and courtesy, he was without question far better fitted for the position than any other man in Canada, and his actions in office have fully borne out the wisdom of his appointment. His retirement is a distinct loss to the Commission and to the country at large, and is regretted alike by the transportation interests and by the public, his decisions having met with general approval.

When Mr. Blair was appointed, Sir Wilfrid Laurier said of him: "There is not in Canada a better qualified and more competent man to discharge the duties of the office to which we have called him. I recognize him as a man of great ability, as a man of great talent, and I have no hesitation in saying that you cannot find in Canada anyone who is better endowed than Mr. Blair to be chairman of the Railway Commission." This was a statement which could not be called in question on either side of the House, and it is deeply to be regretted that the services of such a man have been lost at such an early period in the history of the Commission.

The G.T.R. has secured 500 square ft. of floor space and 1,000 square ft. of wall space at the Sportsman's show in New York, to be held Feb. and Mar., 1905.

The B.C. Electric Ry. Co. on Sept. 30, distributed among its employes at Vancouver, New Westminster and Victoria, the dividend coming to them under the company's profit-sharing scheme. The amount paid to each employe for the year was \$35.

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FORT FRANCOIS WINNIPEG PORTAGE LA PRAIRIE BRANDON	MORRIS EMERSON CARMAN HARTNEY	GLADSTONE NEEPAWA DAUPHIN SWAN RIVER
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Line surveyed and now under construction to:—

PRINCE ALBERT      BATTLEFORD      EDMONTON

**FREIGHT:**—Shipments are handled from points in Eastern Canada, either Grand Trunk or Canadian Pacific Railways, via North Bay to Port Arthur, thence Canadian Northern Railway.

**PASSENGER:**—Passengers destined to points on the Canadian Northern Railway north, south and west of Winnipeg, can purchase through tickets via Chicago and St. Paul, where connection is made with the Canadian Northern Flyer for Winnipeg via Great Northern Railway, also with Northern Pacific Railway.

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R. H. BELL, T. F. & P. A., Board of Trade,  
 MONTREAL, QUE.

WM. PHILLIPS, G. E. A., TORONTO, ONT.	GEO. H. SHAW, Traffic Manager, WINNIPEG, MAN.
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**C.P.R. Betterments, Construction, Etc.**

**Atlantic Division Bridges.**—The Board of Railway Commissioners has approved of plans for work, etc., on the following bridges: On Moosehead section, Maine, mileage 26.3a, material for 100 ft. deck span; mileage 27.4, material for 60 ft. deck span; St. Andrews section, clearance diagram.

**Eastern Division Bridges.**—Plans for the following bridge work on this division have been approved by the Board of Railway Commissioners: St. Lawrence River bridge, reinforcement of 380 ft. deck plate girder span.

**Ontario and Quebec Ry.**—The C.P.R., which controls the O. and Q. Ry. Co., is applying to the Railway Commissioners for authority to construct a branch line from 2,000 ft. north of Highland station, to the east boundary of the company's property, thence to the Lachine Canal reserve and southeasterly to the west boundary of the property of the Canada Sugar Refining Co.; with power to divert the highway south of the reserve.

**Ontario Division Bridges.**—The Board of Railway Commissioners has approved plans for the following bridge work:—Havelock section, mileage 99.3 and 99.4, reinforcement of present spans. Toronto section, mileage 15.4 and 24.3, reinforcement of present spans; mileage 83.4, clearance diagram; mileage 96.8, material for 100 ft. deck span. London section, mileage 11.8, clearance diagram and material for 100 ft. deck plate girder. Windsor section, mileage 2.9, abutment and iron-work; mileage 4.1, clearance diagram. Teeswater section, mileage 29, 35.4, 35.15, clearance diagrams.

An order has been issued by the Railway Commissioners authorizing the C.P.R. to construct a steel bridge under the highway between concessions 2 and 3 London tp., Ont., and to close up a portion of the present highway, a diversion to be made so as to carry the road over the bridge.

**New Siding at Toronto.**—The C.P.R. has filed a plan at the city hall providing for the laying of a single track along the east bank of the Don River, from Winchester St. bridge to north of the G.T.R. tracks below Eastern avenue. The new track is described as an industrial single track, intended to give the C.P.R. access to Ashbridge's Bay, and enabling it to give a direct service to the factories located in that vicinity.

**Toronto Sudbury Line.**—The contract for the section southerly from Romford to Byng Inlet, Ont., about 59 miles, has been let to Foley Bros., Larson & Co. The contractors have been at work for some time, and we were recently advised, that they had 1,500 men at work at different points on the route. The line south of Byng Inlet has not been definitely located.

**Lake Superior Division Bridges.**—Plans for bridge work have been approved by the Board of Railway Commissioners as follows:—North Bay section, mileage 266a, abutments; Nepigon section, mileage 874b, material for 100 ft. deck plate girder.

**Fort William to Winnipeg Double Track.**—At the annual meeting of shareholders on Oct. 5, the President announced that the work of double-tracking the line between Fort William and Winnipeg, 426.7 miles, would be proceeded with at once. Tenders have been asked for the rock work on the Fort William, Ignace and Rat Portage sections of the line. The heaviest rock work will be between Eagle River, Ont., 228.1 miles and Rennie, Man., 345.6 miles from Fort William. The company will do the grading itself, and possibly the bridging. The work of double-tracking will be in progress for about a couple of years. The rock work will be gone on with this winter and pushed vigorously.

**Winnipeg Subway.**—Work on the Main st. subway had so far advanced that it was opened for pedestrian traffic Oct. 12, and for general traffic Oct. 20, and trains passed over it, Oct. 25. (June, pg. 193.)

**Winnipeg Shops.**—A report on the progress of construction of the locomotive and car shops at Winnipeg, up to Sept. 29, is as follows:—

Passenger car shop—Completed. 15% of heating pipes in place. Fan foundations in fanhouse completed. 90% of electric wiring completed.

Freight car shops—Completed. 30% of heating pipes in place. 15% of excavation for fan foundations in fanhouse completed.

Blacksmith shop—20% of whitewashing completed. Fan foundations in fanhouse, 60% completed.

Planing Mill—Completed. Fan foundations for fanhouse completed. 50% of conduits for electric wiring completed. 80% completed of power plant. Ready for heating system.

Locomotive shop—Original building; 85% of tar and gravel roofing completed. 29 skylights completed and all ready for glass. 60% whitewashing completed. All rails for travelling cranes in place. Fanhouses and lavatory on south side completed. Fanhouses and lavatory on north side ready for brick-work. 40% of excavation for heating duct completed. Three foundations completed for machinery. 110-ft. extension, brick-work completed. 90% of timber roofing. 90% of windows in place.

General stores and offices—Office part, plastering completed. Heating pipes in place. Electric wiring completed. Stores part, ready for timber roofing.

Dry kiln—Completed.

Foundry—No work done this week. Ready for foundry contracts. 50% of heating pipes in place.

**Central Division Bridges.**—The Board of Railway Commissioners has approved of the plan for materials, etc., for a 380 ft. skew half deck plate girder bridge, at mileage 43, Estevan division, Man.

**Branch from Bienfait.**—The Railway Commissioners have approved of a proposal for the construction of a branch from the company's line at Bienfait, Assa., to the southwest quarter of sec. 19, tp. 2, range 6, west of the 2nd meridian, and of the plan and profile for the branch. At Bienfait lignite mines are being opened out, the seams being 15 ft. thick, and within 70 ft. of the surface. It is expected to mine 1,000 tons a day from the mines now being opened. The branch line will be constructed this fall, it being necessary to have laid before the frost sets in so as to have the line ready for use in the spring.

**Change of Location at Virden.**—A plan for a change of location just west of Virden, Man., between mileage 180.2 and mileage 182.6, has been passed by the Board of Railway Commissioners. The work done at this point eliminates two curves, and has reduced the grade from 0.75% maximum to 0.4%.

**Pacific Division Bridges.**—Plans for bridge work have been approved by the Board of Railway Commissioners as follows:—Mountain section, mileage 498a, abutments; Shuswap section, mileage 346a and mileage 347a, abutments and pier; Thompson section, mileage 115, masonry; Boundary section, mileage 14.6, clearance diagram.

**Victoria Hotel.**—Contract has been let for the foundation work on the site of the new hotel to be built at Victoria, B.C., by the C.P.R. The work, which will cost \$100,000, is in progress and is expected to be completed by Dec. 31. The foundations which consist of piles, 40 ft. long, covering practically the whole site, are topped with concrete walls 20 ft. high, and averaging from 12 ft. thick at the base to 4 ft. at the top, which is level

with the ground. The drawings for the superstructure have been completed and tenders will be called for immediately.

**Minneapolis, St. Paul and Sault Ste. Marie Ry.**—The extension of the line from Glenwood, Minn., to the International boundary, near Emerson, Man., was expected to be completed by Oct. 15. (Aug., pg. 275.)

**TRANSPORTATION APPOINTMENTS.**

**Alberta Railway and Irrigation Co.**—C. A. Magrath, heretofore Land Commissioner, has been appointed Land Commissioner and Assistant to the President. As Land Commissioner he will have the management and the sale of lands and water belonging to the company, the location of new canals, colonization matters and the establishment of new industries. He will also construct, maintain and operate the company's canals until the close of the present season of irrigation. As Assistant to the President he will perform such special duties in connection with the promotion of the company's interests as may be assigned to him by the President.

P. I. Naismith, heretofore Manager, has been appointed General Manager in general charge of the maintenance and operation of the company's railways and collieries and, after the close of the present season of irrigation, he will maintain and operate the company's system of canals besides constructing new canals which may be required by the Land Commissioner and Assistant to the President upon specifications to be approved by the latter.

E. H. Wilson has been appointed Comptroller and Assistant Land Commissioner. His duties as Comptroller will be to exercise a general supervision of office and financial matters under the direction of the General Manager. His duties as Assistant Land Commissioner will be assigned to him by the Land Commissioner and Assistant to the President.

J. E. Lethbridge has been appointed Auditor.

**Algoma Central and Hudson Bay Ry.**—Following is a complete list of the officers of the A. C. and H. B. Ry., of the Manitoulin and North Shore Ry., and of the Algoma Central Steamship Line:—President, C. D. Warren, Toronto; Vice-President, T. J. Drummond, Montreal; General Auditor, J. S. Wynn; Auditor, S. Warren; Auditor Freight and Passenger Receipts, Jas. Bourke; Assistant Secretary and Treasurer, A. H. Chitty; General Superintendent, T. J. Kennedy; General Storekeeper, A. M. Harnwell; Local Solicitor, J. E. Irving; Purchasing Agent, W. H. Cowell; Car Accountant, C. L. Vaughn; Master Mechanic, C. E. Slayton; Roadmaster, W. T. Yull; all the above except where otherwise mentioned have offices at Sault Ste. Marie, Ont.; Superintendent Manitoulin and North Shore Ry., G. A. Montgomery, Sudbury, Ont.; Superintendent Steamship line, W. C. Barr, Sault Ste. Marie, Ont.; Superintendent Michipicoten Division, C. A. Shields, Michipicoten, Ont.

**Bay of Quinte Ry., Deseronto Navigation Co., Thousand Islands Ry., Oshawa Ry.**—On account of the death of R. C. Carter, on Aug. 22, the office of General Manager has been abolished. Communications previously addressed to the General Manager should be addressed to the office of the President.

**Board of Railway Commissioners.**—G. A. Brown, heretofore Assistant General Freight Agent, Ottawa and New York Ry., Ottawa, has been appointed chief clerk to the Traffic Officer of the Commission.

**Canadian Pacific Ry.**—Jno. Redden has been appointed Superintendent of Elevators. Office, Fort William, Ont.

Grant Hall, heretofore Assistant Superin-



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By Steam Jacket System of Hot Water Circulation, Direct Steam and Regulating Direct Steam Systems. 130 Railroads in the United States are using these systems of Heating—applied on over 14,500 cars.

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THE ALGOMA STEEL CO., Limited

tendent of Motive Power at Montreal, has been appointed Assistant Superintendent of Motive Power for Western Lines. Office, Winnipeg.

R. D. Smith has been appointed road foreman of locomotives, first district, Western Division. Office, Calgary, Alta.

D. McLean has been appointed road foreman of locomotives and acting Trainmaster, second district, Western Division. Office, Cranbrook, B.C.

Jas. Sclater, heretofore city ticket agent, Vancouver, B.C., has been transferred to the office of the Assistant General Passenger Agent, Vancouver.

W. R. Thomson, heretofore ticket agent at Seattle, Wash., has been appointed city ticket agent at Vancouver, succeeding Jas. Sclater, promoted.

A. B. Calder, heretofore Travelling Passenger Agent, Seattle, Wash., has been appointed ticket agent there, succeeding W. R. Thomson, promoted.

F. C. Collins, heretofore Travelling Passenger Agent, Chicago Great Western Rd., Seattle, Wash., and formerly in the C.P.R. office there, has been appointed Travelling Passenger Agent, C.P.R., succeeding A. B. Calder, promoted.

**Grand Trunk Ry.**—J. Wright, heretofore chief clerk to the Superintendent of St. Clair Tunnel and Terminals, has been appointed Acting Superintendent of St. Clair Tunnel and Terminals, succeeding A. S. Begg, deceased. Office, Port Huron, Mich.

G. C. Cochlan has been appointed Acting Customs Agent at St. Clair tunnel and terminals, succeeding A. S. Begg, deceased. Office, Port Huron, Mich.

The following agents have been appointed: Lennoxville, Que., F. H. Jeffery; St. Hilaire, Que., A. Pelletier; St. Lambert, Que., E. Peterson; Point St. Charles, Que., J. G. Doucet; Queen St. East, Ont., F. E. Sutherland; Oakville, Ont., M. J. O'Donnell; Suspension Bridge (Passr.), N.Y., D. M. Ussher; Niagara Falls (Passr.), Ont., R. R. Albertson; Harrisburg, Ont., F. S. Brennan; Port Dover Jct., Ont., S. P. Long; Otterville, Ont., T. Hushin; Hickson, Ont., J. T. Clancy; Holstein, Ont., W. B. Sutton; Denfield, Ont., Abe Case.

**Halifax and Southwestern Ry.**—The position of engineer, recently held by C. O. Foss, who has been appointed a district engineer on the Transcontinental Ry. survey, will not be filled for the present, as there is a construction staff on the line.

**Intercolonial Ry.**—The jurisdiction of Thos. Hoben, Assistant Superintendent Moncton and St. Flavie district, extends over the Canada Eastern Ry. Office, Gibson, N.B.

E. Johnston, heretofore trackmaster Canada Eastern Ry., has been appointed trackmaster, I.C.R., with jurisdiction over the Canada Eastern portion, Moncton and St. Flavie district. Office, Gibson, N.B.

H. C. Beck has been appointed City Passenger Agent at Halifax, N.S., succeeding the late R. F. Armstrong.

**Ottawa and New York Ry.**—G. A. Brown, Assistant General Freight Agent, has resigned.

**Pere Marquette Rd.**—Edgar Britton, heretofore District Passenger Agent at Toledo, Ohio, has been appointed District Passenger Agent at London, Ont.

J. H. Anderson, heretofore soliciting agent P.M. Rd., at Buffalo, N.Y., has been appointed Travelling Freight Agent. Office, Buffalo, N.Y.

S. W. Goldy has been appointed Soliciting Agent, at Buffalo, N.Y.

J. H. Kitt, heretofore with the Michigan Central Rd., Buffalo, N.Y., has been appointed agent P.M. Rd., at Suspension Bridge.

**Prince Edward Island Ry.**—W. H. Sullivan, heretofore Assistant Engineer, is now in

charge of construction on the P.E.I. Ry., in place of H. J. Mackenzie, resigned.

**Quebec Southern Ry.**—T. Brennan, roadmaster, has been placed in charge of maintenance of way and bridges, succeeding to that part of the duties heretofore performed by the chief engineer. Office, Sorel, Que.

**Reid Newfoundland Co.**—H. E. Huestis, Assistant General Passenger Agent at St. Johns, Nfld., has resigned.

**Temiskaming and Northern Ontario Ry.**—J. V. Gleeson, of Kingston, has been appointed engineer in charge of the ballast survey.

**Transcontinental Ry. Commission.**—A. L. Ogilvie, heretofore Superintendent of Public Works, Ottawa, has been appointed Purchasing Agent to the Commission.

