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## SUPERHEATING ON LOCOMOTIVES.

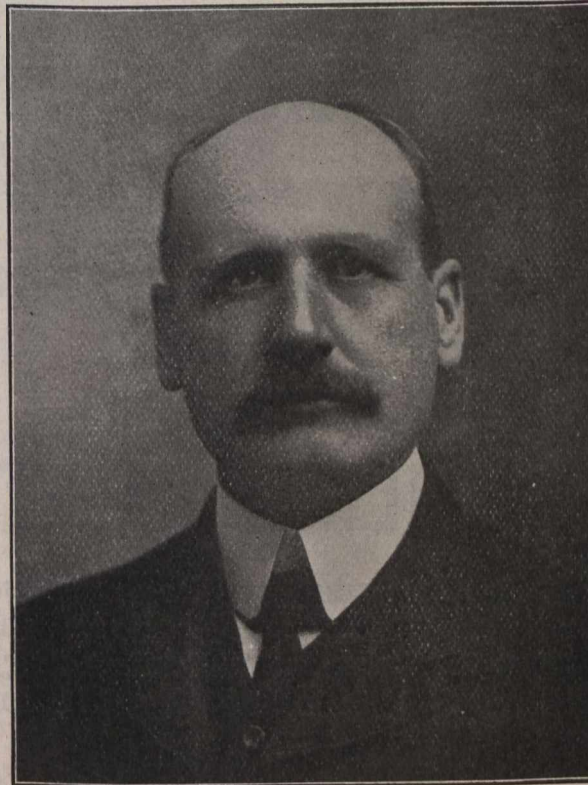
At the Master Mechanics' Association meeting at Atlantic City recently the following report was presented by the chairman of the committee on superheating, H. H. Vaughan, Assistant to the Vice-President C.P.R.:

During 1907 comparatively few engines were equipped with superheaters in the United States, although the C.P.R. continued to apply them to all road engines it constructed, 173 in all, bringing the total number of superheater engines on that road to 350, of which 110 are consolidation freight, 192 ten-wheel freight and 48 passenger engines. The most important development in the U.S. has been with the Baldwin or Vauclain superheater, 52 engines having been constructed during the year 1907 equipped with this device. With this exception the only other engines constructed during the year with superheaters were two on the Union Pacific Railway, one of which was equipped with the Vaughan-Horsey smoke-tube superheater, the other with the Union Pacific smoke-box type. A statement of the engines equipped during the year, so far as ascertained, is as follows:

Road.	Type of Superheater.	No. of Engines.
C.R.I. & P. Ry.	Vauclain	1
P.S. & Northern	"	1
Central Ry., Brazil	"	2
Chicago & Alton	"	1
A.T. & Santa Fe	"	49
Central of Georgia	"	1
Union Pacific	Vaughan-Horsey	1
Union Pacific	Union Pacific	1
Canadian Pacific	Vaughan-Horsey	173

The Vauclain superheater may now be said to have developed beyond the experimental stage. It is of the smoke-box type, in which the waste heat of the front end gases is utilized to superheat the steam on its way to the cylinders. It consists of two cast-steel headers in the upper and two in the lower portion of the smoke-box, the upper headers having a passage extending from the T-pipe flange at the back of the header to a cavity in the front of the header, which is divided into three chambers by longitudinal and transverse ribs. The lower header is U-shaped in section, divided into three chambers by transverse ribs, the steam-pipe flange opening into the back chambers. The headers are each open on the face, which is closed by a flange plate jointed to the header by bolts. Tubes 1 1/4 inches in diameter, no. 13 b.w.g. thick, are expanded into the flange plates. The steam passes from the dry pipe to the upper chambers at the front of the upper headers, thence through the tubes to the front chamber of the lower headers and back through other tubes to the lower chamber of the upper header,

thence to the middle chamber of the lower header, back to the upper header and thence to the rear chamber in the lower header, from which the steam connection leads to the cylinders. A steel plate partition within the tubes causes the gases issuing from the flue sheet to traverse the superheater tubes on their way to the stack, in order to obtain as much benefit as possible from the heat they contain. This arrangement is evi-



J. E. HUTCHESON,  
Superintendent Ottawa Electric Railway and President Canadian  
Street Railway Association.

dently somewhat similar to the Schmidt smoke-box superheater, with the exception that the large flue leading from the fire-box to the front end, which in Schmidt's design enabled a high degree of superheat to be obtained, has been omitted, and consequently the only heat available for superheating the steam is that contained in the gases after leaving the evaporating tubes. The Baldwin Locomotive Works have furnished particulars of a test on this superheater conducted on the Chicago, Rock Island and Pacific Railway. The engine tested was a consolidation weighing 237,000 lbs., of which 210,000 lbs. was on the drivers, and the principal dimensions as follows:

Cylinders	22 by 28 in.
Valves	Slide balance.
Boiler, type	Straight.

Boiler, diameter	80 in.
Boiler, pressure per square inch	163 lbs.
Firebox, length	120 in.
Firebox, width	72 1/4 in.
Heating surface, firebox	179 sq. ft.
Heating surface, tubes	3,658 sq. ft.
Heating surface, total	3,837 sq. ft.
Driving wheels	63 in.

The test consisted of six runs on the Illinois Division between Blue Island and Silvis, a distance of 158 miles, and six on the El Paso Division between Delhart and Tucumari, a distance of 93 1/4 miles. The general averages of the results obtained were as follows:

	Illinois Div.	El Paso Div.
Number of cars loaded, 25 light	45 loaded, 25 light	37 loaded, 21 light
Weight of train exclusive of weight of engine and tender	2,327.0 tons	1,833.4 tons
Number of stops	14.7	3.8
Time consumed in stops	3 hrs. 16 min.	1 hr. 33 min.
Total time of run	12 hrs. 57 min.	6 hrs. 29 min.
Speed	16.1 M.P.H.	15.5 M.P.H.
Indicated horsepower	821.5	891.6
Weight of coal (losses subtracted)	33,987.0 lbs.	15,752.6 lbs.
Weight of coal per indicated horse-power, per hour	4.23 lbs.	3.86 lbs.
Weight of coal per ton mile	.091 lbs.	.119 lbs.
Weight of water losses subtracted	217,706.3 lbs.	97,267.7 lbs.
Weight of water per indicated horse-power hour	27.5 lbs.	22.6 lbs.
Weight of water per ton mile	.597 lbs.	.721 lbs.
Equivalent evaporation	7.86 lbs.	7.54 lbs.
Superheat (from initial pressure of cards)	48.8° F.	56.44° F.
Superheat (from boiler pressure)	24.63° F.	33.20° F.
Temperature of steam chest	386.3° F.	403.6° F.
Boiler pressure	154.4 lbs.	159.8 lbs.
Tractive effort	21,375.0 lbs.	24,404.7 lbs.
Length of run	157.0 miles	74.5 miles
Coal per square foot of grate surface per hr.	57.6 lbs.	54.9 lbs.

During the first two runs on the Illinois Division the temperature of the front-end gases in front and back of the superheater were shown to be 534° and 635° F., showing a drop of 101° in passing through the superheater. An interesting comparison was also made by taking the temperatures of the steam in the valve chest of a simple consolidation, which averaged 24° below that corresponding to saturated steam at the boiler pressure, so that the superheater, which showed an average temperature in the steam chest of from 25° to 33° above that corresponding to the boiler pressure, may be assumed to have raised the temperature of the steam 50° to 60°. No comparison was attempted on these tests, but the Baldwin Locomotive Works conclude from the results obtained in a test of a balanced compound and simple engine in passenger service, and



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from the results of the tests at St. Louis, that a locomotive of this type equipped with a superheater will give a saving of 15% in water consumption and 11% in fuel consumption over a similar simple expansion engine. An interesting comparison made during the test was the increase in tonnage that could be handled by the superheater in proportion to the simple engine, and the absence of water in the cylinders resulting in decreased trouble with the rod packing. No trouble was experienced in the lubrication of the balanced slide valves with the ordinary sight feed lubricator.

With the exception of the more extended application of the Vauclain superheater during the past year, evidently but little interest has been manifested in superheating, and yet the replies from those roads on which superheater engines have been in service do not condemn them. The Great Northern Ry., which has one passenger and one freight engine equipped with the Schmidt smoke-tube superheater, reports two coal tests between the superheater engines and simple engines of practically identical construction. In passenger service a test on the Kalispell Division showed a saving of 13% in water and 14½% in coal per car mile, while in freight service on the Willmar Division the saving was 30½% in water and 28½% in coal per ton mile, the coal figures being 137½ for the simple and 98 lbs. for the superheaters per 1,000 ton miles, both very satisfactory figures for Prairie type engines in freight service on an undulating road. They also report a comparison for nine months between a superheater freight engine and a similar simple engine, showing 137 lbs. of coal per 1,000 ton miles for the superheater against 171 for the simple, and a cost for repairs of 4c. per mile against 3.87c., a reduction in the coal consumption of 20%, with practically the same cost for repairs.

The Boston and Maine reports on one passenger engine equipped with the Cole superheater, that while the original arrangement gave them considerable trouble from leaking and from breakage of the superheater pipes near the header castings, when the engine was in good condition it has given excellent service, and they are taking steps to substitute improved details. They favor further improvement until better results are obtained rather than the abandonment of superheating.

The Chicago and North-Western Ry. reports with reference to one passenger engine with the original Cole superheater, which originally gave trouble from header joints leaking, that by the substitution of ground header joints this trouble has been overcome, and states that the results have been very satisfactory the last twelve months.

The New York Central reports on one passenger engine equipped with the Cole superheater, a slight reduction in the coal consumption, but no conclusion.

The Soo Line reports on one freight engine equipped with the original Cole superheater, that they have experienced no trouble except with leaks in the header connections, and while they cannot give accurate figures showing consumption of coal, there is evidently a saving, and the engine handles a train better than other engines.

The Lake Shore and Michigan Southern Ry. reports on two passenger engines, one equipped with the original Cole and the other with the Vaughan-Horsey superheater, that no further tests have been made. They have experienced difficulty in their operation as follows: 1. The lubrication. This was first attempted with the forced feed lubricator, and afterward the ordinary sight-feed lubricator was found to give entire satisfaction. 2. On the Vaughan-

Horsey superheater the top header broke, due to faulty design, which has been overcome by changes in the cross section from square to round. 3. A number of the superheater tubes have cracked, but no remedy has been suggested. Their conclusion is that the superheater passenger engines have on the whole been satisfactory, and that while certain defects have developed, they are not of a nature that presents any serious difficulty. The engines have proved distinctly superior to simple engines of corresponding types both in economy in fuel and their capacity for handling their trains. They consider superheating a very promising improvement and intend to apply it to a considerably greater extent.

The C.P. Railway, which, as this report states, has a large number of superheater engines in service, is operated in two systems, the Lines East and West of Fort William respectively, and Grant Hall, Superintendent of Motive Power of the Lines West, has furnished a report from the master mechanics of the three divisions under his charge, having a total of 103 superheater engines at the commencement and 143 at the end of the year. As these statements cover a fairly extended experience with the original Cole, Schmidt and Vaughan-Horsey superheaters, extracts from them are quoted as follows:

"We experience trouble in keeping large superheater tubes free and clear from cinders; if this is not done the benefit of the superheater is lost. I find that the large tube fills up and becomes choked, starting from firebox end and extending about two feet in it if not kept after and cleaned out regularly; to do this we pull back the deposit with a rod with a bent end and then finish up by blowing through air. We also find that the small steam pipes get coated with soot, which also prevents us getting full benefit of the heat passing through the tube, which is only partly overcome by repeated blowing out with air.

"The Schmidt type is giving us very little trouble on this division, perhaps not so noticeable on account of only having one engine of this type. The main top header on this engine, however, has failed twice by cracking around the neck between the header and the flange which bolts to tube sheet. The jointing arrangement of small superheater pipes has not given us any trouble whatever from leaking or slackening back, which is frequent with other types.

"The Cole type is a constant trouble from leakage at joints where small headers bolt to main header and cannot be maintained tight for any length of time. In tightening them up, which is frequently done, the studs, which were enlarged from ¾ to 7⁄8 inch, are strained, broken and pulled out from main header. When leaking, the flat face on main header, as well as the grooved bed in the small headers, are cut by steam leaks, necessitating plugging, etc., making it very costly to maintain, not saying anything about holding engine out of service or extra fuel consumption.

"The Vaughan-Horsey type causes trouble by the union joints leaking, caused by nuts slackening off them where joined to main header, and have to be opened up as often as business will permit and gone over to avoid failures; this being the only trouble we have with this type outside of the returns burning out occasionally, which is equal on all types."

"I am in favor of superheated steam in both passenger and freight service, and consider that we get good results when the arrangement is working satisfactorily and free from leaks. The system should be improved on to lessen the maintenance work, and the question of lubrication most

thoroughly gone into with a view of reducing the number of piston and valve rings that are being used. With the quality of the oil we are using we find it necessary to renew piston rings every four or five weeks and the valve rings every two months. When piston rings are removed, if not broken, they are worn down to about 3⁄8 inch thick. Have had very little difficulty with respect to superheater tubes stopping up, but it is absolutely necessary that the damper in smoke-box be kept in working order.

"With the Schmidt superheaters we experience considerable difficulty in keeping flange joints tight where bolted on header. Have had one header broken off close outside of flange where bolted on to round head. With the Vaughan-Horsey type we have quite a lot of trouble with the brass ring nut at connections, but using the mild steel nut, I think, will overcome this to a great extent.

"My experience with superheated steam in freight service is satisfactory; have no engines in passenger service equipped with superheated steam.

"In regard to the superheater tubes blocking up in the smoke tube class. We have had some difficulty in keeping the smoke tube clean, and the only way to get good results is to blow them out each trip with air; doing so we have been able to keep them in good condition.

"We have had considerable trouble with the piston and valve rings of the superheater type. This trouble has been eliminated to a large extent by making a more rigid examination of rings and feed attachments to valves and cylinders, also by making a perfect fit of new rings when applied to piston. Another important feature toward the maintenance is the superheater dampers and their attachments. To keep these in working condition it is necessary to inspect them thoroughly every week, which will prevent any trouble from defective dampers. The worst feature is the possibility of engine failures on account of superheater pipes bursting and leaking; they give no warning, and it is impossible to detect them before giving out.

"In connection with superheaters in freight service, the only difficulty was in the large tubes leaking badly, making it necessary to expand them every round trip. In passenger service I consider them very satisfactory, both in efficiency for this class of work and for the light maintenance of same."

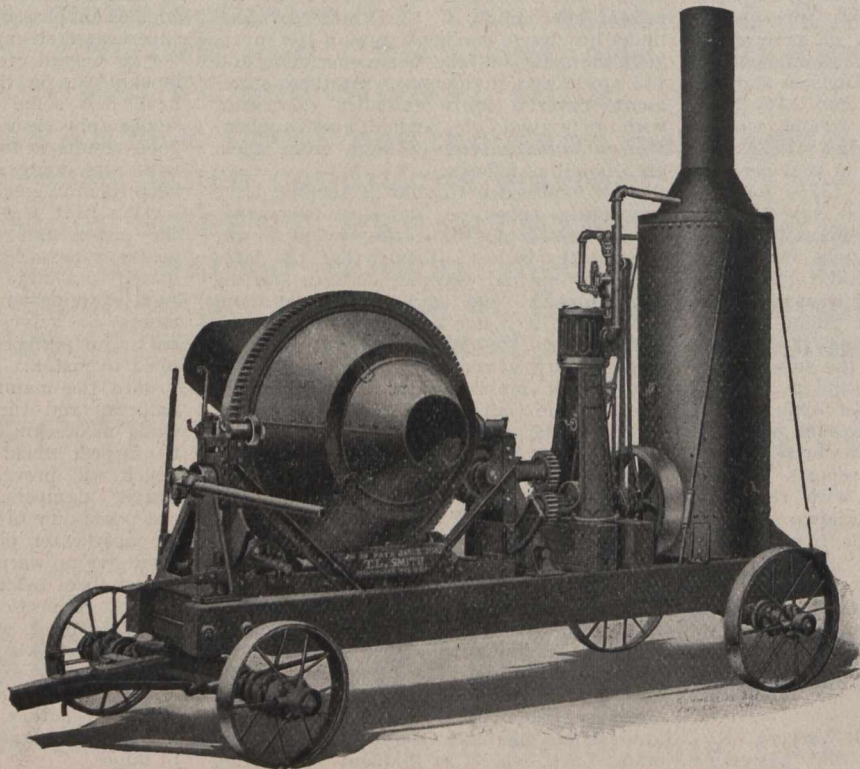
Mr. Hall has also written a general statement of his experience from which the following are extracts: "We find that the superheater tubes plug up to a certain extent, but we overcome this by blowing out with air. The Cole type only has given us trouble maintaining header joints. In passing I might say, for your information, that the Cole superheater has given us so much trouble in this respect that I would not recommend its use. We have had very little trouble with the Schmidt type, the principal trouble being one that can be overcome, namely, the cracking of the superheater header through the neck. The only difficulty that has been experienced with the Vaughan-Horsey has been the slackening off of the nuts coupling up the superheater pipe to the header; this type of superheater is an easy proposition to maintain. In regard to lubrication. We have had nothing in the shape of forced feed that gave satisfaction, and have none now in service, being replaced entirely by sight-feed lubrication. It is not necessary that we have separate cylinder connections, but I do consider it necessary to have connection to each end of the valve bushing when using superheated steam. My experience with superheated steam in both passenger and freight service is satisfactory."



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On the Lines East of the C.P.R., for which the chairman of the committee is reporting, practically the only superheater in use is the Vaughan-Horsey, as those with the Schmidt are on Lines West and most of the original Cole have been converted. The important question during the past year has not been one of economy but of maintenance, not with respect to cost, for in that respect the addition of a superheater is not noticeable, but with respect to reliability. Engine failures are annoying and expensive, and no device can be a permanent success which introduces them to any extent. The important troubles that have developed during the last year have been three in number: 1. Leakage at the union connections between the superheater pipes and the header due to nuts slackening off. 2. Bursting and splitting of superheater pipes. 3. Breakage of superheater header.

Leakage at the union connections was at first caused by brass nuts having been used, and with the change to steel nuts it appeared to have ceased. Considerable trouble has, however, been experienced with the steel nuts, although not universally, as on some divisions it is practically nil, but in many cases the nut has slacked off entirely, causing a complete and annoying failure. The reasons appear to be poor workmanship and insufficient strength of the nuts. With stronger nuts and proper workmanship, both of which can be arranged for, this trouble should be overcome, but it has been decided to apply lock nuts, of which several designs are now on trial, which will without a doubt overcome the difficulty; and while a monthly inspection is required, failures from this cause will be avoided.

Bursting and splitting of superheater pipes, while not frequent, can be avoided only by proper maintenance of the dampers. This defect does not occur frequently, and is no doubt partly due to insufficient care having been taken in putting up the pipes to the correct lengths.

Breaking of superheater headers, while not frequent, has occurred several times, but can be stated definitely to be a defect in design. Only top headers have broken and these all in practically the same place, at the junction of the steam-pipe flange with the header. By changing the form and insuring a stronger metal, there is little doubt of this trouble being overcome.

The number of failures from the above causes have not on the whole been excessive. From April 1, 1907, to Jan. 31, 1908, 39 superheater engines in passenger service made a total of 1,382,820 miles, with a total of 15 failures. Of these 9 were due to joints leaking, 4 to pipes bursting and 2 to headers breaking. The number of miles per engine failure was therefore 92,188, and as 11 of these failures are from causes that can be overcome, it is evident that when this is done the unavoidable failures are not a serious drawback. Figures are not available giving the failures in freight service with any degree of accuracy, as if the records were taken as they stand they would show so small a number of failures that their unreliability would be evident, but those in passenger service are reasonably correct.

So far as the cost of repairs is concerned the addition of a superheater does not appear to be noticeable. The superheater itself certainly costs something to maintain, as does the necessary inspection of its parts, but the net result is, so far as the records on the C.P.R. are concerned, in favor of the superheater as against any other class of engines, and there is no evidence whatever of increased cost.

While discussing the difficulties intro-

duced by the application of superheaters there are certain advantages which to a large extent offset them. Where simple engines have been converted, they have shown an increase in capacity that may be roughly estimated at about 10%. They run more freely, and are decidedly easier on their fire, allowing an inferior grade of coal to be burned with less difficulty, to an extent which caused a superheater passenger engine to handle trains without loss of time when similar simple engine failed to do so. There is also a notable absence in superheaters of the trouble caused by water, and on the whole, providing the difficulties mentioned are overcome, it is a close question whether superheater engines will not average less failures than a corresponding number of simple engines, and they will certainly handle heavier trains and make time. Where coal is expensive and the question is one of the adoption of a compound or a superheater, there is no doubt that the latter will give greater economy, with a smaller cost for repairs and less trouble.

The results in fuel consumption appear to confirm the statements made in the last report, namely, 10 to 15% in freight service and 15 to 20% in passenger service. It does not appear necessary to present these figures in detail, as this has been done in previous years, but the results for July to Dec., inclusive, have been gone over by sections and months, those cases being selected in which sufficient work was performed by the two classes of engines being compared to render the results reasonably reliable. The equivalent coal is the coal which the class of engine shown would have burned had its consumption per ton mile been equal to that of the class taken as the basis of comparison, while its relative consumption is the proportion of the actual to the equivalent coal. As these quantities are calculated month by month and the traffic and weather conditions thus equalized, this method is comparatively accurate.

The comparison of simple consolidation engines class M-4b with similar Vaughan-Horsey superheaters is shown in table 1, from which the average consumption of the simple engines works out at 113½% of that of the superheaters.

The consumption of compound ten-wheel freight engines D-9 and Cole superheaters, D-10c with Vaughan-Horsey superheaters, is shown in table 2, from which the average consumption of the compound engines works out at 100% and that of the Cole superheater at 107% of that of the Vaughan-Horsey superheater.

Table 3 shows the comparison of Pacific type superheater engines, class G-2, and of 10-wheel superheater, E-5g, with 10-wheel simple engines, class E-5. The 10-wheel superheaters are engines converted from simples and are otherwise similar. From this table the saving in fuel on the converted engine works out at 21% and that of the Pacific type at 22½% on Lines East, but this figure is subject to the larger engine doing more work for the same weight of train or handling heavier trains, although only certain sections have been included where this variation is a minimum. The results on the Brandon and Swift Current sections are remarkable in view of the large amount of coal burned, and show, with a total of 5,250 tons, a saving of about 35%.

Section.	Class.	Coal.		Relative Consum'tn. Per Cent.
		Actual.	Equivalent.	
Farnham.....	M-4b	2,999	2,683	112
Newport.....	"	1,121	885	127
Havelock.....	"	86	80	107½
Toronto.....	"	2,385	2,162	108
London.....	"	618	546	113
North Bay....	"	1,204	1,052	114
All.....	"	8,413	7,408	113½

Ignace.....	D-9	885	862	103
Kenora.....	"	781	781	100
Brandon.....	"	1,079	1,110	97½
All.....	"	2,745	2,753	100
Ignace.....	D-10c	2,030	1,920	106
Kenora.....	"	9,012	8,288	109
Winnipeg.....	"	15,498	15,537	99½
All.....	"	27,540	25,745	107

North Bay...	G-2	246	177	72
Chapleau....	"	364	270	74
White River..	"	363	308	83
All.....	"	973	755	77½
Brandon.....	"	2,753	4,169	66
Swift Current.	"	2,496	3,890	64
North Bay... E-5g	"	555	704	79
Smith's Falls.	"	990	1,281	77

The replies show that the question of lubrication appears to have been settled by all roads resorting to the sight-feed lubricator.

Two roads report satisfactory results with a single central connection to the valve chest as on ordinary simple engines, but the majority are using the separate cylinder connection with either one central or two separate connections to the valve chest.

On the C.P.R. some engines are running with one central connection to the valve chest and no cylinder connection, but the preferred arrangement is the separate connection to the cylinders with one feed to the valve chest split to feed to both ends. The cylinder connection feed is generally cut down to a very small amount when running, and most of the oil fed through the valves, but the majority of the men prefer to have it in case it is required.

After reading the report Mr. Vaughan stated that he wished to modify the figures in table 3, in which the G-2 engine superheaters are shown to have burned 66 and 64% of the coal used by simple engines. It had been found that the simple engines were as a rule used on lighter and faster trains than the superheaters and a good deal of the saving was possibly due to that fact. This does not affect the rest of the table. He also stated that eight or nine months ago he was a little in doubt on the superheater question, as there had been a number of failures. During the last six months this had been overcome by systematic attention in the roundhouse and by periodic tests of the superheaters, and since the end of March there had not been a single superheater failure out of 200 engines thus equipped.

J. E. Muhlfeld suggested that the committee be continued to investigate the degree of superheat which would give the most economical results, and also as to whether it is advisable to use the products of combustion, or the waste gases, or a combination of the two, to produce superheat. In reply to this Mr. Vaughan called attention to the paper presented at the 1905 convention, in which proof was submitted that a high degree of superheat was desirable and that, although useless heat was rejected, it was more economical to reject that heat than to be without it.

