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Devoted to Steam and Electric Railway, Marine, Grain Elevator, Express, Telegraph,
Telephone and Contractors' interests

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For Subscription Rates,
See page 563.

Locomotive Fuel Consumption.

The following report, by a committee, of which D. Meadows, Division Master Mechanic Michigan Central Rd., St. Thomas, Ont., was chairman, was presented at the International Railway Fuel Association's meeting at Chicago:

For the purpose of gaining information to enable us to prepare this paper, your committee sent out the following explanation of the subject:

1. Methods of supervision, means, whether by fuel supervisors, road foremen or through the master mechanics or the division superintendents, or a combination of the above named officers. Whether fuel inspectors were employed at the mines in order to improve the grade of fuel, keeping in mind at all times to whom the officers or assistants named should and do report.

2. Instruction and encouragement in locomotive operation to include whether or not a definite programme of work has been installed; by whom and in what manner are engineers and firemen, as well as hostlers and roundhouse men instructed as to the best methods of promoting fuel economy in order to reduce the amount consumed. The above also to cover the question of examinations in progressive fuel economy of all interested in its use or having anything to do with its handling; the giving of premiums in order to stimulate and encourage every interest in the question.

3. The installing of any additional plans likely to mature the subject of efficiency in fuel consumption, its scope to be defined as follows:—How best to secure a reduction in cost at engine-houses in keeping engines alive, in dumping fires and again building them, in preparing engines for service. The results, so far as the three above divisions are concerned, to be tabulated.

The following list of questions was also sent out, and to those questions a fair number of replies were received. A few of these replies would indicate that some of the roads in the country are giving the supervision of coal careful attention, while on others it is a secondary consideration. However, we think it well to analyze the answers to each of the questions submitted, in order to consider them in a logical manner.

1. What methods of supervision are in vogue on your road or in your territory to promote the greatest measure of fuel economy, and who are responsible and to whom do they report?

The replies to this question show that a few railroad companies keep inspectors at the mines; the majority, however, do not. All the replies but one would indicate that the supervision of

fuel economy is generally looked after by the road foreman of engines and his assistants, they reporting to the master mechanic or superintendent of motive power.

2. Instruction and encouragement in locomotive operation: a, What programme have you installed; b, By whom and in what manner are instructions given to enginemen?

Some roads have books of instruction for economical firing, which are given to the engineers and firemen. In the majority of cases, however, the instruc-



Marshall H. Brown,
General Freight Agent Local Traffic, Ontario Division C.P.R.,
and President Canadian Freight Association.

tion of enginemen is handled entirely by the road foreman and his assistants.

3. Do you advise class or individual instruction? Give reasons.

Replies received would indicate that all believe in both class and individual instruction, but emphasize individual instruction.

4. Do you advocate as an example in the instruction of enginemen that they be shown how many pounds of coal are consumed per locomotive, or per ton mile, and then be urged to make a saving by using less?

All answering agree that enginemen should be shown how many pounds of coal are used per locomotive, or thou-

sand ton miles, and comparisons made. The methods of doing this, however, vary considerably. This showing, or rather comparison, brings about a rivalry for a good record, and also shows the poor men who need special attention.

5. Do you have a system of progressive examination which engineers, firemen, hostlers and engine preparers are required to pass as to their knowledge of the properties of fuel and economies to be practised to secure results?

Replies to this question would indicate that the majority of roads have a progressive system of examination for firemen which includes fuel economy. On other roads instructions are given almost entirely by the road foreman of engines and his assistants.

6. Please name the method by which you require engineers and firemen to co-operate to avoid waste and loss of fuel and necessary firing.

All roads evidently attempt to bring about close co-operation between the engineer and fireman, instructing them that it is only by united efforts that the best results can be obtained, and the best means to this end is to feed the fire as lightly as possible, consistent with the service required, to feed the water to boiler evenly, to keep the fire clean, avoid waste of steam from pop valves by having a full understanding of work to be done, where steam will be shut off, etc.

7. Is it considered, from your experience, good practice to generally inform your engineers and firemen by circulars or charts, the temperature that can be obtained in a locomotive firebox by the varying degrees of heat and the color of the flame?

Some of the answers indicate that instructions by circulars and chart are very valuable; others simply answer "yes," while one states that he does not believe any good is obtained by going into technical details of this character with the average engineer and fireman. A good practical illustration, it is believed, will bring about the best results.

8. Does your company make up an individual performance sheet monthly, showing the cost of fuel per ton, and per locomotive mile, making comparisons between individual engineers from month to month?

All answers would indicate that individual performance sheets are not made out on the majority of roads.

9. Are money premiums or prizes of any sort employed by your road as an incentive to enginemen to improve and maintain a good fuel record? If so, of what do they consist?

To this all answer "no," it being gen-

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erally the impression that it would tend to make enginemen dishonest.

10. What influence, in your opinion, has the preparation of coal in small convenient sizes for use in making a good coal record? What is your practice?

To this all agree that the breaking of coal so that there are no lumps larger than three or four inches square has a great influence on fuel economy.

11. Which, in your opinion, will make the best fuel record, run of mine coal or coal that has passed over a three-fourths inch screen, price being considered; or, in other words, which will show greater economy, the amount of mine run coal purchased by \$1, or coal that has passed over a three-fourths inch screen? If you consider run of mine will show most economy, give maximum per cent. of slack that can be used to bring about this economy.

Three replies say coal that has passed over a three-fourths inch screen will show greatest economy. The others state that this depends very largely on the field from which the coal is procured. The coal from some fields contains such a large percentage of impurities, that better results are obtained by screening same, in this way, removing a large percentage of the impurities. On the other hand, where the mining conditions are favorable, better results are obtained by burning run of mine coal.

12. What do you consider are the most valuable essentials of fuel economy outside the purchase price?

All replies agree that the most valuable essentials outside the purchase price consist in keeping the engines in thorough repair, eliminating all leaks, blows and waste of steam, ample grate area and heating surface, good terminal facilities for caring for power, enginemen trained to burn fuel economically, the operating department eliminating unnecessary delays, see that the coal delivered is the coal specified in the contract, and lastly, by keeping everlastingly at it.

13. Mention any device or appliance for use on engines and tenders to prevent waste en route, etc., and results obtained from same.

We find that some roads are covering all shaker bar holes and deck plates. The use of a flanged apron between engine and tender is also mentioned as being used to prevent waste.

14. What effect, if any, does the weather have on stored fuel coal where exposed for any length of time?

All answers agree that coal stored will depreciate in value, some classes more than others. Claim is made that on account of losses by exposure to the air and by handling, some coals will depreciate twenty per cent. in sixty days. Your committee believes that with some coals this high percentage of loss is reasonable. Generally speaking, however, five per cent. should cover all depreciation. A great deal depends on the manner in which the coal is stored, also how picked up. If coal is picked up with a clam shell or any other mechanical device, they may gather up quantities of gravel, clay, or other non-combustible substances and the value of the coal is depreciated greatly.

15. Do you furnish an analysis of the constituent parts of coal to your engineers and firemen, and do you consider this practice of value?

One reply states: "We bring this up at the classes, also at examination, to show importance of keeping fire free from clinkers and pans clean. It aids in keeping fire cleaner." Others answer: "No, nor do we think it of much value."

16. Do you consider it of value to furnish to your engineers and firemen an analysis of the gases of combustion, so as to show their relative heat value

and consequent loss when unconsumed?

The answers to this question vary somewhat; some do give such instructions and believe it of value; others do not believe it of any value whatever. In the matter of supervision, quite a number of roads keep inspectors at the mines, whose duties are to closely watch the loading of coal into the cars, see that cars are properly cleaned before placed under the tipple, the inspector having authority to reject all cars which contain a high percentage of non-combustible matter, slack, etc. Those reporting in favor of inspectors at the mines claim that they receive a better grade of coal, due to this inspection, also a better loading of cars, thus requiring less cars to haul the same tonnage. In some cases the best mines are selected for loading of their fuel, which would not have been done if inspectors were not on the ground. The cars are cribbed with lumps so as to prevent loss while in transit. The cost of inspection at the mines being more than balanced

spection more than offset a large number of small economies brought about in other ways? Presuming that a railway company uses 1,000,000 tons of coal in a year, which is a small average estimate, at one-fourth cent per ton for inspection at the mines, which we believe to be a very modest figure, the inspection will cost \$2,500.00, a large sum to expend in looking after what should legitimately be done by the producer. The inspector for some railroad companies must inspect the coal from a number of mines, and as these mines are at times a distance apart, it naturally follows that while he is watching the loading at one mine, his work is being neglected at another, with the result that he knows nothing of the coal that was loaded while he was absent. We all know that you can form but a very poor opinion of coal from the appearance of the top of the car, more particularly if the car is loaded with run of mine coal. The top of a car of run of mine coal looks about as good as one loaded with coal that has passed over a commercial screen. This is due to the methods followed in loading.

We believe that greater economy will be affected by the railroad consumer, contracting for a certain class or grade of coal, instructing its coal dock foremen, as to the quality of coal contracted for, and to hold all cars that do not come up to standard, for inspection by a coal inspector, he, the inspector, to reject or hold for joint inspection with a representative from the coal company. The company's inspector should occasionally visit the mines and watch the preparation of the coal. He then will be in a position to say if the coal company is honestly trying to prepare and deliver the quality of coal contracted for.

Your committee further believes that in selecting coal, railway companies should be guided by practical tests, or in other words, should select a certain engine and assign it to a certain service, this service to compare with ordinary service on that division; weigh the coal, calibrate the tank, so as to know in pounds or gallons the amount of water used each trip, and figure the evaporation results from that data; the coal that shows the greatest evaporation per dollar of cost being selected. We believe this will be much more satisfactory than a laboratory test intended to determine its calorific value, and its chemical constituents. To quote from the West Virginia Survey, vol. 2: "The value of a coal as a steam producer is determined, primarily, by the total amount of heat it will produce in combustion, but in view of the very crude way in which we burn our fuel, even more depends on the manner in which it responds to ordinary conditions of handling and firing."

To illustrate, we will presume that a railway company deems it advisable for business reasons, to use a quick igniting, and somewhat rapid burning coal at two points on two connecting divisions; at another terminal they are offered a slow igniting coal at the same price, that requires a considerably sharper draft than the first mentioned coal to bring about results; they would hesitate in buying this last mentioned coal with a saving in haul, even if its B. T. U.'s value was higher than the first mentioned coal, owing to the fact that having to draft their engines more sharply to burn the slow igniting coal, would result in a considerable waste of the rapidly igniting or easily burned coal which is used at two of the three terminals.

All railways should endeavor to select a certain or suitable grade of coal, assigning it to a certain territory and have it definitely understood that no

Appreciation from England.

H. J. Cowie, who has represented the Canadian Northern Railway interests in England for several years, and who has recently been appointed European Traffic Manager, is a constant reader of *The Railway and Marine World*, of which he has on several occasions written appreciatively. A short time ago he wrote as follows:—

"The incoming mail brought with it the current number of the *Railway and Marine World*, and I write a line in appreciation of same, which as usual is full of information. Your publication is certainly invaluable to those who wish to keep 'au courant' with every branch of Canadian transportation."

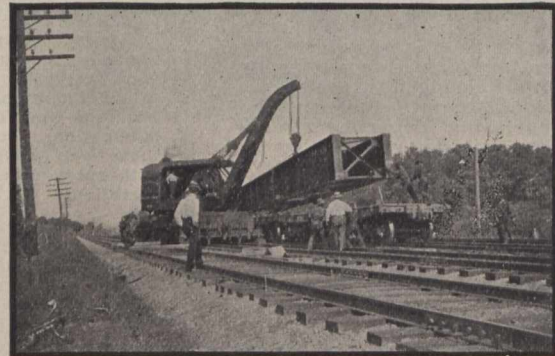
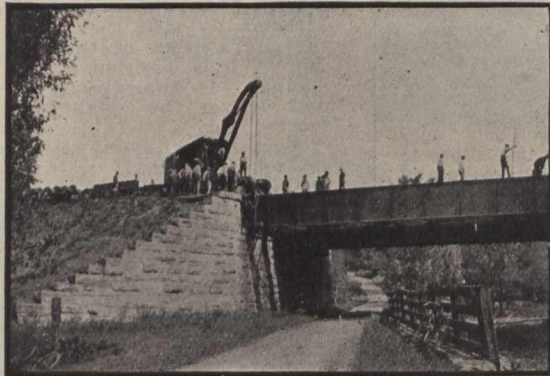
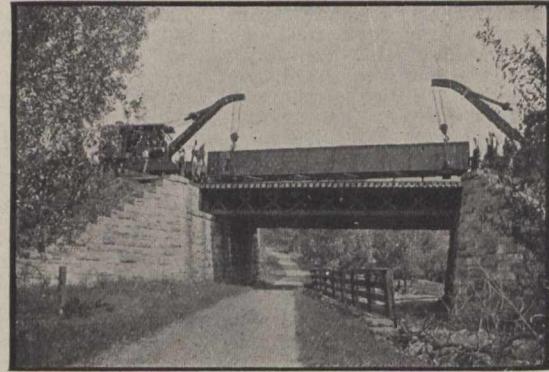
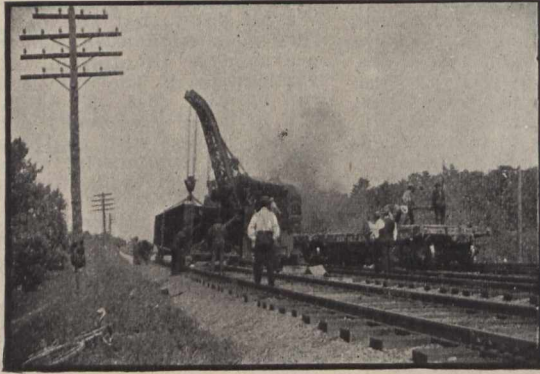
In addition to its most thorough circulation among transportation officials throughout Canada, our paper is largely taken by representatives of Canadian transportation companies in the United States, in Great Britain, on the European Continent, and in Japan and China. They look to it, not only for information on Canadian transportation matters generally, but especially for news connected with their own lines, very much of which is not obtainable from any other source.

by the better grade of fuel received. The majority of roads, however, do not employ an inspector at the mines, but rather put it up to the coal company to see that the coal is properly prepared and cleaned. It would appear that the latter method is the wiser, for various reasons. All coal companies employ experienced men to supervise the loading of cars, and at the same time throw out any impurities, bone coal, etc., that may have passed the men in the mine. This being a fact, why should it not be up to the coal company to deliver a grade of coal suitable to the contract or requirements of the contractor?

If you were contracting for a large quantity of flour to be delivered in quantities of 100 barrels each day, said flour to be of a certain grade, you would not feel justified in sending an inspector to watch the milling of this flour, but if the quality did not come up to the agreement, you would hold same for inspection and possibly cancel contract. The same would apply to almost any other business.

Again, would not the cost of this in-

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change will be made except in grave emergency. This will enable the mechanical department to draft their engines so that the best results may be obtained from the fuel, rather than having to draft their engines to burn the poorer class of fuel to the detriment or waste of other classes. Enginemen also will become familiar with the fuel used and be enabled to handle it more economically.

Coal should be placed on the tender of engines in such size that the fireman can devote his entire time and attention to feeding the coal to the fire. If the lumps are larger than three inches square, whether the firemen break these lumps or not, is at the expense of a certain amount of coal wasted. The better coal is prepared before being placed on the tender, the more economical its use will be.

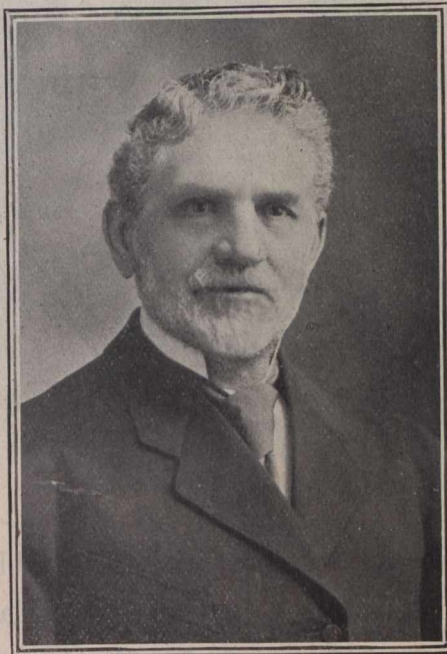
Instruction to engineers and firemen in any manner should be beneficial. Class instruction, progressive examinations, the distribution of books on combustion, etc., are beneficial, but we believe, however, the greatest benefits are derived from individual instruction by men who are fully qualified to do so. These men should be practical enginemen and fuel specialists, and should devote their entire time to instructing firemen and weak engineers. We believe that practical demonstration would be far more reaching and beneficial than class instruction, and will result in greater economy. Each man's territory should be sufficiently small to enable him to reach all under his charge at least once each month.

We believe that a locomotive performance sheet showing consumption in pounds per ton mile per hour would create a rivalry among the enginemen that would bring about good results. This method, we believe, gives the enginemen a fair showing for work done. A performance sheet showing the engine miles made per ton of coal is not worth the paper it is written on and a sheet on the ton or thousand ton mile basis is very little better. Nor are any of these of but little value if there is not some fairly accurate method of determining the amount of coal used by each engineman each trip. At present the majority of roads run their engines in what is called "the pool." An engineman takes one engine from the home terminal and returns on another, probably changes firemen half way over the division. The coal is put on the engine by a man who receives a small wage and who has no other aim in connection with this work than to properly coal the engine and have his accounts straight at the end of each week or month. He has full authority to say how much coal the tender will hold and should he be short of checks for coal given out he immediately proceeds to take checks for from one-half to two tons more coal than he puts on the engine. This may appear to some as an exaggeration, but we believe that if we look closely into this matter, we will find the above method is the practice on the majority of roads in America. Under such conditions, a comparative sheet of any kind is valueless and the time of the office man consumed in making out this report might be better be used in some more profitable work. Some roads, however, weigh the coal put on tenders, or have some fairly accurate way of measuring the coal. On these roads a performance sheet based on the ton mile per hour basis puts into the hands of the master mechanic or road foreman something fairly accurate and reliable and from which they can select the weak, careless or inefficient men, and put them in a way of doing better. It also will assist the road foreman in locating engines that need attention.

We believe that the supervision of coal placed on tenders and the performance obtained from the use of this coal is not given anything like the attention it deserves, that it is a secondary consideration to almost everything else on the majority of roads, and that until some accurate method of knowing how much coal is put on tenders, what percentage of it is consumed at the enginehouse, also some accurate method of determining the amount of work done for coal consumed is arrived at, that the desired results can scarcely be expected. We trust, however, that the committee handling this feature will be able to recommend a method which will enable railway companies to prepare a performance sheet which will be fairly accurate, and from which fair individual comparisons can be made.

Prince Edward Island Railway Shops.

Owing to the unusual conditions existing in the P.E.I.R., owing to its narrow gauge and its isolated insular location, it has to have shop facilities for repairing and rebuilding all its locomotives, and the building and repairing of all its passenger and freight cars. The location of the new shops, roundhouse,



W. S. Poole
Mechanical Superintendent Prince Edward Island Railway.

etc., in Charlottetown, is at the extreme end of the yard, running from Prince and Water Sts. They are very nicely situated, with abundance of light and every convenience for handling work. The Mechanical Superintendent's office is in the freight building near by.

The shops have concrete foundations with brick walls, and consist of carpenter, erecting, machine, and blacksmith shop combined, with a section 80 by 85 ft. partitioned off for the blacksmiths and boiler makers. The machine and erecting shops are 163 ft. 4 in. by 85 ft., with an annex of 20 by 34 ft. for a fan room. A monitor roof extends the whole length of the shop, with a raised monitor 40 by 85 ft. for the 60 ton electric travelling crane. There are three pits running the whole length of the machine shop, and one track running through the machine shop into the blacksmith and boiler shop. One pit is used chiefly for dissecting locomotives, and the other two for erecting and repairing them.

The machines in the erecting shop consist of 72 in. engine driving wheel lathe, 72 in. tire turning and boring mill, 16 in. slotting machine, standard planing machine of heavy pattern, with a table 12 by 45 ft. with three teeth slots and six rows of holes, cross rails to raise and lower by power with two heads, also two sets of heads on standards; 20 in., 24 in. and 36 in. lathes, gap lathe which will swing 3 ft., four 16 in. lathes, 24 in. and 36 in. drill presses, 300 ton wheel press, radial drill press, boring mill; all made by the John Bertram & Sons Co., Dundas, Ont.; also a universal milling machine. The blacksmith shop has eight fires, tube welding machine, power hammer, and 1,100 lbs. steam hammer; all made by the John Bertram & Sons Co. In the boiler shop there are 6 in. and 12 in. sets of rolls, and set punch and shears with 36 in. throats.

The car shop is 252 by 52 ft., with a monitor roof extended its whole length. There are two pits running the length of the shop; one used for repairing, and the other for building cars. The following machines are installed:—Small planer, small rip saw, large band saw with re-sawing attachment, tenoning machine, small cut-off saw, planer and matcher, knife grinding machine, small mortiser, dado machine, circular rip saw, large cut-off saw, large hollow chisel mortiser, and a band saw. The paint shop is a wooden building 132 by 42 ft., with capacity for painting four cars. The brass and copper foundry is of stone, 48 by 40 ft.

The power house is 100 ft. by 50 ft., with concrete foundation and brick walls, with a generator, engine and air compressor. The generator is a continuous current machine capable of continuously supplying 75 kilowatts of electrical energy. There are three boilers of 250 h.p. each.

The new round house is 103 ft. in diameter, concrete foundation and brick walls, with 20 stalls.

Marker Sockets on G. T. R. Trains

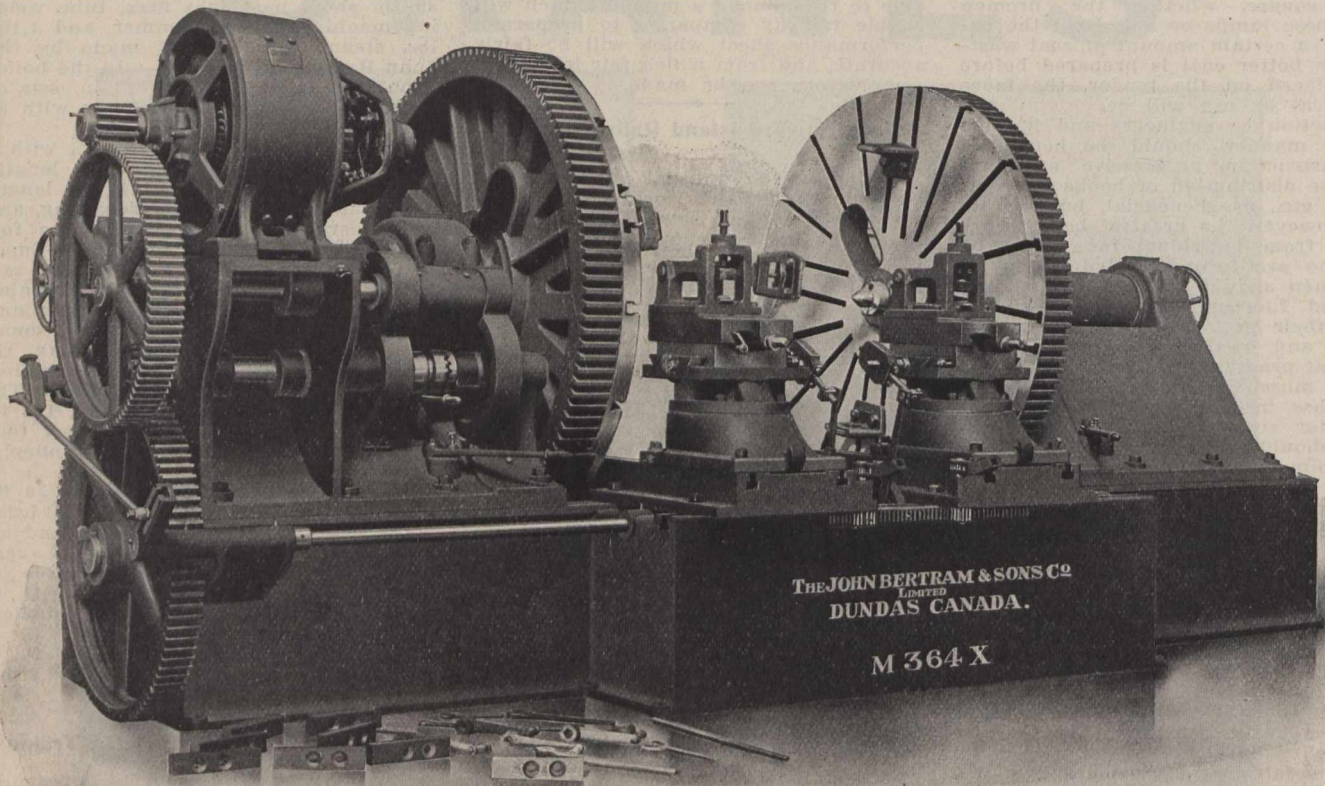
The Board of Railway Commissioners passed the following order, 10453, dated May 3:—Re location of markers on G.T.R. passenger trains. Where passenger cars are equipped with marker sockets in the lower position, markers shall be carried in such lower sockets. All passenger cars hereafter constructed shall be equipped with marker sockets in the lower position. All passenger cars now in use not equipped with marker sockets in the lower position, shall be so equipped on or before June 1, 1911.

E. J. Chamberlin, Vice President and General Manager G.T.P.R., on his recent return from a tour of inspection over the line between Winnipeg and Edmonton, intimated that some of the town-sites at present obtaining a great deal of prominence from the efforts of real estate salesmen, are situated a great distance from the railway stations and even from the G.T.P.R. right of way.

S. P. Howard, who resigned his position as General Freight Agent, C.P.R., Montreal, recently, to engage in real estate business there, has written our Managing Director as follows:—"You will undoubtedly understand the deep regret I have in leaving railroading, particularly in severing the strong connections that have been formed during 28 years, and amongst these regrets is your own good self. One thing, however, is of considerable satisfaction, and that is that through your paper, I will be able to keep in touch with the railway world, and to keep posted as to what is going on, and I hope thereby not to get away from railroading and its associates."



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The Mexican Route to B. C.

In our May issue we gave the decision of the Board of Railway Commissioners disputing Elder Dempster Co.'s application against the C.P.R. and G.T.R. with respect to export rates. Chief Commissioner Mabee's decision is of such importance that it is given in full as follows:—

This is an application made under sec. 323 of the Railway Act "for an order directing the respondents to apply the established export basis covering general merchandise and commodities shipped from points in Eastern Canada to Montreal, St. John and Halifax, for export to Vancouver, Victoria, and other B.C. points." The Elder Dempster Co. is a steamship line operating, during the winter from St. John and Halifax, to, among other points, Puerto Mexico, which is the eastern terminus of the Tehuantepec National Ry., and it has for some months been carrying traffic destined for British Columbia points, delivering it to the Tehuantepec National Ry. at Puerto Mexico, the railway in turn delivering this traffic at its western terminus, Salina Cruz, to the Canadian Mexican Steamship Line, which carries it up the Pacific Coast to Vancouver, Victoria, and other B.C. points. There is no joint tariff between these three carriers making up this through route from St. John and Halifax to B.C. points, but one was said to be in course of preparation; and it was said the Elder Dempster Co. quoted rates over this route some 25% lower than the all rail rate from Montreal and other eastern points to B.C. points. It was stated that as to the traffic that had already moved, the applicants, the Tehuantepec National Ry. and the Canadian Mexican Co., had divided the through rate equally, and that it was the intention to do the same when the tariff was finally arranged.

The C.P.R. and the G.T.R. have tariffs on file with this Board giving much lower rates upon export traffic than upon domestic traffic. For instance, the export rate upon canned goods Hamilton to St. John is 21c., while the domestic rate is 32c.; upon the same commodity the export rate to Halifax is 22c., the domestic 33c.; Hamilton to Montreal export 19c., domestic 25½c.; a great variety of commodities is covered by these export tariffs, on most of which the variation between the export and domestic rates is not so great as upon canned goods, without attempting to be exact, it may be that, roughly estimated, upon all the traffic covered by these tariffs the export are about 10% lower than the domestic rates. This system of export rates was established by the railway companies for the benefit of the Canadian producers, and the tariffs covering these rates make them applicable only to traffic moving to British or foreign points and as they are framed, they do not apply to traffic destined to points in B.C. The application is to compel either their amendment so they may be applicable to such traffic, or that the railway companies be directed to file tariffs that would be applicable to such traffic.

The products of Canada that move under the export rates come into competition in British and foreign markets with those of many other countries, and to meet such competition and to permit their reaching these markets, the railway companies make these reductions in the rate to the seaboard; the same system prevails in the U.S., and all the rail export trade of both countries moves under these tariffs. This system grew up years before the Tehuantepec route was in existence, and these tariffs when framed were not intended to apply to traffic moving to B.C. points. The question is whether it is fair and

proper, assuming, but without deciding, that there is jurisdiction, to require the application of these tariffs to traffic moving over this new route.

It was argued that the movement under these export tariffs would build up a trade that did not now exist; but it was clearly established upon behalf of the railway companies that they have for years been carrying to B.C. points exactly the same class of articles that might go to the same points over this water and rail route; so that the result of applying these export rates to this traffic would be to compel the companies to divert their long haul westbound business to a short eastbound haul under a low rate; and for whose benefit?

This application is made by the Elder Dempster Co. and supported by the Canadian Mexican Steamship Co. All the traffic that could be diverted to this route would add to the receipts of these companies and the Tehuantepec National Ry. Upon the face of the matter then, it is a struggle to obtain from the railways part of their westbound traffic; and it is by no means clear that the shippers would obtain any material benefit if the application succeeded.

The rates over these railways are under the control of the Board; the westbound rates have been adjudged reasonable and fair; if at any time, owing to changed conditions, it is thought that they should be reduced, it is open to anyone concerned to apply, or the Board, upon its own initiation, can reduce them. How about the rates over this Tehuantepec route? All the traffic over it would be carried by the applicants to Puerto Mexico. There is no competition between St. John and Halifax to that point; there is only one railway across the Isthmus, and the Canadian Mexican Steamship Co. carries all the Canadian traffic from Salina Cruz. The rates over this route, even from St. John and Halifax, have to be submitted for approval to the Mexican Government, as the following extract from the evidence of Mr. Worsnop, Manager of the Canadian Mexican Co., will show:—

"Q. You said that your through rates were subject to control by the Mexican Government? A. Yes.

"Q. That is, even the rate from Montreal say around to Victoria? A. It has to go for the approval of the Tehuantepec Ry., which then submits it to the Government, and it is approved.

"Q. That is the whole rate has to go? A. Yes.

"Q. Not just the Tehuantepec proportion? A. The through rate, I understand.

"Q. That would seem to be an extraordinary thing I wanted to make sure that I understand you, that that rate over which the Government of Mexico had really no control, and practically no interest, so long as the Tehuantepec got a proper share, should be subject to that control? A. It does seem a very extraordinary thing, I will admit, but that is what the railway company informs me. That is the excuse I get every day, that we have to submit the whole thing. That is my information.

"Q. On what basis do the Mexican Government pass upon the reasonableness of the through rates? A. I am not aware, I do not know anything of their deliberations outside.

"Q. You do not know of any particular rate that has received their approval as a through rate, do you? A. All the rates, so far as I understand. If there is an alteration in the rates, an alteration in any one item, so far as we are aware it comes to us for approval, and then it is submitted, according to the Freight Traffic Manager's letters, back to the Mexican Commissioner for his final endorsement.

"Chief Commissioner Mabee:—Your used the expression alternately, 'Mexican Commissioner' and 'Mexican Government.' I thought the road was operated jointly by the Pearsons, and somebody representing the Government."

"Mr. Worsnop:—I do not know under whose control, whether it is a commission, or the Minister. I only used the word 'commission.' There is a Minister, or some official, whom they have to consult. The operation of the road is simply a matter of equal shares. The Mexican Government take a half and the Pearsons take half."

Mr. Kelly of the Elder Dempster Co. was called, and with reference to the through rate, the following is an extract from his evidence:

"Chief Commissioner Mabee:—Are you not at liberty to carry from here, Montreal, or from St. John to Puerto Mexico, through shipments to B.C. points at any charge you choose from here to Puerto Mexico, so long as the shipper pays two-thirds of the through rate to the other two carriers? A. No, that is not as I understand it.

"Q. What is there to prevent you? A. There is nothing really to prevent us, but we do not do it.

"Commissioner McLean:—Does the Tehuantepec Ry. charge a higher rate on a shipment like that than the through rate? Supposing a shipper just ships to Puerto Mexico? A. They would charge their local rate further.

"Chief Commissioner Mabee:—How would they know it? You turn over to them two-thirds of the through rate, do you not? A. Yes, but they have no rate in effect from Puerto Mexico, or Salina Cruz to Vancouver.

"Q. What is there to prevent your sending shipments right straight through and making any rebate you choose between here and Puerto Mexico? A. There would be nothing; but we do not do it.

"Q. What is to prevent your doing it if you choose? A. There would be nothing.

"Chief Commissioner Mabee:—Then if the Mexican Ry. Co. compels you to charge more than you are willing to charge a Canadian shipper from the Canadian point to B.C. points, what would be morally wrong about your making the shipper a rebate? A. The only thing we know is that we have not done it before. We know we will always live up to our rates."

Upon the hearing, I expressed the opinion that the Board should be satisfied by reasonable evidence that the through rate now quoted over this route was a reasonable one, and further consideration has strengthened this view. These three carriers quote to shippers a certain rate over this route; two of the three join in this application to compel the railways to assist in moving traffic over it. Why should the railways and not the applicants and the Tehuantepec National Ry. Co. do the cutting? We were given no information whatever of the reasonableness of either the through rate quoted by the applicants or the reasonableness of the division between the three carriers concerned. It would appear that the steamship companies are entirely in the hands of the Tehuantepec National Ry. Co. or the Mexican Government, or both, not only as to the total through rate, but also its division, and that the applicants cannot quote a rate to Puerto Mexico, without the consent of the railway company. Supposing the present through rate over this route is highly remunerative to the three carriers, and that they could well afford to absorb the difference between the domestic and export rail rate, would it be fair to compel the railways to apply the export rate and thereby swell the receipts of

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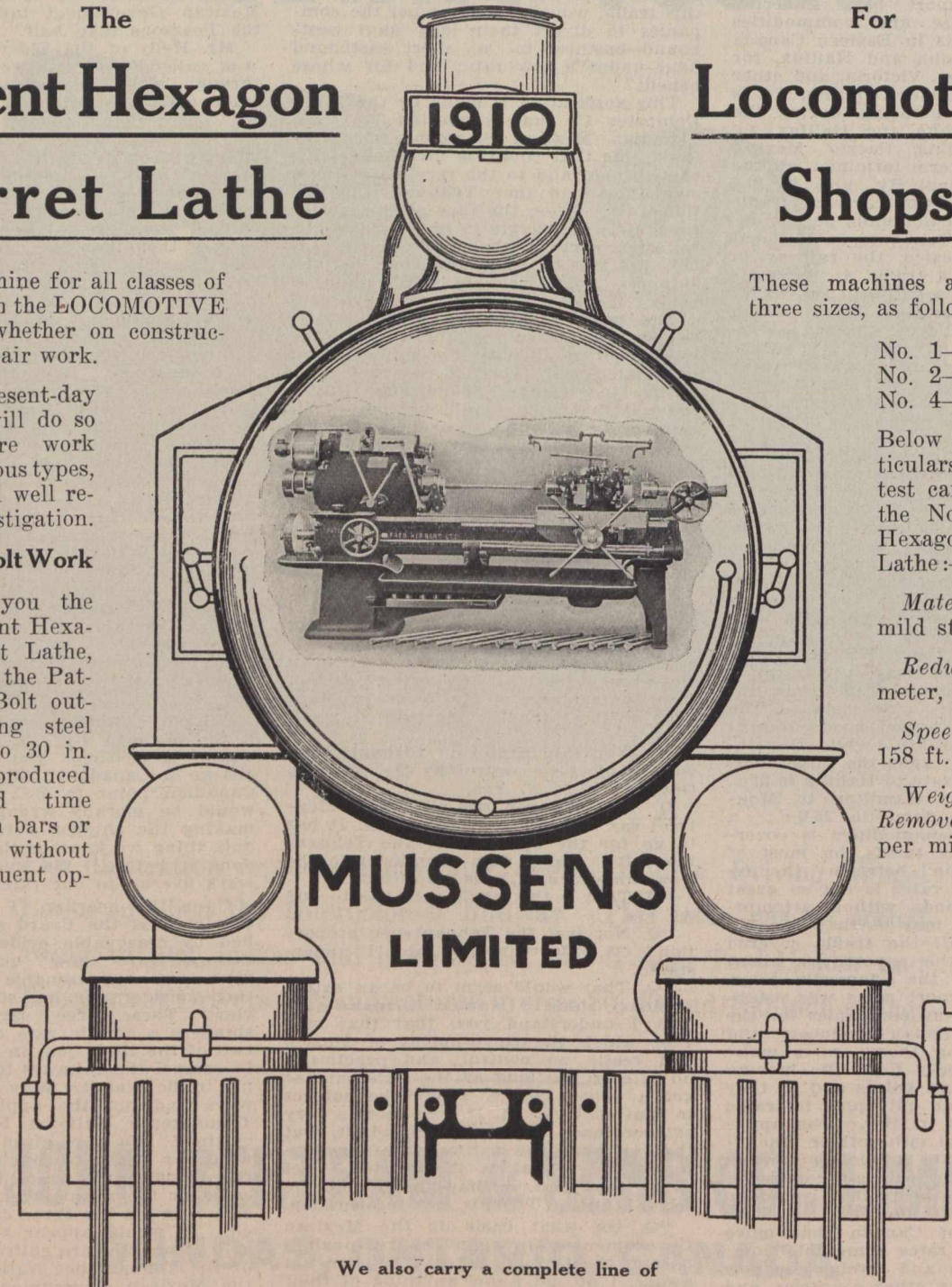
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the applicants at the expense of the railways' traffic? If the rates over this joint ocean and rail route were under the control of this Board, one would have the machinery to work the matter out, and would be able to give the shippers all the benefit of this competition, and at the same time preserve some reasonable proportion of profit between the competing routes; but as the matter is presented, we have carriers outside of the Railway Act, free and unfettered as to external control over rates and facilities, attempting to make use of the Act, to divert to themselves the legitimate traffic of the railway companies by the enforced application to that traffic of tariffs that were not intended to apply. So long as there is no Government control over ocean traffic, control over the land rates must necessarily produce the exporter or importer but a limited benefit. In the present case, upon a shipment from Hamilton to Montreal, this Board has control over the rate for that 375 mile haul, and it is that power that is asked to be exercised that traffic may be moved from Montreal to Victoria, 7000 miles, at rates to be established at the carriers' will, and free from control or interference. The Board is anxious that the shipper should be allowed to avail himself of every competitive condition of carriage, and every available route, but in the exercise of its powers must have equal regard to the interests of all concerned; and while the granting of this application might have some advantage to shippers of certain commodities, it seems, upon the information now before us, that it should be refused.

A very considerable volume of traffic has moved under the domestic bill rate over this route; what is there to guarantee the shipper that if the export rail rate were applied, the through rate in question would not proportionately rise? It could be put up apparently by those controlling the Tehuantepec National Ry., even against the protest of the two steamship companies, and if that were done, how would the shipper have been benefited by the granting of this application and would not the railway companies have been injuriously affected by an improper or unwise exercise of the powers of the Board? If the alternative ocean route were under control, one could preserve the existing rate, if that were proper, to the shipper, or otherwise deal with it as might be just, but as matters stand the position does not justify our interference.

In the Seattle rate case the Interstate Commerce Commission referred to traffic originating at South Bend and destined to Spokane, going via New York over the Tehuantepec National Ry., thence to Seattle and by rail to destination; also that the route offered active competition to the railways as to all traffic originating east of a line drawn between Buffalo and Pittsburg, and it is interesting to note that all the traffic that has moved via this route has carried the domestic and not the export rail rate. No application has been made to the Interstate Commerce Commission similar to the present, and if this traffic can move from eastern U.S. points to New York under the domestic rate, I do not see why it cannot here.

The applicants, in the alternative, asked for the application of tariffs for "furtherance" to Maritime Provinces, Newfoundland, the West Indies, etc., in the event of not getting the export rate. This was not covered by the formal application but was discussed at the hearing. These so-called "furtherance" tariffs are the necessary result of competitive conditions at Boston and New York, and compelling their application to this B.C. traffic would be no more equitable than requiring the railway companies to apply the export rate.

It was argued for the applicants that if they were unsuccessful in obtaining relief, Canadian traffic for B.C. points would go via New York, and the haul would be lost by the Canadian railways as well as by the Elder Dempster Co. It would seem, however, from a regulation of the Customs Department, that this is not possible, as unless the traffic went in British ships from New York to Puerto Mexico, they must be treated upon arrival at B.C. ports as imported, and would be liable to duty. The following is the regulation:—

"Except as otherwise ordered, goods in transit from one part of Canada to another part of Canada, wholly or partly by water carriage through the U.S., shall be transported in British registered vessels under customs manifests, and the transfer of such goods from car or vessel, and vice versa, shall be made in the presence of a special officer of the Canadian Customs and be certified by him. The salary of the special officer shall be paid by the carrier applying for his services."

The water route travelled by the Canadian Mexican Steamship Co. from Salina Cruz to B.C. ports is covered by an order in council of May 29, 1909, granting that company an additional subsidy of \$25,000 upon the understanding that "the steamships performing the service on the Pacific shall fly the British flag."

It will, of course, be understood that the reasonableness of the westbound rail rates is not involved in this controversy. They are not attacked either in evidence or argument, and the sole contention was that the eastbound export rates should be arbitrarily applied to this new route.

Upon the facts as they now stand, no order will be made; but the dismissal of the application must be without prejudice to the rights of any person interested in this matter to any relief the Board may deem proper upon a different set of facts being presented to it.

Claims Against the Government Railways.—An act to provide for the adjustment of small claims arising in respect of the operation of the Government railways has been passed by the Dominion Parliament. It provides that suits for amounts not exceeding \$200 may be taken in any provincial court having jurisdiction, under the ordinary rules of procedure, in every respect as "in like cases in the said court between subjects." The process shall be issued against the "Government Railways Managing Board," and may be served on any member of the Board, on any officer of the railway, or any person specially authorized to receive the same; no personal liability being attached to any of them. In determining any action the court shall be governed by the rules and principles of law which should be applied if the Crown were defendant and consented to the court's jurisdiction. If the provincial courts have not the necessary jurisdiction, the cases may be transmitted to the Court of Exchequer and dealt with as if they had originated there. The Managing Board is authorized to pay out of any money appropriated for that purpose damages or costs adjusted in any action brought under this act.

Advance in Passenger Fares.—The Boston and Albany Rd. issued a tariff recently, effective June 1, advancing local fares on its main line from 2c to 2½c. per mile—substantially the basis which was in effect prior to 1906, at which time a voluntary reduction was made. This action is made necessary on account of the sharp advance in the cost of everything that enters into the conduct of railway transportation and the consequent demand for increased revenue, of which the passenger traffic must of course produce its share.

Quebec Public Utilities Commission.

F. W. Hibbard, Chairman Quebec Public Utilities Commission, in a recent address at Montreal, reviewed fully the commission's object and scope. After a general review of principles governing the control of public utilities, he stated that the public had, under the act, power to complain to the Commission, which would, after hearing evidence, adjust the matter about which there was a difference. In general, he said, every company and person supplying any service to the public and liable to the enactments of the Quebec Legislature is within the jurisdiction of the Commission. The Commission had no right to set aside or disturb the terms of a contract between a municipality or a person on a public utility, except in the case of a monopoly; neither had it anything to do with cases of damage. The Commission had general supervision over all public utilities under its authority; it superseded the authority of the Railway Committee of the Province. It might require and regulate the carrying of goods upon any tramway, fix all tolls for any public utility, but always subject to any contract existing, regulate the placing of rails, posts, wires, conduits, pipes and other appliances along, across, over or under any road, street, square or water course; settle difficulties as to use of streets, roads, etc., between municipalities and public utilities; see that wires are so placed and supported that they are neither dangerous, unsightly nor obstructive; upon the application of any city, town or village compel the putting of wires under ground upon the conditions the commission may fix. In the carrying out of these powers it might require the construction or demolition of any works, or that they should be altered and repaired, and decide how and at whose expense this, or any of it, shall be done. It might also take entire possession of any public utility and all its property and powers, using and exercising them until its orders have been carried out. The consent of the Commission must be obtained to any amalgamation of one public utility with another; and an appeal could be made to the Attorney General to secure the dissolution of any corporation which refused to obey the orders made.

The Commission has prepared rules regulating the proceedings before it, and the chairman said at a meeting held in Quebec recently, that these were being printed for distribution. It had been decided, said the Chairman, to carry out the rules now observed by the Dominion Railway Commission and similar organizations in the United States. Anyone could appear before the Commission in support of his own complaint, but otherwise advocates only could appear.

Concrete.—In the 19th edition of Trautwine's Civil Engineer Pocket Book, issued in 1909, there was given a mass of information concerning concrete, plain and reinforced, and its use in structures of all kinds. This information has been collected out of the Pocket Book, brought up to date, added to and issued in a separate volume, provided with thumb index for handy reference. The subjects dealt with include:—Strengthening materials, general principles, transverse strength, cement mortar, cement sand, mortar, concrete, reinforced concrete, experiments, specifications, cost. Following this is a bibliography of the subject and an index covering 12 pages. The publishers are John Wiley and Sons, 43 and 45 East Nineteenth St., New York City, and the price of the book is \$2 net.

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Charge for Stop-off for Orders on Grain, Etc.

On the application of the C.P.R. and the G.T.R. under sec. 29 of the Railway Act, for an order amending order 6147, Jan. 21, 1909, fixing a stop-over charge of 25c. per car a day for the first 48 hours, and the car service toll thereafter, on western grain and grain products, in car loads, consigned to Cartier and Sarnia Tunnel, Ont., "for orders."

The Board of Railway Commissioners gave judgment Mar. 15, advancing the charge from 25c. to \$1 a day.

Chief Commissioner Mabee gave the following oral judgment:—When this question was before the Board in Dec., 1908, the disposition that was made of it at that time was upon considerably more limited material than has been presented to-day. There was a difference of opinion as to the proper disposition of the matter after hearing, and in the memorandum that I made at that time the charge was left at the old rate, viz., 25c. a day, and Tariff Supplement 13, effective Sept. 1, 1908, was disallowed for the reasons there appearing. These reasons were practically two: one that there never had been any affirmative evidence given to satisfy the Board that the old 25c. charge had not been considered when the rate was being fixed; the other ground was, that there had been given to the Board no evidence showing the additional expense or trouble imposed upon the carrier by reason of the stop-over privilege. This clause appears in my memorandum: "Perhaps the carrier is also put to some small expense by reason of granting the privilege." At that time I had no knowledge whatever that the expense connected in performing this service was anything like it is now said to be. The Assistant Chief Commissioner differed from me, and was of the opinion that a rate of \$1 a car would under the circumstances be reasonable. Since that time, viz., in April of this year, we had before us the consideration of what sum would be a reasonable toll for the carriers to take for the extension of the re-consignment privilege to the shipper. We had at that hearing considerable evidence given showing the expense and burden to the carrier connected with the granting of that privilege, and the view that the Board took was that \$3 a car would not be an unreasonable sum for the shipper to pay for the re-consignment privilege. Of course, it was present to the minds of all when that \$3 rate was provided for, that it was considerably out of joint with the 25c. charge which the railway companies had been limited to under the judgment of the Board in the Dec. previous, for the stop-over privilege, because, while each is not exactly upon all fours with the other, yet the services are largely similar. The benefit to the shipper and the privilege is much the same, and the expense to which the carrier is put in carrying out the wishes of the shipper to re-consign, and not acting upon the instructions of the shipper to continue the car where the stop-over privilege is granted, are, while not exactly identical, largely the same. Later on, counsel representing the railway companies drew to my attention the fact that these two charges did not appear to be at all harmonious, and it was suggested that application might be made for the purpose of re-hearing this matter. I gave leave later on to apply to have the matter reopened, and to present any additional features that had not been offered to the Board when it had been previously discussed, that the companies might think proper.

Upon this application a good deal of information has been given to the Board that we had not access to when the 25c. charge was required to be re-established

by the railway companies. Upon further consideration, so far as I personally am concerned, I am not satisfied that it is quite fair to, in every case, assume or take for granted, that each and every service, from the initial point to destination, is always taken into consideration in fixing the initial rate by the carrier. Perhaps, generally speaking, an assumption of that sort might not be improper or unfair, but I am inclined to the view that a good deal of injustice might be done if it were laid down as a rule that in every instance every service performed must be assumed to have been considered in the fixing of the rate. Of course, we know that such a holding as that would put upon the company the onus of disproving that fact in every case in which the question arose, and it strikes one that that might possibly put the carrier in a very unfair position to be required to go back 20 or 30 or 40 years for the purpose of ascertaining what was in the minds of the men who originally framed the rate. In the great majority of cases such a view as that, even after the lapse of a very few years, would place the carrier in such a position that it would be quite impossible for him to establish affirmatively or negatively that any given service performed was present in the minds of the men who established the rate. Therefore, in my view, perhaps the fair way would be to withdraw the conclusion that was embodied in that memorandum, covering the particular matter I have just adverted to.

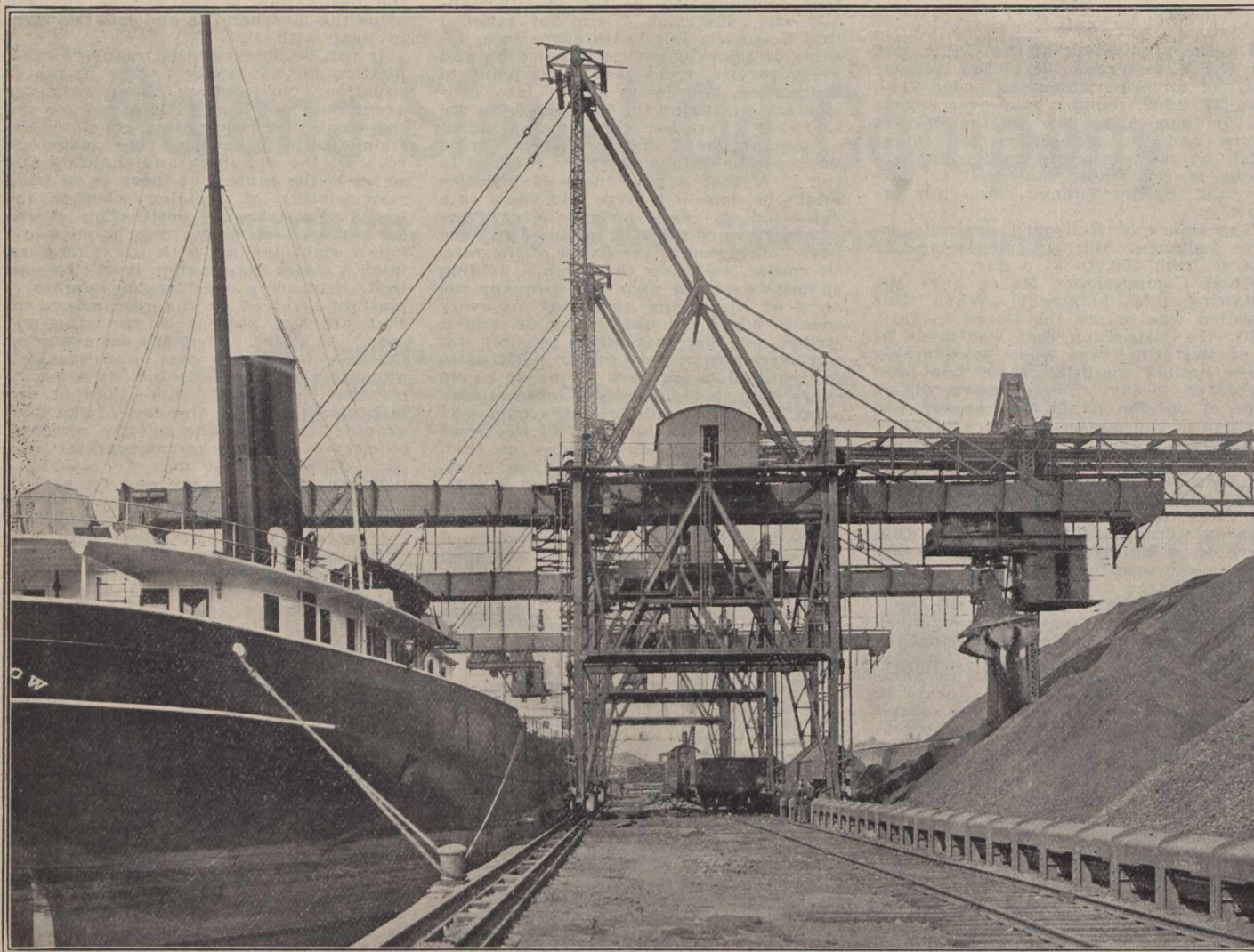
When the matter was considered before, the Board's Chief Traffic Officer, Mr. Hardwell, who gave the Board the benefit of his views, and the Assistant Chief Commissioner were both of the opinion that I was in error in requiring the company to re-establish the 25c. rate. After the discussion of today and upon a further consideration of the matter, I am entirely free to admit that I was in error, and I am of the opinion that an injustice was done to the companies in disallowing the tariff that had been filed, and in requiring them to reinstate the old toll of 25c. The members of the Board present (Commissioners Mills and McLean) neither of whom were in the former hearing, are both of the opinion that the 25c. toll is too low, and that some higher sum should be fixed. The question now is what would be a fair sum to allow. It has been suggested, and not without some force and show of reason, that the services connected with the re-consignment situation, are so nearly the same as the services connected with the stop-over, that the tolls should be the same. We are of the opinion that there is a sufficient difference to justify a lower toll being established in the present matter, than was fixed in connection with the re-consignment case.

In the judgment of the Assistant Chief Commissioner in the re-consignment matter, he referred to the various steps that might be taken when a re-consignment was required, and he says:—"First, there must be a telegram to the agent at the point where the change is to be made; second, the agent at that point must be on the lookout for the car, and this may require his going to the van of each freight train that passes in order to examine the conductor's record; that when the car is found it must be rebilled and the waybill must be checked; the amount of charges must be verified and the auditor of the department informed; then the car must be cut out of the train, put to one side, and all this will require shunting, switching, and so forth, which takes up the time of the train crew and causes delay; then the car must be picked out and put on the new train; the railway company must assume the legal responsibility of decid-

ing whether the party who asked that the destination of the car be changed owns the merchandise and has the right to deal with it."

It will be observed that many of these matters do not apply to the stop-over situation. No telegram is necessary, the agent does not have to look out for the car, he is not required to go along the freight train to examine the conductor's records; the switching and shunting and so on is the same, but there is no legal responsibility of deciding whether the party who asks the destination of the car changed owns the merchandise and has a right to deal with it. Therefore, upon a closer examination it will be seen that there are a considerable number of matters involved in the re-consignment that are not present in the stop-over case. As stated during the discussion on the re-consignment case, and speaking altogether from recollection, it seems to me that considerably more than \$1 was mentioned as being the cost of the telegraphic service to the railway company connected with the re-consignment of a car. However that may be, we have nothing left but to try and fix such a reasonable sum as we are able to for this particular service. It is said that the actual cost connected with the switching and order clerk amounts to \$1.12 a car. These amounts are no doubt gotten up honestly and with the best of intentions, but they lend themselves at once to the criticism that it is next to impossible, perhaps absolutely impossible, to make up an exact statement of the expense connected with this particular service. All that any one can do is to make an estimate based upon the general expense of maintaining and operating a switching engine and crew, and making certain repairs, and so on. They are, of course, and they must be, based upon a general average. For instance, the locomotive engineer is set down at 35c. an hour. That is what the locomotive engineer gets, but to say that 35c. an hour for a locomotive engineer should be applied to every car, or to the cars that are switched, is hardly proper, because there is a switching engine in the yard, and that switching engine may be standing idle and doing nothing, if these cars were not to be switched. The same remark applies to the fireman and to the conductor and the trackmen and the fuel consumed. It does not always happen, and it is impossible to tell how frequently it does or does not happen, that the time of this man should be strictly and accurately and properly charged against any particular movement of cars from the train to some particular siding, because if the cars were not there to be moved, it might be that the engine would be standing steaming, and these men would be loafing about and not doing anything. However, the matter is fairly put by the companies in the way it is, because it is the only way it can be put. But at the same time it does not necessarily mean that there is the same outlay every time these services are performed. The sum here made up in this way and upon these estimates shows an expense of \$2.39 connected with the movement of each car, and it is not at all likely that in the actual working out of the matter there is such an expense as that. The toll allowed should not be confined, of course, to the actual cost of the service. It should be some toll that should include some reasonable return for the service. The shipper is not necessarily entitled to have a privilege of this kind at actual cost, but it is next to impossible to fix with accuracy a charge that would to some extent remunerate the carrier.

Upon the former hearing of this case Mr. Scott thought that \$1 a car would be reasonable, and that view was concurred in by Mr. Hardwell. Both my



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brother commissioners now are of the opinion that \$1 is not an unreasonable charge and an order may go that the present charge of 25c shall be increased to \$1 and as Mr. Scott stated in his judgment before: "I would not differentiate between a case where the instructions for re-shipment arrived at Cartier before the car, and a case where the car arrived before the instructions, although the service rendered by the railway company in the second case would be more than in the first, because of the question as to which arrived first at Cartier became an important element in determining the charges, there would undoubtedly be found confusion and friction between the shipper and the railway company. As pointed out by the Chief Traffic Officer it would be fair to set off the advantages to the railway in the first case against the extra service in the second case and merely allow the standard charge of \$1 per car for 24 hours in all cases."

There only remains a word to be said with reference to the situation at Sarnia Tunnel. There was an unfortunate misunderstanding with reference to that when the case was disposed of before. It was not known that these were foreign cars that were principally held at Sarnia, and I think in disposing of the case I stated that the facts were similar. As a matter of fact the facts are not similar with regard to the two places, and the matter has been sufficiently cleared up to-day to show that. The dollar will have application to both Sarnia and Cartier.

July Birthdays.

Many happy returns of the day to—
J. H. Black, Superintendent Temiskaming and Northern Ontario Ry., North Bay, Ont., born near Smiths Falls, Ont., July 8, 1874.

M. S. Blaiklock, Engineer Maintenance of Way G.T.R., Montreal, born at Quebec, July 19, 1859.

D. E. Blair, Superintendent of Rolling Stock, Montreal St. Ry., Montreal, born at St. Thomas de Montmagny, Que., July 25, 1877.

D. C. Coleman, Superintendent Car Service, C.P.R. Western Lines, Winnipeg, born at Carleton Place, Ont., July 9, 1879.

Geo. Collins, General Manager Central Ontario Ry., Trenton, Ont., born at Kingston, Ont., July 20, 1860.