**Union Pacific Rd.**—H. F. Carter, heretofore Travelling Passenger Agent, with headquarters at Toronto, has been transferred to St. Paul, Minn., where he will have charge of territory in Minnesota, Manitoba and Wisconsin.

**Vancouver, New Westminster and Yukon Ry.**—Jos. Martin has been appointed counsel, succeeding Aulay Morrison.

**Freight Officials Trip.**

Early in October the Lehigh Valley Rd. issued invitations to a number of freight officials of Canadian lines for a complimentary and educational trip over its line to New York. Through the courtesy of the Central Rd. of New Jersey and the Philadelphia & Reading Ry., the party was afforded the opportunity of visiting Philadelphia and inspecting the extensive terminals of the P. & R. Co. there. Those accepting the invitation, numbering 25, arrived at Suspension Bridge on the evening of Oct. 15, where they found a special train consisting of two sleepers and a café car and coach awaiting them. The party slept on board the train that night and on Oct. 16, at 7.30 a.m., the train started on its journey east, affording a daylight ride over the line as far as Wilkesbarre, Pa., situated in the coal regions, arriving there at 2.15 p.m. Special arrangements had been made at this point for trips to the Hazleton and Scranton coal regions through the courtesy of the Wilkesbarre & Hazleton Ry. and the Lackawanna and Wyoming Valley Ry., and the mountainous scenery was much enjoyed by the party. On the trip to Hazleton the speed was at times in excess of 60 miles an hour. On returning to Wilkesbarre the party dined in the café car and slept on board train again that night. On the following morning the special started east, passing through the beautiful scenery of the Lehigh Valley and reaching New York at 2 p.m., where a large ocean-going tug of the Lehigh Valley Rd. took the party through the waters of New York harbor for an inspection of terminals, etc., which occupied the rest of the afternoon. The party was put up at the Westminster Hotel by the L.V.R. Co. While in New York there was no special arrangement made for the entertainment of the party. On Oct. 18, through the courtesy of the Grand Trunk Ry. the L.V. guests were given a trip through the new subway and an auto-car ride on Riverside Drive to General Grant's tomb, returning through Central Park to Herald Square, where the party transferred to another car provided by the C.P. Ry., whose officials entertained the party to luncheon at their Broadway office. On Oct. 19 the party left on a special car attached to a Philadelphia train, arriving there at 11.15 a.m., where they were the guests for the day of the Philadelphia & Reading Ry., which provided a special train consisting of observation engine and coach, thus permitting a thorough inspection of the Reading terminals. At Port Richmond a tug was in waiting, and the

rest of the day was spent on the Delaware River inspecting Philadelphia harbor, including the shipbuilding yards and the U.S. navy yards. An inspection of men-of-war in port was also made. During the afternoon the party was landed on the Allan Line docks, and was entertained on the S.S. Carthaginian, of that line. The day's entertainment concluded with a complimentary dinner tendered by the Philadelphia & Reading Ry., and at 8.40 p.m. the party left for Suspension Bridge in special sleeping cars, reaching their homes in Canada on Oct. 20, at noon. At New York the guests made presentations to the officials of the L.V.R. who had charge of the trip, H. C. Burnett, A.G.F.A., being presented with a suit case; J. S. Wood, D.F.A., with a travelling bag; and D. D. E. Cooper, Canadian Freight Agent, with a diamond and sapphire scarf pin.

Following is a list of the guests:—T. L. Cochrane, Travelling Freight Agent, Wabash Rd., St. Thomas, Ont.; C. Howe, Assistant General Freight Agent, M.C. Rd., Buffalo; D. O. Wood, agent Donaldson & Thomson lines, Toronto; M. N. Todd, President Galt, Preston & Hespeler Ry.; C. C. L. Wilson, Vice-President Tillsonburg, Lake Erie & Pacific Ry.; C. J. Haigh, Manager Reading Despatch, Buffalo; J. F. Chapman, General Freight Agent, Bay of Quinte Ry.; E. R. Bremner, Assistant General Freight Agent, Canada Atlantic Ry.; L. B. Howland, President Irondale, Bancroft & Ottawa Ry.; W. J. Grant, Commercial Agent, C.P.R., Hamilton, Ont.; J. Earls, Secretary Canadian Freight Association; E. J. Hilliard, Commercial Agent G.T.R., Buffalo, N.Y.; T. A. Chappell, Agent Reading Despatch, Chicago; E. E. Bellcourt, Cartage Agent G.T.R., Montreal; C. E. Dewey, Division Freight Agent G.T.R., Toronto; L. McDonald, Division Freight Agent G.T.R., Hamilton, Ont.; F. J. Watson, Division Freight Agent G.T.R., Montreal; F. R. Porter, Assistant Foreign Freight Agent G.T.R., Toronto; M. H. Brown, General Freight Agent C.P.R., Toronto; G. Collins, General Freight Agent, Central Ontario Ry.; W. N. Warburton, General Freight Agent Niagara, St. Catharines & Toronto Ry.; W. Phillips, General Eastern Agent Canadian Northern Ry., Toronto; F. Conway, General Freight Agent Kingston & Pembroke Ry.

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

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

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July	\$4,398,833.95	\$2,949,181.81	\$1,449,652.14	\$131,125.02+
Aug.	4,474,237.64	2,946,307.21	1,527,930.43	93,827.93+
Sept.	4,220,876.03	2,952,068.47	1,268,807.56	66,541.75+
	\$13,093,947.62	\$8,847,557.49	\$4,246,390.13	\$291,494.70+

**DULUTH, SOUTH SHORE AND ATLANTIC RY.**—Gross earnings for Aug., \$237,229.27; net earnings, \$91,407.40, against \$268,080.42 gross and \$113,315.91 net for Aug., 1903. Net earnings for two months ended Aug. 31, \$178,624.90, against \$12,598.00, for same period, 1903. Approximate earnings for Sept., \$231,406, against \$241,526 for Sept., 1903.

**MINERAL RANGE RY.**—Approximate earnings for Sept., \$55,947, against \$46,887 for Sept., 1903.

**MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.**—Gross earnings for Aug., \$609,577.89; net earnings \$265,271.92, against \$603,560.07 gross and \$302,931.55 net for Aug., 1903. Net earnings for two months ended Aug. 31, \$509,617.61, against \$569,565.26 for same period, 1903. Approximate earnings for Sept., \$752,902, against \$643,792 for Sept., 1903.

**Canadian Pacific Railway Land Sales.**

	Acres.		Amount.	
	1904-05	1903-04	1904-05	1903-04
July..	36,425.75	267,647.32	\$177,473.94	\$1,020,494.70
Aug..	15,669.90	263,339.45	88,735.88	1,217,599.81
Sept..	16,470.02	60,441.12	73,642.96	268,757.90
	68,565.67	591,427.89	\$339,852.78	\$2,506,852.41

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

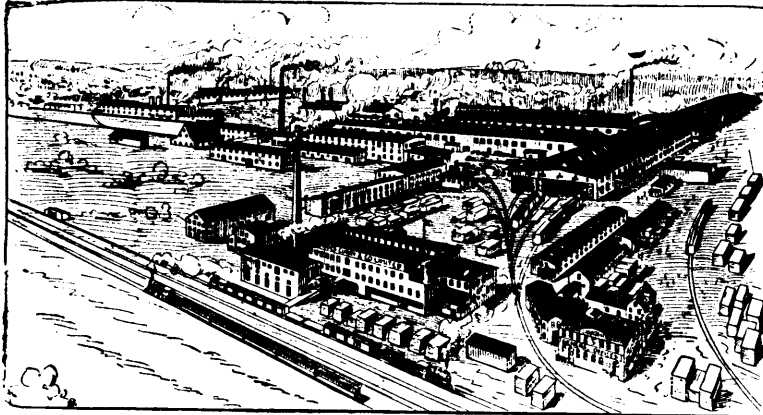
**CAPITAL, \$1,000,000.**

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Special Cars for All Purposes.

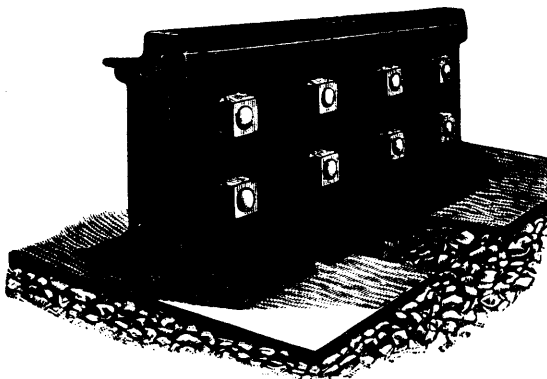


### Car Wheels, Axles, Forgings, Castings, Etc.

————— CAPACITY PER MONTH —————

300 Freight Cars	4 Passenger Cars	4 Snow Plows	3,000 Car Wheels
2,500 Car Axles	500 tons Castings	1,000 tons Forgings	

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The day has passed when men of finance are willing to place their money into bad material in railroad construction only to be compelled to replace it by renewals or reconstruction after very little use. Many of the best and most successful steam and electric railroads use the rail joints of the Continuous patent type for standard track work, insulated joints, step joints, and electric bonding joints for the reason that experience has proven it to be the best appliance of its kind ever put upon the market, as evidenced by the fact that it is used in all parts of the world on over 20,000 miles of track.

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Send your friends where a diversified route and to visit World's Fair is permissible without extra charge and inconvenience. This applies in either direction.

On Friday, via New Orleans, Through Tourist Sleeper to California.

"See page 21 June 12 Folder,"

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86-92 Ann Street, Montreal, Can.

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

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

	1904.	1903.	Increase.	Decrease.
July.....	\$3,013,149	\$3,192,608	.....	\$179,459
Aug.....	3,108,137	3,201,511	.....	93,374
Sept.....	3,182,972	3,274,245	.....	91,273
	\$9,304,258	\$9,668,364	.....	\$364,106

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

**GRAND TRUNK RY. CO.**

Revenue for Sept.:

	1904.	1903.	Increase.	Decrease.
Gross receipts	£539,000	£541,300	.....	£2,300
Working expenses	346,000	348,200	.....	2,200
Net profit	£193,000	£193,100	.....	£100

Aggregate from July 1 to Sept. 30:

	1904.	1903.	Increase.	Decrease.
Gross receipts	£1,586,800	£1,631,800	.....	£45,000
Working expen.	1,054,300	1,099,100	.....	44,800
Net profit	£532,500	£532,700	.....	£200

**GRAND TRUNK WESTERN RY. CO.**

Revenue for Sept.:

	1904.	1903.	Increase.	Decrease.
Gross receipts	£86,800	£103,000	.....	£16,200
Working exp's	75,400	89,300	.....	13,900
Net profit	£11,400	£13,700	.....	£2,300

Aggregate from July 1 to Sept. 30:

	1904.	1903.	Increase.	Decrease.
Gross receipts	£241,200	£280,900	.....	£39,700
Working expenses	224,400	255,200	.....	30,800
Net profit	£16,800	£25,700	.....	£8,900

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

Revenue for Sept.:

	1904.	1903.	Increase.	Decrease.
Gross receipts	£28,000	£28,400	.....	£400
Working expenses	19,100	19,500	.....	400
Net profit	£8,900	£8,900	.....	.....

Aggregate from July 1 to Sept. 30:

	1904.	1903.	Increase.	Decrease.
Gross receipts	£87,500	£73,500	£14,000	.....
Working expenses	58,700	50,600	8,100	.....
Net profit	£28,800	£22,900	£5,900	.....

**TRAFFIC RECEIPTS OF THE SYSTEM.**

Aggregate from July 1 to Sept. 30:

	1904.	1903.	Increase.	Decrease.
Grand Trunk	£1,586,950	£1,631,965	.....	£45,015
G. T. Western	237,227	281,011	.....	43,784
D. G. H. & M.	87,656	73,674	£13,982	.....
Total	£1,911,833	£1,986,650	.....	£74,817

**RAILWAY DEVELOPMENT.**

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

**The Beersville Coal and Ry. Co.'s** line has been completed to Mount Carlyle, and a train service was placed in operation Oct. 1, from Adamsville, on the Intercolonial Ry., to Mount Carlyle, ten miles. The coal mines are being operated and considerable freight is being handled. The contractors were Brown Bros. & Co., and J. C. Brown, a member of the firm, recently stated that only some trimming was now required to complete the contract. (July, pg. 230.)

**Berlin and Waterloo Street Ry.**—The new power house under construction at Berlin, Ont., is expected to be completed by Dec. 1. The main building is 88 by 30 ft. and the boiler house 30 by 40 ft. The plant will develop 200 horse power.

**Bracebridge and Trading Lake Ry.**—The survey marks on the route of this projected line from Bracebridge to Baysville, Ont., are being renewed by A. Brunel, C.E. F. C. Norris, of Port Huron, Mich., has taken hold of the scheme, and several contractors have been looking over the route. It was expected that some definite arrangements for construction would be completed by the end of Oct. (Sept., pg. 311.)

**Brantford Street Ry.**—The Brantford, Ont., City Council recently instituted proceedings against the B.S. Ry. Co., to compel it to make the improvements on the line it had contracted to do. The company at once began

to have the necessary work done and the action has been held in abeyance.

**British Columbia Electric Ry.**—The company's car shops at New Westminster, which were recently burned down, are being rebuilt, and are expected to be completed early in Jan., 1905. A new terminal station in Vancouver, at the corner of Carrol and Hastings streets, will be constructed in the spring. Plans are being prepared and tenders will soon be called for. Negotiations are in progress for the construction of an extension of the lines in Victoria, for 1½ miles along the Esquimalt road.

The company has submitted a proposition to the C.P.R. to operate the Vancouver and Lulu Islands Ry. by electricity. (Aug., pg. 275.)

**Brockville, Westport and North-Western Ry.**—The office building at Brockville, Ont., has been rearranged, the upper floor of the station building having been fitted up as offices for the Manager, the Superintendent, and a board-room. (Mar. pg. 73.)

**The Cape Breton Coal, Iron and Ry. Co.** has a considerable force of men employed in developing its coal properties at Cochrane Lake, N.S., and has under construction a railway 2½ miles long, to connect its mines with the Sydney and Louisburg Ry. McBeth, McDonald and Ferguson are the contractors. (Sept. pg. 311.)

**Central Ontario Ry.**—A proposal has been made by H. C. Farnham for the construction of a spur line of about five miles from the C.O. Ry. to an iron mine in Hastings county iron mining district. (June, pg. 183.)

**Chateauguay and Northern Ry.**—A contract has been let to Rogers and Quirk, of Montreal, for the construction of seven miles of railway from L'Epiphanie, Que., on this company's main line from Montreal to Joliette, via St. Jacques l'Achigan. A subsidy was voted by the Dominion Parliament in 1903, for the construction of 16 miles of rail-

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 LOCOMOTIVE FRONT END PAINT  
 "PIONEER" MINERAL RUBBER  
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 PRODUCERS OF PURE ASPHALTS

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way, from L'Epiphanie via St. Jacques l'Acchigan to Rawdon. (Sept., pg. 313).

**Crow's Nest Southern Ry.**—Grading has been practically completed on the extension of this line from Morrissey to the bank of the Elk River at Fernie, B.C., and tracklaying was expected to be commenced by the end of Oct. The bridge across the Elk River is under construction. It is reported that the line will be extended to Michel, and that work on the extension will be gone on with early in the new year. A further report states that it is intended to carry this line to a junction with the Alberta Ry. and Irrigation Co.'s line, and that survey parties are in the field at various points between Lethbridge and the Crow's Nest Pass.

**Dominion Atlantic Ry.**—A press report states that the company proposes to erect a 200-room hotel at Digby, N.S., to accommodate the increasing tourist travel at that point.

**Egerton Tramway Co.**—The newly completed line of the Egerton Tramway Co., from Westville to Trenton, N.S., was opened for public traffic Oct. 11. The line is 8½ miles long, excluding turnouts, and extends from Westville, along Drummond road to Asphalt, thence to the main street of Stellarton; following the highway the line passes the old Albion mines to the Allan mine, where it enters a private right-of-way across the Acadia Coal Co.'s property, in order to avoid heavy gradients, and proceeding, crosses the East River on a pile bridge 600 ft. long, and reaches Provost St., New Glasgow, where the line branches out, one branch leading to the railway station, and the other leading to the Nova Scotia Steel Co.'s works at Trenton. The line has easy curves and gradients, the gradient in one case only exceeding 5%. The construction work was commenced at Trenton, May 21. The power house and car barn are situated at Stellarton, adjoining the river, and a siding and trestlework have been constructed from the I.C.R., so that coal may be brought in by rail and delivered in front of the boilers with practically no handling. The equipment at the power house consists of three 125 h.p. boilers, two side-crank engines connected to generators of the multipolar compound type, 125 k.w., and two 72 in. centrifugal fans, each driven by 6x6 engines. There are also installed an induced draft system and fuel economizers for the furnaces. The car barn is 32 by 135 ft., built of wood on a stone foundation. It is fitted with a pit for the repair of cars. The company proposes to give a half-hourly service. It has installed a private telephone service between its car barn, power house and all turnouts.