Mr. Vauclain said that he had always felt that highly superheated steam was not what was wanted in this country, it being only desirable to have sufficient superheat to overcome all the loss of the single expansion locomotive and at the same time to make it possible to use a normal boiler pressure of 160 lbs. This would overcome the need for a compound locomotive or for any special appliances or special metal in connection with the use of highly superheated steam. It would also make it possible to produce a locomotive which would require even less attention than a single expansion locomotive. He called special attention to the service results which had been gained by engines with a low degree of superheat on the Santa Fe. Mr. Vauclain made it very plain, both at this time and in connection with the discussion of



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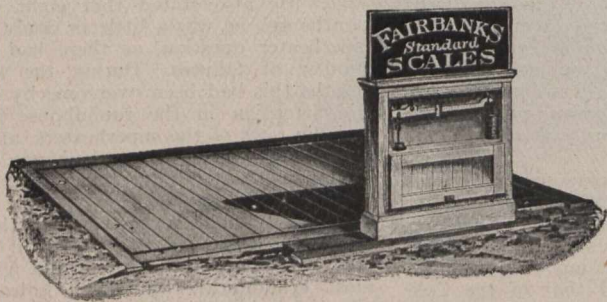
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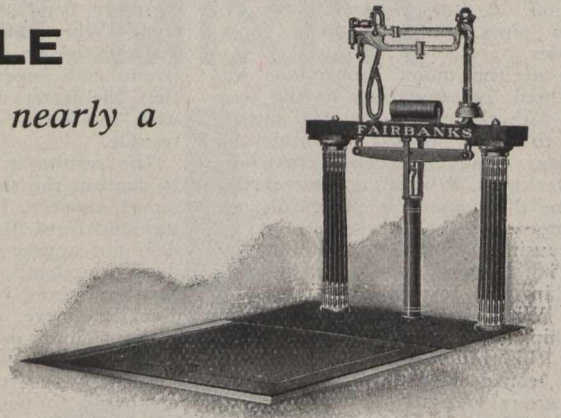
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other reports, that he considered a simple engine equipped with a superheater, which would give a low degree of superheat, as the coming engine. Mr. Foster (L. S. & M. S.) spoke of the satisfactory service results which were being obtained from two superheater engines on the L. S. & M. S. The committee was continued and asked to report on the degree of superheat which will give the most economical results.

**August Birthdays.**

Many happy returns of the day to—  
W. E. Bishop, Manager Hamilton Steamboat Co., Hamilton, Ont., born at Brantford, Ont., Aug. 10, 1868.

J. F. Chapman, General Freight and Passenger Agent, Bay of Quinte Ry., Thousand Islands Ry., Oshawa Ry., and Deseronto Navigation Co., Deseronto, Ont., born at Frankford, Hastings Co., Ont., Aug. 25, 1863.

Barlow Cumberland, Vice-President Niagara Navigation Co., born at Portsmouth, Eng., Aug. 5, 1846.

G. H. Ham, head office staff C.P.R., Montreal, born at Trenton, Ont., Aug. 23, 1847.

W. P. Hinton, Assistant General Passenger and Ticket Agent G.T.R., Montreal, born at Hintonburg, Ont., Aug. 30, 1871.

R. Kerr, Passenger Traffic Manager C.P.R., Montreal, born at Toronto, Aug., 1845.

J. D. McDonald, District Passenger Agent G.T.R., Toronto, born there Aug. 27, 1855.

T. McHattie, Master Mechanic, G.T.R., Montreal, born Dufftown, Banffshire, Scotland, Aug. 8, 1854.

C. Montgomery, Assistant Master Mechanic Pere Marquette Rd., St. Thomas, Ont., born near London, Ont., Aug. 29, 1860.

W. E. Mullins, General Manager Costa Rica Rd., and Northern Rd. of Costa Rica, San Jose, born at Stratford, Ont., Aug. 13, 1870.

W.S. Nevins, District Freight Agent C.P.R., and Minneapolis, St. Paul and Sault Ste. Marie Ry., Buffalo, N.Y., born at Towanda, Pa., Aug. 13, 1850.

W. M. Porteous, Freight Agent C.P.R., St. Louis, Mo., born at Edinburgh, Scotland, Aug. 3, 1857.

J. F. Richardson, Superintendent Eastern Division C.P.R. Telegraphs, Montreal, born at Granby, Que., Aug. 23, 1861.

W. LeB. Ross, Local Treasurer G. T. Pacific Ry., Winnipeg, born at Ottawa, Ont., Aug. 9, 1868.

C. R. Scoles, General Manager Atlantic and Lake Superior Ry., New Carlisle, Que., born at Grantham, Lincoln, Eng., Aug. 27, 1856.

W. Stitt, General Passenger Agent C.P.R. Eastern Lines, Montreal, born in Kirkcudbrightshire, Scotland, Aug. 3, 1855.

W. F. Taylor, General Storekeeper I.C.R., Moncton, N.B., born at Hillsboro, N.B., Aug. 20, 1855.

W. N. Warburton, ex-General Manager Windsor, Essex and Lake Shore Rapid Ry., born at Chatham, Ont., Aug. 24, 1851.

W. B. Way, Assistant Superintendent C.P.R., White River, Ont., born at Bowmanville, Ont., Aug. 22, 1867.

W. H. H. Willis, District Freight Solicitor Pennsylvania Rd., Pittsburgh, Pa., born at St. Michaels, Maryland, Aug. 22, 1872.

The G.T.R. was fined \$100 in Toronto police court, recently, for cruelty to animals, a carload of cattle having been kept 40 hours without food and water, while in transit from Wiarnton to Toronto.

The following are the officers of the Eastern Canadian Passenger Association for the current year: Chairman, F. E. Barbour; Executive Committee, W. Stitt, G. T. Bell, G. Tombs; Secretary, G. H. Webster, Montreal.

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

A recent statement, officially made, shows that within the last few years the company has expended \$15,000,000 in constructing a second track between Montreal and Chicago; has laid down 80-lb. steel rails where formerly there were 65 and 72-lb. rails, and is now replacing a good deal of the 80-lb. rails with 100-lb. ones. Every new bridge put in is made to carry the heaviest loads. All over the system new shops, roundhouses, stations and other buildings are being constructed, and additional yard facilities are being provided.

**Montreal Track Elevation.**—Plans are being prepared by S. Howard, Deputy Chief Engineer to the Montreal City Council, on the instructions of the Level Crossing Committee, for the abolition of the G.T.R. level crossings in the city. The proposal of the city is that the passenger tracks shall be elevated from Bonaventure station to Victoria Bridge. The freight tracks to remain on the level west as far as Mountain St., whence they will proceed on an incline to Guy St., where they will attain the elevation of the passenger tracks, but the traffic will be limited to certain hours. Mr. Howard is working in connection with G.T.R. engineers.

**Ottawa Terminals.**—The Ottawa City Council, on June 25, finally approved of the agreement with the G.T.R. respecting the erection of a union station and an hotel in that city, the fair wage clause, which was the source of difference, being struck out. The agreement was signed by C. M. Hays, Second Vice-President and General Manager, June 29, and was subsequently executed by the Mayor. The Dominion Parliament, July 6, passed the bill authorizing the sale of a portion of Major's Hill Park to the G.T.R., as a site for the hotel, upon terms agreed upon. The bill provides that the G.T.R. may transfer the land to the Ottawa Terminal Ry. Co., which is the title of the company incorporated by Parliament to own the union terminals. W. Wainwright, Fourth Vice-President G.T.R., stated in Ottawa, July 10, that the working plans and drawings for the new station and hotel would be completed in a few weeks, when tenders would be asked for the work. It was the intention of the company to go ahead simultaneously with both buildings. The preliminary excavation and concrete work is being gone on with.

**Toronto Belt Line.**—E. H. Fitzhugh, Third Vice-President, stated, July 5, that the reports of the purchase by the company of a piece of land in North Toronto, in connection with a proposal to reconstruct and operate the old Belt Line Ry., were altogether unfounded.

**Stratford Improvements.**—The excavations for the foundation of the power house at the new shops have been completed and the concrete work is being gone on with.

**London Improvements.**—The fact that certain tenants of the G.T.R. in London, Ont., have received notice to vacate their premises, has restarted all the talk about the carrying out of extensive improvements in the city. Engineers made an examination of the Egerston St. crossing July 2, and C. M. Hays, Second Vice-President and General Manager, is reported to have been in correspondence with the Mayor upon some of the matters connected with the improvements.

**Stations Burned.**—The G.T.R. has had three of its stations burned recently, the fires in Ontario being caused by lightning. Berlin station was destroyed June 22, with about \$15,000 damage; Walkerton station was destroyed the same night; and Ionia, Mich., station was destroyed on June 29, the damage being about \$15,000.

**Canadian Northern Ry. Earnings, etc.**

Gross earnings, working expenses, net profits, increases or decreases over 1906-07, from July 1, 1907:

	Earnings.	Expenses.	Net Earnings.	Increase or Decrease.
July.	\$1,024,300	\$662,300	\$362,000	\$420,500+
Aug.	835,600	619,200	240,700	240,700+
Sept.	758,300	549,200	209,100	133,900+
Oct.	931,200	621,300	309,900	116,100+
Nov.	957,400	689,100	268,300	215,700+
Dec.	801,100	558,400	242,700	264,900+
Jan.	578,200	462,500	115,700	226,800+
Feb.	485,600	401,900	83,700	152,400+
Mar.	625,300	453,400	171,900	136,500+
April	686,100	525,400	160,700	116,200+
May.	654,900	523,100	131,800	215,700-

\$8,338,900 \$6,065,800 \$2,272,200 \$1,808,000+  
Mileage operated, 2,874 against 2,554 in June, 1907.  
Approximate earnings for June, \$674,400, against \$963,100 for June, 1907.

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

Gross earnings, working expenses, net profits, increases or decreases over 1906-7, from July 1, 1907:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
Jly	\$7,008,277.46	\$4,501,421.80	\$2,506,852.66	\$155,041.58+
Aug.	7,010,177.40	4,439,902.25	2,570,275.15	107,605.95+
Sept.	6,423,452.68	4,272,099.33	2,151,353.35	286,578.28-
Oct.	7,071,047.59	4,390,729.95	2,680,317.64	104,509.87-
Nov.	6,953,967.56	4,508,933.95	2,445,033.61	181,911.27+
Dec.	6,418,576.38	4,341,386.80	2,077,189.58	188,404.76-
Jan.	4,498,560.80	3,874,569.02	623,991.78	75,664.17+
Feb.	4,129,044.09	3,771,947.48	357,096.61	204,891.51-
Mar.	5,424,931.26	4,123,391.77	1,301,539.49	944,706.73-
Apr.	5,497,736.30	3,775,501.86	1,722,234.44	644,691.43-
May.	5,392,570.16	3,711,074.92	1,681,495.24	827,862.77-

\$65,828,338.68 \$45,711,468.53 \$20,116,870.15 \$2,771,332.38-  
Approximate earnings for June, \$5,458,000, against \$6,740,000 for June, 1907.

**DULUTH, SOUTH SHORE AND ATLANTIC RY.**—Gross revenue for May, \$194,262.77; expenses, \$157,630.62; net revenue, \$36,632.15; against, \$311,078.17, gross revenue; \$197,474.09, expenses; \$113,604.08, net revenue for May, 1907. Gross revenue for eleven months ended May 31, \$2,805,610.97; expenses, \$2,042,308.32; net revenue, \$763,302.65; against, \$981,821.55, gross revenue; \$2,000,260.52, expenses; \$981,561.03, net revenue for same period, 1906-07. Approximate earnings for June, \$206,763, against \$308,835 for June, 1907.

**MINERAL RANGE RD.**—Gross revenue for May, \$65,786.44; expenses, \$59,680.11; net revenue, \$6,106.33; against, \$74,638.27, gross revenue; \$50,853.78, expenses; \$23,784.49, net revenue for May, 1907. Gross revenue for eleven months ended May 31, \$740,258.31; expenses, \$629,281.14; net revenue, \$110,977.17; against, \$720,346.99, gross revenue; \$536,326.40, expenses; \$184,020.59, net revenue for same period, 1906-07. Approximate earnings for June, \$68,786, against \$66,152 for June, 1907.

**MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.**—Gross earnings for May, \$736,755.97; expenses, \$547,828.60; net earnings, \$188,927.37; against, \$1,285,838.64, gross earnings; \$722,451.32, expenses; \$563,387.32, net earnings for May, 1907. Gross earnings for eleven months ended May 31, \$10,589,104.49; expenses, \$6,572,274.56; net earnings, \$4,016,829.93; against, \$11,732,288.66, gross earnings; \$6,714,533.14, expenses; \$5,017,755.55, net earnings for same period, 1906-07. Approximate earnings for June, \$829,224, against \$1,137,348, for June, 1907.

**Grand Trunk Ry. Earnings, Expenses, etc.**

The following figures give the earnings of the G.T.R., the C. A. R., the G. T. Western Ry., and the D. G. H. & M. Ry., separately, for May, as compared with May, 1907:

GRAND TRUNK RAILWAY.			
	1908	1907	
Earnings	\$2,515,000	\$3,160,880	
Expenses	1,601,000	1,086,130	
Net earnings	\$914,000	\$1,174,750	
CANADA ATLANTIC RAILWAY.			
Earnings	\$151,300	\$158,600	
Expenses	156,000	173,900	
Def.	\$4,700	Def. \$15,300	
GRAND TRUNK WESTERN RAILWAY.			
Earnings	\$363,100	\$478,600	
Expenses	370,400	413,900	
Def.	\$7,300	\$64,700	
DETROIT, GRAND HAVEN & MILWAUKEE RY.			
Earnings	\$109,600	\$110,500	
Expenses	119,300	109,200	
Def.	\$9,700	\$1,300	

Approximate earnings for June, \$3,462,514, against \$3,828,780 for June, 1907.

**TRAFFIC RECEIPTS OF THE SYSTEM.**  
Aggregate from Jan. 1 to June 30:

	1908.	1907.	Increase.	Decrease.
Grand Trunk	£2,858,900	£3,399,817	....	£531,917
Canada Atlantic	156,818	173,957	....	17,139
G. T. Western	513,069	594,422	....	81,393
D. G. H. & M.	138,211	163,921	....	25,711
Total	£3,666,998	£4,333,158		£666,160

Mileage operated in 1908, 4,523 same as in 1907.



# Kilindo WIRE ROPE



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THE DOMINION **WIRE ROPE** CO. LIMITED  
• MONTREAL •

## Something About “Kilindo” Wire Rope

“Kilindo” Wire Rope is Non-Rotating—After a long series of experiments we now offer our “Kilindo” Wire Rope, in which we have absolutely eliminated the spinning action; this construction of wire rope saves a great amount of time and increases the life of the rope greatly.

“Kilindo” Wire Rope has 200% greater wearing surface—greater strength and more flexibility than the ordinary construction.

We manufacture “Kilindo” Wire Rope in all sizes, any length, all grades.

WE RESPECTFULLY INVITE YOUR INQUIRIES AND CORRESPONDENCE.



### Canadian Northern Ry. Construction.

**Canadian Northern Ontario Ry.**—The official opening of the northern section of the company's line from Toronto to Sudbury, consisting of the portion from Parry Sound north, took place July 3, when D. B. Hanna, Third Vice-President, accompanied by some other officials; the officers and council of the Toronto Board of Trade, and press representatives went over it by special train. The line has been in operation between Toronto and Parry Sound for nearly two years, and by the opening up of the present extension the C.N.O.R. mileage is increased to 306.1 miles. The line not only opens up a new route through the Muskoka country, but it serves the Moose Mountain district, where large iron ore mines are being developed, and has created a new port on the Georgian Bay at Key Inlet. The company is completing a line from Hawkesbury into Ottawa, which will connect its C.N. Quebec Ry. with the capital, and surveys have been completed for lines between Toronto and Ottawa, and Ottawa and Key Inlet, which will practically complete the Quebec and Ontario lines. The question of the construction of a line between Sudbury and the Canadian Northern Ry. at Port Arthur, a distance of about 550 miles, will probably not be definitely undertaken until the connection between the Toronto-Sudbury line and the Hawkesbury-Ottawa line has been completed.

Work was commenced on the line between Toronto and Parry Sound in Sept., 1904, and the 149.2 miles between these points was opened Nov. 19, 1906. While this work was going on, two grading outfits were at work between Parry Sound and Sudbury, the French River being the dividing line. One division was handled from Parry Sound north, and the other from Sudbury south. In addition to the above mileage, there was constructed during the same time a branch to the Hutton mine of 27.6 miles; another to the Garson mine, 3.8 miles; and a branch to Key Harbor, 6.7 miles; a total of 306.1 miles. This represents a little over a quarter of a mile of completed track for every working day since the work was started. The roadbed is well constructed, the gradients are light, and the alignment the best the country would allow within the company's standard, and the track is laid throughout with 80-lb. rails. Between Parry Sound and Sudbury, and on the branches, there were many difficulties to overcome between the time the engineers located the line and July 3, when the completed roadbed was handed over to the operating department. Before the grading could be done 2,111 acres had to be cleared along the right-of-way. In grading the roadbed there was excavated 2,448,189 cubic yards, of which 1,035,781 were solid rock, 504,622 classified material and 907,786 earth. As it was next to impossible to get material to bring the banks up to the grade line after track had been laid, 700,000 cubic yards had to be moved by train. This train filling is properly a part of the grading and had to be done to bring the track up to sub-grade level, so that the grading really amounts to 3,148,189 cubic yards. On top of this were placed 468,801 cubic yards of ballast, equal to 3,000 cubic yards per mile of ballast for the entire line. This large amount of ballast on the solid roadbed is accountable for the comfortable ride the party above referred to had over the line and which was so favorably commented upon by all of them.

In the construction of the wooden trestle bridges and culverts, there was used 144,404 lineal ft. of piling, 903,568 ft. b.m. cedar, 8,803,172 ft. b.m. hard pine and 458,888 ft. b.m. of hemlock.

The steel bridges, 18 in number, ranging from a 35 ft. plate girder to the 300 ft.

through truss, are all placed on concrete foundations. These foundations contain 4,650 cubic yards of concrete. The total length of the steel spans is 1,997 ft., and the weight 1,791 tons. Some of the larger bridges are on the crossings of the following rivers from Parry Sound north: Seguin, three deck plate girders each 75 ft. long, flanked on either end by a 35 ft. deck plate girder, total length 290 ft. South Maganetawan, a deck plate girder 102 ft. long. Still River viaduct consisting of 2 girders 60 ft., 1 girder 80 ft. and 2 girders 40 ft., each placed on steel towers, a total length of 280 ft., and the rail is 98 ft. above water. Pickerel, through truss 300 ft. long, height of truss 52 ft. Rail 54 ft above water; depth of water at crossing 40 to 50 ft. This was one of the most difficult pieces of construction work on the line. The French River at the crossing is divided into two channels and is crossed by 3 girders, 1 span lattice deck truss 128 ft., and two deck plate girders 110 ft. each; total length of crossing 348 ft.; rail 50 ft. above water. Wanapitei, one deck plate girder 100 ft long, 45 ft. above water. Besides the bridges mentioned there are four crossings of the Key River, and five crossings of the Vermillion. The construction of the line was in charge of W. D. Grant, Manager of Construction for Mackenzie, Mann & Co., Angus Sinclair being the principal contractor.

The new line opens up a territory full of fish and game that will gladden the heart of the sportsman, and scenery as beautiful as any part of Muskoka. As soon as the Key Harbor docks are completed and ore shipments commence from the Hutton mines, the part of the line between the Hutton mine and Key Harbor is expected to be known as the greatest ore shipping piece of track in Canada. If also, later on, the smelter proposition becomes an accomplished fact in Toronto, the tonnage of ore then handled should make the line stand alone as the longest piece of track hauling large bodies of the raw product.

The opening trip above mentioned was broken at Parry Sound, where the party were entertained at luncheon and at Sudbury in the evening they were entertained at dinner, the Mayor presiding, and D. B. Hanna and others speaking.

On the following day the party went out on the Moose Mountain branch to visit the iron mines. The company's property there consists of 4,700 acres, and the vein being worked is about 150 ft. wide and has a length of 500 ft., the ore running from 58 to 60% of metallic iron. The mining and crushing plant at Moose Mountain has been erected at a cost of \$150,000, and now that the railway is open, a start will be made in shipping ore. The party subsequently visited the docks at Key Harbor, where loading trestles capable of handling 8,000 tons of ore a day, and other appliances, have been erected. The special train returned to Toronto early on the morning of July 5.

It is reported that construction will be started at once upon the projected branch line from Udney, on the Toronto-Sudbury line to Orillia, Ont., but we are advised that no definite decision has yet been arrived at.

**Canadian Northern Ry.**—The ballasting on the line into Regina, Sask, is about completed, and it is expected that a regular passenger service train will be started Aug. 1. The service will, it is stated, run through from Winnipeg to Prince Albert, via Brandon, to Regina, and thence over the old Qu'Appelle, Long Lake and Saskatchewan line.

Grading is reported to be practically completed on the branch running northerly from near Dalmeny to Carlton, Sask., and the grading outfit has been moved to Prince Albert, to go on with the line to connect that place with Battleford. Local reports state that 30 miles of the line are to be completed

this year, and that it is proposed to extend it through to Calgary, Alta.

Steel and ties are being collected in the vicinity of Regina, for starting tracklaying on the Goose Lake branch, as soon as the grading is sufficiently forward.

A sale of town lots at The Pas, Sask., took place June 20, when some 365 lots were sold. There are over a dozen buildings in the settlement, which is the present terminus of the company's line reaching out to Hudson Bay. (July, pg. 469.)

### Master Car Builders' Association.

The 42nd annual convention of the Master Car Builders' Association was held at Atlantic City, N.J., June 17, and following days. The Secretary's report showed a total membership of 726, including 424 active, 275 representative, 13 associate and 14 life members. The number of cars represented in the Association was 2,283,330, an increase of 28,933 for the year. During the year 29 railways and private car lines had signified their desire to become subscribers to the rules governing the interchange of freight cars, and five railways had also advised their acceptance of the code of rules governing the interchange of passenger equipment. The dues for the year 1909 were fixed at \$4 per vote.

E. A. Moseley, Secretary of the Interstate Commerce Commission, delivered an address in which he drew attention to a number of matters of importance. He referred to the legislation now before Congress, which aimed to make the M.C.B. Association's standards for the protection of trainmen the law of the land. The general condition of equipment throughout the country now showed such marked improvement that he believed the time was near when safety appliances would be kept in the best possible condition and the necessity for prosecutions cease. During the preceding year, 2,260 cases of violation of the safety appliance law were taken to the courts.

The reports of the Committees on Revision of Standards and Recommended Practice, Triple Test Valves, Brake Shoe Tests, Tests of M.C.B. Couplers, Arbitration, Cast Iron Wheels, Journal Box and Pedestal for Passenger Cars with 5 x 9 in. and 5½ by 10 in. Journals, Marking of Freight Equipment Cars, Air Brake Hose Specifications, Automatic Converters, Lateral Bracing of Steel Freight Cars, Side Bearings and Centre Plates for Freight and Passenger Cars, Steel Passenger Cars, Heating and Ventilating Passenger Cars, Protective Coatings for Steel Cars, Location of Ends of Running Boards, Standards for Protection of Trainmen, Box Car Doors and Fixtures, Tank Cars, were received, considered and acted upon.

Owing to the number of committee reports the topical discussions were not reached, and it was decided that members should submit what they had to say upon them in writing, for inclusion in the printed proceedings of the convention.

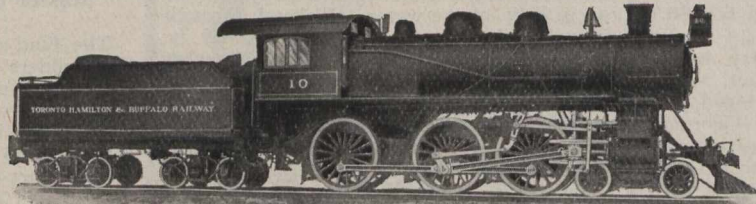
Following are the officers for the current year: President, R. F. McKenna, Delaware, Lackawanna and Western Rd.; First Vice-President, F. H. Clark, Chicago, Burlington and Quincy Rd.; Second Vice-President, T. H. Curtis, Louisville and Nashville Rd.; Third Vice-President, LeG. Parish, Lake Shore and Michigan Southern Rd.; Executive Committee: J. E. Muhlfeld, Baltimore and Ohio Rd.; C. E. Fuller, Union Pacific Rd.; H. D. Taylor, Philadelphia and Reading Rv.; J. F. Walsh, Chesapeake and Ohio Ry.; C. A. Schroyer, Chicago and Northwestern Rd.

The G.T.R. Passenger Department has issued handsomely got-up brochures, descriptive of trains 3 and 4, and of Montreal and Quebec. They are even "one better" than the folders and booklets heretofore issued by the company.