D. D'E. Cooper, Canadian Freight Agent Lehigh Valley Rd., Toronto, born at Buffalo, N.Y., July 8, 1862.

John Corbett, General Foreign Freight Agent C.P.R., Montreal, born in Lanarkshire, Scotland, July 19, 1863.

E. J. Coyle, ex-Assistant General Passenger Agent C.P.R., Vancouver, B.C., born at Stayner, Ont., July 23, 1870.

S. E. Dewey, Travelling Freight Agent G.T.R., New York City, born at Beckenham, Kent, Eng., July 4, 1879.

J. F. Dolan, City Passenger and Ticket Agent Richelieu and Ontario Navigation Co., Montreal, born at Kingston, Ont., July 1, 1868.

F. C. Foy, Canadian Passenger Agent New York Central Lines, Toronto, born there, July 5, 1881.

J. A. Goodearle, General Manager Turbine Steamship Co., Toronto, born at Kingston, Ont., July 4, 1867.

J. H. Gordon, Travelling Freight Agent C.P.R., Winnipeg, born there, July 21, 1883.

W. R. Haldane, General Freight Agent C.P.R., Kootenay and Boundary Districts, Nelson, B.C., born at Galashiels, Scotland, July 6, 1867.

J. H. Hanna, ex-Division Freight Agent G.T.R. at Hamilton, Ont., now at Calgary, Alta., born at London, Ont., July 27, 1867.

R. K. Harris, Resident Engineer C.P.R. Orford Mountain Branch, Kingsbury,

Que., born at Maitland, Ont., July 20, 1866.

A. D. Huff, Division Freight Agent G.T.R., Ottawa, born at Chatham, Ont., July 17, 1866.

C. A. Jaques, General Manager Merchants Montreal Steamship Line, Montreal and Lake Erie Steamship Co., and Montreal and Great Lakes Steamship Co., Montreal, born there July 15, 1849.

J. P. Kavanagh, Local Manager Ogdensburg Coal and Towing Co., Montreal, born at Plattsburg, N.Y., July 17, 1862.

E. W. Kolb, Superintendent Sleeping Dining and Parlor Cars and News Service, C.P.R. Central Division, Winnipeg, born at Cincinnati, Ohio, July 22, 1878.

R. G. McNeillie, District Passenger Agent C.P.R., Calgary, Alta., born at Lindsay, Ont., July 1, 1883.

T. J. Maguire, Accountant Quebec Central Ry., Sherbrooke, Que., born at Quebec, July 31, 1860.

R. E. Perry, Assistant General Freight Agent and Chief of Tariff Bureau Intercolonial Ry., Montreal, born at Drayton, Ont., July 5, 1876.

R. Preston, Master Mechanic Central Division, C.P.R., Winnipeg, born at Toronto, July 28, 1863.

J. E. Quick, General Passage Agent G.T.R. and G.T.P.R., Toronto, born at Richmond, Ontario Co., N.Y., July 10, 1851.

G. G. Ruel, Chief Solicitor Canadian Northern Ry., Toronto, born at St. John, N.B., July 5, 1866.

P. E. Ryan, Secretary National Transcontinental Railway Commission, Ottawa, born there July 26, 1876.

Geo. Stephen, General Freight Agent Canadian Northern Ry., Winnipeg, born at Montreal, July 5, 1876.

R. F. Struthers, Chief Inspector of Time Service C.P.R., Winnipeg, born at Stratford, Ont., July 31, 1879.

T. Tait, Chairman Board Railway Commissioners for Victoria, Melbourne, Australia, born at Melbourne, Que., July 24, 1864.

H. T. Wilgress, Agent C.P.R. Pacific Steamship Service, Yokohama, Japan, born at Lachine, Que., July 29, 1857.

By what Unit of Measure is the Efficiency of a Storekeeper Properly Determined.

By E. J. McVeigh, Storekeeper G.T.R., Ottawa

If this read by what unit of measure should the efficiency of a storekeeper be determined, I could simply say "results," and let it go at that. By that method I could avoid at least repeating many things that others have said, and save some time. But the way the question reads places me in doubt. It would seem to imply that today his efficiency is properly determined, meaning judged, or decided, and the truth of the matter is that it is not properly determined, at all. Who is to determine? The individual storekeeper each for himself? I have no doubt many of us think we are quite capable of doing that, but I doubt if our judgment would be accepted as final in the case. Then who is to do it? The president, the general manager, the general superintendent? Say any of them, or all of them on any one road. Now, how are they going to do it; on what will they base their judgment? On the fact that the storekeeper is a good chap and doesn't bother them much? On the fact that his storehouses are kept in good order, that there are not too many complaints against him, and that he doesn't ask for an increase of salary too often? These are all good things, but while they all help, they cannot be the chief determining factor—that we know—so when they get through the list thus far, they will take up his figures, and if they are good live men, they will want to know:—How

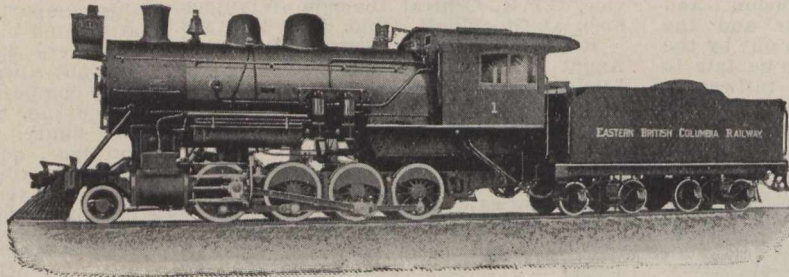
many miles of road he supplies. What is the amount of his stock balance? What is the monthly issue? The amount of the store pay roll? How does that figure out on a percentage basis with business done? Good work, that—these are the determining factors, but there is one lacking without which these are of no value, and that is Comparison. Let me say again that a thing is good or bad, only by comparison with something of like nature and, until this comparison is made, you don't know.

The thing of like nature in this case is the storekeeping results of some other road, and who has as yet ever made this comparison? How many have even attempted to make it? Don't forget that the mere figures, even when available, are not always sufficient for an intelligent comparison. We know that figures cannot lie, but we also know that liars can figure, and even if this last were not true, our "systems" of supply accounting are like our human bodies, so fearfully and wonderfully made that a proper diagnosis can only be made after careful dissection. In case there should be any misunderstanding as to what I mean by dissection as I apply the term to the handling and accounting of railway supplies, I may say my meaning is this: When a member of this association tells us that the handling of supplies on his road costs 3%, his "stock on hand" so much, and his "issues" so much, it conveys no meaning until we look into the system followed out on his road, take it apart as it were, and see the wheels go round, for these figures may mean one thing on one road, and quite another thing on some other road. For instance—suppose a general storekeeper would give us these figures from his general store. They might mean that the handling of supplies for that road had cost 3% at one stage in the turnover between the factory and when they are actually put to use. But how many additional turn-overs do they get, and what more expense is added. We don't know. They may go from the general store to a division store, and from there to a motive power store, a bridge and building, or a road stock, away beyond the jurisdiction of the stores department altogether, and be turned over three or four times before they are used. What meaning have these figures got by this time? They simply show one stage in the process and have no meaning as to the cost to the road for the handling of supplies. Nor are the figures of "stock on hand" more satisfactory. They don't mean the actual cash tied up in stock by that road, whatever else they may mean, and that is what we want to know. A running shot that only takes off a little hair will not stop the game.

I don't think the above is an exaggerated picture of the methods of some of the big systems. But if these figures were given us by a storekeeper on a small road, and that road carried two stocks only, fuel and supplies, and the storekeeper received his supplies direct from the factory and supply house, and disbursed these supplies in detail direct to the user, what a different meaning these figures would have then. These are the two extremes, in one case the figures mean practically nothing, in the other, everything. There are many cases that come in between, and without careful dissection, how are we to judge whether good or bad work is being done? And who is to be the dissector? I say the storekeepers as a body. If they don't, others will, and it is time we got at it, and I say in reply to the question that the efficiency of the storekeeper is not, and cannot yet be properly determined until this work is done.

The foregoing paper was read before the Railway Storekeepers' Association.

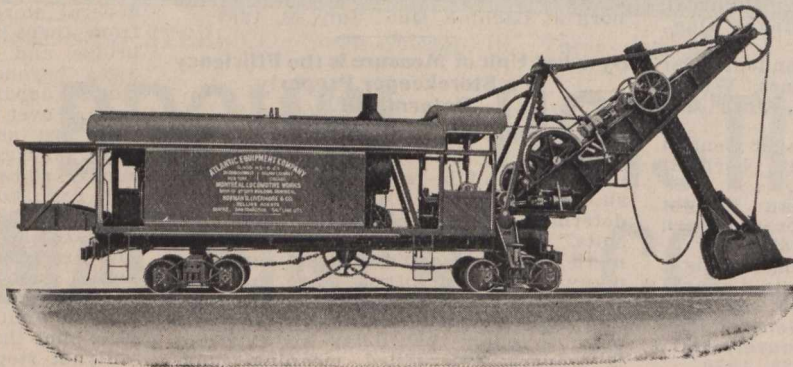
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Amendments to the Railway Act.

The Dominion Parliament last session passed an act amending in a number of details the Railway Act, chap. 37 of the Revised Statutes, and making some additions thereto. Sub-section 3 of section 56 respecting the right of appeal to the Supreme Court as to jurisdiction is repealed, and a new sub-section as to appeals "on questions of law is substituted." This provides that leave to appeal to the Supreme Court upon questions which, in the opinion of the Board, are questions of law, may be made upon leave being obtained within one month after the order is made, or within such further time as the Board may allow. Due notice must be given to the opposite party, stating the grounds of appeal, and such appeal must be entered within 30 days of the making of the order granting leave to appeal.

A new section, 59A, is added, providing that wherever the act requires or directs that the Board's approval must be obtained before the doing of any work, if the work has been done before Dec. 31, 1909, without such approval, the Board shall have power to approve and to impose such terms and conditions as may be thought proper.

Section 121 provides for the making of by-laws by directors and a sub-section has been added making provision for the election or appointment of officers, styled vice presidents, who need not be directors of the company.

A new sub-section is added to section 246, setting out that an order of the Board shall not be required in cases in which telegraph, telephone or electric light wires are erected across the railway with the consent of the company, in accordance with any general regulations, plans or specifications approved by the Board for such purposes.

The word "lands" is added to sub-section 3, section 254, which deals with the erection of fences, gates and cattle guards, and the word "freight" is struck out of sub-section 7, section 261, which deals with the carrying of traffic over any portion of a railway not opened for general traffic.

Section 276 deals with the moving of trains or cars reversely in cities, and to this a sub-section is added providing that the Board may order that section 276 shall not apply to any particular train or classes of trains, but that no such order shall apply to trains engaged in shunting, switching, yard or terminal movements.

The question of damages caused to or by cattle on railways is dealt with by section 294, and the recent act repeals sub-section 4, substituting for it a new sub-section; providing that the value of animals killed or injured on the line may be recovered in any court, unless the company establishes that such animal got at large through the negligence or wilful act or omission of the owner or his agent, or of the custodian of the animal or his agent. Section 295 is amended to bring it into conformity with the alterations made in sections 254 and 294.

Section 298 deals with the liability for fire caused by locomotives. This is repealed and a new section inserted setting out the procedure to be taken to recover damages for fires caused by sparks from locomotives, limiting the damages to \$5,000, less any insurances on the property destroyed, and providing that the company shall not be liable for damages if modern and efficient spark arresters are used, and if it has not been otherwise guilty of negligence. Pending litigation is not to be affected by the new section.

The granting of free or reduced rates is dealt with in section 341, and a new sub-section C has been inserted in place of the one previously existing. The only

change in the new sub-section is that the railways may grant free or reduced rates to former employes of any railway, members of the Interstate Commerce Commission of the U.S., its officers and staff, their baggage and equipment, in addition to the persons mentioned in the old sub-section.

The words "and such damages should not be subject to any special limitation, except as expressly provided for by this or any other act," are added to sub-section 2, section 427, dealing with penalties not otherwise provided for.

Section four of the amending act passed in 1908, deals with the approval of telegraph and telephone tolls, and sub-section 8 has been repealed, and a new sub-section as to the conditions under which the working agreements between companies are to be made and approved by the Board substituted.

Section 238a has been amended so that any railway constructed after May 19, 1909, shall at its own cost (except otherwise provided by agreement), provide, subject to the order of the Board, all the necessary protection for the public at highway crossings.

Under sub-section 4, section 275, if a fatal accident has happened at any crossing since Jan. 1, 1900, the trains are not to go at a greater speed over that crossing than 10 miles an hour, unless it is protected. This section is now amended by substituting 1905 for 1900.

Recent Quebec Legislation.

Among the acts passed last session of the Quebec Legislature were the following affecting transportation interests:—

CIVIL CODE.—To amend the civil code respecting contracts made with public utility companies.

LITTLE NATION RIVER RY.—Extending time for construction and authorizing an extension.

MONTREAL STREET RY.—Amending powers of company, and authorizing it to build underground lines.

LONG SOO AND ABITIBI RY.—Incorporation.

SHERBROOKE STREET RY.—Extension of powers.

SUBURBAN TRAMWAY AND POWER CO.—Extending powers as to construction, etc.

Railway Subsidy Contracts.

The Dominion Government has entered into agreements, under the act providing grants in aid of railway construction, as follows:—

CANADIAN NORTHERN QUEBEC RY.—From the main line near L'Épiphanie, to Rawden, by way of St. Jacques l'Achigan, 16 miles. (May 23.)

QUEBEC, MONTREAL AND SOUTHERN RY.—For construction of bridges over the Nicolet, Gentilly and Becancourt Rivers. (June 1.)

International Traffic Rates.—J. P. Mabee, Chairman of the Dominion Board of Railway Commissioners, has been appointed Canadian representative in connection with the discussion of an arrangement for the just control of international traffic rates between Canada and the United States. It is understood that a member of the Interstate Commerce Commission will be designated to act with Canada's representative in this matter, and that the representatives of the two countries will meet at an early date to discuss the question of organization, etc. The whole question, we are informed, is in a preliminary stage, and nothing has yet been determined as to how the matter will be worked out.

Manitoba's Early Railway History.

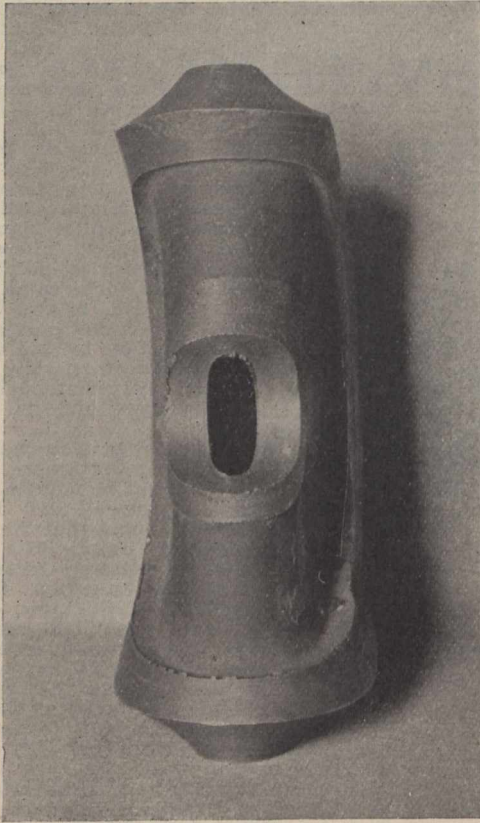
The Managing Director of the Railway and Marine World wrote the editor of *The Mail and Empire*, Toronto, recently, as follows:—"I have read with a great deal of pleasure T. A. Gregg's reminiscences of his trip with the first colonist train to Winnipeg in 1879, as published in your issue of June 4.

"I fully agree with him as to the debt Canada owes to Sir Wm. Van Horne, who will go down in history as one of the greatest of Empire builders. There are, however, two little inaccuracies in Mr. Gregg's most interesting narrative, which I desire to point out. He says that Mr. Van Horne came from the Missouri Central Rd. to the Canadian Pacific Ry. This is not correct. At the time of his selection by the Canadian Pacific Ry. directors, Mr. Van Horne was General Superintendent of the Chicago, Milwaukee and St. Paul Ry.

"Further on Mr. Gregg says that Mr. Van Horne 'did not begin where Egan left off at Winnipeg, but he made a complete alteration of plans and began anew,' the inference being that Mr. Van Horne succeeded Mr. Egan. The facts are that almost immediately after the incorporation of the Canadian Pacific Ry. Co. in 1881, A. B. Stickney, of St. Paul, Minn., was appointed General Superintendent, with headquarters at Winnipeg, and took charge of the construction and operation of the western lines. Mr. Stickney resigned at the end of that year, and Mr. Van Horne was appointed General Manager, with headquarters at Winnipeg. He took J. M. Egan from the Southern Minnesota Rd. to Winnipeg, making him General Superintendent of the Western division. Mr. Egan retained that position until September, 1886, when he was succeeded by Wm. Whyte, the company's present Second Vice President."

Quebec Transportation Club.—Following are the officers, elected at the recent annual meeting:—Hon. President, C. E. A. Carr, General Manager Quebec Ry., Light, Heat & Power Co.; Hon. Vice Presidents, E. O. Grundy, General Freight and Passenger Agent Quebec Central Ry., and W. M. MacPherson, White Star-Dominion Line; President, J. A. Everell, Superintendent Montmorency Division Quebec Ry., Light, Heat & Power Co.; Vice Presidents, M. P. Connolly, General Agent Richelieu & Ontario Navigation Co., and G. B. Ramsay, White Star-Dominion Line; Hon. Secretary-Treasurer, J. S. Blanchet, General Freight and Passenger Agent, Quebec Ry., Light, Heat & Power Co.; Committee, J. Hone, Jr., City Passenger and Ticket Agent C.P.R.; G. Stott, City Passenger and Ticket Agent G.T.R.; F. S. Stocking, City Passenger and Ticket Agent Quebec Central Ry.; W. J. Thompson, Manager Quebec and Levis Ferry Co., and F. M. Spidal, General Superintendent Canadian Northern Quebec and Quebec and Lake St. John Rys.

Stock Yards for Winnipeg.—The Stock Yards Commission, which has been considering the provision of stock yards at Winnipeg, has completed its work, and it is said that a report will be prepared recommending the formation of the St. Boniface Union Stock Yards Co., in which the C.P.R., the Canadian Northern Ry., and the G.T. Pacific Ry. will be jointly interested; that the yards when equipped will be managed by a Board of Commissioners, the C.P.R. to be represented by two members, and the other two lines and the Manitoba Government by one each. The rates to be charged are to be subject to the Government's approval. The legislation necessary to carry out the plans of the Commission is expected to be introduced in the Legislature next session.



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Dominion Atlantic Ry.—J. G. Sullivan, Assistant Chief Engineer C.P.R., and P. B. Motley have made a complete examination of the Dominion Atlantic Ry. for the C.P.R. Sir Thos. G. Shaughnessy, with other C.P.R. directors, subsequently went over the line, and then proceeded to Halifax, N.S., to inspect the terminal facilities there. A press report states that the C.P.R. has purchased a property on Hollis St., Halifax, for use as an office building.

St. Stephen Wharf, etc.—The existing wharf at St. Stephen, N.B., is to be replaced with a new one, about 150 ft. out from the present shore line, and having a frontage of 600 ft. The additional space gained will be filled in, and the whole space covered with tracks, six new tracks being added. The yard layout will be from a lead independent of the main tracks. The freight shed is to be moved to another point in order to suit the rearranged yard.

Branch to Mattawamkeag.—W. Downis, General Superintendent Atlantic Division, is quoted as stating, June 2, that there was no foundation for the press reports to the effect that the company proposed to build a branch line to Mattawamkeag, Me. The report was circulated in connection with the statement that the C.P.R. had acquired the Washington County Ry., and would connect it up with Mattawamkeag, so as to give a new route into St. John, N.B.

Tobique and Campbellton Ry.—The New Brunswick Legislature has granted an extension of time for the construction of this projected line.

Lachine Bridge.—The bridge across the St. Lawrence River, at Lachine, Que., constructed at a cost of over \$2,000,000, in 1884, is to be replaced by a double track structure. Plans are being prepared for the work, and a contract for the steel superstructure has been let to the Dominion Bridge Co. The contract for the piers and abutments has not been let, as the question of whether entirely new piers will be erected or the existing piers widened has not been decided. It is expected that some of the pier work will be built this year, and that the whole structure will be completed in two years. The superstructure of the present bridge will be utilized in bridges on other parts of the line.

Ottawa Entrance.—D. McNicoll, Vice President, was present at the meeting of the Ottawa board of control, June 7, and explained that the conditions affecting the C.P.R. in Ottawa were anything but satisfactory. The Central station, under existing conditions, was not suitable; the operation of trains via Hull was roundabout, consequently the company had been for some time looking for a new route for some of the trains. The plans filed by the company were produced and explained. They show the closing up of the Rideau Canal, north of the deep cut, and the building of a tunnel from the Central station, under the Post Office, down Wellington St., and after a detour, coming out at the Union station. By this means trains would be run from one station to the other in five minutes, instead of 25, as at present. The company recognized that the closing of the canal might meet with much opposition, but it was impossible to find a route equally advantageous. This company was ready to start work on the construction of the necessary works at once, and the Dominion Government wished to have the city council's opinion before giving consideration to the question. The board promised to give full consideration to the proposal.

Toronto.—D. McNicoll, Vice President, stated June 8, that the C.P.R. was the purchaser of the Government

House property on King and Simcoe streets, Toronto, at \$800,000. The property would not be taken over by the company until 1912. The company had in view an extensive programme of improvements in Toronto, but nothing could be said as to just what the plans would be. When they were prepared they would be submitted to the city council, and to the Board of Railway Commissioners. This property is immediately to the north of the old Legislative Buildings, on which site the G.T.R. laid out its local freight yards about four years ago.

The Board of Railway Commissioners had under consideration June 7, the plans of the C.P.R. viaduct at Yonge St. and Avenue Road. The plans show that the gradient begins at Rosedale Ave., and at Yonge St. reaches a height of 12½ ft.; and at Avenue Road it is 9½ ft., reaching the original level at Poplar Plains crossing. Yonge St. will have to be depressed 5½ ft., and Avenue Road 7½ ft., in order to provide for a 14 ft. headway. The board of control at a meeting June 9, expressed the opinion that the plans did not provide a final solution of the difficulty, and their further consideration was postponed.

North Parkdale Station.—A contract has been let to Wells & Gray, Ltd., Toronto, for the erection of a new passenger station building at North Parkdale, Toronto. They began work June 13.

London Improvements.—In an interview at London, Ont., recently D. McNicoll, Vice President, said the company would have an interesting and important announcement to make shortly, so far as London was concerned. Plans had been prepared for improvements there, but nothing would be made public about them until the company was ready to go ahead with the work.

Fort William-Winnipeg Ballasting.—Referring to the press reports that the C.P.R. had appropriated \$250,000 to be expended for the purpose of reducing dust on the line between Fort William, Ont., and Winnipeg, Man., we are advised that the company intends putting some ballast on the line which will, it is hoped, do away to a certain extent with the dust nuisance that has been so prevalent since the first coat of ballasting was put down. There has been no especial arrangement made, such as the press reports indicated, to eliminate the dust.

Winnipeg-Brandon Second Track.—The grading for the laying of a second track between Winnipeg and Portage la Prairie has been completed, and the contractors, J. G. Hargrave and Co., received instructions to continue to grade westerly from Portage la Prairie toward Brandon. W. Whyte, Second Vice President, stated June 10, that it had been decided to carry the second track as far as Brandon, but whether the work would be completed this season or not, he could not say.

Six miles of track had been laid from Winnipeg towards Portage la Prairie, June 11, and it was expected that the second track would be laid into that place, and be ready for operation in August. The contractors state that it is expected to have the second track completed into Brandon in time for the grain movement of 1911.

Weyburn-Lethbridge Line.—A revised location map of the route of the projected line from Weyburn, Sask., to Lethbridge, Alta., which has been submitted to the Lethbridge city council, shows a line passing 50 miles due south of Walsh in tp. 3, and 42 miles south of Medicine Hat, in tp. 5, passing into tp. 6 range 7, in the middle of sec. 12, into tp. 6 range 7 8, on the second line between secs. 12 and 13, thence almost due west to the northwest corner of sec. 13, tp. 6, range 12, thence almost in a direct line north-westerly into Lethbridge.

Lethbridge, Alta.—Representatives of the C.P.R. and the Alberta Ry and Irrigation Co., had an interview recently with representatives of the Lethbridge council, as to the Coutts St. bridge and other matters. The bridge is estimated to cost \$90,000, and it is said that an arrangement was made by which the city will pay half of the cost. The question of a spur track to industrial sites was discussed, and the company proposes to make an offer to the city as to the location of the same. At a meeting of the council June 3, the arrangement as to the Coutts St. bridge was approved.

Carmangay Branch.—A construction gang arrived in Carmangay, Alta., June 4, and began work on the extension of the line northerly. This work includes the construction of a bridge across the Little Bow River. The bridge will be a somewhat similar structure to that at Lethbridge, but will not be as long nor as high.

Strathcona-Edmonton Bridge.—We are advised that the negotiations between the company on the one hand, the Dominion and Alberta Governments and the Edmonton and Strathcona councils on the other, with respect to this projected bridge, have not been completed. As soon as a satisfactory arrangement can be effected with regard to the addition of a highway section to the bridge the plans will be completed, and preparations for its construction gone on with.

The location of the Calgary and Edmonton Ry., from Strathcona to Edmonton, which was recently approved by the Board of Railway Commissioners, is the re-approval of an old plan which was filed two years ago.

Kootenay Central Ry.—A Vancouver press dispatch states that the C.P.R. has let a contract to Foley, Welsh and Stewart for the construction of the first 25 miles of this projected railway, the work to be completed within a year. The section to be built will start from near Wardner on the Crow's Nest Pass branch to Fort Steele. The line will ultimately be extended to Golden, on the C.P.R. transcontinental line. The route is a direct one to Fort Steele, thence it will follow the valley of the Kootenay River to Canal Flat, past upper Columbia Lake and the Upper Columbia River to Golden. A survey party in charge of A.E. Sharpe arrived at Golden, from Vancouver, recently and are making their headquarters at Windermere, for the survey of the Golden end of the line. The Board of Railway Commissioners has approved the revised location from mileage 0, a little south of Wardner, to mileage 24.9, a little north of Fort Steele.

Steel Snow Sheds.—We are advised that the recent reports as to the erection of steel snow sheds in the Rocky and Selburn mountains in place of the present timber structures is merely newspaper talk.

Revelstoke via Lardo, B.C.—We are advised that the reports that the company would make an early start towards connecting the transcontinental line at Revelstoke, via Lardo with the Crow's Nest branch, is only a newspaper rumor.

New Westminster Station.—Plans have been prepared for the enlargement of the station at New Westminster, B.C. The extension will consist of a one story brick building on stone foundation, at each end of the present building.

Esquimalt and Nanaimo Ry.—We are advised that a contract for clearing the right of way of the extension north of Union Bay to Black Creek, 14 miles, has been let to Sabin and Stevens, Victoria, B.C., to be completed in five months.

In connection with the building of the proposed Cowichan Lake branch, we are advised that if the state of the labor market will admit of its being

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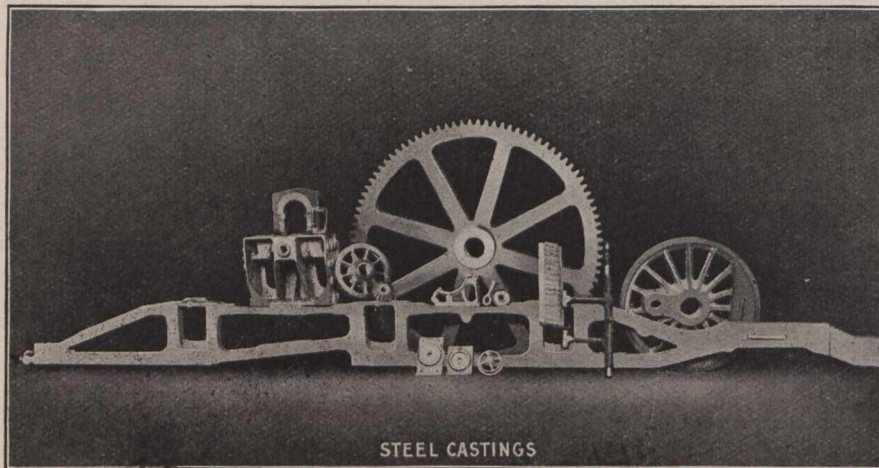
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done, the company will begin the clearing of the right of way in the fall so as to be in a position to go on with grading in the spring.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—The company is preparing to build the following additional lines: From Moose Lake, Carlton county, Minn., northwest to near McGregor, Aitkin county, 23 miles, and from Lawler, Aitkin county, westerly to Cuyana, in Crow Wing county, 37 miles. (June, pg. 479.)

A Railway to Hudson Bay.

Sir Wilfrid Laurier, in company with Hon. G. P. Graham, will visit Pas Mission during their western tour, which will be begun early in July. The Minister of Railways, in a recent interview at Ottawa said the Government would shortly be letting a contract for the erection of a bridge across the Saskatchewan River at the Pas, as the initial step toward the building of the railway. The first section of the line, extending for 160 miles from the Pas, would then be gone on with. This mileage can be built whether it is finally decided to have the terminal at Fort Churchill or Port Nelson.

With a view of securing all the data possible as to the two routes three parties have been dispatched to investigate the resources of the country through which the line will pass. The water routes will be investigated by two parties which were expected to sail from Halifax early in July, one by the s.s. Stanley and the other in the schooner Chrissie Tyron, recently purchased in Newfoundland by the Dominion Government. The Stanley will survey the whole route, to both Fort Churchill and Port Nelson while the Chrissie Tyron will explore the rivers and inlets inside the bay.

An announcement was made in Ottawa June 13, that tenders would be called for at an early date for at least 50 miles of this line from Pas Mission. On June 16 it was announced that the steamer Stanley would leave for Hudson Bay by the end of June, and that the work would be in charge of W. J. Stewart, Chief of the Hydrographic Survey. H. B. Pariseau will have charge of the party to survey the water approach to Fort Churchill, and A. A. G. Bachaud charge of that to survey the water approach to Port Nelson. The surveys are expected to be completed during the summer, so as to have a report ready for the meeting of Parliament.

House of Commons Railway Committee.—Speaking in the House of Commons recently, E. A. Lancaster, M.P., suggested that the number of the members of the Railway Committee be reduced. The present membership is nearly 200, of which 40 form a quorum. It now frequently happens, he said, that one day a quorum will vote upon a section of a bill, and two or three days later a different set of members will be sitting, and will reverse that decision. The result was that the work of the committee was unsatisfactory as far as precedents were concerned. It was considered by a large body of members that the committee should consist of not more than 40 members, with 25 as a quorum. The committee would then be able to present to the House reports on some stated principle, instead of making reports, as at present contradictory in principle. He had had ten years experience on the Committee, and it was apparent that the evils were increasing. The question was allowed to stand over to next session, when Mr. Lancaster will submit a resolution.

Railway Commissioners' Traffic Orders.

Summaries of other traffic orders are given on another page under "Orders by Railway Commissioners":—

NO JURISDICTION OVER QUEBEC CENTRAL RY.

10561. May 10.—In our last issue we noted the dismissal of complaint by Auger and Son, of Quebec, that the Quebec Central Ry. failed to supply cars of not less than 35 ft. long, for pulpwood shipments. The Chief Commissioner gave the following judgment:—"The applicants, carrying on business at Quebec, complain that the Q.C.R. neglects or refuses to supply to them cars of not less than 35 ft. in length, for pulpwood shipments. This railway is not under the jurisdiction of this Board. It is a Provincial corporation and has never been declared by Parliament to be a work for the general advantage of Canada. The shipments made by the applicants, and for which the cars in question are required, move almost entirely to points in the U.S.—the State of New York and some to Wisconsin—from the lines of the Q.C.R., these cars pass to the Boston and Maine. The point, therefore, is, can the Board make any order regarding the equipment that should be supplied where traffic originates upon a Provincial road in direct connection with a foreign road? The point of transfer was not mentioned at the hearing, nor do I think it material. The only ground upon which an argument in favor of jurisdiction could be put, is, I think, sec. 8, sub-sec. (b) of the Railway Act. Is this 'through traffic,' and are the cars 'matters pertaining thereto?' It is traffic of an international character and clearly should be under the Federal control; but even if it could be regarded as 'through traffic,' since the judgment of the Supreme Court in the case of the Montreal S.R. Co. v. the City of Montreal, this Board would be powerless to interfere; and if I understand the effect of that judgment, it is to hold the above sub-section ultra vires of Parliament. We do not deal with the merits of the application. It is sufficient to say the Board could not interfere, no matter what the merits were."

LIVE STOCK RATES, TORONTO TO SMITH'S FALLS.

10649. May 17.—The complaint of J. Tucker, of Smiths Falls, Ont., complaining that the rate of 17c. per 100 lbs. charged by the C.P.R. on shipments of live stock, in carloads, from Toronto to Smiths Falls, is excessive and discriminatory against Smiths Falls as compared with the rate charged from Toronto to Montreal. It is ordered that the railway company put into effect, not later than June 6, a rate not exceeding 14c. per 100 lbs. upon shipments of live stock, in carloads, from Toronto to Smiths Falls aforesaid.

GRAIN EX-LAKE RATES.

10653. May 19.—Re application of the Montreal Board of Trade, under sec. 323 of the Railway Act, for order directing the C.P.R. and the G.T.R. to publish rates on wheat, oats, and barley "ex-lake" from Montreal to points in Ontario and Quebec on the same mileage basis as that in force on the same commodities from Georgian Bay elevator ports to points in Ontario. It is ordered as follows:—The rates of the G.T.R. and C.P.R. on ex-lake western grain carried from lake or river ports to points on the lines of the said companies in the Provinces of Ontario and Quebec, shall be the same for equivalent distances from all lake and river ports at which facilities exist for the transshipment of the said grain from vessels to cars, between Depot Harbor and Montreal, inclusive, and shall include the cost of like services at all such ports of transshipment

and at all points of destination, whenever the said cost is included in the rate or rates at one or more port or ports of transshipment, or at one or more point or points of destination; and to points off the lines of the said companies to which points joint rates are made by the addition of "arbitraries," the said arbitraries shall be the same on shipments from all the said ports of transshipment. On such grain transhipped at ports west of Montreal, destined to points east of Montreal to which points through rates are based on arbitraries, the western portion of the said rates shall be based on St. Henri mileage in the case of the G.T.R. and an Outremont mileage in the case of the C.P.R. The G.T.R. and C.P.R. shall give effect to this order by publishing and filing special tariffs to take effect not later than June 13.

INTERNATIONAL BILL OF LADING.

10761. May 17.—Re application of Canadian Freight Association for approval of uniform bill of lading in use in the United States on shipments from points in the U.S. to points in Canada, and from points in the U.S. through Canada to points in the U.S. It is ordered that the Uniform Bill of Lading in use in the U.S. and approved by the Interstate Commerce Commission as respects all traffic which may be carried from any point in the U.S. into Canada, or from the U.S. through Canada to the U.S., be approved.

Canadian Northern Ry. Earnings, Etc.

Gross earnings, working expenses, net profits, increases or decreases from 1908-09, from July 1, 1909:

	Earnings.	Expenses.	Net Earnings.	Net Increase or Decrease.
July	\$ 843,500	\$613,900	\$229,600	\$ 26,700+
Aug.	807,100	602,700	204,400	18,300+
Sept.	1,076,800	765,300	311,500	60,400+
Oct.	1,384,200	903,500	480,700	60,600+
Nov.	1,517,600	970,100	547,500	134,000+
Dec.	1,160,300	825,900	334,400	49,300+
Jan.	792,200	669,700	122,500	22,200+
Feb.	698,900	567,400	131,500	\$8,100+
Mar.	934,100	661,800	272,300	67,800+
Apr.	1,153,100	821,900	331,200	107,300+
	\$10,367,700	\$7,402,200	\$2,965,500	\$585,500+
Inc.	\$ 2,223,900	\$1,638,400	\$585,500	.....

Approximate earnings for May, \$1,224,900, and for two weeks ended June 14, \$556,600, against \$720,100 and \$359,900 for same periods 1909.

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

Gross earnings, working expenses, net profits, increases or decreases over 1908-9, from July 1, 1909:

	Earnings.	Expenses.	Net Profits.	Net Increase or Decrease
July	7,140,029.93	4,660,159.20	2,479,870.73	205,297.48+
Aug.	7,426,984.62	4,462,926.75	2,964,057.87	385,159.16+
Sept.	8,323,178.03	4,891,288.86	3,431,889.17	1,317,281.40+
Oct.	9,744,596.87	5,358,299.68	4,386,297.19	1,731,030.48+
Nov.	9,075,963.93	5,383,625.98	3,692,337.95	1,471,258.60+
Dec.	8,214,758.04	5,099,334.94	3,115,423.10	918,671.53+
Jan.	6,104,426.90	4,787,830.51	1,316,596.39	926,846.56+
Feb.	5,992,052.14	4,505,032.30	1,487,019.24	724,874.46+
Mar.	7,796,337.54	5,085,164.15	2,711,173.39	907,465.26+
Apr.	7,985,230.21	5,004,119.08	2,981,111.13	887,603.61+

\$77,803,558.21 \$49,237,782.05 \$28,565,776.16 \$9,425,488.54+

Inc. \$14,461,030.97 \$5,035,542.43 \$9,425,488.54.....

Approximate earnings for May, \$8,215,000, and for two weeks ended June 14, \$3,743,000, against \$6,333,000 and \$2,902,000 for same periods 1909.

DULUTH, SOUTH SHORE AND ATLANTIC RY.

Operating revenue for April, \$279,388.81; expenses \$192,689.12; net revenue \$86,699.69, against \$209,422.98 operating revenue; \$140,787.52 expenses; \$68,635.46 net revenue for Apr., 1909. Aggregate operating revenue for 10 months ended Apr. 30, \$2,701,054.37; expenses \$1,841,618.91; net revenue \$859,435.46, against \$2,203,006.81 aggregate operating revenue; \$1,597,582.76 expenses; \$605,424.05 net revenue for same period 1908-09. Approximate earnings for May, \$309,595 and for two weeks ended June 14, \$131,489, against \$241,674, and \$125,968 for same periods 1909.

MINERAL RANGE RD.—Operating revenue for April, \$59,738.28; expenses \$61,139.06; deficit \$1,400.78; against \$67,513.97 operating revenue; \$55,686.42 expenses; \$11,827.55 net revenue for

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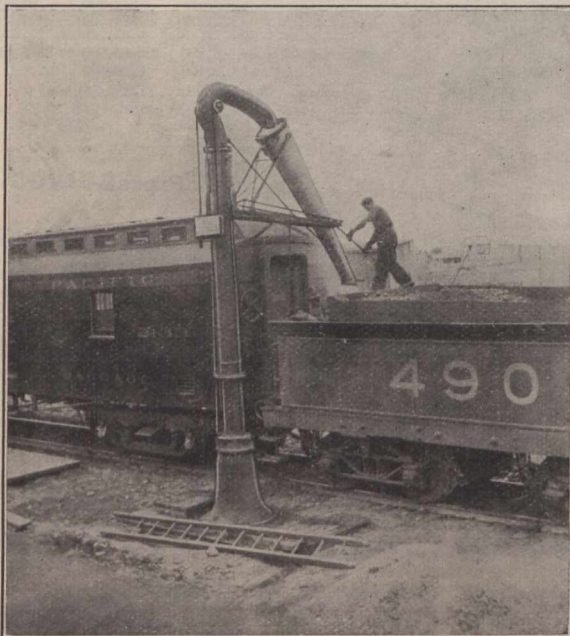
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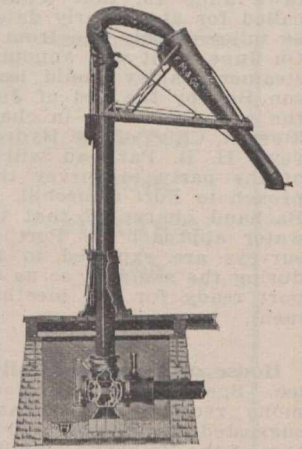


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Fairbanks Scales—Fairbanks-Morse Gas Engines

MONTREAL TORONTO ST. JOHN, N.B. WINNIPEG CALGARY VANCOUVER

Apr., 1909. Aggregate operating revenue for 10 months ended Apr. 30, \$699,862.55; expenses \$614,549.04; net revenue \$85,313.51, against \$689,687.14 aggregate operating revenue; \$574,444.50 expenses; \$115,242.64 net revenue for same period 1908-09. Approximate earnings for May, \$62,390, and for two weeks ended June 14, \$29,283, against \$68,983 and \$30,718 for same periods 1909.

Grand Trunk Ry. Earnings, Expenses, Etc.

The following figures show the earnings of the G.T.R., C.A.R., G.T. Western Ry., and D.G.H. and M. Ry., separately, for Apr., as compared with Apr., 1909:—

GRAND TRUNK RAILWAY.		
	1910.	1909.
Earnings	\$2,684,600	\$2,377,500
Expenses	1,891,300	1,619,200
Net earnings	\$793,300	\$758,300
CANADA ATLANTIC RAILWAY.		
Earnings	\$158,400	\$138,900
Expenses	138,300	130,300
Net earnings	\$20,100	\$8,600
GRAND TRUNK WESTERN RAILWAY.		
Earnings	\$569,600	\$495,200
Expenses	438,600	331,700
Net earnings	\$131,000	\$163,500
DETROIT, GRAND HAVEN AND MILWAUKEE RY.		
Earnings	\$154,700	\$131,100
Expenses	136,600	117,900
Net earnings	\$18,100	\$13,200

Approximate earnings for May, \$3,731,820, and for two weeks ended June 14, \$1,682,606, against \$3,245,791 and \$1,433,823 for the same periods 1909.

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from Jan. 1 to May 31:—			
	1910.	1909.	Incr.
Grand Trunk ..	\$2,683,966	\$2,309,061	\$374,905
Can. Atlantic ..	156,003	132,022	23,981
G.T. Western ..	536,731	454,909	81,822
D.G.H. & M. ..	159,840	128,639	31,201
Totals	\$3,536,540	\$3,024,631	\$511,909

G.T.R. Betterments, Construction, Etc.

Southern New England Rd.—According to the information filed with the Massachusetts Railroad Commission, June 1, the G.T.R., through its subsidiary company, the Central Vermont Ry., proposes to build under the S.N.E.R. charter, 58 miles of line in that State at a cost of \$3,500,000. The estimate includes the following items:—Right of way, \$192,381; grading, \$1,163,287; bridging, \$1,047,221; tracks, \$536,769; station buildings, \$26,000; telegraph lines, \$17,433; water service, \$9,000. Of the 10,000 shares into which the capital stock has been divided, the G.T.R., through President C. M. Hays, holds 9,860 shares. The plans show that the new road will leave the New London and Northern Rd. at Palmer, Mass., and by almost a straight line will enter Providence, R.I. The New York, New Haven and Hartford line will be crossed twice overhead. The application came before the Commission June 8. E. H. Fitzhugh, First Vice President G.T.R., and Vice President Central Vermont Ry., said:—"The line is to be an extension of the G.T.R. system, its purpose being to link up the manufacturing interests of New England with the West, the north-west and the Orient. If the right to build the line is granted the plan will be carried out by the G.T.R."

The route of the projected line in Massachusetts, is described as follows:—At Palmer it will leave the New London and Northern Rd. and go through Monson, Brimfield, Sturbridge, Dudley, Webster, Douglas, Uxbridge and Blackstone, a little over 58 miles. It is not a straight line, but one of easy grades and easy curves. From Palmer it will run to Brimfield Summit, through Brimfield, Fiskdale, Westville and Southbridge, crossing three streets in Southbridge; then through Sandersdale to Dudley Summit, six miles east of Sandersdale, then to Webster, crossing streets in that town overhead. From Webster the line will rise again to Mount Daniel Summit and descend to Douglas, Millville

Heights, and finally to the line between Massachusetts and Rhode Island. The New York, New Haven and Hartford Rd. is crossed overhead a mile west of Douglas and again at a point 2,000 ft. north-west of the State line.

Lachine, Jacques Cartier and Maisonneuve Ry.—The decision of the Quebec Legislature, not to allow any more level crossings in Montreal, is likely to considerably modify the company's plans. The line is projected to give the G.T.R. access to the water front at the east end, where there are larger manufacturing concerns. In order to get into that district the line will have to cross a number of streets, the levels of which are such that the construction of subways or overhead bridges would be very expensive. An alternative route with a terminus at some distance north from the waterfront, has been surveyed, but it is not so convenient to the factories as the route first laid out.

Montreal Level Crossings.—In an interview, June 13, W. Wainwright, Second Vice President, said the company's plans for the elimination of level crossings in Montreal would be filed Aug. 1. It was proposed to apply to the Railway Commissioners for approval of the same. The plans would provide for doing away with 13 crossings between Bonaventure Station and Turcot village, west of St. Henri, at an estimated cost of \$4,000,000. An important question to be decided by the Board will be the proportion in which the cost of the work will be divided between the company and the city.

Montreal-Ottawa Line.—It is reported that negotiations are in progress between the company and the Dominion Government which will result in the building of a second track between Coteau Junction, Que., and Ottawa, which would give double track connection between Montreal and Ottawa, 116 miles. The Montreal-Ottawa trains run over the existing double track line to Coteau Jct., 38 miles, so that the second track will be required on 78 miles, which forms part of the Canada Atlantic Ry. The general understanding is that the projected work is being contemplated in connection with the completion of the National Transcontinental Ry. One of the G.T.P.R. plans is the building of a branch southerly to Ottawa, and if a double track were provided from Ottawa to Coteau Jct., trains from the west could be taken into Montreal without disturbing the present traffic.

Toronto Belt Line.—We are officially advised that arrangements are being made to rebuild the section of the old Belt Line between Fairbank Jct. and the west side of Yonge St., and to use it for freight and switching service only. This section extends from the junction of the line with the old Northern Ry. to Yonge St. A portion of the line east of Yonge St. is used by the Canadian Northern Ry.

Ottawa Terminal Station.—C. M. Hays, President G.T.R., made an inspection of the work in progress at the new terminal station and hotel at Ottawa, recently. He expressed his satisfaction with the progress made, and stated that it was expected to have the station completed in the fall, and the hotel ready for the summer traffic of 1911.

Brantford Improvements.—G.T.R. officials and representatives of the city council of Brantford, Ont., had a conference June 6, with reference to the building of a switch into the Holmedale district. The route proposed by the city is from the G.T.R. main line, skirting the westerly limits of the Institute for the Blind, via St. Paul's Ave. to Holmedale. The Council asks that this line be completed and utilized as a part of the Tillsonburg branch, and so do away with a number of level crossings on that branch's existing route through the city. (June, pg. 473.)

Great Northern Ry. Lines in Canada.

Midland Ry. of Manitoba.—The recent negotiations between representatives of the C.N. Ry. and the railway committee of the Winnipeg city council have resulted in an agreement by which, in order to cross various streets, six subways will be constructed at Brant St., Tecumseh St., Elgin Ave., lane between Elgin and Ross Streets, Ross St., and Nena St. A resolution was passed by the committee agreeing to a level crossing at McPhillips St., provided that a subway or overhead bridge be provided when the council at some future date might decide it was necessary, and that in the meantime the crossing be protected to the City Engineer's satisfaction. The company is allowed six months from July 1 to construct the subways, and the whole work has to be completed by April 1, 1911. The agreement applies to the entry of the line into the city, and the work to be completed by April 1, includes the track, shunting yards and freight sheds. These latter will take up the whole of the property acquired by the company between Ross and Pacific Avenues, west of Isabella St.

Vancouver, Victoria and Eastern Ry. and Navigation Co.—In a recent interview at Keremeos, B.C., J. H. Kennedy, Chief Engineer, said construction on the line was proceeding satisfactorily beyond Princeton, but he did not think that any tracklaying would be done this year. A contract has been awarded to Ferguson for clearing about seven miles of the right of way in the vicinity of Abbotsford.

The by law confirming an agreement made between the company and the city council was voted upon by the citizens of Vancouver June 28. The city in 1907 granted certain lands on False Creek, east of Westminster Ave., to the Vancouver, Westminster and Yukon Ry., which company transferred them to the V.V. and E. Ry. This latter company acquired other lands in the same vicinity, and being desirous of obtaining further areas, after considerable negotiations with the city, an agreement was entered into by which the city grants the company, subject to Provincial and Dominion sanction, all its right to the bed of False Creek, east of Westminster Ave., above the ordinary high water mark, except the area to be occupied by Boundary Ave., extended 66 ft. from the north shore of False Creek to Glen Drive on the south shore, and some other small areas near by. The company agrees to reclaim the territory and to lay out its freight and passenger terminals there, within five years, and to expend on the work not less than \$2,500,000. A union passenger station is to be built near the intersection of Park Lane and Prior St., for the use of the G.N.R., the Northern Pacific Ry., the G.T. Pacific Ry., the Canadian Northern Ry., or any other railway which may in future secure an entrance to the city. (June, pg. 439.)

A. Ramsey, local manager Canadian Baggage Transfer, was recently fined \$3 and costs for trespassing on C.P.R. property at Winnipeg, for the purpose of soliciting orders for his company. He appealed the case, and the C.P.R., not appearing, the appeal was upheld, the C.P.R. to pay the costs.

During April, 16 employes were killed and 40 injured, in the course of their work on Canadian railways. Of the fatalities, six were due to being run over, and five each to derailments and to falling material; while of the other accidents, 14 were due to derailments, eight to falling material, seven to being run over, three each to collisions, to machinery and to flying material, and two to falls.

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Railway Construction Notes.

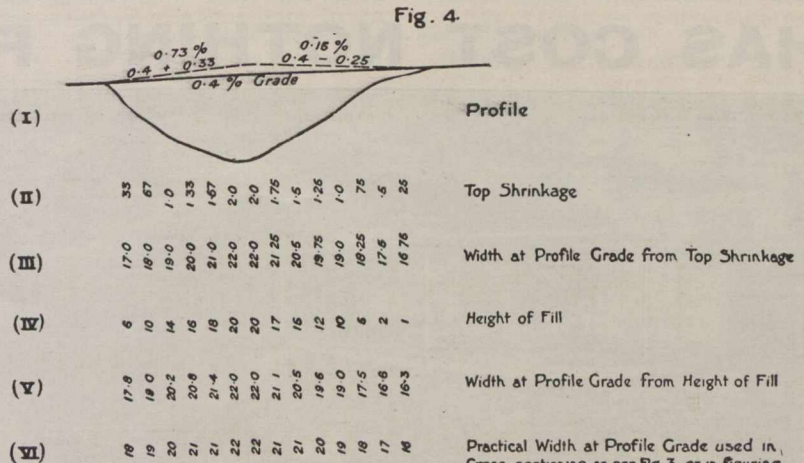
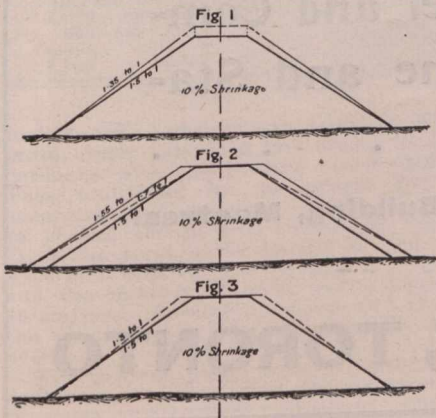
This paper is compiled from notes made by the writer whilst Resident Engineer of Construction for the C.P.R. grade reduction and revision, Medicine Hat, section, 1907-8. It is submitted primarily with a view to elicit the practice of the profession with regard to shrinkage and overhaul, and the discussion on points raised herein, the author trusts, will be of greater value than the paper itself.

SHRINKAGE.—The first question that comes up in this connection is, "What is the contractor to be paid for?" On prairie work, when light, embankment quantities are often taken, and, considering the practical impossibility of accurately measuring shallow borrow pits, as left by the generality of contractors and sub-contractors, it would seem to be the most accurate method. If, however, work is paid for from cut quantities, to be rational, all borrow pits must be staked and measured. The practice of paying for cuts up to limit of haul and balance on embankment quantities is not logical. In the case of excavation quantities, the question of shrinkage is not a live one with the contractor, but the reverse is the case when embankment is paid for.

A method of applying shrinkage is required to be sufficiently elastic to meet the variety of conditions met with in the field, and at the same time sufficiently exact to do justice as between the company and the contractor. This question is often a bone of contention between them on account of the magnitude of the quantities involved being overlooked.

On side-hill ground, and when cuts and fills alternate rapidly, and are of considerable extent, the theoretical shrinkage, if applied on top, would lead to anomalous conditions. When track laying has closely followed construction, cases are not unknown where the top shrinkage applied has had to be removed, or where, as illustrated in fig. 4, the shrinkage, if not immediately taken up by settlement, might exceed the permissible grade. From these considerations it would appear reasonable to omit raising the fill above profile grade and applying side shrinkage only to make a full shoulder so as to carry the material required to make up to grade as bank settles.

Fig. 1 shows the usual method of applying shrinkage, whilst figs. 2 and 3 show modifications of this method according as to whether or not excess quantities are permissible, or whether or not it is thought desirable to steepen the side slopes. Setting the slope stakes 1.3, 1.4, 1.6 or 1.7 to 1 instead of the customary 1.5 to 1 is easily done in the field by adding or subtracting 1-10 or 2-10 for every foot in height of fill to the 1.5 to 1 half breadths. Tables 1, 2, and 3 are inserted for purposes of com-



Note discrepancy between III and V.

parison; the quantities being based on these different methods of applying shrinkage (figured to profile grade only) whilst the actual percentage increase from the standard roadbed and side slopes, is stated.

To provide the full shoulder (always desirable), the width required at profile grade from considerations of height of fill at that point (fig. 4) is taken, reduced for practical purposes to the nearest foot and slope stakes set in accordance with fig. 2 or 3. This representation in the cross section notes of the quantities to profile grade represents the cross sections as they are staked without additions or alterations, and avoids complication and consequent chances of error in figuring the quantities. It gives a definite and straightforward basis to work on, and enables another man to pick up one's notes and follow what has been done.

In paying for embankment quantities if an arbitrary classification of shrinkage is adopted, such as:

- Team and slip work Nil
- Wheeler and wagon work 5%
- Dumpcar and wheelbarrow 10%

and from a consideration of the fact that earth, when first moved by these several methods, expands about that same percentage, it would appear that the old expedient of putting on shrinkage and paying for neat embankment quantities is not very wide of the mark after all.

TABLE 1.

Fill Ht. in ft.	Slopes.	R.B.	Cubic yds.	5% Fig. 1 Cub. yds.	Slopes.	Actual 10% Fig. 1 %	Actual %
10	1.5	16	1,428	28	1.425	2	5
20	1.5	16	3,407	111	1.425	3	6
30	1.5	16	6,778	250	1.425	4	7

TABLE 2.

Fill Ht. in ft.	Slopes.	R.B. for setting stakes	R.B. used in figuring X sect.	Cubic yds.	Nominal shrinkage 5%—Fig. 2 Cub. yds.	Actual percent-age increased quantities over a 16' roadbed 1.5—1
10	1.6—1	16	17.5	1,185	30 + 37 = 67	6%
20	—	—	10	3,555	118 + 148 = 266	8%
30	—	—	20.5	7,111	266 + 333 = 599	9%
10	1.7—1	16	19	1,222	63 + 74 = 137	12%
20	—	—	22	3,703	252 + 296 = 548	16%
30	—	—	25	7,444	566 + 666 = 1232	18%

TABLE 3.

Fill	Slopes.	R.B. for X section and setting stakes	Cubic yds.	Nominal shrinkage 5% Fig. 3 quantities over 16' roadbed 1.5—1	Actual percent-age increased quantities over 16' roadbed 1.5—1
10	1.4	17.5	1,166	18	1%
10	—	19.0	3,481	74	2%
30	—	20.5	6,944	166	3%
10	1.3	19	1,185	37	3%
20	—	22	3,555	148	4%
30	1.3	25	7,111	333	5%

OVERHAUL.—Here, again, the first question that arises is, "What is the contractor to be paid for, theoretical or actual overhaul?" If paid for actual overhaul, it often happens that through

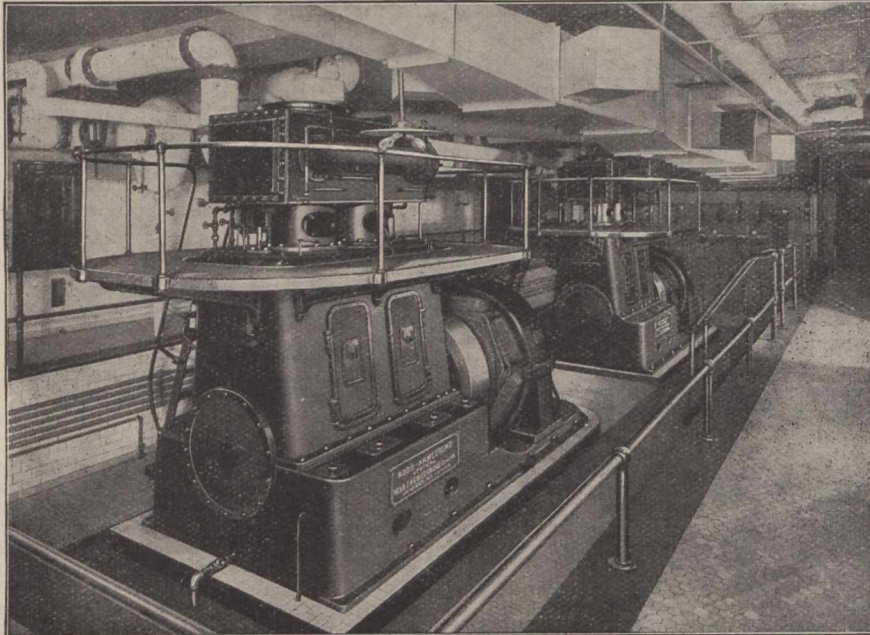
some extraneous conditions as, for instance, down-hill haul, by the method of handling the work, or perhaps on account of a structure not being built in time, the most economical distribution of the material, from the company's point of view, is not followed out. When, however, the material expands considerably, as in a rock cut, the contractor would get the worst of the bargain unless the actual haul is used.

Another point in connection with the actual haul made by contractor is the case where borrow is made between two hauls; generally this borrow is put in by slip work, all in the bottom of the fill, and the actual haul made difficult of determination without elaborate figuring and close watching of the work, as the two hauls close on completion, and is often impossible under these circumstances. In this case it is necessary to give the theoretical overhaul, unless, in cases of rock, when the method shown in fig. 5 should be used, assuming some equitable percentage of expansion as found by measurements or taking actual haul.