The company was incorporated by the Nova Scotia Legislature, Mar. 27, 1902, the provisional directors being: W. P. McNeil, G. A. Grant, of New Glasgow; C. Fergie, of Westville. The principal promoter, however, was C. Flaherty, of Boston, Mass. The directors and officers are:—President, R. T. MacIlreith, Halifax; Treasurer, G. Perry, Boston, Mass.; other directors: W. B. Rogers, C. Warren, of Boston, and M. Reynolds, of Halifax. The company has power to construct electric railways generally throughout Pictou county, and by an amendment to the act obtained in 1903, was given power to operate steamboats between New

Glasgow, Abercrombie, Lyons Brook and Pictou Landing, or between any two of them. (June, pg. 185.)

**Flathead Valley.**—Two syndicates interested in coal lands in the Flathead River valley, adjacent to the lands of the Crow's Nest Coal Co., are negotiating for the construction of a railway into the valley to open up their lands. Press reports state that the two syndicates propose to hand over to the projected company 64,000 acres of land in consideration of its constructing a railway and establishing coke ovens. D. C. Corbin is reported to be the principal promoter.

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**FAST  
FREIGHT  
TRAINS**

VIA



RUNNING DAILY BETWEEN

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

Give every satisfaction to shippers

### Canadian Freight Rate Cases.

The Board of Railway Commissioners delivered judgment, Oct. 9, 11, and 12, on a number of applications made in connection with the freight charges of railway companies.

The Canadian Freight Association, acting on behalf of all Canadian railways, asked power from the Commission to make concessions from the current freight rates on material for construction and equipment of new industrial plants. This practice has been in existence for years, the custom being to grant a reduction of 25% on shipments of this class so as to build up future business when the new factories got under way. The Commissioners declined to sanction the continuance of this custom, on the ground that it might lead to serious discrimination.

The G.T.R. asked for a ruling on the question whether or not it would be permitted to continue granting certain manufacturers a difference of 10c. a ton on bituminous coal from Suspension Bridge. The rate to dealers was 90c. a ton between the same points, and the railway contended that certain manufacturers would be unable to pay the higher rate and continue to do a profitable business. The judgment of the Commissioners was that the application must be denied on the ground that no evidence had been given that the manufacturers would be prejudiced if they were not given the 10c. difference; there being a threat that the manufacturers would have their coal delivered by water unless the rate was given. The judgment was under sec. 252 of the Railway Act, providing that railway tolls shall be charged equally to all persons, and no reduction or advance shall be made in favor of or against any particular person or company.

Upon complaint of the Ontario Fruit Growers' Association at the meetings of the Railway Commissioners in Toronto during the summer, the question of freight charges upon fruit from points on the Niagara Peninsula to various points in Canada was discussed. After the hearing the railway companies came to an agreement by which a number of reductions in rates and concessions in regard to classification were made. The Commissioners gave judgment confirming the concessions, and as regards the charges for icing perishable shipments the Commissioners found that the old system followed by the railways was based upon an unsound principle. Hereafter the company must make its charge for refrigeration conform to the actual cost of the service. Instead, therefore, of a fixed charge per car irrespective of the distance to be covered, the railways will have to adapt their rates for cold storage to the quantity of ice required. Judgment was reserved in regard to certain other matters complained of by the Fruit Growers' Association.

In the matter of the complaint of the United Factories Co. (Ltd.), of Newmarket, Ont., against the G.T.R. for an order to compel the railway to reduce its rate on logs from Penetanguishene to Newmarket, the Commissioners gave judgment Oct. 9. The rate up to Nov., 1903, was 3c. per 100 lbs., but was then increased to 4c., and this though the total carload movement from Penetanguishene to Newmarket had increased from 150 cars in 1894 to 707 cars in 1903. The object of the railroad company in aiding the industry, it was said, was accomplished. The board held that the 4c. rate, with the condition attached of a second haul, is in force on the principal railways in Eastern Canada, and is not unreasonable. That, compared with the usual rate of 7½c. per 100 by the ordinary embargo tariff, the 4c. rate is low. The tariff not being unjust or unreasonable, the board had to disallow the application.

In the matter of the complaint of the Almonte Knitting Co., Almonte, Ont., complaining that the rates on coal from the

Niagara and Detroit frontier are unreasonably high as compared with the rates from the same shipping points to Carleton Junction, Ottawa, and other adjacent stations on the Canadian Pacific Railway intermediate to Ottawa. The case of Carleton Junction, Ashton, Stittsville, and Ottawa are specially referred to. The Almonte rate is 40c. a ton higher than to the Junction point, Carleton Jct., distance 7 miles. Ashton and Stittsville are on the line between Carleton Jct. and Ottawa. Almonte is north of Carleton Junction, on the main line to Pembroke, Sudbury, etc. Ashton is four miles from Carleton Jct., Stittsville 13 miles, Ottawa 28 miles, and the rates to Ashton, Stittsville, and Ottawa are the same as to Carleton Jct. The Commissioners, in their judgment, say:—"Almonte is made higher than Carleton Jct. because all points on the line north of Carleton Jct., to Sudbury, etc., take arbitraries, or additional rates, over and above the rates to Carleton Jct. This has been the practice of the C.P.R. ever since it began to operate these lines. The C.P.R. contends that Ottawa and Almonte get in their coal supplies by way of the St. Lawrence frontier, viz., through Prescott or Massena Springs, or, to Ottawa, by canal direct; and that the only object in complaining of the rates from Black Rock and Detroit must be, by getting the rates from these shipping points reduced, to force shippers to reduce their prices at Prescott. They further claim that no reasonable reductions that might be made in the rates from Black Rock and Detroit would have any effect on the price at Prescott, as even at the reduced rates no coal could be profitably shipped through Black Rock or Detroit. The contention of the C.P.R. may be correct, but the board does not consider that it justifies the railways in publishing discriminatory rates from Black Rock, Suspension Bridge, and Detroit, to Almonte. They should publish relatively proportionate rates, and let commercial conditions determine by which route the coal will be imported. The board considers that railway custom warrants the C.P.R. in making a higher rate to Almonte than to Carleton Junction, Stittsville, and even Ottawa. Ottawa is the terminus of the through route from the west, and rates generally to Ottawa are more or less determined by competition. In breaking from a lower to a higher rate one advantage is usually taken of junction points, and Almonte being, as regards shipments from the west, situated on a lateral line, has a disadvantage of situation entailing some additional expense. On the other hand, the rates to Almonte should not be unreasonably or disproportionately higher than to main route points nearer thereto. As mentioned above, the C.P.R. has a schedule of arbitraries from Carleton Jct., which they add to the Carleton Jct. rates to make through rates to points on the Pembroke, Sudbury, etc., line. On 10th class traffic from points west of Smith's Falls (such as Toronto, etc.) covered by special tariffs, or specially advised rates to Carleton Jct., the additional rate to Almonte would be 1c. per 100 lbs., or 20c. a ton of 2,000 lbs., and the board is of opinion that the C.P.R. and the Michigan Central Rd. ought not to exceed this difference over Carleton Jct. in making their through rate on coal from Suspension Bridge, Black Rock, Buffalo, Detroit, Toledo, etc., to Almonte; the rates from these points to Carleton Jct. not to be higher than to Ottawa. The board, therefore, accordingly so orders."

The date fixed by the Railway Commission for filing standard rate tariffs to govern the railways of Canada, expired Oct. 1, and an extension of time has been granted, on the grounds that the Commission has not had time to take up the subject, and that the Canadian Manufacturers' Association, which is specially interested, has asked that the temporary tariff sanctioned during the sum-

mer be continued until the manufacturers can express an opinion as to its working.

The railway companies applied to the Commission for an interim order sanctioning the use of forms now employed until a hearing can be arranged for a permanent determination of the question. The Chief Commissioner, in stating that the Commissioners would make the order asked, said all railway companies should file at once the forms of contract now used, and advised the railway interests to meet and frame a uniform set of forms for this purpose.

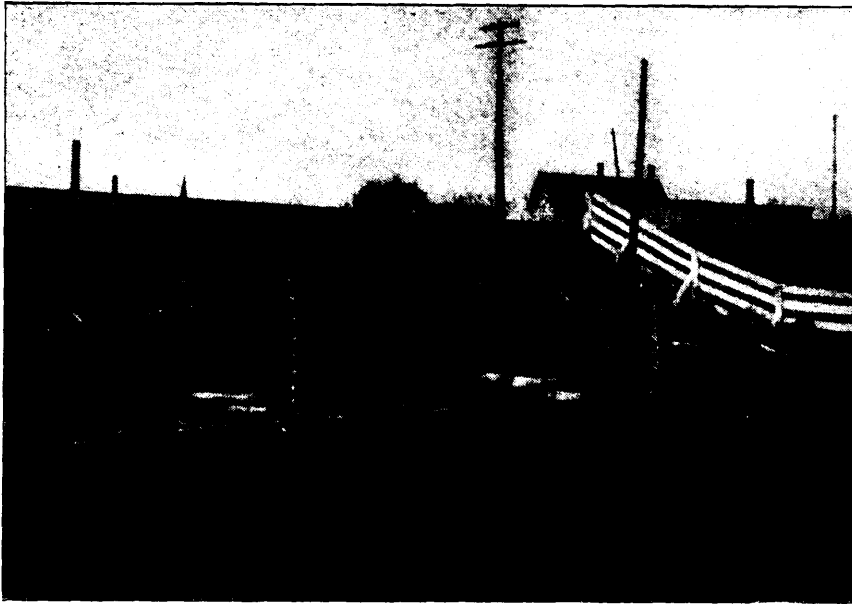
**Continuous Rail Joints.**—The Jury of Awards of the Louisiana Purchase Exposition has awarded the gold medal for rail fastenings to the Continuous Rail Joint Co. of America, for its display of rail joint products in the Transportation Building. The exhibit shows various types of rail joints produced by patented machinery controlled by the company in the U.S. The company advises us that the careful manufacture and perfect fit, giving three points of contact in one piece of metal, thus forming a rail joint of two symmetrical pieces, obtained as the result of these patents, has secured for it, both from steam and electric railways, the appreciation of the great value of this device, and that further acknowledgment of the merits of the continuous rail joint is shown in the fact that over 20,000 miles of railway track have been equipped within the past 10 years. The company owns and operates the Albany Iron & Steel Works at Troy, N.Y. It has on the market types of joints for tee rails and girder rails that are made of rolled steel. It also manufactures step or compromise joints to connect rails of different sections and obtain a perfect surface and gauge for abutting rails. These are made of cast steel. The company is bringing out a new type of insulated rail joint, and also an electric bonding joint to be placed upon the market. The development of the business has made it necessary to organize a company in Canada for the exclusive use of Canadian patents originally owned by the U.S. company and another corporation in London, England. This appliance has already been introduced in many foreign countries. The general offices of the company have always been at Newark, N.J.

**Railway Taxation in Ontario.**—The Ontario Commission on the taxation of railways, recently heard arguments for the railway companies upon the question of the taxation of railways. The general contention was that at present railways in Ontario already paid more taxes in proportion to their ability to pay than the railways in the U.S. The average net earnings of U.S. railways per mile in 1902 were \$4,029, and in Canada \$1,395, while the average taxes paid by the former were \$27.4 per mile, and by the railways running through or in Ontario between \$80 and \$90. Of the latter, about \$56 was municipal taxation and about \$30 Provincial taxation. But Canadian railways also paid tax to the Dominion Government in the way of the duty on coal. This averaged from \$235 to \$372 per mile. The aggregate figures in this respect last year were: G.T.R., \$663,000; C.P.R., \$565,973, and Canada Southern Ry., \$142,353. The railways could not stand additional taxation at the present time without cutting down the already small returns to the shareholders.

The Canadian Northern Ry. has issued a folder dealing with the wheat-growing lands of the Saskatchewan Valley opened up by it. The illustrations show the wheat-fields of the country, and the towns that are springing up as the line is pushed through, and of the company's terminal elevator at Port Arthur, Ont. Information relating to immigration and the land regulations are also given.

The Police Magistrate of Kingston, Ont., has dismissed the case against a conductor of the Kingston, Porstmouth and Catarauqui Ry. for running a car on Sundays, and expressed the opinion that the company was compelled to run its cars every day in the year by the terms of its charter. The Ontario Lord's Day Alliance, which laid the information, has decided to appeal. The Alliance has also decided to proceed against the Grand Valley Ry. for operating cars on its line on Sundays.

In connection with the charge pending in the York County Criminal Court against the Toronto Ry. Co., for using a defective fender, counsel for the company stated that it was intended to examine fenders and determine what was the best fender to use. A report made by the manager of the company, published Oct. 19, admits that the fenders on some cars were defective, but alleges that the defects have been caused by inequalities of the pavements between the tracks, for which the city is responsible.



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Can. Pass. Agent, 10 King Street East, Toronto.

**CHAS. S. LEE,**

General Passenger Agent, New York.

**W. B. WHEELER,**

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

**Board of Railway Commissioners.**

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

The G.T.R. was authorized to construct a branch line in London, Ont., connecting its tracks with these of the C.P.R., and was given power to cross the line of the London Street Ry. Any agreement made between the G.T.R. and the C.P.R. for the interchange of traffic over the line is to be submitted to the Board for approval; and the question of providing protection at the crossing of the L.S. Ry. is reserved for further consideration. (July 6.)

The Preston and Berlin Street Ry. was given power to cross certain spur tracks of the G.T.R. in Waterloo and Berlin, Ont., at the cost of the applicants, the work to be done by the G.T.R. The question of the protection of the crossings is reserved for further consideration. (July 14.)

The G.T.R. was authorized to construct a siding from its main line in Hamilton west of Sherman Avenue to the Frost Wire Fence Co.'s works. (Aug. 23.)

Authorizing the G.T.R. to construct a siding from its line north of St. Martin Street,

Authorizing the laying of sewer pipes by the Toronto City Council on Prince's St., under the tracks of the C.P.R. and the G.T.R. (Sept. 30.)

Sanctioning the extension of the Brooklyn and Stenwinder spur on the Columbia and Western Ry. to Lower Tunnel, Old Ironsides Mine, B.C. (Oct. 5.)

Approving plans of the Atlantic, Quebec and Western Ry. from Paspébiac, Que., northeasterly for 10 miles. (Oct. 5.)

Approving a by-law of the Temiscouata Ry. authorizing the General Manager, Superintendent or General Passenger Agent to prepare and issue tariffs of tolls to be charged for freight and passengers. (Oct. 13.)

Sanctioning plans and specifications of a bridge across the Chaudiere River at Beauce Junction, Que., to replace the present wooden structure. (Oct. 14.)