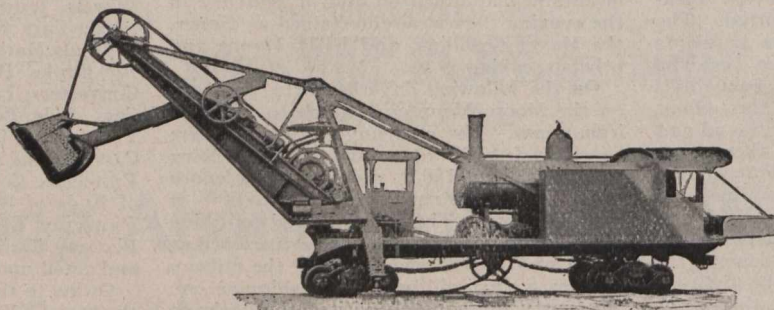
**STEAM****ELECTRIC**

# LOCOMOTIVES



Ten-wheel Type Passenger Locomotive, built for Toronto, Hamilton & Buffalo Railway. Total weight of engine, 183,240 pounds. Weight on driving wheels, 139,675 pounds; diameter of driving wheels, 73 inches. Boiler pressure, 200 pounds. Size of cylinders, 20 x 26 inches. Maximum tractive power, 24,200 pounds.

# STEAM SHOVELS



Great weight in a steam shovel makes it cumbersome and difficult to hold up on temporary rails and soft ground. The Atlantic Steam Shovel is of moderate weight, simple in design, and has few and strong parts that will not break or get out of order.

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**MONTREAL LOCOMOTIVE WORKS, LTD.****BANK OF OTTAWA BUILDING, MONTREAL, CANADA.**



**RAILWAY DEVELOPMENT.**

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

**The Alaska Central Rd.,** for which a receiver has been appointed, has been completed for 53 miles from Seward, on the Alaska coast, inland, and the grading has been completed ready for tracklaying for 14 miles further. A considerable amount of grading has been done up to mileage 105, while location surveys have been completed to mileage 225 and preliminary surveys to mileage 420. The line is projected to Fairbanks, 500 miles from Seward. No tracklaying has been done this season, and it was not proposed to do anything further in that way until a spur line to the mines at Copper River had been completed. The railway has not been operated except for construction purposes. (April, pg. 243.)

**Alberta and British Columbia Ry.**—An act was passed by the Dominion Parliament at its recent session incorporating a company with this title, with power to construct and operate a railway from the International boundary at or near where the Kootenay River crosses, northerly following the valley of that river to near Elko, B.C., thence northeasterly, following the valley of the North Kootenay River and the south fork of the Old Man River to at or near Cowley, Alta.; thence northerly, following the valley of the Old Man River through the gap in the Livingstone Range; thence following the valley of the north-west branch of the Livingstone River and along the Highwood River, easterly and northeasterly to or near Calgary, on the C.P.R. The capital stock is fixed at \$1,000,000, and it may issue bonds to the extent of \$40,000 a mile of railway constructed. It is also empowered to enter into agreements with the C.P.R., the Calgary and Edmonton Ry., and the G.T. Pacific Ry. The company's offices are at Port Arthur, Ont., and the provisional directors are: J. J. O'Connor, J. A. Little, J. A. Crozier, J. J. Carrack, and W. S. Ruttan, of Port Arthur. In passing through Parliament the name of the company was changed from Alberta South-western Ry. to the Alberta and British Columbia Ry. (June, pg. 401.)

**Alberta Ry. and Irrigation Co.**—We are advised that the branch line which the company has been authorized to construct is a spur of less than three miles to a new coal mine which it is sinking. The location as surveyed and approved by the Board of Railway Commissioners, leaves the company's existing main line in sec. 6, tp. 9, r. 21 west of the 4th principal meridian, and runs northerly to section 19, tp. 9, r. 21 west of the 4th meridian, a total distance of about 2.5 miles. (Aug., 1906, pg. 449.)

**Algonia Central and Hudson Bay Ry.**—It is reported at Sault Ste. Marie, Ont., that this railway will shortly pass under C.P.R. control, and that its extension to a junction with the existing branch, and to a junction with the C.P.R. transcontinental line will be undertaken at an early date. Sir Thos. G. Shaughnessy stated, July 18, that he knew nothing whatever of this report.

**Eastern British Columbia Ry.**—Press reports state that some preliminary construction has been done on this projected line, and that tenders have been asked for the grading and other work. There are some pieces of very heavy work upon the section of 14 miles which it is proposed to construct this year. (July, pg. 471.)

**Intercolonial Ry.**—Replying to a question in the House of Commons June 26, the Minister of Railways said the length of the extension from North Sydney to Sydney Mines, N.S. was 2.7 miles; the total cost to date had been \$136,479.02; the right-of-

way cost \$24,442.69, and the amount paid for land damages was \$4,238. There were some claims outstanding amounting to \$7,015, and these were in course of settlement.

During the discussion of the estimates for the Intercolonial Ry. in the House Commons, July 7, the Minister of Railways said the total amount expended on increased accommodation at Halifax to the end of March was \$2,233,000, and it was estimated that \$500,000 would complete the works there. The plans for the new station at Truro, N.S., were under consideration, but he did not know whether it would be possible for construction to be started there this season or not. Surveys had been made for the construction of a second track between St. John and Hampton, N.B. Up to March 30, 1907, there had been expended in connection with the I.C.R. at St. John, the sum of \$2,582,616. (July, pg. 471.)

**International Ry. of New Brunswick.**—In an interview at Montreal, July 8, T. Malcolm, the contractor for the construction of this railway, said he expected that the grading on this line, which is projected to connect the Intercolonial Ry. at Campbellton, N.B., with the St. John River near St. Leonards, would be completed this fall. There were, he said, 1,500 men and 300 teams at work. About 65 miles of the grading had been completed, 50 miles having been done from the Campbellton end. Work is going on from both ends. Track has been laid to the crossing of the Upsalquitch River. (July, pg. 471.)

**London and Port Stanley Ry.**—The Pere Marquette Rd. Co., lessee of the L. and P.S. Ry., has completed the erection of the new bridge at Port Stanley, Ont. This is the third of the new bridges which the P.M.R. asked the London city council, owning the line, to construct in order to accommodate the heavier traffic now going over the line. The other two bridges over the Thames were constructed in 1907. The city council refused to pay for the bridges, and it is expected that the company will enter suit to recover the amount expended. (See Pere Marquette Rd., Jan., pg. 21.)

**Meadow Creek Logging Ry.**—Application will be made next session of the British Columbia Legislature for an act incorporating a company with this title, with power to construct railway lines in the East Kootenay district, such lines to be operated either by steam or electricity, and to be equipped for the purpose of carrying freight, passengers and express. The routes particularly mentioned are: Commencing between mileposts 40 and 41 on the B.C. Southern Ry. near Yahk, and running southeasterly to Meadow Creek, and following the creek easterly and southerly to the International boundary, a distance of about 10 miles; also from the B.C. Southern Ry. about 2½ miles west of Cranbrook southwesterly through lots 5,249, 2310, 5801, 2311 and 6,315 to the southwesterly end of Smith's Lake, thence northwesterly to Parry Creek, a distance of about eight miles. Authority will also be asked to construct branch lines from either of these lines not exceeding in any one case five miles in length; to make connection with the C.P.R. or any other railway operating in the district, and to make agreements for running rights with the C.P.R. Harvey, McCarter and Macdonald, Cranbrook, B.C., are solicitors for applicants.

**Murray City to New Liskeard, Ont.**—A New Liskeard, Ont., press report says there has been received at New Liskeard, Ont., a consignment of steel rails for the proposed electric railway from Murray City to New Liskeard, and that the Quinze and Blanche River Ry. and the New Liskeard Electric Ry. have men at work grading at the foot of the first chute of the Quinze River.

This report evidently refers to the work in

progress on the Quinze and Blanche River Ry., a steam railway, which, however, is authorized to develop water powers and distribute electric energy subject to the laws of Ontario and Quebec. (See Quinze and Blanche River Ry., July, pg. 473.)

**New Brunswick Coal and Ry. Co.**—A spur track is being constructed from Belleisle station to some gravel pits owned by the company. When this spur is completed the work of reballasting the line will be commenced. The repairs to the line which the Commissioners have undertaken are in a forward condition, and it is expected they will be practically completed by the time ballast can be hauled out over the new spur. (July, pg. 471.)

**Orford Mountain Ry.**—Press reports state that construction will shortly be started on an extension from near Bolton Line to near North Troy, on the Quebec-Vermont border, where a junction will be effected with the C.P.R. (May, pg. 333.)

**Ottawa, Brockville and St. Lawrence Ry.**—Replying to a deputation asking the Government to grant a subsidy towards the construction of this projected railway from Ottawa to Brockville, Ont., the Minister of Railways said if a subsidy were granted, his idea was that it should be to any company that would construct the line. There had been too much subsidizing and bonusing of companies without any construction being done, but rather charters were peddled about. His idea was that this line should be an electric one, but he recognized that such would have its disadvantages in the winter. Careful attention would be given to the matter when the subsidy vote was under consideration. The line as projected would have to be 56 miles long, and would pass through Manotick, Burritt's Rapids, North Augusta, Merrickville, and Algonquin, Ont. (July, pg. 509.)

**Ottawa and New York Ry.**—A temporary bridge across the canal at Cornwall was expected to be completed by July 30, to replace the bridge destroyed by the recent washout on the canal. The question of the reconstruction of the permanent bridge is under consideration. Bids have been asked for the reconstruction of the bridge and also for the reconstruction of a small bridge nearer Ottawa, burned July 14. (Mar., 1905, pg. 94.)

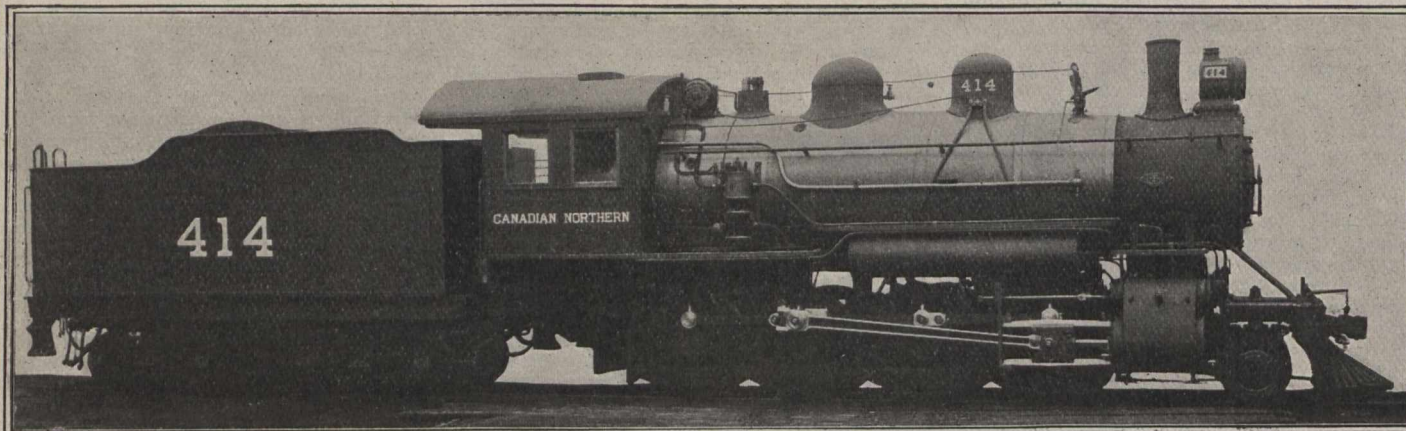
**Prince Edward Island Ry.**—A resolution declaring that it is expedient that provision be made by the Government for the construction of a branch line from Harmony, on the Souris branch of the P.E.I. Ry., to Elmira, in Kings County, was on the order paper for the House of Commons in Committee, July 6. (July, pg. 471.)

**Quebec Bridge and Ry. Co.**—In giving evidence before the House of Commons Committee on the Quebec Bridge the Minister of Finance said the Government had never treated the subsidy as a loan, and as for the guaranteed bonds the Government had always assumed that it would take the responsibility. The Government considered the rebuilding of the bridge a necessity, and had practically arrived at a decision as to how it should be rebuilt.

The supplemental estimates submitted to the House of Commons July 10, provided for \$25,000 for the preparation of plans for the reconstruction of the bridge, and \$53,500 for the expenses of the Quebec Bridge Commission.

The Dominion Government, by resolution of Parliament, has decided to assume the whole of the assets and franchises of the Q. B. and R. Co., on the terms set forth in the contract between the Government and the company made under the act of 1903. The carrying out of the undertaking is placed in charge of the Transcontinental Railway Commission, with a view of having the bridge





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General Counsel—J. C. WALSH, Esq., M.P. (of Walsh & Walsh)

Bankers—THE MERCHANTS BANK OF CANADA



constructed as an integral part of the new railway. The commission will, it is understood, entrust the work of preparing plans for the new bridge to a board of three of the best engineers available. The act provides for the appropriation from the consolidated revenues of the funds necessary to carry out the terms of the resolution. (July, pg. 471.)

**Saskatchewan-Alberta.**—The Boards of Trade of Saskatchewan and Alberta, at their recent annual convention, passed a resolution urgently requesting the Governments of those provinces to adopt a policy which will assure the early construction of colonization roads. The convention was asked by the Calgary Board of Trade to adopt a resolution asking the Governments of the two provinces to adopt a policy of guaranteeing the bonds of railways constructing lines. The particular line of railway which the Calgary Board had in view in putting forward its resolution was the extension of the Canadian Northern Ry. from Regina to Calgary. (See Canadian Northern Ry., July, pg. 469.)

**Stanley Ry. and Manufacturing Co.**—A joint stock company has been formed under the laws of the State of Maine, with this title, with office at Kitteny, Me., and a capital of \$100,000 (\$25,000 preferred and \$75,000 common stock), with the object of establishing a woodworking factory at Ryan Brook, N.B., the terminus of York and Carleton Ry. The company has power to acquire the Y. and C.R., and we are advised that the line will be taken over if anything like the full amount of capital is subscribed. It is proposed that the line be extended from the present terminus about nine miles westerly to a connection with the National Transcontinental Ry. at Nappadoggin Lake. This extension will shorten by 13 miles the route to Marysville, Gibson, and Fredericton, from various points on the old Canada Eastern Ry. The line is one of those which the New Brunswick Government has asked the Dominion Government to take over and operate in connection with the Intercolonial Ry. If the Dominion Government does not take over the railway, or the sale to the Stanley Ry. and Manufacturing Co. does not take place, we are advised that the present owners will start construction on the extension to the Transcontinental Ry. in the spring, application having been made to the Provincial and Dominion Governments for subsidies. In the event of the Stanley Ry. and Manufacturing Co. being successfully organized, D. R. Moore, M.D., Manager of the York and Carleton Ry., will be President, and J. H. Curry, of Boston, Mass., will be Treasurer.

**Temiskaming and Northern Ontario Ry.**—The bridge across the Driftwood River was completed July 4, and it is expected that tracklaying will be gone on with to the north early in August. Grading on the last 30 miles to Cochrane, the junction point with the National Transcontinental Ry., is being pushed, over 1,100 men being engaged, and night and day gangs being employed. It is expected to have the line completed to Cochrane by the end of the year. (July, pg. 473.)

**Victoria Lumber Co.**—Several cars of rails have been shipped from Victoria for Comox, B.C., for use on the extension of the logging railway operated there by the Victoria Lumber Co. of Chemainus. (See Beaver Cove, B.C., July, pg. 471.)

**York and Carleton Ry.**—See Stanley Ry. and Manufacturing Co. (Feb., 1907, pg. 91.)

The board of management of the provincial fair at New Westminster has decided to celebrate the Simon Fraser centenary, by the erection of a monument to be unveiled during the exhibition.

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

**New Brunswick Developments.**—H. P. Timmerman, who has been appointed Industrial Commissioner for the company's Eastern Lines, has begun his work in New Brunswick, where he is making an investigation of the opening for mining and industrial development. The company is reported to be negotiating for the purchase of several coal mines in the vicinity of Minto. To bring the coal from these collieries to its line the C.P.R. would have to build a line of about 20 miles from Minto to Fredericton. The collieries at Minto are already served by the New Brunswick Ry. and Coal Co.'s line, and this company's original charter gave it power to extend the line to Gibson, a station which would give an entrance into Fredericton.

**Ottawa, Northern and Western Ry.**—A considerable mileage on the line to Maniwaki, Que., has been relaid with 80-lb. steel.

**Guelph and Goderich Ry.**—The branch of this line from Linwood to Listowel, Ont., about 15 miles, was opened for traffic July 1.

**St. Mary's and Western Ontario Ry.**—The section of this line from Embro to St. Mary's, Ont., 18 miles, was opened for traffic July 1. At Embro connection is made with the extension of the Tillsonburg, Lake Erie and Pacific Ry. (leased by the C.P.R.), from Ingersoll, giving a connection not only with the company's main line, but with the line to Port Burwell, over which the company's coal traffic is carried, the connection with Ashtabula, Ohio, being made by the car ferry Ashtabula.

**Komoka to Sarnia, Ont.**—A Port Huron, Mich., press despatch states that the C.P.R. proposes to start construction in the spring of 1909, on a line from Komoka, on its main line west of London, to Sarnia, Ont.; that the trains on reaching Sarnia will be ferried across to Port Huron, and carried over the Pere Marquette Rd. to Chicago, Ill., via Detroit, over which line the C.P.R. is said to have secured running rights. This connection, it is said, will give the C.P.R. the shortest route from Montreal to Chicago. While it is true that the C.P.R. is surveying a line into Sarnia, and is negotiating for its construction, the projected route is from St. Mary's, via Parkhill and Arkona, and not from its main line at Komoka. The Pere Marquette Rd. does not have any line between Port Huron and Detroit, over which it could give running powers to Chicago, and any P.M. Rd. route from Port Huron to Chicago would not enable any company running between Montreal and Chicago to have the shortest route. The P.M. has been abandoning the principal part of its ferry traffic at Sarnia, and an official is quoted as saying that its Erie and Huron line from Rondeau to Sarnia, over which its Lake Erie car ferry traffic was formerly carried, is for sale.

**Walkerton and Lucknow Ry.**—The first section of this line from Saugeen Junction, near Proton, on the old Toronto, Grey and Bruce Ry., to Hanover, Ont., 27 miles, was opened for traffic July 1. The line passes through Princeville, Durham and Allen Park. The portion of the line between Hanover and Walkerton, 18 miles, is expected to be opened for traffic Aug. 1.

**Fort William-Winnipeg Double Track.**—The work of constructing the roadbed for the double-tracking of the line between Fort William, Ont., and Winnipeg, Man., is reported to be practically complete. Track has already been laid on 250 miles of this distance, and the work of laying the steel on the remaining 170 miles is being gone on with rapidly. It is expected that this will be completed, and the entire second track operated through from Fort William to Winnipeg by Sept. 1.

**Moose Jaw Northwesterly.**—Dispatches from Moose Jaw, Sask., stated that tracklaying was to be resumed early in July upon this branch, now ending at Tuxford, and that steel would be laid this season at any rate as far as Eyebrow, 50 miles from Moose Jaw. Grading has been completed for 15 miles beyond Eyebrow, and it is reported that grading will be done as far as the crossing of the Saskatchewan River this season.

A press report states that J. E. Noonan and J. Robinson, Regina, Sask., have taken a sub-contract upon this extension and are sending in 100 teams.

**Calgary to Lethbridge.**—It was reported in Calgary, Alta., July 7, that instructions had been issued for the making of surveys for the final location of a line between Calgary and Lethbridge, Alta.

**Nicola, Kamloops and Similkameen Ry.**—The surveys in progress in connection with the projected extension of this line are being pushed through, and late local reports state that it is expected to have everything completed in order to start construction in the spring of 1909. The projected extension is from Nicola to Midway, B.C., the present terminus of the company's Boundary section. The completion of this link would give the company a new and shorter connection between Southern Alberta and the Pacific coast than it now has.

**Esquimalt and Nanaimo Ry.**—The right-of-way for the extension to Alberni has been cleared, and about 400 men are employed on grading. The work had not been proceeding as fast as had been hoped, H. E. Beasley, Assistant to R. Marpole, Vice-President, recently stated, because of some difficulty in finally adopting the route. It is expected that 23 miles of the grading will be completed this season, out of the 58 miles of the branch. Survey parties are in the field working on the projected extension to Comox, but nothing will be done this year in the way of construction. A contract has been let for the clearing of certain areas of the company's lands at Qualicum to fit them for settlement. (July, pg. 475.)

**I.C.R. Motor Cars.**—In connection with the operation of motor cars on the Intercolonial Ry. the Minister of Railways said recently there was a difference of opinion between the railway officials and the railway brotherhoods as to the number of men to be employed. The brotherhoods were inclined to think that the cars ought to be manned with a larger number of men than the Department thought necessary. In the United States the companies manned their cars with one less man than the brotherhoods thought there ought to be on them. Negotiations were now going on for a settlement of this question, and when it was settled he would be in a position to state fully the cost of the motor car service as compared with the regular train service.

**C.P.R. Connection with Halifax.**—Ottawa dispatches state that negotiations will shortly be opened, or are in progress, between the C.P.R. President and the Department of Railways, with a view of securing running rights over the Intercolonial Ry. from St. John, N.B., to Halifax, N.S. A proposition with the same end in view was submitted to the Government in 1907, but it was not entertained. The report states that it is proposed that a tentative agreement for one year be entered into, the agreement and its results to form a basis at the end of the year for arbitration as to what would be fair terms for a permanent agreement. The C.P.R. had running rights into Halifax up to 1897, when the late Hon. A. G. Blair, then Minister of Railways, cancelled the agreement on the ground that the interests of the Intercolonial Ry. were suffering thereby.



N. CURRY, President  
N. A. RHODES, Vice-President

CAPITAL, \$1,000,000

J. M. CURRY, Sec.-Treas.

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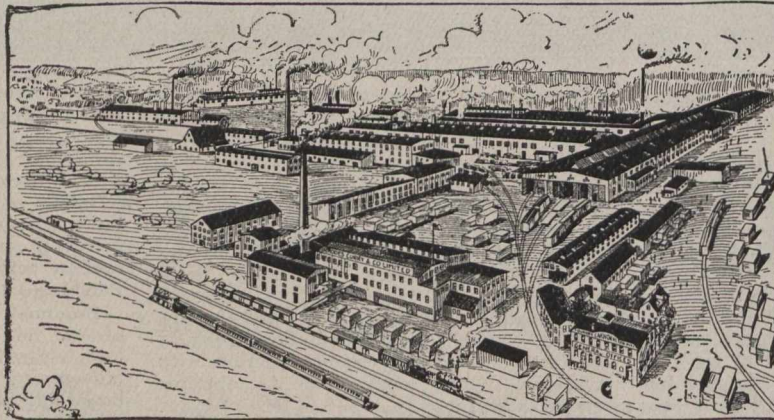
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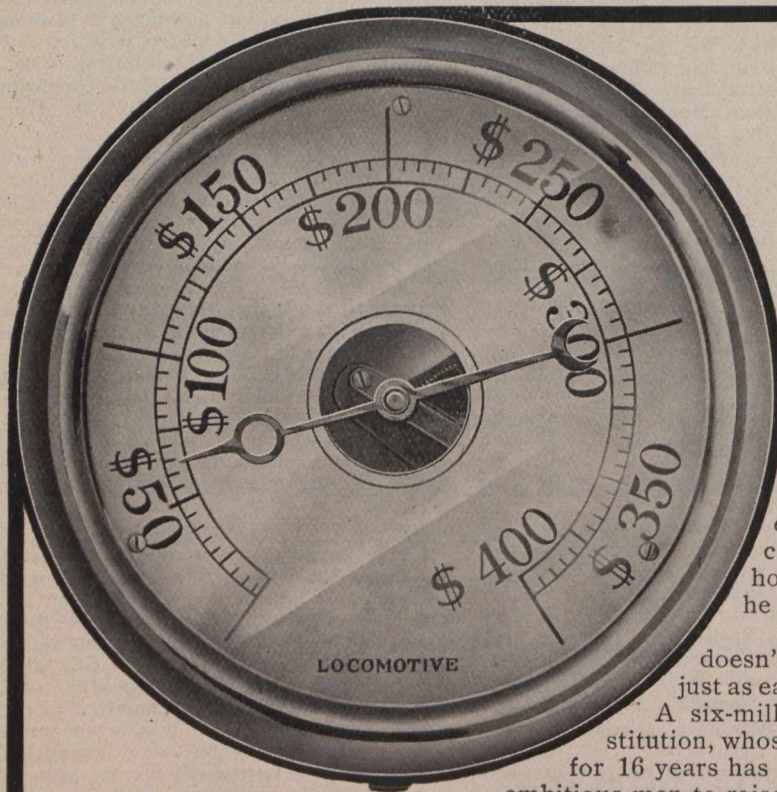
- 300 Freight Cars
- 4 Passenger Cars
- 4 Snow Plows
- 3,000 Car Wheels



Capacity per Month

- 2,500 Car Axles
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Air-Brake Inspector	Bookkeeper
Air-Brake Repairman	Stenographer
Mechanical Engineer	Ad Writer
Mechanical Draftsman	French } With
Machine Designer	German } Edison
Electrical Engineer	Spanish } Phonograph

Name \_\_\_\_\_  
Employed by \_\_\_\_\_ R. R.  
Street and No. \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_



**T. and N.O. Railway Report.**

The sixth annual report of the Temiskaming and Northern Ontario Ry. Commission, for the year 1907, has been issued. The Commissioners say that on Dec. 31, 1907, there were 139 miles of railway under operation, from North Bay to Englehart. It had been intended to take over an additional 69 miles, to the crossing of the Watybeag River, but owing to the inclement weather retarding construction and other serious difficulties, it was thought advisable not to do so. At the close of the year, with the exception of some trestle filling the construction on the section referred to was fairly completed. The following particulars as to mileage, curvature, etc., are given:

North Bay to Englehart (1st division).....	138.5 miles.
Englehart to Cochrane (2nd division).....	114.5 "
Kerr Lake Branch.....	4 "
Charlton Branch.....	8 "
Sidings (1st and 2nd divisions).....	40 "

Total.....	305 miles.
Length of curves (North Bay to Englehart).....	50.14 miles
Length of curves (Englehart to Cochrane).....	28 "

Total.....	78.14 miles
T. and N.O. Ry. crosses height of land..	mileage 177 1/2
Ground elevation above sea level.....	1,044 ft.
Rail elevation above sea level.....	1,045 ft.
Track falls to south on gradient of.....	0.4%
Track falls to north on gradient of.....	0.5 to 0.2%
Gradients approaching summit from north to south, length.....	1 mile.