Fig. 5 illustrates the method, which is self-explanatory, of figuring expansion in overhaul. Fig. 6 is a typical cut hauling both ways, and serves to illustrate some of the points raised, but on account of the small quantities of overhaul, does not bring out very forcibly the discrepancies in the various methods

of calculating. From this figure it is evident that the c.g. of cut is not the most economical distribution point, but the point that such a cu. yd. can be hauled either way at the same cost is the point

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—OFFICE AND WORK—

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wanted. Considering the many assumptions necessary in preparing the over-haul diagram on account of shrinkage and expansion, it would appear that the large scale diagrams are not offset by increased accuracy sufficiently to warrant their use, and that a diagram on the field profile (fig. 6) will give the information to as great a degree of accuracy as the method warrants, besides being always available for giving the contractor his points for distribution of material on the ground.

By using the planimeter various methods of distribution can be easily computed. Set the index to read square

1000 ft.) rather than haul, the extra price for overhaul enabling him to do this. Care must be exercised, or one is apt to pay him for material wasted at his own expense.

ROAD CROSSINGS.—Although relatively unimportant, yet having to be established on prescribed lines and at regular intervals, often occur in places where the quantities involved are considerable. Also as they frequently cross the roadbed at an oblique angle, a method of figuring them may be of service, although open to criticism from its being an approximation only. Figs. 7 and 8 show a road crossing on a skew.

lateral edges.

C (fig. 7) can be divided into pyramid and tetrahedron:

$$\text{Solidity of pyramid} = \frac{\text{Area } X}{\text{Cos } \theta} \times \frac{1}{3}$$

(half breadth— $\frac{1}{2}$ roadbed)..

$$\text{Solidity of tetrahedron} = \frac{1}{2} \text{ depth at } M \times (\text{half breadth} - \frac{1}{2} \text{ roadbed}) \times \frac{1}{2} \text{ roadbed of road crossing.}$$

GRADING MACHINES.—Figs. 9 and 10 are diagrammatic plan and rear elevation of a grading machine, which requires 42 ft. to work in, but has a 3 ft. extension section on the elevator, so that when required, this can be removed, making it capable of working in a 36 ft.

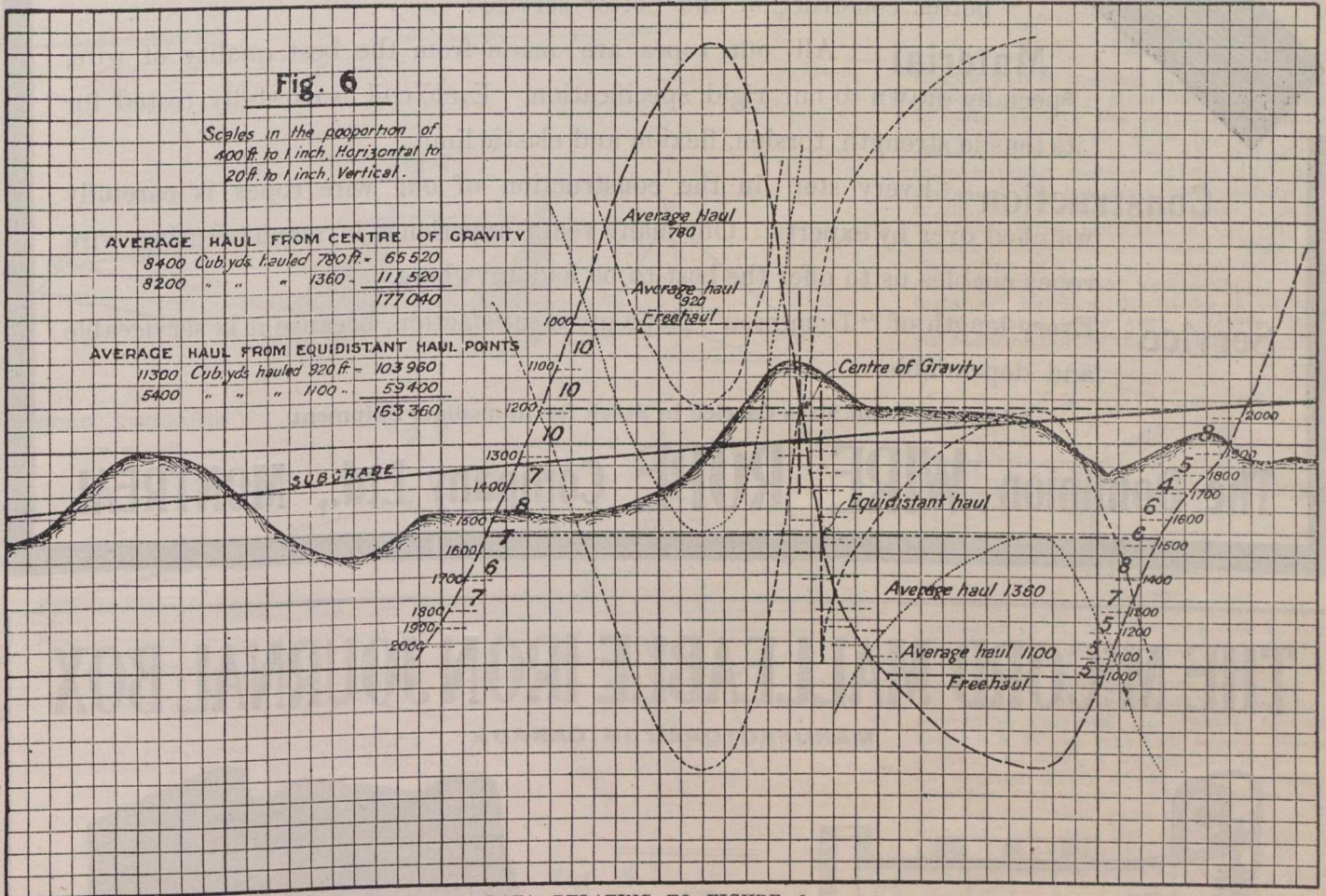


Fig. 6

Scales in the proportion of 400 ft. to 1 inch, Horizontal to 20 ft. to 1 inch, Vertical.

AVERAGE HAUL FROM CENTRE OF GRAVITY

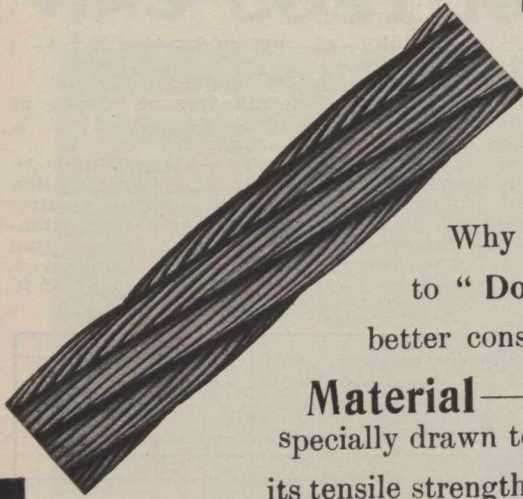
8400 Cub.yds. hauled 780 ft. = 65520
8200 " " " 1380 " = 111520
177040

AVERAGE HAUL FROM EQUIDISTANT HAUL POINTS

11300 Cub.yds. hauled 920 ft. = 103960
5400 " " " 1100 " = 59400
163360

DATA RELATING TO FIGURE 6.

HAUL FROM EQUIDISTANT POINTS.		FOR COMPARISON.		HAUL FROM EQUIDISTANT POINTS.		HAUL FROM CENTRE OF GRAVITY.		FOR COMPARISON.	
1,000	50	1,000	50	500	50	500	50	250	100
1,000	150	1,000	150	500	150	500	150	750	"
1,000	250	1,000	250	500	250	500	250	1,250	"
700	350	700	350	700	350	700	350	2,450	"
800	450	800	450	800	450	800	450	3,600	"
300	520	700	550	200	520	1,040	"	"	"
4,800	12,110	600	850	3,200	9,340	12,110	21,450	800	950
HAUL FROM CENTRE OF GRAVITY.		700	750	6,500	23,580	400	750	500	850
1,000	50	6,500	23,580	400	750	500	850	7,600	100
900	145	1,805	"	1,500	2,250	1,500	2,250	2,020	"
1,900	1,805	"	"	500	250	500	250	1,250	"
				1,500	2,250	1,500	2,250	2,020	"
				500	250	500	250	1,250	"
				1,500	2,250	1,500	2,250	2,020	"
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				500	250	500	250	1,250	"
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				500	250	500	250	1,250	"
				1,500	2,250	1,500	2,250	2,020</	



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Why experiment continually with wire rope you know is not up to "Dominion" quality—quality that means better material, better construction and better service?

Material—All our ropes are made from the best quality of wire, specially drawn to our rigid specification. Each coil is carefully tested for its tensile strength, torsion, flexion and elastic limit.

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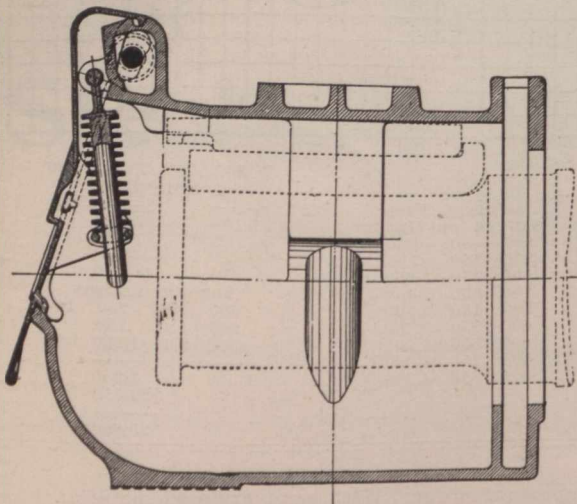
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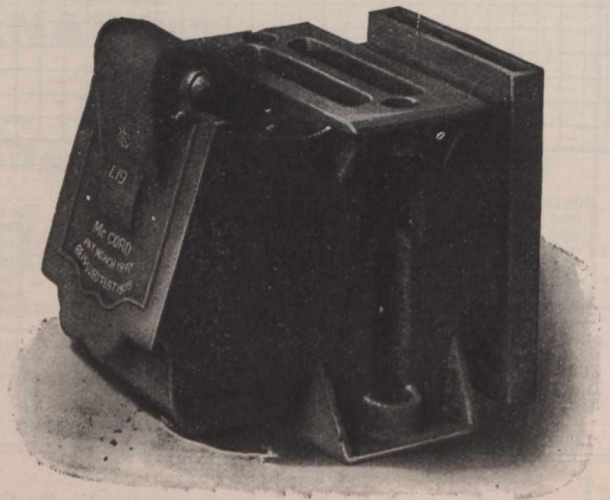
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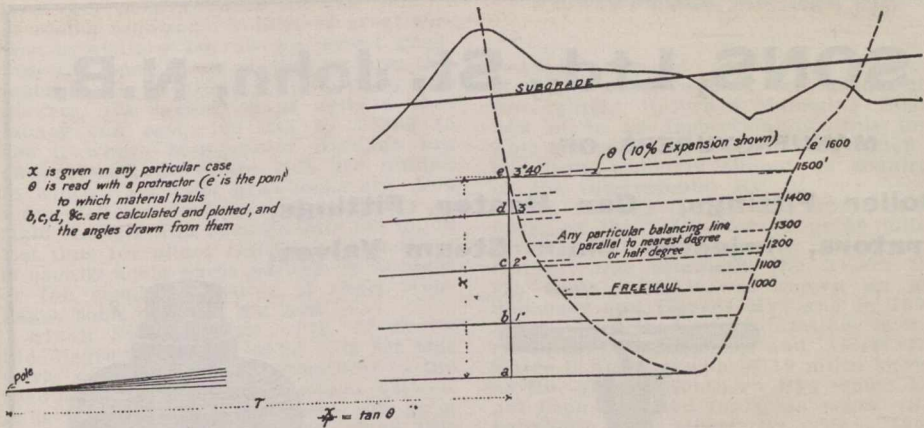


Fig. 5

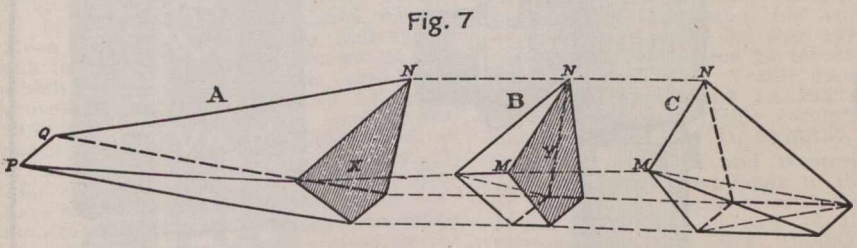


Fig. 7

ROAD CROSSING
Not to scale

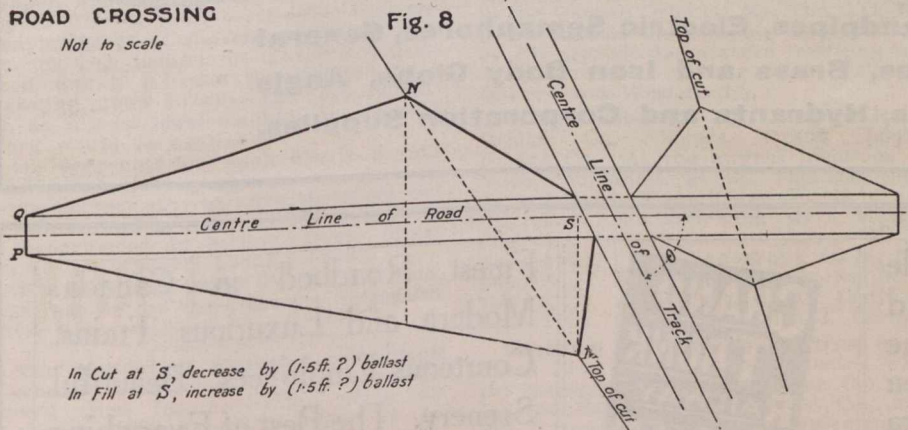
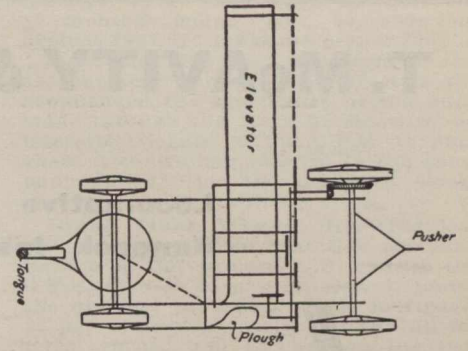
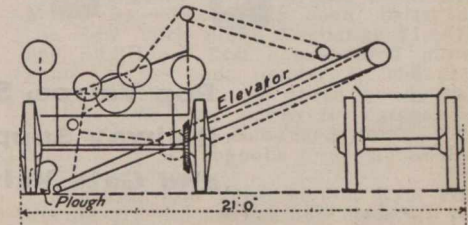


Fig. 8



PLAN
Fig. 9

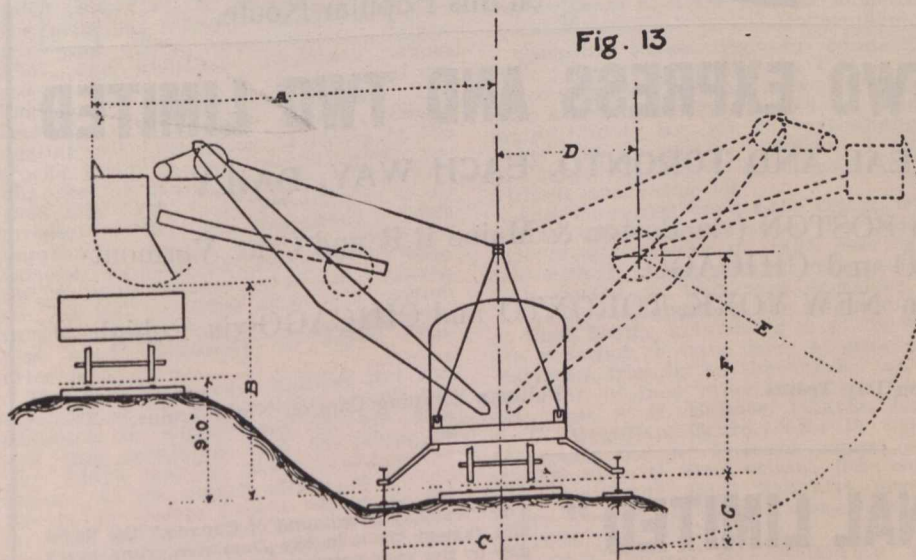
furrow and is, besides, in the way of the wagons. On the Medicine Hat section, in order to give the required width for these machines to work in, cuts were staked, as shown in fig. 11, and in the cross-hatched section of fig. 12. This increased the cut quantities slightly (as in fig. 12 at ends of cut only), but the material being required in the fill, the overhaul only was increased. This cutting away of the toe of slope would be objectionable, if not impossible, in some instances, but here the banks caved back to a natural slope very quickly. With six pairs of horses the machine could be



ELEVATION
Fig. 10

turned in 36 ft. by crowding, but to turn quickly more room is required. With a cut, say 1232 ft. long, the lost time turning, at 2 1/2 min. per turn, amounts to 1 1/2 hours per day, while the lost time ploughing furrows to waste for the lower 5.6 of cut was two hours. Whilst actually at work a wagon was loaded on an average every 65 seconds, including stop for next wagon. This gives an output for the main part of cut, 404 wagons=505 cu. yds. per day, and for the lower 5.6, 307 wagons, at say, 1.25 cu. yds.=384 cu. yds. per 10-hour day, which

Fig. 13



STEAM SHOVEL DATA

STYLE	A	B	C	D	E	F	G
90 Ton Shovel	31.9	17.0	20.3	10.0	21.9	18.6	3.3
70 "	30.0	15.0	17.9	9.6	20.6	16.0	4.6
45 "	26.0	14.0	17.0	7.0	19.0	13.8	5.4

Fig. 11

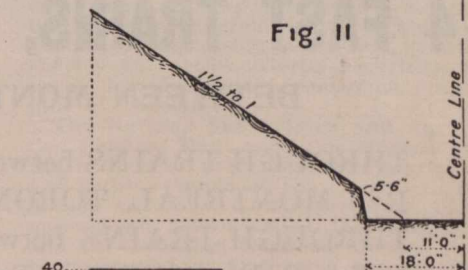
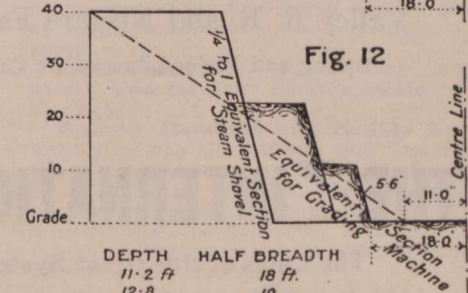


Fig. 12

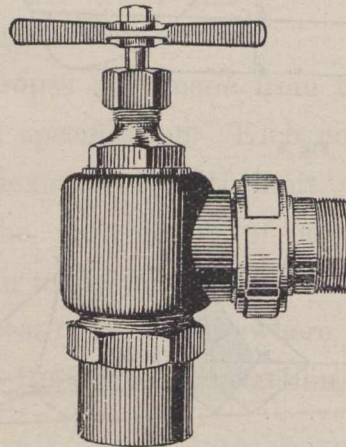
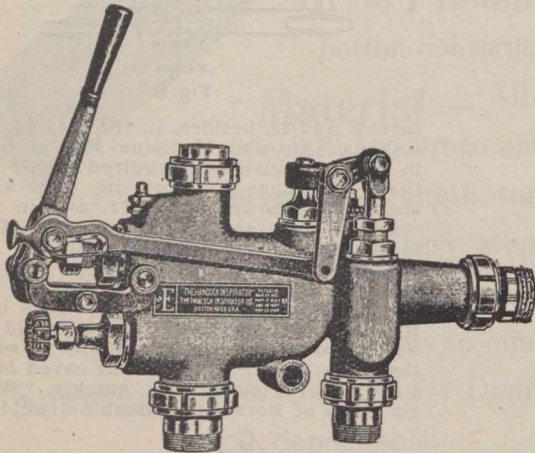


DEPTH	HALF BREADTH
11.2 ft	18 ft.
12.8 "	19 "
14.4 "	20 "
16.0 "	21 "
17.6 "	22 "
19.2 "	23 "
etc	etc

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THROUGH TRAINS between NEW YORK, TORONTO and CHICAGO via Lehigh Valley R. R. and Niagara Falls.

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W. E. DAVIS, Passenger Traffic Manager, Montreal.

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is a very poor showing for the number of teams required. Whilst of great service in shallow borrow pit, street grading, and open work of that nature, this machine is all that is claimed by the makers, the writer is of opinion that money can easily be lost by trying to use it where boulders or hardpan are encountered, or where cuts are limited in width. Its chief drawbacks are: Too many delicate parts, frame not heavy or rigid enough, and consequently too much lost time for minor repairs, and as there is usually a big outfit waiting on account of the repairs, a series of short stoppages soon make a big loss.

STEAM SHOVEL WORK.—Fig. 12 shows the diagram used to stake cuts for this work, giving equivalent quantities to the roadbed used, viz., 22 ft. slopes $1\frac{1}{2}$ —1. It is advisable to stake these cuts to a $1\frac{1}{2}$ —1 also, and cut a grip along this line to induce the bank to break back to the correct lines. If this is not done it breaks away in pockets. Fig. 13 will be found useful in determining what a given size of shovel will do, and enable one to lay out the most economical lifts which should be taken in making a thorough cut. The question of water supply for the shovel, its quality and quantity, should never be overlooked, as it materially affects the cost of the work. The use of heavier steel than the dippers and dump cars call for, is not economical, as it costs too much to move around and handle. An all around shovel on traction wheels with a $1\frac{1}{2}$ or 2 yd. dipper, and $2\frac{1}{2}$ yd. cars on 30 lb. steel, would often be more serviceable than the heavier types of shovels, where the frequency and distance of moves is considered, and if it could be operated by a gasoline motor to solve the fuel difficulty, an almost ideal machine for railway work would be available.

On deep cuts and high fills it is very convenient for purposes of running fence stakes, etc., to have them set out before ground is broken, as great trouble is experienced in setting them afterwards, particularly around curves.

The foregoing paper by F. P. Wilson, was read before the Canadian Society of Civil Engineers.

The Manual of Statistics and Stock Exchange Year Book for 1910, has been issued from the publishing office, 20 Vesey St., New York City. This is the 32nd annual issue of a carefully compiled review of the financial position of the principal railways—steam and electric—and other transportation, industrial and financial companies whose stocks are dealt in on the principal exchanges in the U.S. and Canada. The section near the end of the volume, dealing with the range in prices of the stocks dealt in on the principal exchanges of North America for 1907, 1908 and 1909, is of importance to all investors. There are also added a large number of tables covering prices of various commodities, visible wheat supply, average prices, value of exports, etc., as well as much other information to which all interested in financial matters need constantly to refer. The price is \$5.00.

The New Brunswick Railway Act was amended at the last session of the Legislature, by substituting for sec. 9 a new one providing that the right of way which may be taken without the consent of the owner, shall not exceed 100 ft. in width, except where necessary for banks, slopes, etc., or for stations, yards and other buildings. A new section, 90, was added providing for the making of agreements for the construction of temporary or permanent spur tracks, to gravel and ballast pits, etc.

Sir Wm. White, who was recently elected a director of the G.T.R. in the place of Sir Chas. Rivers Wilson, was in Montreal early in June.

Railway Finance, Meetings, Etc.

Albert Ry.—A press dispatch from Moncton, N.B., June 11, stated that the Government Railways Managing Board had made an inspection of this line. This is one of the branch lines which it has been proposed should be acquired by the Intercolonial Ry.

The railway extending from Salisbury, on the I.C.R. for about 50 miles, through Albert County to Albert and Harvey, was originally the Albert Ry. For some years it was known as the Salisbury and Harvey Ry., and in 1909, after a sale and reorganization, it was renamed the Salisbury and Albert Ry. There is an extension of 19 miles known as the Alberta Southern Ry., which has not been operated for some years. (See Salisbury and Albert Ry., May, 1909, pg. 357.)

Alberta Ry. and Irrigation Co.—Approximate net profits from all sources, exclusive of land sales, for April, \$30,360, against \$10,089 for Apr. 1909. Cumulative net profits for 10 months ended Apr. 30, \$407,516. Traffic receipts for May, \$31,863 against \$22,293 for May 1909. Aggregate traffic receipts for 11 months ended May 31, \$355,137.

Atlantic, Quebec and Western Ry.—Application is being made to the Board of Railway Commissioners for approval of an agreement of sale of the lines forming the Baie des Chaleurs section of the Atlantic and Lake Superior Ry., from Matapedia to Paspébiac, Que., to the Quebec Oriental Ry. The Q.O. Ry. is the title of the company incorporated by the Quebec Legislature, working under a Dominion charter as the Atlantic, Quebec and Western Ry.

Canada Southern Ry., Niagara River Bridge Co.—Niagara Grand Island Bridge Co. At the annual meetings of these companies, at St. Thomas, Ont., June 1, with Nicol Kingsmill, K. C., in the chair, the following were elected directors for the current year:—W. K. Vanderbilt, F. W. Vanderbilt, C. M. Depew, W. H. Newman, W. C. Brown, J. E. Brown, E. A. Wickes, L. C. Ledyard, New York, and H. B. Ledyard, Detroit.

Canadian Northern Ry.—A trust deed, dated Jan. 27, has been deposited with the Secretary of State, between the C.N. R., the British Empire Trust Co., and the National Trust Co., supplementary to a trust deed of Oct. 21, 1908, securing an issue of $3\frac{1}{2}$ % 50-year debenture stock, guaranteed by the Government.

Canadian Pacific Ry.—In connection with press reports that the C.P.R. had secured control of the New York, Ontario and Western Ry., and of the Washington County Ry., Sir Thos. G. Shaughnessy said the stories represented cases of "some one buying a railroad for us without consulting us."

Another report credits the C.P.R. with having under consideration the formation of a company to take over and deal with its lands. Similar reports have been denied on numerous occasions.

The bonds issued by the Midland Ry. of Nova Scotia, amounting to \$1,200,000, are reported to have been acquired by "interests friendly to the C.P.R." at 85 per cent. of face value, from the holders: Hon. S. H. Holmes, Halifax, N.S.; T. G. McMillan, Truro, N.S.; P. Lyall, Montreal; the A. Putnam estate, and the Sir Robt. G. Reid estate. The company's common stock has also passed under the control of the same friendly interests.

Central Ontario Ry.—Following are the directors and officers for the current year:—President, C. E. Ritchie; Vice President, J. J. Warren; General Manager, G. Collins; other directors, J. H. Moss, E. B. Stockdale.

Dominion Atlantic Ry.—Gross earnings for Apr., \$86,000 against \$89,773

for Apr. 1909. Aggregate earnings for 10 months ended Apr. 30, \$990,750, against \$953,977 for same period 1908-9.

A circular has been addressed to the shareholders in which the directors recommended the acceptance of the offer made through the Bank of Montreal by interests friendly to the C.P.R. to purchase a controlling interest in the company at 60% for the preferred stock, and 20% for the ordinary stock.

Grand Trunk Western Ry.—Notification has been given that this company (which is the western U.S. end of the G.T.R. Co.) is to pay on Dec. 1, under the optional provision of the mortgage, 85 per cent. of the principal and all interest earned and accrued on the second income mortgage bonds, of which \$1,500,000 was originally issued.

Intercolonial Ry.—The financial statement for the fiscal year ended Mar. 31 shows a revenue of \$9,268,234.99, and operating expenses of \$8,645,070.33, leaving a surplus of receipts over operating expenses of \$623,164.33. The revenue from freight was about two-thirds of the total, and that from passengers about one-third. There was expended on capital account during the year \$1,278,409.45.

Kettle River Valley Ry.—A special meeting of shareholders has been called for July 8, in Toronto in connection with the issuing of first mortgage bonds.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—There has been listed on the New York Stock Exchange \$1,207,000 additional first consolidated mortgage $4\frac{1}{2}$ % per cent. bonds. Of the proceeds of the sale of these bonds \$1,200,000 was used to pay for extensions, and \$7,000 was exchanged for a like amount of Minneapolis and Pacific first mortgage bonds.

Montreal and Vermont Jct. Ry.—Following are the officers and directors for the current year:—President, C. M. Hays, Vice President, E. H. Fitzhugh; A. H. Gilmour, Secretary-Treasurer; W. H. Chaffee, Assistant Secretary-Treasurer; other directors, G. C. Jones, E. C. Smith and C. W. Witters.

New Brunswick Coal and Ry. Co.—The New Brunswick Legislature has authorized the Government to pay to the Dominion Government \$48,919.05 on account of the N.B.C. and Ry. Co., as follows: For rails and fastenings supplied during construction in 1902-03, \$39,459.11; for car service, freight balances, ticket balances and car repairs, \$9,459.94.

Quebec and Lake St. John Ry.—The bondholders at a meeting held in London, England, May 28, decided to continue the receivership with a view of dealing with pressing debts, and to raise £50,000 on special priority securities, so as to provide for the continued operation of the line.

The Railway Share Trust, and Agency Co., London, Eng., acting as trustees for the holders of prior lien, first mortgage and income bonds of the Q. and L. St. J. Ry., and A. J. Gorrie, Receiver, have entered an action against the company, and the Canadian Northern Quebec Ry., to recover about \$8,000,000, the amount of bonds outstanding, and overdue interest.

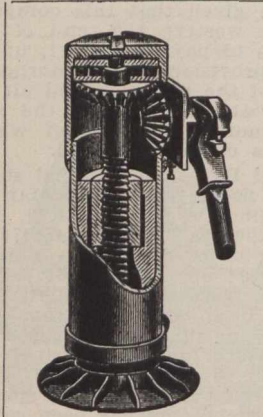
Temiscouata Ry.—Profits for Apr., \$1,010, and for four months ended Apr. 30, \$9,646.

Toronto, Hamilton and Buffalo Ry.—Following are the officers and directors for the current year:—W. C. Brown, W. H. Newman, C. F. Cox, New York; H. B. Ledyard, Detroit, Mich.; Sir Thos. G. Shaughnessy, D. McNicoll, Montreal; E. B. Osler, N. Kingsmill, W. P. Torrance, W. L. Scott, Toronto.

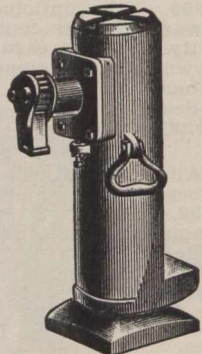
A Quebec jury has given \$25,000 damages to a man who was permanently injured by the collapse of the Quebec Bridge in Aug., 1907.

NORTON JACKS

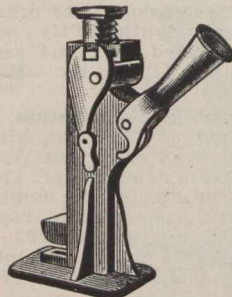
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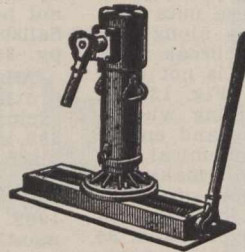
Sectional V view



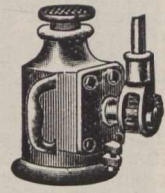
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15 Ton Track Jack



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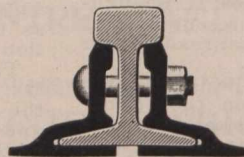
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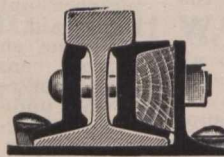
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RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Albert and Moncton Ry.—The New Brunswick Legislature has authorized the Aluminum Production Co., of N.B., to build a line from its mines to Hillsborough, and thence to Moncton, with such branches, spurs, etc., as may be necessary, and to be known as the Albert and Moncton Ry. The Aluminum Production Co. has acquired 1,480 acres of mineral lands in Albert County, covered by mining lease 81, granted in 1891 to H. A. Calhoun, and transferred by him to J. L. Peck.

Alberta, Peace River and Eastern Ry.—Press reports from Pincher Creek, Alta., state that those interested in this newly incorporated company are completing arrangements to begin construction on the Pincher-Cardston section, and that it is proposed to use the McGuire survey, placing the station at the police reserve, and to start work by the end of July. (June, pg. 447.)

Algoma Central and Hudson Bay Ry.—A contract has been let, we are officially advised, to the O'Boyle Construction Co., Sault Ste. Marie, Ont., for building the portion of the line from Hawke Lake Jct. to Hobon, on the C.P.R. transcontinental line, about 30 miles. This piece of line will connect up the Michipicoten branch with the C.P.R.

The work to be done on the line between Hawke Lake Jct. and Hobon, on the C.P.R., will be difficult, as the country is rocky and broken. The maximum gradient will be 0.6%, and the maximum curvature 12 degrees. There will be 17 trestle bridges on the 31 miles of line. The company will build a round house at Hobon.

London, Eng., cables state that arrangements have been completed for placing on the market £770,000 first mortgage 5% bonds, at an early date. The bonds are guaranteed, principal and interest by the Lake Superior Corporation.

Anticosti Island.—We are advised that arrangements are being completed for the building of a logging railway of about 10 miles. It will extend from the logging camps in the interior to a convenient shipping point.

British Columbia and Alaska Ry.—Reports from Lytton, B.C., state that survey parties have been organized to proceed with the location of this projected line; that the first party, in charge of J. Early, will work between Lytton and Eagle Lake, and the second party, in charge of E. C. Simpson, will work from Fort George, and that as soon as these surveys have been completed a branch from Lillooet to Vancouver will be located. The provisional directors named in the act of incorporation, passed last session of the B.C. Legislature, were local men acting as representatives of a New York syndicate which proposes to construct a railway from Vancouver through B.C. and Alaska. The syndicate has been incorporated in the State of Delaware with a capital of \$12,000,000, with the title of the British Columbia Ry. and Development. R. Smalles, Greenwood, B.C., one of the provisional directors, stated that the surveys from Lytton to Fort George were being made first, in order to secure the right of way, but the first section of the line to be constructed would be that from Vancouver to Lillooet. (May, pg. 349. See also Howe Sound and Northern Ry.)

Chibougamou District.—The commission which the Quebec Government has appointed to investigate the resources of the Chibougamou district consists of Dr. A. E. Bailou, E. R. Laribault, of

the Provincial Geological Survey, and J. G. Gwillim, of the School of Mines, Kingston, Ont. The first two will investigate the geology of the district, and the last named the economic value of the mineral showings. Topographical surveys will be made by — Valliquette, Quebec, and the commissioners will be accompanied by a party of student assistants. The commissioners have nothing to do with locating a route for a railway, although, if their report on the country is favorable, the Government, as stated by the Premier, will consider the question of either aiding the building of a line, or building one as a provincial undertaking.

Delaware and Hudson Co.—The Dominion Government, under the terms of the act granting aid to certain railways, has entered into a contract with the Quebec, Montreal and Southern Ry. (the title of the D. & H. Ry.'s Canadian line) for the construction of bridges over the Nicolet, Gentilly and Becancourt Rivers, Que. These bridges are on the section of the line completed in 1908. (Oct., 1909, pg. 743.)

The Eastern Canada Lumber and Construction Co. has been incorporated in New York City for the purpose of taking over and developing the Prescott property of 20,000 acres of timber lands in Albert County, N.B. The company has also acquired 3.5 miles of railway extending from the saw mill to the wharf at Harvey. The officers are: President, W. H. Malcolm; Vice President, J. H. Moran; Treasurer, A. Tippett; Secretary, J. W. Clow, all of New York.

The Fredericton and Grand Lake Coal and Ry. Co. was incorporated last session of the New Brunswick Legislature to build a line from Gibson, on the Intercolonial Ry., to a junction with the N.B. Coal and Ry. Co.'s line near Minto. The provisional directors are:—A. R. Slipp, H. P. Zimmerman, C. F. Chestnut, H. W. Words, A. B. Wilmot, D. K. Hazen, P. Glasier. The company is authorized to arrange for running rights over the Intercolonial Ry., the C.P.R., the New Brunswick Ry. and Coal Co.'s line, and the line which may hereafter connect with the National Transcontinental Ry. (May, 1910, pg. 349.)

Halifax and Eastern Ry.—An order-in-council has been signed by the Lieut.-Governor of Nova Scotia, under the authority of chap. 1 of the statutes of 1906 incorporating a company with this title, having for its object the construction of several lines of railway for the development of the Alfred Dickie and Co.'s timber limits in Halifax and Guysboro counties, which have been acquired by the syndicate now incorporated. The company is given power to build a railway from Halifax or Dartmouth to Guysboro, with branches to Country Harbor and other points, for the construction of which various projects, subsidized by Nova Scotia and the Dominion, have been put forward during the past 15 years under the titles of the Musquodoboit Valley Ry., New Glasgow and Sunny Brae Ry., Halifax North-eastern Ry., North-Eastern Ry., Halifax and Eastern Ry. The provisional directors are:—J. B. Bartram, Toronto; T. P. Fogg, Toledo, Ohio; G. H. Raw and S. Hirsch, London, England, brokers. The board of directors is to consist of not less than two nor more than nine members of the company. The Governor-in-Council is to have the right to appoint two, who shall not be shareholders. The head office is to be in Halifax or such place in Nova Scotia as the directors determine. The capital stock is to be \$3,000,000. The company is to have free right of way over Crown lands, and the charter is to cease unless the company be actually organized and engaged in business in two years. It is expected that the contract for the construction of the road will be signed in a few days.

Surveys have been made for the line by different companies which from time to time have had the matter under consideration, as well as by the N.S. Government. The Government report, together with the subsidies voted by the Dominion Parliament and the Nova Scotia Legislature, will be available for the new company. (See Halifax and Eastern Ry., June, pg. 449.)

The Hartland and Miramichi Ry. Co. has been incorporated by the New Brunswick Legislature to build a railway from Hartland, Carleton County, to a convenient point on the National Transcontinental Ry. The provisional directors are:—E. A. Britton, D. H. Lamont, S. S. Miller, M. L. Hayward, and H. A. Smith. (May, pg. 349.)

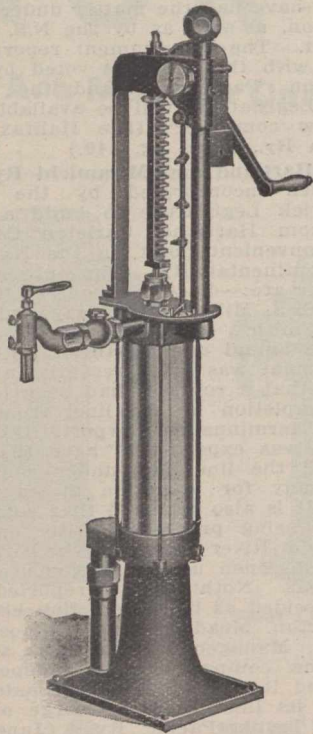
Howe Sound and Northern Ry.—Announcement was made recently in Vancouver that a contract had been let for the completion of the line from the present terminus to Newport, B.C., and that it was expected to have the portions of the line now under construction ready for operation at an early date. It is also reported that construction is being proceeded with on the Marquain River branch, which is intended to open up some extensive timber areas. Nothing, it is reported, has been decided as to construction between Pemberton Meadows and Lillooet. J. C. Gill, Manager, is quoted as stating that the company is an independent one, and it was proposed ultimately to extend its line to Fort George on the Grand Trunk Pacific Ry. (June, pg. 449. See also British Columbia and Alaska Ry.)

Hudson Bay and Pacific Ry.—We are advised that at present only survey work is being done, and that the company is not in a position to give any details as to its ownership, organization or construction programme.

From another source we learn that there is a hitch in the organization proceedings of the company, and that it will be some weeks before permanent directors can be elected. The provisional directors are at variance among themselves and some technical objections, arising out of which one side has obtained an injunction to prevent the others acting, in the transfer of the charter to the new company. "The people have the money and are ready to go on," we are advised. The court proceedings taken in Ottawa show that the difference is between the Canadian and the British directors, against whom an injunction has been issued. The British directors are Colonel Josiah Harris, J. Weston, H. Spicer and J. F. Greville, and along with them is associated in the injunction the Hudson Bay and Pacific Development Co., which they had organized to finance the construction. The Canadian directors are R. Jones, E. E. Latiere, Ottawa; A. Racine, E. H. Lemay, Montreal, and they allege in their complaint that the British directors desire to get control and oust them.

Several conferences have been held at Ottawa between J. A. Taylor, New York, and members of the Government relative to railway construction in the vicinity of Hudson Bay. J. A. Taylor, who has been mentioned as head of the firm, having a contract to build the H.B. and P.R., is said to have as associates W. C. Teebier, P. Tiffany, and E. Van Etten, of New York.

Since the above was written we have been officially advised that the officers and directors are: The Earl of Essex, Lord Tenterden, Col. Sir A. FitzGeorge, Col. N. Fleudver, Col. I. Josiah Harris, J. Western, S. Hemege, W. Vaughan Williams, M. S. Jobling, C. H. Spicer, J. G. F. Greville, (Managing Director); (these directors reside in London, Eng.); H. Spicer, Managing Director in Canada; C. R. J. Bethune, K.C., Ottawa; Secretary, J. G. Hatton; Solicitors, Shepherds



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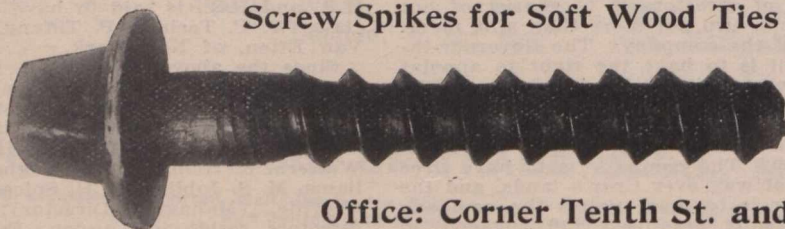
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& Walters, London, Eng.; A. Smith, Ottawa; Auditor, Wm. Pearce; Consulting Engineers, Attwood and Hooper, London, Eng.; Chief Engineer, G. Attwood, Mem. Inst. C. E.; Assistant Engineer, A. H. May; engineer in charge of surveys, L. S. Taylor. The route which the company proposes to lay out is from Prince Albert, Sask., via Cumberland, Cranberry, and Split Lakes to Fort Churchill on Hudson Bay, about 640 miles. In 1902, a general survey was made by J. W. Tyrell, of Hamilton, from Cumberland to Fort Churchill, and last winter a flying survey was made of the country from Prince Albert to Torch River by L. D. Taylor. A complete location survey has been made for 50 miles from Prince Albert, and surveys for the further location are being made under the charge of L. D. Taylor. It has not been decided when the building of the line will be started, but we are advised that it is very probable a beginning will be made very shortly, the question of the contract now being under consideration. (June, pg. 449.)

Intercolonial Ry.—The contract for building a line from Nelson to Chatham, N.B., 8.5 miles, has been let to Morrison and Clark, Summerside, P.E. I. The object is to reduce the heavy gradients on the main line between Nelson and Loggieville.

A. W. Campbell, Deputy Minister of Railways, left Ottawa June 6, for the purpose of making a trip of inspection over the line. He was accompanied by the other members of the Board of Management, and met the officers of the different divisions along the route. At various points he received deputations from local organizations desirous of bringing forward proposals for improvements. At St. John, N.B., June 9, he delivered an address before the Canadian Club, in which he announced that the deep water terminals at that port would be extended. The property to be used in these extensions would be that originally granted by the city for the sugar refining project, and later exchanged by the promoters for some property belonging to the I.C.R.

E. Tiffin, a member of the Managing Board, in a recent interview at Montreal, said the time was coming when it would be officially recognized that Halifax should be both the summer and winter port for the mail steamers. As to the future of the I.C.R. it was recognized that the markets for the country through which the line passed, lay in Montreal and west, and he thought, personally, it would be a good thing, both for the I.C.R. and the Maritime Provinces, if the line were extended to Toronto. (June, pg. 449.)

Kettle Valley Lines.—Surveys for the extension of the line from Grand Forks to Vancouver, B.C., are being completed. H. D. Lumsden, being reported to be in charge of the work. (June, pg. 449.)

London and Port Stanley Ry.—It is estimated that the cost of electrifying this line, owned by the city of London, Ont., will not exceed \$250,000. This includes the laying of a second track, and the provision of a sufficient number of cars. A suggestion is made that the city should run its own electric service and give running rights over the line to the several steam railways running into London and desirous of having a connection with Port Stanley. (April, pg. 271.)

Long Soo and Abitibi Ry.—The Quebec Legislature has incorporated a company with this title, to build a railway from some point on James Bay, between the Ontario and Quebec boundary and the East Main River, and the Long Sault at the foot of Lake Timiskaming, and the Desmoines River, Que., and to connect with the National Transcontinental Ry., and the C.P.R. The company may operate its line by steam, electricity or

other motive power. The provisional directors are:—T. G. Brigham, G. E. Mulligan, D. B. Mulligan, W. E. Hayes, Jr., J. Ayler.

Michigan Central Rd.—The work of raising the track and otherwise improving the main line through Essex county, Ont., is being proceeded with, and will be completed this summer. The tracks of the electric railway which cross the line at Talbot St., Essex, have been raised for some distance on each side of the track to correspond with the new M.C.R. levels.

The old buildings on the site of the proposed new station in Detroit, Mich., have been cleared away, and everything is now ready for making a start on the building. (June, pg. 451.)

Montreal Central Terminal Ry.—Plans showing the company's proposed lines and a tunnel under the St. Lawrence River have been filed with the Department of Railways. The proposed line starts a short distance east of Montreal Junction, north of the Lachine Road, and runs into the city via St. Antoine St. A detour is made north-easterly at Windsor St., between Craig and Dorchester Streets, as far east as Amherst St., where it crosses St. Catharine St., and continues to Delorimier St., passing along between Ontario and Sherbrooke Streets to a junction with the C.P.R. near Viauville. A branch line to the C.P.R. station at Place Viger is shown from near the corner of Craig St. and St. Lawrence Boulevard. Another branch starts from between Amherst and Delorimier Ave., to the river, across to Ile Ronde, thence to Longueuil and on to a junction with the Central Vermont Ry. to Chambly. The company's application to the Dominion Parliament for an extension of time was defeated last session, but it is claimed that its charter does not expire until 1911. (Jan., pg. 21.)

Nasuga Gulf to G.T. Pacific Ry.—The British Columbia Legislature will be asked next session to incorporate a company to build a line from Nasuga Gulf, on Portland Canal, following the Naas River to its headquarters, and down the Klitsum Kalum River to the G.T. Pacific Ry. Barnard and Robertson, Victoria, are solicitors for applicants.

Nelson River Ry.—A meeting of the shareholders is to be held in Winnipeg, July 2, to elect directors, change the location of the head office, pass bylaws, and transact other business incidental to organization. (June, pg. 451.)

Northern New Brunswick and Seaboard Ry.—The total authorized bond issue is \$390,000 of 4% 30-year gold bonds, being at the rate of \$15,000 a mile on not exceeding 26 miles of railway. Of this there has been built 16.9 miles and there has been placed on the market by the Royal Trust Co. \$253,500 of the bonds at 99%. They are guaranteed by the Canada Iron Corporation and by the Province of New Brunswick.

Peace River Ry.—Press reports from Edmonton, Alta., state that application will be made to the new Legislature by J. Revillon and the other partner of Revillon Freres, for the incorporating of a company with this title to build a line from Edmonton north-westerly via Sturgeon Lake to Grand Prairie, on Peace River, about 250 miles.

Port Moody, Indian River and Northern Ry.—A press report states that 50 men with teams started grading, May 23, north of Port Moody, B.C., on a line to tap the country north of Burrar Inlet. The first four miles from the head of the Inlet, it is reported, is to be completed within three months. (May, pg. 353.)

Quebec and New Brunswick Ry.—A press report states that T. Malcolm, President of the International Ry. of

New Brunswick, has secured control of the Quebec and New Brunswick Ry. charter. The latter company was incorporated by the Dominion Parliament in 1900 to build a line from Connors, N.B., on the Temiscouata Ry., St. Francis branch, to St. Charles Jct., Que., on the Intercolonial Ry., St. Anselme, Que., on the Quebec Central Ry., or Chaudiere Jct., on the G.T.R., about 130 miles. Some small amount of grading was done near Connors, in 1903, in order to hold the charter, and an extension of time for construction was granted in 1903, and at subsequent dates. In 1908 a further extension of time was granted for construction, and the company was authorized to add a point on the National Transcontinental Ry. in the St. Francis River Valley to the points from which a choice of a possible northerly terminal could be made; and to construct a line from either of these points to the International boundary line, at the 13th tp. in the State of Maine. Power was given in 1909, to build a line in addition to those already noted from Connors to Centreville and Woodstock, and thence by the St. John River Valley to St. John.

Reid Newfoundland Ry.—Eight miles of the Bonavista branch have been completed; the grading has been completed to Goose Bay and work is being proceeded with on to Southern Bay. Track laying is being done at the rate of about 3,000 feet a day, and the ballasting gang is following close behind. It is expected that the branch will be completed by the end of this year. (June, pg. 451.)

St. John and Quebec Ry.—See St. John Valley Ry.

St. John Valley Ry.—The New Brunswick Legislature has authorized the Government to have a survey made for a railway from the National Transcontinental Ry., passing through or near Centreville, Lakeville, Woodstock, Fredericton and Gageton, to St. John, or to the C.P.R. near Westfield, or other points. The line is to run as near as practicable to the western bank of the St. John River. The engineers are to report to the Government as to the route proposed and the estimated cost of construction. The cost of making the survey is to be repaid to the Government by any company undertaking the construction of the line. The Government is authorized to guarantee the bonds of any company undertaking the construction of the line up to \$25,000 a mile, at 4 per cent., the principal to be repaid in 50 years, the guaranteed bonds to be issued as each 10 mile section is completed, the Government to be secured by a first mortgage on the railway, rolling stock and other property. The guarantee shall not be given until a contract has been entered into with the Dominion Government under the acts for aiding certain railways, and a further agreement under which the line will be operated for 99 years by the Department of Railways as part of the I.C.R. at a rental of 40 per cent. of the gross receipts, payable to the N.B. Government. The Government is also authorized to guarantee the bonds of any company to the extent of \$25,000 a mile to construct a railway from Andover to Westfield. Provision has to be made in either case for running rights to St. John, L'Etang, St. Andrews or other points in Charlotte County. The N.B. Legislature last session incorporated the St. John and Quebec Ry. Co. to build the line mentioned above. The provisional directors are:—A. R. Gould, A. N. McLennan, J. M. Robinson, H. B. Robinson, R. Thompson. (June, pg. 451.)

Southampton Ry.—The New Brunswick Legislature has incorporated a company with this title to construct a railway from near Millville station, on the C.P.R. Gibson branch, crossing the

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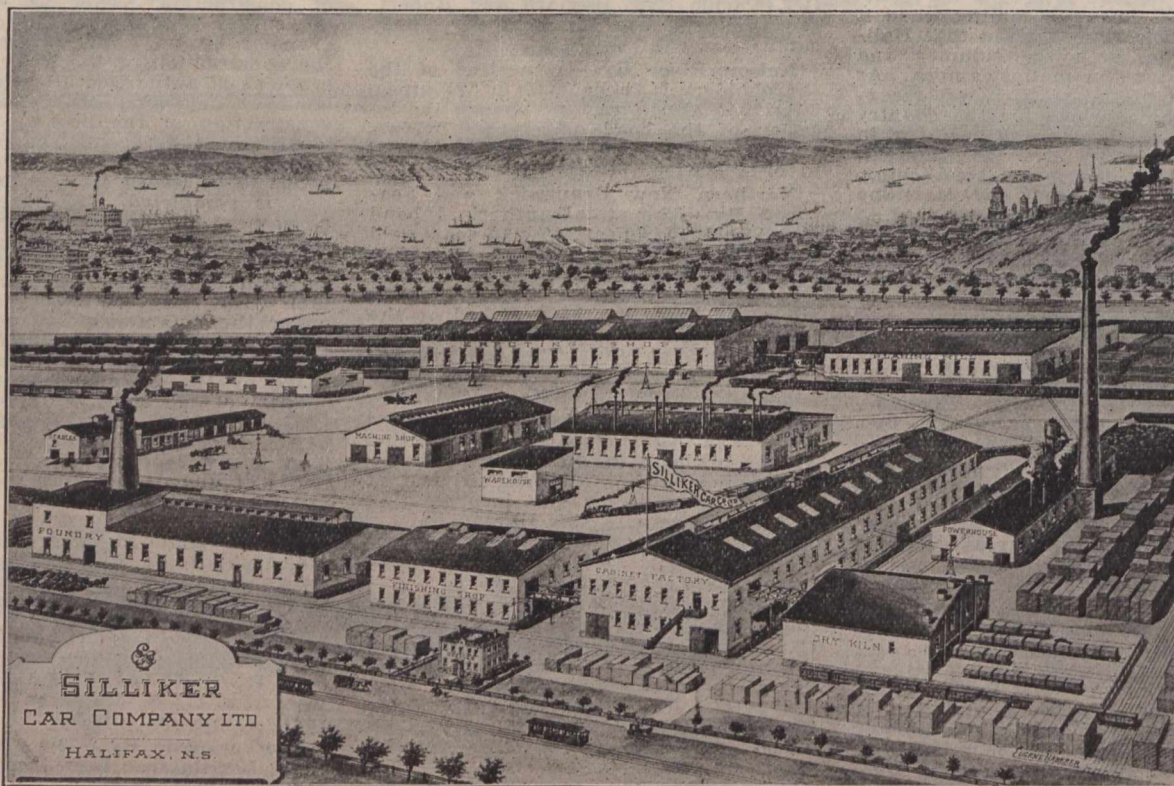
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north-east Nackawich stream to Pokrok bridge in York county. The provisional directors are:—J. E. Stewart, J. K. Pinder, H. H. McNally, D. Gilman, P. A. Guthrie, A. C. Hagerty and W. E. Trites. (May, pg. 353.)

Spokane International Ry.—Press reports state that construction has been begun on the Cœur d'Alene and Pend d'Orielle Ry., from the Spokane International Ry., 25 miles east of Spokane, to Cœur d'Alene city, Idaho. The report says it is expected to have the line completed in about three months. The Spokane International Ry. connects with the C.P.R. Crow's Nest branch at Yahk, B.C. The President of the new line is D. C. Corbin, and the Chief Engineer E. G. Taber, who hold similar positions on the S.I. Ry.

Toronto, Hamilton and Buffalo Ry.—Application is being made for permission to lay five additional tracks at the east end yards, Hamilton, and considerable opposition is being given by the city council. The company says it desires the increased accommodation at the belt line junction, and that there is no intention to abandon the west-end yards, and build a roundhouse in the east.

A statement was made by Gen. Superintendent Adams, Jan. 9, that owing to the increase of the company's business the line between Hamilton and Welland, Ont., would be made a double track one, but we were officially advised, June 17, that the work is not now in contemplation. (Apr. 1908, pg. 247.)

Vancouver to New Westminster, B.C.—Application will be made to the British Columbia Legislature to incorporate a company with this title to build a railway from Vancouver, through the municipalities of Point Grey, South Westminster and Burnale to New Westminster, with branch lines not exceeding 15 miles in length in any single instance. Promoters desire to have power to operate the line by steam, electricity or any other motive power. Harris and Bull, Vancouver, are solicitors for applicants.

Western Canada Power Co.—The railway which this company proposes to build will extend from Ruskin station, adjoining the wagon road by Stave River, on the C.P.R., to the falls at Stave Lake, about 8 miles. The line is to be used for taking in the material for the construction and equipment of the power house which is being built at the falls. A small electrical plant has already been installed in connection with the development of the company's larger plans. It is expected that the line will be completed by Sept., when the power house should be sufficiently far advanced to receive the steel work. Plans have been filed at Victoria, B.C., for the route of the high tension line from the falls to Vancouver. It will follow the Dewdney trunk road and the Como and Johnson roads.

A contract is reported to have been let to Morrisey, Smith and McLean for the grading of the line from Ruskin to Stave Lake. A press report from Ruskin, June 4, says work has been started, and it is expected to have the line completed by Sept. (June, pg. 453.)

E. A. Bent, wholesale and commission lumber, New London, Conn., in renewing his subscription, writes: "I find The Railway & Marine World very complete in its information on Canadian railway and marine doings, and being a Canadian, I am very much interested in it."

The C.P.R. commenced on June 1 a double train service each way every day between Montreal and Vancouver, the Pacific Express leaving Montreal in the morning and Imperial Limited in the evening. The company also runs a daily train from Toronto to Winnipeg.

National Transcontinental Railway.

Upon his return to Ottawa June 13, after having made a visit of inspection over the G. T. Pacific Ry., and attended to some matters in connection with arbitrations between the contractors on the N.T.R., and the Commissioners, C. Schreiber, Chief Consulting Engineer, said he did not look for the completion of the line from Moncton to Prince Rupert before the end of 1913. The work was going ahead nicely, but the great difficulty in the way of an earlier completion was the heavy work in the Mountain section and the scarcity of labor. On the line west of Winnipeg 915 miles of track had been laid and of this, 820 miles were being operated. The Mountain section would be 836 miles long and there were 438 miles under construction, 249 miles from Prince Rupert easterly, and 189 miles westerly from Moose Creek. Track was being laid over the first 100 miles of the Mountain section. The maximum gradient going west is 0.4%, and with the exception of a 1% gradient for about 20 miles, it is the same coming east. Sir Wilfrid Laurier is expected to leave Ottawa July 7, for a tour to the Pacific Coast, during which he will visit a number of the construction camps, and the places reached on the line. The Minister of Railways said that when the party reached Winnipeg special attention would be given to the terminal question.

The annual report of the Commissioners covering the work of the last fiscal year to March 31, was issued June 14. It shows that 63% of the grading on the whole line from Moncton to Winnipeg was finished and 45% of the bridging. During the year 521 miles of track were laid, the total track mileage on Mar. 31 being 760, with 165 miles of sidings. The line from Winnipeg to Fort William will be opened for regular traffic in August. The total expenditure on the road up to the end of the fiscal year was \$71,137,993.

Reports from Moncton, N. B., state that track laying has been completed on the Corbett and Floesch and the McManus Co.'s contracts, and that there is a fill-in to be made on the east side of Salmon River where the contracts meet, in order to enable the two ends of track to be joined. The bridge at Chipman is completed, and that at Salmon River is well forward. Track has been laid from Chipman to McGivney's, 40 miles, and 30 miles of ballasting has been completed. From McGivney's to Plaster Rock, 66 miles, grading has been completed, while 38 miles of track has been laid. The work between Plaster Rock and Grand Falls, 30 miles, is very heavy, but good progress has been made. The tunneling has been completed, with the exception of some of the approach work, and about 10 miles of track has been laid. There are some heavy bridges to be erected on this section, for which the Dominion Bridge Co. has the contract. There is a great scarcity of labor, but it is expected that the 256 miles of line in the province will be completed by the end of the season.