**Railway Operating Rules.**

At a meeting in Montreal on Oct. 6, of representatives of various railways in response to the circular of the Secretary of the Board of Railway Commissioners respecting the adoption of a uniform code of rules for the

**Grain Elevator Notes.**

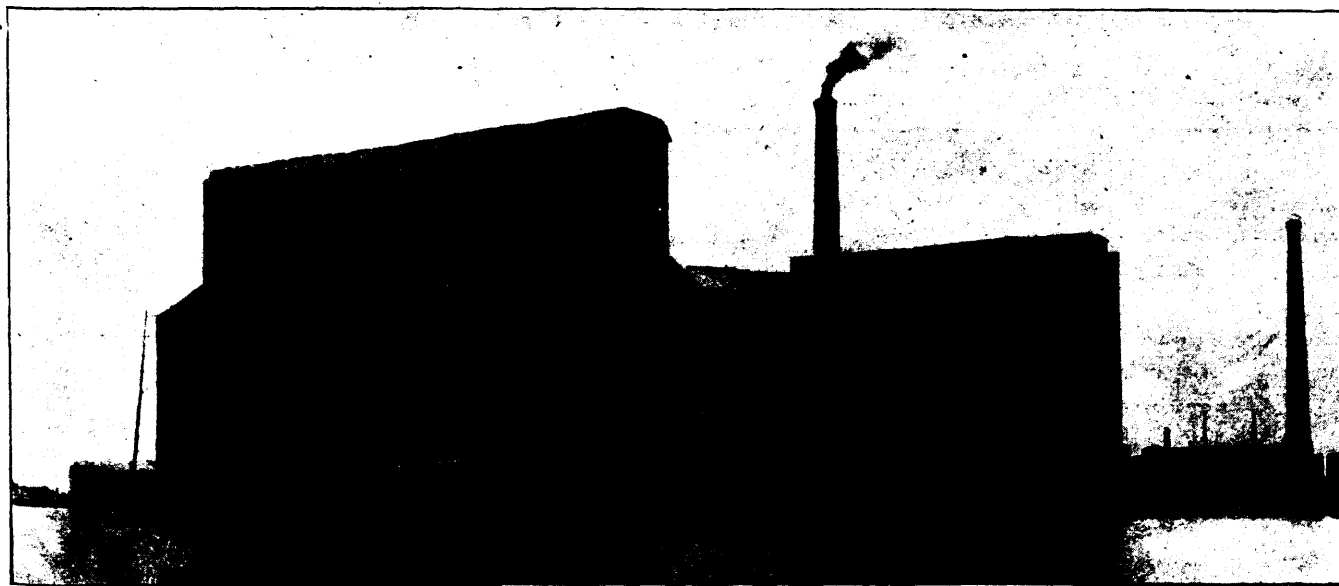
Steele & Co., Ridgeway, Ont., are erecting a 10,000 bush. elevator at St. Thomas, Ont., for the bean trade.

The Alberta Grain Co. has completed the foundations for a new elevator at Wetaskiwin Alta., and it was expected that the elevator would be erected by the end of Oct.

S. J. Parker, whose application for a lease of a portion of the river front opposite his property at Owen Sound, Ont., had been filed by the town council, asks that the question may be re-opened. He is considering the possibility of having to build an elevator in connection with the linseed oil mill there.

The Lowe Farmers' Elevator Co. has been incorporated under the Manitoba Companies' Act, with a capital of \$10,000 and offices at Lowe Farm, Man. The provisional directors are: J. Schroeder, P. K. Rempel, H. E. Peters, J. Gerbrandt, P. Hiebert, J. W. Wiens and J. Heppner, all of Lowe Farm.

After some discussion the Canadian Northern Ry. has notified the council of the Winnipeg Grain Exchange that it will receive "tough" 1, 2 and 3 northern wheat into its



CANADIAN NORTHERN RY. ELEVATORS AT PORT ARTHUR, ONT.

Montreal, to the premises of E. Lemire, and connecting with the G.T.R. north of Richmond St. (Sept. 13.)

Granting leave to the Montreal Terminal Ry. to establish and operate its line of railway on a number of streets in Maisonneuve, Que., in accordance with an agreement entered into between the company and the corporation dated April 30, 1904. (Sept. 30.)

Approving of the plans and specifications of a number of steel and iron bridges on the C.P.R. (Sept. 22.)

Approving of location of James Bay Ry. from mileage 20.09 to mileage 48.45 through the district of Muskoka, Ont. (Sept. 24.)

Approving of locations for stations at Foote's Bay, mileage 23.5; Medora, mileage 29; and Bala, mileage 33, on the James Bay Ry. (Sept. 24.)

Sanctioning plans and specifications of the Canadian Northern Ry. bridge over the North Saskatchewan River near Battleford, Sask. (Sept. 24.)

Approving of the construction by the C.P.R. of an additional track over Cote St. Luke, Que., roadway in connection with the new yard at that point. (Sept. 26.)

Approving of plans for bridges at several points on the C.P.R. (Sept. 27.)

operation of trains on Canadian railways, C. W. Spencer, General Superintendent of Transportation, C.P.R. Eastern Lines, presided, and A. J. Gorrie, General Superintendent Great Northern Ry. of Canada, was secretary. The following lines were represented: Bay of Quinte Ry., C.P.R., Canadian Northern Ry., Canada Atlantic Ry., Central Vermont Ry., Central Ontario Ry., Dominion Atlantic Ry., G.T.R., Great Northern Ry. of Canada; Halifax and South-Western Ry.; Inverness Ry. and Coal Co.; Kingston and Pembroke Ry.; Michigan Central Rd.; Ottawa and New York Ry.; Quebec Central Ry.; Toronto, Hamilton and Buffalo Ry.

It was decided that the representatives of the G.T.R. and C.P.R. be formed into a committee, taking the C.P.R. rules as a basis on which to work to form the standard for the Dominion. This committee is to look over the rules and make whatever alterations they consider advisable. When these alterations are completed, a notice will be sent to all the different railway companies interested, showing the basis arrived at, and one month will be given to investigate same, when a further meeting will be called to decide on what standard will be submitted to the Railway Commissioners to decide upon.

elevator at Port Arthur, Ont., for storage for 15 days, after which it will be transferred to the drying plant for treatment. The C. N. R. has heretofore transferred all this wheat to its drying elevator on receipt.

The Gilbert Plains Milling Co. (Ltd.) has been incorporated under the Manitoba Companies' Act, with a capital of \$40,000, and offices at Gilbert Plains, Man., to carry on a general grain dealing and milling business, and in connection therewith to build or lease elevators. D. Cameron, G. A. Campbell, W. C. Inglis, C. C. Baker, A. W. Heath of Gilbert Plains, and J. Law of Dauphin, are the provisional directors.

The Ontario Court of Appeal has dismissed with costs the action of the Goderich Elevator and Transit Co. against the Dominion Elevator Co. The action was originally brought in July, 1903, as a result of the Dominion Elevator Co. refusing to pay for 150,000 bush. of space for the preceding winter, which the Goderich Elevator and Transit Co. claimed it had engaged through a Toronto broker. The plaintiff claimed \$2,250 for the space which had been kept empty in accordance with the contract. It appears that

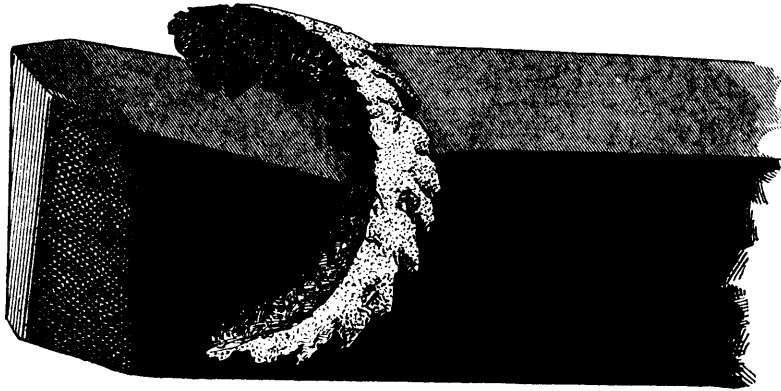


there was some dispute about the rate, and the Dominion Elevator Co. refused to use the space. The original action was dismissed, and this decision has now been confirmed.

Montreal Harbor Commissioners' Elevator No. 1, which with all its conveyers and accessories was completed in Aug., has a very complete system for the handling of grain.

In receiving grain from boats, one leg has a capacity of 12,000 bush. an hour; shipping to ocean boats of 20,000 bush.; receiving from cars, three cars an hour; and shipping to cars, 10,000 bush. an hour. In direct transfer from cars to ocean boats four legs can clear 12 cars, and in direct transfer from barge to ocean boats, one leg has cleared 12,000

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**Canadian Pacific Railway Company**

**Issue of New Ordinary Capital Stock.**

Pursuant to resolution passed at the Special General Meeting of the Shareholders on 5th October, 1904, an issue of \$16,000,000 additional Ordinary Capital Stock has been ordered by the Board of Directors.

The stock will be offered to the Shareholders of record at the closing of the books for the purpose, at par, on the basis of twenty per cent. of their respective holdings. The books of the Company will be closed for this purpose at three p.m. on Thursday, the 27th day of October, 1904, and reopened on Friday, the 11th day of November, 1904. Stock upon which payments have been made in full as called will rank for dividend for half-year ending June 30th, 1905.

A circular containing the terms of subscription, payments, etc., and enclosing warrants of subscription, will be mailed to the Shareholders, after the closing of the books.

By order of the Board,

CHARLES DRINKWATER, Secretary.

Montreal, 10th October, 1904.

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bush. an hour. The first leg to claim attention is that outside the elevator, known as the marine iron leg. It projects by means of an automatic pusher, and is lowered down into the hold of the vessel until it touches the bottom. Inside is a bucket receptable every 12 ins. apart, and the buckets are 8 by 8 ins. On the first floor of the building are four lofter legs, used for receiving grain from the railway cars, and also for delivering to cars or ocean steamers. They contain a double row of buckets 8 by 16 ins. and are each of 150 h.p. There are also two cleaning machines, with a cleaning capacity of 2,500 bush an hour, so that all the grain sent out is in a clean and wholesome condition. The cars discharge their cargo under the legs by means of automatic shovels all driven by electricity, whilst every leg, cleaner and shovel has its own separate motor. There are also two car pullers, for the purpose of placing the cars in whatever position may be desired, and these also are driven by electricity. On the top floor of the building are the four heads of the legs below, and all power is transmitted by means of rope drives. The scale floor, where all the weighing is done, is immediately below, and after the required quantity has been secured, the grain is let out to the distributing spouts. A stage further down is the delivery spout which is described as telescopic and universal, and can be arranged to any length to suit convenience. The spout fits in covers, from which the grain can be dropped to any part, or into the conveyer for removal to other portions of the building. There are also four car-loading spouts. These project into the car, and two horns, thrown out by their own gravity, empty the grain in equal proportion at each end of the car so that the latter is evenly and properly filled. The spouts have a drop of 150 ft. The floors of the building are of concrete, the numerous bins of steel and the whole being supported by massive iron work. The electric power is delivered at 2,200 volts, and is transformed to 400 and 575 volts. The two power transformers have a capacity of 375 k.w., and the two light transformers a capacity of 15 k.w., the distribution taking place in the ordinary way, according to the number of motors required.—Montreal Star.

## SHIPPING MATTERS.

### Capt. Salmon's Resignation.

Capt. Salmon, Wreck Commissioner for Canada, sent in his resignation to the Department of Marine, Oct. 1, and on Oct. 10 it was announced that an Order-in-Council had been passed dispensing with his services. On Oct. 5, Capt. Salmon, in delivering judgment in the case of the Cape Breton-Canada collision, off Sorel, June 18, explained his reason for resigning his position. He stated that he had been approached by the Deputy Minister of Marine, with a specific inquiry as to the probable decision to be rendered in the case, and was also told that before giving a decision it might be advisable to consult Mr. Archer, counsel of the Richelieu and Ontario Navigation Co., the owners of the Canada. Notice was given that judgment would be rendered Sept. 26, and on that day it was intimated to the court that counsel for the R. & O. N. Co., had applied to have the inquiry reopened on the ground that additional evidence might be laid before it. The court fixed Oct. 3 as the day for hearing this new evidence, and on Sept. 29 counsel for the company asked that the translation of certain evidence given before the Admiralty Court at Quebec be accepted as a portion of the new evidence, but the Commissioner declined to accept it. A letter from Mr. Archer to the Minister of Marine, dated Sept. 26, was read in which it was suggested that

as a large number of claims had been made by passengers who were on board of the Canada, and as the case was also before the Admiralty Court at Quebec, it might be advisable that the report of Capt. Salmon be suspended until after the final judgment. On Sept. 29, the Deputy Minister of Marine telegraphed to Capt. Salmon, stating that the Minister desired nothing further to be done in the case until further orders. On Oct. 1, Capt. Salmon stated that he saw the Minister of Marine, informed him that he considered pressure was being brought to bear in favor of one side and to the prejudice of the other, and tendered his resignation. The R. & O. N. Co. declined to appear officially as a party to the case before the Wreck Commissioner's court. The Deputy Minister of Marine, in an interview, stated that the correspondence read by the Wreck Commissioner did not show that any attempt had been made to influence his decision; all Capt. Salmon was asked to do was to suspend his decision until the civil action before the Admiralty court had been disposed of. The Minister of Marine, in an interview, declared that the suggestion that political influences had been brought to bear with a view of influencing the judgment of the court was farcical. He had been expecting Capt. Salmon's resignation for some time; it had been verbally tendered six months previously, but it was not accepted as it was intended to let him close up the cases before him. It had been intended to call for Capt. Salmon's resignation at an early date, in the interests of the Department. On Oct. 8, Capt. Salmon declined to give judgment in the case of the investigation into the grounding of the Catalone, pending action by the Government on his resignation. Under Sec. 25 of the act directing the investigation of wrecks and other casualties, the Minister has power to order the rehearing of a case either in whole or in part, for the purpose of taking new evidence, or if for any other reason he has reason of suspecting a miscarriage of justice.

### Notices to Mariners.

The following notices have been issued by the Dominion Department of Marine:

No. 74. Sept. 21—Ontario—200. Georgian Bay, off south end of Christian Island, buoys. 201. St. Joseph Channel, north shore, Kensington Point, hydrographic note.

No. 75. Sept. 22—Prince Edward Island—203. East coast, Cardigan Bay and George-town harbor, buoyage.

No. 76. Sept. 23—Nova Scotia—204. Bay of Fundy, south side, Port Lorne, nomenclature. Newfoundland—205. South coast, Rose Blanche harbor entrance, Caine's Island, fog alarm established.

No. 77. Sept. 28—Alaska—206. Lynn Canal, Chilkat Islands, uncharted shoal.

No. 78. Sept. 29—Ontario—208. Georgian Bay, east side, Waubuno channel, lone rock, gas and bell buoy established. 209. Georgian Bay, east side, approach to Parry Sound, Seguin bank, gas and bell buoy established. 210. Georgian Bay, Parry Sound, Killbear point, gas beacon established. 211. St. Joseph Channel, North Sister rock, hand fog horn at light station.

No. 79. Sept. 29—Quebec—212. Gulf of St. Lawrence, Anticosti lightship, temporary change in characteristic of light. Newfoundland—213. South coast, Placentia Bay, Latine point, light established.

No. 80. Oct. 1.—Nova Scotia—214. South coast, Chedabucto bay, Guysborough harbor, lighthouse burned down, temporary light.

No. 81. Oct. 3.—Nova Scotia—217. Bay of Fundy, Lurcher shoal, lightship temporarily off her station.

No. 82. Oct. 4.—British Columbia—218. Vancouver Island, east coast, Stuart channel, Danger reef, light on brawn.

No. 83. Oct. 11.—Quebec—222. River St. Lawrence, ship channel between Quebec and Montreal, Champlain upper range, lights established. 223. River St. Lawrence, ship channel between Quebec and Montreal, Grondines to Ile Bigot, gas buoys established. 224. River St. Lawrence, ship channel between Quebec and Montreal, Pointe aux Trembles to Longue Pointe, changes in buoyage.

No. 84. Oct. 8—Ontario—225. Niagara river mouth, Niagara-on-the-Lake, range lights established.

No. 85. Oct. 11.—Ontario—226. Lake Superior, Pie Island, change in position of lighthouse. 227. Lake Superior, Victoria island, change in position of lighthouse.

No. 86. Oct. 11.—New Brunswick—228. Bay of Fundy, Gannet rock, revolving apparatus out of order, temporary light. 229. Gulf of St. Lawrence coast, Miramichi River, Oak point, range lights improved.

No. 87. Oct. 12.—Nova Scotia—230. Strait of Northumberland, Wallace Harbor, Macfarlane point, range lights established.

### Maritime Provinces and Newfoundland.

The Halifax Tow Boat Co.'s new tug Togo made a speed of 12 knots an hour on her trial trip at Halifax, N.S., Oct. 3.

Reports that the str. Call, of Chatham, N.B., had sunk at New London, P.E.I., Oct. 8, proved on investigation to be altogether without foundation.

Capt. D. Knowlton, who died at St. John, N.B., Oct. 6, aged 81, was master of the bark Savannah from 1866 to 1874, and of the bark Noel from 1874 to 1894, when he retired from active work.

A new tug, named Daniel, has been completed at St. John, N.B., for Tapley Bros. She is 54 ft. over all, 15 ft. beam and 5 ft. depth of hold, and will be used in the river towing trade.