The telegraph stations on the line are: North Bay (C.P.R.); North Bay Junction; Widdifield, Moose Lake, Diver, Redwater, Temagami, Latchford, Cobalt, North Cobalt, Haileybury, New Liskeard, Uno Park, Earleton, Heaslip, Englehart; while there are telephone stations at North Bay, Woodland, Widdifield, mileage 20.50, mileage 23.50, Moose Lake, mileage 31, Diver, Jocko, Osbourne, Bushnell, Redwater, Doherty, Temagami, Rib Lake, Johnson, Latchford Cobalt, Haileybury, New Liskeard, Earleton, and Englehart.

The rolling stock account showed a total expenditure of \$1,140,479.06, the number of locomotives, etc., on Dec. 31 being: 18 locomotives, 14 first-class coaches, 21 second-class coaches, two official coaches, 9 baggage, mail and express cars; 50 flat cars, 50 box cars, 10 stock cars, 9 vans, and a number of miscellaneous cars.

**LIABILITIES.**

Loan from Province of Ontario.....	\$11,677,783.95
Accounts payable, miscellaneous.....	141,879.72
Unclaimed wages.....	687.90
Deposits on contracts.....	15,990.00
	<u>\$11,836,341.57</u>

**ASSETS.**

Cost of road and equipment to Dec. 31, 1906, \$	9,426,228.37
Cost of road, 1st division, for 1907.....	494,903.61
Cost of road 2nd division, for 1907.....	810,697.87
Cost of road 3rd division, for 1907.....	175,799.82
Cost of equipment for 1907.....	433,961.56
	<u>\$11,341,591.23</u>

Less interest allowed on bank balance \$	217.57
Less net proceeds from sale of town-sites and mining rights, applied on cost of road.....	23,397.16
	<u>23,614.73</u>

Accounts collectible, miscellaneous.....	\$11,317,976.50
" " operation.....	6,276.11
Chief Engineer advance.....	68,120.54
Stock of rails, 60 lb.....	6,000.00
" " 80 lb.....	47,137.02
Suspense—Accounts paid operation, covering freight charges and supplies awaiting certification of Chief Engineer.....	237,256.38
Cash in bank, Dec. 31, 1907.....	153,119.51
	<u>455.51</u>
	<u>\$11,836,341.57</u>

**EARNINGS AND EXPENSES, 1906-1907.**

**RECEIPTS.**

Passenger.....	\$388,343.03	\$254,759.33
Mails and express.....	29,217.56	17,596.35
Freight.....	390,894.29	230,552.63
Telegraph and telephone.....	26,404.17	20,514.53
Miscellaneous receipts.....	18,660.96	20,596.01
Total.....	<u>\$853,520.01</u>	<u>\$544,018.85</u>

**EXPENDITURE.**

Maintenance of way and structures.....	\$112,395.22	\$ 77,265.87
Maintenance of equipment.....	88,016.79	46,382.65
Conducting transportation.....	412,160.52	215,256.08
General expenses.....	32,839.76	23,587.98
Total.....	<u>\$645,412.29</u>	<u>\$362,492.58</u>
Net earnings.....	208,107.72	181,526.27
Ore royalties.....	50,901.32	.....
Total net revenue.....	<u>\$259,009.04</u>	<u>\$181,526.27</u>
Operating expenses to earnings, percentage....	75.6%	66%

**GENERAL BALANCE SHEET, REVENUE ACCOUNTS, YEAR ENDED DEC. 31, 1907.**

**LIABILITIES.**

Accounts payable.....	\$232,431.43
Car mileage balance.....	1,247.33
Foreign ticket balance.....	18,010.47
Foreign freight balance.....	3,609.62
Foreign telegraph balance.....	2,931.49
Mining bonuses.....	103,201.59
Townsites accounts payable.....	223.92
Profit and loss.....	61,238.20
	<u>\$422,894.05</u>

**ASSETS.**

Agents' and conductors' balance.....	\$ 43,711.92
Accounts collectible.....	258,138.05
Cash in bank.....	30,052.33
Fuel and supplies on hand.....	86,012.21
Treasurer's petty cash.....	50.00
Insurance.....	4,929.54
	<u>\$422,894.05</u>

**GENERAL STATISTICS.**

Passenger trains, 198,995 miles; freight trains, 198,215 miles; mixed trains, 8,718 miles, total train mileage, 405,928, against 245,563 miles in 1906. Passenger car mileage, 1,066,527 miles; freight car mileage, 2,596,937 miles; total car mileage 3,663,464, against 2,443,906 miles in 1906.

Passengers carried, 518,678, against 359,861 in 1906; passengers carried one mile, 16,633,635, against 10,365,311; average distance travelled, 32 miles against 29 miles; average amount received from each passenger, 74c. against 71c.; average amount received per passenger per mile, 2.33c., against 2.36c.

Freight carried, 393,589 tons, against 273,749 tons in 1906; tons of freight carried one mile, 26,312,225, against 15,233,761; average haul, 67 miles, against 55 miles; average amount received per ton, 99 cents, against 84 cents; average amount received per mile for each ton, 1.4 cents, against 1.5 cents.

Appended to the general report are lengthy reports from the Chief Engineer, the General Roadmaster, the Mining Engineer, the Physician, and copies of the various contracts entered into during the year.

The Premier and the Treasurer of Ontario state that the press reports recently current that it was the intention of the Government to extend the Temiskaming and Northern Ontario Ry. southerly from North Bay to a junction with the Canadian Northern Ontario Ry., near Parry Sound, and then secure running rights over that line into Toronto, was incorrect. The Government intended, said the Premier, to complete the construction of the line northwards before anything was done in the way of extensions, and no plans such as suggested had been brought to his notice either as a member of the Government or otherwise.

The Randolph Macdonald Co., Ltd., a contracting company, incorporated under the Dominion Companies Act, has been licensed to carry on its business in Ontario, with W. H. Marrow, Toronto, as its attorney.

**Master Mechanics' Association.**

The 41st annual convention of the Master Mechanics' Convention was held at Atlantic City, N. J., June 22, and following days. The Secretary reported that there were 862 active, 19 associate and 37 honorary members, and that there were four vacant scholarships at the Stevens Institute. The report of the Treasurer showed a balance on hand of \$1,912.77.

Among the subjects discussed were, Mechanical stokers, Blanks for reporting work on engines, Proper width of track on curve, Smoke prevention and fuel economy, Washing out and refilling boilers, High-speed steel, The apprenticeship system, Superheating, Mallet compounds, Briquetted coal, Size and capacity of safety valves, Balanced compounds, Revision of standards, all of which were fully discussed.

The report of the committee on superheating was presented by H. H. Vaughan, Assistant to the President, C.P.R.

A number of topical discussions having been taken up, a resolution was passed authorizing the President to appoint a committee from its officers to confer with the American Railway Association when requested.

Following are the officers for the current year: President, H. H. Vaughan, C.P.R.; First Vice-President, G. W. Wildin, New York, New Haven and Hartford Rd.; Second Vice-President, C. E. Fuller, Union Pacific Rd.; Third Vice-President, J. E. Muhlfield, Baltimore and Ohio Rd.; Treasurer, A. Sinclair; Executive Committee: H. T. Bentley, Chicago and Northwestern Rd.; T. Rumney, Erie Rd.; T. H. Curtis, Louisville and Nashville Rd.

**The Wellington Collieries, B.C.**

It is reported from Victoria, B.C., that negotiations have been practically completed by which the control of the Wellington Collieries at Ladysmith, B.C., with the railways and steam and other vessels operated in connection with them, will pass from Hon. Jas. Dunsmuir, Lieut.-Governor of British Columbia and the Dunsmuir Estate. The leading men in the syndicate negotiating for the purchase are J. Arbuthnot, formerly of Winnipeg, and L. Wishart, of New York, who already own the South Wellington Colliery, adjoining the Dunsmuir properties. The value of the property is placed at about \$5,000,000.

The Wellington Colliery Co.'s railway comprises 10.75 miles, and its Ladysmith extension 9.94 miles, a total of 20.69 miles. On the Ladysmith extension there are 7.94 miles of yard track and sidings, which makes a total of 28.63 miles of track of all kinds laid. The amount of stocks outstanding June 30, 1907, was reported to be \$2,000,000. The statistics of the two lines have been reported separately, the figures for the year ended June 30, 1907, being:

Wellington Colliery Co.'s Ry.—Passengers, \$2,381.80; freight, \$2,778.77; total earnings, \$5,160.57; operating expenses, \$34,400.84; deficit, \$29,240.27. Passengers carried, 4,238; freight carried, 455,733 tons; total revenue train mileage, 4,504 miles. Rolling stock owned: Six switching locomotives, one second-class car, five box cars, 14 flat cars, 172 coal cars, nine gravel cars.

Ladysmith extension.—Passengers, \$494.65; freight, \$36,893; total earnings, \$37,333.87; operating expenses, \$37,333.87; net earnings, nil. Passengers carried, 1,345; freight carried, 2,801 tons; total revenue train mileage, 37,334 miles. Rolling stock owned: One freight locomotive, six switching locomotives, six passenger cars, 17 flat cars, 236 coal cars, 11 gravel cars, one road car.

The company owns several steam and sailing vessels and charters others as the trade requires for carrying coal from the company's wharves at Esquimalt, to the various ports along the Pacific Coast, including San Francisco.





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All Capacities — Prompt Shipment

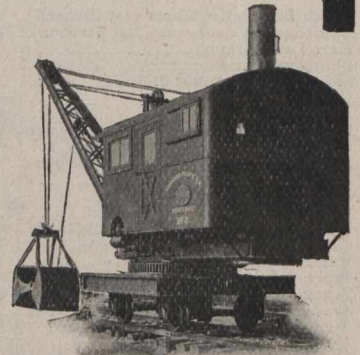
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## “INDUSTRIAL” Coaling and Wrecking Cranes

ALL CAPACITIES

For use around Manufacturing Plants—Railroads  
—Coaling Stations—Quarries—Coal Yards, Etc.

“INDUSTRIAL” Cranes combine every modern improvement



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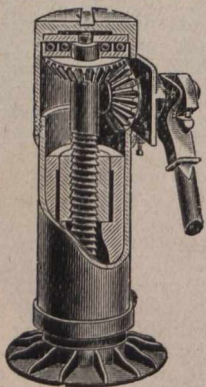
CANADIAN REPRESENTATIVES  
SUCCESSORS LATE JAS. COOPER

**Montreal**

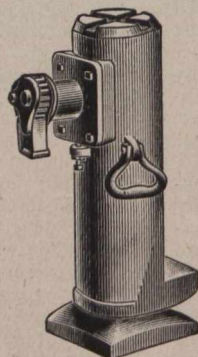
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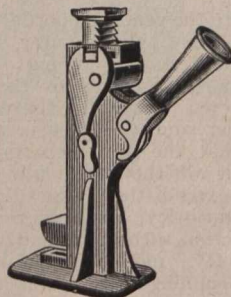
50 Styles 8 to 70 Tons Capacity  
Carried in stock for IMMEDIATE DELIVERY



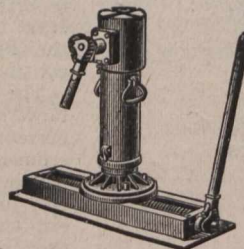
Sectional View



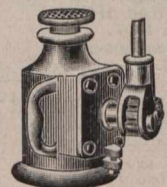
Foot Lift Jack



15 Ton Track Jack



Traversing Jack



Journal Jack

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# A. O. NORTON, COATICOOK, QUE.

Stock Carried by MUSSENS LIMITED, MONTREAL



**Railway Finance, Meetings, etc.**

**Alaska Central Ry.**—The application for the appointment of a receiver for this company and the construction, company building it, was made recently to the courts at Fairbanks, Alaska, by J. E. Ballaine, who was the original promoter. He alleged fraud and mismanagement on the part of the present directors and officers in connection with construction, and jobbery in the handling of stock transactions. H. C. Osborne, Toronto, Vice-President, in a recent interview said the receiver was appointed without any notification of the application having been made to the company. The applicant represented no one but himself, and the charges were not only false but ridiculous. The whole of the facts were fully dealt with at the annual meeting of the company at Seattle, Wash., and the charges made in Ballaine's complaint were referred to a committee of the Seattle Chamber of Commerce. Since the present interests obtained control in Dec., 1904, Ballaine had been waging a constant warfare against the management because of the refusal to accept his suggestions as to location and other important matters of policy. Application will be made to have the receivership set aside. The line is not being operated.

**Alberta Ry. and Irrigation Co.**—The net earnings from all sources, exclusive of land sales for May, were \$25,196, against \$38,807 for May, 1907. Aggregate for 11 months ended May 31, \$318,454, against \$162,593 for same period 1906-07.

**Atlantic and Lake Superior Ry., and Baie des Chaleurs Ry.**—Tenders are being asked for the purchase of these two railways, together with all rolling stock, equipment, franchises and accessories. The A. & L.S. Ry. Co. was incorporated for the purpose of amalgamating the Baie des Chaleurs Ry., the Great Eastern Ry., and the Ottawa Valley Ry., and to construct the necessary connecting links to form a line from Gaspe, Que., to Lake Superior. The B. des C. Ry. was the only portion of the line operated, and was after considerable litigation taken over and operated by the bondholders in Great Britain. In June, 1907, the sale of the B. des C. Ry. to the Atlantic, Quebec and Western Ry., was confirmed by the Exchequer Court of Canada, and a scheme of interchange of bonds between the bondholders of the B. des C. Ry., the A. & L.S. Ry., and the A. & L.S. Ry. Trust Fund, was discussed at intervals throughout 1907. On Feb. 13, Galindez Bros., the principal bondholders, of London, Eng., made application to the Exchequer Court of Canada, to obtain a clear title to the B. des C. Ry., which had been sold to the A.Q. & W. Ry., with the result that that sale has been set aside and the decision arrived at to offer the properties for sale by tender. The railway statistics of 1907 show the A. & L.S. Ry. with a mileage of 100 (80 of this being the B. des C. Ry.); the gross earnings for the year being \$68,886.32; there being a deficiency on operating of \$1,234.67. The A. & L.S. Ry. runs from Caplin to Paspebiac, Que., 20 miles, where it joins the A.Q. & W. Ry.; and the B. des C. Ry. runs from Metapedia, where it joins the Intercolonial Ry., to Caplin, Que., 80 miles.

**Cumberland Ry. and Coal Co.**—Following are the directors and officers for the current year: President, H. R. Drummond; Vice-President, E. McDougall; General Manager, J. R. Cowans; other directors: D. Morrice, W. J. Morrice, G. L. Gains, P. Cowans, W. J. Crossen, J. D. Hayden; Secretary-Treasurer, E. Laflamme. P. Cowans and J. D. Hayden are new directors, taking the place of Sir Geo. Drummond, heretofore President, and of E. S. Clouston. H. R. Drum-

mond, who has been elected President, is a son of Sir Geo. Drummond.

**Dominion Atlantic Ry.**—Special general meetings of the shareholders have been called to be held in London, Eng., Aug. 7, the first to pass by-laws increasing the number of directors from three to five, increasing the remuneration of the directors, and authorizing the directors to make contributions to the company's employees' sick and benefit fund, and the second for the purpose of electing two directors in addition to the three now holding office.

Gross earnings for May, \$86,000, against \$82,995 for May, 1907. Aggregate gross earnings for 5 months ended May 31, \$364,000, against \$362,626 for same period 1907.

**Grand Trunk Ry.**—Certain shareholders of the G.T.R., representing £1,500,000 of the company's stock, held a meeting in London, Eng., July 2, at which a resolution was passed directing the formation of a committee to "do all such things that it shall consider necessary in the interests of the shareholders." The shareholders present dissent from the decision of the directors regarding the formation of an advisory board in Canada. This question was raised at the last general half-yearly meeting, and the views of the Board, as expressed by the President, were strongly and decisively against the suggestion. Jas. Fairbairn, who presided at the shareholders' meeting, said the interests of the stockholders had been abominably violated by the Board, and that the G.T.R. was looked upon as an alien line in Canada.

**London and South-Eastern Ry.**—The following officers and directors have been elected for the current year: President, W. J. Reid; Vice-President, T. H. Smallman; Secretary and Treasurer, J. W. Little; other directors: J. Labatt, J. A. Campbell, M. Masuret.

**New Brunswick Coal and Ry. Co.**—The Royal Commission appointed by the N.B. Government to investigate the affairs of the old Central Ry. of N.B., which was subsequently amalgamated with the N.B.C. and Ry. Co., opened its sittings at Fredericton June 24. Sittings were subsequently held at St. John, Chipman, and Norton, and it was expected that the Commissioners would complete the taking of evidence and the examination of the company's books by July 30.

The Central Ry. Co. was originally incorporated in 1871, and its powers varied and extended from time to time. The N.B.C. and Ry. Co., which had constructed an extension of the line to Minto, took over the old Central Line in 1903, and in 1905 and subsequently the N.B. Government took over the amalgamated lines, appointing a commission to carry out extensive repairs, and to operate the road.

**Quebec Central Ry.**—Gross earnings for May, \$92,033.29; expenses, \$63,427.45; net earnings, \$28,605.84, against \$87,032.08 gross earnings; \$60,032.48 expenses; \$26,999.60 net earnings, for May, 1907. Gross earnings for five months ended May 31, \$432,252.99; expenses, \$309,862.22; net earnings, \$122,390.77, against \$349,926.43 gross earnings; \$249,940.15 expenses; \$99,986.28 net earnings for same period 1907.

**Quebec Southern Ry.**—The insolvency of the St. Hyacinthe Bank, which recently closed its doors, is stated to have been due to advances made to railways and heavy litigation arising out of loans. In litigation before the Exchequer Court with regard to the lines making up the Quebec Southern Ry., the bank put in a claim for \$622,691.74 on the sale price of the United Counties and Richelieu Valley Ry.

**Temiscouata Ry.**—Traffic receipts for May, \$17,345.82; June, \$18,242.88. Total receipts for 6 months ended June 30, \$100,609.46.

**Temiskaming and Northern Ontario Ry.**—Approximate earnings for June, \$75,617.25; total for 6 months ended June 30, \$358,642.91.

**Toronto, Hamilton and Buffalo Ry.**—Following are the directors for the current year: W. K. Vanderbilt, W. H. Newman, H. B. Ledyard, J. N. Beckley, Sir T. G. Shaughnessy, D. McNicoll, C. F. Cox, E. B. Osler, Nicol Kingsmill, W. P. Torrance, D'Arcy Scott.

Gross earnings for May, \$62,560, against \$81,834 for May, 1907. Total for 11 months ended May 31, \$792,454, against \$778,663 for same period 1906-07.

**White Pass and Yukon Ry.**—An interim dividend at the rate of 4s. sterling per share has been declared on account of the operations for the year ended June 30.

Gross earnings for 11 months ended May 31, \$1,357,589.

**Railway Lands Patented.**

The following letters patent covering Dominion lands situated in Manitoba, Saskatchewan, Alberta, British Columbia and Yukon Territory, were issued in April:

	Acres.
Canadian Northern Ry.	187.92
Canadian Pacific Ry.	794.70
Canadian Pacific Ry. roadbed and station grounds.	25.17
G. T. Pacific Ry.	308.75
Qu'Appelle, Long Lake and Saskatchewan Rd. and Steamboat Co.	158.00

The following were issued during the year ended Mar. 31:

	Acres.
Calgary and Edmonton Ry.	85,975
Canadian Northern Ry.	2,138,422
Canadian Pacific Ry. grants.	377,427
Canadian Pacific Ry. grants, Souris branch.	94,611
Canadian Pacific Ry. roadbed and station grounds.	1,062
Manitoba and Southeastern Ry.	676,160
Manitoba and Northwestern Ry.	29,421
Qu'Appelle, Long Lake and Saskatchewan Rd. and Steamboat Co.	5,911
Saskatchewan and Western Ry.	98,886

**C.P.R. Hotel Licenses.**—The C.P.R. not having applied for a renewal of the license for its hotel at Moose Jaw, Sask., this year, gave rise to a report that the company had decided to discontinue the sale of spirituous liquors at all its hotels. We were advised that the conditions at Moose Jaw were purely local and that the main reason which prompted the management not to procure a license this year was because there was no public bar in the hotel, and that the high cost of a license would not warrant the keeping of liquors for sale simply to guests. We have since been advised that the company has decided to abandon its hotel at Moose Jaw altogether and to utilize for station and office purposes the space thus made available. The matter has been under consideration for some little time and it is now thought that the time has arrived when the company should not compete any further with private enterprises at Moose Jaw in connection with the hotel business. There is nothing in the report that the company has decided to abolish bars at its various hotels.

The Canada Railway News Co., Toronto, has bought out the restaurant business at the G.T.R. station, Hamilton, Ont., from Geo. Moore, who has conducted it for 29 years, his father having previously carried it for 11 years. His son, H. A. Moore, will manage it for the Canada Ry. News Co.

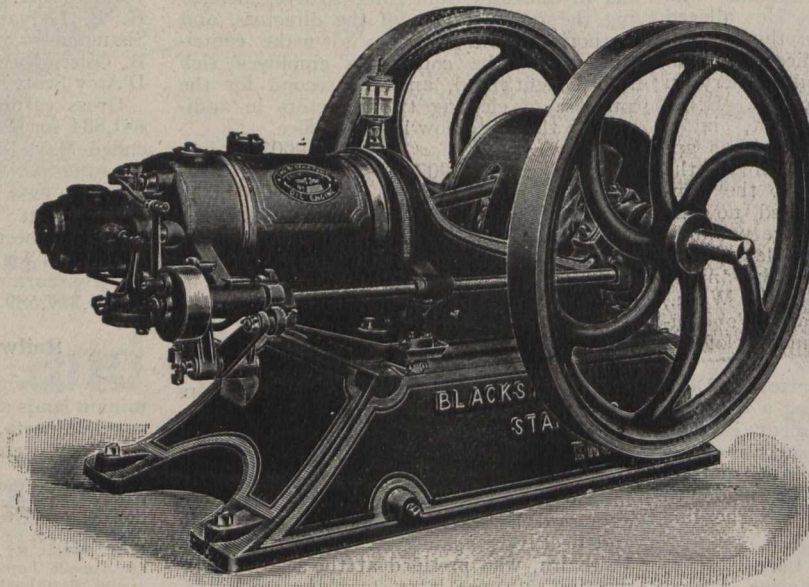
The Diamond Vale Collieries, Ltd., has been incorporated under the B.C. Companies Act, with a capital of \$750,000, to acquire the rights and properties of the Diamond Vale Coal and Iron Mines, Ltd., and in connection therewith to construct and operate railways, tramways, bridges, etc.; to purchase or otherwise acquire and to operate wharves, docks, steam and other vessels for the conveyance of coal and other of the company's products.



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— ARE —

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Reliable  
Economical  
Self-contained  
Well-made



— HAVE NO —

Fans  
Sparks  
Bad Odor  
Electric Battery  
Exterior Flame  
when operating

Blackstone Engine with Oil Tank in Base

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DISTRICT OFFICES : Montreal, Halifax, Ottawa, Winnipeg, Vancouver, Rossland

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has been proved by the use of Continuous, Weber and Wolhaupter base-supported rail joints—after ten (10) years' service, having a record of over **25,000 miles in use**—the extent of which is evidence of their excellence.