Westerly from Quebec there has been completed, with the exception of about 10 miles west of La Tuque, a stretch of 160 miles, on which about 100 miles of track has been laid. Cochrane, Ont., is the next centre of construction, and from that point track had been laid for 26 miles east to Mistange River, and grading is completed for 52 miles beyond the river. A steel bridge is being erected across the river. Track has been laid westerly from Cochrane to Ground Hog River, 52 miles, where a temporary bridge is being built to carry supplies across pending the erection of a permanent bridge. It is expected to lay an additional 50 miles of track west-

erly from Cochrane this season. A 24-stall roundhouse is being built at Superior Jet., Ont., the junction with the G.T.P. branch line to Fort William. West of Superior Jet., the finishing touches are being given to the line into Winnipeg, which will be opened for regular traffic in Aug. W. S. Calvert, one of the Commissioners having charge of construction, in a recent interview, said splendid progress was being made with construction all along the line, and especially in Northern Ontario. The commissioners were doing all they possibly could to have the terminals at Winnipeg rushed forward, so as to have everything ready to enable the G.T.P.R. to carry grain through to Fort William this season.

Atlantic Coast Terminals.—C. M. Hays, President G.T.R. and G.T.P.R., paid a visit to St. John, N.B., in June to inspect the site on Courtenay Bay, recently purchased for terminal purposes. It is reported that the G.T.P.R. will be enabled to carry freight to St. John and Halifax by using the Intercolonial Ry. from Moncton. A St. John report of June 11, says: "The G.T.P.R. will probably enter St. John by means of a branch tapping the N.T.R. main line at Chipman. Survey parties are at work locating this branch, which it is proposed shall run from Chipman via the Belleisle and Washademoak, through Kingston and across the Kennebecasis at Reid's Point to St. John."

Quebec Bridge.—The removal of the shore approaches to the bridge is being carried out by the company which put them up—the Phoenix Bridge Co. The steel is being stored by the Dominion Government, and will be utilized for bridges on the Intercolonial Ry. or for highways. The specifications for the new bridge have been completed by the engineers, and are being examined prior to tenders being called for. In a recent interview, the Minister of Railways said from the enquiries made about plans, he expected that tenders would be submitted by bridge builders from Canada, the United States, Great Britain, France, and Germany. The estimated weight of metal in the new bridge is 75,000 tons. The advertisements state that tenders will be received to Sept. 1.

Quebec Terminals.—At a recent meeting of the Quebec city council, S. N. Parent, Chairman N.T.R. Commission, said they were prepared to renew the previous offer of \$100,000 for the Champlain market site and guarantee that the commissioners would expend \$2,000,000 in the city upon a station, workshops and sheds, and they were ready to commence work immediately if the city accepted the proposition. The Federal Government was willing to spend between \$8,000,000 and \$10,000,000 within the next few years on the river front, building a revetment wall and wharves between Champlain market and Lampson's Cove. He understood that the city was ready to have the works commenced immediately and that was the reason he was present at the meeting to try and have matters settled. He had had an interview during the day with Sir Wilfrid Laurier and the Minister of Public Works, and as a result the latter had informed him that he would immediately see that the dredging of the River St. Charles was carried out. After some discussion, it was decided to give the question further consideration in committee. The finance committee has since recommended the acceptance of the offer.

GRAND TRUNK PACIFIC RY.

The bridge across the McLeod River, westerly from Edmonton, Alta., is expected to be completed Aug. 1. after which track laying will be resumed and carried on as far as the grading has been completed. The first divisional point west of Edmonton, will be Edson, eight

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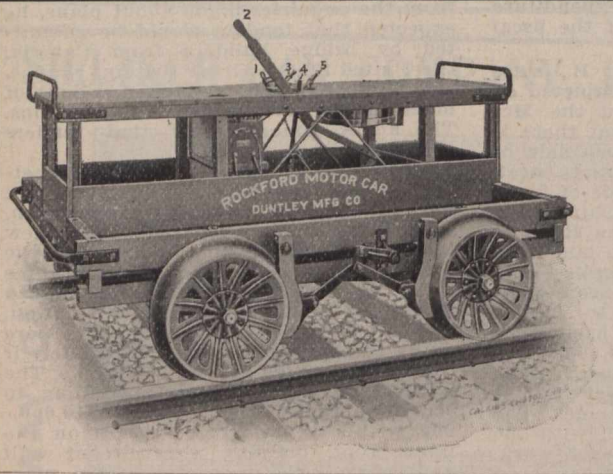
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miles west of the McLeod River, and the erection of the roundhouse and other buildings will be gone on with as soon as construction materials can be taken in.

Working from the Pacific Coast the right of way has been cleared as far as Hazleton, and it is expected that the clearing gang will have got as far as Morricetown on the Bulkeley River, 30 miles from Hazleton, early in July. The contractors have completed the approaches to the tunnel near Hazleton, and have started work on the boring. About two-thirds of the length of the Duncan Ross tunnel at Bulkeley River has been bored, and good progress is being made on the remaining 100 ft.

C. M. Hays, President G.T.P.R., passed through Winnipeg on a trip of inspection over the line June 19. In an interview he stated that the company had 12,000 freight cars ready for the handling of the crop along its lines from Edmonton to Fort William. It was the company's intention to build a large hotel in Winnipeg.

The Board of Railway Commissioners has approved the location of the line easterly from mileage 408.69 to 434.5, in the vicinity of Fort George, B.C.

GRAND TRUNK PACIFIC BRANCH LINES.

The question of the location of the line from Regina, Sask., to the International boundary, was recently discussed between the Premier of Saskatchewan and E. J. Chamberlin, Vice President and General Manager. The question at issue was whether the line should be diverted from the route located by the company so as to pass through Weyburn, as the people of that town desired. The company said it would have to abandon its extension in Southern Saskatchewan if this were insisted upon, but offered as an alternative to build a branch from the Regina line north of Weyburn into the town and on to the International boundary, where a connection would be made with a branch of the Great Northern Ry., now terminating at Scobey, N.D. (June, pg 483.)

The International Aviation Association, Ltd., has been incorporated under the Dominion Companies Act, with a capital of \$100,000, and office at Montreal, for the purpose, among other things, of manufacturing and dealing in aeroplanes, balloons and all devices and machines for traveling in the air.

The Pere Marquette Rd., beginning June 27, abandoned Walkerville, Ont., as the terminus of its Canadian line, and now runs its trains from London and St. Thomas through to Detroit, Mich. The trains leave Detroit station, are carried across the river by car ferries, and are run from the C.P.R. dock around the Essex Terminal Ry. to Walkerville Jct.

The apprentices in the various G.T.R. shops were recently examined in mechanical drawing and practical mechanics. The standing of the different shops is as follows:—Drawing—1st, Stratford; 2nd, Montreal; 3rd, Deering; 4th, Allandale; 5th, Ottawa; 6th, Battle Creek; 7th, Toronto. Practical Mechanics—1st, Stratford; 2nd, Montreal; 3rd, Toronto; 4th, Battle Creek; 5th, Deering; 6th, Ottawa; 7th, Allandale.

J. P. Mullarkey, Ltd., has been incorporated under the Dominion Companies Act, with a capital of \$500,000, and office at Montreal, to carry on a general contracting business, to construct railways, canals, wharves, elevators, steam and other vessels, and public and private buildings, and in connection therewith to take over the business now carried on by J. P. Mullarkey, with existing contracts, assets and liabilities.

Canadian Northern Ry. Construction, Etc.

Canadian Northern Quebec Ry.—A contract has been entered into between the company and the Dominion Government under the act granting aid to certain railways for the building of a line from near L'Epiphanie on the main line north of Montreal, by way of St. Jacques L'Achigan to Rawdon, a distance of 16 miles. This line was completed in 1909, and a regular train service is being operated over it.

With a view to making Joliette a division point a round house, and shops for the making of running repairs to rolling stock are being erected. As soon as these are completed the employees at the present shops at Shawinigan Jct., will be moved there. The dispatching of trains on the line has already been centered at Joliette, it having been found to be a more convenient point than Montreal. The Assistant Superintendent has also been transferred there from Montreal.

The C.N.R. has secured options on a considerable area of property in Montreal, in the vicinity of St. Catharine St., and press reports state that it is being acquired for terminal purposes. Some papers credit the company with having in view the boring of a tunnel under Mount Royal.

The Board of Railway Commissioners has approved the location plans of a line from Hawksbury to Montreal. The line will cross the Ottawa River and run through Carillon, St. Andrews and St. Eustache to Hochelaga and Montreal. The company now obtains an entrance into Montreal by the line built as the Chateaugay and Northerly Ry., joining the Ottawa-Quebec line at Joliette, but the route now located will give a very direct line. Tenders have been asked for the building of the line.

Quebec and Lake St. John Ry.—The first three of the lines for which the Dominion Parliament voted subsidies last season, particulars of which were given in our June issue, page 485, have been built, and trains are being operated over them. We are advised in regard to the other three lines, for which subsidies were voted, that it has not yet been decided whether any construction work will be done on them this year.

Canadian Northern Ontario Ry.—Plans have been filed with the Board of Railway Commissioners showing the route of entrance of the Toronto-Ottawa line into Ottawa. Starting from the point to which the route had previously been approved—at the crossing of the Rideau River, near Nepean and Gloucester streets—it crosses almost at right angles the Bank St. extension, or Metcalf road, some distance south of Billings Bridge, by an overhead crossing; parallels the St. Lawrence and Ottawa line of the C.P.R. to Rideau Jct.; crosses the G.T.R. and the C.P.R. near the second diamond, and effects a junction east of the Rideau River with the company's Montreal line, terminating for the present on Gladstone Ave.

We are advised that the sub-contractors engaged on the Don Valley-Trenton section of the line from Toronto to Ottawa, with their headquarters, are as follows:—Henderson & Kroft, mileage 237-241½, Malvern; A. Piro & Co., mileage 233-234½, Cedar Grove; John Baskin, mileage 229½-233, Greenwood; C.A. Cook, mileage 226-229½; Pickering, J. L. Boyd, mileage 219-222½, Brooklin; J. A. Livingston, mileage 216½-219, Brooklin; Ross & McComb, mileage 213-216½, Oshawa; E. Mackenzie, mileage, 192-213, Toronto; W.M. Murray, mileage, —192, Osaca; Allan & McPherson, mileage 171-177, Cobourg; Stewart & McInnis, mileage 165-171, Grafton; J. O. Giroux, mileage 155-165, Colborne; Delvin and Verlando, mileage 145-155, Trenton. The contractors for the concrete work on this contract are, Henderson

Bros., Brooklin; and —. Campbell, Oshawa.

The Toronto board of control has passed a resolution providing that strip of the railway reservation on the east side of the Don River, be leased to the C.N.R. as soon as the Board of Railway Commissioners approve the terminal plans, showing the use to which the particular strip will be devoted.

The survey parties under H. K. Wicksteed, have completed the survey of the route for its line from north of Sudbury, to Port Arthur, Ont., and the work now in hand consists of reducing the survey notes into plans, and the making of special surveys, of points where improvements may be desirable or necessary, in order to get a perfect line. The route secured is said to be a most favorable one, obviating all the heavy gradients on the routes previously surveyed, and passing through country rich in minerals and timber, and having large areas of land suitable for agriculture. The new route will enter Port Arthur from the east, at Bare Point, while former routes provided an entry from the north.

Irontdale, Bancroft and Ottawa Ry.—We are advised that a piece of line to connect the Irontdale, Bancroft and Ottawa Ry. with the Central Ottawa Ry. at Bird's Creek, Ont., is being made and is expected to be completed early in July. The C.O. Ry. is doing the work, The I.B. and O. Ry. is being operated under a lease by the C.O. Ry., for the Mackenzie-Mann interests which control it.

Duluth, Virginia and Winnipeg Ry.—Tenders have been received for building of a line from Duluth to Virginia, Minn., 142 miles. This will connect with the existing Duluth, Rainy Lake and Winnipeg Ry., now in operation from Virginia to the Rainy River, opposite Fort Francis, Ont., and so give the Canadian Northern Ry. a through connection from Duluth to Winnipeg and Port Arthur over its own lines.

We are further advised that it is not the company's intention to begin the construction of ore docks at Duluth at present. The plans for the docks are not yet complete.

Canadian Northern Ry.—The construction of the new coal sheds on the docks at Port Arthur, Ont., is well under way, and the filling of the new storage yard is about completed. The Vice President of the Pittsburg Coal Co., has been in Port Arthur on a trip of inspection, during which he discussed the question of the construction of another unit. The Thunder Bay Harbor Improvement Co. has been given a contract to extend no. 3 dock 250 ft. in length, with a width of 74 ft., pile foundation with heavy timber deck. When the dock extension is completed a freight shed 400 by 50 ft. will be built of mill construction, steel clad.

A contract has been let to Foley, Welsh and Stewart, for the permanent roadbed across Rainy Lake, Ont. The dump is to be sufficiently wide to permit of a double track line. The new work will diverge from the present track for about two miles between Nickel Lake and Rocky Inlet, about four miles east of Fort Frances, Ont. The channels between the islands will have to be filled except in two places, where there will be bridges, with draw spans. This is a heavy piece of work, as it includes the building of a rock bank across the lake. The contract calls for completion by 1912. The length of the present trestle is about 6,700 ft., base of rail 20 ft. above high water. The material required for filling is estimated at about 800,000 cubic yards. The contract has been let for the superstructure of a double track steel bridge over the Assiniboine River at Winnipeg. In the course of an interview in Winnipeg, June 16, D. D. Mann, said the company would build an hotel probably on the site of the old Manitoba Hotel adjoining the present station, in

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Surveys have been completed for a branch from the Oak Point line near Cross Isle, and it is expected that construction will be started at an early date. We are advised that it is not the intention to go on with the extension of the Ochre River line this season.

The excavation for the station and hotel building at Brandon, Man., was begun June 6. The building, which is estimated to cost \$150,000, is expected to be completed by April 1, 1911. The Brandon city council June 9 approved the route for the projected transfer railway. It was decided to adopt the First Avenue route as being in every respect the most favorable for the city.

The Greenway-Wakopa branch, we are advised is being extended for a few miles, but it is not likely that the extension will be pushed as far as Deloraine this year.

A press report states that plans have been prepared for a line to run from North Portal to Melville, and on to Hudson Bay Jct., Sask.

The extension from Maryfield, is the line which is ultimately to be extended to Lethbridge, Alta., and we are advised that it is expected to complete the grading of about 50 miles this season.

A line is to be built from Melfort on the Prince Albert line to Humboldt on the Edmonton line, and we are advised that it is expected to grade about 20 miles at the Melfort end this season.

In a recent interview at Calgary, Alta., M. H. McLeod, referring to the Vegreville-Calgary line, said it would be known during July the route which the company would follow into Calgary, and he expected that the grading would be completed in the spring of 1911. There was a good deal of heavy work to be done for about 30 miles from Red Deer, and the work in hand involved the building of the line to the Bow River. From that point into Calgary the company had no routes under consideration. The town sites on the line had been located to 30 miles east of the Red Deer River; the grading would be completed to a point 12 miles east of the Red Deer River by Aug. 1, and track laid to the same point by the end of the season. The C.P.R. secured an interim injunction June 16, restraining the C.N.R. from proceeding with the building of its line south of Stettler, Alta., on the ground of non-compliance with some of the requirements of the Railway Act. A large area of land through which the line runs, belongs to the C.P.R.

M. H. McLeod, General Manager, stated at Strathcona, Alta., June 3, that construction on the line from that place to Camrose on the Vegreville-Calgary line was to be started by the end of the month, and that 25 miles would be completed this season. The right of way for the entire line had been purchased, and 60 acres 12 miles from Strathcona, had been secured for a townsite.

The contractors are reported to be preparing to start work on the construction of the first 50 miles westerly from St. Albert, Alta. The only thing that is delaying a start is that the route has not been finally approved by the Dominion Government engineers.

W. Mackenzie, President, C.N.R., returned to Toronto from England June 3, where it is stated that he has secured altogether about \$40,000,000 to aid in carrying out the various enterprises in which he and his associates are interested. In an interview, he said during the present year the western end of the line should be well under way, and the distance between Edmonton and the Rocky Mountains pretty well covered. A start would also be made on the section round Lake Superior, but the question of a line to the Maritime provinces would be taken up later. The

70-mile line to give connection to Duluth, he hoped would be completed in the spring of 1911. The Brazeau coal districts were to be opened up, and a branch line of 140 miles run there from the Edmonton-Calgary line, which was now under construction. The purchase of the Dunsmuir mines, etc., on Vancouver Island, was not a C.N.R. matter, although C.N.R. people were interested in it.

Canadian Northern Alberta Ry.—In connection with the development of the Brazeau River Valley coal areas by the Mackenzie, Mann and Co. interests, several parties of engineers are in the field preparing plans, etc. The C.N. R. branch now terminating at Stony Plains, will be extended into the territory. Surveys of the line are being made, and it is expected that construction will be started early in 1911. This is the section of the line of the Yellowhead Pass for which the Dominion Parliament passed an act guaranteeing the company's bonds for \$13,000 a mile for 50 miles; and \$25,000 a mile for the next 100 miles. The main line from Stony Plains will pass north of the coal fields, but will be connected with them by a branch from near Wolfe Creek. It is proposed to build a direct line to the coal fields from near Stettler on the Vegreville-Calgary line.

Canadian Northern Pacific Ry.—We are advised recently that the trial surveys in British Columbia, with the exception of about 20 miles either side of Spences Bridge, had been completed, and that the plans were nearly ready for filing. Two parties are at work completing the surveys, for the line from the Yellow Head Pass to New Westminster, one working from the Pass and the other from Chilliwack, 60 miles above New Westminster. The route surveyed from the Pass follows the Fraser River to opposite Tete Juane Cache, where it crosses over the Cranberry Summit to the head water of the North Thompson River, and proceeds down the North Thompson River to its position with the South Thompson River opposite Kamloop, crossing it four miles above Lytton to the Fraser River, and down the left bank of that river to New Westminster. The surveys now being made may bring about some deviations in detail from the route above outlined. The surveys show that a gradient of 0.5% is feasible for the whole route. The route from New Westminster to Chilliwack, 60 miles, along the river front has been finally located and tenders for grading, etc., were received to June 15.

H. Sutherland, Executive Agent, stated in a recent interview that the funds required for the completion of the first unit of 150 miles of this line had been made and that arrangements had been made for the financing of the remaining sections as required. D. D. Mann, Vice President, in a subsequent interview, added the further statement that work on the Pacific section would be commenced at tide water about July 1, and that the 150 miles would be built this season. Tenders for grading, bridging, masonry, tracklaying, ballasting, and the erection of the telegraph line on 60 miles of line from New Westminster, were received to June 15, and are under consideration. The work has to be completed by June 1, 1911. This section will start from the south end of the Fraser River bridge, and will follow the river to Fort Langley, thence across country to Whonnock, then along the river to Matsqui, and again across country to Sumas mountain and around the north side to Chilliwack. Reports from Kamloops, B.C., state that preparations are being made to start construction at that point also, and that tenders will be asked for grading at an early date.

Interviewed at Vancouver June 8, D. D. Mann said the company was prepared to take its tracks into the city and to

own its own terminals. A union station was all right, but union terminals were not. He would recommend, on his return to Toronto, the location of the repair shops at Port Mann, to which point the line would be built at once. The construction would be started as soon as the rails arrived.

In an interview at Winnipeg, June 16, D. D. Mann stated that with the exception of some changes from the original route in order to obtain better gradients the route from the present end of steel, westerly from Edmonton, to Vancouver, had been located. The company had also practically completed all its arrangements for building 120 miles on Vancouver Island, from Victoria to Barclay Sound. While Mr. Mann was in Victoria, he was quoted as saying that the building of this line would be placed under separate and independent officials reporting direct to Toronto, and that the local offices would be in Victoria. — Hughes being Resident Chief Engineer. Alternative routes are being surveyed, and construction will be started as soon as possible. (June, pg 485.)

Dual Language in Quebec.

The Quebec Legislature at its last session passed an act making the following addition to the Civil Code to go into effect January 1, 1911:

"1682c. The following shall be printed in French and English: passenger tickets, baggage-checks, waybills, bills of lading, printed telegraph forms, contract forms, made, furnished or delivered by a railway, navigation, telegraph, telephone, transportation, express or electric power company, as well as all notices or regulations posted up in its stations, carriages, boats, offices, factories or workshops.

"1682d. Every contravention, by a railway navigation, telegraph, telephone, transportation, express or electric power company, doing business in this Province, or any of the provisions of the foregoing article shall be punished by a fine not exceeding \$20, without prejudice to recourse to damages."

The British North America Act, in section 92, provides that in each province the Legislature may exclusively make laws in such matters coming within the classes of subjects next hereafter enumerated. Sub-sec. 10 reads:—

"Local works and undertakings other than such as are of the following classes, "a. Lines of steam or other ships, railways, canals, telegraph and other works and undertakings connecting the province with any other or others of the provinces or extending beyond the limits of the province.

"b. Lines of steamships between the province and any British or foreign country.

"c. Such works as, although wholly situate within the province, are, before or after their execution declared by the Parliament of Canada to be to the general advantage of two or more of the provinces."

It would therefore appear that the additions to the Civil Code which Mr. Lavergne has secured will apply only to provincial railways, etc., and not to the C.N.R. and C.P.R., and other Dominion companies.

The Pere Marquette Rd., put on a Sunday train service between London and Port Stanley, Ont., June 26.

In future the charge for movement of each special passenger car from points in Canada east of the Detroit River to points in the territories of the Central Passenger, New England Passenger and Trunk Line Associations, will be not less than the amount of 25 adult fares, computed on the basis of 2c. per mile per capita.

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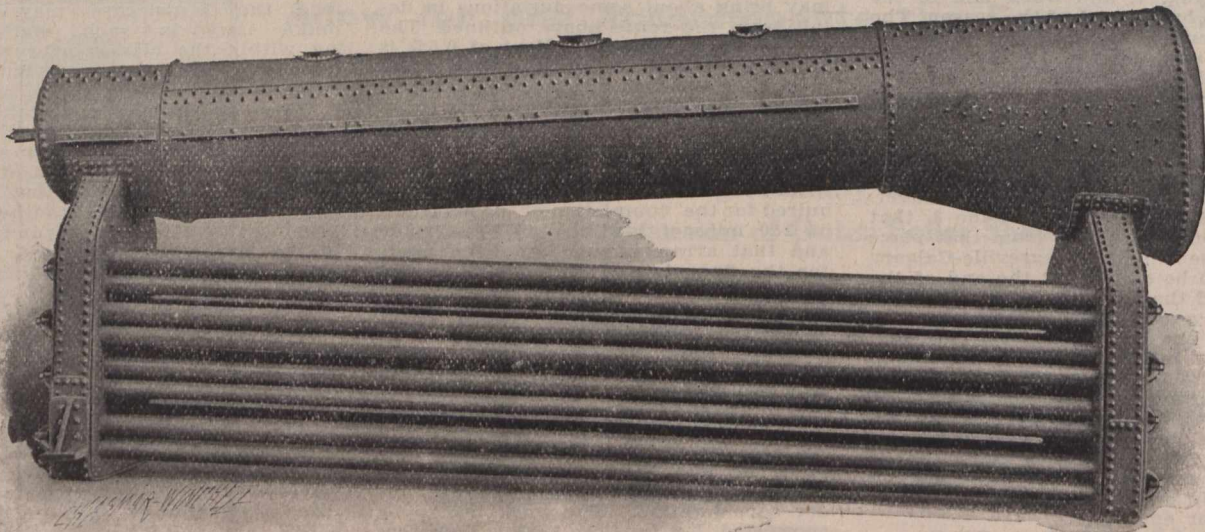
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Mackenzie, Mann & Co. Flotations in Europe.

W. Mackenzie, President Canadian Northern Ry., returned to Toronto early in June after spending nearly three months in England, during which and subsequently he made the following flotations and sales:

Canadian Northern Ry. Co., 4% perpetual consolidated debenture stock, £1,000,000.

Canadian Northern Ry. Co., 5% income charge convertible debenture stock \$5,000,000.

Canadian Northern Steamships, Ltd., debenture stock, £600,000.

Duluth Winnipeg and Pacific Ry. Co., 4% 1st mortgage debenture stock £950,000.

Winnipeg Electric Ry. Co., 4½% perpetual debenture stock, £280,000.

Canadian Collieries (Dunsmuir) Ltd., 5% 1st mortgage bonds, £2,054,800.

Brazeau Collieries, Ltd., 1st mortgage bonds, \$2,000,000.

Canadian Western Lumber Co., Ltd., 5% 1st mortgage debenture stock, £1,500,000.

THE CANADIAN NORTHERN RAILWAY CO. made an issue of £1,000,000 4 per cent. perpetual consolidated debenture stock at 95. It is perpetual and irredeemable and ranks *pari passu* in all respect with the similar stock officially quoted on the London Stock Exchange. The prospectus states that the trust deed provides that the total amount of debenture stock shall not exceed £2,500 per mile of line for the time being open and operated, and an amount not exceeding the cost price of securities of independent corporations from time to time deposited with the trustees, but the company cannot issue any debenture stock against such securities without the trustees' consent. The debenture stock is secured by a general charge upon the undertaking, property and assets (other than land and money subsidies) of the company, subject to the £1,180,600 of bonds primarily charged on the Ontario Division, 287 miles, and to charges created, or to be created, not exceeding \$10,000 per mile of line, other than the above-mentioned 287 miles of line in Ontario, or \$15,000 per mile if guaranteed by the Dominion, or any of the Canadian provinces, and is a specific first mortgage upon certain securities deposited with the trustees. The company is operating 3,180 miles, which includes 665 miles of leased lines. In addition, 371 miles of new branch lines have been completed and will shortly be opened for traffic, and over 500 miles more are under construction, a large proportion of which will be completed during the coming season.

For the first time in its history the Canadian Northern Ry. has issued a speculative security in the form of 5% income charge convertible debenture stock. The prospectus speaks of an issue of \$15,000,000, or £3,086,419, of which \$5,000,000 has now been disposed of. The prospectus states that it is repayable at par, May 6, 1920, or at any time after May 6, 1920, on six months' notice. The interest, which will be contingent on the railway's annual profits will be paid half yearly. Holders will have the option, on Jan. 1, 1916, and on each subsequent Jan. 1 and July 1, until Jan. 1, 1919, on 60 days' notice, to convert the stock into fully paid common shares at a fixed rate of \$500 for \$500 of shares in the company's common stock. The company has not at present the power to issue sufficient shares to exchange for this income charge stock, but application will be made for such powers and in the meantime the convertibility of the issue of \$15,000,000 will be secured by the deposit with the trustees of fully paid common stock to meet any claims for

conversion arising out of the present issue until the necessary additional powers have been obtained. The stock will be secured by a general charge on the company's railway and assets other than land and money subsidies, ranking behind the charge created thereon to secure the 4% perpetual consolidated debenture stock and all securities having priority over the 4% perpetual consolidated debenture stock and also ranking behind all charges for securing any of the company's securities guaranteed by the Dominion or provincial governments. The stock will be constituted by a trust deed to the British Empire Trust Co. and the National Trust Company, whereby the total amount of income charge convertible stock will be limited to \$10,000 per mile of railway. The interest on the stock each year will only be payable to the extent that the net earnings arising from the operations of the railway in such year are sufficient to pay the same after providing for all operating expenses and other payments not chargeable to capital and the company's fixed charges. It is the intention in the future to amalgamate the railways of the Canadian Northern System by lease, purchase or otherwise, into one great corporation, which will unify and increase the earning power and at the present time increase its capital stock. When this is done and the further lines now projected have been constructed the C.N.R. will be one great transcontinental railway and navigation system, similar to the C.P.R. It is probable that another \$5,000,000 of this stock will be disposed of in the autumn and the remaining \$5,000,000 of the \$15,000,000 early in 1911. The stock has been listed on the Toronto Stock Exchange where there have been some sales at 95½ to 96½ and application has been made for its listing on the London Stock Exchange.

THE CANADIAN NORTHERN STEAMSHIPS, Limited, recently issued £600,000 of debenture stock to pay for the three steamships which have been bought. This stock was acquired by the Canadian Northern Ry. Co., which company pays for the vessels partly in cash and partly of its 4 per cent. consolidated debenture stock.

THE DULUTH, WINNIPEG AND PACIFIC Ry. Co. made an issue through Lazard Bros. and Company, of London, Eng., of £929,000 four per cent. first mortgage debenture stock, part of a total issue of £10,500,000 of similar stock and bonds, principal and interest guaranteed by Canadian Northern Ry. Co., repayable at par on June 1, 1939, interest payable half yearly. The issue price was 92½. The stock is secured by a first mortgage on railway to be built from near the present terminus of the Duluth Rainy Lake and Winnipeg Ry., at Virginia, to Duluth, all in Minnesota and 40 acres of terminal accommodation in Duluth. The trust deed provides that on repayment of the \$2,000,000 bonds of the Duluth, Rainy Lake and Winnipeg Ry. Co., which mature Jan. 1, 1916, and to retire which \$2,000,000 of the Duluth, Winnipeg and Pacific Ry. Co.'s first mortgage debenture stock is reserved, the D.R.L. & W.R. Co.'s property will be transferred to the D.W. & P.R. Co. so that the debenture stock will be a first charge upon about 173 miles of railway and equipment between Duluth and the International boundary. In the meantime the control of the D.R.L. & W.R. Co. will be vested in the trustees to which the company's entire capital stock will be transferred.

The prospectus states that the present issue is made for the purpose of enabling the company to construct and equip a line from Virginia to Duluth, thus completing to the important railway and shipping centre of Duluth the line of

the Canadian Northern system now in operation between Fort Frances and Virginia, and giving that system a second and shorter access to the Great Lakes. It is also proposed by means of the present issue to provide adequate terminal accommodation in Duluth to enable the company to handle the large traffic with which it will have to deal. The section will form an important part of the Canadian Northern system. Fort Frances, the point nearest to Duluth on the main line of the C.N.R., is about 175 miles distant. The section between the International boundary (two miles south of Fort Frances) and Virginia, about 100 miles, has already been built and is owned by the Duluth, Rainy Lake and Winnipeg Ry. Co., and its net earnings already largely exceed the interest on its \$2,000,000 5% bonds. The new line will complete the remaining section into Duluth. It is expected that the line will be completed and ready for traffic at the opening of navigation on the Great Lakes in the spring of 1911. Duluth is a large railway centre and is entered by a number of the great American railway systems; it is therefore important to the C.N.R. to reach that city over its own lines, since it will then be in a position to exchange traffic with them. Duluth harbor (which embraces the ports of Duluth and Superior,) situated at the head of the Great Lakes is a most important shipping and distributing centre, is the largest ore-shipping port in the world. The increase in freight at Duluth harbor is shown by the figures given in the latest available report of the U.S. engineer in charge of the river and harbor work on Lake Superior:—1897, 8,475,000 tons; 1909, 32,529,000 tons. The rapid development of the Canadian West has resulted in a heavy and constantly growing traffic between Winnipeg and the Western and Middle States. As the new line will complete the shortest route from Winnipeg to Duluth and the Great Lakes, a large traffic is assured from the outset. Adjoining the railway between Virginia and Rainier are the timber limits of the Virginia and Rainy Lake Lumber Company, which claims to have the largest virgin forests of white pine timber in the Northern United States east of the Rocky Mountains. The lumber company has large mills at Virginia and Duluth, and expects to cut this year 250,000,000 ft. of lumber. The D.W. & P.R. Co. has a contract with the lumber company to carry all its logs and lumber so long as there is any timber to cut on the present limits. In the vicinity of Virginia are situated the great Mesaba iron ore mines. A very large proportion of all the iron ore used in the U.S. is mined from this range, and this ore has to be carried by rail to the Great Lakes for shipment. The new line will secure a share of this traffic, which is exceptionally profitable, and which in 1909 amounted to over 29,000,000 tons. The heavy traffic, which the road is expected to carry, will necessitate its being built to a high standard. A large equipment of iron-ore trucks and heavy engines will be necessary. It is estimated that as the result of its first year's operations from the date of its opening, the net earnings of the new line should amount to \$487,200, whilst the interest on the \$6,148,333 stock now issued will only amount to \$245,935 a year.

WINNIPEG ELECTRIC RAILWAY CO.—The position of this company is so thoroughly assured that it was not necessary to issue any prospectus, £200,000 of 4½% perpetual debenture stock being placed, largely with people who were already investors in the company's securities, through the British Empire Trust Co.

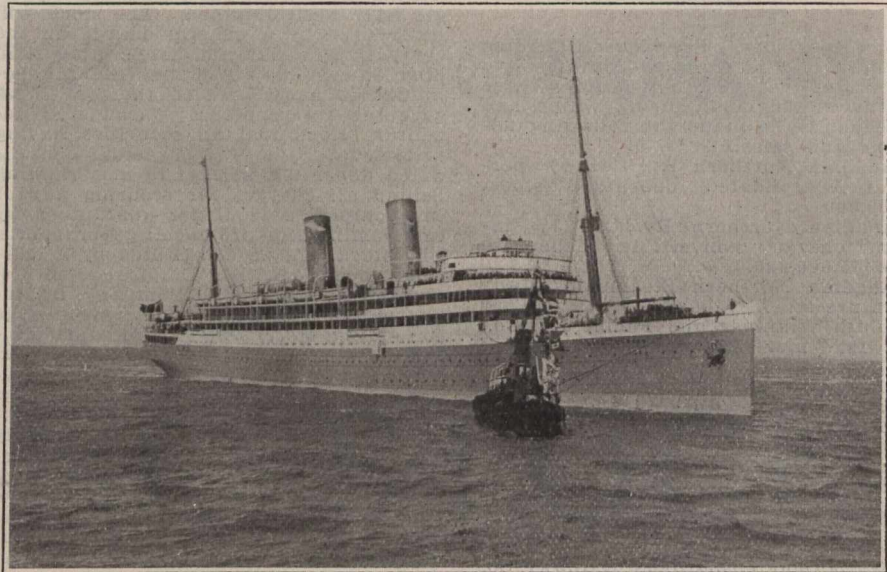
THE CANADIAN COLLIERIES (DUNSMUIR), LIMITED, has a share capital of \$15,000,000, of which \$5,000,000 are 7 per cent. cumulative pre-

THE "ROYAL" LINE TO EUROPE

Sailing fortnightly from
MONTREAL and QUEBEC to BRISTOL
Triple Turbine Express Steamships

"ROYAL EDWARD" and "ROYAL GEORGE"

Triple Screws, 12,000 tons, Marconi
Wireless, Deep Sea Telephones,
Passenger Elevators, 6 Passenger
Decks. :: :: ::



The twin ships, the "Royal Edward" and the "Royal George," are the fastest triple screw turbine boats in the Canadian service. The British port is Bristol (two hours nearer London than Liverpool). Special Royal Line Trains within 110 minutes of London. The steamers are driven by the newest type of turbine engines, insuring a maximum of speed and minimum of vibration. Their equipment is the finest ever seen in the St. Lawrence—large state-rooms, spacious social apartments, sheltered promenade decks, artistic furnishings, perfect service, and ventilation by thermo-tank system, the fresh air being warmed or cooled, as required.

**Best appointed
steamers**
**The most picturesque
port**
Only four days at sea

SAILINGS:

From Bristol.	Steamer.	From Montreal.	From Bristol.	Steamer.	From Montreal.
Thur., July 7	"Royal Edward"	Thur., July 21	Thur., Aug. 18	"Royal George"	Thur., Sept. 1
Thur., July 21	"Royal George"	Thur., Aug. 4	Thur., Sept. 1	"Royal Edward"	Thur., Sept. 15
Thur., Aug. 4	"Royal Edward"	Thur., Aug. 18	Thur. Sept. 15	"Royal George"	Thur., Sept. 29

and fortnightly thereafter.

For full particulars, Rate, Booklets, etc., apply local agent, or Wm. Phillips, Acting Traffic Manager, Canadian Northern Steamships, Limited, Toronto, Canada.

To Engineers and Others

Have the stations on your line name signs placed conspicuously? They should have, for the comfort of your passengers alone, if for no other reason. You know how aggravating it is, when the train pulls up at the platform, to have to crane your neck or leave your seat, endeavoring to see what station you are at. Besides it is good advertising for the line.

Enameled iron has proven the best sign for station purposes. It never fades or cracks.

Made in any colors with mileage figures if desired.

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ACTON BURROWS LIMITED

157 BAY ST.
TORONTO

ENAMELED IRON SIGNS

ference shares, all of which have been subscribed for and \$10,000,000 are common shares issued as fully paid. The directors are: President, W. Mackenzie, President C.N. Ry.; Sir E. E. Walker, President Canadian Bank of Commerce; D. D. Mann, Vice President C.N. Ry.; A. D. McRae, Vice President Canadian Western Lumber Co.; E. R. Wood, Director G.T. Pacific Ry.

The recent issue is £2,054,800 5% first mortgage gold bonds at 95, repayable Sept. 1, 1950, at par, or at the option of the company before then on six months' notice at 105. The prospectus states that the company has been formed to purchase as a going concern, all the properties in British Columbia and in California of Jas. Dunsmuir, in anywise relating to coal, coal mines and fire-clay. These properties include the whole of the share capital of the Wellington Colliery Co., Ltd., operating collieries on Vancouver Island, a 51% interest in the share capital of Robert Dunsmuir Sons Co., of San Francisco, and the mortgage existing on the property of the latter company. The properties of the Wellington Colliery Co. will be conveyed to this company and will be included in the mortgage and trust deed securing these bonds. The Wellington Colliery Co.'s holdings comprise all the coal in and underlying some 1,850,000 acres of the Esquimalt and Naniamo Ry. Co.'s land grant, estimated to contain not less than 600,000,000 tons of bituminous coal, together with the operating mines, railroads, shipping docks, etc., also several smaller tracts not included in the above grant. In addition the Wellington Colliery Co. owns about 20,000 acres of timber lands on Vancouver Island, 104 houses and an hotel, all of which are well rented. It further owns and operates 17½ miles standard gauge railway, including locomotives and cars, by which the coal is delivered to that company's docks. The company also acquires about 1,250 acres of land on Vancouver Island on which iron ore has been found, and about 5,000 acres of land on Denman Island. The property of R. Dunsmuir Sons Co., of San Francisco, consists of a town lot in Stuarts st., San Francisco, together with a wharf and bunkers on the water front; the value of which is estimated to be \$1,000,000. These are leased to the Western Fuel Co. at a monthly rental. Amongst the contracts made by the Wellington Colliery Co. is one, having about three years to run, with the C.P.R. to supply coal to its ships and locomotives; there are others with important companies and firms. During 1908-9 the company delivered to the C.P.R. about 250,000 tons of coal. Both the Canadian Northern and the G.T. Pacific Railways are building to the Pacific Coast and will be large consumers of coal both for their railways and steamships.

The net proceeds of sale of these bonds will be applied towards the price payable to J. Dunsmuir for the properties, which is \$11,000,000, the balance of the purchase price, together with the \$3,000,000 required for improvements, having been raised by the issue of \$5,000,000 of the preference shares above mentioned. Over \$3,000,000 has in the past been spent in development of the properties.

Chartered accountants have examined the Wellington Colliery Co.'s accounts for the last three years, and the profits, according to their report, after allowing for all expenses, other than depreciation and exhaustion of minerals, and allowing for the addition for 1909 of £4,155, interest on the mortgage on the San Francisco properties averaged £154,751 a year, the average profit per ton of coal being about \$1. During the year ended June 30, 1909, no profits were received from the sale of coal at the San Francisco wharf of R. Dunsmuir Sons Co., the

wharf having been leased to the Western Fuel Co. instead of being worked on joint account with that company. The directors intend as soon as possible to alter these arrangements, which are not, in their opinion, satisfactory.

The properties have been examined by Mr. Coulson, mining engineer and coal expert of Pittsburg, and by Foster, Brown and Rees, mining and civil engineers of London and Cardiff. It is the Board's intention to commence immediately to open up additional mines and to improve handling facilities in accordance with Mr. Coulson's recommendations, and \$3,000,000 will be provided for this purpose. Mr. Coulson estimates that when these improvements are completed, the output will be 2,000,000 tons a year and the profits \$1.53 per ton, making a total net profit, per year of \$3,060,000, or £628,767. The interest on the bonds now issued requires per year £102,740.

THE BRAZEAU COLLIERIES, LTD., has a share capital of \$4,000,000, all common stock, half of which is owned by Mackenzie, Mann & Co., Ltd., and half by the German Development Co., Ltd., Toronto. Its coal fields, which are situated in Alberta, on the eastern slope of the Rocky Mountains, between parallels 52 and 54, north latitude, comprise a total area of about 28 square miles. The directors are: President, W. Mackenzie; Vice President, D. D. Mann; Managing Director, Secretary and Treasurer, M. Nordegg; A. J. Mitchell, Comptroller Mackenzie, Mann & Co., Toronto; E. Baerwald, New York, and G. Duxenstein, Berlin, Germany.

Its recent issue was \$2,000,000 of 5% first mortgage bonds, which were disposed of to a syndicate of Bankers, the principal members of the syndicate being in Belgium. The proceeds will be utilized in mine development, equipment, etc. The Canadian Northern will build a line to the mines, probably from Stettler, Alta., which is likely to be ultimately extended to the C.N.R. main transcontinental line east of Yellow Head Pass.

THE CANADIAN WESTERN LUMBER CO., LTD., has a share capital of \$10,000,000, of which \$2,500,000 is 6% cumulative preferred stock and \$7,500,000 common stock issued and fully paid up. The directors are: President, A. D. Davidson, Land Commissioner and General Industrial Agent Canadian Northern Ry.; Vice President, A. D. McRae, late President Fraser River Lumber Co.; W. Mackenzie, President C.N. Ry.; D. D. Mann, Vice President C.N. Ry.; R. M. Horne-Payne, Chairman B. C. Electric Ry.; D. B. Hanna, Third Vice President C.N. Ry.; P. Jansen, President Saskatchewan Elevator and Grain Co.; A. R. Davidson, Director Saskatchewan Valley and Manitoba Land Co. The offices are at Fraser Mills, B.C.

The recent issue is £1,500,000 5% first mortgage debenture stock at 88, repayable in 35 years at par, or sooner, by means of sinking fund.

5,500,000,000 feet of timber at \$750 per 1000 ft.	\$41,250,000.00
75,000 acres of land at \$15. an acre	1,125,000.00
Estimated value of lumber, logs and merchandise on hand	1,020,000.00
Saw mill, planing mill, dry kilns, tramway, docks, railway, railway equipment, stores, warehouses, dwelling houses and townsite of 425 acres	2,500,000.00
	\$45,895,000.00

The prospectus states that this company has been formed to acquire certain blocks of freehold land, aggregating approximately 75,000 acres, bearing an immensely valuable body of timber, and also certain valuable timber leases and licenses, extending over about 60,466 acres, granted partly by the Dominion and partly by the Province of British Columbia, to manufacture lumber and sell the same, and more especially to retail the same in Alberta, Saskatchewan and Manitoba, where the building of

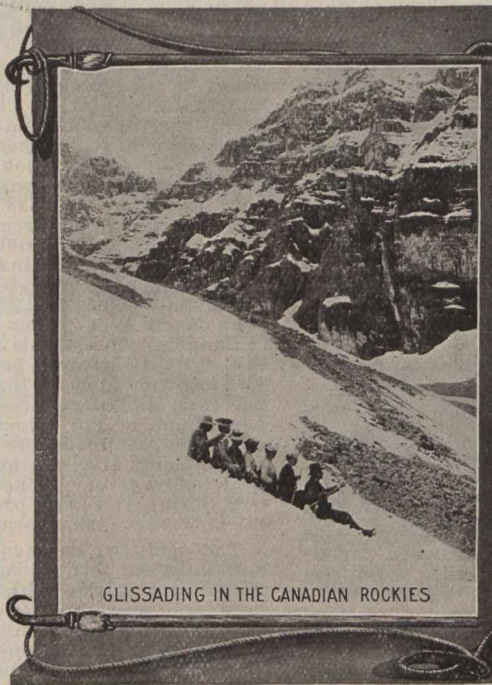
homes by thousands of immigrants has produced an enormous demand for lumber.

The company's land and timber is in carefully selected and easily accessible blocks mostly scattered through Comox district. The larger portion lies in the valley of the Tsolum and Oyster rivers and their tributaries. The total cut has been carefully estimated to produce 5,500,000,000 ft. of good merchantable timber, and of this about 75% is situated on the company's own freehold land, and, consequently, has the exceptional advantage of being free from all timber dues to the Government and from all taxes, except the ordinary land taxes of the province. This gives the company an advantage of about 50c. per 1,000 ft. over nearly every other lumber company in Canada. The land is heavily timbered, the principal growth being fir, the trees scaling from 3,000 to 15,000 ft. of lumber per tree, and these trees run to a good percentage of no. 1 logs. The situation of the land affords the great advantage for economical operation that it is all practically level. When the timber is cut, the greater part of the land will be saleable for agricultural purposes.

The company has acquired the largest and most modern of any saw milling plant in Canada, which is capable of producing more lumber at a less cost per thousand than any mill on the Pacific Coast. It is situated on the Fraser River adjacent to New Westminster, and has a water frontage of 4,000 ft. Large ocean-going vessels can load at the company's docks, and the company can thus export under the most economical conditions to the principal markets for B.C. timber, namely, the United Kingdom, Australia, New Zealand, South America, China and Japan, but the greatest and most profitable trade, and one that is constantly increasing, is that with the Canadian interior. The mills are already served by the C.P.R., the C.N.R. should reach the mill within a month, and the B.C. Electric Ry. shortly afterwards. The Canadian Northern Ry. will also build a line to the mill as soon as its main line reaches Vancouver. The company owns some 425 acres of land at the mills, on which is situated a small town of some 2,000 inhabitants, and it also owns a number of dwelling houses, from which a good rental is received. The company will immediately acquire land at the principal distributing centres in Alberta, Saskatchewan and Manitoba for the establishment of retail yards, and thus be in touch with and supply direct the enormous requirements of these provinces.

In valuing the resources, Col. Davidson, the President, states that he confidently estimates that, without taking into account the profits to be derived at the retail yards, the timber will realize at the mill a profit of at least \$7.50 per 1,000 ft., after allowing for all expenses, and that the land will realize an average price of \$15.00 per acre.

The directors are of the opinion that owing to the increasing scarcity of accessible timber land in the United States, and the enormous demand for timber caused by the rapid settlement on the Canadian prairies, there will, from now on, be a constant increase in the price of timber in Canada, and that large timber holdings in B.C. will become extremely valuable, and that the annual profit above estimated will consequently be greatly exceeded.



GLISSADING IN THE CANADIAN ROCKIES

50 SWITZERLANDS IN ONE

THE CANADIAN ROCKY MOUNTAIN NATIONAL PARK

The Largest Park in the World. 5,732 Miles in Extent.

Pre-eminent Natural Grandeur.	A Paradise for Mountaineers,
Splendid Hotel Accommodation.	Naturalists, Geologists and
Luxurious Train Service.	Minerallurgists.

Most delightful place in the world for a vacation.

Write for copy of "Challenge of the Mountains."

R. L. THOMPSON,
District Passenger Agent,
TORONTO

Or any agent of the company.

Reached
by the

**CANADIAN
PACIFIC
RAILWAY**

THE ELECTRIC HEADLIGHT

The following letter was received under date of May 8, 1908, from Mr. J. W. Cleary, Travelling Engineer Pyle-National Electric Headlight Co.:

"I learn from _____ the Master Mechanic here, that an engineer running between _____ and _____ discovered a broken rail with the Pyle-National Electric Headlight and made the stop without ditching his train. One or two pairs of wheels got off, but that was a small affair to what it would have been where a foot of the rail was broken off. Also an engineer running east of here found some cars shoved out on the main line. He saw them with the 'Electric' and made the stop without hitting them."

PYLE-NATIONAL ELECTRIC HEADLIGHT CO.
MONADNOCK, CHICAGO

Highway Crossings Regulations.

Following are the Board of Railway Commissioners' Standard Regulations for highway crossings as amended May 4:

Unless otherwise ordered by the Board the regulations for future construction of highway crossings are and shall be as follows:—

1. With each application, the railway company shall send to the Secretary of the Board three sets of plans and profiles of the crossing or crossings in question:

PlanScale 400 ft. to 1 inch.
Profile of railway—
HorizontalScale 400 ft. to 1 inch.
VerticalScale 20 ft. to 1 inch.

Profile of highway—
HorizontalScale 100 ft. to 1 inch.
VerticalScale 20 ft. to 1 inch.

1st set, for approval by and filing with the Board.

2nd and 3rd sets, to be furnished to the respective parties concerned, with a certified copy of the order approving of the same.

2. The plan and profile shall show at least one-half mile of the railway each way and 300 ft. of the highway on each side of the crossing.

3. The plan shall show all obstructions to the view from any point on the highway within 100 ft. of the crossing to any point on the railway within one-half mile of the said crossing.

4. The company shall give the municipality in which the proposed crossing lies, 10 days' notice of the application and copies of the plan, and furnish the Board with proof of service.

5. The road surface of level or elevated approaches, and of cuts made for approaches, to rural railway crossings over highways shall be 20 ft. wide.

(a.) A strong, substantial fence, or railing, 4½ ft., with a good post-cap 4 by 4 ins., a middle piece of timber 1½ by 6 ins., and a 10-in. board firmly nailed to the bottom of the posts to prevent snow from blowing off the elevated roadway, shall be constructed on each side of every approach to a rural railway crossing over a highway where the height is 5 ft. or more above the level of the adjacent ground,—leaving always a clear road-surface of 20 ft. in width.

6. Unless otherwise ordered by the Board, the planking, or paving blocks, or broken stone topped with crushed-rock screenings, on rural railway crossings over highways (between the rails and for a width of at least 8 ins. on the outer sides thereof), shall be 16 ft. wide.

7. In cities, towns and villages, the width of all kinds of approaches to a railway crossing over a highway (street or avenue), and of the planking between the rails and on the outer sides thereof, must be regulated by the position of the street and the traffic or the anticipated traffic thereon, but shall not be less than 20 ft. wide.

8. Wherever a cut on the line of railway exceeds 9 ft. or a filling thereon exceeds ft. at a highway or street crossing, the railway company, before proceeding with the work of construction, shall refer the matter to the Board, with a full statement of the facts and circumstances, that the Board may decide as to the advisability of ordering a separation of grades at the said crossing.

9. In special cases, it may, upon application, be ordered that any existing highway crossing be constructed so as to conform to the foregoing standards and requirements.

The arbitration proceedings in connection with the claims of the Canadian Northern Ry. carmen and steam-fitters for an advance of wages closed at Winnipeg, June 11. The award is expected to be made early in July.

Trade and Supply Notes.

The matter which appears under this heading is compiled, in most cases, from information supplied by the manufacturers of, or dealers in, the articles referred to, and in publishing the same we accept no responsibility. At the same time we wish our readers to distinctly understand that we are not paid for the publication of any of this matter, and that we will not consider any proposition to insert reading matter in our columns for pay or its equivalent. Advertising contracts will not be taken with any condition that accepting them will oblige us to publish reading notices. In other words, our reading columns are not for sale, either to advertisers or others.

The American Well Works, Aurora, Ill., has issued bulletin 115, devoted to American air compressors.

S.F. Bowser and Co., Ltd., has been authorized to increase the amount of capital which it may use in Ontario, from \$40,000 to \$100,000.

The Northern Engineering Works, Detroit, Mich., has installed two 10 ton hand power northern cranes, 30 to 34 ft. span, in the Detroit United Ry.'s substations.

Flannery Bolt Co., Pittsburg, Pa., has issued its 1910 catalogue, showing the various standards and assemblages of the Tate flexible staybolt, which it manufactures.

Taylor & Arnold, Limited, has been incorporated under the Dominion Companies Act, with an authorized capital of \$50,000, and head office at Montreal, and with power to acquire and carry on the business of Taylor & Arnold, dealers in railway, mining and contractors' supplies, etc. The incorporators include Jno. Taylor, T. Arnold, and L. S. Hough.

L. M. Booth and Co., New York and Chicago, have completed the installation of a 40,000 gallons per hour water softener at the Vandalla Rd. Co.'s new roundhouse and shops at Terre Haute, Ind. This softener is claimed to be the largest plant of its kind ever installed. Power is furnished by an overshot water wheel at the top of the softener and all of the working parts, including feeding apparatus as well as regulating equipment, are located in a substantial brick structure at the ground level.

The Canadian Fairbanks Co. has its general catalogue ready for distribution. It contains about 1,200 pages, is profusely illustrated and shows the many and varied lines handled by the company. It is divided into the following sections:—1, scales; 2, electrical apparatus and supplies; 3, pumps, steam, belt and gasoline; 4, valves and steam goods; 5, railway and contractors' supplies; 6, small tools and supplies; 7, power transmission appliances; 8, safes, vaults and metal office furniture. In addition to the general catalogue, small sectional catalogues as listed above are being issued. A copy will be mailed free to those who are interested in receiving it.

The Canadian Freight Association will hold its summer meeting at Penetanguishene, Ont. The members will leave Toronto by special G.T.R. train July 6, at 9 a.m., arriving at Penetanguishene about noon. Meetings of the freight, classification and executive committees will be held that afternoon, and the general meeting on July 7 at 10 a.m. As usual at the annual meetings there will be a number of social features, including a trip through the islands on July 7, as the guests of the town council, and a base ball match in the afternoon. On July 8, through the courtesy of Messrs. Playfair of Woodland, and Paton of Collingwood, there will be a yachting trip on the Georgian Bay.

A motion by the Pullman Co and the Great Northern Rd. for a preliminary injunction to prevent the lowering of sleeping car rates by the Interstate Commerce Commission, was denied in the U.S. Circuit Court at Chicago, June 11.

Apportionment of Crossings Construction and Maintenance.

An order served by the Board of Railway Commissioners, no. 10,457, dated April 28, respecting protection to be provided at the crossing of the Lachine road, at Rockfield, near Montreal, by the G.T.R., is of considerable interest, on account of the apportionment of the expense of construction and maintenance. The order follows:—

It is ordered that the G.T.R. Co. construct an overhead bridge at the said crossing, the cost of the work to be borne as follows:

G.T.R. Co.	50%
Montreal Park and Island Ry. Co.	14%
City of Lachine	10%
Parish of St. Pierre	2%
Parish of Lachine	2%
Turnpike Trust	2%

The Railway Grade Crossing Fund, 20%, provided that 20% of the cost does not exceed \$5,000. If it does exceed \$5,000, then the G.T.R. Co. is to pay the difference between \$5,000 and 20% of the cost, in addition to the 50% above mentioned.

The G.T.R. Co. to file within 30 days, detail plans of the work for the approval of the Chief Engineer of the Board; the said work to be commenced as soon as the plans have been approved, and to be completed within six months from this date; the maintenance of said overhead crossing and the approaches to be borne as follows:

G.T.R. Co.	62½%
Montreal Park and Island Ry. Co.	17½%
City of Lachine	12½%
Parish of St. Pierre	2½%
Parish of Lachine	2½%
Turnpike Trust	2½%

Any of the parties to be at liberty to apply to the Board should any dispute arise as to carrying out the terms of this order.

Ottawa, Rideau Valley and Brockville

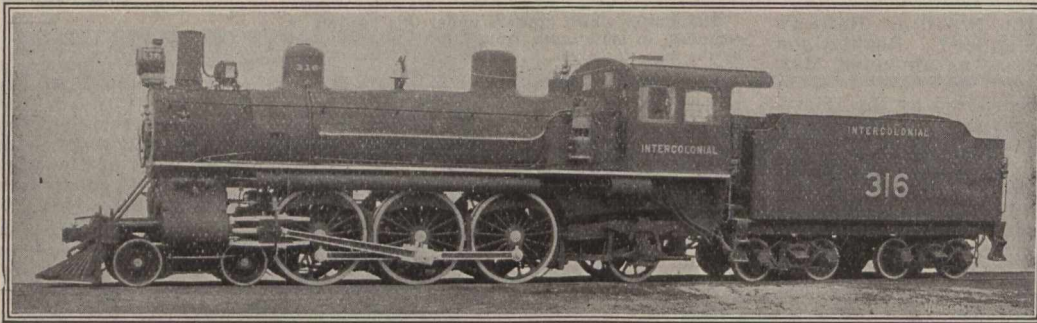
Ry.—A meeting for the organization of this company was held at Ottawa June 18, when directors were elected as follows: W. E. MacLaren, J. N. Gilmour, Brockville; F. A. Heney, E. W. Clarke, D. H. MacLean, G. H. Kidd, K.C., Ottawa; A. McDermott, R. E. Elliott, Montreal. A decision was arrived at to complete the surveys without delay and to arrange for the immediate construction of the line. According to press reports it will leave Ottawa by the G.T.R., branching off near Graham's Bay and passing through Manittick, North Gower, Burritt's Rapids, Merrickville, North Augusta and Algonquin to Brockville. The company also has power to cross the Interprovincial bridge and build a line to the iron mines at Ironsides, Que. The reports also add that the line will probably be operated by the G.T.R. (May, pg. 353.)

Québec Central Ry.—Gross earnings for April, \$88,354.86; expenses, \$59,290.45; net earnings, \$29,064.41, against \$82,082.78 gross earnings; \$56,248.80 expenses; \$25,833.98 net earnings for Apr. 1909. Aggregate gross earnings for 10 months ended Apr. 30, \$886,074.88; expenses, \$612,535.64; net earnings, \$273,538.74, against \$843,942.71 aggregate gross earnings; \$599,828.21 expenses; \$244,114.50 net earnings for same period 1908-09.

Temiskaming and Northern Ontario

Ry.—Operating revenue for Mar., \$161,022.04; operating expenses, \$89,579.52; net operating earnings \$71,442.52; less hire of equipment, \$4,474.77; balance, \$66,967.75; percentage 55.5; operating revenue for Apr., \$133,825.36; operating expenses \$88,910.21; net operating earnings, \$44,915.15; less hire of equipment, \$4,408.33; balance, \$40,506.82; percentage, 66.4.

An order-in-council has been passed, dated May 11, rescinding a previous order of Aug. 2, 1899, relating to the importation of petroleum in bulk in tank ships and enacting new regulations.



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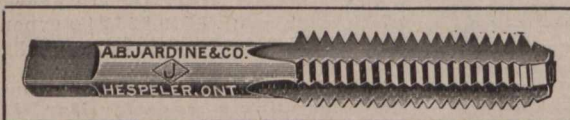
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ADVERTISING RATES furnished on application. ADVERTISING COPY must reach the publishers by the 10th of the month preceding the date of publication, if proof is required, or by the 15th if proof is not required.

TORONTO, CANADA, JULY, 1910.

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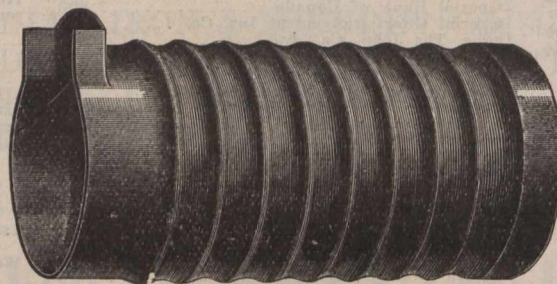
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MAINLY ABOUT PEOPLE.

D. Galvin, G.T.R. roadmaster, district 3, Eastern Division, died at Richmond, Que., recently.

Rear-Admiral C. E. Kingsmill, R.N., has been appointed Director of the Naval Service of Canada.