The Plant Line and Canada Atlantic Steamship Co. is negotiating for the purchase of an additional steamer in England. Chief Engineer Dobie, of the Halifax, has gone to England to report on the engine and boilers of the steamer.

D. Lynch, who recently died at St. John, N.B., aged 69, was for many years a well-known shipbuilder there. He built 67 wooden sailing vessels, and in recent years built the tug Lord Kitchener, and the coasting steamer Senlac.

The hull of the steamer Mahone was towed from Mahone Bay to Yarmouth, N.S., where her machinery will be put in. She is intended for the freight and passenger trade between Mahone Bay and Halifax, and is owned by J. Ernst & Son.

The Schooner Rothesay Co. (Ltd.) has been incorporated under the New Brunswick Companies' Act, with a capital of \$16,000, to purchase the schooner Rothesay and to carry on a general navigation business. The provisional directors are: E. B. Ketchum, D. W. Puddington, of St. John, N.B.; F. R. Taylor, of Rothesay, N.B.; A. C. Puddington and H. B. Homan, of New York.

The St. John River str. May Queen struck on a ledge in Grand Lake, N.B., during a heavy storm, Sept. 26, and received severe damage. She was floated Oct. 3, and was towed to Newcastle wharf, where temporary repairs were made. She was subsequently towed to St. John, where she was given general repairs, and went on her route again Oct. 15. During the winter she will be given a complete overhaul.

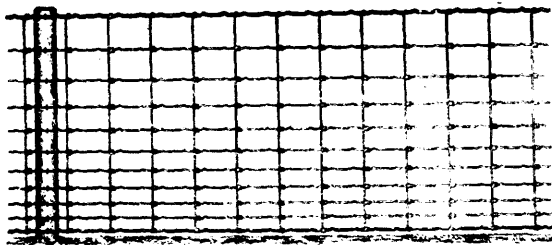
## DOMINION BRIDGE CO., Limited

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**BRIDGES**      TURNABLES : : : :  
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Special Steel,  
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 Tension Curves amply  
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 to successfully combat  
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**BROWN OR BLACK**      May be desirable colors; but when  
 one selects white or a tint, he does  
 not want brown or black.

**OXIDE OF ZINC**      Is the only white pigment that holds its color  
 in marine or railway work—therefore  
 OXIDE OF ZINC is the only available pigment  
 for white or tints on ships or boats or on railways.

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- "Paints in Architecture."
- "Specifications for Architects."
- "French Government Decrees."
- "Paint: How, Why and When."

We do not grind zinc in oil. List of manufacturers of zinc white paints will be furnished on request.

**The New Jersey Zinc Co.**  
 71 Broadway - New York.

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 THE SIX-TRACK TRUNK LINE.  
 VIA NIAGARA FALLS.

In connection with the C.P.R., T.H. & B. and M.C. Railroads operate the quickest and best trains between Toronto, Hamilton and New York.

**Day Train** leaves Toronto 9.45 a.m., Hamilton 10.45 a.m., connects with the "EMPIRE STATE EXPRESS" Arrives New York 10 p.m.

**Night Train** with sleeping car and dining car leaves Toronto 5.20 p.m., Hamilton 6.20 p.m., arrives New York 7.50 next morning.

**ONLY ONE** station in the City of New York, the Grand Central Station of the New York Central.

Connections at Suspension Bridge with the Grand Trunk Railway.

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### Province of Quebec Shipping.

Jos. Deslisle, the pilot in charge of the Turret Cape, when she grounded at Portneuf, Aug. 18, has been fined \$100 for carelessness in navigating the steamer.

M. F. Beach is proceeding against the Crown in the Exchequer Court by petition of right to recover \$134,853 damages for an alleged diversion of a water power by the construction of the Galops Canal.

The hull of the str. Canada has been raised and towed to the Richelieu and Ontario Navigation Co.'s dock at Sorel. It is intended to place her in the dry dock at Levis for repairs. This will mean practically rebuilding the steamer.

The str. Haddington, built at the Bertram Engine Works Co.'s shipyard, Toronto, and under charter to J. T. Matthews, Toronto, lost her propeller blades through coming in contact with an obstruction in the Lachine Canal, Oct. 6.

The Richelieu and Ontario Navigation Co. has issued a circular to its shareholders to the effect that owing to various circumstances, including damages to steamers, and the St. Louis Exhibition, the interim dividend usually paid at this period of the year would be passed.

The str. St. Lawrence, belonging to the North Shore Steamship Co., went ashore at English Point, in the Gulf of St. Lawrence, Oct. 8, and has become a total wreck. The steamer was formerly known as the Douro, and was purchased in England a few years ago to replace the St. Olaf, wrecked about 30 miles from English Point.

The Shipping Federation of Canada has pointed out that the plans for the steel sheds under construction on Montreal wharves are not altogether satisfactory, and suggests that alterations should be made. The Harbor Commission is in favor of making such alterations as may be necessary, provided they do not cost too much money. The two bodies are in consultation as to what alterations are necessary.

Representatives of the National Trades Congress recently waited on the Dominion Government at Ottawa, and among other things complained that the Quebec Harbor Commission was charging exorbitant dues and thus injuring the development of Canadian trade. In illustration of this the case of the Norwegian ship Verdadie was cited. At Quebec this vessel, with a cargo of 150 standards of deals, was charged \$101 in dues. At Montreal, with a cargo of 750 standards, the dues only amounted to \$5. The grain elevator charges also formed a ground of complaint. At Quebec they are 5c. a ton and one-tenth of 1%. At Montreal the charge is only 3c. The Premier promised to look into the matter.

The Bertram Engine Works Co., Toronto, is building for the Dominion Government a dredge having the following general dimensions: length, 90 ft.; breadth, 36 ft. 8 in.; depth—aft 8 ft., forward 9 ft. It is to have channel frames, floors and longitudinal, and is to be steel plated all over. It is a dipper dredge of two yards' capacity, of most modern design, with most approved machinery for handling. Steam is to be supplied by a 9 by 10 ft. Scotch return tubular marine boiler. All the machinery exhausts into a surface condenser with independent pump, having a cooling surface of 500 sq. ft. There will be a large wooden house aft, with accommodation for officers and double crew, and fitted with kitchen and galley. The dredge is intended for the lower St. Lawrence, and will be delivered to the Government at Toronto in May, 1905.

The str. Admiral, owned by the North American Transportation Co., Quebec, and trading between Montreal and Gaspe coast

ports, was burned at Montreal Oct. 4, and totally destroyed. She was valued at \$35,000 and was practically uninsured. The steamer was built at Brooklyn, N.Y., Navy Yard in 1864, and was used as a despatch boat during the civil war. In 1865 she was chosen by General Grant for his tour of the republics in Central and South America, and was subsequently employed in the Government service on the Great Lakes. When the U.S. Government sold her she traded between New York and West Indian Island ports. Some time before 1885 she was sold to J. Chabot and was brought to Canada, was subsequently owned by Thos. McGreevy, and later passed into the hands of the N.A.T. Co., of which M. Connolly is president. The Admiral was repaired and re-engined at Wilmington, Del., in 1880, and was given an overhaul at Quebec, 1885.

Capt. Salmon recently gave judgment in the investigation into the loss of the Richelieu and Ontario Navigation Co.'s str. Canada, off Sorel, June 18. The court finds that the Canada was at fault, no proper lookout having been kept, and the vessel had been navigated for some time in contravention of Article 25. The collision was caused by the wrongful act of E. Bouille, an unlicensed pilot, who is ordered to pay \$50 towards the cost of the inquiry; the certificate of the master, L. St. Louis, whose duties appeared to be more those of a purser than a master, is cancelled; the certificate of P. Kane, the mate, is suspended for a year, the court finding that he did not take proper and sufficient steps to save the passengers; and the R. and O. N. Co. was ordered to pay the costs of the inquiry, except the \$50 directed to be paid by the pilot. It is understood that the Minister of Marine will withhold his approval of these findings on the ground that Capt. Salmon declined to hear further evidence, proffered by the R. and O. N. Co., and that a new investigation will be held when a successor to Capt. Salmon, who has resigned, has been appointed.

### Ontario and the Great Lakes.

A marine railway is being constructed on Washington Island by C. G. Emery for his own use.

The annual meeting of the Collingwood Shipbuilding Co., which was fixed for Oct. 3, was adjourned until Nov. 3.

The contract for piling the foundations of the new freight shed on the Bay St. wharf, Toronto, has been let by the Board of Control to Medlar & Arnott.

The str. Canada, formerly Druid, was not sold at auction, Oct. 4, at Owen Sound, but it is understood that negotiations for a private sale are in progress.

Capt. Jno. Gormley, who died at Ashtabula, Ohio, Oct. 5, aged 65, was for many years master of the schooner Hyderabad, trading between Kingston, Ont., and Chicago.

Tenders are under consideration for the substructure of the new bridge crossing the Welland Canal, on the line of the G.T.R., between locks 24 and 25, near Thorold, Ont.

The plans for the lift lock on the Trent Valley Canal at Kirkfield, Ont., have been completed, and tenders are expected to be called for by the Department of Railways and Canals, at an early date.

The wages of the U.S. seamen employed on the Great Lakes, numbering upwards of 10,000, were advanced from 10 to 25%, Oct. 1. The advance was in accordance with an agreement reached last spring.

The Dominion Fish Co. is preparing plans for the construction, during the winter, of a tug at Owen Sound, Ont. Several of the company's tugs will undergo extensive repairs at the same port after the close of navigation.

The Dominion cruiser Vigilant is expected to be completed at the Polson Iron Works, Toronto, by Nov. 1. She is the fishery protection cruiser for Lake Erie, and will be placed in service for a short time before navigation closes for the season.

The str. North Star, owned by Capt. Harris, of Gore's Landing, Ont., was burned to the water's edge there, Oct. 9. The North Star is a screw steamer built at Peterborough, 1895, 84.2 ft. in length, 13.6 ft. beam, and 5.7 ft. deep; 40 tons gross, and 28 tons register.

The survey for the proposed branch of the Rideau Canal from Canal Lake to Desert Lake, in Frontenac county, has been almost completed. Two parties have been at work on the lakes taking soundings, etc. It is expected that construction will be gone on with in the spring.

The str. Hjawatha, bound up, light, from Ogdensburg to Buffalo, N.Y., entered the canal at Port Dalhousie, Oct. 7, with too much headway and carried away the two head gates of the locks. Navigation will be interrupted for two or three weeks until new gates can be put up.

The tug Belle, of Port Dover, Ont., has been sold to W. H. Kennedy, of Owen Sound, Ont. The Belle was built at Port Dover in 1899 for E. Harris, and is a screw steamer having the following dimensions:—length, 66.5 ft.; breadth, 13.1 ft.; depth, 6.5 ft.; 31 tons gross, and 18 tons register.

The exploratory surveys being undertaken by the engineers engaged to go over the route of the projected Montreal, Ottawa and Georgian Bay Canal, are expected to be completed early in Nov. Upon their reports the approximate location will be decided on and the actual location survey gone on with.

Capt. Alex. McDonald died at Uptergrove, Ont., Oct. 2, aged 56 years. He had been engaged in navigating Lake Simcoe for over 30 years. He first saw service on the Couchiching, in 1870; was mate on the Victoria, 1874 to 1878; for many years he was captain of the Enterprise, and during the present season had charge of the Elgin L. Lewis.

The Ogdensburg and Rutland line str. F. H. Prince, from Chicago, Ill., to Ogdensburg, N.H., with 50,000 bush. of grain, and a large cargo of package freight, went ashore on Rock Island, 10 miles west of Port Colborne, Ont., Oct. 10, but was towed off. Upon examination at Port Colborne she was found to have sustained but little damage.

The Ogdensburg and Prescott Ferry Co., which is controlled and managed by U.S. capitalists, is reported to have secured permission to have its ferry boats, City of Belleville and International, taken over to Ogdensburg, N.Y., for repairs. These steamers were built in Canada, and the report states that it is proposed to expend \$20,000 on them this winter.

The Midland Navigation Co.'s str. Midland Queen, and the Ottawa, engaged in the Canada Atlantic Transit Co.'s line, collided in a fog off Caribou Island, Lake Superior, Oct. 4, both receiving some damage. Both steamers made for Sault Ste. Marie, Ont., where temporary repairs were made to the Midland Queen, which was bound for Port Arthur, light. The Ottawa continued her trip to Detroit, Mich., where she will undergo repairs.

There passed through the Canadian canal at Sault Ste. Marie, Ont., during Sept., 590 vessels having a registered tonnage of 669,861 tons, against 456 vessels and 551,520 tons for Sept., 1903, while the actual freight carried in Sept. was 717,708 tons, against 639,320 tons for Sept., 1903. The total number of vessels using the Canadian canal for the season was

2,474, and the freight carried was 2,841,296 tons, against 3,230 vessels and 4,121,231 tons for same period 1903. During the season the U.S. and the Canadian canals carried 20,089,632 tons of freight, against 26,893,796 tons for the season of 1903 to Sept. 30.

The Collingwood, Ont., Town Council has endorsed the plan of the Chief Engineer of the Department of Public Works, for the reconstruction of the present wharf with concrete, and the extension of the same for 75 ft. This, it is believed, will give a permanent work, which can be extended at any future time. It was stated at the meeting that the Department engineers had stated that plans and specifications would be prepared immediately and tenders asked for at once. Good progress was reported to have been made with the dredging during the past season. At present a 20-ft. channel extends from the outer harbor to the G.T.R. wharf, thus furnishing accommodation for the largest vessels on the lakes.

#### Manitoba and Northwest Territories.

The Dominion Government cruiser Arctic reached Port Burwell, in Hudson's Strait, Oct. 1, where she met the str. Neptune, which had been on duty in Hudson's Bay since 1903. It was expected that the Arctic would reach Cape Fullerton, in Hudson's Bay, Oct. 18, where winter quarters would be prepared. The Neptune passed Belle Isle, Nfld., Oct. 14, and reached Halifax, N.S., Oct. 10.

The Hudson's Bay Co. recently completed, at Prince Albert, Sask., a stern-wheel steamer, which has been named Saskatchewan, an illustration of which appears on page 415. Her dimensions are:—Length, 100 ft.; beam, 23 ft. 7 in.; draft, 20 ins. She is fitted with engines 9 ins. x 45 ins., and steam is supplied by a boiler carrying 190 lbs. steam pressure. The purpose in view is to have a boat of great power with a minimum draft, so that the two great difficulties of the rapids and the numerous sand bars of the Saskatchewan River may be overcome. The carrying capacity of the boat will be about 60 tons, but in favorable stages of the water barges will be towed. The enterprise of the company in introducing steam navigation on the Saskatchewan, notwithstanding the want of success with steamers on the river in earlier days, is much appreciated by the public. The many settlements forming along the river will find the steamer a boon both as a carrier of freight at reasonable rates, and also as providing a speedy and comfortable means of reaching the railway termini.

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

Captains of Fraser River steamers report that the channel opposite Fort Langley, B.C., is so narrow that steamers have considerable difficulty in making their landings.

The str. Wellington, 1,267 tons register, engaged in the coal trade between Vancouver and San Francisco, has been laid up for some time in Esquimalt Harbor, B.C. She has

been placed on the ways for an overhaul and will again go into the coal trade on her former run.

In the rush of steamers into Dawson, Yukon, with supplies before the close of navigation, the Northern Commercial Co.'s str. Rock Island, struck a rock about eight miles from Eagle, between Fairbanks and Dawson, and sank Oct. 4. The steamer is valued at \$50,000 and she had on board a cargo of oats, valued at \$5,500.

Capt. Balcom, of Victoria, B.C., is having a schooner-rigged steamer of 100 tons burden, built in Norway, for the whaling business on the Pacific ocean. The new vessel is expected to be launched early in Jan., 1905, and will be brought out to Victoria by a Norwegian crew, under Capt. Balcom's charge.

The Boscowitz Steamship Co.'s str. Barbara Boscowitz, bound from Victoria to northern B.C. ports, was wrecked Oct. 2, at Parson's Bay, near Marblehead Island, and four Indian girls were drowned. The vessel appears to be a total loss. She was a screw steamer of 253 tons register, and was built at Victoria in 1883.