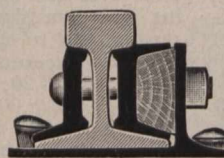
#### HIGHEST AWARDS

Paris, 1900;  
Buffalo, 1901; St. Louis, 1904



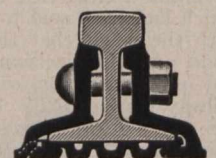
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Over  
25,000  
miles  
in use



WEBER JOINT

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from Best  
Quality  
Steel



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Portland, Oreg.

Boston, Mass.  
Seattle, Wash.

Chicago, Ill.  
St. Paul, Minn.

Denver, Colo.  
St. Louis, Mo.

Pittsburg, Pa.  
Troy, N.Y.

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Makers of Rail Joints for Standard and Special Rail Sections, also Girder, Step or Compromise, and Insulating Rail Joints, protected by Patents in U.S., Canada and Mexico.



**Quebec Central Railway Report.**

Following is a summary of the report for the year 1907, presented at the annual meeting in London, Eng., May 6:

1906.		1907.	
\$904,866	Gross earnings.....	\$1,012,741	
582,916	Working expenses.....	698,420	
\$321,950	Net earnings.....	\$ 314,321	
6,174	Interest earned.....	6,790	
\$328,124	Net revenue.....	\$ 321,111	

This statement shows an increase in gross earnings of \$107,875, an increase in working expenses of \$115,504, and a decrease in net earnings of \$7,629. A sum of \$51,000 for renewals has been included in the working expenses of 1907, which would, under the method adopted in previous years, have been appropriated from net revenue at the close of the year. The addition of \$12,700 brought forward from 1906 to the net revenue made the available balance \$333,811. After providing \$100,865 for the year's interest on the outstanding prior lien bonds and 4% debenture stock issued, \$40,000 has been charged against net revenue for renewals and improvements to bridges and culverts on the Tring and Megantic branch. There then remained a balance of \$192,946, out of which has been paid interest on 3% second debenture stock, and full interest on 7% income bonds. These two payments absorbed \$164,493, and left a surplus of \$28,453. From this a special appropriation of \$13,000 has been made for the purpose hereinafter referred to, leaving \$15,453 to be carried forward. For the first time in the history of the company the gross earnings for the year exceeded \$1,000,000.

At Dec. 31, 1907, £400,337 of the 4% debenture stock had been issued. Of this £270,500 had been used for retiring 5% prior lien bonds, of which £95,000 were outstanding on Dec. 31, 1907. Since the close of the year the outstanding bonds have been paid off, therefore the 4 per cent. debenture stock now ranks as a first charge on the entire undertaking.

Towards the close of the year grave irregularities in the accounts of the Treasurer, A. H. Anderson, an old and trusted servant of the company, were discovered by the auditors. Investigation revealed that a large sum had been abstracted. His estate has been assigned to a trustee for the benefit of creditors, but it is feared that the company's ultimate loss will amount to about \$85,000. This estimated deficit has been provided for from accumulated balances, and by the transfer from the year's surplus of \$13,000, the balance to the credit of reserve contingent fund remaining unchanged. The ex-Treasurer has been tried and, having pleaded guilty, sentenced to five years' imprisonment.

An act to amend the charter of the railway will be submitted to special meetings of the various classes of security holders, and resolutions will be proposed to give effect to the terms thereof. The accounts have been audited by M. Young & Sons, accountants, Toronto.

**GENERAL BALANCE SHEET.**

Cost of main line extensions and equipment, Dec. 31, 1906, less credits \$8,767,953. 90	
Capital expenditure. 1907—	
Division of	
2½ miles of Chaudière Valley br'ch	\$27,865.74
New equipment.....	79,829.79
New stations and buildings.....	19,110.22
New wharf property.....	32,226.56
Sundries.....	16,233.19
	175,265.50
	\$8,943,219.40

Brought forward.....	\$8,943,219.40
Investments.....	53,434.29
Sundry outstanding accounts.....	100,971.85
Sundry outstanding traffic accounts.....	26,697.95
Old rails.....	7,552.42
Materials and supplies.....	80,266.51
Fuel.....	30,438.88
Cash in hand and in bank.....	47,067.13
Cash in transmission.....	9,658.55
Cash in bank in London.....	213,702.30
	\$9,513,009.28

Share capital.....	\$3,381,603.33
5% prior lien bonds.....	462,333.33
4% debenture stock.....	1,948,306.73
3% debenture stock.....	1,644,933.33
7% income bonds.....	1,644,933.34
Wages unpaid, Dec. 31, 1907.....	24,472.53
Sundry outstanding accounts.....	122,045.84
Sundry outstanding traffic accounts.....	825.75
Interest on prior lien bonds unclaimed, accrued but not due.....	11,754.44
Interest on 4% debenture stock accrued but not due.....	34,454.37
Interest on 3% debenture stock unclaimed.....	601.65
Interest on 5% income bonds unclaimed.....	2,907.69
Interest on 7% income bonds unclaimed.....	7,104.15
Reserve contingent fund, Dec. 31, 1907.....	6,786.60
Net revenue balance Dec. 31, 1907.....	179,946.20
	\$9,513,009.28

**RECEIPTS FOR YEAR 1907.**

Passenger.....	\$ 305,895.75
Freight.....	670,259.97
Mails.....	17,670.64
Express.....	8,600.00
Miscellaneous.....	10,314.52
	\$1,012,740.88

**EXPENDITURES FOR YEAR 1907.**

Conducting transportation.....	\$ 136,244.12
Maintenance and working locomotives.....	241,485.15
Maintenance of cars.....	57,268.40
Maintenance of way.....	165,264.65
General expenses.....	48,489.39
Miscellaneous expenses.....	49,668.43
	\$ 698,420.14
*Total working expenses.....	\$ 698,420.14
Balance carried to net revenue account.....	314,320.74
	\$1,012,740.88

**NET REVENUE ACCOUNT DEC. 31, 1907.**

Balance brought forward.....	\$ 12,699.75
Balance from revenue account.....	314,320.74
Interest earned.....	6,790.13
	\$ 333,810.62

Betterments and improvements to bridges, culverts, Tring and Megantic branch.....	\$ 40,000.00
Interest paid, accrued, and unclaimed, on prior lien bonds to Dec. 31.....	30,994.58
Interest paid and accrued on 4% debenture stock to Dec. 31.....	69,869.84
Amount appropriated towards Treasurer's defalcations.....	13,000.00
Balance carried to general balance sheet.....	179,946.20
	\$ 333,810.62

The President, E. Dent, in moving the adoption of the report and accounts, said: The gross earnings for 1907 were \$1,012,741, an increase of \$107,876 over 1906, while the net earnings were \$314,321, a decrease of \$7,629. This decrease is partly due to higher wages, the greater cost of coal and other materials, and to the severe weather experienced in the winter of 1907, compared with an exceptionally mild winter in the previous year. \$51,000 has been charged to working expenses for special renewals, etc., which, under the method adopted in previous years, would have been appropriated from net revenue at the end of the year, so that for purposes of comparison, if this sum were deducted, the net earnings would show an increase of \$43,371, as compared with 1906. After paying interest on the debenture stocks and the full 7% on the income bonds, \$40,000 has been appropriated for the renewal of bridges and culverts on the Tring and Megantic branch, and the balance of \$15,452 has been carried forward. The Tring and Megantic branch was built some ten years ago, wooden bridges and culverts being used; these are being replaced by steel and masonry structures. On Feb. 1 the outstanding 5% prior lien bonds were paid off, 4% debenture

stock being issued to take them up; there will, therefore, be an annual saving of 1% on the bonds redeemed.

At the last meeting reference was made to proposed alterations on the Chaudière Valley branch, rendered necessary to obviate the frequent damage caused by floods. During 1907 2½ miles was rebuilt, and the track of the existing line was raised for another 3½ miles on the portion most liable to flood, at a cost of \$27,865. There still remains 2½ miles of line to be rebuilt, and about 4 more to be raised, and when this is completed, the Chaudière Valley line will be free from any danger from floods. \$11,000 has been expended in strengthening the bridges on this branch, but this amount will be charged out in the current year. The additional facilities secured at Levis by the purchase of the new wharf have been of great assistance to the railway, enabling it to easily handle the increased traffic and facilitate the coaling of the engines. During the year considerable additions to the rolling stock have been made and generally the line has been well kept up.

The directors, E. Dent, A. Bremner, T. Lindley, F. H. Norman, London, Eng.; and F. Grundy, Sherbrooke, Que., were re-elected for the current year.

**The Erie and Huron Railway.**

An official of the Pere Marquette Rd. is quoted as stating: "The E. and H. Ry. is a white elephant on the P.M.'s hands, and it can be purchased very cheaply."

The E. and H. Ry. Co. was incorporated by an act of the Ontario Legislature in 1873, and was declared to be subject to the legislative authority of Canada by an act of the Dominion Parliament in 1884. An agreement to amalgamate with the Lake Erie and Detroit River Ry. was confirmed by the Dominion Parliament in 1902. The line extends from Rondeau, on Lake Erie, to Sarnia, 72.63 miles, with a ferry connection at the latter point with Port Huron, Mich. The railway did a considerable coal business, a car ferry being operated to Rondeau by one of the coal carrying lines on the Ohio side of the lake. The line was acquired by the Lake Erie and Detroit River Ry. for the purpose of securing an entrance into the United States. When the Pere Marquette Rd. acquired the L.E. and D.R. Ry. it constructed slip docks at Walkerville, Ont., and Detroit, Mich., for its car ferry service, and also transferred the coal-carrying trade from Rondeau to Port Stanley. As a result the coal handling plant at Rondeau is practically unused, and the line to Sarnia does nothing but a local business.

In 1884 the Dominion Parliament voted \$3,200 a mile for 30 miles for a line from Wallaceburg to Sarnia, and a contract was entered into with the company for the construction of the line, Aug. 27, 1885. Under an order-in-council of Dec. 5, 1886, the whole amount of the subsidy, \$96,000, was paid, the whole 30 miles having been constructed, inspected and passed. In 1890 a further subsidy was voted to the company towards the construction of 22 miles of railway from Petrolea via Oil Springs to Dresden, Ont., at the rate of \$3,200 a mile, but no contract has been entered into under it, and so far as the E. and H.R. is concerned the subsidy has lapsed. It also received a subsidy of \$2,000 a mile from Ontario in respect of 40.556 miles of line, and bonuses from municipalities amounting to \$257,500.

The C.P.R. is reported to have entered into a contract with the Buffalo, Rochester and Pittsburg Rd., for the purchase of a minimum of 225,000 tons of coal a year for two years, ending April 30, 1910. The B., R. and P. Ry. has agreed to supply up to 300,000 a year if required.



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Car heating by controllable direct steam and water circulating systems steam tight couplers, traps, train pipe valves and other appliances. ∞ ∞ ∞

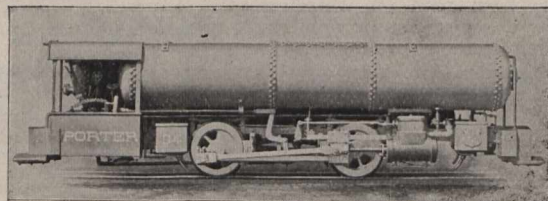
CHICAGO - BOSTON - ST. LOUIS - ATLANTA - PHILADELPHIA - MONTREAL - BERKELEY, CAL.

## LIGHT LOCOMOTIVES

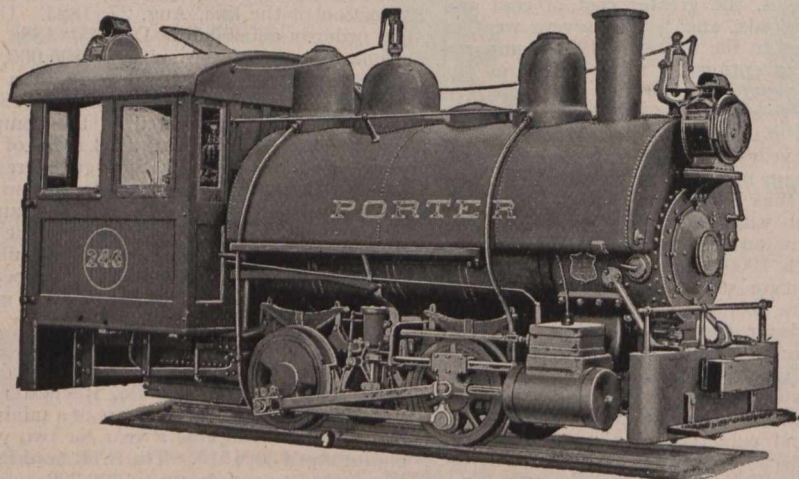
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**National Transcontinental Railway.**

The question of the cost to the Dominion of the Eastern and Western Divisions of the National Transcontinental Ry., under construction from Moncton, N.B., to Winnipeg, Man., by the Transcontinental Ry. Commission, and from Winnipeg to Prince Rupert by the G.T. Pacific Ry., has been made the subject of considerable discussion. On July 6, the Minister of Railways stated that he expected the railway would be fully completed by Dec. 1, 1911. The cost he now estimated at \$63,437 per mile, not including allowance for interest for the 1803.55 miles between Moncton and Winnipeg. The cost of the terminals at Winnipeg is placed at \$2,000,000, and of the terminals at Moncton at \$97,000. In regard to the joint terminals at Winnipeg, by the agreement with the Canadian Northern Ry., the value of the lands on which the station and terminals are to be located is fixed at \$2,625,000. Upon this valuation the Government and the G.T. Pacific Ry. is to pay, in equal shares, one-half of 4% a year. The amount of the valuation includes grading, levelling and filling, but does not include the buildings and the tracks. The Canadian Northern Ry. is to supply these, and the Government and the G.T. Pacific Ry. are to pay in equal shares one-half of 4½%. The assumed cost is set down at \$2,000,000, making the amount payable by the Government yearly at \$22,500, or the total for the Winnipeg terminals of \$48,710. As to the G.T. Pacific prairie section from Winnipeg to Wolf Creek, 119½ miles west of Edmonton, has been located. The estimated cost of construction has been set down at present at \$61,520,000.

On July 7, Hon. R. L. Borden made a lengthened statement as to the cost of the railway. The estimate was based upon the figures supplied by the Government from time to time, and those obtained from private investigation. He said the 1803.55 miles from Moncton to Winnipeg at \$63,427 a mile, not including the Quebec Bridge, would amount to \$114,393,765. Allowing five years for the period of construction, there would be an average of 2½ years simple interest at 3½% a year to be met, or a total of \$10,009,454, making the cost of the Eastern Division, at completion, \$124,403,219. To this must be added seven years' interest at 3%, after completion, during which the G.T. Pacific is to pay no rent, \$26,124,676; and 3% for three years additional, during which no rent is collectible unless the earnings are sufficient, \$11,196,290, making a total of \$161,724,185. The cost of the Quebec Bridge to Mar. 1, 1907, was \$5,422,238, and the estimated cost of completion, \$9,000,000, making \$14,422,238; while the estimated cost to the Government of the terminals at Winnipeg, Quebec and Moncton, and the shops at points east of Winnipeg, was \$5,470,000. Then there was the interest which the Government had to pay on the Mountain section of the Western Division, without recourse, \$9,689,400 (which figure he corrected to \$11,304,300 on July 8), altogether cash liabilities of \$191,305,823 (or as corrected, \$192,920,723). In addition to that amount the Government had contracted to incur various obligations on the guarantee of bonds as follows: Liability on guarantee of bond issue on Mountain section, 75% on cost of 816 miles, estimated at \$61,520,000, or \$46,140,000; liability of bond issue on Prairie section, 916 miles at \$13,000 a mile, \$11,908,000. This made up a cash expenditure and liability of \$191,305,823; and liabilities on bond guarantees of \$58,048,000, or a total of \$249,353,823, and as corrected July 8, a total of \$250,968,723.

On July 12, the Minister of Railways made a statement in reply to Mr. Borden, in which he accepted a number of the figures given, but repudiated others, amounting to some \$97,000,000. He accepted the figure of

\$114,393,765 as the cost of the Eastern Division; \$10,009,454 interest during construction, \$26,124,676 seven years' interest after completion, and placed the cost of terminals at \$3,500,000. It was expected that the line would pay from the outset, consequently the interest for three years' rental which could be collected only if earned, was cut out; as also was the cost of the Quebec Bridge, which was not part of the undertaking. In regard to the Eastern Division, all the burden that would fall on the country was the \$26,124,676, the interest for the seven years after completion, during which no rental was payable by the G.T. Pacific Ry. As regards the Mountain section, he did not believe that Canada would ever be called upon to pay one cent of the guarantee.

These figures were given in the course of the discussion on the voting of \$30,000,000 for surveys and construction on the Eastern Division.

Track was laid in Moncton, N.B., to within a few hundred yards of the Intercolonial Ry. station, June 24, and will run parallel to that line into the station. A steam shovel has been put on the track, and grading for the permanent track is going on. The starting of work at this point was evidently a surprise to the citizens, as although several surveys had been made for the line in the city limits, no announcement had been made as to the route to be followed.

Tenders are being called for and will be received up to Aug. 20, for construction of the following sections:

District C.—From Weymontachene, Que., 196.38 miles west of the north abutment of the Quebec Bridge (being the boundary between Districts C and D), westerly for about 107 miles; to be completed by Dec. 31, 1910.

District C.—From 107 miles west of Weymontachene, Que., westerly to the end of the G.T. Pacific Ry. Co.'s contract, about 114.97 miles; to be completed by Dec. 31, 1910.

Districts D and E.—From the western end of Fauquier Bros.' Abitibi contract in Ontario, westerly for about 104.24 miles; to be completed by Dec. 31, 1910.

District E.—From about 60 miles west of the easterly boundary of District E, in Ontario, easterly to the end of Fauquier Bros.' contract north of Lake Nipigon, Ont., about 100 miles; to be completed by Dec. 31, 1910.

Districts E and F.—From the western end of Fauquier Bros.' contract north of Lake Nipigon, Ont., westerly to Dog Lake, Ont., about 126 miles; to be completed by Sept. 1, 1910.

District F.—From Dog Lake, Ont., to mile 2.6 west of Peninsula Crossing, by alternative routes, being about 23.76 miles by the northerly, and 24.13 miles by the southerly route; the selection of the route to be at the option of the Commissioners; to be completed by Sept. 1, 1910.

**GRAND TRUNK PACIFIC RAILWAY.**

The bridge which the G.T. Pacific Ry. is constructing across the Kaministikwia River at Fort William, Ont., on its Lake Superior branch, will consist of one 258 ft. through swing, and one 125 ft. through riveted truss spans, having an extreme width of 48 ft. The floor of the bridge is arranged to carry one railway track, two roadways and two side-walks. Provision is made for an electric railway track on the roadway. The substructure consists of two abutments, built on pile foundations driven to the solid rock, and two piers built of concrete from the rock line. The pier carrying the swing span is toward the northern bank of the river, leaving a navigable channel of 100 ft. with a maximum depth of 23 ft., and a minimum depth of 15 ft., for a few feet at the southern pier. On the north side of the centre pier there is a depth of over 20 ft. for about 40 ft. from the pier. The bed of the rail will be 33 ft. above water level. The bridge is being constructed in accordance

with the Dominion Government specifications for the class of bridge designed to carry heavy traffic.

Tracklaying is going on continuously on the line west from Saskatoon, Sask., and in the week ending June 29, 30 miles of steel were laid. In the yards at Saskatoon, large numbers of cars of material, and steel rails and ties for many miles of track are stored, and several carloads of steel for the bridge over the Battle River are waiting to be sent forward. This point is 630 miles west of Winnipeg, and 169 miles east of Edmonton, Alta. F. W. Morse, Vice-President, returned to Montreal July 5, after having gone over the line as far as track had been laid. It is expected that a considerable portion of the mileage to the Battle River will be opened Sept. 1, for the hauling of grain to Winnipeg.

Tracklaying on the line between Portage la Prairie and Winnipeg was completed July 13.

Beyond Battle River, nearly the whole of the grading into Edmonton has been completed, and it is hoped to have the track laid by the winter. On this section of the line is the big bridge across the Saskatchewan River at Clover Bar. The bridge has a total length of 1,560 ft., and is carried on four concrete piers in the river, two abutments, and 30 pedestals on the banks. The river piers have a total height of 124 ft., the distance from footing to lower seat being 92 ft.; from footing to upper seat, 98 ft.; and from footing course to bottom of foundation, 26 ft. The measurement at lower seat is 11 by 26 ft.; and at foundation, 41 by 87 ft. 6 in.; while the batter is half an inch to the foot. The total amount of the concrete contained in each pier is 4,171 cubic yards. The steel for the superstructure is in course of delivery.

West of Edmonton the grading on the 129 miles westerly to Wolf Creek is in a forward condition and it is expected to have it completed and ready for the rails by the fall.

In connection with the construction of the line through British Columbia, the Provincial Government has promised to give substantial assistance towards opening up a road through the Revelstoke district for taking in supplies and men for the construction of the 79 mile section through the Yellow Head Pass to Tete Jaune Cache, and 150 miles west, provided the contractors adopted the Revelstoke route and undertook to purchase supplies in the province. During his visit to the west, F. W. Morse, Vice-President, stated that an announcement would shortly be made with respect to the letting of contracts for the 100 miles from Wolf Creek to the Yellow Head Pass, and for 79 miles west of the Pass, the tenders for which had been received.

Considerable progress is reported to have been made on the line in the mountains near Prince Rupert. Foley, Welch and Stewart, the contractors, have let a number of sub-contracts, the firms engaged being: Neil Keith, J. E. Bostrom, McDonald and MacAllister, M. Shady, A. Stewart, Harstone and Stainer, McDonald and Perry, Dudley Bros., A. Ross, N. McLeod, D. Harrigan, F. Peterson, Washbok & Co., J. Albi, A. Filigno, D. A. Rankin, D. Stewart, and the Prince Rupert Construction Co. These sub-contracts practically cover the mileage for which the contract has been let, with the exception of about 15 miles north of Graveyard Point, which the general contractors are doing themselves. (July, pg. 467.)

The Nova Scotia Government has approved of by-law D of the Maritime Coal, Ry. and Power Co., fixing tariff for freight and coal on its line. The Government, however, ordered the reduction of the rate on coal from 40c. per gross ton to 30c. per gross ton between Maccan and Jubilee, Strathcona River, Hebert and Minudie, and to 32c. per ton from Maccan to Prospect and Joggins.



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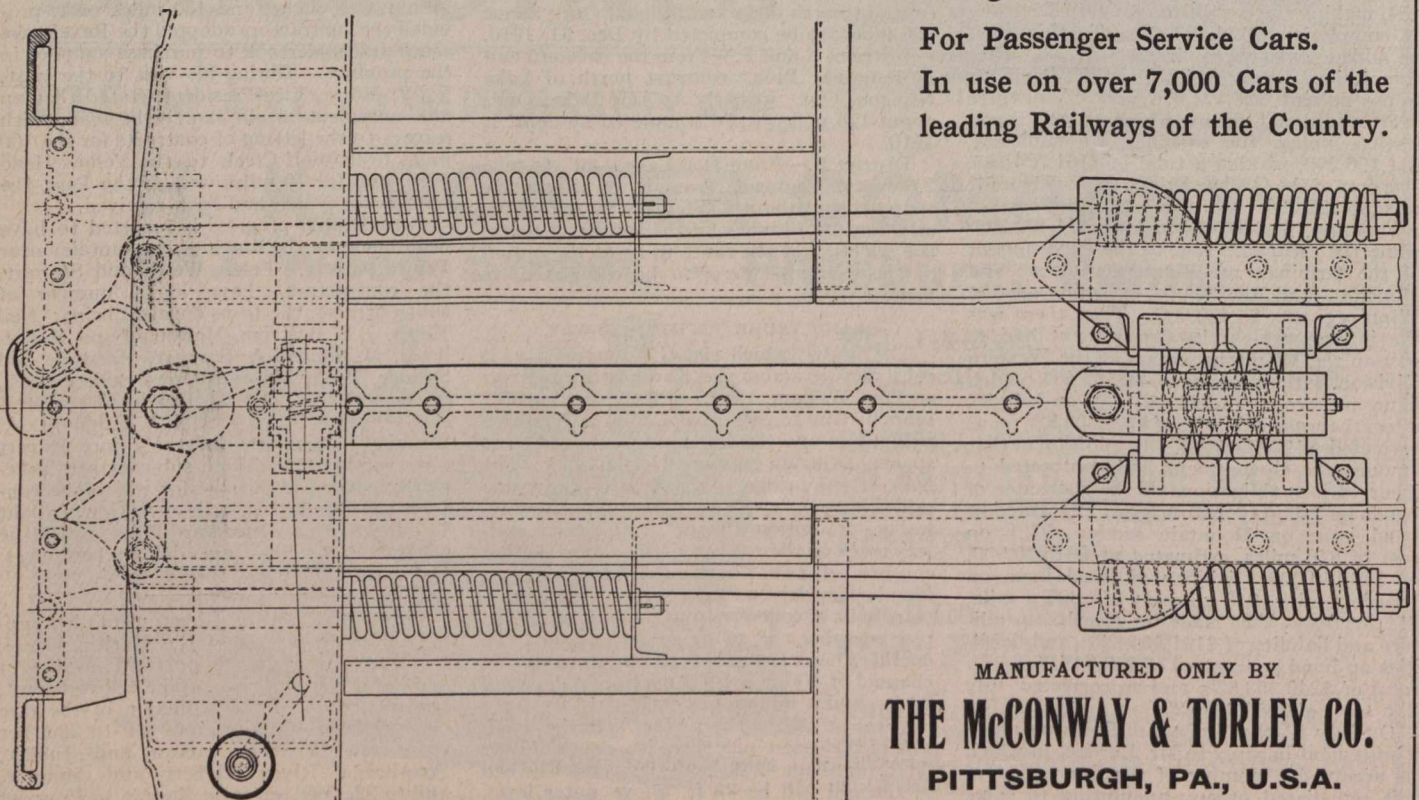
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**Railway Commissioners' Traffic Orders.**

**M.C.R. SWITCHING CHARGES AT ST. THOMAS.**

4796. May 20. In the matter of the complaint of the John Campbell Co., Ltd., of St. Thomas, Ont., alleging that the Michigan Central Rd. Co. was charging excessive tolls for switching cars to and from complainant's mill in City of St. Thomas; and applying for an order directing that the tolls be reduced. Upon hearing what was alleged on behalf of the complainant, and counsel for the railroad company, and upon the report of its Chief Traffic Officer, the Board orders that the toll to be charged by the railroad company from or to its point of interchange with the Pere Marquette Rd., for the switching of the cars in question delivered to the P.M.R. by the G.T.R., or by the P.M.R. to the G.T.R., be \$3 a carload. And the Board orders that the railroad company refund to complainant the difference between the charges made and the amount provided in this order, from the date of the receipt by the railroad company of the Chief Traffic Officer's report, viz., July, 1907, with interest at 5% per annum on the excessive payments from the date of each payment down to the date the refund is made. And the Board orders that this order be without prejudice to variation or rescission, either upon the application of the railroad company or the application of complainant, or upon the motion of the Board, if it does not harmonize with the conclusions arrived at by the Board when the general interswitching matter is disposed of.