N. Tessier, Secretary of the Department of Public Works, died of typhoid fever at Ottawa, June 3.

A. H. Myles, at one time Treasurer Hamilton, Grimsby and Beamsville Ry., died in Hamilton, Ont., June 20.

R. W. Bruce, fuel inspector for the C.P.R. at Cleveland, Ohio, was married to Miss L. Herod, in Toronto, June 8.

Miss Clara Hays, youngest daughter of C. M. Hays, President G.T.R., was married at Montreal, June 9, to H. C. Scott.

The engagement is announced of Miss L. M. Hays, third daughter of C. M. Hays, President G.T.R. and G.T.P.R., to H. Grier.

Hon. F. Oliver, Minister of the Interior, is reported as likely to be appointed a member of the Board of Railway Commissioners.

C. M. Hays, President G.T.R. and G. T. Pacific Ry., reached Winnipeg June 22, on a trip of inspection, and went on to Vancouver.

A. W. Smithers, Chairman of the G.T.R. Board in England, has been elected a director of the South-Eastern and Chatham Ry. of England.

Miss Aileen Sinclair, daughter of Angus Sinclair, C.E., railway contractor, Toronto, was married there June 23 to H. K. Mackenzie, barrister.

Miss I. F. Barber, daughter of the late A. W. Barber, Superintendent C.P.R. Telegraphs, Toronto, was married June 6, to H. P. Meeking, Toronto.

G. W. F. Evans, a member of the National Transcontinental Ry. engineering staff at Quebec, has resigned and left for Red Deer, Alta., June 4.

Lord Strathcona, it is stated, is the holder of 2,030 shares of Hudson's Bay Co.'s stock, and his daughter, the Hon. Mrs. Howard holds 2,025 shares.

Miss Clara M. Foy, second daughter of the late John Foy, President of the Niagara Navigation Co., was married in Toronto, June 9, to R. O. Petman.

Frank Plummer, President Dominion Marine Association, and his family, will leave Toronto about the middle of July, to spend a few weeks at Aylmer, Que.

Mrs. J. W. Canatsy, wife of J. W. Canatsy, trainmaster, Wabash Rd., St. Thomas, Ont., who died there recently, was buried at Memphis, Miss., June 7.

J. A. Mackenzie, at one time in the C.P.R. pay office, Montreal, and latterly in the dining and sleeping car office at Calgary, Alta., died there recently.

H. H. Vaughan, Assistant to the Vice President C.P.R., visited Winnipeg early in June, for a consultation with the motive power officials of the Western lines.

T. Cowley, a former G.T.R. locomotive driver, who died recently at St. Thomas, Ont., was father of F. W. Cowley, Trainmaster, Michigan Central Rd., St. Thomas.

F. H. Phippen, K.C., General Counsel, Canadian Northern Ry., Toronto, has been elected a director of the National Trust Co., in place of Cawthra Mulock, resigned.

L. Mulkern was presented with a gold chain and locket by the General Freight Agent staff at Toronto, June 1, on his promotion to be District Freight Agent at London, Ont.

D. C. Coleman, Superintendent C. P. R. Car Service, Winnipeg, was one of the principal speakers at the first annual

meeting of the Railway Men's Y.M.C.A. at Kenora, Ont., recently.

K. M. Fitzpatrick, ticket agent Lehigh Valley Rd., Toronto, was presented recently with a leather chair and an address by his business associates on the occasion of his marriage.

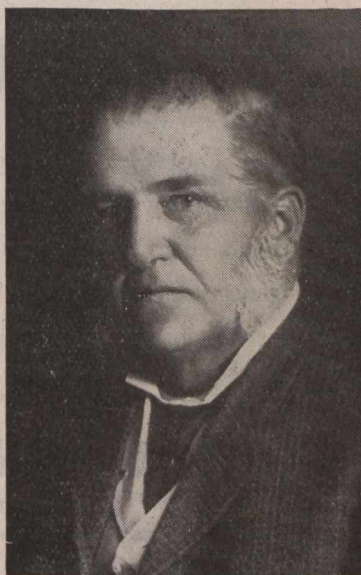
Jas. Cross, foreman blacksmith in the C.P.R. Winnipeg shops, who died in Winnipeg, June 15, aged 58, was a brother of W. Cross, formerly Assistant to the Second Vice President, C.P.R.

Sir Thos. G. Shaughnessy has been elected President of the general committee appointed to provide for the erection of a monument to King Edward VII. in Montreal.

Miss Ina Spencer, daughter of G. Spencer, Superintendent C.P.R., North Bay, Ont., was married there recently to J. O. Carlisle, M.A., of the Riverdale Collegiate Institute, Toronto.

Hon. G. P. Graham, Minister of Railways and Canals, has been elected President of the Travelers' Life Assurance Co., Montreal. J. W. Pyke, Montreal, has been elected Vice-President.

Sir Wm. C. Van Horne returned to Montreal, June 9, from a trip of inspection over the Cuba Co. railway, of which



W. R. Tiffin, Superintendent Northern Division G.T.R., Allandale, Ont., who died there, May 29, after 50 years' service.

he is President. He was accompanied home by his son, R. B. Van Horne.

C. A. Magrath, M.P., formerly Land Commissioner for the Alberta Ry. and Irrigation Co., is the author of a recently published book, "Canada's growth and some problems affecting it."

A. Pretty, train dispatcher Reid Newfoundland Ry., died recently on an I.C.R. train at Amherst, N.S., on his way home from New York, where he had been for medical treatment.

T. H. Skinner, of London, Eng., a C.P.R. director, has been elected Deputy Governor of the Hudson's Bay Co., and Wm. Mackenzie, President Canadian Northern Ry., has been elected a director.

The Shielah, the steam yacht in which J. S. Ross, of Montreal, and a party has been cruising recently in the Mediterranean, arrived at Sydney, N.S., from Southampton, Eng., after a run of 11½ days.

Alex. Johnston, ex-M.P., Sydney, N.S., has been appointed Deputy Minister of Marine and Fisheries in place of G. J. Desbarats, who has been appointed De-

puty Minister Canadian Naval Service.

J. Irwin was presented recently with an address and a purse of gold by G.T.R. employes and other friends, on resigning the office of Trainmaster at Lindsay, Ont., to enter the Canadian Northern Ry. service.

L. Black, an assistant resident engineer of the National Transcontinental Ry., at Barrington, N.S., was seriously injured, June 12, by falling from a train. His recovery was considered improbable, as his back was broken.

H. G. Beemer, who was associated with his brother, H. J. Beemer, in the construction of the lines now known as the Ottawa Northern and Western Ry., and other projects, died at Mishawaka, Ind., recently.

W. R. Sutton, chief clerk in the G.T.R. audit department, died June 8, at Montreal. He started life as a fellow apprentice to the wholesale dry goods business in London, Eng., with Lord Mount Stephen.

When King George visited Newfoundland as a midshipman on H.M.S. Canada in 1883, he took part in the spike driving near Cort Hills, 43 miles from St. John's, on a section of what is now the Reid Newfoundland Ry.

H. B. Moore, Secretary-Treasurer G. T. R. Insurance Society, was presented with a gold watch and an illuminated address by the committee of management June 16, on his completing 25 years in the G.T.R. service.

W. E. Bagnall, the Ottawa stockbroker, whose business affairs are being wound up with an estimated loss of \$100,000 to his clients, up to five years ago was a train dispatcher on the C.P.R. Chalk River-North Bay section.

Major J. E. Hutcheson, Superintendent and Purchasing Agent, Ottawa Electric Ry., sailed from Montreal June 17, for England, where he is acting as Adjutant to return to Canada in about several weeks.

J. W. Fortune, who died in Detroit, Mich., June 5, was a native of Stratford, Ont., and had been for many years in the G.T.R. service. When he retired from active work 15 years ago, he was chief clerk in the General Superintendent's office.

J. W. Stoughton, construction superintendent Canadian Bridge Co., Walkerville, Ont., died at Detroit, Mich., May 31, aged 67. He was in charge of the erection of the Victoria Jubilee bridge over the St. Lawrence, at Montreal, on the G.T.R.

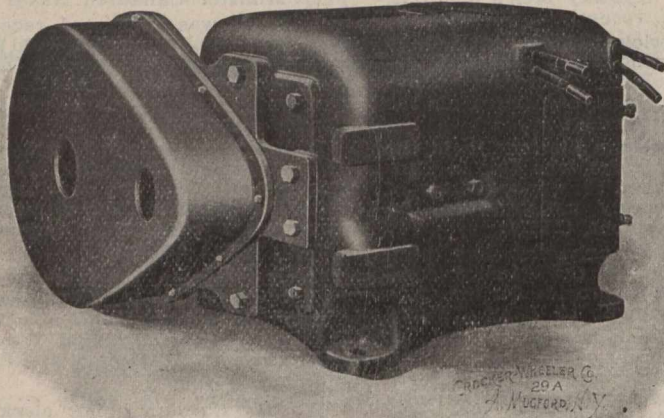
J. C. Earls, Travelling Freight Agent, Pennsylvania Rd., of New York State, with headquarters at Rochester, and son of Jno. Earls, ex-Secretary-Treasurer Canadian Freight Association, was married at Buffalo, N.Y., June 21, to Miss E. F. Kaake.

G. Attwood, Chief Engineer of the Hudson Bay and Pacific Ry., spoke on the Panama Canal and other trade routes connecting the Pacific and the Atlantic oceans, at the annual meeting of the Athenian Club, Prince Albert, Sask., June 3.

E. Dunlop, Roadmaster District 30 Ottawa Division, G.T.R., was presented with a case of silver recently by the employes of the road department of the district, on his resignation to accept a similar appointment on the G.T.P.R. at Edmonton, Alta.

C. E. Cartwright, who recently resigned his position as Division Engineer, Pacific Division, C.P.R., Vancouver, will practise there as consulting civil engineer, making a specialty of railway location and construction, bridges and land improvement.

W. E. Dunerow, Travelling Passenger Agent G.T.R., Toronto, was presented



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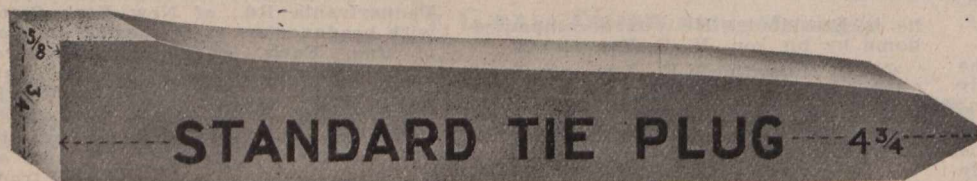
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with \$200 by the passenger staffs of the various railways represented in Toronto, May 31, on his leaving for Victoria, B.C., to take up his new duties as General Agent G.T.R. and G.T. Pacific Ry.

C. E. Goad, C.E., who died in Toronto June 10, was on the engineering staff of the old Toronto, Grey and Bruce Ry., or what is now the C.P.R., between Montreal and Ottawa, and on what is now a portion of the Intercolonial Ry. between Halifax and Cape Breton Island.

R. Witherspoon, who came to Canada as a locomotive driver for the G.T.R. contractors, in 1855, and who afterwards entered the G.T.R. service, died at Cornwall, Ont., May 30, aged 77. He drove the first locomotive on the first passenger train between Montreal and Toronto, Oct. 6, 1856.

G. H. Brass, a third year student in civil engineering, Toronto University, who died in Toronto, June 18, aged 24, was a son of P. Brass, for a number of years foreman, and at the time of his retirement from service, acting Master of Bridges and Buildings, G.T.R., Middle Division, Toronto.

Lady Reid, widow of Sir Robt. G. Reid, and mother of W. D. Reid, H. D. Reid and R. G. Reid, President, Vice President and General Superintendent, respectively, of the Reid Newfoundland Co., died at Montreal, June 7, aged 67. Her illness was of short duration, she having recently returned from Great Britain, accompanied by Miss Reid.

C. G. Ortenburger, whose appointment as city passenger and ticket agent G.T.R., Chicago, Ill., was announced in our last issue, was born at Port Huron, Mich., Jan. 21, 1869, and entered G.T.R. service Dec. 1886, as messenger. He was transferred June 1890 to the Audit Department at Detroit, Mich., and to the Chicago city office May 1896.

Guy Boyer, Superintendent of Construction Montreal St. Ry., underwent an operation on his nose and throat in the Royal Victoria Hospital, Montreal, June 9. The representatives of the member companies of the Canadian Street Railway Association which was then in session in Montreal sent him some flowers with an expression of sympathy.

A. McCowan, who was recently appointed General Car Foreman Canadian Ry., Winnipeg, was born at Perth, Scotland, Dec. 5, 1868, and entered railway service, May 1888, since when he has been to Mar. 1890, carpenter, C.P.R.; Mar. 1890 to 1897, change hand, C.P.R.; 1897 to 1903, foreman C.P.R., Farnham, Que.; 1903 to Apr. 1910, foreman C.P.R. Cranbrook, B.C.

L. V. Druce, who has been appointed Commercial Agent G.T.R., G.T.P.R., and G.T.P. Steamship Co., at Vancouver, B.C., was born in London, Eng., Oct. 20, 1873, entered G.T.R. service in Aug. 1896, at Los Angeles, Cal., and was, from Mar. 1897 to Aug. 1904, Agent at Seattle, Wash.; Aug. 1904 to May 23, 1910, Commercial Agent at Seattle, Wash.

P. J. Lynch, who has been appointed Superintendent Northern Division, G.T.R., was, in 1908, engaged as conductor, G.T.R., between Toronto and North Bay, and from Oct. 1, 1898 to 1899, was Trainmaster at Stratford, Ont.; from 1899 to 1900, Trainmaster at Belleville, Ont.; 1900 to 1904, Trainmaster at Stratford, Ont.; 1904 to June 1, 1910, Assistant Superintendent Northern Division, Allandale, Ont.

W. J. Piggott, who has been appointed Trainmaster G.T.R., Allandale, Ont., was born at Point Edward, Ont., Nov. 24, 1872, and entered G.T.R. service Aug. 1889, since when he has been, to Apr., 1892, night operator at Lorneville Jct., Ont.; Apr. 1892 to Aug. 1896, dispatcher and relieving agent, Midland

Division; Aug. 1896 to Nov. 1904, dispatcher at Allandale, Ont.; Nov. 1904 to June 1, 1910, Chief Dispatcher at Allandale, Ont.

J. F. Sweeting, whose appointment as Industrial Agent, C.P.R. Western Lines, was announced in our last issue, was born at Worthing, Eng., Aug. 20, 1872, and entered C.P.R. service June 19, 1906 since when he has been, to Aug. 1906, stenographer General Freight Department, Winnipeg; Aug. 1906 to Mar. 1, 1908, stenographer, clerk in tariff bureau and claims clerk, in Assistant Freight Traffic Manager's office, Winnipeg; Mar. 1, 1908 to May 1910, chief clerk to the Assistant to Second Vice President, Winnipeg.

R. A. Gamble, who was recently appointed Fuel Agent, Western Division, C. P. R., Calgary, Alta., was born at Dublin, Ireland, Mar. 1, 1876, and entered C.P.R. service Oct. 1, 1901, since when he has been, to May 15, 1903, yard clerk at Winnipeg; May 15, 1903 to Oct. 15, 1905, chief yard clerk; Oct. 15, 1905, to Sept. 11, 1907, assistant yardmaster; Sept. 11, to Nov. 25, 1907, night yardmaster; Nov. 25, 1907, to June 7, 1909, chief clerk Car Service Department, Western Lines; June 7, 1909 to May 1, 1910, Inspector Refrigerator Service, Western Lines, Winnipeg.

L. Mulken, who has been appointed District Freight Agent, C. P. R., London, Ont., was born there, June 18, 1871, and entered C. P. R. service, Mar. 1890, since when he has been, to 1897, operator Toronto freight office; 1897 to 1901, inward freight clerk, London freight office; June 1, 1901 to June 1903, clerk in General Freight Agent's office, Toronto; June 1903 to Apr. 1908, canvassing freight agent, Toronto, chief clerk to General Freight Agent Local Traffic, Toronto, and Travelling Freight Agent, Toronto, consecutively; Apr. 1908 to June 1910, chief clerk to General Freight Agent Through Traffic, Toronto.

S. P. Howard, who has been on the C.P.R. staff over 28 years, acting for some years past as General Freight Agent at Montreal, retired from the company's service May 31. He was made the recipient of several gifts on the occasion, viz.: A cut glass punch bowl, silver ladle, and glasses, and a silver mounted cut glass fern dish for Mrs. Howard from the freight staff generally; a loving cup from the General Freight Agent's staff at Montreal, and a cut glass decanter from representatives of other companies with whom he had been associated in the Canadian Freight Association.

R. S. Gosset, whose appointment as Auditor Canadian Northern Steamships, Ltd., was announced in our last issue, was born at Toronto, Sept. 28, 1879. He entered transportation service Mar. 1894, since when he has been, to July 1899, stenographer to President Toronto Ry., July 1899 to June 1901, secretary to R. J. Mackenzie, Mackenzie, Mann & Co.; June 1901 to Dec. 1902, secretary to General Superintendent Canadian Northern Ry.; Dec. 1902 to June 1904, secretary to Third Vice President Canadian Northern Ry.; June 1904 to Apr. 1907, in Accounting Department C.N.R., in charge of disbursements, and from Apr. 1907, chief clerk Accountant's Department, C. N. R., which position he retains.

M. H. Brown, whose portrait appears on the first page of this issue, was born at Richmond Hill, Ont., Sept. 2, 1866, and entered C. P. R. service, Oct. 1, 1877, since when he has been, to Apr. 1890, clerk General Freight Department, Toronto; Apr. 1890 to Aug. 1893, chief clerk to District Freight Agent, Detroit, Mich.; Aug. 1893 to Mar. 1896, chief clerk to Freight Traffic Manager, Toronto; Mar. 1896 to July 1899, chief clerk to Freight Traffic Manager, Montreal; July 1899 to June 1901, District Freight

Agent, Detroit, Mich.; June 1901 to Oct. 1902, Assistant General Freight Agent Ontario Division, Toronto; Oct. 1902 to Nov. 1907, General Freight Agent Ontario Division, Toronto, and from Nov. 1907, General Freight Agent Local Traffic, Ontario Division, Toronto. He is president Canadian Freight Association for the current year.

Arthur White, formerly Division Freight Agent G.T.R., at Toronto, who died there June 16, of cancer of the throat, was born at Hadleigh, Suffolk, Eng., Nov. 17, 1840, and entered railway service in 1859, since when he had been, to 1866 on the Great Eastern Ry., England; 1866 to 1873, freight checker, clerk and agent, consecutively, G.T.R.; 1873 to 1876, Assistant General Freight Agent same road; 1876 to 1878, General Freight Agent Great Western Ry.; 1878 to 1880, General Freight and Passenger Agent Midland Ry.; 1880 to 1884, Traffic Manager same road; 1884 to May 1885, District Traffic Manager Midland Division G.T.R.; May to Aug., 1885, Division Freight Agent Midland Division G.T.R.; Aug. 1885, to June 1892, District Freight Agent same road; June 1892 to July 1902, Division Freight Agent same road at Toronto.

W. R. Tiffin, Superintendent Northern Division G.T.R., died at Allandale, Ont., May 29, after the last forms of our June issue had gone to press, so that it was impossible to mention it in that issue. He was born at Hamilton, Ont., in 1844, and entered railway service in 1860, since when he was, to 1875, clerk Great Western Ry. of Canada at Hamilton; 1875 to 1880, Assistant Superintendent same road, Palmerston, Ont.; in 1890 on the amalgamation of the G.W.R. with the G.T.R., he was appointed Assistant Superintendent Northern Division, Stratford, Ont., which position he held until July 15, 1896, when he was assigned to other duties, and from Jan. 1, 1897, he was Superintendent Northern Division at Allandale. He had completed his 50th year in the service of the G.T.R. and its predecessors, and had been Superintendent at Allandale since 1897. He had not been in robust health for some years, but was active in his duties until the beginning of May. The funeral took place at London, Ont., June 2, a special train conveying the funeral party from Barrie. At Toronto the train was joined by a large gathering of railway men from all parts of the G.T.R., as well as by representatives of other companies. Amongst those present were:—E. Tiffin, Traffic Manager, Intercolonial Ry., Moncton, N.B., a brother; F. H. McGuigan, Toronto, formerly Fourth Vice President G.T.R.; J. Osborne, General Superintendent Ontario Division C.P.R., and the following G.T.R. officials:—W. G. Brownlee, Transportation Manager; W. W. Ashald, Superintendent of Telegraphs; J. E. Quick, General Baggage Agent; H. E. Whittenberger, Superintendent Montreal Terminals; L. G. Coleman, Superintendent, Belleville, Ont.; L. Macdonald, Division Freight Agent, Toronto; U. E. Gillen, Superintendent, Toronto; J. D. McDonald, District Passenger Agent, Toronto; W. H. Farrell, Superintendent, Toronto; J. J. Beck, Superintendent Union Station, Toronto; G. A. Mitchell, Master of Bridges and Buildings, Toronto; H. Ferguson, General Roadmaster; E. L. Cousins, Resident Engineer, Toronto; J. Markey, Master Mechanic, Toronto; E. W. Smith, Superintendent of Dining Cars; J. A. McLardy, Trainmaster, Stratford; —Forester, Chief Dispatcher; D. Crombie, Assistant to General Traffic Manager.

The C.P.R. has let the contract for the erection of the Y.M.C.A. building for its employes at Cranbrook, B.C., to J. G. McCallum, of that place, who has started work.

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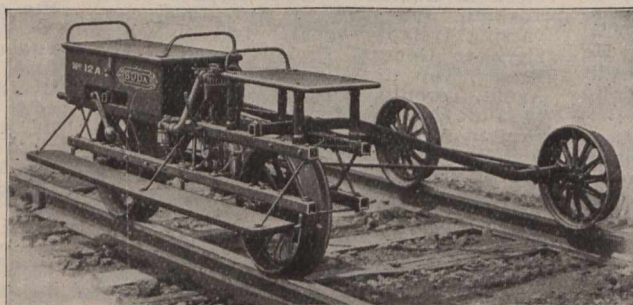
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Railway Rolling Stock Notes.

The G.T.R. has received three mogul locomotives from the Canadian Locomotive Co., Kingston, Ont.

The Temiskaming and Northern Ontario Ry., has ordered four Pacific type locomotives from the Canadian Locomotive Co., Kingston, Ont.

The Winnipeg city council has purchased a standard oil car from the C.P.R., to be utilized as an oil tank car in connection with the city's portable asphalt plant.

M. P. and J. T. Davis, contractors on the National Transcontinental Ry., have purchased a Rouger double plow ballast distributing car from the Hart-Otis Car Co., Montreal.

The G.T. Pacific Ry. has received 221 box cars, nos. 31161 to 31183; one official car, no. 4103; and six first class coaches, nos. 2036 to 2041, from the Canadian Car and Foundry Co., Montreal.

The Essex Terminal Ry., which, at present is only moving other companies' cars to and from the various industries on its line, has no cars of its own, but has one switching locomotive in service.

The Ha Ha Bay Ry., is reported to have ordered one coupe ended locomotive, with cylinders 14 by 22 ins., 44 ins. driving wheels and a total weight of 80,000 lbs., from the American Locomotive Co.

The Canadian Northern Ry., between May 15 and June 15, received the following additions to rolling stock: two first class cars, 40 ore cars, and 380 box cars from the Canadian Car and Foundry Co., Montreal; 15 box cars, 15 stock cars, and 115 flat cars, from the Crossen Car Mfg. Co., Cobourg, Ont.

The Dominion Coal Co. has ordered 12 all steel Otis type coal cars from the Hart-Otis Car Co., Montreal, of which the following are the chief particulars: Length over end sills 38' 10"; Length inside 36' 5"; Width inside 9' 7"; Height inside 5' 0"; Height from rail to top 9' 4 1/8-16"; Height from rail to floor 4' 4 1/8-16";

The G. T. Pacific Ry. has ordered from the Canadian Car and Foundry Co., Montreal, for delivery in 1911, four mail and express cars, nos. 106 to 109; three second class coaches, nos. 1018 to 1020; 12 first class coaches, nos. 2042 to 2053; 23 colonist cars, nos. 3015 to 3037; five tourist cars, nos. 3405 to 3409; three dining cars, nos. 4003 to 4005; 200 box cars, nos. 31225 to 31254; and 300 flat cars, nos. 361300 to 361599.

Following are the chief details of the seven suburban cars, which the C.P.R. is building at its Angus shops, Montreal:—Length, over frame 65' 0"; Breadth, over frame 9' 10 1/2"; Accommodation 42; Body and under frame Wood Axles and brasses 5" by 9" Springs Quadruple elliptic, 38" Wheels Steel tires, 36 1/4" Trucks Four wheel passenger Brake Beams Simplex Air Brakes Westinghouse Heating Gold System Seats Rattan

Following are the chief dimensions of the 1,000 steel underframe box cars, which the G.T.R. is having built in the U.S., as mentioned in our last issue:—Length over end sills 36' 9 3/4"; Width over side sills 9' 0 3/4"; Height, top of sills to under side of plate 7' 10 3/4"; Length inside 36' 0"; Width inside 8' 6"; Height inside, top of floor to under side of carlin 8' 0"; Outside end sill to centre of body bolster 5' 0"; Height, top of rail to centre of draw-bar 2' 10 1/2"; Wheel base of truck 5' 2"; Door opening 6' 0"; Height from rail to top of running board 13' 5 1/2";

Height from rail to top of brake mast. 14' 0"
Height from rail to top of eaves. 12' 1 1/2"
Width over eaves 9' 6 7/8"
Height over rail to top of floor 4' 1 3/4"
Framing G. T. R. Standard
Truck bolster Simplex
Air brakes Westinghouse
The 500 steel underframe automobile cars which the G.T.R. is having built in the U.S., as mentioned in our last issue, will, with the exception of the door opening, be similar to the standard box car. Following are the chief dimensions:—Length over end sills 40' 9"; Width over side sills 9' 0 3/4"; Height, top of sill to under side of plate 8' 4 3/4"; Length inside 40' 0"; Width inside 8' 6"; Height inside, top of floor to under side of carlin 8' 6"; Outside end sill to centre of body bolster 5' 2"; Height top of rail to centre of draw-bar 2' 10 1/2"; Wheel base of truck 5' 2"; Side door opening 8' 2" by 10' 0"; Height from rail to top of running board 13' 6"; Height from rail to top of brake mast. 14' 0"; Height from rail to top of eaves. 12' 7 1/2"; Width over eaves 9' 6 7/8"; Height from rail to top of floor 3' 8"; Air brakes Westinghouse Framing G. T. R. Standard Roof, inside Metal Truck bolsters Simplex

Following are the chief details of the 10 ten-wheel locomotives, class D. 10, making 26 of this class now under construction, which the C.P.R. is building at its Angus shops, Montreal, as mentioned in our last issue:—

Weight on drivers 141,000 lbs.
Weight total 190,000 lbs.
Cylinders, diam. and stroke 22 1/2" by 28"
Drivers, diam. 63"
Boiler type Radial stayed, wagon top
Boiler pressure 180 lbs.
Heating surface, tubes 2,263 sq. ft.
Heating surface, superheater 408 sq. ft.
Heating surface, firebox 190 sq. ft.
Tubes, no. and diam. 24 5" 244 2"
Tubes, length 14' 6"
Firebox 100 7/8" by 69 3/4"
Grate area 49 sq. ft.
Capacity, water 5,000 galls.
Capacity, coal 10 tons
Air brakes Westinghouse E.T. 6
Brake shoes C. P. R. Standard
Brake beams Simplex, diamond, inside hung
Couplers Tower
Headlight Pyle National Electric
Journal bearings C. P. R. Standard
Lubricators Detroit 5-feed
Springs C. P. R. crucible
Wheel tires Crucible steel
Wheel centres Cast steel
Tractive effort 34,400 lb.

The G.T.R. has placed orders for rolling stock as follows:—Five first class cars, length over end sills 67 1/2 ft., width over side sills 9 ft. 8 in., seating capacity 60 in body, nine in smoking room; one steam motor car for the International Bridge Co., length over end sills 60 ft., width over side sills, 9 ft. 8 in., seating capacity 24 in body, 16 in smoking room; three dining cars, length over end sills 70 1/2 ft., width over side sills 9 ft. 8 ins., capacity of dining room 30; three parlor cars, length over end sills 73 ft., capacity 30 in body, six in smoking room; three parlor-buffet cars, length over end sills 73 ft., width over side sills 9 ft. 8 in., capacity 27 in body, six in smoking room, to be built at its Point St. Charles shops, Montreal; two double track flangers, to be built at its Port Huron shops, Mich.; 20 baggage cars, length over end sills 60 ft. 10 ins., width over side sills 9 ft. 8 ins., length inside 60 ft. 1 in.; five of these will be fitted with movable stalls and other equipment for the conveyance of 16 horses each; 1,000 twin hopper steel coal cars; 1,500 box cars, to be built by the Canadian Car and Foundry Co., Montreal; 500 box cars from the Silliker Car Co., Halifax, N.S., and 1,000 box cars and 500 automobile cars to be built in the U.S., as mentioned in our last issue.

Patrick Dubee, [Secretary Montreal St. Ry. Co., was married at Montreal June 28 to Miss Dineen.

Sleeping Car Reservations.

The Chief Railway Commissioner having suggested that the railway companies abolish the system of reserving sleeping and parlor car accommodation without prepayment, the following rules have been adopted in the Eastern Canadian Passenger Agents' territory:

(a) Commencing June 19, sleeping and parlor car accommodation will not be held unless paid for at the time of making reservation, except as per paragraph (b).

(b) Accommodation reserved on telephone or telegraph request from points outside a radius of five miles from the cities where sleeping or parlor car space is on sale, may be held until departure of car from place at which space is reserved.

(c) Sleeping or parlor car tickets will be redeemed if presented to agent from whom purchased or to agent at station prior to departure of train for which they are sold.

Portland Canal Short Line Ry.—Detail plans for the first five miles of this railway have been filed with the British Columbia Government. The line will be approximately 16 miles long, and will extend from Stewart, at the head of Portland Canal, back into the hills serving all the proven mines of the district. The construction of the docks at Stewart is being proceeded with, so that they will be ready about the same time as the line is completed, about the end of August. Local reports state that as soon as this 16 miles of line is completed an extension will be carried through about five miles of Alaskan territory, to and through the Salmon River district. A favorable pass exists by which the line might ultimately be extended to the Naas Valley, which opens up the Cassiar and Omineca districts, and to the Canadian Northern Ry. (June, pg. 473.)

Quebec Railway Acts, etc.—J. A. LeFebvre, Secretary of the Railway Branch Public Works and Labor Department, Quebec, is issuing a volume of about 200 pages in English and French, containing the acts of the province relating to railways, to taxes payable by railway companies, and to the repayment of railway subsidies, taken from the Revised Statutes of Quebec, 1909, with a table showing the subsidies of all kinds which have been granted and paid on account of provincial railways. Its price is \$2.

The sale of the Dunsmuir collieries etc., in British Columbia, was completed June 16, and the property transferred to the Canadian Collieries (Dunsmuir) Ltd., a company of which W. Mackenzie, President Canadian Northern Ry., is the head. W. L. Coulson has been appointed manager.

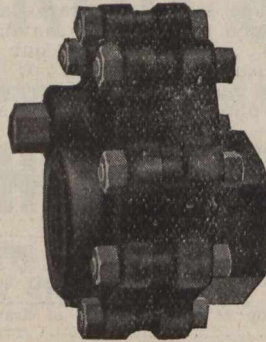
A circular has been issued by J. W. Leonard, General Manager C.P.R. Eastern Lines, directing the crews of passenger trains to attend the St. John's Ambulance "first aid" lectures, and announcing that emergency medical outfits will in future form part of conductors' kits.

The Railway Association of Special Agents and Police of the U.S. and Canada, which held its annual meetings at Los Angeles, Cal., recently, has changed its name to the International Association of Railway Special Agents and Police. The association has 318 members, representing 79 railways, covering 162,000 miles.

The C.P.R. and the C.N.R. in conjunction with the Manitoba Agricultural College are sending dairy instruction cars over their Manitoba lines. The railways supply the cars and transport them from place to place, and the college supplies the lecturers, demonstrators and instruction equipment.

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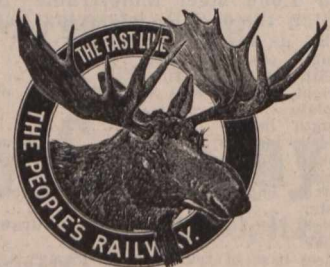
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Orders by the Railway Commissioners.

Beginning with June, 1904, we have published in each issue summaries of orders passed by the Board of Railway Commissioners, so that subscribers who have filed our paper have a continuous record of the Board's proceedings. No other paper has done this.

The dates given of orders, immediately following the numbers, are those on which the hearing took place and not those on which the orders were issued. In many cases orders are not issued for a considerable time after the date assigned to them.

10629. May 17.—Authorizing Town of Paris, Ont., to lay pipe under G. T. R.
10630. May 16.—Authorizing Manitoba Government Telephones to place wires across C. N. R., near Swan Lake Station, Man.
10631. May 17.—Authorizing Alberta Government to place wires across C. N. R. between secs. 25 and 26, twp. 55, r. 20, w. 4 m.
10632 to 10633. May 17.—Authorizing city of St. Thomas, Ont., to place wires across telegraph wires and London & Port Stanley Ry. at two points.

10634 to 10636. May 17.—Authorizing city of St. Thomas, Ont., to place wires across G. N. W. Telegraph Co.'s wires at three points.

10637. May 17.—Adopting Standard Conditions and Specifications for Wire Crossings, approved by order 8392, Oct. 7, 1909, pursuant to amendment to sec. 246 of the Railway Act, which reads: "5. An order of the Board shall not be required in the cases in which telephone, telegraph or electric light wires are erected across the railway with the consent of the company in accordance with any general regulations, plans, or specifications adopted or approved by the Board for such purposes."

10638. May 18.—Authorizing C. P. R. to appeal to the Supreme Court of Canada from order 10340, which directed the arrival and departure of trains of the Maniwaki Branch to and from Sappers' Bridge, Ottawa.

10639. Mar. 22.—Approving revised location of N. St. C. and T. Ry. between mileage 11.53 and 13, Welland County, Ont., authorizing crossings on north and south sides of canal feeder, at stations 307.83, and 314.22; at mile 11.97 on north side of the Government raceway, and the town line between lot 27, Humberstone tp., and lot 27, Crowland tp., and authorizing it to cross the Canada Southern Ry. and T., H. & B. Ry.

10640. May 17.—Recommending to Governor-in-Council for sanction lease of Georgian Bay and Seaboard Ry. to C. P. R. by indenture dated Jan. 1.

10641. May 17.—Recommending to Governor-in-Council for sanction by-law 96, imposing a penalty upon C. P. R. officers and employes for failure to fulfill and keep the company's general train and interlocking rules and rescinding by-law 87.

10642. May 17.—Dismissing application for order directing C.P.R. and G.T.R. to honor each other's tickets between Toronto and Hamilton.

10643. May 17.—Temporarily approving, final determination of tariffs of tolls which Bell Telephone Co. shall charge, and form of agreement with other companies, agreement between Bell Telephone Co. and Euphemia Rural Telephone Association, of July 12, 1907.

10644. May 18.—Approving location and detail plans of C. P. R. station at Walsh, Alta.

10645. May 18.—Extending, until July 15, time within which C. P. R. was required by order 10130, to make connection with G. T. R. at Galt, Ont.

10646. May 12.—Ordering that C. P. R. within 50 days raise the barrel conveyor over its tracks at Keewatin, Ont., to not less than 22½ feet above base of rail.

10647. May 18.—Extending, for 60 days from date, time within which interlocking plant at Mt. McKay & Kakabeka Falls Ry.'s crossing of C.P.R. at Fort William, Ont., was to be installed.

10648. May 18.—Extending, for 60 days from date, time within which protective appliances shall be installed at M. McKay & Kakabeka Falls Ry.'s crossing of the C.P.R. at Yonge St., Fort William, Ont.

10649. May 17.—Ordering C. P. R. to put into effect, not later than June 6, a rate not exceeding 14c. per 100 lbs., upon shipments of live stock, in carloads, from Toronto to Smith's Falls, Ont.

10650. May 17.—Approving supplement 2, to C. P. R. Standard Freight Tariff, C. R. C. E.—1244, applying between stations on Orford branch.

10651. May 18.—Authorizing C. P. R. to build a bridge over Rogers Creek at mileage 132.5, E. & N. Ry., Alberni extension, B. C.

10652. May 18.—Authorizing Alberta Government to lay watermain under C. P. R. at Lethbridge.

10653. May 19.—Re rates on G. T. R. and C. P. R. on ex-lake western grain from Lake or river ports to points in Ontario and Que-

bec. This order is given fully in another page.

10654 to 10655. May 17.—Reinstating C. N. O. R. applications for authority to build across certain highways in Smith's Falls, and for approval of location through Lanark County, mileage 29, to 41; and rescinding orders 10493 and 10492, May 3, which dismissed the applications.

10656. May 17.—Dismissing C. N. O. R. application for authority to build across and divert public road on lot 20, con. 1, Cra-mahe tp.

10657. May 17.—Reinstating C. N. O. R. application for approval of its revised location through Smith's Falls, from mile 38.2 to 42.1, and for authority to build across certain highways there, and rescinding order 10494, May 3, which dismissed the application.

10658. May 19.—Authorizing C. N. O. R. to build between lots 30 and 31, con B, Brighton tp.

10659. May 19.—Ordering G. T. R. within 90 days to install electric bell at first highway east of Ernestown Station, Ont.

10660. May 17.—Ordering that C. P. R. do not permit any engine, tender, or car to stand on siding east of east end of freight house at Ingersoll Ave. crossing, Woodstock, Ont.

10661. May 25.—Ordering that Pullman Co. be added as party to proceedings in matter of sleeping car tolls under consideration.

10662. May 21.—Approving location of G. T. P. Branch Lines' Tyfield-Calgary branch from mileage 150 to 197.8, near Calgary, Alta.

10663. May 25.—Approving location of C. N. O. R. station grounds at Malvern, Scarborough tp.

10664. May 23.—Ordering that C. N. R. build highway crossing where Wiegand Ave, produced in a straight line would intersect its line in Fort William, Ont.

10665. May 23.—Authorizing C. N. O. R. to operate trains across Division St., Hamilton tp., Northumberland Co., temporarily, and for construction purposes only, pending completion of subway.

10666. May 25.—Approving location of C. N. O. R. station grounds at Orono.

10667. May 26.—Authorizing M.C.R. to reconstruct drawbridge east of Welland station, Ont.

10668. May 26.—Authorizing C.N.O.R. to cross private road between lots 20 and 21, con. B, Murray tp.

10669. May 26.—Authorizing C. P. R. to build bridge 58.93, White River section, Lake Superior Division.

10670. May 26.—Dispensing with publication of Atlantic and Lake Superior Ry.'s notice of application for sanction of agreement of sale entered into by Royal Trust C. and Quebec Oriental Ry. Co., dated May 19.

10671. May 21.—Authorizing town of Weyburn, Sask., to lay sewer and watermain under C. P. R.

10672. May 25.—Authorizing Alberta Government to lay a watermain under A. Ry. and I. Co., track at junction with C.P.R. n.e. ¼ sec. 32-8-21, w. 4 m.

10673. May 25.—Authorizing Canadian Niagara Power Co., to place wires across Bell Telephone Co.'s wires at Bridgeburg, Ont.

10674. May 23.—Authorizing Camden Rural Telephone Co. to place wires across Bay of Quinte Ry., near Moscow, Ont.

10675. May 21.—Authorizing Bell Telephone Co. to place wires across London & Port Stanley Ry., near St. Thomas, Ont.

10676-10679. May 26.—Authorizing city of Winnipeg to build conduit under C.P.R. at four points.

10680. May 27.—Authorizing Montreal and Southern Counties Ry. to open for traffic for one month portion of its line, from St. Denis St., St. Lambert, to Longueuil, Que.

10681. May 26.—Relieving G. T. R. from providing further protection at crossing of second highway west of Nelles Corners Station, Ont.

10682. May 26.—Ordering C. P. R., within 60 days to install an electric bell at Foundry St. crossing, Woodstock, Ont.

10683. May 26.—Relieving G. T. R. from providing further protection at crossing of four miles south of Elora, Ont.

10684. May 26.—Approving location of C. P. R. station at Cache Bay, Ont.

10685. May 26.—Approving location of C. P. R. Regina and North Saskatchewan branch from mileage 132 to mileage 148, and from mileage 168 to 199.6.

10686. May 26.—Approving Montreal and Southern Counties Ry.'s Standard Passenger Tariff C. R. C. subject to reconsideration on receipt of copy of the first annual report furnished to Minister of Railways.

10687. May 26.—Amending order 10237, April 19, approving location of M. C. R. station at Tecumseh Rd., Ont.

10688. May 27.—Approving C. N. O. R. revised location through Cobourg, mileage 170.66 to 172.58 from Ottawa.

10689. May 26.—Approving diversion of G. T. P. R. crossing in south half of sec. 18, tp. 12, r. 20, w. 1, m., Man.

10690. May 26.—Authorizing Consolidated Mining and Smelting Co., of Canada, Ltd., to lay pipe under C. P. R. at Smelter Jct., B. C.

10691. May 25.—Authorizing Superior Portland Cement Co. to lay pipe under C. P. R. at Orangeville, Ont.

10692. May 26.—Authorizing Bell Telephone Co., to place wires across C. N. O. R. near Beaverton station.

10693. May 26.—Authorizing Manitoba Government Telephones to place wires across C. P. R. near Strathclair station.

10694. May 26.—Relieving C. P. R. from providing further protection at crossing 2½ miles west of MacGregor, Man.

10695. May 27.—Approving location of C. P. R. station at Mile End, Que.

10696. May 27.—Authorizing city of London, Ont., to lay drain under C. P. R. at George St.

10697 to 10699. May 27.—Authorizing C. N. O. R. to build between lots 6 and 7, con. A., Murray tp., and between lots 18 and 19, con. 1, Cra-mahe, tp.; and to cross and divert private roads across lots 3, 4 and 5, con. 5, Darlington tp.

10700. May 27.—Authorizing C. P. R. to move its station at Shawville, Que., to new location.

10701, to 10702. May 30.—Authorizing Norfolk Gas Co. to lay pipe under G. T. R. at St. Patrick and Nelson Sts. Port Dover, Ont.

10703 to 10705. May 30.—Authorizing St. Francis Hydraulic Co. to place wires across Bell Telephone wires at three points in Thetford Mines, Que.

10706. May 30.—Authorizing Kaminstiquia Power Co. to place wires across C. P. R. on Yonge St. Fort William, Ont.

10707. May 21.—Ordering C. P. R., within 60 days to install electric bell at Maple St. crossing, Hartland, N. B.

10708 to 10709. May 23.—Temporarily approving, pending final determination of tolls which the Bell Telephone Co. shall be authorized to charge, and form of agreement with other companies, agreements between the Bell Telephone Co. and Chingucousy, tp., April 18; and Monk Rural Telephone Co., Mar. 29; providing it be not taken to authorize higher tolls than were authorized previous to May 13, 1906.

10710. May 27.—Authorizing G. T. R. to build across road between lots 85, con. 2, and Lot 9, con. 3, Tiny, tp. Ont.

10711 to 10713. May 25.—Authorizing C.P.R. to build spurs to premises of Pigeon River Lumber Co. in Port Arthur, Ont.; Eastern Canada Steel & Iron Works, St. Sauveur parish, Que.; and G. F. & J. Galt, Ltd, Camrose, Alta.

10714. May 19.—Refusing application of Woolwich tp., for authority to open road across the G. T. R. between lots 85 and 86.

10715. May 26.—Ordering that time within which electric bell was required by order 10,000, Mar. 23, to be installed at C. P. R. crossing, Zorra St., Beachville, Ont., be extended for one month from date.

10716. May 19.—Ordering that in all switching movements over Grey St., London, Ont., the M. C. R. and P. M. R. shall have a watchman on street, and that no cars be left standing within 50 feet of either side of Grey St.

10717. May 23.—Approving standard specifications for bridges and viaducts which railways are authorized to construct under sec. 257 of Railway Act, and declaring them to be standard specifications of the Board for steel bridges and viaducts, and rescinding order 921, Feb. 9, 1906, approving standard specifications for bridges and viaducts authorized to be constructed under sec. 203 of the Railway Act, 1903.

10718. May 26.—Approving plans and specifications of a bridge across Maxwell Creek drain, Dover, tp., where C.W. & L.E. ky. will cross on Baldoun St.

10719. May 19.—Authorizing C. N. O. R. to build spur to connect with G.T.R. siding in Brighton across road between lots 4 and 5, con. 1.

10720. May 25.—Authorizing C.N.O.R. to connect with Central Ontario Ry., at Trenton.

10721 to 10722. May 27.—Temporarily approving agreements between North American Telegraph Co. and Ernestown Telephone Co., Dec. 1, 1909; and Heckston Rural Telephone Co., April 16, 1909; provided it shall not be taken to authorize higher tolls than were authorized previous to May 13, 1906.

10723. May 30.—Approving location of C.N.O.R. through Trenton, mileage 145.43 to 145.76.

10724. May 30.—Ordering C.P.R. to build crossing over its Stobie branch in lane between Durham and Elgin Sts., Sudbury, Ont.

10725 to 10730. May 30.—Authorizing On-

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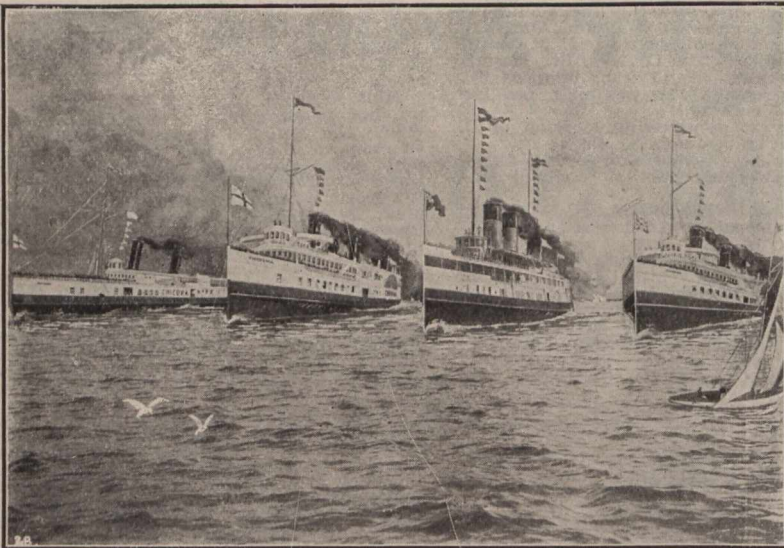
THE LESSON

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tario Hydro-Electric Power Commission, to place wires across Bell Telephone Co.'s wires at six points.

10731. May 31.—Approving G.T.P.R. location, Prince Rupert easterly mileage 408.69 to 434.5, Fort George District, B. C.

10732. June 1.—Authorizing C. P. R. to construct bridges 131.1, Kitsukus, Creek, Alberni Extension, Esquimalt & Nanaimo Ry.; 8.2 Michael Creek, Cranbrook Section; 100.4 Portal Section, Western Division; 114.01. Cartier Section; Lake Superior Division; 113.5 Scott Creek, Cascade Section, Pacific Division.

10733. May 30.—Ordering Brandon, Saskatchewan and Hudson's Bay Ry., within 60 days to install electric bell at crossing between secs. 24 and 13 tp. 3, r. 20, Boissevain, Man.

10734. May 31.—Approving C.N.O.R. Sudbury-Port Arthur Division, location through unsurveyed territory in Algoma District, mileage 160 to 180.

10735 to 10739. May 31.—Authorizing C.P.R. to lay extra track across Seventh St., High River, Alta, between secs. 32 and 33, tp. 11, r. 10, w.p.m., MacGregor, Man., between secs. 12, tp. 8, r. 9, w.p.m. and secs. 7, tp. 8, r. 8, w.p.m., Rathwell, Man.; between secs. 28 and 29, tp. 11, r. 11, w.p.m., Austin, Man.; and between secs. 5 and 6, tp. 11, r. 12, w.p.m., Sidney, Man.

10740. June 1.—Approving location of Bay of Quinte Ry. station at Napanee, Ont.

10741. June 1.—Authorizing Bell Telephone Co. to place conduit under Montreal Terminal Ry., at Elmwood Farm road crossing, Longue Pointe, Que.

10742. June 1.—Approving C. N. R. standard 20 ft. arch culvert.

10743. June 1.—Approving clearance diagram for bridges on C.P.R. lines in Canada.

10744. June 2.—Authorizing C. P. R. to construct bridge 21.7, Moose Jaw section, Western Division.

10745-10746. Apr. 26.—Authorizing C.N.O.R. to build across Meade Ave., and Prince Edward St., Brighton.

10747 to 10748. Apr. 30.—Authorizing C.N.O.R. to build across Division and Railway St., Brighton.

10749. May 19.—Ordering G.T.R. within 10 days to employ watchman at Hurontario St., Port Credit, Ont., crossing, from 7 a.m. to 7 p.m. daily.

10750. May 19.—Ordering G.T.R. within 30 days to file plans for the erection of gates at crossing of 7th line, near Oakville, Ont., such gates to be erected within 60 days after approval of plans by the Board's Engineer, and to be operated from 7 a.m. to 7 p.m. daily.

10751. May 19.—Ordering G.T.R. to file plan of road to be constructed for diversion of highway in Dorchester, tp., Ont.; work to be completed within 90 days after approval.

10752. May 19.—Ordering G.T.R. to divert highway southward between cons. 1 and 2, Kings tp., Ont., construct overhead bridge at crossing, and acquire necessary land for fencing; plans to be filed for approval within 30 days, and work to be completed within 60 days after approval.

10753. May 31.—Extending to Aug. 15, time within which C.P.R. shall build spur to Standard White Lime Co., Beachville, Ont.

10754. June 1.—Extending to July 15, time within which C.P.R. was required by order 9980 to erect crossing signs, cattle guards, and fencing on its Lacombe branch from Stettler to Castor, Alta.

10755. May 31.—Authorizing C. P. R. to build across 32 highways on its Langdon North branch from mileage 0 to 39.45, Alta.

10756 to 10759. May 30-June 2.—Authorizing C.N.O.R. to build between lots 2 and 3, con. 1, Brighton, tp.; across Centre and Napier Sts., Brighton, and between lots 32 and 33, con. B, Brighton, tp.

10760. June 2.—Relieving G.T.R. from providing protection at crossing of concession road D, near Scarboro Jct., Ont.

10761. May 17.—Approving uniform bill of lading in use in the United States and approved by Interstate Commerce Commission as regards all traffic which may be carried from any port in U. S. into Canada, or from the U. S. through Canada to the U. S.

10762 to 10766. May 23.—Authorizing Toronto, Niagara and Western Ry to build across St. Clair Ave.; to cross G. T. R. and C. P. R. at St. Clair Ave.; and G. T. R. at Davenport Road; and to cross Davenport Road, Toronto

10767. May 23.—Directing that order of Railway Committee of the Privy Council, Dec. 16, 1893, with reference to protection of certain level crossings at Dufferin and Bathurst Sts., Toronto, be varied by relieving York tp. from its liability to contribute to cost of maintenance.

10768. May 23.—Ordering G. T. R., until otherwise ordered, in addition to watchman already provided at Cherry St. crossing, by city of Toronto, to maintain watchman on south side of crossing, from 7 a.m. to 7 p.m.

10769. June 1.—Ordering that no G.T.R.

train shall cross Oxford, Richmond, Metcalfe, Caradoc and Victoria Sts., Strathroy, Ont., at more than 10 miles an hour, nor remain within 50 ft. of either of the boundaries of them.

10770. June 6.—Approving Kootenay Central Ry. revised location from B.C., Southern Ry., south of Wardner, mileage 0 to north of Fort Steel, mileage 24.9, Kootenay District, B.C.

10771 to 10772. June 4.—Ordering C.P.R. within 60 days to install electric bells at Maria St. and Mark St. crossings, Peterboro, Ont.

10773. June 4.—Extending for two months time for completion of P.M.R. and M.C.R. interchange track and that the Leamington Canning Co. convey certain lands under authority of order 9753, half to M.C.R. and half to P.M.R., division line being drawn from junction of each right of way to half distance on 370.48 limit.

10774. June 6.—Relieving C.P.R. from providing protection at highway crossing in N.W. ¼ sec. 16, tp. 12, r. 1, w.p.m., near Meadows, Man.

10775. May 19.—Authorizing G.T.R. to use jointly with C.P.R. spurs to premises of Spietz Furniture Co., Hanover Portland Cement Co., and Knechtel Furniture Co., Hanover, Ont.

10776. June 2.—Authorizing C.P.R. to build branch across Strickland Place and Earnbridge St., Toronto.

10777. June 2.—Ordering that C.N.R. be subject to penalty of \$25 a day for every day after July 1, that requirements of par. 1, of order of Oct. 16, 1909, re diversion of Thebault St., St. Boniface, Man., have not been complied with.

10778. June 7.—Approving location of proposed C.P.R. station at Chalk River, Ont.

10779. June 6.—Authorizing G.T.R. to construct branch lines south of Don River, Toronto, to premises of the Toronto Iron Works, and British American Oil Co., and along roadway on north side of Keating's Channel.

10800. June 6.—Authorizing Government to build subway across C.P.R., 300 ft. northerly from junction of its Kimberly and Crow's Nest branches.

10801. June 9.—Authorizing G.T.R. to build along and across Hibernia, Albert, Nunn and Third Sts., and certain lands in Cobourg, Ont., to provide roadway 16 ft. wide from east end of Nunn St. along southeast side of its right of way to ferry dock.

10802.—June 4.—Authorizing C.N.R. to open for traffic the portion of its line from Rosetown to Kindersley, 54 miles.

10803. June 8.—Authorizing C.P.R. to build additional track across Alberni St., Moosomin, Sask.

10804. June 7.—Authorizing Ontario Hydro-Electric Power Commission to place its wires across Bell Telephone Co.'s wires at lot 108, Thorold tp., Ont.

10805. June 6.—Authorizing Tillsonburg, Lake Erie and Pacific Ry. to construct spur to Ingersoll Packing Co.'s premises, Sts.; to take certain lands and give compensation by Chief Engineer and Chief Operating ing west of Blenheim, Ont.

10806. June 8.—Relieving P.M.R. from furnishing further protection at first crossing west of Blenheim, Ont.

10807. June 7.—Relieving Windsor, Essex and Lake Shore and Ry from providing further protecting at crossing at Gosfield South, Ont.

10808. June 7.—Approving location of proposed C.P.R. station at Cartier, Ont.

10809. June 7.—Ordering diversion of highway four miles east of Tilbury station by M.C.R.

10810. June 7.—Authorizing G.T.R. to construct spur from its line east of Milton, Ont., to P. L. Robertson Mfg. Co.'s premises, Trafalgar tp., Ont.

10811. June 8.—Approving location of proposed G.T.R. station at Malton, Ont.

10812. June 8.—Approving location of piers in International bridge, M.C.R., Front St., Niagara Falls, Ont.

10813. June 8.—Ordering C.N.R. to build cattle pen and loading chute at Ashville, Man.

10814. June 9.—Authorizing C.P.R. to alter bridge by which Notre Dame St., East, is carried over its tracks at Place Viger station yard, Montreal.

10815. June 9.—Approving C.N.O.R. line from east end of proposed viaduct near Wright St. station 330, to west side of the river; and authorizing it to build bridge over Port Hope Creek, Hope tp.

10816. June 9.—Authorizing C.N.O.R. to build across road between lots 2, and 3, con. A, Trenton.

10817. June 7.—Making Toronto Ry. and Toronto and York Radial Ry. parties to application re separation of grades at C.P.R. crossings over Yonge St. and Avenue Rd. Toronto.

10818. June 7.—Dismissing application of town of Ferris, Ont., to order G.T.R. to construct crossing where it intersects proposed deviation of road allowance between cons. 3, 4 and 5, lot, 29.

10819. June 6.—Dismissing application of Morningtown village for a subway, and ordering C.P.R. to widen approaches to 22 ft.; raise hollow on north approach at least 5 ft. and clay approaches on both sides with 6 inches of gravel.

10820. June 13.—Authorizing G.T.R. to build spur from its line west of Brock St., Toronto, to Gall Lumber Co.'s premises.

10821 to 10839. June 9.—Authorizing Atlantic, Quebec and Western Ry. to build across highways at 19 points in Quebec province.

10840. June 9.—Authorizing C.N.O.R. to build between lots 13 and 14, con. 1, of Cramahe tp.

10841. June 7.—Authorizing Chatham, Wallaceburg and Lake Erie Ry to build a branch 3½ miles from its main line, con. 4, to road between cons. 3 and 4, Dover east tp., Ont.

10842 to 10844. June 9.—Dismissing application of Ontario Public Works Department, for authority to build crossing over C.P.R. at lot 8, con. 11, at lot 7, con. 11, Dennison tp., and at New Algoma Mills station, or mill location, Long, tp.

10845. June 1.—Ordering Canadian and Dominion Express Cos. to file before Aug. 1, a rate of \$1.50 per 100 lbs. on oysters from Providence, R. I., to Toronto.

10846. June 10.—Approving location and plans of proposed C.P.R. station at Erskine, Alta.

1084 to 10848. June 9.—Authorizing the C.P.R. to build bridges 90.09 over Magpie River, White River section, Lake Superior division and 61.64 Lac du Bonnet section, Central division.

10849. June 10.—Approving plan of canopy to be built along the west side of Quaker Oats Co.'s warehouse, Peterboro, Ont.

10850. June 10.—Relieving Boston and Maine Rd. from further protection at crossing at Tyler St., Ayers Cliff, Que.

10851 to 10865. June 9-10.—Authorizing Atlantic, Quebec and Western Ry to build across road at 15 points in Quebec province.

10866. June 10.—Approving C.N.O.R. revised location through Cobourg, from mileage 172.58 to 173.9.

10867. June 10.—Amending order 10330, Apr. 22, relieving C.P.R. from providing further protection at crossing 466 and 504, St. Felix de Valois parish.

10868 to 10869. June 10.—Authorizing C. N.O.R. to build between lots 30 and 31, con. A., Haldimand tp., and to build spur line to ballast pit across Kingston road between cons. A and B, of Brighton, tp.

10870. June 10.—Authorizing C.P.R. to build bridge 20.64 over North River on Georgian Bay and Seaboard Ry.

10871. June 9.—Authorizing Bell Telephone Co., to place wires across G.T.R. near Jeannett's Creek station, Ont.

10872. June 10.—Authorizing Ontario Hydro-Electric Power Commission to place wires across C.P.R. telegraph wires in West Flamboro tp.

10873. June 10.—Authorizing J. Aitkens, to lay gas pipe under G.T.R. 1¼ miles west of Onondaga, Ont.

10874. June 10.—Authorizing city of Fort William, Ont., to lay sewer pipe under C.N.R. at Francis St.

10875. June 10.—Authorizing W. J. Aikens to lay gas pipe under G.T.R. near Cainsville, Ont.

10876, to 10877. June 10.—Authorizing C. P.R. to build spur to J.D. Clerk and Co.'s Winnipeg premises, and to Yale Columbia Lumber Co.'s premises, Nelson, B.C.