The Victoria Machinery Depot Co. has completed a new dry dock at Rock Bay, at a cost of about \$60,000. The dimensions of the railway, which is on the four-track, three-tier system, and dock are:—Track, 36 ft. between centres; centre track, 5 ft. 4 in.; length of track 650 ft. on pile foundation. This track is what is known as a three-quarter convex grade track. The cradle is 280 ft. long over all, and 65 ft. beam. It is built up 14 ft. aft, thus giving a level dock

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platform and level deck to the vessel on the cradle, just as if she were in the water. The draught of water aft is 20 ft. and forward 16 ft. The underwork of the cradle is of structural steel, the logs and deck of timbers. The cradle is fitted with patent release bilge blocks, worked from the dock platform with chain and winch. The cradle has a dead-weight capacity of 3,000 tons. It is hauled up by quadruple chains equalized. The power is supplied by a multiplication of heavy gears driven by a pair of 14x18 engines of the latest and most improved pattern.

At the annual meeting of the Manchester Liners (Ltd.), trading between Canadian ports and Manchester, Eng., Sir C. Furness, the chairman, stated that during the year the company lost £20,000, whilst another company lost £253,000. These losses were

cept what is absolutely necessary to come through that harbor.

The Dominion Government cruiser Canada, recently built in England, reached Quebec Sept. 30. Her officers are: Captain, C. T. Knowlton; chief officer, W. J. Millan; chief engineer, D. M. A. Mooney; second engineer, M. Henderson; third engineer, W. Brown; engineer in charge for the builders during guarantee period, F. C. Raby. The steamer will be used for the fisheries protection service on the Atlantic coast except during a short period in the winter, when she will be the depot ship for training the naval reserve.

The Canadian Lines chartered str. Lake Simcoe, in addition to being libelled by the Dominion Government, was seized by the Inverness Ry. and Coal Co. for \$5,437, for bunker coal supplied, and by a London, Eng., firm for \$3,718 for supplies. The necessary

The Great Northern (U.S.) Ex. Co. has opened an office at Swinton (Morrissey), B.C., on the Crow's Nest Southern Ry.

Winter rates on the routes of the Alaska Pacific Ex. Co. went into force Oct. 5, on the closing of navigation on the Yukon River.

The Dominion Ex. Co. has extended its service on the Pheasant Hills branch of the C.P.R. between Esterhazy and Lipton, Assa.

The express service operated on its electric line by the Levis County Ry., is reported to be proving a success. Two deliveries a day each way are made.

The Dominion Ex. Co. has opened offices at Abernethy, Balcarres, Dubec, Grayson, Killaly, Lipton, Lemberg, Neudorf, Patrick and Stockholm, Assa.

The Western Ex. Co. has extended its route on the Minneapolis, St. Paul and Sault



HUDSON BAY CO.'S STEAMER SASKATCHEWAN, RECENTLY BUILT AT PRINCE ALBERT FOR THE SASKATCHEWAN TRADE.

caused largely by the competition in the North Atlantic trade.

The first of the ice-breaking steamers built at Paisley, Scotland, for the Dominion Government, reached Quebec, Oct. 24. She will be used on the St. Lawrence between Montreal and Quebec. The second and larger steamer, to be used on the river from Quebec and in the Gulf of St. Lawrence, was launched at Paisley Oct. 8, and is expected to be ready to leave Scotland Nov. 15.

The International Mercantile Marine Co. is paying \$500,000 a year for rental of piers, etc., at New York, and this amount is shortly to be increased to about \$1,000,000. Competing ports are offering free, many of the pier and wharfage privileges which New York charges for, and the company will, it is said, cut out New York for all business ex-

curities were given in each case and the steamer was released Sept. 29, sailing for England a few days thereafter. The proceedings instituted by the Minister of the Interior to recover \$26,000 for permitting the escape of Syrian immigrants ordered to be deported, were opposed by the ship, and the opposition was upheld by the court on the ground that the Minister was the wrong person to sue. Another action will be taken in the name of the Attorney-General.

#### Among the Express Companies.

The Canadian Ex. Co. has opened offices at Fesserton, Ont., and Pierreville, Que.

The Canadian Ex. Co. is operating a route on the Quebec Southern Ry. between St. Lambert and Pierreville, Que.

Ste. Marie Ry., between Mahnomen and Thief River Falls, Minn.

The Canadian Northern Express Co. has adopted as a standard sign for its offices, bright orange ground with black letters. The signs, which are of enameled iron, are supplied by the Acton Burrows Co., Toronto.

An Ottawa furrier has entered an action against the Canadian Ex. Co. to recover \$142.88, the value of furs sent C.O.D. to the U.S. As the National Ex. Co., of New York, received the goods from the Canadian Ex. Co., the case was adjourned in order that it may be joined.

The executive board of the Toronto branch of the Canadian Manufacturers' Association passed a resolution, Oct. 13, asking the Dominion Government to amend the Railway Act so as to place express com-

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J. R. Booth Elevator, Depot Harbor, Ontario	.....	1,000,000 "
Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	.....	1,000,000 "
Erie R. R. Transfer & Clipping House, Chicago, Ill.	100 cars in 10 hrs.	"
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	.....	1,500,000 "
Burlington Elevator Co., Peoria, Ill.	.....	500,000 "
Canada Atlantic Railway Elevator, Coteau 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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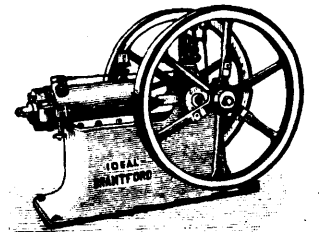
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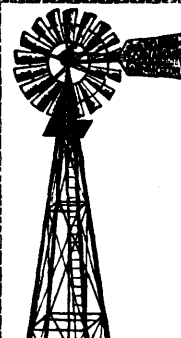
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panies under the jurisdiction of the Railway Commissioners.

The Dominion Ex. Co. has secured offices on James St., Hamilton, further south than those at present occupied. The building in which the present offices are situated is required as an addition to the Bank of Hamilton office building. The company has also leased a site opposite the Toronto, Hamilton and Buffalo Ry. station for a warehouse. The new offices, etc. will be occupied in the spring of 1905.

H. M. Moir, formerly Dominion Ex. Co.'s agent at St. Mary's, Ont., was acquitted at Stratford, Ont., Sept. 29, on a charge of misappropriating \$45 of the company's money. A reserve order was granted by the judge under which Moir can be rearrested, if the company desires to push the matter with respect to the remainder of \$900 which it is claimed has been misappropriated. Moir has since been arrested and committed for trial at the next assizes at Stratford.

The Newfoundland Post Office has reduced the rates on its parcel post service in connection with the mail service to and from all post offices in Newfoundland and Labrador. The rates recently put in force range from 1c. for parcels under two ounces to 35c. for parcels weighing between 9 and 11 lbs., the latter being the maximum weight. The receipt and despatch of all parcels is recorded, but the department does not accept any responsibility for loss unless the parcel is registered.

The regulations issued from time to time by the U.S. Customs authorities respecting ultimate consignee's declaration (or owner's oath), for all matter consigned to points in the U.S., have been modified by a recent decision. Under the new regulation, consignments not exceeding \$100 in value can be accepted by express companies and forwarded without being subject to delay at frontier ports. All consignments of over \$100 in value will still require Consular certificate as well as ultimate consignee's declaration.

### C.P.R. Time Service.

W. J. Camp, Electrical Engineer of the C.P.R. Telegraph Department, describes the company's time service as follows: "The C.P.R. has a special circuit at Montreal connected with a clock in McGill Observatory. Signals are continuously sent over this circuit by the clock. As the clock arrangement was not originally designed for transmitting the signals over long distances, the signals are transmitted by hand from our main office in Montreal, the operator standing beside an electrical instrument on the clock circuit, so that the signals are practically instantaneous with those received from the clock. These signals are received direct at Vancouver and Victoria through automatic repeaters at Fort William, Winnipeg and Swift Current. The time occupied in passing through each repeater is about 3-100 of a second, and the time occupied on the wire itself is less than 2-100 of a second per thousand miles. This would make the actual time consumed between Montreal and Vancouver about 15-100 of a second. At Montreal a wire terminates, over which signals are sent direct from the clock at Washington, D.C. We very frequently compare signals we receive over this circuit with those received from McGill College, and are able therefore to check up any variation in the McGill clock. As a general thing the signals from Washington are slightly behind McGill, owing to the distance between Washington and Montreal. During the last five years there have been practically only about six occasions on which there was a difference between the two clocks of over one second, but on checking up it has generally

been found that the Washington clock was in error. The one transmission from Montreal reaches every telegraph office on the C.P.R. system, extending from Louisburg, N.S., to Bamfield, B.C. It is automatically repeated at Canso, N.S., to the Azores Island, in the Atlantic, and by hand at Halifax, N.S., to Bermuda and Jamaica. These two islands use the C.P.R. time, as it is the most nearly correct they can obtain. The islands in the Pacific, where the Australian cable lands, also use our time. The British war vessels correct their chronometers at Halifax and Victoria frequently with signals exchanged with McGill, and the German fleet does the same at the Azores. On these occasions we first obtain the variations of the McGill clock so as to give time true to a very small fraction of a second. This is done because no clock is perfect."

### Telegraph and Cable Matters.

The G.N.W. Telegraph Co. has closed its offices at Cambray, Grimsby Park, and Royal Muskoka Hotel, Ont.; Cacouna, Ste. Angele de Monnoie, Que.

W. Dee, formerly local manager of the Western Union Telegraph Co. at Victoria, B.C., has been appointed Manager of the Victoria branch of the Pacific Coast Wireless Telegraph Co.

The Great North-West Telegraph Co. suffered considerable damage to its outside plant in the fire at Winnipeg, Oct. 11, but its building, though threatened, was not burned, as was at first reported.

H. H. Allingham, heretofore operator in the C.P.R. telegraph office at Vancouver, B.C., has left that company's service to join the Western Union Telegraph Co.'s staff at the London, Eng., office.

The Pacific Wireless Telegraph Co. expects to have a line in operation in Victoria, B.C., Oct. 30th. The company has at present in operation stations at several points on the U.S. shores of Puget Sound.

R. T. Reid, heretofore Manager Western Union Telegraph Co., Seattle, Wash., has been appointed Superintendent of the Second District, Pacific Division, succeeding T. W. Goulding, transferred. Office, Seattle, Wash.

The Newfoundland Post Office put in force Sept. 21 a 20 cent. rate for 10-word messages within the colony, with two cents for each additional word, exclusive of address and signature. There are 63 telegraph offices in the colony.

The date of the conference with reference to the all-British Pacific Cable, which is to adjust certain matters between the partners in the enterprise, has not been fixed. The date depends largely on Sir William Mulock, who will represent Canada.

T. W. Goulding, heretofore Superintendent Western Union Telegraph Co. at Seattle, Wash., and formerly of Vancouver, B.C., has been appointed General Superintendent of the company's European agencies, with headquarters at London, Eng.

The Western Union Telegraph Co.'s cable connecting Vancouver Island with the mainland of Washington, recently broke at a point located about seven miles out of Victoria, and in 95 fathoms. The broken ends of the cable having been secured Sept. 29, the repairs were completed on the following day.

The Dominion Government cable connecting the telegraph line on the Labrador mainland with the Belle Isle signal station was again reported broken Sept. 29. The breaking of the cable is of very frequent occurrence, and is caused by the rocky character of the shores on both sides of the strait, and the icebergs.

The C.P.R. Telegraph Department has

recently opened offices at the following points: Bowsman, Eden, Marchand, Mowbray, Ogilvie, Roblin, Woodbridge, Kenton, Man.; Blackfalds, Bonnington, Brooks, Canora, Castle Mountain, Cayley, Coleman, Kam-sack, Kincorth, Lemberg, Penhold, Seven Persons, Shepard, Sheho, Suffield, Tabor, and Walsh in the Northwest Territories.

The wireless telegraph station at Glace Bay, N.S., is to be dismantled and the whole plant removed to a new station to be erected at Port Morien, about four miles from the present site. A contract for this work has been let, and it is expected to be completed by Dec. 30. The Marconi Wireless Telegraph Co. is reported to have purchased 400 acres of land at Port Morien, upon which the new station will be erected.

The chief signal officer of the U.S. army has completed an arrangement with the Dominion Government for the exchange of messages between the Canadian telegraph lines and the U.S. telegraph lines in Alaska. The U.S. cable between Sitka and Valdez, Alaska, was completed Oct. 5, when a direct U.S. connection between Seattle and the Alaskan land lines will be given. Heretofore the Canadian land lines were used to connect with the land system in Alaska.

The telegraph lines on the Magdalen Islands in the Gulf of St. Lawrence, and the cable connecting them with the mainland and with Anticosti Island have been finally completed. The cable extends from Meat Cove, N.S., to Old Harry Cove, Coffin Island, thence overland to Grosse Isle, where the main cable office is located in a cove east of North Cape. From Grosse Isle the cable crosses to the east end of Byron Island, thence to Heath Point lighthouse on Anticosti Island, and through the Anticosti system with Gaspé, thus providing alternative cable routes. The cable system is connected with a system of telegraph lines extending throughout the Magdalen Islands group, with the exception of Entry Island. Telegraph offices are in operation at Grand Entry Harbor, Old Harry Cove, Grosse Isle, Wolfe Island, Grindstone Island, Grindstone West, House Harbor, Pointe Basse, Etang du Nord Village, Etang du Nord lighthouse, Amherst Island lighthouse, and Amherst Harbor.

Superintendent James, of the Anglo-American Telegraph Co., Charlottetown, P.E.I., has issued the new tariff for telegraphic messages between the island and mainland points. The new rates went into effect Oct. 11. Rates to offices of the G.N.W. Telegraph Co. and the Western Union Telegraph Co., in Ontario, Quebec, Nova Scotia and New Brunswick are 30c. for 10 words and 2c. for each additional word, with a proportionate reduction for press messages. Rates to offices in the U.S., Manitoba, Northwest Territories and British Columbia are reduced by 25c. and 1c. To Anglo-American Telegraph Company's offices in Newfoundland the rate is \$1.05 for 10 words and 10c. for each additional word; and to the Magdalen Islands the rate is 80c. for 10 words and 5c. for each additional word. Night messages for points in the U.S., Manitoba, British Columbia, etc., to which night rates are given by the G.N.W. Telegraph Co. and the Western Union Telegraph Co. will be accepted at these rates plus 25c. and 2c.—the rate from P.E.I. by Sackville. The office at Charlottetown will be kept open until the night press reports are received, about 4 a.m.; and the Summer-side office will be kept open until 10 or 11 o'clock p.m.

N. W. Bethune, District Manager of the G.N.W. Telegraph Co. at Ottawa, Ont., has retired from active work, after 57 years of continuous telegraph service. He shares with H. P. Dwight, President G.N.W.T. Co., the distinction of being the oldest telegraph operator in Canada. He opened the first



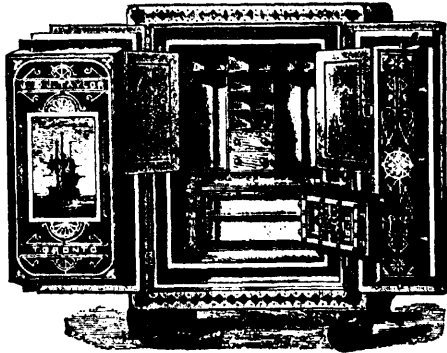
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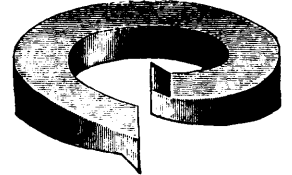
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At the Sept. meeting of the Water Service Committee of the American Railway Engineering and Maintenance of Way Association, Professor A. McGill, Assistant Analyst of the Inland Revenue Department at Ottawa, read a paper on Boiler Feed Water.