Following are extracts from Chief Commissioner Mabee's judgment in this case: "The complaint is one of long standing, and the Board does not think that the matter should be allowed to stand indefinitely to be disposed of with the other interswitching cases that have been before the Board for some time. The case differs very materially from the Peterborough Sandstone Brick Company's, which was also heard the same day, and which was allowed to stand, because in that case an attempt was made, with some degree of success, to show that the charges made for the switching complained of there were not unreasonable, and evidence was given for the purpose of showing the expense the railway company was put to in connection with the work done and for which the tolls were being exacted. This case is in a different position.

"There is a charge here made by the M.C.R. for switching cars to and from this mill, which seems to the Board to be entirely unreasonable and out of proportion to the service rendered. It has been going on for a long time. The railway company has had every opportunity to justify the charge and give evidence for the purpose of showing that the toll at least bears some reasonable proportion to the expense and labor involved in connection with the service. The railway company is content by simply doing nothing but continuing to make the charge, and then, when an opportunity is given to justify the charge made, all that is requested is that the matter be further delayed.

"The applicant contended that the tolls should be reduced, I think, to \$1 a car in one case, and perhaps \$2 in another. We are, without any assistance from the railway company for the purpose of enabling us to judge from its point of view what would be a reasonable charge. We have, however, the report of the Board's Chief Traffic Officer, made July 9, 1907, and rather than accept the statements made by applicants as to what they thought was a fair charge, the Board thinks, under the circumstances, it would be more reasonable to adopt the figures at that time furnished

by its own officer, a copy of which was sent to the railway company's solicitors July 19.

"The Board's Traffic Officer's report was sent to the solicitors of the railway company on July 19, 1907. The railway company has continued making the charges as to which the complaint was lodged, notwithstanding the suggestion made at that time; and the Board thinks, under the circumstances, that it is a reasonable and proper thing that the railway company should refund to the applicant the difference between the charges made and the figures I have just indicated, as being in the Board's judgment fair for the service rendered, from the date of the receipt of the Traffic Officer's report, namely, July 19, 1907, together with interest at 5% on the excessive payments from the date of each payment down to the date of the refund."

**SYDENHAM GLASS CO'S COMPLAINT.**

June 8, 1908. The Secretary of the Board has sent the following letter to the Chairman of the Advisory Committee of the Canadian Freight Association:

"Referring to the complaint of the Sydenham Glass Company herein, I am directed to inform you that the Board is of the opinion that the sample of glassware in question is clearly a jar and not a bottle, and to this end the contention of the railway companies must prevail. It seems, however, that the applicants did not fully develop their case in 1904 when they obtained the ruling of the Board dealing with bottles, and they should have a further opportunity to present such evidence or argument as they may desire with the view of bringing the present article within the principle of the Board's decision relating to bottles; that is to say, if they are of the opinion that the same can be done. The Board will, therefore, fix a day for the hearing if the applicants wish to pursue the matter further."

**SPECIAL FREIGHT RATES RE CORNWALL CANAL BREAK.**

4924. June 25.—In the matter of the application of the G.T.R. and the C.P.R. Companies for permission to carry under special rate notices certain freight traffic for delivery to them by vessel owners at Kingston, Brockville, and Prescott, Ont., for transportation to Montreal: Whereas the applicant companies have made a joint telegraphic application to the Board, under sec. 342 of the Railway Act, for permission to carry under special rate notices certain freight traffic for delivery to them by vessel owners at Kingston, Brockville, and Prescott, for transportation to Montreal, the said ports being competitive points, for which the said vessel owners have issued bills of lading at western lake ports, and which they are unable themselves to carry to Montreal in consequence of an interruption to navigation caused by a break in the Cornwall canal; it is ordered that by consent of the companies they be permitted to provide for the traffic aforesaid by the immediate issue and filing of special rate notices, to be followed by the publication and filing of special tariffs which shall be so published and filed with no greater delay than may be necessary for their preparation and printing; provided that the said special tariffs do not discriminate as between shippers, localities, or commodities, or otherwise infringe the provisions of the Railway Act; such special tariffs to take effect as of this date.

**CHARGES FOR INTERSWITCHING.**

4988. July 8. In the matter of the following complaints made to the Board—the Canadian Manufacturers' Association, the Huntsville Lumber Co., et al, against the G.T.R. Co.; the W. Booth Lumber Co.

against the G.T.R. Co.; the Winnipeg Manufacturers' Association against the C.P.R. Co. and the Canadian Northern Ry. Co.; W. J. Lovering against the G.T.R. Co.; Leak & Co. against the G.T.R. Co.; T. Dexter & Son against the G.T.R. Co.; the Boake Manufacturing Co. against the G.T.R. Co.; the Peterborough Sandstone and Brick Co. against the C.P.R. Co. and the G.T.R. Co.; the Town of Lindsay, Ont., against the G.T.R. Co., the Lindsay, Bobcaygeon and Pontypool Ry. Co. and the C.P.R. Co.; the Windsor, Essex and Lake Shore Rapid Ry. Co. against the Pere Marquette Rd. Co.; Melady & Co. against the Canadian Northern Ry. Co.; the Board of Trade of Niagara Falls re interswitching at Niagara Falls, Ont., and J. Davy against the Niagara, St. Catharines and Toronto Ry. Co. Whereas the foregoing and many other complaints have been made to the Board against various railway companies regarding the charges made for interswitching; therefore the Board, having heard the evidence adduced in support of some of the said charges—certain of the same having been allowed to stand over until the matter could be dealt with in a general manner as far as possible with the view of establishing some fixed basis for payment for interswitching services—and having fully considered the views and submissions of the various interests, and the report and recommendations of its Chief Traffic Officer, under the authority conferred upon it by the Railway Act, orders as follows:

For the interpretation, application, and operation of this Order:

1. (a) "Interswitching" shall not include the service incidental to the transfer and continuous carriage of through or interline traffic between points outside of and beyond the terminal limits hereinafter prescribed. (b) "Contracting Carrier" shall, where it is necessary, between the points of shipment and delivery, to use the line or lines of another carrier or other carriers than the carrier performing the interswitching service, include such other carrier or carriers.

2. It shall be lawful for the contracting carrier to absorb the toll charged for the interswitching of competitive traffic.

3. Upon traffic destined to consignees located upon, or reasonably convenient to, the tracks of the contracting carrier, or to consignees who have customarily accepted the contracting carrier's delivery, or which may be so consigned as not to indicate clearly the delivery required, and which subsequent to shipment is ordered by the shipper, the consignee, or the agent of either, for interswitch delivery involving an additional service by another carrier, and which is so interswitched, the contracting carrier may charge and collect, in addition to its freight charges (including back charges if any), the interswitching toll of the carrier which performs such service, which toll shall not be more than 20c. per ton for any distance not exceeding 4 miles, nor more than \$3 as the minimum and \$8 as the maximum per carload.

4. Upon traffic destined to consignees located upon or reasonably convenient to tracks other than those of the contracting carrier, or to consignees who have customarily required such other carrier's delivery, the contracting carrier may for the interswitching service rendered necessary for such delivery charge and collect an additional toll of not more than 10c. per ton for any distance not exceeding 4 miles, nor more than \$1.50 as the minimum and \$4 as the maximum, per carload; and the interswitching toll of the carrier which performs such service shall not be more than 20c. per ton, nor more than \$3 as the minimum, and \$8 as the maximum, per carload provided that the contracting



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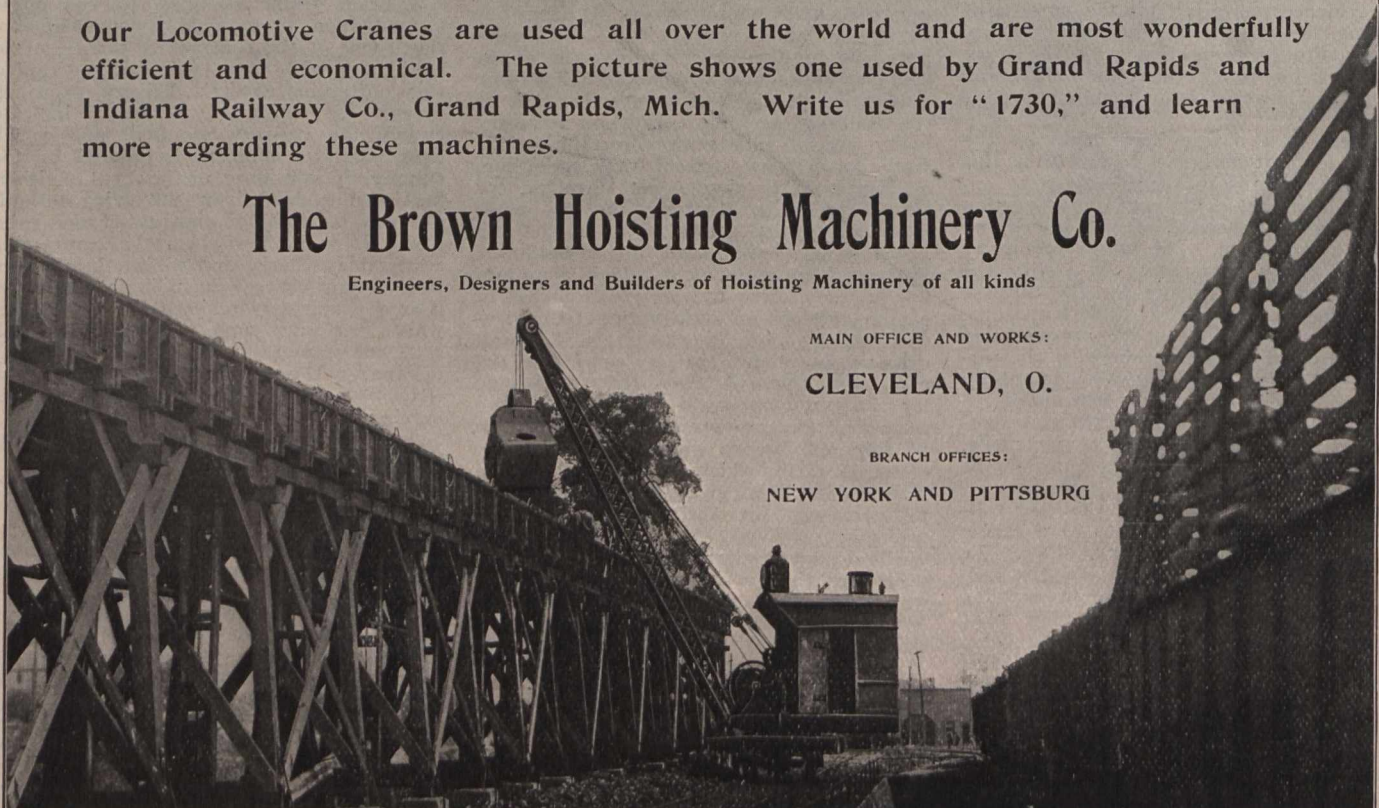
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carrier shall not thereby be required to reduce its revenue below \$8 per carload.

5. Distance shall be computed to or from the nearest point of interchange.

6. The foregoing tolls shall include the empty movement of the car to or from the point at which it was received by the inter-switching carrier.

7. Traffic consigned "to order" shall be subject to the provisions of paragraphs 3 and 4 of this order as the same may apply.

8. Traffic interswitched at the point of shipment shall be subject to clause 4 of this order, in so far as the same may be applicable.

9. The class and commodity tariffs of all railway companies subject to the provisions of the Railway Act shall show clearly and explicitly at what points and under what circumstances inter-switching services will be performed, and at whose expense.

10. The tolls herein provided for inter-switching service shall not interfere with or supersede any lawfully published freight rates for ordinary freight service from station to station.

11. All and every arrangement or device, such as free or assisted cartage, cartage allowances, or the like, intended to equalize the facilities of competing companies at common points, except such as are lawfully published in the freight tariffs of the companies, are hereby prohibited.

#### CLASSIFICATION OF ALES, MINERAL WATERS, ETC.

5023. July 7. In the matter of the application of J. Christin & Co., and other manufacturers of Montreal, for an order directing railway companies to provide a reasonable classification of mineral and aerated waters in wooden boxes, with pulp or fibreboard covers. Upon reading what has been alleged in support of the application and on behalf of the Advisory Committee of the Canadian Freight Association, and upon the report and recommendation of its Chief Traffic Officer, the Board orders that ale, beer, porter, cider, ginger ale, and mineral and aerated waters, in boxes with pulp or fibreboard covers, owner's risk of pilferage, be classified 3rd class in less than carloads, and 5th class in carloads. And the Board further orders that the classification as herein provided be included in supplement 3 to the Canadian Classification 13.

#### Customs Regulations for Railways.

At the recent session of the Dominion Parliament the following sections were added to the Customs Act, Revised Statutes of Canada, 1906, chap. 48:

Added at end of sec. 22: "2. The conductor of every railway train carrying freight arriving at any port in Canada from any foreign port or place, shall, at the time of making his report, if required by the officer, produce to him the way bills of all goods on board his train or true copies thereof."

Added after sec. 287, sub-sec. 2: "3. Officers of Customs examining baggage, inspectors of Customs and their assistants, and other duly accredited officials of the Department of Customs, with their baggage and their equipment, shall at all times when thereunto required by the Minister of Customs, be carried free of charge on any steamship or steamboat navigating the waters of Canada, and on any railway in Canada, provided such railway, steamboat or steamship participates in the transportation of goods in bond under Customs manifests in Canada."

The Dominion Marine Association unsuccessfully opposed the passage of the amendment.

#### 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.

E. C. Adams, formerly with the Garlock Packing Co., is now representing the Anchor Packing Co., at 1001 Ford Building, Detroit, Mich.

J. J. Gartshore, Toronto, has secured an additional contract for 800 tons of 56-lb. rails for the Winnipeg city power development line to Point du Bois. The first contract was for 700 tons.

The Vulcan Iron Works, Wilkes-Barre, Pa., has issued a series of handsomely executed circulars illustrating the principal different types of locomotives they build, including light freight and passenger, freight and switching, freight and logging, logging, contractors', plantation, plantation and logging, six-driver two-wheel rear truck, and six-driver saddle tank locomotives. The circulars give very full information of dimensions, hauling capacity, etc.

The Canadian Rand Co., Ltd., Montreal, has issued a catalogue, "Compressed air appliances and uses of compressed air," which contains a large amount of information of interest and value to users of air hoists, trolleys, pile cranes, compressed air and hydro-pneumatic elevators, compressed air jacks, pneumatic rams, broaching hammers, blacksmiths' air hammers, pneumatic tools, motor hoists, riveting machines, sand blasts, air lift pumps, air compressors, rock drills, etc. The catalogue is extremely well illustrated, and contains a large amount of descriptive matter.

**British Empire Trust Co.**—This is the title of a corporation formed under the British Joint Stock Companies Acts, with its head offices in London, Eng., in 1902, for the purpose of facilitating the placing of British capital in colonial securities, and to protect the interests of British investors, by acting as trustees for them and keeping them informed as to the progress of the enterprises in which their money has been invested. The company already acts as trustee for securities of the face value of £11,500,000, and among the companies for which it acts in one capacity or another are: Canadian Northern Ry., Qu'Appelle, Long Lake and Saskatchewan Rd. and Steamboat Co., British Columbia Electric Ry., Toronto Power Co., Vancouver Power Co., Canadian Northern Prairie Lands Co. The company has issued 400,000 deferred shares of five shillings each, all of which has been paid up, and is now issuing 250,000 preferred ordinary shares of £1 each. The officers and directors are: Chairman, R. M. Horne-Payne, Chairman of the B.C. Electric Ry., and a director of the Canadian Northern Ry.; directors: U. S. Russell, director Canadian Northern Prairie Lands Co.; T. B. Brown, director B.C. Electric Ry.; Hon. M. R. Gifford, director B.C. Electric Ry., London, Eng.; W. Mackenzie, President Canadian Northern Ry.; D. B. Hanna, Third Vice-President Canadian Northern Ry., Toronto; D. N. Laurie, Halifax, N.S. Manager, J. Davidson.

The report to the effect that the Canadian Northern Ry. is about to be absorbed by one of the other transcontinental railways, has now become a "hardy annual," and has again been officially denied by the companies mentioned as being concerned.

#### Dominion Railway Subsidies for 1908.

The Dominion Parliament at its recent session voted subsidies in aid of railways at the rate of \$3,200 a mile when the cost does not exceed \$15,000 a mile, and increasing to \$6,400 in proportion as the cost of construction increases. Following are the new subsidies voted:

##### NOVA SCOTIA.

**DOMINION ATLANTIC RY.**—From Centreville to Aylesford or Kingston or Middleton, not exceeding 35 miles.

**HALIFAX AND SOUTH WESTERN RY.**—From Lunenburg to Bridgewater, via Upper La Have, 12 miles.

**MARITIME RY. Co.**—From Chignecto to Northumberland Straits, 25 miles; from Joggins Mines to the Bay of Fundy, not exceeding 1 mile.

**ST. PETER'S TO SYDNEY.**—For a line between these points, via the south shore of Bras d'Or Lake, not exceeding 60 miles. The Cape Breton Ry., extending from Port Hawkesbury to St. Peter's has a charter covering this distance.

**TUSKET WEDGE TO RIVERDALE.**—From Tusket Wedge to the Halifax and South Western Ry., at or near Riverdale, not exceeding 8 miles. The Tusket Wedge Ry. Co. has been incorporated by the Nova Scotia Legislature to construct such a line.

##### NEW BRUNSWICK.

**CANADIAN PACIFIC RY.**—From Plaster Rock to Riley's Creek, 28 miles.

**CENTREVILLE OR WOODSTOCK TO GRAND FALLS.**—From between Centreville and Woodstock to Grand Falls, not exceeding 25 miles.

**GAGETOWN TO FREDERICTON.**—For a line between these points, not exceeding 40 miles.

**NORTH SHORE RY.** (formerly Beersville Coal and Ry. Co.)—From Beersville to Brown's Landing, 7 miles; and a branch from the main line to Mount Carlyle, 2.50 miles.

**WESTFIELD TO ST. JOHN.**—For a line between these points not exceeding 14 miles.

**YORK AND CARLETON RY.**—From the present terminus to the National Transcontinental Ry., not exceeding 9 miles.

##### QUEBEC.

**CANADIAN NORTHERN QUEBEC RY.**—From Montreal to Hawkesbury, 65 miles.

**EASTERN TOWNSHIPS RY.**—From St. Leonard's Jct., on the Intercolonial Ry., to Dudswell, 36 miles.

**GREAT NORTHERN RY. OF CANADA.**—From St. Jerome to Charlemagne (Bout de l'Islet), 22 miles. The G.N.R. of Canada is a part of the Canadian Northern Quebec Ry.

**L'AVENIR AND MELBOURNE RY.**—From Melbourne to Drummondville, not exceeding 28 miles.

**MONTREAL NORTHERLY.**—From Montreal to a junction with the National Transcontinental Ry., not exceeding 200 miles.

**NORTHEASTERN RY.**—From east of Lake Temiskaming near Ville Marie, easterly, not exceeding 25 miles.

**PAPINEAUVILLE TOWARDS NOMININGUE.**—From Papineauville on the C.P.R., towards Nominique, not exceeding 30 miles.

**QUEBEC AND LAKE ST. JOHN RY.**—From Valcartier station to St. Catherine, not exceeding 3.8 miles; from Valcartier station towards Gosford, 5.50 miles; from the end of the 35th mile of the branch to La Tuque on the St. Maurice River, to La Tuque Falls, 5 miles; from La Tuque Falls to the mouth of the River Croche, 5 miles; from the La Tuque branch to the steamboat landing near La Tuque, not exceeding 1.6 miles; from Chicoutimi, south, or southeast, not exceeding 5 miles.

**QUEBEC CENTRAL RY.**—From St. George to St. Justine, 30 miles.



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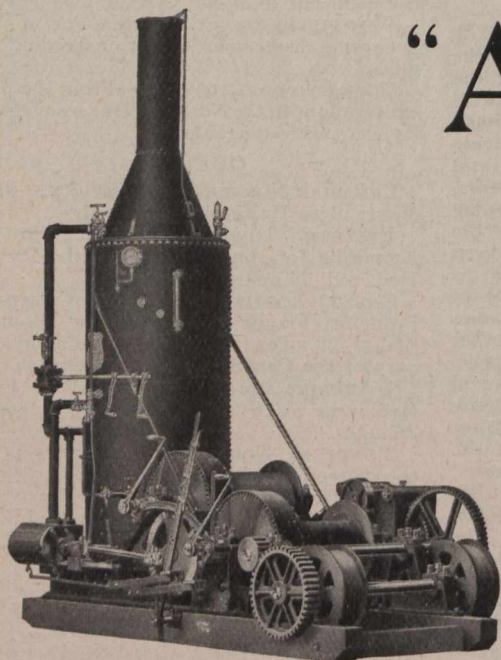


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**DOUBLE HANDLE CALLED FOR** "Where a coupler couples by impact, but cannot be uncoupled unless the brakeman or switchman goes between, or over, or under the cars, or around the end of the train, IN ORDER TO REACH THE APPLIANCE ON THE CONNECTING CAR, such a coupling is **DEFECTIVE AND PROHIBITED BY LAW.**"—Judge McPherson, Des Moines, Iowa.



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# AMERICAN HOIST & DERRICK CO.

ST. PAUL, U.S.A.

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NEW ORLEANS

SAN FRANCISCO



QUEBEC, MONTREAL AND SOUTHERN RY.—From Noyan Jct. to the International boundary, eight miles; from St. Lambert to St. Constant, 15 miles.

ST. MAURICE VALLEY RY.—From Three Rivers to St. Maurice, 28 miles.

SAGUENAY AND JAMES BAY RY.—From Herbertville to St. Joseph d'Alma, 10 miles.

#### ONTARIO.

ALGOMA CENTRAL AND HUDSON BAY RY.—From Michipicoten Harbor towards the National Transcontinental Ry., 50 miles.

BURK'S FALLS AND FRENCH RIVER RY.—From Burk's Falls to French River, 85 miles. This company is controlled by the G.T.R.

CANADIAN NORTHERN ONTARIO RY.—From Sudbury Jct. to Hutton Mines, 30 miles; from Hawkesbury to Ottawa, 60 miles.

ERIE, LONDON AND TILLSONBURG RY.—From Port Burwell to London, not exceeding 35 miles.

GRAND TRUNK PACIFIC BRANCH LINES.—From the National Transcontinental Ry. to Port Arthur and Fort William, not exceeding 220 miles.

LAC SEUL, RAT PORTAGE AND KEEWATIN RY.—From Kenora to the National Transcontinental Ry., not exceeding 18 miles.

NIPISSING CENTRAL RY.—From the Temiskaming and Northern Ontario Ry., near New Liskeard, to Guigues tp., Que., not exceeding 13 miles.

ST. MARY'S AND WESTERN ONTARIO RY.—From Woodstock to Exeter, not exceeding 45 miles.

THESSALON AND NORTHERN RY.—From Thessalon northerly, not exceeding 4 miles.

#### MANITOBA.

CANADIAN PACIFIC RY.—From Winnipeg Beach, northeasterly to Gimli, 9½ miles; from Gimli to Riverton, not exceeding 25 miles.