10878. June 13.—Authorizing Nipissing Power Co. to place wires across G.T.R. at Callander, Ont.

10879. June 13.—Authorizing city of Toronto to lay water pipe under C.P.R. at St. Clares Ave.

10880. June 13.—Ordering C.N.R. to carry out provisions of order 8445, Oct. 13, 1909, within 60 days, and in the event of failure to do so, it be liable to a penalty of \$25 a day for each day that the work remains uncompleted.

10881. June 13.—Authorizing M.C.R. to reconstruct bridge over Bear Creek on its St. Clair Division.

10882. June 14.—Authorizing Water Commissioners London, Ont. to lay water main under G.T.R. at Wellington St.

10883 to 10886. June 14.—Extending time within which C.P.R. was required to install electric bells at crossings at mileage 81.28, Markham tp., Ont., Queen St., and Thomas St., Streetsville, and at Manvers Road, Pontypool, Ont.

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10887. June 14.—Authorizing C.P.R. to construct bridge 62.4 over Nipigon River, Lake Superior Division.

10888. June 13.—Authorizing C.P.R. to open for traffic the diversion of the Arcola section, of its Pipestone extension, from mileage 0 to 2.8, Man.

10889 to 10890. June 13.—Approving location of G.T.P.R. branch from sec. 23, tp. 36, r. 23, w. 4, m. to sec. 4, tp. 35, r. 23, w. 4, m., North Alberta district, and from sec. 4, tp. 35, r. 23 to sec. 21, tp. 29, r. 24, w. 4, m. South Alberta district.

10891. June 13.—Approving C.P.R. revision of grades from mileage 19 to 42 in Vaudreuil and Soulanges counties, Que., from mileage 42 to 60 in Stengarr county and from mileage 60 to 4 Stormont, and of crossings of highways.

10892. June 13.—Authorizing G.T.R. to change location of branch to Wagstaff and Co.'s premises, Toronto.

10893. June 13.—Authorizing G.T.R. to build a branch to Elmira Furniture Co.'s premises, Elmira, Ont.

10894. June 13.—Authorizing C.P.R. to operate trains temporarily on National Transcontinental Ry., near Theriault, N.B., pending completion to C.P.R. division.

10895. June 13.—Extending time within which C.P.R. was required by order 9497, Feb. 8, to build spur between Mary and Christine Sts., Westfort, Ont., until Aug. 31.

10896 to 10897. June 13.—Authorizing C.P.R. to cross under Bell Telephone Co. and Toronto Electric Light Co.'s wires at two points in Toronto.

10898. June 15.—Approving C.N.R. location through tps. 29-26, r. 19-23, w. 4, n. Alta. mileage 171.66 to 212.83.

10899. June 14.—Ordering C.P.R. within 90 days to install electric bell at crossing of John St., Almonte, Ont.

10900. June 13.—Ordering C.N.R. within 30 days to extend its platform at Harris station, making it 225 ft. long; the C.N.R. to be liable to a penalty of \$25 for every day after 30 days that the work remains uncompleted.

10901. June 13.—Authorizing C.P.R. to build spur, to Calgary Gas Co.'s premises, Calgary, Alta.

10902. June 14.—Authorizing G.T.R. to build spur to Lever Bros.' premises, Toronto.

10903. June 13.—Approving location of portion of Fort William Terminal Ry. and Bridge Co.'s line from between Rebecca and Vickers Sts., on its main line, mileage 0 to lot 5, con. 7, Island no. 1, Fort William, Ont., at mileage 1.08.

10904. June 13.—Authorizing C.N.R. to divert and cross overhead Cavan St., Port Hope, Ont.

10905. June 13.—Authorizing G.T.R. to build across road between lot 93, con. and lot 93, con. 2, Tay tp.; the highway to be carried over the railway by a bridge.

10906, to 10907. June 14-15.—Authorizing Hamilton Gas Light Co. to lay pipe across Mary St. bridge over G.T.R.; and under G.T.R. at Ferguson Ave., Hamilton, Ont.

10908. June 15.—Authorizing Calgary Power Co. to place wires across C.P.R. at mileage 49, Laggan section, Alta.

10909. June 15.—Extending time within which C.P.R. was required by order 10507, May 3, to erect gates at crossing near Matthew's Pork Factory, Hull, Que., until Sept. 2.

10910 to 10911. June 15.—Relieving P.M.R. from providing further protection at crossings of second highway west of Kingsville, and 2 miles north of Watson, Ont.

10912. June 15.—Relieving W.E. and L.S.R. Ry. from providing further protection at crossing of cut-off road near Essex, Ont.

19013 to 10914. June 15.—Extending until Aug. 27, time within which electric bells were to be installed at crossing of first public road west of Britannia station, as required by order 10376, Apr. 28, and at crossing of first public road west of Stittsville station, Ont., as required by order 10377, Apr. 28.

10915. June 14.—Approving C.P.R. plans of changes at bridge 73.93, Nipigon section, Lake Superior division.

10916. June 15.—Authorizing C.P.R. to build spur to City Planing Mills, Calgary, Alta.

10917. June 16.—Approving M.C.R. bylaw authorizing C. F. Daly, Vice President, in respect of passenger and freight traffic; O. W. Ruggles, Central Passenger Agent, in respect of passenger traffic, and W. C. Rowley, General Freight Agent, in respect of freight traffic, to prepare and issue tariff of tolls.

10918. June 15.—Relieving P.M.R. from providing further protection at first crossing east of Merlin station, Ont.

10919. June 16.—Authorizing Kaministiwia Power Co. to carry wires across C.P.R. on Yonge st., Fort William, Ont.

10920. June 16.—Authorizing V.V. and E. Ry. and Nav. Co. to build bridge over Park Drive, Vancouver, B.C.

10921. June 16.—Authorizing C.N.O.R. to build under Ontario St., Port Hope.

10922 to 10923. June 16.—Declaring that errors in C.P.R. books of reference, respecting lines approving orders 10805, June 6, and 10323, Apr. 23, have been corrected.

10924. June 16.—Ordering M.C.R. to divert and construct road surface along north of second highway crossing east of Yarmouth, Ont., so as to cross at right angles.

10924. June 17.—Extending for 30 days from date time within which C.P.R. was required by order 10614, May 12-13, to file plans of subway at Main St. crossing, Kenora, Ont.

10926. June 13.—Approving G.N.W. Telegraph Co.'s tolls east of and including Windsor, North Bay, Ont., and the T. and N.O. Ry., included in its tariff of tolls, C.R.C. 9, July, 1909, and extending until Nov. 1, time for approval of its tolls west of North Bay and between points west of North Bay and east of North Bay and Windsor, also included in tariff.

10927. June 13.—Approving C.P.R. telegraph tolls east of and including Sudbury, and Windsor, Ont., included in its tariff of tolls C.R.C. 5, Jan. 1, and extending until Nov. 1, time for approval of tolls between points west of and including Sudbury, and points east of Sudbury, and east of, and including Windsor, also included in tariff.

10928. June 13.—Extending until Nov. 1, time for approval of Canadian Northern Telegraph Co.'s tolls.

10929. June 13.—Approving North American Telegraph Co.'s tariff of tolls, C.R.C. 1.

10930. June 13.—Extending until Nov. 1, time for approval of White Pass and Yukon Route, and G.T.P.R. telegraph tolls.

10932. June 10.—Ordering G.T.R. within 30 days to install electric bell at crossing 1½ miles west of Melbourne parish, Ont.

10933. June 1.—Ordering C.P.R. to build farm crossing for Z. Sabourin, Cadaret, Que.

10934. June 18.—Dismissing complaint of E. B. Neely, Humboldt, Sask., that lands in secs. 20-37-22 are injuriously affected by C.N.R. off-take water pipe along its right of way from its roundhouse and yards east of sec. 20.

10935. June 18.—Approving amended location of V.V. and E. Ry. and Nav. Co.'s line from west line of tp. 26 to east line of New Westminster District, B.C.

10936. June 17.—Authorizing Vancouver-Nanaimo Coal Co., to cross Esquimalt and Nanaimo Ry. with line from its coal mine, sec. 11, Mountain District to Exit Passage, Vancouver Island, B.C.

10937 to 10938. June 18.—Approving location and plans of G.T.R. stations at Ste. Martine, and Lacadie, Que.

10939. June 20.—Approving location of G.T.R. station and remodelling of siding at St. Agapit, Que.

10940 to 10941. June 20.—Authorizing C.P.R. to build additional track across road allowance between sec. 3, and sec. 4, and between sec. 4, and sec. 3, tp. 13, r. 30, w. p. m., on its main line at Fleming, Sask.

10942 to 10943. June 18.—Approving location of C.P.R. stations at Barnet, B.C., and Franktown, Ont.

10944. June 18.—Authorizing C.P.R. to divert highway from north to south side of its Waltham Branch in lot. 28, r. 9, Clarendon tp., Que.

10945. June 18.—Authorizing C.P.R. to build bridge 27.3, over Sheep Creek, McLeod Section, Western Division.

10946. June 17.—Authorizing C.N.R. to open for traffic the portion of its line from Russell to Calder, Man., 41 miles.

10947 to 10954. June 18.—Approving location of the C.N.R. station grounds at Bowmanville, Kendall, Colborne, Cherrywood, Oshawa, Grafton, Brooklin, and Osaka, Ont.

10955. June 18.—Authorizing G. Heggie, of Enderby, B.C., to lay pipe under C.P.R. Shuswap and Okanagan branch at mileage 28.

10956. June 18.—Authorizing city of Fort William Ont., to lay a sewer under C.N.R. at Amelia St.

10957. June 18.—Authorizing St. Lawrence Pressed Brick and Terra Cotta Co. to lay a drain under G.T.R. at Laprairie, Que.

10958. June 17.—Authorizing C.P.R. to build a branch across Norman Ave., Toronto.

10959. June 20.—Authorizing C.P.R. to build spur to John Deere Plow Co.'s premises, Saskatoon, Sask.

10960. June 16.—Ordering C.P.R. to revise and reissue its special tariff rates on coal and coke from shipping points on its Leth-

bridge, Crow's Nest, and Cranbrook sections, to points west thereof, so as to place rates on a reasonable basis relatively to special rates on coal and coke in force, or as they may be reduced from Lethbridge; the special tariffs of revised rates to be published and filed within 90 days.

10961. June 20.—Authorizing rural municipality of Assiniboia, to construct Aldboro and Westcana Sts., West Winnipeg, across G.T.P.R.; and rescinding order 10543, May 12.

Dominion Atlantic Railway.

Sir Thos. G. Shaughnessy was given a reception in the Board of Trade Building Halifax, June 19, after having completed his trip of inspection. He stated that legislation was necessary before the C.P.R. could take over the D.A.R. The purchase was perhaps sentimental, but he believed it to be the fulfilment of the destiny of the C.P.R. to link up Nova Scotia with the rest of Canada by another railway. This would connect Halifax with a system of 11,000 miles of railway in Canada and with 5,000 miles in the U.S. At almost every eight miles along that mileage is a man soliciting freight and passenger business for that line, and this is particularly important to ports like Halifax and St. John, where the transit of through goods from the rail to the ship is made. Up to the present it was unfortunate that Halifax could not be considered as a point on that line, but it will now, or when the D.A.R. becomes part of the C.P.R. system. With larger steamers the C.P.R. wants to land passengers at its own ports. He would say for the Dominion Government that he thought there was no disinclination to give running rights over the Intercolonial Ry., at a rate per mile or rental, but for carrying through traffic from Halifax to St. John, that arrangement would not be a commercial proposition. "But there is always some settlement possible," said Sir Thomas, "where two parties desire a settlement. We hope the future relations between Halifax and Nova Scotia and the C.P.R. will become stronger and closer."

Georgian Bay and Seaboard Ry.—

Work has been started on the Coldwater-Orillia section of the C.P.R. line, which it is expected to have completed within a year. The Toronto Construction Co. has the contract.

The engagement is announced of R. A. R. Sinclair, son of Angus Sinclair, C.E., railway contractor, to Miss Muriel Jarvis, of Toronto.

D. McNicoll, Vice President C.P.R., has written to the Montreal Board of Control on the question of the re-assessment of the Windsor and Place Viger stations, stating that the alterations and extensions to each, will materially improve the appearance of the city, and suggesting that the combined valuation for taxation be placed at \$3,000,000.

At a meeting of the shareholders or the Dominion Iron and Steel Co., and the Dominion Coal Co., June 17, directors of the company to take over and unite the two companies, were elected as follows: Sir H. Montagu Allan, G. Caverhill, Hon. G. A. Cox, H. F. Dimock, Hon. L. J. Forget, J. Mason, Hon. R. Mackay, Hon. D. McKeen, W. MacMaster, F. Nichols, Sir Henry M. Pellatt, J. H. Plummer, W. G. Ross, Sir Wm. VanHorne, and J. R. Wilson. It was announced that 18,624,000 shares of Dominion Iron and Steel Co., and 12,806,200 shares of Dominion Coal Co., had been exchanged. The meeting was adjourned to later in the month, when the question of the name of the company will be taken up. The name which it was intended to assume, has been adopted by another company, which, it was stated, it had agreed to take the necessary legal steps to relinquish.

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Award re C.P.R. and G.T.R. Train and Yard Men's Pay.

The award of the board of conciliation which had had under consideration the claims of the C.P.R. and G.T.R. train men for an increase of wages amounting irrespective of new rules as to overtime, detention, etc., to 23% on the C.P.R. and about 45% on the G.T.R. was given out June 22. In Oct. 1909 a movement known as the Eastern Association was formed among the brotherhoods, the object of which was the standardization of the wages of trainmen on all lines within the territory east of Chicago and north of the Chesapeake and Ohio Rivers. The rates paid on the Baltimore and Ohio Rd. were taken as the standard, and after certain negotiations had been carried on the rates were agreed to by about 30% of the U.S. lines, the new rates to take effect at various dates. The demand was put forward on behalf of the men in the employ of the C.P.R., the G.T.R., and the Toronto, Hamilton and Buffalo Ry., in the spring, and a board of conciliation was appointed, consisting of W. Nesbitt, K.C., for the railways; J. G. O'Donoghue, representing the trainmen, and J. E. Atkinson, of Toronto, as chairman. The board began its sittings April 25, so far as the G.T.R. and the C.P.R. were concerned, an understanding being arrived at that the decisions of the board in reference to the claims of the men, would apply to the T.H. and B.R. After a very full hearing of all the parties the arbitrators presented a majority report, and two minority reports—W. Nesbitt dissenting from the findings of the majority so far as it applies to the G.T.R., and J. G. O'Donoghue also dissented from his colleagues in regard to part of the report.

The award, so far as it refers to the G.T.R. says:—

"The majority of the board are of the opinion that the men are justified in asking that the roads in the same territory should standardize their rates of pay and their rules also so far as they may deal with like general conditions of service.

"To enable the standardization of rates of pay on the G.T.R. to be carried out the majority of the board recommend that the company should extend its adoption of the mileage basis of pay to cover not only its through freight service as in the past, but also (1) its passenger services (except for such a list of specified runs as may be agreed upon between the company and its employees); (2) its way freight service, and (3) its mixed and all other train services. Also that whatever rates of pay may be adopted should be applied to all divisions of the railway in the eastern territory.

"The majority of the board believe that the rates of pay upon the G.T.R. should be brought up to the standard paid on roads in the same territory. But inasmuch as to do this at once would place upon the company a heavy increase of its wage list, the majority of the board recommended that standardization should be reached by two increases. It is the opinion of the majority of the board that the first increase should be made to take effect May 1, 1910. Regarding the date of the second increase, the chairman and Mr. O'Donoghue do not agree. Mr. O'Donoghue's opinion is that the men and the company should meet together to arrange a date when the completion of the standardization of rates should take effect. The chairman, however, would give to the company a longer time in which to complete the standardization than Mr. O'Donoghue thinks would be either fair to the men or necessary for the company.

"The majority of the board, from the information presented, believe that

the adoption of the rates of pay will give to the employees of the road a substantial part of the difference between present rates and the standard, and by so doing will constitute a measure of justice to the men."

J. G. O'Donoghue, in dissenting from the majority report, so far as it effects the C.P.R., says in part:—"I regret that we have not been able to bring the parties together in this matter, and that I have not been able to agree with the majority of the board as to the rates, etc., that should obtain as between the C.P.R. and the men concerned. I see no reason for differentiating between the C.P.R. and other first-class roads in the eastern part of this continent."

In all freight and mixed train service, he held 100 miles or less, in 10 hours or less, should constitute a day's work. On runs of 100 miles or less overtime should be paid when the run occupied, is in excess of ten hours. And he reported that overtime should be paid on runs over 100 miles in length for excess of time necessary to complete the trip at a speed of ten miles an hour. This overtime should be paid at the rate of 10 miles per hour for the class of service performed. Ten hours or less should constitute a day's work. Trainmen, he contended, should not be compelled to handle express, and if required to handle mail it should be sorted and placed in the car.

W. Nesbitt, in his minority report, recommended for the G.T.R. an all-round increase of 15 per cent., the rules to remain unaltered.

The table on this page gives in concise form the Board's finding. The old difference in rates on the C.P.R. east and west of Cartier is wiped out, a change to which both parties were agreed. The old differences also on the G.T.R. between the divisions east and west of the Detroit and St. Clair Rivers, is removed in so far as trainmen are concerned, but as for yard rates, there is still a difference in favor of the Western division of 1 c. an hour. Chicago yard is not dealt with. Detroit is 1 c. an hour more than first-class yards east of the rivers. Port Huron, Durand, Battle Creek, and Nichols rank as second-class, but receive the same pay as first-class yards east of the rivers. All other yards west get 1 c. an hour more than the third-class rate east of the rivers. In the

past, except in through freight service, G.T.R. rates have been on a monthly basis. It is not therefore possible to make a comparison with the new rates in their passenger or local freight services.

On behalf of the C.P.R. men's committee J. Murdock, Vice President of the Brotherhood of Railroad Trainmen, and S. N. Berry, Vice President of the Order of Railway Conductors, addressed the following communication to the Minister of Labor:—"The general committee representing the men employed in the train and yard service on the C.P.R. unanimously request us to advise you that they have received and thoroughly considered the award handed out by the Board of Arbitration in the recent investigation. While thanking the board for its earnest efforts, honest consideration and intent in preparing the award referred to, the committee is compelled to advise you that it is unsatisfactory, being impracticable of adoption, and that it cannot be accepted. For reasons best known to the gentlemen composing the board, standards and comparative differentials existing in the territory and on the C.P.R. have been entirely ignored, or, worse still, reversed, thereby making the award, as handed down, impossible of acceptance. We are this date writing Mr. McNicoll, quoting this telegram, and asking if his company are still indisposed to recognize past and recently revised standards in the territory."

The above position was endorsed by the G.T.R. committee on the following night, June 23, their resolution being specially directed against W. Nesbitt's minority report.

J. W. Leonard, General Manager Eastern lines C.P.R., on June 24 wrote stating that the company had accepted the Board's finding, and were prepared to stand by it, although they regarded it as excessive.

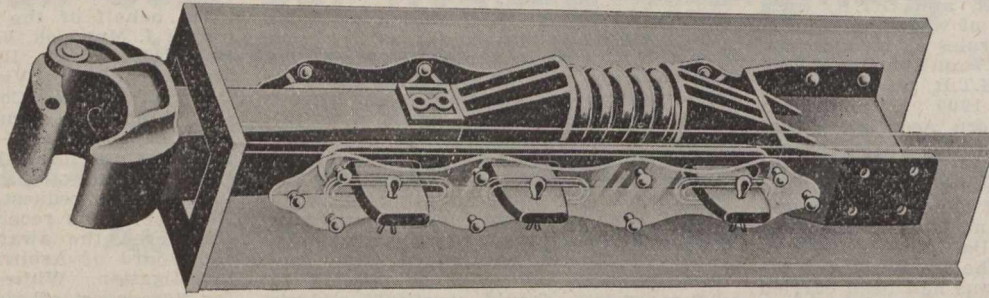
N. J. Holden, of the Holden Co., Ltd., left Montreal in June, with Mrs. Holden, for an automobile trip in Europe.

Angus McMurchy, K.C., local solicitor, C.P.R., Toronto, left June 22 for England to take part in the hearing of the company's appeal against the Board of Railway Commissioners order respecting a viaduct at Toronto.

Passenger Service.					
	Men asked rate per 100 miles	Old C.P.R. rate per 100 miles	New C.P.R. rate per 100 miles	New G.T.R. rate per 100 miles	Old G.T.R. rate per 100 miles
Conductor	\$2.68	\$2.44	\$2.60	\$2.45	xM.R.
Baggageman	1.55	1.41 1/2	1.50	1.40	xM.R.
Brakeman	1.50	1.29 1-3	1.45	1.36	xM.R.
Local Freight Service.					
Conductor	3.63	*3.10	3.55	3.35	**2.90
Brakeman	2.42	*2.07	2.37	2.22	**1.90
		z3.25			zz3.00
		z2.17			zz2.00
Through Freight.					
Conductor	3.97 1/2	3.50	3.90	3.68	xM.R.
Brakeman	2.70	2.45	2.65	2.48	xM.R.
Yard Service.					
	Men asked rate per hour	Old C.P.R. rate per hour	New C.P.R. rate per hour	New G.T.R. rate per hour	Old G.T.R. rate per hour
Conductors	.37	.30	.35	.34	.29
Brakemen	.34	.26	.31	.30	.24
Second-class.					
Conductors	.36	..	.33	.33	.26
Brakemen	.33	..	.29	.29	.22
All Others.					
Conductors	.35	..	.31	.31	.24
Brakemen	.32	..	.27	.27	.20

*East of Cartier. zWest of Cartier.
**East of Detroit and St. Clair Rivers.
zzWest of Detroit and St. Clair Rivers.
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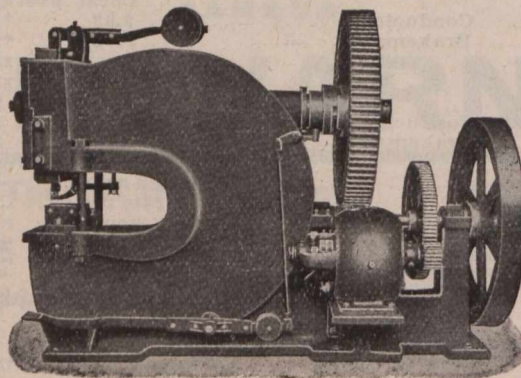
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TRANSPORTATION APPOINTMENTS.

The information under this head, which is almost entirely gathered from official sources, is compiled with the greatest care, so as to ensure absolute accuracy. Anyone who may notice any error in our announcements will confer a favor by advising us.

Algoma Central and Hudson Bay Ry.—Manitoulin and North Shore Ry.—R. S. McCormick has been appointed Chief Engineer, vice C. N. Coburn, transferred to the Lake Superior Corporation's Mines Department. Office, Sault Ste. Marie, Ont.

Canadian Northern Ry.—A. H. Eager, heretofore Locomotive Foreman, C.P.R., Calgary, Alta., has been appointed Superintendent of Shops and Repair Yards, Winnipeg. This is a new position.

A. McCowan, heretofore Foreman C.P.R., Cranbrook, B.C., has been appointed General Car Foreman, Winnipeg, vice J. H. Morgan, retired.

T. A. Musgrove, heretofore car foreman, C.P.R., Ottawa, has been appointed freight repair foreman, C.N.R., Winnipeg, vice C. A. Wheaton, transferred.

J. Irwin, heretofore Trainmaster, Districts 8, 9 and 10, G.T.R., Lindsay, Ont., has been appointed Superintendent District 5, C.N.R. Office, Saskatoon, Sask.

J. Munro has been appointed car foreman at Saskatoon, Sask.

C. A. Wheaton, heretofore freight repair foreman, Winnipeg, has been appointed Car Foreman at Edmonton, Alta.

Canadian Pacific Ry.—Pursuant to the bylaws, the offices of Second, Third and Fourth Vice Presidents have been abolished, and the directors have sanctioned the following appointments: Wm. Whyte, heretofore second Vice President, to be Vice President, with the same duties as heretofore. Office, Winnipeg. I. G. Ogden, heretofore Third Vice President, to be Vice President in charge of financial and accounting departments. Office, Montreal. G. M. Bosworth, heretofore Fourth Vice President, to be Vice President in charge of the company's traffic and the ocean steamship lines. Office, Montreal.

W. B. Bamford, heretofore District Freight Agent, London, Ont., has been appointed General Freight Agent Atlantic Division, vice H. E. Macdonnell transferred. Office, St. John, N.B.

R. K. Harris, heretofore Chief Engineer Orford Mountain Ry., has been appointed Resident Engineer C.P.R. Orford Mountain Branch. Office, Kingsbury, Que.

H. E. Macdonnell, heretofore General Freight Agent, Atlantic Division, St. John, N.B., has been appointed General Freight Agent Eastern Division, Chalk River and east, also Smith's Falls to Newport, Megantic and Quebec, including branch lines. Office, Montreal.

A. Rutledge, heretofore agent Sleeping, Dining and Parlor Cars and News Service, Montreal, has been appointed assistant Superintendent same service, with office at Glen Yard.

A. M. Jones, Resident Engineer, Ottawa, Ont., is reported to have entered the Government service in connection with the Quebec Bridge construction.

Dr. H. A. Beatty has been appointed Chief Surgeon and Medical Officer Eastern Lines. Office, Toronto.

L. Mulkern, heretofore chief clerk to General Freight Agent, through traffic, Ontario Division, Toronto, has been appointed District Freight Agent, London, Ont., vice W. B. Bamford, promoted.

W. S. Elliott, heretofore District Freight Agent, North Bay, Ont., has been appointed General Freight Agent Lake Superior Division, Chalk River and west to Sault Ste. Marie and Port Arthur, but not including line south of Romford Jet. Office, North Bay, Ont.

W. G. Rankin, heretofore on the Claims Adjuster's staff, has been appointed Claims Agent at North Bay, Ont., vice T. Hay, deceased.

In our March issue we said: "The daily

press has printed a lot of rumors lately, one being to the effect that in future there would be three general managers, instead of two, for Eastern and Western Lines, as at present. We do not think there is any foundation for this report. The great growth of the territory embraced in the Western Lines will, however, probably necessitate an increase of staff there, and it would not surprise us to see the present three grand divisions, Central, Western and Pacific, increased to four, which would necessitate the appointment of another general superintendent."

Our forecast has proved correct. The Western Lines have been divided into four grand divisions, instead of three, as heretofore. The Central, Western and Pacific divisions have been abolished, and the Manitoba, Saskatchewan, Alberta and British Columbia Divisions established as follows:—

MANITOBA DIVISION.

Fort William terminals.	
First district	486.8 miles
Winnipeg terminals.	
Second district	723.0 "
Third district	523.7 "
Fourth district	582.6 "
Under construction—	
Teulon extension	28.2 "
Viriden, north-west	37.0 "
Tilston, westerly	24.0 "
	2,405.3 "

J. T. Arundel, heretofore General Superintendent, Central Division, has been appointed General Superintendent. Office, Winnipeg.

SASKATCHEWAN DIVISION.

Broadview to Swift Current	245.2 miles
Outlook section	118.5 "
Portal section	160.3 "
Moose Mountain section	113.4 "
Weyburn branch	37.0 "
Forward branch	25.9 "
Neudorf to Lanigan	148.7 "
Yorkton to Hardisty	432.7 "
Under construction—	
Forward, westerly	25.0 "
Macklin to Outlook	147.7 "
Regina to Bulyea	43.0 "
Craven to Colonsay	110.0 "
	1,607.4 "

J. J. Scully, heretofore Superintendent District 1, Western Division, has been appointed General Superintendent. Office, Moose Jaw, Saskatchewan.

ALBERTA DIVISION.

Swift Current to Field	463.8 miles
Calgary to Strathcona	190.6 "
Wetaskiwin to Hardisty	95.0 "
Lacombe branch	84.6 "
Macleod branch	105.2 "
Dunmore to Kootenay Ldg.	391.7 "
Curzon branch	8.3 "
Kimberley branch	20.3 "
Marysville branch .....	.9 "
Langdon branch	40.0 "
Carmangay branch	28.0 "
Under construction—	
Irricana, easterly	15.0 "
Carmangay, north	30.0 "
	1,473.4 "

A. Price, heretofore General Superintendent Western Division, has been appointed General Superintendent. Office, Calgary, Alta.

BRITISH COLUMBIA DIVISION.

First district	337.8 miles
Second district	315.7 "
Third district	304.2 "
	957.7 "

Water Routes—
Kootenay, Slocan, Arrow and Okanagan Lakes.... 342.0 "
F. F. Busted, heretofore General Superintendent Pacific Division, has been appointed General Superintendent. Office, Vancouver, B.C.

TOTAL MILEAGE OF RAILWAY LINES.

Manitoba Division	2,405.3 miles
Saskatchewan Division	1,607.4 "

Alberta Division	1,473.4 "
British Columbia	957.7 "
	6,443.8 "

A. W. Clarke has been appointed Fuel Inspector Western Lines, vice T. L. Roberts, resigned.

T. Clegg, has been appointed Air Brake Instructor, Western Lines, vice E. D. Walton, resigned.

W. J. Andrews has been appointed shop foreman Winnipeg roundhouse.

H. J. Reed has been appointed Night Locomotive Foreman, Winnipeg roundhouse.

J. M. Cameron, heretofore Trainmaster at Vancouver, B.C., has been appointed Superintendent, vice J. J. Scully, promoted. Office, Moose Jaw, Sask.

T. Martin, heretofore Assistant Engineer at Calgary, Alta., has been appointed Division Engineer. Office, Moose Jaw, Sask.

A. Shortt, heretofore District Master Mechanic at Cranbrook, B.C., has been appointed Master Mechanic. Office, Moose Jaw, Sask.

H. A. Sims, heretofore Resident Engineer at Moose Jaw, Sask., has been appointed Assistant Division Engineer there.

R. R. Smart, heretofore dispatcher at Moose Jaw, Sask., has been appointed Car Service Agent there.

W. K. McLeod has been appointed Locomotive Foreman at Calgary, Alta., vice A. H. Eager, resigned.

A. Hall, heretofore Locomotive Foreman at Crow's Nest, B.C., has been appointed Locomotive Foreman at McLeod, Alta., vice H. McDonald, transferred.

F. McFarlane has been appointed Locomotive Foreman at Crow's Nest, B.C., vice A. Hall, transferred.

J. Jackson has been appointed shop foreman, Revelstoke roundhouse.

H. Rindal, heretofore Assistant Engineer, Winnipeg, has been appointed Division Engineer Pacific Division, vice C. E. Cartwright, resigned. Office, Vancouver, B.C.

S. E. Cruse, Agent at Antwerp, Belgium, has resigned.

Grand Trunk Pacific Ry.—Hon. R. Dandurand has been elected a director vice Sir C. Rivers Wilson, resigned.

T. D. Smith has been appointed Fuel Agent. All fuel reports, requisitions and correspondence pertaining thereto are sent accordingly. Office, Winnipeg.

S. C. Pettitt has been appointed Stationery Agent. All stationery requisitions and correspondence pertaining thereto are addressed to him. Office, Winnipeg.

M. D. Thomson, heretofore Chief Dispatcher, Districts 4, 5, 6, and 7, and Tofield-Calgary branch, Wainwright, Alta., has been appointed Chief Dispatcher, Districts, 1, 2, and 3 and Regina and Yorkton branches, at Melville, Sask., vice J. C. Ayer, resigned.

W. J. McPhee has been appointed Chief Dispatcher, Districts 4, 5, 6 and 7, and Tofield-Calgary branch, at Wainwright, Alta., vice M. D. Thomson transferred.

E. C. Dunlop, heretofore Roadmaster, District 30, Ottawa Division, G.T.R., has been appointed Roadmaster, G.T.P.R., with jurisdiction from the west end of Edmonton yard to Viking, including the Calgary-Tofield branch. Office, Edmonton, Alta.

The following agents have been appointed: Ingelow, Man., A. E. Hill; Waldron, Sask. A. Fullum; Venn, Sask., R. M. Sutherland; Watrous, Sask., R. J. Martin; Scott, Sask., H. C. Wilkinson; Holden, Alta., J. L. Dodds.

L. V. Druce, heretofore Commercial Agent at Seattle, Wash., has been appointed Commercial Agent, G.T.R., G.T.P.R., and G.T.P. Steamship Co. at Vancouver, B.C.

W. Duperow, heretofore Travelling Passenger Agent, G.T.R., Toronto, has been appointed City Passenger and Tic-



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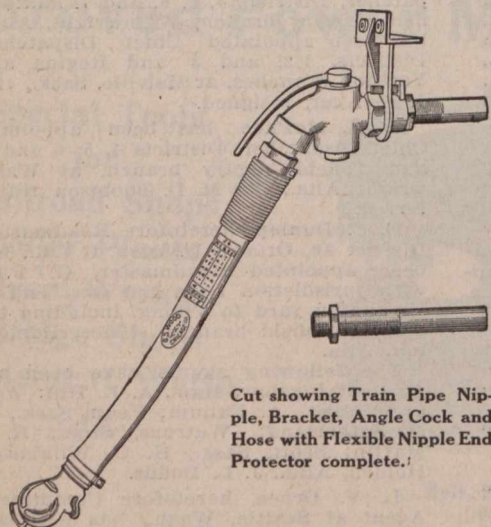
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ket Agent, G.T.R., G.T.P.R. and G.T.P. Steamship Co., at Victoria, B.C.

F. L. Norman, heretofore Soliciting Freight Agent Kansas City, Mo., has been appointed Commercial Agent, G.T.R., G.T.P.R., and G.T.P. Steamship Co., at Seattle, Wash., vice L. V. Druce, transferred.

Grand Trunk Ry.—W. S. Cookson, heretofore Assistant General Passenger Agent, Chicago, Ill., has been appointed Assistant General Passenger Agent, Montreal, and H. G. Elliott, First Assistant General Passenger Agent, Montreal, has been transferred to Chicago.

T. W. R. McRae has been appointed Claims Agent, Personal Injuries, Montreal, vice S. Wells, deceased.

M. Quinlan, heretofore Section Foreman at St. Henri, Que., has been appointed Roadmaster District 3, Eastern Division, vice D. Galvin, deceased. Office, Richmond, Que.

T. Graham, Roadmaster District 31, Ottawa Division, has also been appointed, temporarily, in charge of District 30, vice E. C. Dunlop, transferred to G.T.P.R.

M. Donovan, heretofore Section Foreman at St. Henri, Que., has been appointed Roadmaster District 6, Eastern Division. Office, Kingston Jct., Ont. This is a new position, making three roadmasters between Montreal and Toronto.

J. D. McMillan has been appointed Trainmaster Districts 8, 9, and 10, vice J. Irwin, resigned. Headquarters Lindsay, Ont.

C. E. Jenny has been appointed Travelling Passenger Agent, Toronto, vice W. Duperow, promoted to Victoria, B.C.

P. J. Lynch, heretofore Assistant Superintendent, has been appointed Superintendent Northern Division, vice W. R. Tiffin, deceased. Office, Allandale, Ont. The position of Assistant Superintendent has been abolished.

W. J. Piggott, heretofore Chief Dispatcher, Allandale, has been appointed Trainmaster Districts 11, 12, 13 and 14, headquarters, Allandale, Ont.

R. E. Ruse, heretofore station ticket agent, London, Ont., has been appointed city passenger and ticket agent at London, vice E. de la Hooke, who has been placed on the pension list after 46 years' service.

H. M. Hayes, heretofore Chief Clerk, city passenger and ticket agent's office London, Ont., has been appointed station ticket agent at London, vice R. E. Ruse, promoted.

The following agents have been appointed:—Lakeside, Que., W. Bennett; Colborne, Ont., J. Thorne; Anson Jct., Ont., A. L. Burke; Colwell, Ont., F. E. Cook; Winona, Ont., C. R. Anderson; Jeannettes Creek, Ont., A. Webster; Ekfrid, Ont., F. D. Ellis; Sebringville, Ont., H. G. Simmons; Burgessville, Ont., R. M. Patten; Goldstone, Ont., J. M. Fairweather; Newton, Ont., R. Middleton; Moose Creek, Ont., F. O. Parent; Otter Lake, Ont., A. Johnston; Rainy Lake, Ont., H. W. Lora; Toronto, outside agency, W. H. Polley.

See also some appointments under G.T. Pacific Ry.

New York Central and Hudson River Rd.—T. W. Evans, heretofore Superintendent Rochester division, has been appointed Superintendent Buffalo Division, vice I. H. McEwen, transferred. Office, Buffalo, N.Y.

F. E. McCormack, heretofore superintendent Ontario Division, has been appointed Superintendent Rochester Division, vice T. W. Evans, transferred. Office, Rochester, N.Y.

S. J. Kearns has been appointed Superintendent Ontario Division, vice F. E. McCormack, transferred. Office, Oswego, N.Y.

Reid Newfoundland Co.—A. Granam, heretofore Roadmaster Division 3, has

been appointed General Roadmaster of the main line and branches. Headquarters, Port Blandford.

P. Hannon, has been appointed Roadmaster, Division 3, between Clarendville and Bishop's Falls, vice A. Graham. Headquarters, Gambo.

J. Peddle has been appointed Roadmaster, Division 4, between Bishop's Falls and Bay of Islands, vice J. Campbell, transferred to Bonavista Branch construction. Headquarters, Bay of Islands.

J. Keefe has been appointed Roadmaster Division 5, between Bay of Islands and Port-aux-Basques, vice A. Cobb, transferred to Bonavista Branch construction. Headquarters, Stephenville.

Temiskaming and Northern Ontario Ry.—T. Ross, heretofore Locomotive Foreman, North Bay, has been appointed acting Master Mechanic, vice A. Allan, resigned. Office, North Bay, Ont.

C. Battley has been appointed acting Locomotive Foreman, North Bay, vice T. Ross, Locomotive Foreman, promoted.

Brockville, Westport & Northwestern Ry.

The Mackenzie, Mann & Co. interests are acquiring the Brockville, Westport and North-Western Ry., which runs from Brockville to Westport, Ont., 45 miles. The Canadian Northern Ontario Ry.'s Ottawa-Toronto line, the western portion of which is already under construction, will cross the B.W. & N.W.R., and through the latter the C.N.O.R. will obtain access to Brockville and the St. Lawrence River.

The Brockville, Westport and North-Western Ry. Co., which was incorporated in 1903, succeeded the Brockville, Westport & Sault Ste. Marie Ry. Co., whose property was sold under foreclosure in that year. The officers are E. M. Thomas, President; F. T. Lewis, Vice President and Treasurer; C. Heilshorn, Manager and Secretary, all of New York; W. J. Curle, Superintendent, Brockville. From Brockville it connects by ferry at Morrinstown, N.Y., with the New York Central and Hudson River Rd., also at Brockville with the C.P.R. and G.T.R.

The Steel Company of Canada. Ltd.

The above is the name which has been finally chosen for the merger which will have its headquarters in Hamilton. The new company will have a capitalization of \$25,000,000, and it is said the merged companies will be represented by the following amounts of stock:—

Hamilton Steel & Iron Co.	\$9,300,000
Canada Screw Co.	4,000,000
Canada Bolt & Nut Co.	2,100,000
Montreal Rolling Mills Co.	7,500,000

Canadian Northern Pacific Ry.—The contract for the construction of the first 60 miles east from New Westminster has been let to the Northern Construction Co.

N. Mooney, General Agent New York Central and Hudson River Rd. and Rutland Rd., has removed his office from 137 to 220 St. James St., Montreal.

V. G. R. Vickers, recently appointed Manager Dominion Ex. Co. foreign department, Montreal, has returned to Canada from Europe, where he has been enquiring into the express situation generally.

J. Lonsdale Doupe, Assistant Land Commissioner, C.P.R., Winnipeg, in renewing his subscription, writes:—"I have moved my residence and would be greatly obliged if you would see that the Railway and Marine World is in future sent to my new address, as I would not like to miss a copy."

Telegraph and Cable Matters.

The Canadian Northern Telegraph Co. has opened offices at Augustville, Hallboro, Shellmouth, Man.; Brock, Fiske, Kindersley, Netherhill and Ridpath, Sask.

The Dominion Government telegraph line through the Peace River country is being pushed. Considerable difficulties have been encountered, due to forest fires. The line has reached the east end of Stave Lake early in June.

The Association of Railway Telegraph Superintendents held its annual meetings at Los Angeles, Cal., June 20 to 24, when papers dealing with wireless telegraphy, education for efficient railway service, protecting telephone lines from lightning and other disturbances, automatic block and highway crossing signalling, telephone train dispatching, testing of telegraph and telephone circuits, telephoning to and from trains and composite telephone blocking were read and discussed.

Telegraph companies have issued a notice to the effect that telegrams destined for a station on the Postal Telegraph Co.'s lines, or other connections, if offered under a frank, or stamp, will not be accepted for free transmission, either in whole or part, unless the frank is countersigned by an official of the connecting company, or a frank of the connecting company also presented as the tariff from the point of connection to destination is never less than from the place of origin.

The Maritime Telegraph and Telephone Co. is planning to include in its system a number of the smaller towns and villages in the Maritime provinces which have no telegraph and telephone facilities. An officer of the company is reported to have stated that it is hoped that the system will be ready for operation in a very short time, arrangements having been made for the use of other companies' wires, where suitable, and preparations have been made for the purchase of a large number of poles and quantity of wire.

Among the Express Companies.

R. H. Jones has been appointed route agent Canadian Ex. Co., Toronto, vice J. P. Hetherman.

L. E. Hertel has been appointed agent Canadian Ex. Co. at Niagara Falls, Ont., vice R. B. Brown.

W. G. Balfour has been appointed route agent Canadian Ex. Co., Montreal, vice G. H. Waterhouse.

W. S. Stout, President and General Manager Dominion Ex. Co., when in Montreal recently, is reported to have said that the work of demolition of the St. Lawrence Hall, was being held over for a short time, waiting for the completion of plans. It is anticipated that work will be proceeded with during July or August.

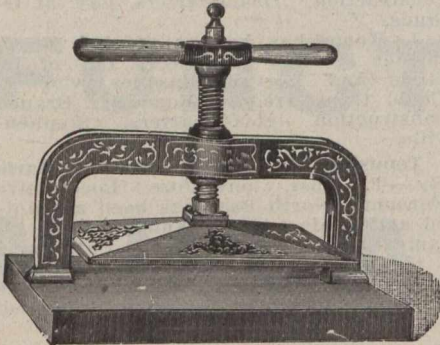
The Board of Railway Commissioners has ruled in respect of express charges on millinery and similar light parcels, that parcels, from 70 to 75 ins., external measurement, enclosed in corrugated shipping paper, be charged for as weighing 30 lbs.; from 75 to 80 ins., as 35 lbs.; it being allowed to tie a number of smaller packages together to make one large parcel. Other parcels of less than 70 ins. external measurement, to be securely fastened together, when not crated, be charged at regular merchandise rates on actual weight, but at not less than the following minimum weights based on measurement:—50 to 55 ins., 15 lbs.; 55 to 60 ins., 18 lbs.; 60 to 65 ins., 20 lbs.; 65 to 70 ins., 25 lbs.; parcels measuring less than 50 ins., to be charged on actual weight.

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Canadian Street Railway Association.

PRESIDENT, D. McDonald, Manager, Montreal St. Ry.; VICE-PRESIDENT, J. Anderson, Manager, Sandwich, Windsor and Amherstburg Ry.; SECRETARY-TREASURER, Acton Burrows, Managing Director, Railway and Marine World.
ASSOCIATION'S OFFICE, 157 Bay St., Toronto.
EXECUTIVE COMMITTEE.—P. Dube, Secretary, Montreal St. Ry.; E. A. Evans, Chief Engineer, Quebec Ry. Light and Power Co.; R. J. Fleming, General Manager, Toronto Ry.; H. M. Hopper, Secretary-Treasurer, St. John Ry.; J. E. Hutcheson, Superintendent and Purchasing Agent, Ottawa Electric Ry.; C. B. King, Manager, London St. Ry.
ASSISTANT SECRETARY, Aubrey Acton Burrows, Secretary and Business Manager, Railway and Marine World.
OFFICIAL ORGAN, THE RAILWAY AND MARINE WORLD.

Canadian Street Railway Association

The annual meeting at Montreal June 9 and 10, was the most successful and largely attended in the Association's history, representatives of member companies being present from Halifax on the east to Vancouver on the west. D. McDonald, Manager Montreal Street Ry. and President of the Association, occupied the chair. After routine business the International Transit Co., of Sault Ste. Marie, Ont., was unanimously elected to membership.

The rest of the first morning's session was occupied in the reading and discussion of the report of the Secretary-Treasurer, Acton Burrows, which dealt with the Association's operations during the year in full detail, covering a wide range of subjects and showing that the Association had performed a great deal of important work in the interests of electric railways generally.

Most of the remainder of the two days' meeting was devoted to the reading and discussion of papers on various subjects relating to the construction, maintenance and operation of electric railways, and to a series of topical discussions on matters of vital interest to electric railway officials.

The following officers, etc., were elected unanimously for the current year:

President, D. McDonald, Manager Montreal St. Ry.; Vice President, J. Anderson, Manager, Sandwich, Windsor and Amherstburg Ry.; Secretary-Treasurer, Acton Burrows, Managing Director, Railway and Marine World; Executive Committee, C. E. A. Carr, General Manager, Quebec Railway, Light, Heat and Power Co.; P. Dube, Secretary, Montreal St. Ry. Co.; H. M. Hopper, General Manager, Secretary and Purchasing Agent, St. John Ry.; C. B. King, Manager London St. Ry.; W. R. McRae, Master Mechanic, Toronto Ry.; J. E. Hutcheson, Superintendent and Purchasing Agent, Ottawa Electric Ry., is ex officio a member of the Executive Committee by virtue of being the immediate past President.

Assistant Secretary, Aubrey Acton Burrows, Secretary and Business Manager Railway and Marine World.

The Montreal St. Ry. management entertained the representatives of member companies attending the meeting in a most hospitable manner. On the first day there was a luncheon at the Windsor Hotel and in the evening the party went on the M.S.R. official car to Dominion Park, where they dined and afterwards enjoyed the attractions. On the second day there was a luncheon at the Forest and Stream Club, Dorval, the party going out to the end of the M.S.R. Lachine line in the official car and then driving to the club. On the following day, after the business had been disposed of, the party visited the Blue Bonnets race course. W. G. Ross, Managing Director, D. McDonald, Manager, P. Dube, Secretary, and other M.S.R. officials were unremitting in their attentions and kindnesses.

Those who attended the meetings presented P. Dube, with a handsome sapphire scarf pin surrounded with diamonds, as a wedding present. The presentation being made at the formal opening of the M.S.R. Co.'s St. Denis St. recreation rooms on June 11, D. McDonald expressing the warm feeling of the officials of the various companies towards Mr. Dube, and W. R. McRae, of the Toronto Ry., making the presentation on behalf of the subscribers.

St. John Railway Report.

The report for the year ended April 30, was submitted to the shareholders at the annual meeting held June 8. After providing for the interest on the bonds and all other charges, the directors reported that there was a net profit of \$54,479.85, out of which two half-yearly dividends of 3 per cent., amounting to \$48,000, had been paid, leaving a balance of \$6,479.85, which had been transferred to profit and loss account. The roadbed, rolling stock, buildings and machinery have been inspected by M. Neilson, the company's Consulting Engineer, who reported that they had been efficiently maintained and were in first class condition. Following is the balance sheet:—

ASSETS.	
Cost of property	\$1,905,584 14
Accounts receivable	38,091 63
Stores	41,118 82
Cash on hand	1,300 00
Cash in bank	41,562 04
	\$2,027,656 63
LIABILITIES.	
Capital stock	\$ 800,000 00
Bonds	1,000,000 00
Accounts payable	27,724 71
Dividend payable June 8	24,000 00
Outstanding tickets	2,217 73
Contingent and depreciation	60,853 87
Profit and loss	112,860 32
	\$2,027,656 63

The officers and directors for the current year are:—President, Jas. Ross; Vice President, H. H. McLean; other directors: R. B. Emerson, J. Manchester, J. J. Tucker, W. Downie, H. B. Robinson, F. E. Sayre.

New Brunswick Public Utilities Board.

Following the lead of Ontario, Quebec and Nova Scotia, the New Brunswick Legislature has passed an act establishing a "Board of Public Utility Commissioners," and has appointed the first members as follows:—D.M.L. Vince, D.C.L., K.C., Woodstock, Chairman; G. O.D. Oty, K.C., Hampton; O.M. Melanson, Shediac; with F. P. Robinson, Fredericton, as secretary.

The act defines "public utility" as including any person or association of persons now or hereafter owning any telephone line, or plant for the production and distribution of heat, light, power or water, or which may own any street railway, and any municipality which desires to furnish any of these services to or from any other city or town. Such public facilities are required to furnish reasonably adequate service and facilities, and the act declares "unjust or unreasonable charge for such service" to be "prohibited and declared unlawful." Returns on prescribed forms have to be made to the Board; schedules of rates have to be filed with and approved by the Board from time to time before they become operative; and the Board is to have "the general supervision of all public utilities," and shall "keep itself informed as to the compliance by the said public utilities with the provisions of this law." The Board is given power to hear and determine complaints of overcharges, etc.: to take evidence upon both similarly to the Supreme Court; and to appoint any person to investigate

and report upon any matter pending before it; and to make rules for the conduct of the business. An appeal from the Board's decisions may be made out by Lieut.-Governor-in-Council, and it is provided that a penalty of not less than \$50 or more than \$500 may be enforced against those who refuse to abide by the Board's orders.

Militia vs. Street Cars.

Our issue of July, 1909, contained full particulars of the conviction by the Winnipeg police magistrate of a Winnipeg Electric Ry. motorman for the alleged obstruction of the 90th Rifles on June 1, 1909. The magistrate's decision was appealed to County Judge Walker, who took the evidence over again, but at the request of counsel for the prosecution, who evidently anticipated an adverse decision, the Judge stated a case to the Court of Appeal as to the legal point involved, in regard to which had the right of way, the electric railway or the militia, and the matter came before the Court of Appeal in June. The Winnipeg Electric Ry.'s counsel contended that the County Judge had no jurisdiction to state the case and reserve judgment. The Court of Appeal agreed with this and dismissed the matter. It therefore now remains with Judge Walker to decide on the appeal.

Projects, Construction, Betterments, Etc.

The British Columbia Electric Ry. now has two lines between Vancouver and New Westminster. One of 12 miles, was the original line built by the New Westminster and Vancouver Tramway Co., one of the lines acquired by the B.C.E.R. The second route, 17 miles, is over the C.P.R. branch, known as the Vancouver and Lulu Island Ry. now to Eburne, thence along the north arm of the Fraser River. The company is desirous of securing a 999 year franchise for a short branch line to connect Eburne with New Westminster, the municipality to receive 10% of the gross receipts under the charter of a subsidiary company—the Vancouver, Fraser River and Southern Ry., the company purposes to build another line from New Westminster, through the Burnaby district and Hastings townsite to the headquarters of False Creek at the eastern end of Vancouver city. Track has already been laid from New Westminster towards Burnaby, about five miles, and it is expected that track will be laid between Burnaby and Vancouver so as to have the whole line in operation this fall.

The Chilliwack line has been completed as far as Cloverdale, and construction is well advanced to Abbotsford. A freight service is being operated but the rolling stock for the passenger service is not ready. At Chilliwack the company has secured land for its terminals, and R. H. Sperling recently wrote the Board of Trade there that the company contemplated the erection of a station and freight sheds, and was not favorable to the erection of a union station with the Great Northern Ry.

The company has purchased about 10 lots in the west end of New Westminster near the junction of the Eburne and Vancouver lines, upon which to lay out freight terminals for all its lines running out of New Westminster. The freight terminals for the Fraser Valley branch will be located on the south bank of the Fraser River, near the end of the Fraser River bridge. The surveys of the property recently acquired there have been completed, and the work of grading and laying out the yards is in progress. It is proposed to erect a repair shop at this point, the plans for which are being prepared. Tenders are under considera-

tion for the erection of the passenger station, and office buildings in New Westminster.

The property owners of the Broadway Ave. W., Vancouver district, have offered to contribute \$18,000 towards extending the line along Broadway Ave. W., to Alma Road, work to be started by April, 1911. The owners agree to widen the street from 65 to 86 ft., and not to ask for a permanent pavement for four years.

The Lynn Valley extension has been opened for traffic. It extends from North Vancouver to Hoskins Rd., Lynn Valley.

A deputation waited on R. H. Sperling June 9, urging the building of a line from Vancouver to Ladner and the Delta district generally. In order to make the connection with Lulu Island it will be necessary to build a high level bridge, or to establish a car ferry. Mr. Sperling promised to report favorably of the proposition to the directors in London, Eng.

In connection with the proposals made for building a line through the Saanich peninsula, Vancouver Island, the company has suggested that the property owners should grant a moderate land bonus. (June, pg. 495.)

The Chatham, Wallaceburg and Lake Erie Ry. Co. started last year to build a line to Paincourt, but was unable to complete it owing to the opposition of one property owner. The difficulty having been adjusted the extension is being gone on with and is expected to be completed in August.

Dominion Power and Transmission Co.—The Hamilton, Ont., city council is considering an application by the company to build a switch on Sanford Ave., between King and Main streets, to serve as a connecting link between the Hamilton Radial Ry. and the Hamilton, Grimsby and Beamsville Electric Ry., with a view to running fruit cars to the canning and preserving company from Oakville and Burlington on the one hand and Beamsville on the other.

Fredericton Street Ry.—The New Brunswick Legislature has incorporated a company with this title to build a single or double track line to be operated by electricity, on the streets of Fredericton, on the streets of other towns in York county, and on highways throughout the county, subject to the consent of the several municipalities and the consent of the Government as to the crossing of bridges. The provisional directors are F. B. Edgecombe, C. F. Seide, J. S. Neill, A. S. Phillips, A. A. Shute, and R. B. Hanson. (April, pg. 310.)

The Halifax Electric Tramway Co. has withdrawn its application to the Halifax, N.S., city council for permission to build a second track on certain streets at an estimated cost of about \$70,000. The application was made in March, and the city council has been holding up the matter with a view of getting the company to consent to extend its lines along some other streets. The company pointed out that with the double track proposed, a better service could be given, and that it would then be possible to see where extensions could most profitably be made. The council's railway committee did not see it that way, and as a result the company withdrew its application May 31. (June, pg. 495.)

Hull Electric Co.—Work was started June 1, on the extension of the line along Brewery St., and along Chelsea Road to the tollgate. The grading is well advanced and track laying will be gone on with at once. (Jan. pg. 57.)

Lethbridge, Alta.—Reports have been received and considered by the Lethbridge, Alta., city council in reference to the construction by the city of an

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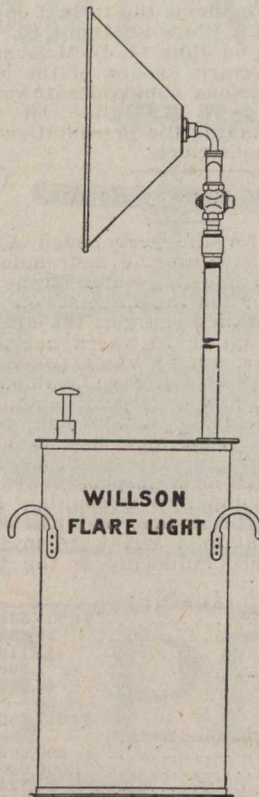
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electric railway as a municipal enterprise. The investigations are to be continued before a final decision is reached. (Mar. pg. 231.)

The Moncton Tramway, Electricity and Gas Co., is the title by which under an act passed last session of the New Brunswick Legislature, the Moncton Electric St. Ry. Heat and Power Co. will be known in future. The original act and its amending act are amended in various details, the powers as to the building of a street railway are repealed and new sections inserted. These provide for building a single or double track line in Moncton, with the approval of the city council, and, single and double track lines in Westmorland, Albert and Kent counties, under agreement with the different municipalities. The company is also given power to acquire water powers, develop the same and to distribute electrical energy. (June, pg. 495.)

The Montreal and Southern Counties Ry. is operating a regular car service from Montreal, over the Victoria Jubilee Bridge to Longueuil, Que. The line from Montreal to Montreal South, was put in operation in the fall of 1909. The extension to Longueuil was opened for traffic May 30. An extension from Longueuil to Boucherville, 6 miles, and another from St. Lambert southerly towards La Prairie, about 9 miles, will be gone on with at once. The old Central Vermont Ry. branch to Richelieu, about 14 miles, is to be electrified by the M. and S. C. R. Co. this year and about a mile and a half of new line will be built to connect the branch with the M. and S. C. R. line in St. Lambert.

A brick terminal station, including waiting and baggage rooms, ticket office, etc., is to be built at once at the north east corner of Youville and McGill streets, Montreal.

Moose Jaw, Sask.—The parties to the agreement with the city of Moose Jaw, Sask., for the construction of an electric railway there, are: J. B. McRae, P. B. Melon, E. J. Daly, A. H. Dion, A. A. Dion, C. E. McCuaig, Ottawa; and J. T. Cashman, Moose Jaw. The franchise is for 20 years from the final passing of the by-law, at the end of which time, in giving six months' notice the city may either assume the ownership of the line or renew the charter for a further 20 years. In the event of the city deciding to take over the line the agreement provides for the appointment of arbitrators and the principles upon which the valuation of the property is to be made. The first three miles of track is to be put in operation within nine months of the passing of the by-law, and to extend along Main St. from Manitoba St. to the exhibition grounds; on High street, from Main St. to Sixth Ave., thence to South Hill. The routes for other lines are to be as mutually agreed upon. The by-law sets out the fares to be charged, and other terms, and provides that for the first five years the company shall not pay any rental; for the second five years a rental of \$250 a mile is to be paid for unpaved streets and \$500 a mile for paved streets; and during the last 10 years the rental is to be \$1,000 a mile for paved and \$500 a mile for unpaved streets. The power house, repair shops, etc., are to be located in Moose Jaw, and the pay-as-you-enter type of car is not to be used without special permission. (June, pg. 495.)

Nelson Electric Street Ry.—The extension of 1.25 miles has been completed by the contractor, R.G. Brand. The old tracks and overhead work are being overhauled so that when reopened for traffic the line will be in good condition. (June, pg. 495.)

Niagara, St. Catharines and Toronto Ry.—We are advised that the location surveys for the extension of the line from Port Colborne to Fort Erie, Ont.,

have been completed, but it is not expected that any construction will be started on it this season. (June, pg. 495.)

Ontario West Shore Ry.—For about two years the company has been trying to reach an understanding with the Colborne Township council as to the location of a portion of the line through Dutton Village, Ont. There is a building on the line of the right of way, and in order to avoid having to remove this at considerable expense the company desires to carry its line for a short distance along the highway, but the council has refused to grant permission to this to be done. The company put on a gang of men and laid the track during the night of June 3, and on the following day the council sent a gang of men and tore it up. The matter will be taken to the courts by the company. The tracks were subsequently replaced by the company, and on June 4 application was made to the Ontario Railway and Municipal Board, which Board advised a settlement as the crossing was in the right place.