The C.P.R. inaugurated a news bulletin on its transcontinental trains about twelve years ago, so that the recent starting of a similar service by the Union Pacific Rd. on its Overland Limited Train, is by no means the innovation it is claimed to be.

telegraph office east of Toronto at Port Hope in 1847; had charge of offices at other points at later dates, and was moved to Ottawa (then Bytown) in 1863. In writing of Mr. Bethune's resignation to the Monetary Times, Mr. Dwight says: "My business and personal relations with Mr. Bethune date from 1847, when we both began our careers as telegraph operators on the line of the Montreal Telegraph Co., which was opened for business between Quebec, Montreal and Toronto during that year. For forty years Mr. Bethune has filled the position of telegraph manager for that company and the one which leased its wires, the G.N.W.T. Co., in Ottawa, at which point, since the seat of Government was established there and it became the Capital and political focus of the Dominion, it has required special tact and judgment to conduct the business. I do not remember during the whole of this period to have received a single complaint as to Mr. Bethune's management, nor has any doubt arisen in any respect as to his entire competency and strict integrity in his position as Local Manager and Superintendent of the Ottawa district. I have always looked upon Mr. Bethune not only as a faithful employe of the company, but as a personal friend, whose loyalty both in personal and business relations was never for one moment to be doubted. He is a man of rare intelligence, and carries with him into his retirement the good wishes of all who have had the pleasure of his acquaintance." Mr. Bethune's resignation took effect Oct. 18. The position of District Superintendent has been abolished, and that of local manager at Ottawa has been filled by the appointment of F. R. Carney, of Chicago, Ill.

**General Telephone Matters.**

The Kingston, Ont., Council's finance committee has not taken any further action in the matter of the Bell Telephone Co.'s offer for an exclusive franchise in the city.

The Brantford, Ont., Board of Trade has decided to purchase the old Bell homestead on Tutela Heights, for the purpose of turning it into a park, and erecting a memorial in connection with the invention of the telephone there by Professor G. Bell.

The Ontario Court of Appeal has decided to dismiss the appeal of J. J. Price, of Hamilton, against the decision of Justice Britton declining to quash a by-law of the Hamilton City Council passed Aug. 31, 1903, granting an exclusive franchise to the Bell Telephone Co. for five years. An appeal is to be made to the Supreme Court.

The City of Toronto has received an offer from the Canadian Machine Telephone Co. to instal a system in the city in response to its invitation. Letters were sent in from two other companies declining to submit prices on the ground that the conditions were too onerous. The terms of the offer received have not been considered.

The Brantford, Ont., City Council, on rescinding its resolution to submit a by-law to raise \$40,000 for the establishment of a municipal telephone plant, decided to receive offers for the installation of an independent plant up to Oct. 18. Several offers had been received prior to the adoption of the by-law, and one was received since, from the Stark Telephone, Light and Power Co. The terms offered by this company resulted in the dropping of the municipal telephone proposal.

The Nova Scotia Telephone Co. has purchased a site on Prevost St., New Glasgow, N.S., for a telephone building there. Plans have been prepared calling for a two-story brick building with light Pictou freestone trimmings. The first floor will contain manager's office, operating room, power room, work room, toilet rooms, and toll boxes; and

the second floor is to be devoted entirely to offices. The floors, roof and partitions are to be constructed on the "slow burning" principle. The building will be heated throughout by hot water and lighted by electricity. The company is now running underground wires to the new building, which is expected to be completed during the fall.

The Port Arthur, Ont., municipal telephone plant earned as gross income for the half year ended June 30, \$2,679; the operating expenses were \$1,783, and the interest charges \$450, leaving a surplus of \$446. For the year 1903 the total earnings were \$3,774 and the surplus \$419. The amount of telephone debentures outstanding is \$21,000, bearing 5% interest, and of this amount \$12,000 is being offered by the Dominion Securities Corporation, Toronto, at 101 and accrued interest. The telephone plant was installed Nov., 1902, and in Sept. there were 433 subscribers, of whom 199 were for business phones and 284 for instruments in private houses. The system is a central energy one, and free connection is given to Fort William. The rates are \$12 for instruments in private houses and \$24 for business places.

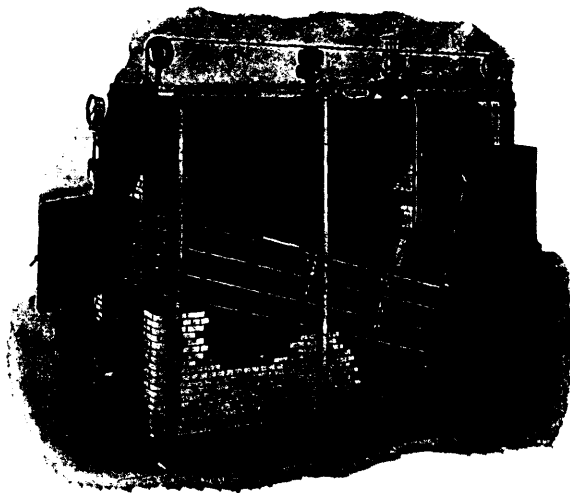
The Licensed Victuallers' Association of Montreal passed a resolution Oct. 5 adopting a protest against the slot machines being installed by the Bell Telephone Co. in public places, hotels, restaurants, drug stores, etc., on the ground that their use is an unfair tax on the community. A petition to the City Council has also been adopted in which it is pointed out that the Bell Telephone Co. "has unlawfully and by threats of discontinuing the service entirely compelled a number of subscribers to adopt what is known as the 'slot machine system,' whereby the subscriber is compelled to pay a monthly rate, which, in the aggregate, exceeds the lawful rate payable annually for telephone service, and, in addition thereto, the Bell Telephone Co. collects a fee for each use which is made of the telephone, by means of which the annual rental is made excessive and unjust." A statement has been issued by D. C. Dewar, local manager at Montreal, in which he points out that there has been no increase of rates, and that where there appears to be an apparent increase the subscriber has the option of taking an old-time transmitter at the old rates, or the new long distance equipment at \$5 extra; this long distance equipment until two years ago was \$20 extra. In regard to the slot machines, it is entirely optional with the subscriber to have them. The company, however, is prepared to instal a regular pay telephone, which enables a licensed victualler to do away with the delays caused by customers desiring to use the regular instrument. The subscriber can have his regular instrument taken out, and for out-calls can pay the charge of 5 cents a call at the pay instrument, receiving all in-calls free, and being entitled to 50% of the receipts over \$5 a month.

**PURCHASING AGENTS' GUIDE.**

(Continued from third page of Cover.)

- Locomotives (Steam)**
  - American Locomotive Co. .... New York, N.Y.
  - Baldwin Locomotive Works ..... Philadelphia, Pa.
  - Canada Foundry Co. .... Toronto.
  - Canadian Locomotive Co. .... Kingston, Ont.
  - F. H. Hopkins & Co. .... Montreal.
  - Lima Locomotive and Machine Co. .... Lima, Ohio.
  - Locomotive and Machine Co. of Montreal
  - The Saxon Engine Works, Chemnitz, Germany.
- Machinery, Mining**
  - The Bertram Engine Works Co. .... Toronto
- Machine Tools**
  - W. Abbott ..... Montreal.
  - The Saxon Engine Works, Chemnitz, Germany.
- Machine Screws, Set, Cap and Planner**
  - John Morrow Machine Screw Co. .... Ingersoll.
- Machinery Repairs**
  - The Bertram Engine Works Co. .... Toronto.
- Manganese Steel Castings**
  - Montreal Steel Works ..... Montreal.
- Manhole Frames and Covers**
  - American Brake Shoe & F'dry Co. .... Mahwah, N. J.
- Matches**
  - The Hudson's Bay Company ..... Montreal.
- Mats and Matting**
  - The Gutta Percha & Rubber Mfg. Co. of Toronto.
- Mechanical Draft Fans**
  - Babcock & Wilcox (Ltd.) ..... Montreal.
- Millepost Numbers**
  - Acton Burrows Co ..... Toronto.
- Milling Cutters**
  - W. Abbott ..... Montreal.
- Milling Machines**
  - The John Bertram Sons Co. .... Dundas, Ont.
- Mills, Boring and Turning**
  - The John Bertram Sons Co. .... Dundas, Ont.
- Mohair**
  - The Hudson's Bay Company ..... Montreal.
- Numbers**
  - Acton Burrows Co. .... Toronto.
- Nuts, Cold Pressed**
  - John Morrow Machine Screw Co. .... Ingersoll.
- Nuts, Square and Hexagon**
  - Canada Foundry Co. .... Toronto.
  - Toronto Bolt and Forging Co. .... Toronto.
- Oakum**
  - Rice Lewis & Son ..... Toronto.
  - The Hudson's Bay Company ..... Montreal.
- Office Desks**
  - Canadian Office & School Furniture Co., Preston, Ont.
- Office Fittings**
  - Canadian Office & School Furniture Co., Preston, Ont.
- Office Signs**
  - Acton Burrows Co ..... Toronto.
- Oils**
  - Galena-Signal Oil Co. .... Franklin, Pa., & Toronto.
  - The Queen City Oil Company ..... Toronto.
- Packing**
  - The N. L. Piper Railway Supply Co. .... Toronto.
- Packing, High Pressure Sheet**
  - The Gutta Percha & Rubber Mfg. Co. of Toronto. ....
- Packing, Piston**
  - The Gutta Percha & Rubber Mfg. Co. of Toronto.
- Pinch Bars**
  - The N. L. Piper Railway Supply Co. .... Toronto.
- Pipe Covering**
  - The James Morrison Brass Mfg. Co. .... Toronto.
  - Mica Boiler Covering Co. .... Montreal.
- Planers**
  - The John Bertram Sons Co. .... Dundas, Ont.
- Plushes**
  - The Hudson's Bay Company ..... Montreal.
- Porter**
  - E. L. Drewry ..... Winnipeg.
- Portable Boilers**
  - Babcock & Wilcox (Ltd.) ..... Montreal.
  - Canada Foundry Co. .... Toronto.
- Printing**
  - The Hunter, Rose Co. .... Toronto.
  - The Mail Job Printing Company ..... Toronto.
- Pumps**
  - Canada Foundry Co. .... Toronto.
  - Rice Lewis & Son ..... Toronto.
- Punching and Shearing Machines**
  - The John Bertram Sons Co. .... Dundas, Ont.
- Rail Bondors, Roller**
  - Montreal Steel Works ..... Montreal.
- Railway Interlocking**
  - General Railway Signal Co. .... Buffalo, N.Y.
- Railway Signalling**
  - General Railway Signal Co. .... Buffalo, N.Y.
- Railway Supplies**
  - The N. L. Piper Railway Supply Co. .... Toronto.
- Rails (New)**
  - Drummond, McCall & Co. .... Montreal.
  - F. H. Hopkins & Co. .... Montreal.
  - J. J. Garthore ..... Toronto.
  - W. H. C. Mussen & Co. .... Montreal.
- Rails (for relaying)**
  - F. H. Hopkins & Co. .... Montreal.
  - J. J. Garthore ..... Toronto.
  - T. A. Morrison & Co. .... Montreal.
  - W. H. C. Mussen & Co. .... Montreal.
  - Rice Lewis & Son ..... Toronto.
  - Jas. W. Pyke & Co. .... Montreal.
- Reamers**
  - W. Abbott ..... Montreal.
- Ribbons and Carbon Paper**
  - United Typewriter Co. .... Toronto.
- Rivets, Boiler and Bridge**
  - Canada Foundry Co. .... Toronto.
  - Toronto Bolt and Forging Co. .... Toronto.

<b>Rolls, Plate Bending</b> The John Bertram Sons Co. .... Dundas, Ont.	<b>Steam Hammers</b> The John Bertram Sons Co. .... Dundas, Ont.	<b>Turnbuckles</b> Montreal Steel Works ..... Montreal.
<b>Roof Trusses</b> Canada Foundry Co. .... Toronto. Dominion Bridge Co. .... Montreal.	<b>Steam Shovels</b> F. H. Hopkins & Co. .... Montreal. W. H. C. Mussen & Co. .... Montreal.	<b>Turntables</b> Canada Foundry Co. .... Toronto. Dominion Bridge Co. .... Montreal.
<b>Rope</b> Rice Lewis & Son. .... Toronto. The Hudson's Bay Company .....	<b>Steel</b> The James Morrison Brass Mfg. Co. .... Toronto.	<b>Typewriters</b> United Typewriter Co. .... Toronto.
<b>Rubber Tiling, Interlocking</b> The Gutta Percha & Rubber Mfg. Co. of Toronto.	<b>Steel Buildings</b> Canada Foundry Co. .... Toronto. Dominion Bridge Co. .... Montreal.	<b>Typewriter Repairs</b> United Typewriter Co. .... Toronto.
<b>Safes</b> J. & J. Taylor. .... Toronto.	<b>Steel for Springs</b> James Hutton & Co. .... Montreal.	<b>Typewriter Supplies</b> United Typewriter Co. .... Toronto.
<b>Safety Valves</b> The James Morrison Brass Mfg. Co. .... Toronto.	<b>Steel Plate</b> Jas. W. Pyke & Co. .... Montreal.	<b>Valves, Iron and Brass</b> Canada Foundry Co. .... Toronto. The James Morrison Brass Mfg. Co. .... Toronto.
<b>Screws, Coach and Log</b> Toronto Bolt and Forging Co. .... Toronto.	<b>Steel Tyres</b> James Hutton & Co. .... Montreal. Jas. W. Pyke & Co. .... Montreal.	<b>Valves, Rubber</b> The Gutta Percha & Rubber Mfg. Co. of Toronto.
<b>Semaphore Arms</b> Acton Burrows Co. .... Toronto.	<b>Stop Cocks, Iron and Brass</b> The James Morrison Brass Mfg. Co. .... Toronto.	<b>Varnishes</b> McCaskill, Dougall & Co. .... Montreal.
<b>Semaphores</b> The N. L. Piper Railway Supply Co. .... Toronto.	<b>Structural Metal Work</b> Canada Foundry Co. .... Toronto. Dominion Bridge Co. .... Montreal. Locomotive and Machine Co. of Montreal. Jas. W. Pyke & Co. .... Montreal.	<b>Vessels</b> Polson Iron Works ..... Toronto.
<b>Sewer Pipe (Cast Iron)</b> Gartshore-Thompson Pipe & F'dry Co. .... Hamilton.	<b>Superheaters</b> Babcock & Wilcox (Ltd.). .... Montreal.	<b>Waste</b> Rice Lewis & Son. .... Toronto. N. L. Piper Ry. Supply Co. .... Toronto. The Queen City Oil Co. .... Toronto.
<b>Shaking Grates</b> Babcock & Wilcox (Ltd.). .... Montreal.	<b>Switches</b> Montreal Steel Works ..... Montreal.	<b>Water Pipe (Cast Iron)</b> Gartshore-Thompson Pipe & Foundry Co., Hamilton.
<b>Shaping Machines</b> The John Bertram Sons Co. .... Dundas, Ont.	<b>Switch Lamps</b> The N. L. Piper Railway Supply Co. .... Toronto.	<b>Water Softeners</b> Babcock & Wilcox (Ltd.). .... Montreal.
<b>Shipbuilders' Tools and Supplies</b> Rice Lewis & Son. .... Toronto.	<b>Switch Ropes</b> The B. Greening Co. .... Hamilton, Ont.	<b>Wheelbarrows</b> F. H. Hopkins & Co. .... Montreal. Rice Lewis & Son. .... Toronto.
<b>Ship Lamps</b> Continental Heat & Light Co. .... Montreal. The N. L. Piper Railway Supply Co. .... Toronto.	<b>Switch Targets</b> Acton Burrows Co. .... Toronto.	<b>Windmills</b> Goold, Shapley & Muir Co. .... Brantford, Ont. Ontario Wind Engine and Pump Co. .... Toronto.
<b>Ships</b> Canadian Shipbuilding Co. .... Toronto. Polson Iron Works ..... Toronto.	<b>Tanks</b> Goold, Shapley & Muir Co. .... Brantford, Ont.	<b>Window Blinds</b> The Hudson's Bay Company .....
<b>Shipbuilders and Engineers</b> Canadian Shipbuilding Co. .... Toronto.	<b>Tanks and Tank Fixtures</b> Canada Foundry Co. .... Toronto. Ontario Wind Engine and Pump Co. .... Toronto.	<b>Wines and Liquors</b> The Hudson's Bay Company .....
<b>Shovels</b> F. H. Hopkins & Co. .... Montreal. The Hudson's Bay Company .....	<b>Telegraph and Telephone Office Signs</b> Acton Burrows Co. .... Toronto.	<b>Wire and Wire Rope</b> 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.
<b>Side Bearings</b> Simplex Railway Appliance Co. .... Montreal.	<b>Tobacco and Cigars</b> The Hudson's Bay Company .....	<b>Wire Cloth</b> The B. Greening Co. .... Hamilton, Ont.
<b>Signal House Numbers</b> Acton Burrows Co. .... Toronto.	<b>Toilet Paper</b> The Hudson's Bay Company .....	<b>Wire, Copper</b> E. F. Phillips Electrical Works, Ltd. .... Montreal. The Wire and Cable Co. .... Montreal.
<b>Signals</b> General Railway Signal Co. .... Buffalo, N. Y. N. L. Piper Railway Supply Co. .... Toronto.	<b>Track Jacks</b> F. H. Hopkins & Co. .... Montreal. Montreal Steel Works ..... Montreal. W. H. C. Mussen & Co. .... Montreal. A. O. Norton ..... Coaticook, Que.	<b>Wire, Electric</b> Canadian General Electric Co. .... Toronto. E. F. Phillips Electrical Works, Ltd. .... Montreal. The Wire and Cable Co. .... Montreal.
<b>Signs</b> Acton Burrows Co. .... Toronto.	<b>Track Tools</b> Canada Switch and Spring Co. .... Montreal. F. H. Hopkins & Co. .... Montreal. Rice Lewis & Son. .... Toronto. Montreal Steel Works ..... Montreal. W. H. C. Mussen & Co. .... Montreal.	<b>Wire, Insulated Copper</b> Canadian General Electric Co. .... Toronto. E. F. Phillips Electrical Works, Ltd. .... Montreal. The Wire and Cable Co. .... Montreal.
<b>Slotting Machines</b> The John Bertram Sons Co. .... Dundas, Ont.	<b>Tramway Equipment</b> F. H. Hopkins & Co. .... Montreal. W. H. C. Mussen & Co. .... Montreal. J. J. Gartshore ..... Toronto.	<b>Wire, Telegraph and Telephone</b> E. F. Phillips Electrical Works, Ltd. .... Montreal. The Wire and Cable Co. .... Montreal.
<b>Snow Ploughs</b> Rhodes, Curry & Co. .... Amherst, N.S.	<b>Trucks (Electric Car)</b> Baldwin Locomotive Works ..... Philadelphia, Pa. Canada Foundry Co. .... Toronto. Montreal Steel Works ..... Montreal.	<b>Wire, Transmission and Trolley</b> The Wire and Cable Co. .... Montreal.
<b>Spikes, Railway and Ship</b> Toronto Bolt and Forging Co. .... Toronto.		<b>Wrought Steel Piping</b> Babcock & Wilcox (Ltd.). .... Montreal. Canada Foundry Co. .... Toronto.
<b>Springs</b> Montreal Steel Works ..... Montreal.		<b>Yachts</b> Polson Iron Works ..... Toronto.
<b>Station Name Signs</b> Acton Burrows Co. .... Toronto.		
<b>Steamboats</b> Canadian Shipbuilding Co. .... Toronto. Polson Iron Works ..... Toronto.		
<b>Steamboat Signs</b> Acton Burrows Co. .... Toronto.		
<b>Steam Couplers</b> Safety Car Heating and Lighting Co. .... New York.		