#### SASKATCHEWAN.

CANADIAN PACIFIC RY.—From Moose Jaw northwesterly, 123 miles.

#### ALBERTA.

COWLEY TO HIGHWOOD RIVER.—From Cowley to Highwood River, not exceeding 50 miles.

MACLEOD TO INTERNATIONAL BOUNDARY.—From MacLeod, via Cardston, towards the International boundary, west of range 21, 45 miles.

RED DEER TO ROCKY MOUNTAIN HOUSE.—From Red Deer to the North Saskatchewan River near Rocky Mountain House, 70 miles.

#### BRITISH COLUMBIA.

CARMI TO PENTICTON.—From Carmi to Penticton, not exceeding 50 miles.

DEATH RAPIDS.—For a line around Death Rapids, not exceeding 4 miles.

ESQUIMALT AND NANAIMO RY.—From near French Creek to Sandwich, 41 miles; from Sandwich to Campbell River, 38 miles; from Cowichan Bay to Cowichan Lake, 24 miles.

NICOLA TO PENTICTON.—From Nicola to Penticton, not exceeding 100 miles.

PACIFIC NORTHERN AND OMINECA RY.—From Kitimat to Telkwa River, 110 miles.

VANCOUVER AND LULU ISLAND RY.—From Eburne to New Westminster, not exceeding 9.65 miles.

VANCOUVER ISLAND AND EASTERN RY.—From the Esquimalt and Nanaimo Ry., near Campbell River, towards Fort George, on the G.T. Pacific Ry., not exceeding 100 miles.

VANCOUVER, WESTMINSTER AND YUKON RY.—From Vancouver towards St. George, on the G.T. Pacific Ry., not exceeding 100 miles.

The bill also provides for the granting of subsidies for railway bridge construction as follows:

Towards construction and completion of bridge and approaches over Nicolet River at Nicolet, Que., in lieu of the subsidy granted in 1907, \$15,000.

To the C.P.R. (lessees of the Calgary and Edmonton Ry.), towards construction and completion of bridge over Saskatchewan River connecting Strathcona and Edmonton, Alta., 15% upon amount expended thereon, not exceeding \$100,000.

To the Quebec, Montreal and Southern Ry. Co., towards construction and completion of following bridges: Across Gentilly River, \$15,000; across Becancourt River, \$30,000; across Richelieu River, \$30,000.

To Atlantic, Quebec and Western Ry., towards construction and completion of the 26 railway bridges between Paspebiac and Gaspé, payable upon completion of railway between these points, \$250,000.

To Interprovincial Railway Bridge Co. of New Brunswick, towards the construction and completion of bridge over Restigouche River from Campbellton to Mission Point, \$160,000.

The Canadian Northern Ry. is given a guarantee of bonds to the extent of \$13,000 a mile in respect of the construction of the following lines: From near Regina, Sask., to westerly boundary of Manitoba, there connecting with the company's line to Brandon, 152 miles. From near Saskatoon, Sask., thence southerly and westerly towards Calgary, 175 miles. From near Prince Albert, Sask., by way of North Battleford and Battleford Jct., excluding mileage between North Battleford and Battleford Jct., 132 miles. From Thunder Hill line of the company's railway at westerly boundary of Manitoba, running generally westerly towards Rosthern, 100 miles. Extension of Rosburn line from western boundary of Manitoba northwesterly, 50 miles.

The Edmonton, Yukon and Pacific Ry., which is the western extension of the Canadian Northern Ry., is also given a guarantee of bonds to the extent of \$13,000 a mile for the first 50 miles, from the company's line, or on the Edmonton and Slave Lake Ry. line, at or near Edmonton, or Strathcona, Alta., westerly to the coal areas near Brazeau River, and \$25,000 a mile for the remainder, not exceeding in all 170 miles. Interest on the securities to be paid half-yearly, at 3½% per annum, and principal payable in 50 years. It is also provided that the guarantee of securities shall not be given until the E.Y. & P. Ry. Co. and the Canadian Northern Ry. Co. shall have amalgamated under the name of the latter company, nor until the amalgamated company, as successor, has, as maker of such securities, become liable for payment of principal and interest.

The following are re-votes of subsidies previously granted:

#### NOVA SCOTIA.

CAPE BRETON RY.—From Port Hawkesbury or Point Tupper, to St. Peter's, not exceeding 31 miles, in lieu of subsidy granted in 1899 for 30 miles.

DEANS SETTLEMENT.—From near Deans Settlement to near Melrose, not exceeding 52 miles, in lieu in part of subsidy granted in 1906. From the Intercolonial Ry. near Dartmouth, to Deans Settlement, not exceeding 80 miles, in lieu in part of subsidy granted in 1906.

DOMINION ATLANTIC RY.—From Brazil Lake, on the D.A.R., to Kemptville, not exceeding 11 miles, in lieu of subsidy granted in 1900.

INVERNESS RY. AND COAL CO.—From Cheticamp to line already built between Broad Cove and Point Tupper, not exceeding 37 miles, in lieu of subsidy granted in 1903.

MARGAREE COAL AND RY. CO.—From Orangedale, on Intercolonial Ry., via the

side of Lake Ainslie and Ste. Rosa, to Chimney Corner Cove, not exceeding 46 miles; and from the Intercolonial Ry. between Orangedale and Point Tupper to Caribou Cove on Inhabitant's Bay or River, not exceeding 4 miles, in lieu of subsidy granted in 1907 for 38 miles; not exceeding in all 50 miles.

NEW GLASGOW.—From New Glasgow to Melrose, and from Melrose to Guysborough, with branch line to Country Harbor, not exceeding in all 116 miles, in lieu in part of the subsidy granted in 1906

#### NEW BRUNSWICK.

INTERNATIONAL RY. OF NEW BRUNSWICK.—From western end of the 20 miles of its railway, already constructed from Campbellton, to the St. John River between Grand Falls and Edmundston, not exceeding 90 miles, in lieu of subsidies granted in 1903.

#### QUEBEC.

ATLANTIC, QUEBEC AND WESTERN RY.—From Causapsal, on Intercolonial Ry., to Edmundston, not exceeding 160 miles, in lieu of subsidy granted in 1906.

CANADIAN NORTHERN QUEBEC RY.—From near Arundel to the united townships of Preston and Hartwell, not exceeding 30 miles; and for a line connecting its Montfort and Gatineau line with the main line at St. Jerome, not exceeding 15.2 miles; in lieu of subsidies granted to Great Northern Ry. of Canada in 1906; not exceeding in all 45.2 miles.

CANADIAN NORTHERN QUEBEC RY.—From Garneau Jct. to or towards Quebec Bridge, not exceeding 83 miles, in lieu of the subsidy granted to Great Northern Ry. of Canada in 1906 for 70 miles.

HA HA BAY RY.—From Jonquieres Village to Baie des Ha Ha, via Laterrieres Village, not exceeding 24 miles, in lieu of the subsidy granted in 1906 for 20 miles.

LOTBINIERE AND MEGANTIC RY.—To extend its railway southerly from near Lyster, to or towards Lime Ridge, Dudswell, not exceeding 50 miles, and from its line in Inverness, to the bridge over the St. Lawrence near Quebec, not exceeding 30 miles, in lieu of subsidies granted in 1906; not exceeding in all 80 miles.

MATANE AND GASPE RY.—From Ste. Flavie, on Intercolonial Ry., to Matane, not exceeding 38 miles, in lieu of the subsidy granted in 1906 for 30 miles.

QUEBEC AND NEW BRUNSWICK RY.—From Chaudiere Jct. to the International boundary, not exceeding 80 miles, in lieu of subsidies granted in 1901 for 45 miles, and in 1907 for 18 miles.

ROBERVAL WESTERLY.—From Roberval westward toward James Bay, not exceeding 100 miles, in lieu of the subsidy granted in 1906.

STE. AGATHE DES MONTS.—From Ste. Agathe des Monts station toward Howard tp., passing near Lake St. Joseph and St. Mary southerly, not exceeding in all 15 miles, in lieu of subsidies granted in 1906.

UNITED COUNTIES RY.—From Yamaska to Lotbiniere County, not exceeding 70 miles, in lieu of subsidy granted in 1903, and from Mount Johnson to St. Gregoire station, not exceeding 1½ miles, in lieu of subsidy granted in 1899 for 1 mile.

#### ONTARIO.

BATHURST TO SHARBOT LAKE.—For a line between these points, via Lanark or Carleton Place, not exceeding 41 miles, in lieu of the subsidy granted in 1906.

BAPTISTE TO RENFREW.—For a line from a point near Baptiste, easterly to a point near Renfrew, not exceeding 75 miles, in lieu of the subsidy granted in 1906.

BRACEBRIDGE AND TRADING LAKE RY.—For a line from Bracebridge, to a point near Baysville, not exceeding 16 miles, in lieu of the subsidy granted in 1904 for 15 miles.



# 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."

**PLYE-NATIONAL ELECTRIC HEADLIGHT CO.**  
MONADNOCK, CHICAGO

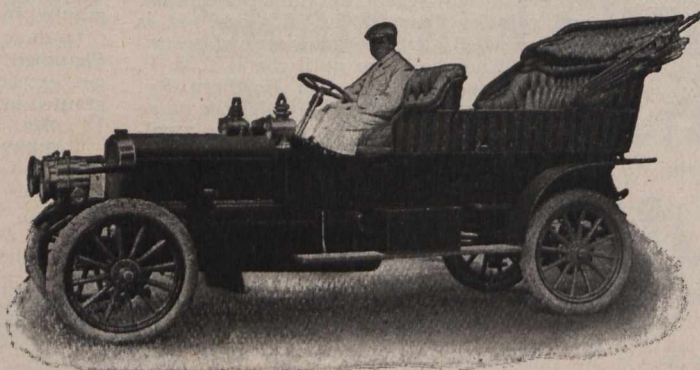
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45 H.P. Six-Cylinder Car.

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**MOTOR DELIVERY WAGONS, OMNIBUSES  
LORRIES**

SOLE SALES AGENTS FOR CANADA

**POLSON IRON WORKS LIMITED, TORONTO**



**MANITOULIN AND NORTH SHORE RY.** (of the Canada-Central Ry.)—For lines from the M. and N.S.R., between Little Current and Sudbury, westerly towards the Algoma Central and Hudson Bay Ry, not exceeding 100 miles; from Little Current, thence crossing the C.P.R. near Stanley thence to Sudbury, not exceeding 64 miles; from Sudbury, northerly, not exceeding 30 miles, in lieu of subsidies granted in 1906.

**NIPIGON RY.**—From near Nipigon station on C.P.R., to Nipigon Lake, not exceeding 30 miles; from Nipigon Bay to the west side of Lake Helen, on line of Nipigon Ry., not exceeding 3½ miles; from the Nipigon Ry., near crossing of Fraser River to Lake Jesse, by Cameron Falls, not exceeding 1½ miles; from north shore of Lake Nipigon, northerly, not exceeding 45 miles, in lieu of subsidies granted in 1906.

**ONTARIO, NORTHERN AND TIMAGAMI RY.**—From Sturgeon Falls, northwesterly, to the westerly shore of Lake Timagami, not exceeding 50 miles, in lieu of subsidy granted in 1906.

**OWEN SOUND AND MEAFORD RY.**—From Owen Sound to Meaford, not exceeding 30 miles, in lieu of subsidy granted in 1906.

**BRITISH COLUMBIA.**

**KETTLE RIVER VALLEY RY.**—From Grand Forks to 50 miles up the North Fork, and East or West Fork of North Fork of Kettle River, not exceeding 50 miles, in lieu of subsidy granted in 1906.

**Great Northern Ry. Lines in Canada.**

**Victoria and Sidney Ry.**—Extensive repairs are about to be undertaken on the line between Victoria and Sidney, B.C., the Vancouver Island portion of the Victoria Terminal Ry. and Ferry Co. Officials of the Provincial Government recently reported that the road was not safe for travel and that it would have to be repaired at once in order to ensure the continuance of its operation. F. Van Sant stated that this report was somewhat exaggerated, as while the line required repairing, it was quite capable of handling, without danger, the class of traffic offering. Large numbers of ties and quantities of other material have been collected at Victoria and Sidney, and the whole of the 20-mile stretch of line between the two points will be gone over, and thoroughly overhauled. It is also proposed to strengthen the ferry wharf at Sidney, and to place in the service a new ferry. This ferry was ordered in the United States, and was expected to be delivered in June. With the new ferry and the existing plant it is proposed to inaugurate a daily service between Sidney and different points on the Sound and the B.C. mainland. (July, pg. 481.)

**Kaslo and Slocan Ry.**—Owing to the unsafe condition of a number of bridges on a section of this line, it is proposed to construct a Y at McGuigan siding, thereby cutting out the train service to Sandon and Cody. The traffic in sight, the company says, does not warrant the reconstruction of the bridges. A petition has been sent to the B. C. Government, protesting against this, and asking the Government to interfere and prevent the cutting off of the train service.

F. C. Salter, European Traffic Manager G.T.R., London, Eng., writes: "I have been a subscriber to THE RAILWAY AND MARINE WORLD for a number of years and read it thoroughly, as I find it always contains living truths of Canadian doings. It gives me great help in my missionary work among Europeans, and, not the least, Britishers, as I endeavor to bring before them the glories of Canada, and the great Grand Trunk system which is welding the Dominion together."

**Railway Rolling Stock Notes.**

The Eastern British Columbia Ry. is reported to be arranging a contract with the American Locomotive Co. for two locomotives for early delivery.

Press reports recently stated that the Great Northern Ry. (U.S.) had placed an order for box cars with the Canada Car Co., Montreal, but we are officially advised that the reports are incorrect.

The Canadian Northern Ry., between June 15 and July 15, has received the following additions to rolling stock: 100 box cars from Rhodes, Curry & Co., Amherst, N.S.; 4 second-class coaches from the Crossen Car Mfg. Co., Cobourg, Ont.; 19 ten-wheeled and 6 consolidation locomotives from the Montreal Locomotive Works.

The Preston Car and Coach Co., Preston, Ont., between June 15 and July 17, delivered 1 second-class coach to the Temiskaming and Northern Ontario Ry.; 50 platform trucks to the Dominion Ex. Co.; 2 suburban car bodies to the South-western Traction Co., and equipped 1 second-class coach with Pintsch gas for the T. & N.O. Ry.

The Intercolonial Ry., between June 18 and July 14, has received the following additions to rolling stock: 29 all-steel dump cars from the Dominion Car and Foundry Co., Montreal; 7 box cars, 60,000 lbs. capacity, from Rhodes, Curry & Co., Amherst, N.S.; 34 box cars from other sources, and 1 consolidation locomotive from the Canadian Locomotive Co., Kingston, Ont.

The Montreal Locomotive Works is building a locomotive for the Johns-Manville Co., for use on a railway between Asbestos and Danville, Que., of which the following are the principal dimensions:

Type.....	0-4-0 85 class
Cylinders.....	16" by 24"
Drivers.....	.50" diar.
Boiler.....	54" outside diar.
" working pressure.....	180 lbs.
Firebox.....	72" by 33¼"
Tubes.....	178-2" diar.
" length.....	11' 1"
Driving wheel base.....	7' 0"
Wheel base, engine and tender.....	29' 4½"
Weight on drivers.....	85,000 lbs.
" of tender.....	48,000 lbs.
Tank capacity.....	2,500 U.S. gals.

Following are dimensions and special equipment of the 10 second-class vestibule sleeping cars ordered by the Intercolonial Ry., as mentioned in our July issue:

Length over buffers.....	71' 7¾"
" end sills.....	63' 7"
Width over side sills.....	9' 10"
Height, top of sills to under side of plate.....	6' 7¾"
Length inside sheathing at floor line.....	62' 8½"
Width inside truss planks.....	8' 9"
" between deck rails.....	4' 10"
Height inside, top of floor to under side of lower deck rail.....	7' 7¾"
" top of floor to under side of upper deck rail.....	8' 0"
Outside of end sill to centre of body bolsters.....	5' 0"
Centre to centre of body bolsters.....	10' 0"
" " needle beams.....	10' 0"
" " transoms.....	26' 3½"
Height, top of rail to centre of coupler.....	2' 10½"
Wheel base of truck.....	10' 6"
End door opening.....	2' 3"
Width of end doors.....	2' 4"
Total wheel base.....	58' 1"
Platform and buffer.....	Standard Coupler Co.
Couplers.....	Janney cast steel.
Drawbar springs.....	Montreal Steel Works.
Air brakes.....	Westinghouse automatic.
Steam Heating.....	Safety Car Heating and Lighting Co.
Lighting.....	Pintsch gas.
Journal boxes.....	McCord.
Side bearings.....	Chicago Railway Equipment Co.

Following are dimensions and special equipment of the 10 consolidation and 10 ten-wheel locomotives ordered by the C.P.R. from the Montreal Locomotive Works, for delivery in September:

Weight, on engine truck.....	24,000 lbs.	10-wheel.	48,000 lbs.
" on drivers.....	168,000 lbs.		142,000 lbs.
" total.....	192,000 lbs.		190,000 lbs.
Driving wheel base.....	15' 10"		14' 10"
Total wheel base, engine, 2A' 4½" and tender.....	24' 4½"		26' 1"
Cylinders.....	53' 3¼"		54' 6½"
Valves, piston.....	22½" by 28"		22½" by 28"
Drivers diar.....	11" diar.		11" diar.
	.58"		63"

Driving journals.....	Main 9½"	Main 9½"	others 12"
Valve gear.....	Walschaert.	Walschaert.	
Superheater.....	Vaughan-Horsey.	Vaughan-Horsey.	
Boiler, type.....	Extended wagon top, radial stay.	Extended wagon top, radial stay.	
Working pressure.....	180 lbs.	180 lbs.	
Firebox.....	96½" by 65¼"	102½" by 69½"	
Tubes.....	240-2" 24-5"	240-2", 24-5"	
" length.....	14' 2½"	14' 4"	
Tank capacity.....	5,000 imp.gal.	5,000 imp.gal.	
Coal capacity.....	10 tons.	10 tons.	
Air brakes.....	Westinghouse	Westinghouse	
Brake beams.....	Simplex.	Simplex.	
Couplers.....	Tower.	Tower.	

Following are dimensions, etc., of 1 switching locomotive and 1 Pacific type locomotive which are being built by the C.P.R. at its Angus, Montreal, shops, as mentioned in our July issue:

	Switching.	Pacific.
Weight on drivers.....	126,000 lbs.	139,300 lbs.
Total weight.....	126,000 lbs.	214,300 lbs.
Cylinder, diameter.....	18"	21"
Piston stroke.....	26"	28"
Drivers, diameter.....	52"	69"
Boiler, type.....	Wagon top, radial stayed	Wagon top, radial stayed.
Working pressure.....	200 lbs.	200 lbs.
Heating surface, tubes.....	1,406 sq. ft.	2,777 sq. ft.
" firebox.....	138 sq. ft.	180 sq. ft.
Tubes, number.....	234-2"	190-2½", 24-5"
" length.....	11' 6"	19' 6"
Grate area.....	29 sq. ft.	45½ sq. ft.
Capacity, water.....	3,500 imp.gal.	5,000 imp.gal.
" coal.....	6 tons	10 tons.
Air brakes.....	Westinghouse automatic.	Westinghouse automatic and straight.
Axles.....	Krupp and open hearth steel.	Steel, Peech and Tozer.
Brake beams.....	Simplex.	Simplex.
" shoes.....	C.P.R. standard.	C.P.R. standard.
Couplers.....	Tower.	Pilot, Washburn; Tender, Tower.
Headlight.....	C.P.R. standard oil.	Pyle National Electric.
Journal bearings.....	C.P.R. standard.	C.P.R. standard.
Tyres, driving wheels.....	Krupp crucible.	Krupp crucible.
" tender wheels.....	Cast iron.	Krupp open hearth steel.
Wheel centres.....	" "	Cast steel.
Superheater.....	" "	Vaughan-Horsey.

**Freight Car Performances.**

The American Railway Association's Committee on Car Efficiency has issued its bulletin 26 covering car balances and performances for Feb., the summary of which, so far as it affects Canadian lines, is as follows:

Revenue freight cars owned.....	96,660
Average number cars on line.....	73,817
Average foreign cars on line.....	20,758
Private cars on line.....	4,418
Total cars on line.....	98,993
Per cent. of cars in shop.....	4.60
Average cars per freight engine.....	2,083
Total freight car mileage.....	48
Average miles per car per day.....	55,778,919
Per cent. loaded mileage.....	19.5
Ton miles of freight, including companies' freight.....	77.3
Average ton miles, including Co.'s freight: Per car mile.....	816,545,984
Per loaded car mile.....	14.6
Per car per day.....	18.9
Gross freight earnings.....	284
Average daily earnings per car owned.....	\$4,807,316
Per railroad car owned.....	\$1.71
All cars on line.....	\$1.75
	\$1.67

The General Engineering and Construction Co., Ltd., has been incorporated under the B.C. Companies Act, with a capital of \$25,000, to conduct a general engineering, building and construction business, and to design plans and specifications, etc., for building bridges, tunnels, canals, railways, etc.

The Live Stock Shippers' Association at Winnipeg has been agitating for some time past in favor of the establishment there of a municipal stock yard. W. Whyte, Second Vice-President C.P.R., announced, July 9, that the C.P.R., the Canadian Northern Ry., and the G.T. Pacific Ry. were preparing to lay out and maintain at Winnipeg a joint stock yard as soon as the details had been worked out.



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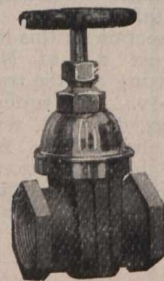
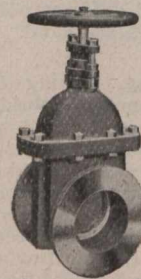
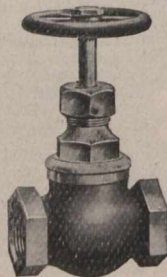
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**THE  
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VALVE AND HYDRANT MANUFACTURERS  
WALKERVILLE, ONT.



**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.

Complete copies of any of the orders summarized below, or of others previously passed by the Commission, will be furnished for 25 cents, cash to accompany requests for copies in all cases.

4920. June 2.—Authorizing Georgian Bay and Seaboard Ry. to cross the Lindsay, Bobcaygeon and Pontypool Ry. in Lindsay, Ont.

4921. June 2.—Ordering Ottawa Electric Ry. to complete work on Somerset St. bridge within six months from date of this Order, with proviso that the company shall be at liberty to apply to the Board for a further extension of time if good reasons exist therefor.

4922. June 25.—Authorizing Windsor and Tecumseh Electric Ry. to cross two G.T.R. spurs in Sandwich East tp., Ont.

4923. June 25.—Authorizing G.T.P.R. and C.N.R. to operate trains over crossing in parish lot 120, Portage la Prairie, Man., without bringing them to a stop.

4924. June 25.—Permitting G.T.R. and C.P.R. to carry under special rate notices, certain freight traffic for delivery to them by vessel owners at Kingston, Brockville and Prescott, for transportation to Montreal, such carriage being necessary owing to interruption to navigation caused by break in Cornwall Canal.

4925. June 26.—Authorizing Erie Telephone Co. to cross G.T.R. at Talbot road, west of Jarvis, Ont.

4926. June 26.—Authorizing G.T.P.R. to carry its wires across C.N.R. at West Fort William, Ont.

4927. June 26.—Authorizing N. Watson, of Chatham, Ont., to erect wires across Pere Marquette Ry., 1 mile east of Blenheim, Ont.

4928. July 4, 1907.—Authorizing Georgian Bay and Seaboard Ry. to cross G.T.R. at Coldwater, Ont.

4929 to 4931. June 26.—Authorizing Erie Telephone Co. to erect wires across G.T.R. at Garnet, Canfield and Talbot road, 1 mile west of Canfield Jct., Ont.

4932. June 26.—Authorizing Erie Telephone Co. to erect wires across M.C. Rd. 1 mile west of Canfield Jct., Ont.

4933. June 26.—Authorizing Montreal Rolling Mills Co. to erect an automatic railway and structure supporting same, between the Co.'s works and the Lachine Canal, across G.T.R. Lachine canal branch.

4934. June 24.—Ordering that expense of maintenance and operation of interlocking plant and signal and derailing system near St. Constant, Que., be borne and paid for as follows: 42% by the Q.M. & S.R., and 58% by the C.P.R.; the Q.M. & S.R. to pay all expenses in connection with rearrangement of and additions to the plant.

4935. June 25.—Authorizing C.N.R. to construct branch line from lot 29, sec. 21, McIrvine tp., to the International boundary near Pither's Point, Ont., and from a proposed connection between the C.N.R. and Duluth, Rainy Lake and Winnipeg Rd., over certain highways in McIrvine tp.

4936. June 23.—Authorizing Sarnia St. Ry. to cross with its track and trolley wires, G.T.R. at Christina St., Sarnia, Ont.

4937. June 25.—Authorizing C.N.R. to build spur from lot 29, sec. 21, McIrvine tp., to International boundary near Pither's Point, Ont., and from a proposed connection between C.N.R. and Duluth, Rainy Lake and Winnipeg Rd.