The Goderich, Ont., town council has granted the company permission to lay tracks on streets as follows: On Cambria Road from Gloucester Terrace to Toronto street, and along Toronto street to Huron Road, and thence to Goderich tp. 2nd, along Nelson street from Cambria Road to Maitland Road, and along the latter to Oxford street to Huron Road. (June, pg. 495.)

Ottawa Electric Ry.—We are advised that while the directors have under consideration plans for extending the lines north and south, no definite decision has been reached as to what will be done. It is not likely, that any extensions will be made this year. (June, pg. 497.)

The Quebec Ry., Light, Heat and Power Co. has acquired the charter of the Quebec County Ry., which was incorporated by the Legislature in 1904, with power to build electric railways throughout the county of Quebec. The charter was amended in 1909, and the directors in office at the time of the sale were: Hon. J. Sharples, president; Hon. N. Garneau, J. T. Ross, R. Campbell, of Quebec; and Dr. Lavoie, of Sillery. As reorganized, the board consists of Hon. F. L. Pelletier, N. Belleau, L. C. Webster, R. Campbell and Dr. Lavoie. It is under the charter of this company that the extension to Sillery is being built. The road bed is being prepared to carry a double track, but it is only proposed to lay a single track at present. It is expected that the line will be completed in August. (June, pg. 497.)

Toronto and York Radial Ry.—The City Engineer of Toronto has recommended that an agreement be entered into with the company by which it will be allowed to lay a double track on Yonge street, north of the C.P.R. tracks. The company to pay \$600 a year mileage rental, and the city to have the right to discontinue the arrangement by paying the cost of returning to the present condition of a single line at the side of the road. (June, pg. 497.)

Toronto, Niagara and Western Ry.—The Board of Railway Commissioners has authorized the company to build its line across St. Clair Ave., to cross the C.P.R. and the G.T.R. at St. Clair Ave.; to cross the G.T.R. at Davenport Road, and to cross Davenport Road, Toronto. (June, pg. 497.)

The Winnipeg Electric Ry. is carrying out a good deal of betterment work on its various lines. The new line across the Redwood bridge to Elmwood was expected to be opened by June 30; the track at River Avenue and Osborne St. has been reconstructed; a second track is being laid on Selkirk Ave., near Main St., and along Portage Ave., west of Maryland St. (June, pg. 497.)

Toronto Railway Extensions.

Following its judgment, as published in our June issue, pg. 499, on the application of the Toronto Ry. Co. for the approval of the routes selected by the company and submitted to the City Engineer, to enable it to carry out the Ontario Railway and Municipal Board's order of Dec. 8, 1908, the Board issued the following order, June 9:—"Upon the application of the Toronto Ry. Co., upon hearing the evidence adduced and counsel for the applicants and respondents, and it appearing that the Board, under and by virtue of an order of May 17, 1907, ordered the applicants to construct from 10 to 15 miles of double track, and 100 new cars, in order to relieve the overcrowding of their railway cars, and it further appearing that the applicants selected Adelaide St. from Jarvis St. to Bathurst St., Bay St. from Front St. to Queen St., University Ave. from Queen to College St., Richmond St. from Victoria St. to Church St., and Wellington St. from Church St. to York St., in pursuance of their rights under the agreement of Dec. 1, 1901, validated by statute, Vic., chap. 99 (Ontario), and that by the Board's order of Dec. 8, 1908, and the subsequent appeals to the Court of Appeal and the Privy Council, the applicants were found entitled to the said streets for the construction of the tracks of the said railway; and it further appearing that the company further required for the construction of the said 10 to 15 miles of double track of the said railway, Terauley St. from Queen St. across University Ave., through Anderson St., and along St. Patrick St. to Bathurst St.; Victoria St. from Adelaide St. to Wilton Ave.; Wilton Ave. from Victoria St. and across the new bridge over the Don River, to a point east of Broadview Ave.; Shuter St. from Yonge St. to Victoria St., Harbord St. from Spadina Ave. to Ossington Ave., and have selected the said streets for such purposes under the said agreement; and it further appearing that the applicants have filed with the respondents a plan for the construction of the said tracks of their car lines on the said last mentioned streets, and have submitted the same to the City Engineer for his approval, such plan being of the same character as that approved for other portions of the company's railway heretofore built; and it further appearing that the applicants through their solicitor have agreed to amend the said plan and furnish such further details as may be reasonably required by the City Engineer; and it further appearing that under and by virtue of sec. 3 of the Ontario Railway Amendment Act, 1910, the applicants cannot begin the construction of their railway or any extensions of it on the said last mentioned streets, without having first obtained the permission and approval of the Board; the Board orders that the said plan for the construction of the said lines of railway, on the said last mentioned streets be taken as approved, and the same is hereby approved, subject to the applicants amending the same, and giving such further details as the City Engineer may reasonably require; and the Board finds and declares that the construction of the applicants' railway upon the said last mentioned streets, and the permission of the Board to construct their railway, or any extension of it, upon the said streets is hereby given; and the Board further orders that the applicants pay \$20 for stamps on this order, and makes no further order as to costs, and the Board reserves further order and directions herein."

The company's Solicitor objected to the terms of the order, and intimated the intention of appealing to the Board against the order as settled by the sec-

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HUDSON BAY RAILWAY.
SASKATCHEWAN BRIDGE.

Notice to Contractors.

SEALED TENDERS, addressed to the undersigned, and endorsed "Tender for Superstructure of La Pas Bridge," will be received at this office until 12 o'clock noon of the 4th day July, 1910, for the construction and erection of the Superstructure of the Bridge over the Saskatchewan River on the line of the Hudson Bay Railway.

The Bridge will be composed of a Swing Span of 262 feet and four fixed spans of 147 feet each.

Plans, specifications and forms of contract to be entered into may be seen, and full information obtained on and after this date, at the office of the Chief Engineer, of the Department of Railways and Canals at Ottawa, Ont., or at the office of the Chief Engineer of the Hudson Bay Railway at Winnipeg, Man.

Tenders must submit designs of superstructures with stress sheets, all to be in accordance with the general specifications for steel superstructures of bridges and viaducts of the Department of Railways and Canals of the Dominion Government, 1908. The class of load to be used is that designated "heavy" in the said specifications.

Parties tendering will be required to accept the fair wages schedule prepared or to be prepared by the Department of Labour, which schedule will form part of the contract.

Contractors are asked to bear in mind that tenders will not be considered unless made strictly in accordance with the printed forms, and in the case of firms, unless there are attached the actual signature, the nature of the occupation, and place of residence of each member of the firm.

An accepted bank cheque for the sum of (\$10,000.00) made payable to the order of the Minister of Railways and Canals must accompany each tender, which sum will be forfeited if the party tendering declines entering into contract for the work, at the rates stated in the offer submitted.

The cheques thus sent in will be returned to the respective contractors whose tenders are not accepted.

The cheque of the successful tenderer will be held as security, or part security, for the due fulfilment of the contract to be entered into.

The lowest or any tender not necessarily accepted.

By order,

L. K. JONES, Secretary.

Department of Railways and Canals,

Ottawa, 20th June, 1910.

Newspapers inserting this advertisement without authority from the Department will not be paid for it.

Arthur Allen, who has been Master Mechanic Temiskaming and Northern Ontario Ry. for several years, has resigned to take an important position with The Holden Co., Ltd., railway supplies.

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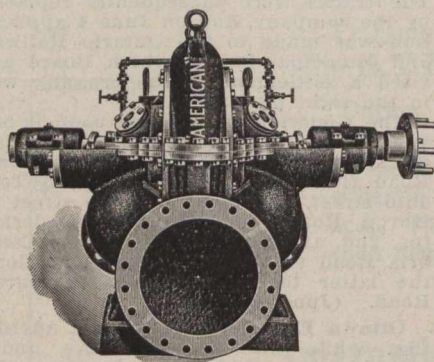
At the entrance of the discharge pipe is a cut-off, preventing fluid passing the discharge pipe and being repumped.

The same care that is employed in designing the principal features of the pump is carried out in every detail of construction; in balancing the impeller, overcoming the end thrust, water-sealing the inner end bearings and oiling the main outer end bearings with rings and chains and oil cellars.

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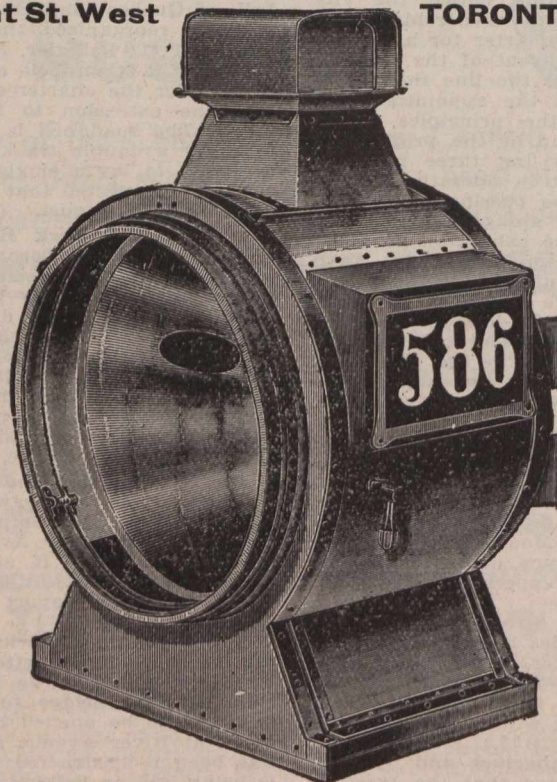
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retary of the Board, and to have an order issued under the terms of the agreement with the city, and not under the terms of the Ontario Act of last session. The chairman of the Board, however, stated that the order as issued, was final and would not be changed.

The following preemptory order, signed by A. B. Ingram, Vice Chairman of the Board, was issued June 17:—It appearing, upon discussion by the parties, relative to the settlement of the order of May 18, that the Toronto Ry. Co. declare they do not intend to proceed with the work, the Board, of its own motion, orders and directs that the Toronto Ry. Co. shall forthwith proceed with the construction of the lines of railway referred to in the said order; and that the Board reserves leave to the Toronto Ry. Co. and to the city of Toronto, respectively, to apply to the Board from time to time for directions relative to the carrying out of this order."

Electric Ry., Finance, Meetings, Etc.

British Columbia Electric Ry.—Gross earnings for April, \$247,307; operating expenses \$153,776; net operating earnings \$93,531; renewal funds \$17,852; net earnings, \$77,679; approximate income from investments \$16,500; net income \$92,179, against \$188,071 gross earnings; \$109,267 operating expenses; 378,801 net operating earnings; \$13,958 renewal funds; \$64,846 net earnings; \$13,550 approximate income from investments; \$78,396 net income for April 1909. Aggregate gross earnings for 10 months ended Apr. 30, \$2,471,631; net earnings, including approximate income from investments, \$1,047,717, against \$1,900,352 gross and \$861,531 net for same period 1908-09.

Halifax Electric Tramway.—Railway receipts for May, \$15,673.97, and for two weeks ended June 14, \$8,253.58, against \$14,620.68 and \$7,336.08 for same periods 1909.

Montreal Street Ry.—Passenger earnings for May, \$360,480.85; miscellaneous earnings \$9,753.28; total earnings \$370,234.13; operating expenses \$199,616.79; net earnings \$170,617.34; city percentage on earnings \$34,900.17; interest on bonds and loans \$14,982.37; rent leased lines \$552.90; taxes \$4,000; total charges \$54,435.44; surplus \$116,181.90; expenses per cent of earnings 53.92, against \$22,410.83 passenger earnings; \$6,928.45 miscellaneous earnings; \$329,339.28 total earnings; \$181,147.58 operating expenses; \$148,191.70 net earnings; \$28,005.30 city percentage on earnings; \$14,386.85 interest on bonds and loans; \$498.67 rent leased lines; \$3,000 taxes; \$45,890.82 total charges; \$102,300.88 total charges; 55.00 expenses per cent. of earnings for May 1909. Aggregate total earnings for eight months ended May 31, \$2,707,235.45; operating expenses \$1,607,443.21; net earnings \$1,099,792.24; total charges \$318,550.03; surplus \$781,242.21, expenses per cent. of earnings 59.38, against \$2,437,055.68 aggregate total earnings, \$1,501,232.92 operating expenses; \$935,772.76 net earnings; \$284,556.86 total charges; \$651,215.20 surplus; 61.60 expenses per cent. of earnings for same period 1908-09.

Toronto Ry.—Gross earnings for Apr. \$328,785; expenses \$170,129; net earnings \$158,655, against \$298,359 gross earnings; \$153,595 expenses; \$144,664 net earnings for Apr. 1909. Aggregate gross earnings for four months ended Apr. 30, \$1,303,049; net earnings \$605,101, against \$1,160,026 aggregate gross earnings, and \$541,602 net earnings for same period in 1909.

Sherbrooke Ry. and Power Co.—The directors of the reorganized company

are preparing to place on the market \$600,000 of bonds.

Winnipeg Electric Ry.—Gross earnings for April, \$238,054; operating expenses \$124,642; net earnings \$113,412; against \$192,490 gross earnings; \$96,979 operating expenses; \$95,511 net earnings for April 1909. Aggregate gross earnings for four months ended April 30, \$1,051,534; net earnings \$509,159, against \$827,503 gross and \$410,039 net for the same period 1909.

Electric Railway Notes.

F. G. Poulton has been appointed Manager of the Nelson Electric St. Ry., Nelson, B.C.

The Hamilton St. Ry. has decided to introduce the pay-as-you-enter system on some of its large cars.

The Berlin and Waterloo St. Ry., is having three of its cars re-built by the Preston Car and Coach Co.

G. M. O. Peters has been appointed Treasurer St. John Ry., vice A. Seely, resigned. Office, St. John, N.B.

W. J. Reaven has been appointed assistant to the Inspector of the Port Arthur and Fort William Electric Ry.

The Montreal and Southern Counties Ry. has ordered a combination baggage and smoking car and eight trailers, 49 ft. 4 ins. over buffers.

The Calgary St. Ry. has received one pay-as-you-enter car, similar to those it already has in operation, from the Preston Car and Coach Co.

Allan Purvis, heretofore Manager Fraser Valley Branch, B.C. Electric Ry., has been appointed Manager Interurban Lines. Office, New Westminster.

G. H. Franklin has been appointed Local Manager Lulu Island Branch, B.C. Electric Ry., vice D. J. Stewart, transferred. Office, Vancouver.

The wage agreement between the Toronto Ry. and its motormen and conductors, expired June 16, and negotiations for a new schedule are in progress.

The Calgary city council has accepted the advertisement of a brewing company to be printed on the back of the street car tickets and the citizens are objecting.

The Port Arthur and Fort William St. Ry. has received four cars from the Preston Car and Coach Co., and has ordered two similar ones from the same firm.

The Dominion Power and Transmission Co. has under consideration plans for the erection of car shops in Hamilton, Ont., for building and repairing the cars of its several lines.

C. E. Taylor, who organized the municipal electric railway in Edmonton and has been its Superintendent since opening, was presented with a silver cigar case, suit case and bag by the employees, June 12.

D. J. Stewart, heretofore Local Manager Lulu Island Branch B. C. Electric Ry., has been appointed Local Manager New Westminster Branch, vice D. J. McQuarrie resigned. Office, New Westminster.

D. J. McQuarrie, who recently resigned the managership of the B.C. Electric Ry. city and interurban lines, to enter private business, was presented with a diamond ring, by a number of the employees at Vancouver, recently.

The Nipissing Central Railway Co. has issued a writ against J. W. Fitzpatrick, of Ottawa, to compel the return of a ledger and cash books of the company, alleged to have been wrongfully taken by the defendant.

A Winnipeg Electric Ry. motorman, who stopped his car at the crossing of Main St. and Henry Ave., while some small trouble had tied up the traffic,

and who refused to move his car, was fined \$10 and costs, June 12. Notice of appeal was given.

F. B. Griffith has been appointed Shop Superintendent Dominion Power and Transmission Co., vice F. H. Foster, resigned. The position is equivalent to that of Master Mechanic of all subsidiaries of the company. Office, Hamilton, Ont.

A passenger on the Montreal St. Ry. was ejected from a car after having refused to pay a fare, the conductor declining to accept an incorrectly punched transfer. He sued for damages and the jury awarded him \$50. The company has appealed.

The Ontario Court of Appeal has dismissed the appeal of the Hamilton St. Ry. Co. against the Ontario Railway and Municipal Board's order of Nov. 15, 1909, directing it to repair the pavements on certain streets within two feet of the outer rail of the tracks.

The B.C. Electric Ry. employes have been negotiating for changes in their wage schedule, to which the company is reported to be averse. It is said that the matter may be referred to a board of conciliation. The schedule in operation during the past year, expired July 1.

The Ontario Railway and Municipal Board reserved judgment in the recent application to compel the Port Arthur and Fort William St. Ry. to operate the Montreal St. extension. The railway declined to run cars over the route for the reason that there were 12 steam railway tracks to be crossed.

The private sign or marking of Stone and Webster, Boston, Mass., has been affixed to the cars, ferry steamers and other property of the Cape Breton Electric Co., Sydney, N.S. The sign, which is a combination, consists of a triangle within which is a triskelion, is also to be used as a badge by employes.

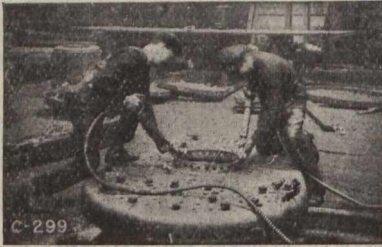
The Nipissing Central Ry. standard passenger tariff of maximum tolls has been approved by the Board of Railway Commissioners, providing that the local fare in Halleybury, Bucke, Coleman and Cobalt, Ont., respectively, shall be 5c., and between either of these towns, 10c.; from 5.30 a.m. and 12 p.m., and double fare after.

The London St. Ry. and the Water Commissioners are discussing the interpretation of the agreement between them as to the amusement privileges at Springbank Park. The company desires to add other attractions at the park, but the commissioners contend that such attractions can only be provided by outsiders with the concurrence of the city and the company.

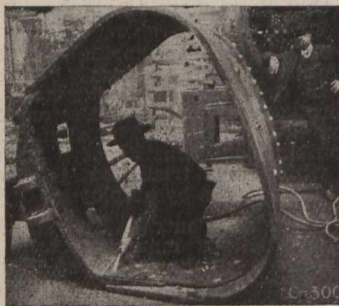
The Edmonton Radial Ry. has received two double-end, semi-convertible, pay-as-you-enter cars from the Ottawa Car Co. They are 42 ft. long overall, 28 ft. over bodies, with monitor, bull-nose roof, extra broad with 10 sashes on each side, vestibules 6 ft., equipped with doors operated by the motorman; 12 reversible pedestal cross seats with stationary foot rests and one longitudinal stationary seat 34 ins. long in each corner, and with electric heating equipment; bodies mounted on 27-G-1 trucks.

An inquest into the death of a Toronto Ry. conductor, who fell from the foot-board of an open car recently, while collecting fares, the jury, in returning a verdict of accidental death added a rider condemning the use of a running board on open cars. J. F. H. Wyse, Engineer Ontario Railway and Municipal Board, stated in evidence that two years ago he had investigated the running board question and found that centre aisle cars in Toronto were impossible owing to the narrow devil strip. The expenditure necessary to modify this would run into the millions.

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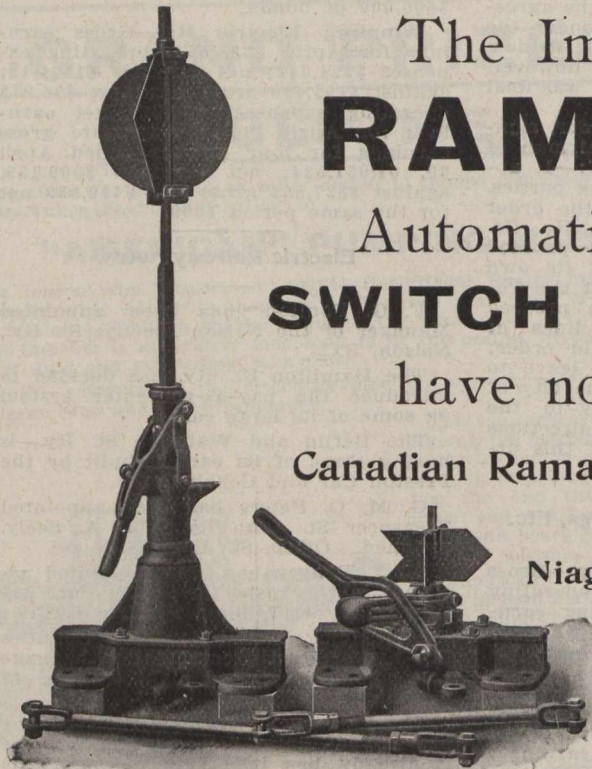
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MARINE DEPARTMENT.

Dominion Marine Association.

PRESIDENT, F. Plummer, Toronto; COUNSEL, F. King, Kingston, Ont.

Great Lakes and St. Lawrence River Rate Committee.

CHAIRMAN, E. E. Horsey, Kingston, Ont. SECRETARY, Jas. Morrison, Montreal.

International Water Lines Passenger Association.

PRESIDENT, W. M. Lowrie, New York. SECRETARY, M. R. Nelson, New York.

The Shipping Federation of Canada.

PRESIDENT, A. A. Allan, Montreal; MANAGER, AND SECRETARY, T. Robb, 526 Board of Trade, Montreal.

Ship Masters' Association of Canada.

GRAND MASTER, Capt. J. H. McMaugh, Toronto, Ont.; GRAND SECRETARY-TREASURER, Capt. H. O. Jackson, 376 Huron St., Toronto.

Dominion Marine Votes for 1910-11.

The Dominion Parliament at its last session voted large sums for purposes connected with the marine interests. In addition to making provision for the establishing of a navy and the maintenance of the dockyards at Halifax, N.S., and Esquimalt, B.C., for which \$3,000,000 was voted, there were the usual subsidies for ocean going mail, passenger and freight steamers; coastal services in the different provinces; the construction and maintenance of lighthouses, and other aids to navigation; maintenance and improvement of canals, construction, repair and maintenance of piers, wharves, etc., and all the other miscellaneous services connected with the marine interests. The votes were granted on account of the Departments of Trade and Commerce, Agriculture, Marine and Fisheries, Railways and Canals and Public Works, some of the votes being on capital account, and others on income account. Among the miscellaneous works brought together under the different provinces in the votes on account of harbors and rivers, there are a large number of revotes. Following are the several votes:—

NAVAL SERVICE:—	
Purchase and maintenance of vessels, maintenance of Halifax and Esquimalt dock yards, etc.	\$3,000,000
Fisheries protection service	281,500
Hydrographic surveys, including survey of Hudson Bay	320,000
To provide for a steamboat to replace La Canadienne (revote \$25,000)	75,000
MAIL SUBSIDIES AND STEAMSHIP SUBVENTIONS:	
Mail, passenger and freight services to ports in Great Britain	\$ 642,500
Do., to Australia	180,509
Do., to New Zealand	169,000
Do., to South Africa	146,000
Lines to Mexico, Atlantic and Pacific Coast	141,666
Lines to Cuba, West Indies and S. America	109,500
Lines to Newfoundland	49,000
Steamships to China and Japan	48,666
Steamships to United States Pacific ports	15,470
Miscellaneous steamship services, as follows:—	
Between ports in P.E.I. and mainland	\$ 18,625
Between ports in Nova Scotia	47,120
Between Nova Scotia and New Brunswick	6,240
Between Nova Scotia and Quebec	4,875
Between ports in New Brunswick	49,500
Between New Brunswick and Quebec	23,625
Between ports in Quebec	51,020
Pelee Island service, Ont.	375
Between ports in British Columbia	11,350
To provide for extra services	10,000
LIGHTHOUSE AND COAST SERVICE:—	
Agencies, rents, etc.	\$ 50,000
Lightkeepers' salaries and allowances	400,000
Lighthouse maintenance and repairs	749,000
Construction of lighthouses, etc.	950,000
Lighthouse and buoy steamer, Pacific Coast	200,000
Lighthouse and buoy steamer, St. Lawrence	175,000
Wireless stations, building and maintenance	140,000

Icebreaking on Thunder Bay	40,000
Pilot steamer, Eureka, maintenance, etc.	35,000
Signal service	12,000
Miscellaneous services	55,000
OCEAN AND RIVER SERVICE:—	
Maintenance and repair of steamer	\$710,000
Life saving, rewards, etc.	40,000
Patrolling northern waters	60,000
Wrecking plants	30,000
Removal of obstructions	20,000
Investigation of wrecks	15,000
Examination of masters and mates	11,500
Tidal service	42,500
Schools of navigation	2,000
Miscellaneous services	24,500
ST. LAWRENCE SHIP CHANNEL:—	
Various works	\$600,000
Dredging plant (new)	187,500
Purchase of yard property, Sorel	22,500
Permanent piers, Lake St. Peter, etc.	37,500
CANALS:—	
Surveys and inspections	\$ 3,000
Staff and repairs	1,106,460
Statistical officers	37,506
Quebec canals generally	54,500
St. Ours Lock: New stable, etc.	1,200
CHAMBLY:—	
Improvements	20,000
Extensions of wharves, etc.	8,720
LACHINE:—	
Improvements	27,000
Entrance pier	60,000
Concrete vertical wall	165,000
Wharf and basins	135,000
Allowance to family of late foreman	1,000
ST. ANNE'S LOCK:—Improvements	2,960
SOULANGES:—	
Stopping leaks, etc.	100,000
Miscellaneous works	7,750
CORNWALL:—	
Entrance lock 17	55,000
Wall above lock 18	25,000
Piers at lock 27	24,000
Miscellaneous works	21,500
WILLIAMSBURG CANALS:—Derrick scow	3,000
CARLETON AND GRENVILLE CANALS:—	
Repairing gap in Carleton dam	12,000
Macadamizing road, etc.	7,000
RIDEAU:—	
Swing bridges at locks	3,000
Timber piers at bridges	4,000
TRENT:—	
Improvements	62,500
To pay damages by flood	30,000
Construction	1,750,000
WELLAND:—	
Heavy repairs	20,000
Stone protection to banks	10,000
Steel gate lifter	12,000
Widening canal, Welland	20,000
Land purchase, etc.	2,500
Straightening channel lock 2	10,000
Dock south of Welland	2,500
Port Colborne, improvements	153,000
Do., elevator	66,000
Surveys, etc., for new canal	25,000
SAULT STE. MARIE:—	
Construction	70,000
Repairs of break	175,000
Rebuilding north entrance pier	60,000
Iron mooring posts	2,000
ST. PETER'S, N.S.:—	
Repairs	25,000
HARBORS AND RIVERS:—	
Generally	\$ 12,000
Timber for Maritime Provinces	20,000
Construction of wharves, piers, repairs to same and general improvements to harbors and navigable rivers at:—	
19 points in Prince Edward Island	96,950
170 points in Nova Scotia	685,650
69 points in New Brunswick	523,270
157 points in Quebec	929,575
71 points in Ontario	885,300
4 points in Manitoba	38,000
8 points in Sask. and Alberta	99,000
North-West Territories, generally	5,000
33 points in British Columbia	210,550
Lewis and Yukon Rivers	5,000
St. John harbour, New Brunswick	350,000
St. Charles River, Quebec	280,000
Levis deep water wharf, Quebec	55,000
Toronto	250,000
Rondeau, Ont.	200,000
Victoria Harbor, Ont.	181,000
Tiffin, Ont.	143,000
Port Arthur and Fort William, Ont.	1,325,000
St. Andrew's Rapids, Man.	65,000
Vancouver, B.C.	90,000
Victoria, B.C.	155,000
DREDGING:—	
Generally	\$240,000
Repairs to plant	385,000
New Plant:—Maritime Provinces	
Do., Ontario and Quebec	135,000
Do., Manitoba	13,000
Do., Sask. and Alberta	65,000
Do., British Columbia	310,000
Dredging:—Maritime Provinces	
Do., Ontario and Quebec	800,000
Do., Manitoba	675,000
Do., British Columbia	35,000
Do., general	125,000
Do., general	5,000
Deep Waterways Commission	12,500
International Commission, St. John River	5,000
Construction works for the regulation of navigation on the Upper Ottawa River	
Surveys of Richelieu and Yamaska Rivers—St. Lawrence-Lake Champlain route	48,750
To replace steamers Argus and Challenger in the Quarantine service, three votes totalling (revote \$39,000)	6,500
Hydrographic geodetic and other surveys	69,000
Marine hospitals, shipwrecked and dis-	265,000

tressed mariners	69,750
Steamboat Inspection	53,300
Graving docks	40,100

Navigable Water Protection Act

Regulations have been approved by the Government General in Council, governing draw or swing bridges, other than railway bridges, over navigable waters, and also the establishment and use of cable ferries in navigable waters, as follows:—

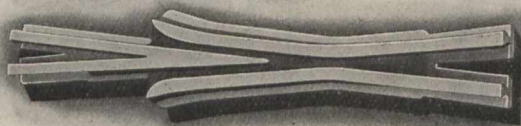
Bridges.—Every swing or draw bridge over a navigable water shall be marked at night by a white light on each side of the navigable channel, by a white light on each end of the swing protection, and by a lantern surmounting the swing span showing a red light up and down the channel when the passage is closed, and green when the swing is open. If the passage on both sides of a swing span is navigable, vessels must keep to the starboard opening, and the white lights on each side of the navigable channel must show only in the directions in which they are to be utilized. The signal to be given by a steamer to have a swing opened shall be two long followed by two short blasts of the whistle. Every draw shall be in charge of some competent person whose duty it shall be upon being notified by whistle or in any other manner, that a vessel desires to pass through the bridge, to open the same as promptly as possible, and no vessel shall pass through the bridge until the swing or draw is fully open. Every violation of any of these regulations shall make the party guilty of same liable in the penalty fixed and determined by the law.

Ferries.—No cable ferry shall be established across any navigable water until full details of the proposed scheme have been submitted for the consideration and approbation of the Minister of Marine and until his consent in writing has been obtained. Every cable ferry shall be indicated by a beacon placed as close as possible to one end in such a position as to be conspicuously visible for at least 600 yds. on each side of the ferry. In daytime this beacon shall consist of two squares of stiff material, each not less than two feet square, one pure white and the other bright red, hung on a mast. At night these boards shall be supplemented or replaced by lamps, red and white respectively. Such beacon shall indicate whether or not the ferry cable actually forms an obstruction to navigation; if it forms an obstruction, the red sign shall be above the white one, if not, the white sign shall be uppermost. The lamps at the beacon shall be lighted and kept burning brightly from ½ hr. before sunset until ½ hr. after sunrise. It shall be the duty of the party operating a ferry to see that the beacon be properly fixed and maintained in good working order, and that appropriate signals be shown, during day and night, in accordance with the present regulations. The party operating any such ferry shall, to ensure the safety of small craft, and allow their passage at all times, cause the cable to be suspended either at a sufficient height to leave at least two feet clearance from the water where the water is at least 3 ft. deep and 30 ft. from the banks towards the middle of the passage, or he shall cause said cable to be kept sunk to the bottom. During the night, that is to say from ½ hr. before sunset to ½ hr. after sunrise, all ferry cables shall be kept lowered to the bottom, except when required for actual use. Except when sunk a ferry cable shall be deemed to be a raised cable, whether in actual use or not, and to form an obstruction to navigation. Any raised cable shall be lowered to the bottom, at any time it is required, so as to allow any vessel to


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pass in safety. During the time that any such cable is raised, there shall be some competent person in charge of such ferry and present thereat, whose duty it shall be, upon being notified by whistle, or bell, or in any other manner, that a vessel is approaching, as soon as possible to lower such cable to the bottom so as to allow said vessel to pass in safety. The signal to be given by a steamer to have a ferry cable lowered shall be two long followed by two short blasts of the whistle. Before a ferry cable is so raised, and while it remains raised, whether in actual use or not, the signal at the beacon shall be set at danger, that is the red sign above the white one. No vessel shall proceed to pass a ferry while such signal at the beacon is set at danger. Every violation of any of these regulations shall make the party guilty of same liable in the penalty fixed and determined by the law.

Vessels Removed from the Register.

The following vessels were removed from the register during April and May, for the reasons assigned:—Steam: Alva D., Midland, 10 tons, wrecked; Angler, Port Dover, 14 tons, broken up; D. D. Calvin, Kingston, 483 tons, burnt; E. B. Eddy, Quebec, 38 tons, broken up; Island Belle, Sarnia, 31 tons, broken up; Majestic, Peterboro, Ont., 53 tons, broken up; Minnie M., Montreal, 276 tons, sold to U. S.; Rosey May, Port Arthur, 2 tons, broken up; Salaberry, Belleville, 142 tons, broken up. Sailing: Anne Prudence, Quebec, 24 tons, out of existence, Argosy, Lunenburg, 84 tons, stranded; Ellen L. Maxner, Lunenburg, 93 tons, sold to foreigners; Gaspe, Liverpool, 249 tons, transferred to Newfoundland; Golden Rule, St. John, 55 tons, foundered; Golden Seal, Halifax, 32 tons, unseaworthy; H. F. Church, Sarnia, 306 tons, broken up; Herald, Barrington, 42 tons, sold to foreigners; J. B. Young, Lunenburg, 100 tons, stranded; Lady May, Halifax, 25 tons, transferred to Newfoundland; Maggie Wilson, Halifax, 36 tons, transferred to Newfoundland; Scotia, Lunenburg, 78 tons, transferred to Newfoundland; W. L. Lohnes, Lunenburg, 38 tons, out of existence; Willie H. Crosby, Halifax, 65 tons, broken up; Vivian B. Walters, Lunenburg, 86 tons, stranded.

Notices to Mariners.

The Department of Marine has issued the following:—
 41. May 19.—103. Ontario, Lake Ontario, entrance to Presqu'île bay, Salt point, shoal water in channel, caution. 104. Ontario Lake Ontario, off mouth of Niagara River bell buoy replaced by gas and bell buoy. 105. Ontario, Lake Huron, north channel, depths of shoal east of Turnbull island. 106. United States of America, Lake Huron, Detour passage, gas buoy established on the eastern side of Watson reef.
 42. May 23.—107. British Columbia, Vancouver island, east coast, Saanich inlet, Patey rock, beacon light established. 108. British Columbia, Lowe inlet, David point, day beacon. 109. British Columbia, Edey passage and approaches, rocks. 110. British Columbia, Chatham Sound, Porpoise harbor entrance, buoy established.
 43. May 25.—111. New Brunswick, St. John River, Belleisle bay, Greys point, light improved. 112. New Brunswick, Chaleur bay, Pokesudie island, light improved. 113. Nova Scotia, west coast, Tusket River, Big Fish island, change in character of light. 114. Newfoundland, east coast, Cape Spear, change in fog alarm. 115. Newfoundland, east coast, St. Johns harbor entrance, Fort Amherst, change in characteristic of fog alarm.
 44. May 30.—116. Quebec, Gulf of St. Lawrence, Magdalen islands, Entry island, change in position of light.
 45. May 31.—117. Quebec, River St. Lawrence, Beaujeu bank, dredging completed, change in position of gas buoys, buoys discontinued. 118. Quebec, River St. Lawrence, ship channel, off St. Thomas de Montmagny, gas buoy established.

46. June 2.—119. General, Canadian list of lights and fog signals, new edition. 120. Quebec, Chaleur bay, north side, Bonaventure point, intended change in character of light. 121. Quebec, River St. Lawrence, Ber-simis River, range lights again in operation.
 47. June 4.—122. Nova Scotia, south coast, approach to Halifax, change in color of outer gas and whistling buoy. 123. Prince Edward Island, northeast coast, off East point, whistling buoy established. 124. New Brunswick, Northumberland Strait, Shediac harbor range, daymarks. 125. New Brunswick, Northumberland Strait, Richibucto harbor, harbor range lights, additional information.
 48. June 4.—126. British Columbia, Vancouver Island, Alberni canal, Stamp harbor, Somass River, beacon light to be established. 127. British Columbia, Burrard Inlet, Vancouver harbor, first narrows, signals established. 128. British Columbia, Chatham Sound, Lucy island, hand fog horn at light station.
 49. June 4, 129. Ontario, River St. Lawrence, Thousand Islands, Fiddler's Elbow, south channel between Wood Island and Dashwood Island temporarily closed, caution. 130. Ontario, Lake Erie, Long Point, change in position of life saving station. 131. Ontario, Lake Erie, Pelee passage, Grubb reef, wreck disappeared. 132. Ontario, Georgian Bay, Penetanguishene harbor, change in color of range lights.
 50. June 14, 133. Quebec, Straight of Belle Isle, western end, Greenly Island, change in characteristic of fog alarm. 134. Newfoundland, north end, Cape Bauld, change in characteristic of fog alarm. 135. Labrador, Straight of Belle Isle, Amour Point, change in characteristic of fog alarm.

Statistics of Canadian Shipping.

The total number of vessels, of all kinds, on the Canadian register at Dec. 31, 1909, was 7,768, representing 718,533 tons, an increase of 166 vessels and 16,229 tons over the previous year. The steam vessels numbered 3,229, having a gross tonnage of 513,962, and with an assumed value of \$30 a ton, the value of the net registered tonnage would be \$21,556,590. The number of new vessels built and registered in Canada during the year, was 327, with a net tonnage of 25,306, and estimating the value at \$45 a ton, the total value would be \$1,138,770. During the year 246 vessels were removed from the register, for a variety of causes, details of which were given in our issues throughout the year, in addition to lists of vessels as registered each month. It is estimated that 36,430 employes were engaged on Canadian registered vessels during 1909. In a list of tonnage owned by all the maritime nations of the world, Canada holds tenth place, as before. During 1909, Prince Rupert was constituted a port of registry for vessels. The number of vessels and their tonnage, according to provinces, is as follows:—

	Sailing ships and steamers.	Steamers.	Gross tonnage of steamers.	Net tonnage of sailing ships and steamers.
Ontario	2,061	1,507	209,814	208,652
Quebec	1,432	449	113,338	175,370
Nova Scotia	2,058	249	35,828	160,286
Brit. Columbia	1,020	715	87,436	92,746
N. Brunswick	937	190	52,279	62,984
P. E. Island	150	20	4,465	10,154
Manitoba	90	82	7,308	5,087
Yukon Dist.	16	14	3,213	2,984
Saskatchewan	4	3	281	290
Totals	7,768	3,229	513,962	718,533
Totals, 1908	7,602	3,084	483,031	702,324

The ports of registry are distributed as follows:—Ontario, 38; Nova Scotia, 21; New Brunswick, 7; Quebec, 6; British Columbia, 4; Prince Edward Island, Manitoba, Saskatchewan and the Yukon, one each, while in Alberta, no provision has, as yet, been made for the registration of vessels. The ports having a net tonnage of 10,000 and over, are as follows:—

	Vessels.	Net tonnage.
Montreal	471	265
Victoria, B.C.	109	176
St. John, N.B.	224	105

Quebec, Que.	458	159	42,483
Toronto	75	310	38,475
Ottawa	154	257	32,661
Windsor, N.S.	70	14	32,523
Vancouver, B.C.	124	431	32,480
Lunenburg, N.S.	274	12	22,869
Halifax, N.S.	328	87	22,260
Kingston, Ont.	66	137	19,175
Parrsboro, N.S.	85	7	17,942
Collingwood, Ont.	5	78	15,797
Hamilton, Ont.	3	40	15,565
Yarmouth, N.S.	274	30	15,547
Midland, Ont.	5	26	12,231
Charlottetown, P.E.I.	130	20	10,154

Of the 246 vessels which were removed from the register during the year, 14 were sold to foreigners, 27 were wrecked, 17 stranded, 12 lost, 75 broken up, seven abandoned at sea, two sunk in collision, one missing, eight foundered, 33 burnt, nine condemned, 13 transferred to Newfoundland, six transferred to Barbadoes, 21 reported out of existence, and the register of one was surrendered. During the same period, the names of 33 vessels were changed by orders-in-council.

The new vessels built during the year and added to the register, according to Provinces, were as follows:—

	Vessels.	Tons.
Ontario	73	7,973
Nova Scotia	75	6,007
Quebec	66	5,895
British Columbia	93	4,068
Manitoba	5	692
New Brunswick	14	666
Prince Edward Island	1	5
Totals	327	25,306

Inland Navigation Companies' Stocks.

Jaffray, Cassels & Biggar, stock brokers, Toronto, issued a circular recently respecting inland navigation companies' stocks, from which the following are extracts:—

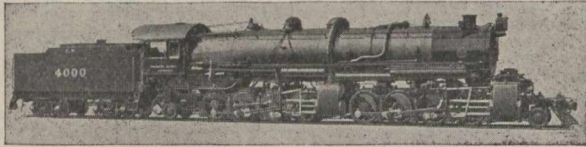
Broadly, it may be said that the ordinary marine risks do not attach to the operations of these companies on our lakes, especially to the Richelieu and Ontario, or the Niagara Co., and experience has shown that this risk is small, even in the cases of the two other companies operating in the more open waters of Lake Superior. These companies carry insurance, so that even the risk of loss of a vessel is not a capital risk. Such loss would bring in insurance, so that the shareholders' capital would remain intact, although the money might not earn so well as a vessel. The accounting methods of the companies are not entirely similar, so that a direct comparison is not possible. In the statements given below, the item "written off" is made to include all special amounts charged against the profit and loss account for that year.

NIAGARA NAVIGATION Co.—The operations of this company do not involve the usual risks. It is in effect a ferry company operating between Toronto and Lewiston. The shortness of the trip eliminates the usual risks, as shown by the company's history. The company is operating four large boats on this service, the Chippewa, Corona, Cayuga and Chicora, and has a small boat, the Oni-gara, in service on the Niagara River. The company does a large business in excursions, and its relations with the railway companies connecting with it are satisfactory. It has been free from opposition of late years. An indication of the sound management is found in the fact that a large portion of the cost of the new steamer, Cayuga, was provided out of surplus funds. In 1907, when this boat was added to the fleet, the steamer account was increased by over \$270,000, but capital account had been increased only by about \$110,000. In the last five years, \$144,000 has been written off steamer account. In the following statement the interest on the 4½% debentures has been deducted from the profits shown before showing the earnings. In explanation of the earnings shown it is necessary to point

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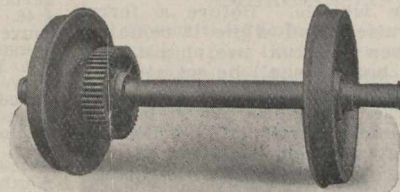
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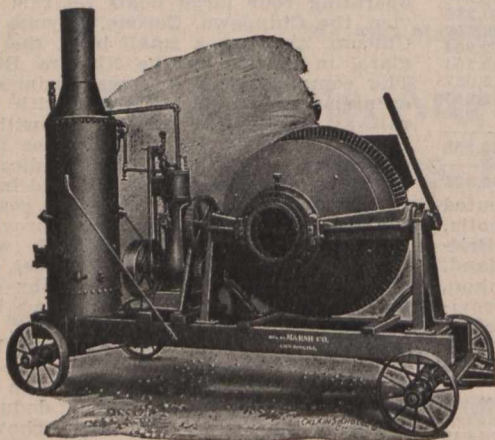
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out that, in 1901, the Pan-American Exhibition was held at Buffalo. The company profited largely by this fact. The statements show:—

Debtures.	Stock.	Earnings less interest.	Rate on stock.	Balance equal on stock.	Rate of Div'd.	Total surplus funds.
1909	\$701,700	\$ 86,455	12.32	8.04	8	\$148,714
1908	701,700	96,885	13.80	8.52	8	143,395
1907	701,700	92,235	13.14	8.81	8	129,692
1906	701,700	118,780	16.92	11.68	8	123,953
1905	701,300	97,424	13.88	9.51	8	98,002
1904	605,000	62,765	10.37	6.82	8	88,139
1903	605,000	70,691	11.66	11.66	8	95,273
1902	605,000	47,179	7.79	7.79	8	72,981
1901	605,000	91,818	15.17	15.17	10	74,214

The range of the price of the stock has been:—

	1909.	1908.	1907.	1906.	1905.	1904.	1903.	1902.
High	137	129	126½	133½	133¾	121	134	160
Low	123¾	105	120	117	110	106	109¾	120

THE NORTHERN NAVIGATION Co. operates lines of steamers from Lake Huron and Georgian Bay ports to Sault Ste. Marie and Fort William, and does a local traffic along the eastern and northern shores of Georgian Bay. The control of the company was changed after the unsatisfactory operations of 1902 and 1903. Under new management, with the late H. C. Hammond as president, the condition steadily improved, and the methods introduced by him still inspire the management. The rate of operating expenses has been steadily reduced, while gross business has increased. The outlook for the company is a bright one, and with the completion of the G.T. Pacific line from Port Arthur to Winnipeg and the West, a still larger business should result, since the company has a contract with the G.T.R. until Jan., 1919. Last year the new steamer Hamonic was employed. She proved a successful venture, since her cost, \$542,040, was a large venture, considering the company's total capital. At the last shareholders' meeting a by-law was passed increasing the capital to \$1,500,000, but this has not been issued yet. The reports show:—

	Capital.	Bonds.	Gross Earnings.	Operating Ratio.	Net Earnings.	Rate.
1909	\$3,132,000	\$1,183,573	\$1,238,044	68.00	\$257,562	8.22
1908	3,132,000	956,786	1,241,748	69.00	256,741	8.00
1907	3,132,000	293,946	1,305,004	78.70	261,423	8.34
1906	3,132,000	323,146	1,366,299	79.70	261,040	8.33
1905	3,132,000	349,426	1,217,373	78.86	239,294	7.64
1904	3,132,000	349,426	999,869	88.64	94,312	3.01
1903	3,132,000	389,920	1,104,801	80.98	189,632	6.05
1902	3,132,000	428,753	1,036,666	81.08	174,584	5.57
1901	2,505,000	452,113	1,109,458	82.96	166,097	6.63
1900	2,088,000	471,580	901,331	82.30	129,322	6.19

The range of price of the stock has been:

	1909.	1908.	1907.	1906.	1905.	1904.	1903.	1902.	1901.	1900.
High	95	78	82¾	89	77¼	87	104¾	116¼	124	114½
Low	78	61¾	67¾	69¾	62	55	65	90¼	107¼	100¾

Year	Stock.	Gross.	Operating Rate.	Net.	Rate of Capital.	Balance equal on stock.	Div.	Surplus and Special Funds.
1909	\$1,000,000	\$649,297	77.80	\$140,089	14.00	\$52,350	8.77	\$80,000
1908	843,600	531,554	80.73	102,638	12.22	40,522	7.36	67,315
1907	840,000	633,870	77.63	141,781	16.88	59,990	9.73	67,200
1906	840,000	606,950	72.73	135,173	16.07	50,116	10.11	63,000
1905	840,000	455,217	80.73	87,751	10.44	35,634	6.20	50,400
1904	840,000	421,890	89.71	43,400	5.16	26,316	2.34	252,988
1903	840,000	507,185	94.16	26,397	3.14	15,376	10.45	69,773
1902	840,000	532,301	83.17	88,519	12.64	15,376	10.45	105,725
1901	560,000	.....	.....	80,967	18.38	25,000	10.70	44,085

Settlement of litigation with the J. J. Long estate brought in about \$28,000, which was also appropriated to special purposes, and is not included in this amount.

Up to this year the reports had shown \$90,000 as a reserve fund. The new management appropriated \$42,480 as a reduction of steamers' valuation and expended \$14,340 upon reconstruction and repairs, leaving \$33,180 in reserve fund.

It was afterwards charged by the new management that the former management had misrepresented these earnings as being \$30,000 too large, and that \$27,500 was recovered on this charge, as shown in note 1.

The range of price of the stock in recent years has been:—

	1909.	1908.	1907.	1906.	1905.	1904.	1903.	1902.	1901.
High	123¾	105¾	104	110¼	85	81¾	148	172¾	109
Low	97¾	83	79¾	80¾	57½	50	75	105¾	105

THE ST. LAWRENCE AND CHICAGO NAVIGATION Co. conducts a freight service on the Upper Lakes. At the close of last season it had five steamers, the G. R. Crowe, E. B. Osler, Algonquin, Iroquois and W. D. Matthews. In many seasons the boats have been employed in carrying iron ore down the lakes, winding up the season with the movement of the Canadian wheat crop from Fort William to Georgian Bay ports. In a season such as that described the early business has in a general way about paid the year's expenses, leaving the grain business as the season's profits. Now that the Western grain crops are increasing and the railways fail to move them to lake ports before the close of navigation, this company's boats are finding active employment in the grain trade in the early part of the season. Increasing competition is of course to be expected, but the company's affiliations with the grain trade have been steadily strengthened during its 19 years of existence, and, further, those engaged in the carrying trade are understood to have learned from experience that there is a point below which it is not profitable to depress freight charges. In 1902 the company had but two steamers engaged. Additions to the fleet have been made through new stock issues. The dividend declaration is not made until the end of the season. The extra distribution in

1902 of \$40,000, although charged to reserve fund, was immediately replaced in the treasury by a new issue of \$150,000 stock. The figures of the company's reports for the years specified were:

Year	Stock.	Earnings.	Charges.	Balance.	Equal on Stock.	Off.	Balance Equal on Stock.	Div'd.	Rate.	Surplus.
1909	\$860,000	\$112,930	\$13,507	\$99,423	11.56	.....	11.56	\$68,800	8	\$132,007
1908	855,700	116,549	56,284	60,315	7.04	.....	7.04	59,899	7	102,383
1907	751,000	113,928	30,770	83,770	11.15	\$22,700	8.12	75,100	10	101,968
1906	563,300	125,050	32,780	92,270	16.38	.....	16.38	56,330	10	115,996
1905	563,300	134,891	27,749	107,142	19.02	.....	19.02	56,330	8	80,057
1904	563,300	81,613	21,945	49,668	8.81	.....	8.81	45,064	8	29,245
1903	563,300	78,888	20,234	58,654	11.05	.....	11.05	53,165	10	24,640
1902	350,000	55,312	14,152	41,160	11.76	.....	11.76	85,000	26%	18,913
1901	200,000	53,654	12,380	41,274	20.63	.....	20.63	30,000	15	62,753

The range of prices of the stock has been:—

	1909.	1908.	1907.	1906.	1905.	1904.	1903.	1902.	1901.
High	128½	126½	126½	138	130	115	148½	185	125
Low	105½	109	120	120	100	98	107	125	125

RICHELIEU & ONTARIO NAVIGATION Co. —In dealing with that company's affairs, Jaffray, Cassels & Biggar made several errors, such for instance as stating that the company had acquired the three steamboats plying between Toronto and Hamilton, which was not the case. It was also stated that "a new service along the south shore of Lake Ontario had been mooted, but that nothing official had been announced. This was of course incorrect, as the establishment of a service between Youngstown and Ogdensburg, New York, has been arranged for as announced by us some weeks since. We drew the attention of the R. & O. N. Co.'s management to Jaffray, Cassels & Biggar's circular and as the result of correspondence between one of the officials and the brokers the latter corrected the errors pointed out. It may be added that the company's figures are not very satisfactory for comparative purposes, owing to some changes in its method of bookkeeping, which, while it is claimed they do not affect the general result, are somewhat confusing in regard to the item of operating expenses. Following is Jaffray, Cassels & Biggar's analysis of the statements:

Year	Written Off and Special Approps.	Balance Equal on Stock.	Dividend.	Rate.	Surplus and Special Funds.
1909	\$72,566	6.10	\$156,000	5	\$535,747
1908	85,233	5.28	156,600	5	458,967
1907	89,930	5.47	156,600	5	413,396
1906	150,046	3.54	39,150	1¼	362,503
1905	.....	7.64	0	0	254,660
1904	118,254	0	93,960	3	15,365
1903	.....	6.05	187,920	6	133,262
1902	5.57	174,224	6	131,546
1901	6.63	136,952	9	131,189
1900	6.19	117,813	6	162,355

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The Toronto Harbor Commission.

The Toronto Harbor is governed by the Commissioners of Toronto Harbor, a corporate body constituted under chap. 10 of the statutes of 1850. There are five Commissioners, four of whom are elected annually, two by the Toronto Board of Trade, and two by the Toronto city council, the fifth, who is usually elected Chairman, is appointed by the Dominion Government during pleasure. The present commissioners are: F. S. Spence, chairman, appointed by the Dominion Government; J. T. Mathews and W. H. Pearson, nominated by the Board of Trade; J. T. V. May and A. Welch, nominated by the city council. The chairman is, and has been during the number of years he has held the office, a member of the board of control or a city alderman; and with the exception of J. T. Mathews, not one of the commissioners has anything to do with marine matters. The board's officers are: C. W. Postlethwaite, harbor-master and secretary; a deputy harbor-master who is also lighthouse keeper and inspector, and a consulting engineer, who is C. H. Rust, the city engineer.

The commissioners passed a set of by-laws in 1886 for regulating "the use of the works and property vested in them or placed under their control, and for the government of all parties using the same, and of all vessels and floats coming into or using the said harbor;" such by-laws still being in force, with the addition of one regulating the speed of vessels, passed in 1909, sec. 8 of the by-laws of 1886.

The Commissioners issued a balance sheet Dec. 31, 1909, which showed that they were administering wharf property valued at \$43,073.72, and were in possession of \$19,000 of Toronto city bonds and had \$13,852.15 in bank. The income for the year was made up of

\$6,446.21 harbor dues, \$4,000 from the C.P.R. and \$2,000 from the city, the rest of the \$24,730.29 being made up of cash in bank, \$10,807.75; interest on deposits and bonds and miscellaneous rents, fines, etc. [The commissioners expended \$6,308.57 in dredging, \$528.41 on lights, buoys and beacons; \$2,540 on salaries and \$300 on commissioners' fees, the balance being made up of miscellaneous items and the cash balance carried forward to the current year of \$13,854.95. The number of vessels arriving in port during last year was 2,939, their tonnage being 1,480,293, a decrease of 492 vessels and 40,872 tons, as compared with 1908. While the expenditures show that the commissioners during 1909 expended on dredging a sum largely in excess of what they had done in previous years, they have not done anything to relieve the congestion at the wharves, by utilizing the \$30,000 or so invested in Toronto city bonds, and cash deposited in the banks, to provide additional space.

Rhode's Directory of Passenger Steamers.—The compilation of a list of passenger carrying steamships of the world is a task of considerable magnitude, but in this directory, the publishers have succeeded to a remarkable degree. This is not the first issue of the work, but it speaks forcibly for the improvement which it shows over its predecessors when it is noted that the number of vessels described has been almost doubled. There are two lists given, one a list of lines arranged alphabetically under each line, being given, also alphabetically, a list of its vessels, cross entries showing the different names under which line is known and a grouping of lines or fleets indicates the controlling factor in several fleets. Thus the British and North Atlantic Steam Navigation Co. is the Dominion Line, as also is the Mississippi and Dominion Steamship Co., and the con-

trolling power of the Dominion Line is the International Mercantile Marine. The second list is one of the vessels, arranged alphabetically, and extending over 325 pages. The particulars given include the name, owners, builders, date of construction, and particulars of hull, engines, passenger accommodation, and special equipment. Of the vessels listed 260 are equipped with Marconi wireless telegraphy and emergency apparatus, and a large number with a submarine signalling system. The compiler is inaccurate in including among passenger lines, and listing as passenger steamers the vessels of the following concerns:—J. C. Gilchrist, the Gilchrist Transportation Co., and the Pittsburg Steamship Co., of Cleveland, Ohio. The 91 vessels owned by these three companies are steel bulk cargo carriers principally engaged in the ore carrying trade on the Great Lakes. With the exception of these vessels, and the C.P.R. Great Lakes and B.C. River steamers, none of the passenger steamers on the inland waters of Canada are noted. Thomas Rhodes & Co., 29, 30 Charing Cross, London.

Quebec as a Port.—A special committee which has been considering the position of the port of Quebec with a view of its development, has passed a resolution recommending the formation of a joint stock company "as being the most practical means of exploiting commerce in the port of Quebec." The committee pointed out that the great difficulty in building up a big trans-Atlantic business at Quebec was the difficulty of securing export cargoes, and it will be the business of the proposed company to secure for Quebec an adequate share of Canadian export business.

During April, four deaths occurred amongst navigation employes, in the course of their work, all due to drowning, and four were injured, three by machinery, and one by falling material.

LIST OF STEAM VESSELS REGISTERED IN CANADA DURING MAY, 1910.

Name	No.	Where and When Built.	Engines, etc.	Length	Breadth	Depth	Gross Tons	Reg. Tons	Port of Registry	Owners
Aix	126,782	Port Essington, B.C., 1908	Screw 9 n. h. p.	30.1	9.6	3.4	9	6	New Westminster B.C.	H. J. F. Anderson, Westham Island, B.C.
Arono	126,280	Steveston, B.C., 1909	" 2 "	26.7	6.4	2.4	2	2	" "	W. R. Jayes, New Westminster, B.C.
B. B.	126,881	Tacoma, Wash., 1906	" 2 "	49.0	12.0	4.2	25	17	Vancouver, B.C.	A. Brown, Vancouver, B.C.
Cellar Head..	126,749	Steveston, B.C., 1910	" 2 "	34.6	10.3	4.0	13	9	" "	N. Gunn, Vancouver, B.C.
City of Edmonton..	126,448	Strathcona, Alta., 1909	Paddle 9 "	132.0	26.8	4.0	301	190	Kenora, Ont.	J. Walter, Strathcona, Alta.
Faloma	126,781	Vancouver, B.C., 1910	Screw 5 "	63.3	12.2	7.6	33	22	New Westminster B.C.	F. S. DeGrey, New Westminster, B.C.
* Florence	126,420	Elizabeth, N. J., 1903	" 65 "	144.0	22.6	9.6	237	123	Toronto	J. C. Eaton, Toronto.
G. R. Crowe..	123,324	Dundee, Scotland, 1907	" 116 "	331.0	43.4	22.9	2940	2347	" "	St. Lawrence & Chicago Steam Nav. Co., Toronto.
Hys	126,473	Port Hawkesbury, N.S., 1907	" 2 "	32.6	9.3	4.8	6	6	Halifax, N.S.	J. H. Winfield, Halifax, N.S.
Islanda	126,722	Young's Point, Ont., 1910	" 3 "	80.0	16.0	5.0	54	37	Peterboro, Ont.	P. P. Young, Young's Point, Ont.
John Torrent	122,440	Muskegon, Mich., 1875	" 7 "	52.0	14.2	9.0	30	20	Sault Ste. Marie, Ont.	S. Shipman, Richard's Landing, Ont.
Launon	126,843	Launon, Que., 1910	" 32 "	133.3	34.9	11.0	419	281	Quebec	Levis Ferry Ltd., Levis, Que.
Lena Jackson	126,861	Lake Penage, Ont., 1875	" 4 "	62.0	15.0	5.8	29	18	Sault Ste. Marie, Ont.	Victoria Harbor Lumber Co., Toronto.
Levis	126,842	Launon, Que., 1910	" 32 "	133.3	34.9	11.0	419	281	Quebec	Levis Ferry Ltd., Levis, Que.
Little Miss	126,757	Tetreaulville, Que., 1910	" 4 "	29.0	8.2	5.6	9	6	Montreal	A. S. Forman, Montreal.
Roman	124,774	Beverley, Eng., 1907	" 113 "	145.0	24.0	12.6	357	149	Vancouver, B.C.	Packers Steamship Co., Vancouver, B.C.
Uwilna	126,750	Shanghai, China, 1909	" 2 "	37.0	13.5	7.0	22	15	" "	R. H. Alexander, Vancouver, B.C.
Yennek	126,467	Clayton, N.Y., 1896	" 3 "	57.8	12.6	3.8	39	27	Kingston, Ont.	D. J. Kenney, Gananoque, Ont.