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## Axles

James Hutton & Co. . . . . Montreal.  
Jas. W. Pyke & Co. . . . . Montreal.  
Rhodes, Curry & Co. . . . . Amherst, N.S.

## Babbitt

Rice Lewis & Son . . . . . Toronto.

## Barges, Grain

The Bertram Engine Works Co. . . . . Toronto.

## Belting, Rubber

The Gutta Percha & Rubber Mfg. Co. of Toronto.

## Billing Machines

United Typewriter Co. . . . . Toronto.

## Blankets & Bedding

The Hudson's Bay Company . . . . .

## Block & Tackle

Dominion Wire Rope Co. . . . . Montreal.  
Rice Lewis & Son . . . . . Toronto.

## Block Signals

General Railway Signal Co. . . . . Buffalo, N.Y.

## Boat Fittings & Hardware

Rice Lewis & Son . . . . . Toronto.

## Boats, Steel and Composite

The Bertram Engine Works Co. . . . . Toronto.

## Boiler Covering

Mica Boiler Covering Co. . . . . Montreal

## Boilers

Canada Foundry Co. . . . . Toronto.  
Polson Iron Works . . . . . Toronto.

## Boilers, Locomotive

The Bertram Engine Works Co. . . . . Toronto.

## Boilers, Stationary and Marine

Babcock & Wilcox (Ltd.) . . . . . Montreal.  
The Bertram Engine Works Co. . . . . Toronto.  
Canada Foundry Co. . . . . Toronto.

## Boiler Tubes

Jas. W. Pyke & Co. . . . . Montreal.

## Bolsters

Simplex Railway Appliance Co. . . . . Montreal.

## Bolts, Bridge

Canada Foundry Co. . . . . Toronto.  
Toronto Bolt and Forging Co. . . . . Toronto

## Bolts, Carriage and Machine

Toronto Bolt and Forging Co . . . . . Toronto

## Bolts, Track

Canada Foundry Co. . . . . Toronto.  
Toronto Bolt and Forging Co. . . . . Toronto

## Book Typewriters

United Typewriter Co. . . . . Toronto.

## Brake Beams

Simplex Railway Appliance Co. . . . . Montreal.

## Brass and Copper Cloth

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

## Brass Castings

St. Thomas Brass Co. . . . . St. Thomas, Ont.

## Bridge Numbers

Acton Burrows Co. . . . . Toronto.

## Bridges

Canada Foundry Co. . . . . Toronto.  
Dominion Bridge Co. . . . . Montreal.

## Buoy Lighting

Safety Car Heating and Lighting Co., New York

## Cables, Electric and Feeder

E. F. Phillips Electrical Works, Ltd., Montreal.  
The Wire and Cable Co. . . . . Montreal.

## Car Brake Shoes

American Brake Shoe & F'dry Co., Mahwah, N.J.

## Car Castings

American Brake Shoe & F'dry Co., Mahwah, N.J.

## Car Heating

Safety Car Heating and Lighting Co., New York

## Car Jacks

F. H. Hopkins & Co. . . . . Montreal.  
W. H. C. Mussen & Co. . . . . Montreal.

## Car Lighting

Safety Car Heating and Lighting Co., New York

## Carpets

The Hudson's Bay Company . . . . .

## Cars

Rhodes, Curry & Co. . . . . Amherst, N.S.

## Car Wheels

Jas. W. Pyke & Co. . . . . Montreal.  
Rhodes, Curry & Co. . . . . Amherst, N.S

## Castings (Steel)

Montreal Steel Works . . . . . Montreal.  
Rhodes, Curry & Co. . . . . Amherst, N.S.

## Cast-Steel Hammers

American Brake Shoe & F'dry Co., Mahwah, N.J.

## Cast-Steel Track Tools

American Brake Shoe & F'dry Co., Mahwah, N.J.

## Cast-Steel Wrenches

American Brake Shoe & F'dry Co., Mahwah, N.J.

## Cement Machinery

Jas. W. Pyke & Co. . . . . Montreal.

## Chains

Rice Lewis & Son . . . . . Toronto.

## Coal Haulage Ropes

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

## Concrete Mixers and Rock Crushers

W. H. C. Mussen & Co. . . . . Montreal.

## Contractors' Plant

F. H. Hopkins & Co. . . . . Montreal.  
T. A. Morrison & Co. . . . . Montreal.  
W. H. C. Mussen & Co. . . . . Montreal.

## Conveyor Belts, Rubber

The Gutta Percha & Rubber Mfg. Co. of Toronto.

## Cross Arms, Top Pins & Slide Blocks

Canadian General Electric Co. . . . . Toronto.  
The Firstbrook Box Co. . . . . Toronto.

## Cross Arm Braces

Canadian General Electric Co. . . . . Toronto.  
Toronto Bolt and Forging Co. . . . . Toronto.

## Crossing Gates

General Railway Signal Co. . . . . Buffalo, N.Y.  
The N. L. Piper Railway Supply Co. . . . . Toronto.

## Crowbars

Toronto Bolt and Forging Co. . . . . Toronto

## Culvert Pipe (Cast Iron)

Gartshore-Thompson Pipe & F'dry Co., Hamilton

## Curtains

The Hudson's Bay Company . . . . .

## Cuts

Acton Burrows Co . . . . . Toronto.

## Derriek Ropes

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

## Derrieks

F. H. Hopkins & Co. . . . . Montreal.

## Door Signs

Acton Burrows Co . . . . . Toronto.

## Drawing Materials

Eugene Dietzgen Co. . . . . New York.

## Dredges

The Bertram Engine Works Co. . . . . Toronto.

## Drilling Machines

The John Bertram & Sons Co. . . . . Dundas, Ont.

## Drills

W. Abbott . . . . . Montreal.

## Dry Goods

The Hudson's Bay Company . . . . .

## Dynamo and Electric Castings

American Brake Shoe & F'dry Co., Mahwah, N.J.

## Economizers

Babcock & Wilcox (Ltd.) . . . . . Montreal.

## Electric Car Route Signs

Acton Burrows Co . . . . . Toronto.

## Electric Cranes

Canada Foundry Co. . . . . Toronto.  
Dominion Bridge Co. . . . . Montreal  
W. H. C. Mussen & Co. . . . . Montreal.

## Electric Ry. Brake Shoes

American Brake Shoe & F'dry Co., Mahwah, N.J.

## Elevator Belts, Rubber

The Gutta Percha & Rubber Mfg. Co. of Toronto.

## Enameled Iron Signs

Acton Burrows Co . . . . . Toronto.

## Engineers' Supplies

The Gutta Percha & Rubber Mfg. Co. of Toronto.  
The James Morrison Brass Mfg. Co. . . . . Toronto.

## Engines, Hoisting

The Bertram Engine Works Co. . . . . Toronto.

## Engines, Stationary & Marine

The Bertram Engine Works Co. . . . . Toronto.  
Canada Foundry Co. . . . . Toronto.  
Polson Iron Works . . . . . Toronto.

## Engraving

Toronto Engraving Co. . . . . Toronto

## Express Office Signs

Acton Burrows Co . . . . . Toronto.

## Feedwater Heaters

Babcock & Wilcox (Ltd.) . . . . . Montreal.

## Fencing

Canada Foundry Co. . . . . Toronto.  
Canadian Steel and Wire Co. . . . . Hamilton, Ont.  
Page Wire Fence Co. . . . . Walkerville, Ont.

## Flags

Rice Lewis & Son . . . . . Toronto.  
The Hudson's Bay Company . . . . .

## Flour

The Hudson's Bay Company . . . . .

## Foghorns

Rice Lewis & Son . . . . . Toronto.

## Forgings

General Railway Signal Co. . . . . Buffalo, N.Y.

## Gas and Electric Fixtures

The James Morrison Brass Mfg. Co. . . . . Toronto.

## Gasoline Engines

Goold, Shapley & Muir Co. . . . . Brantford, Ont.

## Gas Pipe (Cast Iron)

Gartshore-Thompson Pipe & F'dry Co., Hamilton.

## Gates

Canada Foundry Co . . . . . Toronto.  
Page Wire Fence Co . . . . . Walkerville, Ont.

## Gauges, Steam and Vacuum, etc.

The James Morrison Brass Mfg. Co. . . . . Toronto.

## General Supplies

The Hudson's Bay Company . . . . .

## Grain Elevators

John S. Metcalfe Co. . . . . Chicago, Ill.

## Groceries

The Hudson's Bay Company . . . . .

## Hardware

Rice Lewis & Son . . . . . Toronto.  
The Hudson's Bay Company . . . . .

## Headlights

N. L. Piper Railway Supply Co. . . . . Toronto.

## Hose

Rice Lewis & Son . . . . . Toronto.

## Hose, Air Brake and Steam

The Gutta Percha & Rubber Mfg. Co. of Toronto.

## Hose, Fire

The Gutta Percha & Rubber Mfg. Co. of Toronto.

## Hose, Suction

The Gutta Percha & Rubber Mfg. Co. of Toronto.

## Illustrations

Acton Burrows Co . . . . . Toronto.

## Injectors

The James Morrison Brass Mfg. Co. . . . . Toronto.

## Instruments, Surveying & Engineering

Eugene Dietzgen Co. . . . . New York.

## Interlocking and Signalling

General Railway Signal Co. . . . . Buffalo, N.Y.

## Interlocking Signals

Montreal Steel Works . . . . . Montreal.

## Iron

Rice Lewis & Son . . . . . Toronto.

## Iron and Steel Castings

American Brake Shoe & F'dry Co., Mahwah, N.J.

## Iron Signs

Acton Burrows Co . . . . . Toronto.

## Japans

McCaskill, Dougall & Co . . . . . Montreal.

## Journal Bearings

Canada Foundry Co. . . . . Toronto.  
Jas. W. Pyke & Co. . . . . Montreal.  
St. Thomas Brass Co. . . . . St. Thomas, Ont.

## Lager Beer, &c.

E. L. Drewry . . . . . Winnipeg.

## Lamps & Lanterns

Continental Heat & Light Co. . . . . Montreal.  
The Hudson's Bay Company . . . . .

## Lathes

The John Bertram Sons Co. . . . . Dundas, Ont.

## Launches

The Bertram Engine Works Co. . . . . Toronto.  
Polson Iron Works . . . . . Toronto.

## Lights, Contractors and Wrecking

Continental Heat & Light Co. . . . . Montreal.  
F. H. Hopkins & Co. . . . . Montreal  
W. H. C. Mussen & Co. . . . . Montreal.

## Lights, Dock

Continental Heat & Light Co. . . . . Montreal.

## Lights, Portable

Continental Heat & Light Co. . . . . Montreal.

## Linoleum and Floor Coverings

The Hudson's Bay Company . . . . .

## Locomotive Brass Work

The James Morrison Brass Mfg. Co. . . . . Toronto.

## Locomotive Driver Brake Shoe

American Brake Shoe & F'dry Co., Mahwah, N.J.

## Locomotives (Compressed Air)

American Locomotive Co. . . . . New York, N.Y.  
Baldwin Locomotive Works . . . . . Philadelphia, Pa.  
Locomotive and Machine Co. of Montreal

## Locomotives (Electric)

American Locomotive Co. . . . . New York, N.Y.  
Baldwin Locomotive Works . . . . . Philadelphia, Pa.  
Canada Foundry Co. . . . . Toronto.  
Locomotive and Machine Co. of Montreal

## Locomotives (Logging)

Lima Locomotive and Mach. Co. . . . . Lima, Ohio.

## Locomotives (Rack)

American Locomotive Co. . . . . New York, N.Y.  
Baldwin Locomotive Works . . . . . Philadelphia, Pa.  
Locomotive and Machine Co. of Montreal.

(Continued on pages 419 and 420.)

# Hudson's Bay Company

INCORPORATED 1670



THE COMPANY OFFERS FOR SALE

## Farming and Grazing Lands in Manitoba and the North-West Territory

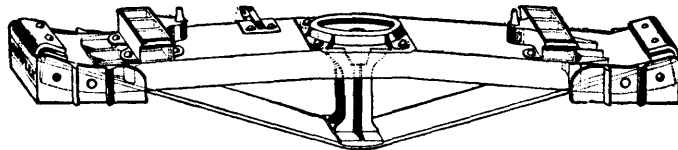
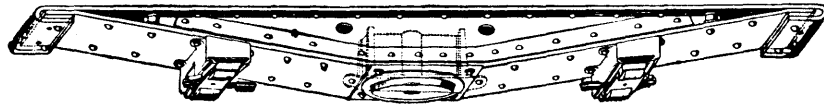
ON EASY TERMS OF PAYMENT AND WITHOUT ANY CONDITIONS OF SETTLEMENT OR CULTIVATION DUTIES.

Town lots for sale at Winnipeg, Rat Portage, Victoria, Ft. William, Edmonton, Ft. Frances, Portage la Prairie, Prince Albert, Ft. Qu'Appelle, etc.

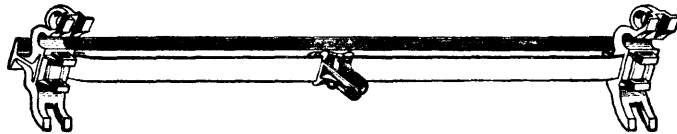
The Company has General Stores at Winnipeg, Vancouver, Victoria and other places where intending purchasers will find the best goods of every description at moderate prices.

Full information will be given at the offices of the Company in Canada, or at the London office, 1 Lime Street, E.C.

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## BRAKE BEAMS



## SUSEMIHL FRICTIONLESS SIDE BEARINGS

The **SIMPLEX RAILWAY APPLIANCE CO. OF CANADA, Limited.**

**OFFICE AND WORKS - ST. HENRI DE MONTREAL**

**NEW YORK OFFICE—141 BROADWAY**

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