* Formerly Emeline

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA DURING MAY, 1910.

Name	No.	Where and When Built	Rig	Length	Breadth	Depth	Reg. Tons	Port of Registry	Owners	
Edward Bros. No. 2	122,439	Bay City, Mich., 1896	Dredge	70.0	25.4	5.8	237	Sault Ste. Marie, Ont.	J. Stevenson, Sault Ste. Marie, Ont.	
Harrold L. Berry	126,067	Georgetown, Me., 1890	Schr.	87.4	26.2	7.0	99	Charlottetown, P. E. I.	F. Andrew, New Glasgow Mills, P. E. I.	
Hazel Trahey	126,593	Parrsboro, N.S., 1910	"	93.4	28.6	9.0	145	Parrsboro, N.S.	J. Soley, M. O., Lower Economy, N.S.	
Hugo	126,474	Shelburne, N.S., 1905	Sloop	20.8	6.5	2.2	1	1	Halifax, N.S.	M. Brown and H. Stairs, Halifax, N.S.
Julia B. Merrill..	126,468	Wenona, Mich., 1872	Schr	128.0	26.5	8.4	190	Kingston, Ont.	H. Daryaw, M. O., Wolf Island, Ont.	
Kirk 2	126,882	Vancouver, B.C., 1910	Scow	54.4	26.0	6.0	77	Vancouver, B.C.	A. R. Bissett, Vancouver, B.C.	
L. C. M.	126,872	Comeauville, N.S., 1910	Schr.	41.0	13.0	5.5	13	Digby, N.S.	J. J. Melanson, Comeauville, N.S.	
L. S. No. 3	126,862	Duluth, Minn., 1896	Dredge	100.0	31.3	6.7	383	Sault Ste. Marie, Ont.	W. R. Parker, Toronto, Ont.	
M. E. Hains	126,871	Meteghan River, N.S., 1910	Schr.	58.0	17.7	6.5	31	Digby, N.S.	M. Haines, M. O., Freeport, N.S.	
Mina May	126,883	U.S.	Sloop	27.4	11.0	4.5	7	Vancouver, B.C.	D. Ross, Vancouver, B.C.	
Ponton No. 1	126,844	Levis, Que., 1910	Scow	99.3	49.2	6.5	293	Quebec	J. Gosselin, Levis, Que.	
Ponton No. 2	126,845	1910	"	99.3	49.1	6.5	291	"	"	
Rostand	122,189	Shelburne, N.S., 1910	Schr.	85.0	23.0	9.1	95	Arichat, N.S.	Stewart Fish Co., St. Peters, N.S.	
St. Celestine	126,846	1904	"	70.3	21.8	5.3	53	Quebec	W. Burton, St. Luce, Que.	
T. F. M. No. 1	126,755	Ogdensburg, N. Y., 1892	Scow	58.5	18.0	5.6	54	Montreal	T. F. Moore Co., Montreal.	
T. F. M. No. 2	126,753	" 1892	Dredge	71.0	22.0	4.5	151	"	"	

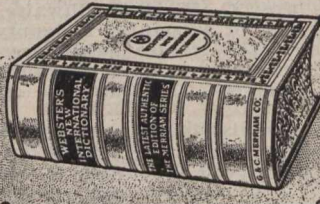
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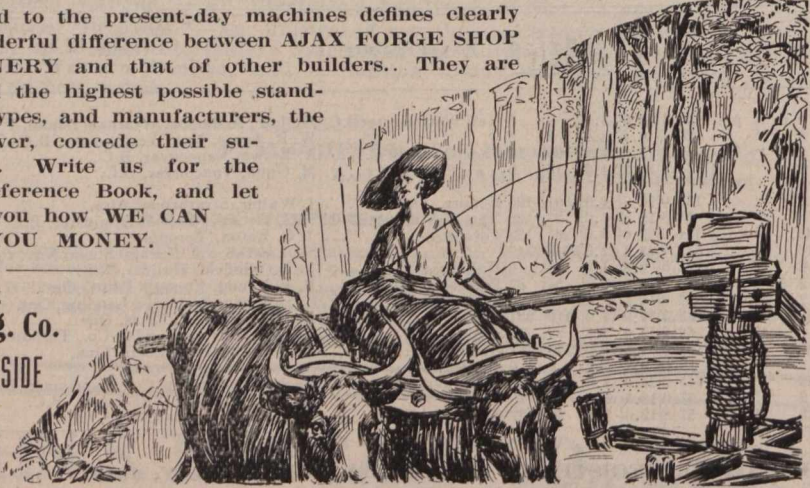
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The Crown of Castile Accident.

L. A. Demers, acting Wreck Commissioner, has given the following decision, concurred in by F. Nash and A. Angers, assessors, in reference to the accident to the s.s. Crown of Castile, on May 27:—"The court, after having carefully weighed the evidence adduced, finds that the damage sustained by the Crown of Castile at Cap-a-la-Roche, at some place between buoys 91 and 93 Q, is due to an error of judgment on the part of the pilot for not allowing sufficiently for the current which was then materially affecting the ship's course; but, owing to the praises of the master of the ship, with reference to his conduct, previous, during and after the accident, the court warns him to be more careful in the future and to remember to be guided in his work by the principal aids to navigation and ascertain for himself the bearings of distances and not rely implicitly on the information which he may receive as regards those bearings, though they may be given in all good faith, as it would appear in this case."

Atlantic and Pacific Ocean Marine.

The Canadian Northern Steamships' s.s. Royal George, arrived in Montreal on her maiden trip from Avonmouth, Eng., June 3. She was considerably delayed by fog in the Gulf.

The s.s. Ben Cruachan, which was wrecked near Louisburg, N.S., recently, was floated, June 15, and temporary repairs effected, after which she was to be taken to Halifax for thorough examination.

The Dominion Government is calling for tenders for the mail service between Canada and Australia and New Zealand, for Canada and Australia, sailings to take place every four weeks from Vancouver, with several alternative routes.

Press reports state that the Canadian-Australian Line and the Matson Line are making arrangements for the transfer of Australian passengers, bound to California, at Honolulu, thus avoiding carrying them through to Vancouver.

The Dominion Government s.s. Gullnare sailed from Quebec, June 11, with a party on board, under charge of W. B. Dawson of the Tidal Survey, for the examination of the currents and tides in the lower parts of the St. Lawrence River and the Gulf.

The White Star Dominion Line s.s. Southwark has been chartered by the Allan Line, to take the place of the s.s. Grampian, which has been docked for examination, following on its grounding in the St. Lawrence, at Cap a la Roche, recently.

The widow of C. Fournier is suing the Donaldson Line for \$15,000 for the death of her husband, while working in the hold of the s.s. Kastalia, when a longshoreman, who, it is alleged, was intoxicated, fell on him from the first deck.

W. Mackenzie, President Canadian Northern Steamships Ltd., on his return from England, June 2, is reported to have stated that the company was considering the placing of a third vessel on the route between Montreal and Avonmouth.

The arrangements of the Canadian and U. S. Governments, as regards the control of railway rates, will, it is stated, be followed by a similar arrangement between Canada, Great Britain and the U. S., for the joint control of trans-Atlantic passenger and freight rates.

Sir James Mills, of the Union Steamship Co., of New Zealand, who was visiting in Canada during June, while on his way to Great Britain, is reported to have said in Vancouver, that the Can-

adian service with the antipodes would be improved shortly, by the addition of at least one vessel.

Montreal press reports state that the Canada Line, which operates vessels between Canada and Germany, will replace its present fleet of three vessels, by four larger ones, each over 18,000 tons, in order to cope with the increasing passenger and freight business offering.

The Donaldson Line s.s. Saturnia, recently constructed at Glasgow, Scotland, for the Canadian service, on her trials maintained a mean speed of 15½ knots an hour. She is, however, only intended for a 13½ knot speed when in service. She arrived at Quebec, on her maiden trip, June 11.

J.E. Furness, Manager Furness, Withy & Co., who is in England, is reported to be arranging for the extension of the company, which operates the Thomson passenger trade. It is stated that it is the intention to run a fast line of passenger vessels into Quebec and Montreal in the summer and to Halifax in the winter.

The Cairn Line of Steamships, Ltd., has placed on the market, £250,000 of 5% mortgage debentures, for the general development of its business. The company, which operates the Thompson Lines and other vessels, between Canada and Great Britain, was established in 1892, and has paid dividends averaging 8% annually, on its ordinary shares.

The Postmaster General was reported to have said, in Montreal, June 10, that no arrangements had then been made with other companies for the conveyance of mails, but he expected that such would be made in the near future, so that three mails would leave for Great Britain each week. The present contract with the C. P. R. and the Allan Line does not expire until 1912.

W. Lyall, who acted as one of the arbitrators in the recent enquiry into the disputes between the Montreal ship-owners and the longshoremen, was entertained to a luncheon there, by a number of those interested in shipping, June 13, and presented with a silver flower stand and flower trays, in appreciation of his successful efforts to settle the matter.

Representatives of various shipping companies in Montreal, were received by the Premier June 8, respecting the proposed addition of a new clause to the immigration bill, dealing with the examination of U. S. settlers passing through Canada. A written protest has been sent, an estimate of the loss that would accrue to Canadian companies being placed at \$1,000,000 a year.

The Canadian Northern Steamships' s.s. Royal Edward, which sailed from Avonmouth, Eng., June 9, arrived at Quebec, June, 16, having, it is claimed, lowered the record by two hours.

The official record shows that she left Avonmouth, June 9, at 8 p.m., and completed the trip to her dock at Quebec, in 5 days, 23 hrs. 30 mins. The previous record from port to port, is quoted as 6 days, 1 hr. 45 mins.

The Canadian-Mexican Pacific Steamship Co., Ltd., has been organized, for the purpose of taking over the Canadian-Mexican Line, which operated vessels between B.C. ports and Mexico. The chief officers are: President, E. H. Heaps, President A.B.C. Elevator Co.; Vice President and General Manager, T.H. Worsnop. The first sailing by the new company was announced to take place at the end of June, by the s.s. Henley. It is also stated that the company has been appointed agent for the Canadian Northern Steamships' Ltd., and a number of other shipping companies. The vessels to be operated are the Lonsdale and Henley; the Georgia,

which the old company ran, being returned to England, her charter having expired.

A. A. Allan and T. Robb, President and Manager of the Shipping Federation of Canada, waited on the Minister of Marine recently on the subject of the alleged dangers to navigation in the Cap a la Roche channel. The damage recently caused to the steamships Grampian and Crown of Castile, by apparently striking some hidden obstruction while passing through this channel, has given some ground for the belief that a submerged rock or other obstruction is menacing the safety of navigation. The Minister of Marine, immediately on hearing of the damage to the latter vessel gave instructions for the sweeping of the channel, which work was carried out May 29, with the result that the channel was found to be clear. He also announced that the machinery for the new rock crusher and dredger, now under construction at Sorel, has arrived, and as soon as the vessel was completed, it would be set to work in the channel, and if any obstruction was discovered, it would be dealt with.

Maritime Provinces and Newfoundland.

D. Johnson, a well-known ship builder of River John, N.S., died at Pictou, recently, aged 91.

The Newfoundland Government has awarded a contract to Bowring Bros., St. John's, for the construction of a public wharf at Placentia.

The dredge Triton, which the Dominion Government has purchased in the U. S., was built in 1900, and is of the suction type, 479 tons register. It is said that she will be operated in St. John harbor and the Bay of Fundy.

The New Brunswick Legislature has authorized the city of St. John to grant to the Imperial Dry Dock Co., or other company, any interest it may have in any site for the construction of a dry-dock, exempt the dry-dock plant and machinery from taxation, except water, and pay the company a bonus of \$5,000 a year for 20 years from the completion of the dock.

Press reports from Newfoundland state that the Reid Newfoundland Co., has taken exception to the judgment recently delivered by Capt. Lugar, after his inquiry into the causes of the collision between the R.N. Co.'s s.s. Invermore and a French trawler, and will appeal to the Admiralty Court. The judgment held that both vessels were to blame for the accident, and that perjury had been committed by some of the witnesses, but it was impossible to decide by whom.

Province of Quebec Marine.

The Levis Ferry Co., is stated to have placed contracts for the construction of winter ferry boats in Levis.

The Department of Public Works received tenders June 29 for the construction of a wharf and approach at Tadousac harbor.

The Dominion Government has decided to build a dam on the St. Charles River, at a cost of about \$1,000,000, to make the river navigable for over a mile from its mouth at any tide.

Sir H. Montagu Allan arrived in England early in June, where it is stated he is making arrangements for the early construction of the works in connection with the proposed dry dock at Levis, Que.

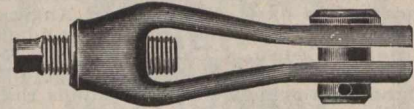
The Governor-in-council has approved the Quebec Harbor Commissioners' by-law providing for the payment of not

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less than \$5 and not more than \$10 to each commissioner for each attendance at a meeting of the commissioners or a sub-committee.

The Continental Dredging Co., Ltd., has been incorporated under the Dominion Companies Act, with a capital of \$100,000 and office at Montreal, to carry on a general dredging, contracting and construction business and in connection therewith to own and operate steam and other vessels.

V. W. Forneret, acting Superintendent Engineer of the St. Lawrence ship channel has been appointed Superintendent Engineer, by order in council. He is a member of the Canadian Society of Civil Engineers and has been connected with many of the important works on the St. Lawrence, between Montreal and Father Point.

The Acme Transportation Co., Ltd., has been incorporated under the Dominion Companies Act, with a capital of \$50,000 and offices at Montreal, to acquire all, or part of the plant and business of Haney, Quinlan and Co., and Haney, Quinlan and Robertson, Montreal, to own and operate steam and other vessels, and to conduct a general transportation business.

The Quebec and Levis Ferry Co., has appealed to the Court of the King's Bench against two judgments of the Superior Court refusing it evocation from the Circuit Court in cases brought by A. Bernier, (Levis Ferry, Ltd.), and moved to have proceedings in the several cases, suspended until the decision of the Court of Appeal.

The Department of Public Works will receive tenders to July 5, for the construction of a deep water wharf at Levis. The work is to consist of a horizontal bed for the cribs, prepared by dredging to 35 ft. below low water level, for the whole length, the construction of nine timber cribs, 903 ft. long, 40 ft. wide at the base, and 18 ft. wide at the top, a crib retaining wall behind the western end, 32 ft. long, 27 ft. 6 ins wide at base, 16 ft. 2 ins. wide at the top and superstructure of concrete blocks, 30 to 35 ft. long, 16 ft. wide at base, 4 ft. wide at top, with the necessary ladders, steps and mooring rings.

Ontario and the Great Lakes.

The Niagara Navigation Co. has declared a dividend of 4% for the half year payable July 2.

The Pere Marquette Rd. is reported to have decided to operate a line of steamboats across Lake Erie, from Port Stanley, daily.

The St. Lawrence and Chicago Steam Navigation Co. has transferred its steamboat G. R. Crowe from the British to the Canadian register.

The Lake Carriers' Association is recommending that the draught of the Canadian and U. S. Locks of the Sault Ste. Marie canals, be made 18 1/2 ft.

The Port Colborne steam tug Golden City, was struck by the Parry Sound Lumber Co.'s steamboat Seguin, and sunk in the Welland Canal, June 13.

The Inland Line's s.s. Donnacona ran ashore on the Devil Island shoals, near Tobermory, June 12, and after having her cargo lightered, was released on the following day.

Jno. Bell has been appointed General Agent, Inland Lines Ltd., Toronto, vice H. J. Truscott. General Agent Inland Navigation Co., which now forms part of the Inland Lines, Ltd.

The Merchants' Mutual Line, Ltd., incorporated under the Dominion Companies Act, has been licensed to carry on its business in Ontario, with J. S. Lovell, Toronto, as its attorney.

The North Channel Towing Co., Ltd., which was recently incorporated, with a capital of \$25,000, and office at Cutler, Ont., owns the steam tugs Andrew J. Smith, W. H. Seymour and Alert.

The Cadwell Dredging Co., Ltd., has been incorporated under the Ontario Companies Act, with a capital of \$50,000 and office at Windsor, to carry on a general dredging, contracting and sand business.

The Rainy River Navigation Co., has announced that it will operate the steamboats Keenora and Agwinde, this year, on the Kenora-Port Frances route. No vessel was operated by this company last season, owing to the low water at the mouth of the Rainy River.

The Niagara, St. Catharines and Toronto Navigation Co.'s steamboat Lakeside, which operated between Toronto and Port Dalhousie last season, is being thoroughly overhauled, and will probably be put into service again on the same route.

Wm. Lawlor, recently transferred from the Toronto office of the Inland Lines, Ltd., to the Montreal office, is reported to be missing. He is said to have had a considerable sum of money in his possession at the time, and it is feared that he met with foul play.

The s.s. A. E. McKinstry, which recently arrived on the Great Lakes from Scotland, will be operated by Interlake Transit Ltd., in the bulk freight trade. Her dimensions are, length, 250 ft.; breadth, 42 3/4 ft.; depth, 20 1/2 ft.; capacity, 118,000 bush.

The Department of Railways and Canals has awarded the contract for the improvements to the Port Colborne entrance to the Welland Canal, to M. J. Hogan, Port Colborne. The work comprises the widening of the 22 ft. deep water channel along the west pier and the building of a timber and concrete mooring dock west of the elevator.

The U. S. Lake Survey reports the levels of the Great Lakes, for May, in feet above tidewater, as follows: Superior, 601.74; Michigan and Huron, 580.46; Erie, 572.57; Ontario, 246.42. As compared with the average May levels for the past 10 years, Superior was 0.55 ft. below, Michigan and Huron 0.38 ft. below, Erie 0.04 below and Ontario 0.27 ft. below.

The G.T.P. Coast Steamship Co.'s s.s. Prince Rupert, which arrived on the coast early in June, reached Vancouver, June 10, after having been overhauled at Esquimalt subsequent to her trip around the Horn from England. She was considerably delayed on the voyage by bad weather, and owing to her wireless telegraph equipment getting out of order, some anxiety was caused.

The Lake and River Rapid Transit Co., Ltd., has been incorporated under the Dominion Companies Act, with a capital of \$50,000 and office at Ottawa, to own and operate steam and other vessels, wharves, docks, etc., and to conduct a general transportation business. The provisional directors are, E. W. Grange, S. D. Dafoe, J. Muir, C. F. Hamilton and C. A. Matthews, Ottawa, and J. A. Currie, Toronto.

Representations, emanating from Minnesota are being made to the Dominion and U.S. government for the betterment of navigation on the Rainy River, and for the opening up of the Lake of the Woods. The plan suggested, involves the construction of a canal with three locks, connecting the Rainy and Pigeon Rivers, thus forming a connection between Hudson Bay and Chicago and New York, by way of the Great Lakes, Chicago canal and the Mississippi River.

Hall and Eligh, Ltd., has been incorporated under the Dominion Companies Act, with a capital of \$99,000 and office at Ottawa, to carry on the business of operating and owning passenger, freight and towing steamers, with power to build or otherwise acquire steam and other vessels, wharves, docks, piers, elevators, etc. The provisional directors are: E. A. Hall, L'Orignal; W. J., and J. H. Hall, and P., and E. W. Eligh, Ottawa.

Press reports from Montreal state that a merger of lake navigation companies with a capital stock of \$15,000,000, is under negotiation, by which "practically every inland navigation boat of importance, plying between the Gulf of St. Lawrence and the port of Chicago on Lake Michigan," will be placed under one management. Among those mentioned, are the Richelieu and Ontario Navigation Co., Merchants' Montreal Line, Montreal and Lake Erie Steamship Co., Montreal and Great Lakes Steamship Co., Ottawa River

SAULT STE. MARIE CANALS TRAFFIC.

The following commerce passed through the Sault Ste. Marie Canals in May :

ARTICLES.	CANADIAN CANAL	U. S. CANAL	TOTAL
Copper..... Eastbound..... Net tons	4,595	12,160	16,755
Grain..... "..... Bushels	3,813,654	2,872,094	6,685,748
Building stone..... "..... Net tons	.....	.....	.....
Flour..... "..... Barrels	399,460	465,915	865,375
Iron ore..... "..... Net tons	4,299,929	1,755,672	6,055,601
Pig iron..... "..... ".....	.....	1,856	1,856
Lumber..... "..... M. ft. B. M.	18,508	74,768	93,276
Silver ore..... "..... Net tons	.....	.....	.....
Wheat..... "..... Bushels	8,264,727	2,126,599	10,391,326
General merchandise..... "..... Net tons	6,712	7,841	14,553
Passengers..... "..... Number	888	499	1,387
Coal, hard..... Westbound..... Net tons	89,785	197,661	287,446
Coal, soft..... "..... ".....	449,463	769,434	1,218,897
Flour..... "..... Barrels	600	.....	600
Grain..... "..... Bushels	.....	100	100
Manufactured iron..... "..... Net tons	27,302	38,862	66,164
Iron ore..... "..... ".....	.....	.....	.....
Salt..... "..... Barrels	39,151	73,816	112,467
General merchandise..... "..... Net tons	83,726	79,698	169,424
Passengers..... "..... Number	1,653	155	1,808
Vessel passages..... Number	1,271	1,587	2,858
Registered tonnage..... Net	3,585,163	3,646,521	7,231,684
Freight—Eastbound..... Net tons	4,707,390	2,062,314	6,769,704
—Westbound..... ".....	661,929	1,096,653	1,758,582
Total freight..... ".....	5,369,319	3,158,967	8,528,286

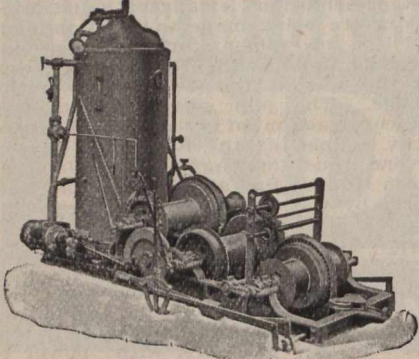
The Canadian canal opened Apr. 12, and the U.S. canal, May 5.

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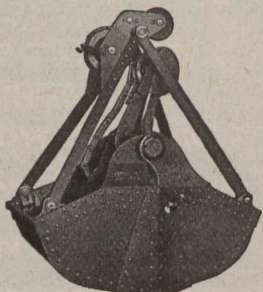
LUMEN BEARING COMPANY, WEST TORONTO

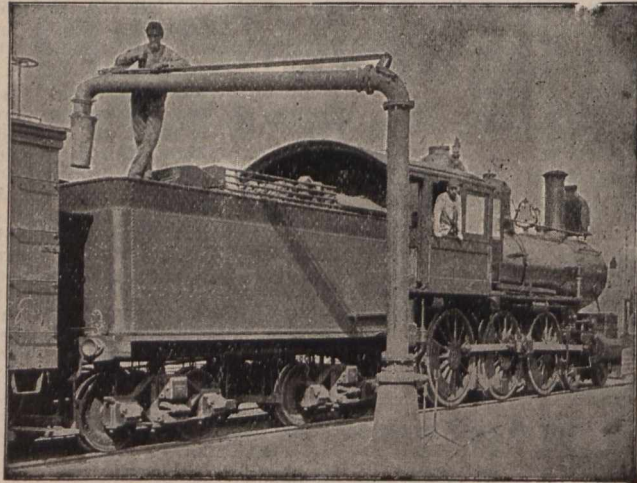


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Navigation Co., Montreal Transportation Co., and the Northern Navigation Co., while it is also stated that the C.P.R. and G.T.R. are favorably disposed towards the project.

The Toronto Ferry Co.'s ferry steamboat Trillium was launched from Polson Iron Works, Toronto, June 18, the christening ceremony being performed by Miss Phyllis Osler, granddaughter of E. B. Osler, President Toronto Ferry Co. The vessel, which has been built on the same general lines as the company steamboat Bluebell, has these dimensions: length, 150 ft. beam, over guards, 45 ft., depth, molded, 8 ft. 4 ins. The machinery consists of inclined compound paddle wheel engines with cylinders 17 and 34 ins. diam., by 48 ins. stroke, supplied with steam by a Scotch marine boiler, 10½ ft. diam., by 11 ft. long, at a working pressure of 160 lbs. She is also equipped with a turbine electric generating set, for 350 16 c.p. lights and masthead and running lights. She was expected to be in operation by July 1.

The Keystone Transportation Co.'s steamboat Keystorm, which recently arrived on the Great Lakes, will be engaged in the bulk carrying trade between Cleveland, Ashtabula, Erie and other Lake Erie points and Montreal. She was built in England, and in the main, is similar to the steamboats Keywest and Keyport, also built in England for the same company, the chief difference being in regard to her boilers. The Keystorm has been constructed with one large boiler instead of two smaller ones, and has a slightly reduced carrying capacity, but with increased speed. She is of full canal size with a draught of 14 ft., and has been built to the highest class in the Classification of the British Corporation for the Survey and Registry of Shipping. She is equipped with triple expansion engines. Her dimensions are, length, 250 ft., beam, 42½ ft., and she will carry 2,300 tons on light draught. On her trial trip she attained a speed of about 10 knots an hour.

Manitoba, Saskatchewan and Alberta.

H. J. Truscott, heretofore General Agent Inland Navigation Co., Toronto, has been appointed Contracting Agent Inland Lines Ltd. (which was taken over by the Inland Navigation Co.,) at Winnipeg.

The s.s. Mikado, arrived in Winnipeg from Selkirk, June 10, being, it is said, the first steamboat plying on Lake Winnipeg, to go up to the city. During the trip, surveys of the river at various points were, made, which will prove of benefit to other vessels making the trip for the first time.

The Dominion Government has decided to make a survey, with a view of ascertaining the possibility of establishing a navigable water route between Winnipeg and Edmonton, by way of the North Saskatchewan River and Lake Winnipeg. It is believed that waterway of 8 ft. depth can be cleared at a moderate cost. L. R. Boligny, who was one of the party which made surveys on the Georgian Bay Canal route, is reported to have been placed in charge of the work, which will be undertaken during the summer.

The Hyland Navigation and Trading Co., contemplates the construction of dock accommodation at Winnipeg, 324 by 40 ft., and also intends building two barges and a steam tug. The company is operating the steamboats Bonnitoba and Winnitoba, the former on the Red River and the latter on the Red River and Lake Winnipeg. The officers of the vessels for the current season are, Bonnitoba, captain, G. Fortney; chief engineer, G. Hicks; Winnitoba, captain, E. McDougall; chief engineer, G. King.

A joint meeting of the Winnipeg special wharf committee and the city council was held recently, when the matter of the construction of wharves at various points along the Red River was discussed. It was stated that with the opening of the St. Andrews lock, a large increase of traffic on the river and lake was probable, and that steps should be taken to construct the facilities necessary for the economical handling of passengers and merchandise. H. N. Rutan, City Engineer, said that the question was a large one, but that some extravagant ideas had been entertained on the matter and some projects mooted that would cost millions. The St. Andrews lock and dam would have the

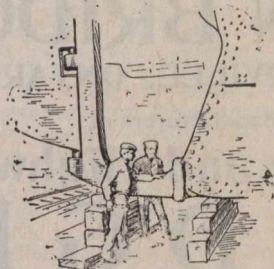
effect of raising the water level several feet, and though there were no fundamental difficulties in the way of establishing a large trade between the city and the lake, wharves or steamboat landings would have to be protected against the spring ice flow. It was decided to obtain the views of the leading shippers in Winnipeg and other Red River ports as to landing accommodation, and later, call a meeting of ship owners, the city council and the board of trade.

B.C. and Pacific Coast Marine.

The barkentine Everett G. Griggs, of Victoria, has been equipped with a wireless telegraph installation.

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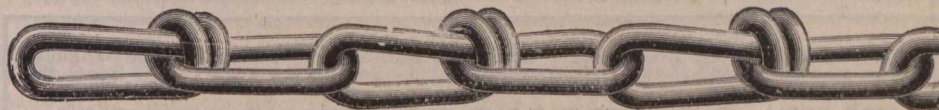
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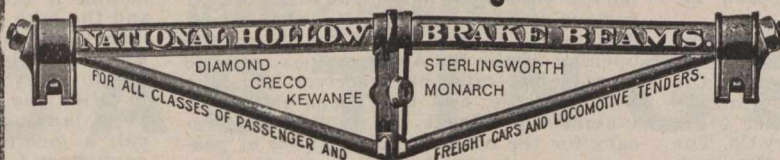
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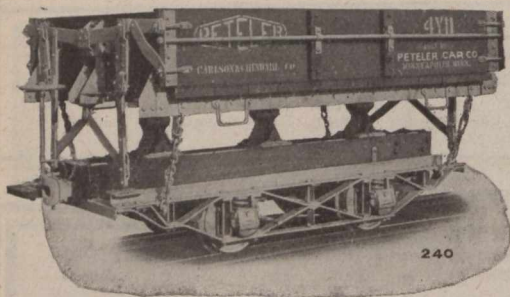
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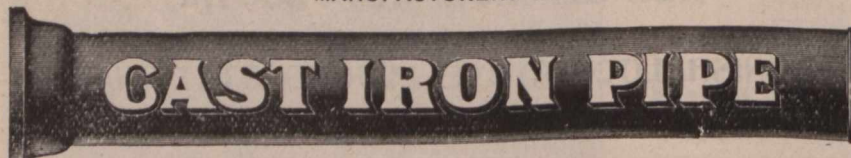
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The Victoria Dock Co., Ltd., has applied to the Governor-General-in-Council for the approval of plans and site for works to be constructed in Victoria harbor, lot 5, block 70.

The Imperial Car, Shipbuilding and Drydock Co., of Vancouver, is applying for a subsidy of 3½ per cent. on an outlay of \$2,500,000 for the construction of a dry dock at Vancouver.

The White Pass Navigation Co.'s steamboat White Horse, was reported to have left White Horse for Dawson, Y.T., June 8, this being several days earlier than is usual for the opening of navigation on the river.

The Kootenay Ry. and Navigation Co.'s steamboat Kaslo, while endeavoring to berth at Ainsworth, during a storm, struck on a pier, and eventually sank in 14 ft. of water. The service has been continued by the C.P.R. steamboat Kokanee.

The Malahat Tug Co., Ltd., has been incorporated under the B.C. Companies Act, with a capital of \$25,000, to own and operate steam and other vessels, and to enter into contracts for the conveyance of passengers, cattle and merchandise by its own vessels, railways, etc., or by those of others.

The s.s. Bruno, recently purchased by the Grand Trunk Pacific Coast Steamship Co., as mentioned in our last issue, has had some alterations made, in addition to being generally overhauled, at Vancouver, and the name has been changed to Prince Albert, to conform to the company's policy regarding names. She is being operated between Prince Rupert, Portland Canal and Queen Charlotte Islands, connecting with the s.s. Prince Rupert in both directions.

The Grand Trunk Pacific Coast Steamship Co., Ltd., has been incorporated under the Dominion Companies Act, with a

capital of \$100,000 and office at Montreal, to own and operate steam and other vessels, wharves, docks, piers, elevators, etc., and to conduct a general navigation and transportation business. The provisional directors are: C. M. Hays, W. Wainwright, W. H. Biggar, Montreal; E. J. Chamberlin, Winnipeg, and C. H. Nicholson, Vancouver; all of whom are connected with the G.T.R., G.T.P.R., or G.T.P. Steamships.

The Grand Trunk Pacific Ry. has purchased the ocean going tug, Escort No. 2, and the car ferry, Georgian No. 2, from Mackenzie Bros. Ltd., Vancouver, B.C., to operate in transferring rails and other equipment between Vancouver and Prince Rupert in connection with the construction of the Mountain Division. The tug Escort was built in 1182, at Coos Bay, Ore., and is a screw driven vessel, with engine of 61 n.h.p. Her dimensions are: length, 95 ft., breadth, 24 ft., width, 13.5 ft., tonnage, 192 gross, 131 register. The Georgian No. 2, is 187 ft. long by 39 ft. beam. The G.T.P. Coast Steamship Co., has also purchased the steamship Henriette and the schooner North Bend, from the same firm, the former being intended for general freight purposes where required, and the latter to be utilized as a coal barge. The Henriette, which was formerly a sailing vessel, is equipped with engine of 32 n.h.p., driving a screw. Her dimensions being: length, 152.6 ft., 30 ft., depth 18 ft., tonnage, 762 gross, 518 register. The schooner North Bend was built at Coos Bay, Ore., in 1877, her dimensions being: length, 152.6 ft., breadth 32 ft., depth 11 ft., tonnage, 392 register.

The Department of Public Works will receive tenders to July 20 for the construction of a steel bow-well twin screw barge loading dredge for use in British Columbia. The specifications calls for a



QUEBEC BRIDGE.

Tenders for Superstructure.
Notice to Contractors.

SEALD TENDERS addressed to the undersigned and endorsed "Tender for Quebec Bridge Superstructure," will be received at this office until 12 o'clock noon, not later than September 1st, 1910, for the superstructure of a bridge across the St. Lawrence River near the City of Quebec.

Plans and specifications may be seen and forms of Tender obtained on and after July 1st 1910 at the office of the Quebec Bridge Board of Engineers, Canadian Express Building, Montreal, and at the Department of Railways and Canals, Ottawa.

Parties tendering will be required to accept the fair wages schedule prepared or to be prepared by the Department of Labour, which schedule will form part of the contract.

Contractors are requested to bear in mind that tenders will not be considered, unless made strictly in accordance with the printed forms, and in the case of firms, unless there are attached the actual signature, the nature of the occupation, and place of residence of each member of the firm.

An accepted bank cheque for the sum of \$500,000.00 made payable to the order of the Minister of Railways and Canals of Canada must accompany each tender, which sum will be forfeited if the party tendering declines entering into contract for the work at the rates stated in the offer submitted and in accordance with the terms stated in the form of Contract accompanying the Specifications.

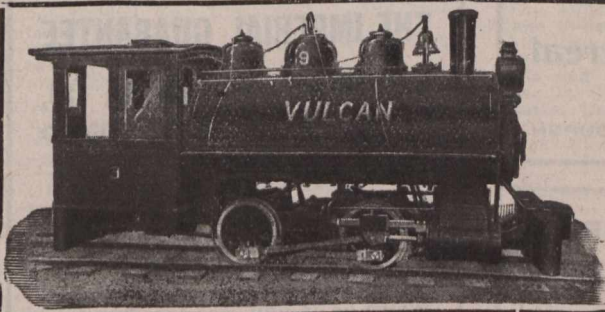
Cheques thus sent in will be returned to the respective contractors whose tenders are not accepted.

The lowest or any tender not necessarily accepted.

L. K. JONES,
Secretary.

Department of Railways and Canals,
Ottawa, 17th June, 1910.

Newspapers inserting this advertisement without authority from the Department will not be paid for it.



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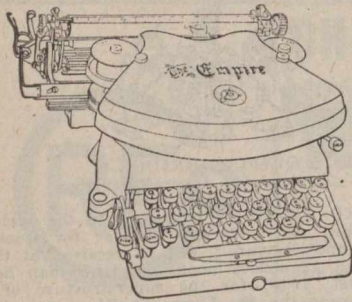
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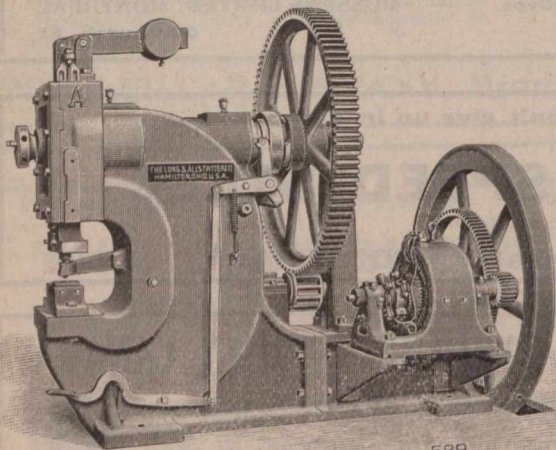
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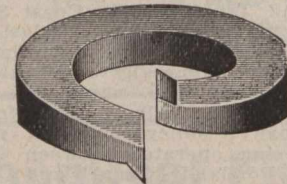
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DIVIDEND NOTICE

Niagara Navigation Company, Ltd.

Notice is hereby given that an interim dividend of four per cent. (being at the rate of 8 per cent. for the year) has been declared upon the capital stock of this company, and the same will be payable on the 2nd of July, 1910.

The transfer books will be closed from June 16th to June 30th, 1910, both days inclusive.

By order of the Board.

B. W. FOLGER,

General Manager.

Toronto, June 14th, 1910.

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vessel with these dimensions: length, between perpendiculars, 199 ft., breadth, molded, 36 ft., 6 ins., depth, moulded, 13 ft., 6 ins.; speed, in working condition with 100 tons of coal and 50 tons of fresh water in feed tanks, eight knots an hour, on a mean draught of about 9 ft. 6 ins. It is required to be of the barge-loading bucket centre ladder type, fitted with chain of 39 buckets of 24 cub. ft. capacity. The hull is to be of steel throughout, built under Lloyds' rules for an A1 steel dredge class, sub-divided into eight water tight compartments, and with accommodation for the crew. The machinery is to consist of two sets of compound surface condensing engines, driving direct on the screw shaftings, and to operate the dredging machinery by gearing, admitting of disconnection, with two boilers of the latest marine cylindrical type for a working pressure of 125 lbs., tested to 250 lbs.; steam hoist-

ing gear and warping winch, 3-ton hand derrick, etc. The engines to have cylinders 18 and 36 ins. diam., by 24 ins. stroke and the boilers to be 12 ft. 9 ins. diam. by 10 ft., with Morrison or other corrugated furnaces, 3 ft 9 ins., internal diam., with a total heating surface of 2,856 sq. ft. The auxiliary engines for driving the hoisting gear to be of horizontal two cylinder high pressure type with cylinders 13 ins. diam., by 15 ins. stroke. The electric light plant to consist of steam engine, generator, switchboard, searchlight, etc.

The Union Steamship Co.'s s.s. Cheslakee, which was launched at Dublin, Ireland, recently, is intended for coastwise service in British Columbia. She is of the awning deck type and has been built to the highest class of the British Corporation Registry, with dimensions: Length, 132 ft.; breadth moulded, 28 ft.; depth, moulded, to awning deck, 17.9

ft. The machinery, which is being installed at Belfast, consists of triple expansion engines, with cylinders 13 1/2, 22 and 36 in. diam., by 20 in. stroke, supplied with steam by an extra large single-ended boiler. The general equipment includes the usual steam auxiliaries on deck, electric light installation and powerful searchlight, life-saving and fire-extinguishing apparatus, to meet the requirements of both the Canadian and British Board of Trade authorities. Although she is chiefly intended for the passenger trade, there will be a limited capacity reserved for the quick transport of perishable freight.

The Fort George Lumber and Navigation Co., Quesnel, is operating the following vessels, Chilco, captain, J. H. Bonser; chief engineer, J. McInnis. Chillcote, H. Fraser, captain, — Ritchie; Quesnel, captain, A. F. Dougherty; chief engineer, S. A. Dean.

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Air Brakes and Fittings
Allis-Chalmers-Bullock Ltd.Montreal.
Canadian Westinghouse Co. Hamilton, Ont.

Ales
E. L. DrewryWinnipeg.

Alloys
American Vanadium Co....Pittsburg, Pa.

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Hamilton Steel & Iron Co., Hamilton, Ont.
Montreal Rolling Mills Co.....Montreal.
Nova Scotia S. & C. Co., New Glasgow, N.S.

Anti Rail Creepers
The Holden Co., Ltd.....Montreal.

Automobiles
Preston Car & Coach Co...Preston, Ont.

Axes
James Smart Mfg. Co.....Brockville, Ont.

Axles
Canadian Car & Foundry Co....Montreal.
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James Hutton & Co.Montreal.
Nova Scotia S. & C. Co., New Glasgow, N.S.
Pittsburg Forge & Iron Co., Pittsburg, Pa.
Jas. W. Pyke & Co.....Montreal.

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Canada Iron Corporation, Ltd..Montreal.
Kerr Engine Co.Walkerville, Ont.
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Tallman Brass & Metal Co., Ltd..Hamilton.

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Am. Brake Shoe & F'dry Co., Mahwah, N.J.
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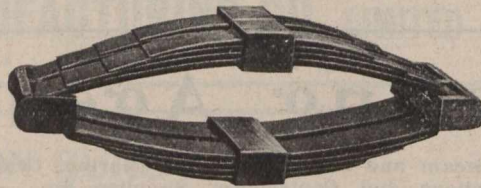
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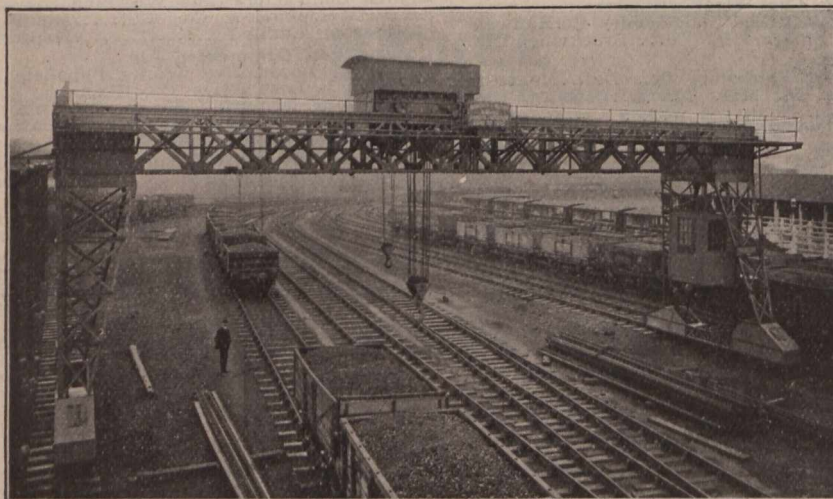
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 Polson Iron Works, Ltd.....Toronto.
 Russell Wheel & Fdry. Co..Detroit, Mich.
- Engines, Pumping**
 John Inglis Co., Ltd.Toronto.
- Engines, Stationary and Marine**
 John Inglis Co., Ltd.Toronto.
 I. Matheson & Co.....New Glasgow, N.S.
 Polson Iron Works, Ltd.....Toronto.
 Robb Engineering Co., Ltd..Amherst, N.S.
- Engines, Steam**
 Allis-Chalmers-Bullock Ltd.Montreal.
 Vandeleur & NicholsToronto.
- Explosives**
 Standard Explosives, Limited ..Montreal.
- Express Office Signs**
 Acton Burrows, LimitedToronto.
- Fencing**
 New Brunswick Wire Fence Co..Moncton.
 Owen Sound Wire Fence Co..Owen Sound.
- Ferro-Vanadium**
 American Vanadium Co. ..Pittsburg, Pa.
- Fire Appliances**
 Missouri Lamp & Mfg. Co., St. Louis, Mo.
- Flags**
 The Hudson's Bay Co.....
- Flour**
 The Hudson's Bay Co.....
- Forgings**
 Edgar Allen & Co., Ltd.Montreal.
 American Vanadium Co. ..Pittsburg, Pa.
 Canadian Car & Foundry Co..Montreal.
 Cleveland City Forge & Iron Co., Cleveland.
 Crossen Car Mfg. Co.....Cobourg, Ont.
 Hamilton Steel & Iron Co., Ltd., Hamilton.
 Nova Scotia S. & C. Co., New Glasgow, N.S.
 Pittsburg Forge & Iron Co., Pittsburg, Pa.
 Standard Steel Works Co., Philadelphia, Pa.
- Foundry Appliances**
 Goldschmidt Thermit Co.Toronto.
 Ont. Wind Eng. & Pump Co., Ltd., Toronto.
- Frames, Steel for Cars**
 Canadian Ry. Equip't Co., Welland, Ont.
- Frogs**
 Canadian Ramapo Iron Wks.Niagara Falls.
 Peteler Car Co.Minneapolis, Minn.
- Furnaces, Corrugated**
 Continental Iron Works....Brooklyn, N.Y.
- Fuse Batteries**
 Standard Explosives Limited...Montreal.
- Fuse Detonators**
 Standard Explosives Limited...Montreal.
- Fuses, Electric**
 Standard Explosives Limited...Montreal.
- Gaskets**
 Franklin Mfg. Co.....Franklin, Pa.
 The Holden Co., Ltd.....Montreal.
 McCord & Co.Chicago, Ill.
- Gates**
 New Brunswick Wire Fence Co., Moncton.
 Owen Sound Wire Fence Co..Owen Sound.
- Gates, Crossing**
 General Ry. Signal Co...Rochester, N.Y.
 The N. L. Piper Ry. Supply Co..Toronto.
- Gauges, Locomotive**
 Taylor & ArnoldMontreal.
 Utica Steam Gauge Co.....New York.
- Gears**
 American Vanadium Co. ..Pittsburg, Pa.
- Generators, Electric**
 Northern Electric & Mfg. Co....Montreal.
- Grates, Shaking**
 Babcock & Wilcox, Ltd.....Montreal.
 Polson Iron Works, Ltd.....Toronto.
 Vandeleur & NicholsToronto.
- Groceries**
 The Hudson's Bay Co.....
- Guides and Outfitters**
 Otto Bros.Field, B.C.
- Hammers, Cast Steel**
 American Brake Shoe & Fdry Co..Mahwah.
 James Smart Mfg. Co....Brockville, Ont.
- Handcars**
 Canadian Fairbanks Co., Ltd...Montreal.
 Crossen Car Mfg. Co.....Cobourg, Ont.
 Dominion Equip't & Supply Co..Winnipeg.
 F. H. Hopkins & Co.....Montreal.
 Mussels, LimitedMontreal.
 Rice Lewis & Son.....Toronto.
- Hardware**
 The Hudson's Bay Co.....
 Rice Lewis & Son.....Toronto.
- Headlights**
 Commercial Acetylene Co.....Toronto.
 The N. L. Piper Ry. Supply Co..Toronto.
 Pyle National Elec. Headlight Co..Chicago.
- Headlinings**
 Crossen Car Mfg. Co.....Cobourg, Ont.
- Heaters, Feedwater**
 Robb Engineering Co., Ltd..Amherst, N.S.
- Heating, Car**
 Canadian Gold Car H'g & L'g Co..Montreal.
 Safety Car Heating & L'ing Co..New York.
- Hoists, Pneumatic**
 Taylor & ArnoldMontreal.
- Hollow Staybolt Iron and Steel Bars**
 Edgar Allen & Co., Ltd.Montreal.
 Falls Hollow Staybolt Co..Cuyahoga Falls.
- Hoppers, Car, Wet or Dry**
 Duner Co.Chicago, Ill.
- Hose, Air Brake and Steam**
 Guilford S. Wood.....Chicago, Ill.
- Hydrants**
 Canadian Fairbanks Co., Ltd...Montreal.
 Kerr Engine Co.....Walkerville, Ont.
- Illustrations**
 Acton Burrows, Limited.....Toronto.
- Injectors**
 T. McAvity & SonsSt. John, N.B.
- Inspections**
 R. W. Hunt & Co.....Montreal.
- Insurance, Accident**
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 Canadian Ry. Accident Ins. Co...Ottawa.
 Imp. Guarantee & Acc. Ins. Co..Toronto.
 London Guar. & Accident Co., Ltd.Toronto.
- Insurance, Boiler**
 Can. Casualty & Boiler Ins. Co...Toronto.
- Insurance, Vessel**
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- Interlocking Plant and Signals**
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 Montreal Steel Works, Ltd.....Montreal.
 Railway Signal Co. of Canada...Montreal.
 Saxby & Farmer, Ltd.....Montreal.
- Iron, Pig**
 Nova Scotia S. & C. Co., New Glasgow, N.S.
- Iron Signs**
 Acton Burrows, Limited.....Toronto.
- Iron Staybolt Bars**
 Falls Hollow Staybolt Co..Cuyahoga Falls.
- Jacks**
 Canadian Fairbanks Co., Ltd...Montreal.
 Dominion Equip't & Supply Co., Winnipeg.
 H. & E. Lifting Jack Co..Waterville, Que.
 F. H. Hopkins & Co., Ltd...Montreal.
 Montreal Steel Works, Ltd.....Montreal.
 Mussels, LimitedMontreal.
 A. O. NortonCoaticook, Que.
 James Smart Mfg. Co...Brockville, Ont.
 A. R. Williams Mch'y. Co., Ltd...Toronto.
- Japans**
 The Dougal Varnish Co., Ltd...Montreal.
- Journal Bearings**
 Canadian Bronze Co.Montreal.
 Crossen Car Mfg. Co.Cobourg, Ont.
 Kerr Engine Co.Walkerville, Ont.
 Jas. W. Pyke & Co.Montreal.
- Journal Boxes**
 The Holden Co., Ltd.....Montreal.
 McCord & Co.Chicago, Ill.
- Journal Jacks**
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- Lager Beer, &c.**
 E. L. DrewryWinnipeg.
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 Taylor & ArnoldMontreal.
- Lamps, Arc**
 Northern Electric & Mfg. Co....Montreal.
- Lamps, Incandescent**
 Canadian Westinghouse Co..Hamilton, Ont.
- Lamps and Lanterns**
 The Hudson's Bay Co.....
 The Hiram L. Piper Co.....Montreal.
 The N. L. Piper Ry. Supply Co..Toronto.
- Lamps, Switch**
 The N. L. Piper Ry. Supply Co..Toronto.
- Lathes**
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- Laths**
 J. Harrison & Sons Co....Owen Sound.
- Lighting, Car**
 Canadian Gold Car H'g & L'g Co..Montreal.
 Safety Car Heating & L'ing Co..New York.
- Lights, Contractors' and Wrecking**
 F. H. Hopkins & Co., Ltd...Montreal.
 Mussels, LimitedMontreal.
- Locomotives, Compressed Air**
 Baldwin Locomotive Works..Philadelphia.
 Canadian Locomotive Co..Kingston, Ont.
 International Marine Signal Co..Ottawa.
 Montreal Locomotive W'ks (Ltd.)..Montreal.
- Locomotives, Electric**
 Baldwin Locomotive Works..Philadelphia.
 Montreal Locomotive W'ks (Ltd.)..Montreal.
- Locomotives, Logging**
 Baldwin Locomotive Works..Philadelphia.
 Canadian Locomotive Co..Kingston, Ont.
- Locomotives, Rack**
 Baldwin Locomotive Works...Philadelphia.
 Canadian Locomotive Co..Kingston, Ont.
 Montreal Locomotive Works....Montreal.
- Locomotives, Steam**
 Baldwin Locomotive Works...Philadelphia.
 R. M. Burns & Co.Chicago, Ill.
 Canadian Fairbanks Co., Ltd...Montreal.
 Canadian Locomotive Co. ..Kingston, Ont.
 Dominion Equip't & Supply Co., Winnipeg.
 J. T. GardnerChicago, Ill.
 Hicks Locomotive & Car Works..Chicago.
 The Males Co.,Cincinnati, O.
 Montreal Locomotive Works....Montreal.
 Vulcan Iron WorksWilkesbarre, Pa.
- Lorries, Tracklaying**
 Crossen Car Mfg. Co.....Cobourg, Ont.
 F. H. Hopkins & Co.....Montreal.
- Lubricators**
 McCord & Co.Chicago, Ill.
 Taylor & ArnoldMontreal.

- Lumber**
Parry Sound Lumber Co.Toronto.
J. Harrison & Sons Co..Owen Sound, Ont.
- Machines and Plant, Contractors'**
M. Beatty & SonsWelland, Ont.
R. M. Burns & Co.Chicago, Ill.
Canadian Fairbanks Co., Ltd...Montreal.
J. T. GardnerChicago, Ill.
General Ry. Signal Co...Rochester, N.Y.
F. H. Hopkins & Co.Montreal.
Mussens, LimitedMontreal.
- Machines and Tools, Prospecting**
The American Well Works...Aurora, Ill.
- Machines and Tools, Well Drilling**
The American Well Works...Aurora, Ill.
- Machines, Boring and Turning**
John Bertram & Sons Co....Dundas, Ont.
- Machines, Car Shop**
John Bertram & Sons Co., Ltd.Dundas, Ont.
Cincinnati Punch & Shear Co., Cincinnati.
Greenlee Bros. & Co.Chicago, Ill.
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James W. Pyke & Co.Montreal.
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John Bertram & Sons Co. ..Dundas, Ont.
- Machines, Hoisting**
Brown Hoisting Machinery Co..Cleveland.
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- Machines, Track**
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- Machines, Tracklaying**
F. H. Hopkins & Co.Montreal.
- Machines, Wood and Iron Working**
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- Machine Tools**
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Pratt & Whitney Co.Dundas, Ont.
- Manhole Frames and Covers**
American Brake Shoe & Fdry Co.Mahwah.
Canada Iron Corporation, Ltd...Montreal.
- Marine Repairs**
Goldschmidt Thermit Co.Toronto.
- Marine Supplies**
Rice Lewis & Son.....Toronto.
- Metal, Anti-friction**
W. AbbottMontreal.
- Metal, Babbit**
Tallman Brass & Metal Co., Hamilton, Ont.
- Metals**
Goldschmidt Thermit Co.Toronto.
- Metal Work, Structural**
Canadian Bridge Co....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
Montreal Locomotive Works....Montreal.
Jas. W. Pyke & Co.Montreal.
- Milepost Numbers**
Acton Burrows, Limited.....Toronto.
- Motors**
Canadian Fairbanks Co., Ltd...Montreal.
McCord & Co.Chicago, Ill.
- Motors, Electric**
Allis-Chalmers-Bullock Ltd.Montreal.
Canadian Crocktr-Wheeler Co...Montreal.
Chapman & Walker, Ltd.....Toronto.
Northern Electric & Mfg. Co....Montreal.
Vandeleur & NicholsToronto.
- Motor Generator Sets**
Allis-Chalmers-Bullock Ltd.Montreal.
Chapman & Walker, Ltd.....Toronto.
Vandeleur & NicholsToronto.
- Motors, Turntable**
Taylor & ArnoldMontreal.
- Nickel**
The Orford Copper Co.New York.
- Nickel for Nickel Steel**
The Orford Copper Co.New York.
- Numbers**
Acton Burrows, LimitedToronto.
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Positive Lock Washer Co. ..Newark, N.J.
- Nuts, Clevis**
Cleveland City Forge & Iron Co.Cleveland.
- Nuts, Square and Hexagon**
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- Oakum**
The Hudson's Bay Co.....
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- Office Signs**
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- Oils**
Galena Signal Oil Co..Franklin & Toronto.
- Packing**
The N. L. Piper Ry. Supply Co..Toronto.
- Patterns**
Hamilton Pattern Works..Hamilton, Ont.
- Pile Drivers, Railway**
F. H. Hopkins & Co.Montreal.
Mussens, LimitedMontreal.
- Pinch Bars**
The N. L. Piper Ry. Supply Co..Toronto.
- Pipe, Culvert, Cast Iron**
Gartshore-Thompson Pipe Co..Hamilton.
- Pipe, Gas, Cast Iron**
Gartshore-Thompson Pipe Co..Hamilton.
- Pipe, Sewer, Cast Iron**
Gartshore-Thompson Pipe Co..Hamilton.
- Pipe Stocks**
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A. B. Jardine & Co.....Hespeler, Ont.
- Pipe, Water (Cast Iron)**
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E. L. DrewryWinnipeg.
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Standard Explosives, Limited ..Montreal.
- Preservative for Hose**
Guilford S. Wood.....Chicago, Ill.
- Printing**
Southam PressToronto.
- Pumps**
Canadian Fairbanks Co., Ltd...Montreal.
S. F. Bowser & Co., Ltd.....Toronto.
Ontario Wind Engine & Pump Co..Toronto.
James Smart Mfg. Co...Brockville, Ont.
Vandeleur & NicholsToronto.
- Pumps, Centrifugal**
The American Well Works...Aurora, Ill.
M. Beatty & SonsWelland, Ont.
John Inglis Co., Ltd.Toronto.
- Pumps, Deep Well, Steam and Power**
The American Well Works...Aurora, Ill.
- Pumps, Fire Pressure**
The American Well Works...Aurora, Ill.
- Pumps, Irrigating**
The American Well Works...Aurora, Ill.
- Pumps, Reclamation**
The American Well Works...Aurora, Ill.
- Pumps, Sprinkler Systems**
The American Well Works...Aurora, Ill.
- Pumps, Underwriters' Fire**
The American Well Works...Aurora, Ill.
- Punches and Shears**
Cincinnati Punch & Shear Co., Cincinnati.
Cleveland Punch & Shear Wks., Cleveland.
Long & Allstatter Co. Hamilton, Ohio.
- Rail Benders, Roller**
Dominion Equip't & Supply Co..Winnipeg.
F. H. Hopkins & Co.Montreal.
Montreal Steel WorksMontreal.
- Rail Drilling Machines**
A. B. Jardine & Co.Hespeler, Ont.
- Rails, new**
Dominion Iron & Steel Co....Sydney, N.S.
Drummond, McCall & Co.....Montreal.
J. T. GardnerChicago, Ill.
J. J. GartshoreToronto.
F. H. Hopkins & Co.Montreal.
Peteler Car Co.Minneapolis, Minn.
- Rails, for relaying**
F. H. Hopkins & Co.Montreal.
J. J. GartshoreToronto.
Mussens, LimitedMontreal.
Jas. W. Pyke & Co.Montreal.
- Rail Joints**
Goldschmidt Thermit Co.Toronto.
The Rail Joint Co. of Canada...Montreal.
- Railway Supplies**
Canadian Fairbanks Co., Ltd...Montreal.
Franklin Mfg. Co.Franklin, Pa.
T. McAvity & SonsSt. John, N.B.
The Hiram L. Piper Co.....Montreal.
The N. L. Piper Ry. Supply Co..Toronto.
Rice Lewis & Son.....Toronto.
Russel Wheel & Fdry. Co..Detroit, Mich.
- Reamers**
Butterfield & Co.....Rock Island, Que.
Cleveland Punch & Shear Wks.Cleveland.
A. B. Jardine & Co.Hespeler, Ont.
- Replacers, Car and Locomotive**
Alexander Car Replacer Mfg. Co.Scranton.
Dominion Equip't & Supply Co..Winnipeg.
The Holden Co., Ltd.....Montreal.
F. H. Hopkins & Co.Montreal.
W. K. Kenly Co.Chicago, Ill.
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Montreal Rolling Mills Co....Montreal.
Toronto Bolt & Forging Co....Toronto.



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