4938. June 23.—Authorizing C.P.R. to open for passenger traffic the portion of its Pheasant Hills branch from Saskatoon to Asquith, Sask., 23 miles.

4939. June 2.—Authorizing use of addi-

tional track constructed by C.P.R. across public road at Janetville, Ont., mileage 11.7 of its line from Burketon to Bobcaygeon.

4940. June 26.—Granting leave to Erie Telephone Co. to erect wires across G.T.R. at Jarvis station, Ont.

4941. June 26.—Granting leave to Manitoba Government Telephones to erect wires across C.P.R. 2½ miles west of Glenboro.

4942. June 30.—Approving revised location of G.T.P.R. from the west line, sec. 7, tp 53, range 17, west, to west line, sec. 31 tp 52, range 20, west 5th meridian, North Alberta, mileage 10.238 to 30.11.

4943. June 26.—Authorizing the G.T.P.R. to construct bridge over Kaministikwia River at West Fort William, Ont.

4944. June 26.—Granting leave to C.N.R. to erect telegraph wires across C.P.R. at Wanapitei, mileage 107.7 north from Parry Sound, Ont.

4945. June 30.—Authorizing Bell Telephone Co. to erect wires across C.P.R. at public crossing about 3½ miles south of St. Felix de Valois, Que.

4946. June 30.—Authorizing Bell Telephone Co. to erect wires across C.P.R. at public highway crossing ¾ mile north of G.N.R. diamond near Joliette, Que.

4947. July 3.—Authorizing Caradoc-Ekfrid Telephone Co. to erect wires across M.C. Rd. 360 yards east and 340 yards west of Melbourne station, Ont.

4948. July 3.—Approving plan of C.P.R. bridge 9.17, Nipigon section, Ont.

4949. July 3.—Authorizing New Brunswick Telephone Co. to erect wires across C.P.R. at St. Stephen, N.B.

4950. July 3.—Authorizing Bonaventure and Gaspé Telephone Co. to erect wires across Atlantic and Lake Superior Ry. 2¾ miles west of New Carlisle, Que.

4951 to 4957. Granting leave to Bolton Telephone Co. to erect wires across C.P.R. at various points.

4958. July 3.—Authorizing C.P.R. to construct 2 bridges on Sherbrooke section, 1 on Prescott branch, 1 on Newport section, 1 on Montreal and Ottawa section, 1 on Farnham section and 1 on St. John section.

4959. July 3.—Approving of deviation in location of the C.P.R. main line and double track between Kakabeka and Kaministikwia, Ont., mileage 19.46 to 23.

4960. July 7.—Authorizing C.P.R. to construct spur line to the Wapskehegan Lumber Co.'s premises, Gordon parish, Victoria County, N.B.

4961. July 7.—Authorizing municipal council of St. Anne de Beaupré, Que., to lay water pipes under Quebec Ry., Light and Power Co.'s track at nine points.

4962. July 7.—Amending order 4865, of June 2, 1908, directing C.P.R. to continue to maintain public highway crossing where its railway intersects lot official no. 138, of the Parish of Montreal, Que., between Fenwick Ave. and Crescent Ave.

4963. June 23.—Granting leave to the C.N.O.R. to erect its telegraph wires across G.T.R. north of Mount Albert, Ont.

4964. June 23.—Ordering C.P.R. to pay cost of reconstruction and strengthening of subway where its track crosses the G.T.R. main line at mile post 124.96 east of G.T.R. station, Brockville, Ont.

4965. June 23.—Approving location of Grand Valley Ry. from Brantford to Eastwood, Ont.

4966. June 24.—Ordering that all trains westbound to or beyond the Union Station, Toronto, are forbidden to cross Yonge St. and are required to stop on the east side of the said street unless they have a clearance by the semaphore standing on the west side of

Yonge St., and that no engines or cars, except express cars containing fruit and the engines moving the same, be shunted across or upon Yonge St. during the seasons of open lake navigation, between 1 and 2 o'clock p.m.

4967. July 7.—Authorizing British Columbia Electric Ry. to lay its track across Front St., New Westminster, B.C., and across the C.P.R.

4968. July 2.—Authorizing G.T.R. to construct a siding to the George Matthews Co.'s premises, Peterboro, Ont.

4969. June 23.—Ordering G.T.R. to install, maintain and operate gates, semaphores and details at crossing with Toronto Street Ry., on Front St. Toronto.

4970. July 7.—Authorizing Bolton Telephone Co. to erect wires across G.T.R. at road between concessions 6 and 7, Albion tp., Peel County, Ont.

4971. July 7.—Authorizing Peterboro Light and Power Co. to lay gas pipe under G.T.R. at Sherbrooke St., Peterboro, Ont.

4972. July 7.—Authorizing the Bell Telephone Co. to erect aerial wires across C.N.O.R. one mile east of Parry Sound, Ont.

4973. June 24.—Authorizing C.P.R., at its own expense, to construct a highway in the line and of the width of 4th St., Tillsonburg, Ont., and across G.T.R. and lands and track of the M.C. Rd.

4974. July 7.—Authorizing Bell Telephone Co. to erect wires across Q.M. & S.R., at public crossing five miles west of St. Hyacinthe.

4975 to 4979. July 7.—Authorizing Bell Telephone Co. to erect wires across C.N.O.R. at five different points in Ontario.

4980. July 7.—Authorizing Bell Telephone Co. to erect wires across M.C. Rd. at public crossing ½ mile north of Amherstburg station, Ont.

4981. July 7.—Authorizing Bell Telephone Co. to erect wires across G.T.R. at Rosebank, Ont.

4982. July 7.—Authorizing Bonaventure and Gaspé Telephone Co. to erect wires across Atlantic, Quebec and Western Ry., at public crossing ½ mile west of Paspébiac station, Que.

4983. July 7.—Approving by-law of Cumberland Railway and Coal Co., authorizing J. R. Cowans, General Manager, to prepare and issue tariffs of tolls to be charged on traffic carried.

4984. July 7.—Authorizing B. J. Caruthers, of Downsview, Ont., to place wires under G.T.R., 1¼ miles north of Downsview station, Ont.

4985. July 8.—Ordering C.P.R. to stop its passenger trains at home semaphore at the St. Jerome diamond; also C.N.R. to construct platform from point at which the C.P.R. trains stop to the diamond, and to supply proper and safe conveniences for the transfer of passengers at the point in question.

4986. June 23.—Dismissing application of C.P.R. for order directing that a case be stated for opinion of the Supreme Court, re application of the Town of Montreal West, D. S., and D. and Jessie R. Leach, of Montreal, to continue to maintain a public highway crossing where the C.P.R. intersects lot official no. 138, of official plan and book of reference of Parish of Montreal, Que.

4987. July 7.—Recommending to Governor-in-Council for approval by-laws of Quebec, Montreal and Southern Ry., excepting that portion authorizing an extra charge of 10c. over and above the regular fare, to any person failing to procure a ticket.

4988. July 8.—Fixing basis for payment for interswitching service performed by railways. This order is given in full on pg. 559.

4989. June 10.—Authorizing Canada At-



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lantic Ry. to construct spur line to the Riordon Paper Co.'s premises, Hawkesbury, Ont.

4990. July 9.—Authorizing Town of Berlin, Ont., to lay a drain pipe under G.T.R. at Wellington St., Berlin, Ont.

4991. Mar. 10.—Ordering that locomotives of every railway company subject to the legislative authority of the Parliament of Canada, be equipped with a full set of signals, to include red and white lamps, torpedoes, fuses, and red and white flags.

4992. July 10.—Approving location of Matane and Gaspé Ry. Co., between Ste. Flavie and Little Metis, Que.

4993. July 10.—Authorizing G.T.R. to install interlocking plant at its bridge over the Welland Canal, between Merritton and Niagara Falls, Ont., and that the G.T.R. engines and trains may pass over the bridge without being brought to a stop.

4994. July 10.—Approving deviation in Brantford and Hamilton Electric Ry.'s constructed line between Hamilton and Horning Mountain, Ancaster tp. and village of Ancaster, to line between Wentworth and Brant counties, Ont.

4995. July 10.—Authorizing Town of Peterboro to lay sewer pipe under G.T.R. at Park Street, Peterboro, Ont.

4996. July 9.—Authorizing Walkerton and Lucknow Ry. Co. to open for carriage of traffic, the part of its line between mileage 6.00 at Saugeen Jct., and mileage 27.5 at Hanover, Ont.

4997. July 9.—Approving location of the C.P.R. Virden-McAuley branch from mileage 16.5 to 35.4.

4998. July 9.—Authorizing C.P.R. to lay additional track across Park Ave., St. Louis, Hochelaga County, Que., on north side of the three tracks at present crossing Park Ave.

4999. July 9.—Authorizing Toronto, Grey and Bruce Ry. to open for traffic the diversions of its line from mileage 7.3 to 8, near Emery; mileage 10.8 to 13.4, near Woodbridge; mileage 15.3 to 15.5, near Kleinburg; and mileage 19.3 to 21.8, near Bolton, Ont.

5000. July 9.—Authorizing Guelph and Goderich Ry. to open for carriage of traffic the portion of its line from Linwood Jct. to Listowel, Ont., 16.1 miles.

5001. July 9.—Authorizing the St. Mary's and Western Ry. to open for traffic the portion of its line commencing at Queen St., St. Mary's, Ont., and running through St. Mary's and the townships of Blanshard, Nissouri and West Zorra, to Embro, Ont.

5002. July 9.—Authorizing the Tillsonburg, Lake Erie and Pacific Ry. to open for traffic the portion of its line from mileage 0, the connecting point of the London section of the C.P.R., to mileage 5.69, near Embro, Ont.

5003. June 15.—Authorizing New Brunswick Telephone Co. to erect wires across Temiscouata Ry. at Evanston, N.B.

5004. July 14.—Authorizing National Transcontinental Ry. to cross Tobique Valley Ry. (leased by C.P.R.) at mileage 165 west of Moncton, N.B.

5005. July 14.—Authorizing Town of Renfrew, Ont., to lay a sewer pipe under G.T.R. at Carswell St.

5006-5009. July 14.—Authorizing New Brunswick Telephone Co. to erect wires across Temiscouata Ry. at four points.

5010. July 14.—Authorizing the C.P.R. to construct a spur to the Calgary Port Huron Co.'s premises, Calgary, Alta.

5011. July 14.—Authorizing Bell Telephone Co. to erect wires across Schomberg and Aurora Ry. at Main St., Schomberg, Ont.

5012. July 14.—Authorizing New Brunswick Telephone Co. to erect wires across Temiscouata Ry. at road to Riviere du Loup, mileage 41.71.

5013. June 3.—Ordering C.P.R. to place and maintain an electric bell on Main St., Almonte, Ont., and to bond its railway track for 1,200 ft. westerly from Main St., and for 400 ft. easterly from Main St.; to maintain an automatic electric bell at Bridge St.; to bond its track to the west of Bridge St., half way to Main St., also to construct a subway to carry Little Bridge St. on its present line through and under its tracks, to bear all compensation for land affected, and to remove Reid & Williams' buildings; also ordering town of Almonte to pay the C.P.R. \$2,000 on Dec. 1, 1908, and on the same date one-quarter of the amount allowed the owner of the buildings after deducting amount, if any, realized by the railway company for the sale of the buildings.

5014-5015. July 15.—Authorizing New Brunswick Telephone Co. to erect its wires across C.P.R. near McAdam Jct. and at Edmundston, N.B.

5016. July 14.—Authorizing C.P.R. to reconstruct bridge 26.73, Sault Ste. Marie branch, Ont.

5017-5018. July 14.—Authorizing C.P.R. to reconstruct bridges 115.4 and 132.5, Cranbrook section, B.C.

5019. July 14.—Authorizing G.T.R. to deviate its siding to the Lehigh Portland Cement Co.'s premises, Thurlow tp., Ont.

5020. July 14.—Ordering that crossing of Intercolonial Ry. by National Transcontinental Ry. in Levis County, Que., be protected by interlocking plant.

5021. July 7.—Ordering C. N. Ry. to erect and maintain a station at Denholm, Sask.

5022. July 7.—Approving supplement 3 to Canadian Freight Classification 13, subject to certain conditions

5023. July 7.—Ordering that ale, beer, porter, cider, ginger ale, and aerated and mineral waters, in boxes with pulp or fibre-board covers, be classified 3rd class in less than carloads, and 5th class in carloads.

5024. July 7.—Approving supplement to C.P.R. Standard Freight Mileage Tariff C.R.C. no. E1, filed as supplement 1 to C.R.C. E1164, applying to local freight tariff on St. Mary's and Western Ontario Ry., Walkerton and Lucknow Ry., and Listowel branch of Guelph and Goderich Ry., to be operated as portions of the C.P.R., Ontario Division.

5025. July 14.—Authorizing C.P.R. to take additional lands along its railway in Mountain village to enable it to construct a ditch along its right-of-way.

5026. July 15.—Recommending to the Governor-in-Council for sanction and approval: 1. Conveyance, dated Jan. 1, 1908, by Galt, Preston and Hespeler St. Ry. Co. to Berlin, Waterloo, Wellesley and Lake Huron Ry. Co. 2. Conveyance dated Jan. 1, 1908, by Preston and Berlin St. Ry. Co. to Berlin, Waterloo, Wellesley and Lake Huron Ry. Co. 3. Lease, dated Jan. 1, 1908, from Berlin, Waterloo, Wellesley and Lake Huron Ry. Co. to the C.P.R. Co.

5027. June 30.—Authorizing C.P.R. to construct spur to Riley and Julian's premises on its Lac du Bonnet branch, Man.

5028. July 16.—Authorizing Dominion Natural Gas Co. to lay a main under G.T.R. in Woodhouse tp., Norfolk County, Ont.

5029. July 16.—Ordering G.T.R. to refund to the Montreal Lumber Co., Ltd., at Ottawa, \$332.07, amount of overcharge on lumber between Brule Lake and Ottawa.

5030-5032. July 16.—Authorizing Bell Telephone Co. to erect wires over G.T.R. and M.C. Rd., at Essex, Branchton and Woodstock, Ont.

5033. July 17.—Authorizing C.P.R. to open for traffic its double track from Ra-

leigh to Tache, mileage 15.1 to 28.1 from Ignace, Ont.

5034. July 17.—Authorizing V.V. & E.R. & N. Co. to construct a portion of a branch line from west limit of Huntingdon townsite, B.C., through the townsite to the International boundary line.

5035. July 14.—Authorizing Ontario Power Co. to erect wires across G.T.R. near Welland, Ont.

5036. July 17.—Authorizing C.P.R. to construct a spur line to the Cochrane Brickyards Co.'s premises, Cochrane, Alta.

5037. July 14.—Dismissing application of Town of Napanee, Ont., for order directing G.T.R. and B. of Q.R. to provide protection at Centre St., known as Selby Rd. and Thomas St.

5038. July 14.—Confirming interim order 4985, July 8, 1908, directing C.P.R. to stop its trains at home semaphore at St. Jerome diamond, and ordering C.N.Q.R. to construct a platform from point at which its trains stop to diamond, and to supply conveniences for transfer of passengers to the C.N.Q.R.'s passenger trains.

5039. July 17.—Authorizing Victoria Terminal Ry. and Ferry Co. to construct bridge over Nicomekl River, B.C.

5040. July 17.—Authorizing Victoria Terminal Ry. and Ferry Co., to construct bridge over Serpentine River, B.C.

5041. July 14.—Authorizing C.P.R. to take additional lands adjoining its railway, Albion tp., Peel County, Ont.

#### A Railway to Hudson's Bay.

Contrary to general expectation the Dominion Government did not make any definite declaration of policy in regard to the construction of a railway to Hudson Bay, before the close of the recent session of Parliament. The supplementary estimates passed contained an item of \$100,000 for the making of a survey for the line, and in connection with the passing of this vote, the Minister of Railways said, July 11, that the line would be constructed without delay. The \$100,000 which had been voted would be expended in making a survey of the country through which the line would pass. Whether the road would be constructed by the Government or not would depend upon the result of that survey. The Government had not reached any decision on that point. This statement confirmed a remark the Minister made in a speech at Galt, Ont., June 29, and repeated in the House of Commons in answer to a question July 7.

The extension of the boundaries of Manitoba to Hudson Bay, introduces a new feature into the question, as it is that province which is most directly interested in the construction of the line.

Some negotiations have taken place between the Dominion Government and Mackenzie, Mann & Co. (Ltd.) with respect to the construction of the line, and it is stated that this company desires a subsidy of between \$10,000 and \$15,000 a mile for the extension of the line it has completed to the Pas, Sask., to Hudson Bay. The estimated cost of the line is placed at \$30,000 a mile. Advocates of government ownership take the ground that a line of this character should be constructed and owned by the Government, but that any other line in Canada should be permitted to connect with it and have running powers over it. (July, pg. 493).

Owing to an extensive forest fire along the old Drummond County Ry., the Intercolonial Ry. stations at Carmel, Davelnyville and Laverne, Que., were destroyed July 11, in addition to 80 freight cars and large numbers of telegraph poles and ties.



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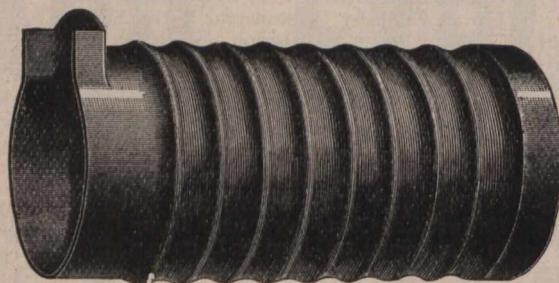
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## MAINLY ABOUT PEOPLE.

J. P. Purdy, local agent Oshawa Electric Ry., Oshawa, Ont., died June 19.

W. B. Ogden, of New York, brother of I. G. Ogden, Third Vice-President C.P.R., died there July 5, aged 67.

C. M. Hays, Second Vice-President and General Manager G.T.R., has taken a cottage at Cushing's Island, Me.

Wm. C. Ross, mechanical foreman Intercolonial Ry., Richmond, N.S., died there after a short illness July 15.

W. Downie, General Superintendent Atlantic Division C.P.R., is spending a short holiday in British Columbia.

Miss M. V. Smith, only daughter of J. M. Smith, Comptroller Toronto Ry., was married in Toronto, July 14, to F. B. Follett.

J. R. Booth, a director of the G.T. Pacific Ry., Ottawa, has been elected Honorary President of the Canadian Lumbermen's Association.

F. Gelin, who was Secretary of the Dominion Department of Public Works from 1900, died suddenly at his residence, Ottawa, July 2, aged 38.

R. W. Perks, a member of the Imperial Parliament, and one of the directors of the Montreal and Georgian Bay Canal, has been made a baronet.

W. J. Mulvihill, foreman of a G.T.R. bridge gang, was struck by some falling girders at Lindsay, Ont., July 14, and died in a few minutes.

G. Clarke, Secretary-Treasurer North Shore Power Ry. and Navigation Co., Clark City, Que., has been appointed a magistrate for the Saguenay district.

Hon. M. E. Bernier, Deputy Chief Railway Commissioner, is one of the largest stockholders in the Bank of St. Hyacinthe, Que., which recently became insolvent.

John Neilson, Toronto, who began railway work in 1856, and who has been with the C.P.R. since 1883, as a locomotive engineer, retired from active work June 30.

J. G. Scott, ex-General Manager Quebec and Lake St. John Ry., has been elected Honorary President Lake St. Joseph Aquatic Association, Lake St. Joseph, Que.

H. J. Parkhill, Chief Dispatcher Canadian Northern Ry., North Battleford, Sask., died there recently. He was formerly in the C.P.R. dispatching office at Calgary, Alta.

C. B. King, Manager London St. Ry., London, Ont., was successfully operated on for appendicitis July 16, and we are advised that he is recovering very satisfactorily.

J. W. Leonard, General Manager C.P.R. Eastern Lines, has taken a house on Cote St. Antoine Rd., Westmount, Montreal, and his family have removed there from Toronto.

Among recent additions to the list of subscribers to the Quebec Battlefields Fund are: Sir Thos. G. Shaughnessy, \$250; R. B. Angus, \$250; C. R. Hosmer, \$250; C. M. Hays, \$250.

W. H. Allison, one of the C.P.R. trick dispatchers at Toronto, who has been in the company's service for a number of years, has at his own request been retired under the pension rules.

Jos. Barton, car inspector for the Intercolonial Ry., Moncton, N.B., died at Cobourg, Ont., June 24, where he had been engaged in inspecting cars under construction at the Crossen Car Manufacturing Co.

G. M. Thomas, Travelling Passenger Agent Intercolonial Ry., Toronto, was presented with a cabinet of silver by the transportation officers of the city, on the occasion of his recent marriage to Miss A. Ellis.

The engagement is announced of Miss A. Tiffin, daughter of E. Tiffin, General Traffic

Manager Intercolonial Ry., Moncton, N.B., to E. O. Schleuter, of Preston, Ont. The marriage will take place in Sept.

G. D. Maxfield, who has been appointed General Agent, Passenger Department, Wabash Rd., at Buffalo, N.Y., at one time travelled in Canada for the Santa Fe Rd., having his headquarters in Detroit, Mich.

Jas. Lynch, baggage master at the C.P.R. Union station, Ottawa, retired from the company's service June 25, after 27 years' work. He is taking up his residence on a farm he has acquired in Saskatchewan.

C. C. Chipman, Chief Commissioner Hudson's Bay Co., Winnipeg, accompanied by Mrs. Chipman, Miss Chipman, and H. Chipman, sailed from Montreal, July 3, on the Allan Line s.s. Virginian for Liverpool.

Sir C. Rivers Wilson, President G.T.R., and Lady Rivers Wilson, were present at the Tercentenary celebration at Quebec. During his visit to Canada Sir Charles will make a trip of inspection over the G.T.R.

Miss L. Hanson, daughter of E. Hanson, Montreal, who is on the directorate of a number of transportation companies, was married to Angus, son of Dr. A. A. Macdonald, of Toronto, at Montreal, June 27.

D. D. Hay, who died at Stratford, Ont., recently, was one of the original promoters of the Wellington, Grey and Bruce Ry., now part of the G.T.R., and constructed some sections of the line in the vicinity of Listowel, Ont.

F. C. Foy, ticket agent New York Central Lines, Toronto, who has recovered satisfactorily after an operation for appendicitis, left New York, July 16, on the s.s. Cedric for England. He hopes to return to duty by Sept. 1.

H. H. Brewer, who has been appointed Superintendent Lake Superior Division, G.T. Pacific Ry., was formerly Superintendent of Terminals, G.T.R., Toronto, and latterly has been in the Great Northern Ry.'s service at St. Paul, Minn.

H. Holgate, C. E., Montreal, has been appointed to represent the Intercolonial Ry. in an arbitration to decide whether or not a classification should be made in the standing of freight clerks, and a general increase of salaries granted.

E. M. Jelly, son of J. Jelly, roadmaster at Ottawa, and H. F. Cole, son of J. F. Cole, train dispatcher at Ottawa, have won the two science scholarships at McGill University, Montreal, offered by the C.P.R. annually to its employees' sons.

J. A. Goodsell, Travelling Passenger Agent Union Pacific Rd., and Southern Pacific Rd., Toronto, was presented with a dining-room suite by the passenger representatives of the different railways in Toronto, on the occasion of his marriage, July 9, to Miss K. A. Ferguson.

J. A. Mitchell, Locomotive Foreman G.T.R., Stratford, Ont., was presented with a mantel clock by the employees at the roundhouse, and with a cut glass water set by the local branch of the Brotherhood of Engineers, on leaving Stratford to enter the G.T. Pacific Ry. service.

Among the later subscribers to the Quebec Battlefields Fund are the following: G.T.R., \$5,000; G. W. Stephens, Chairman Montreal Harbor Commission, \$1,000; Sir H. Montagu Allan, \$250; Canadian Fairbanks Co., \$25; F. Barlow Cumberland, Vice-President Niagara Navigation Co., \$10.

J. F. Thallon, Commissioner for the Queensland Government Railways, and an old-time friend of D. McNicoll, Vice-President C.P.R., has recently been spending some time in Canada investigating the system of railway management, with a view of adapting it to the needs of the railways under his charge.

W. H. Rosevear, ex-General Car Accountant G.T.R., was the principal guest at a dinner given by the General Association of Transportation and Car Accounting Officers, at its summer meeting at Niagara Falls, Ont., June 28. He subsequently left on an extended trip to British Columbia and California.

Geo. Wheler, chief clerk of the Registrar-General's Department, Toronto, who died there July 5, in early life was a contractor on the old Midland Ry., now part of the G.T.R. He had as one of his sub-contractors W. Mackenzie, of Mackenzie, Mann & Co., who was then starting out in railway construction work.

J. R. Gilliland was presented with an oak smoking cabinet by the C.P.R. general office staff, and with a silver tea service by the C.P.R. terminal employes, at St. John, N.B., June 27, on relinquishing the position of agent at West St. John, on being promoted to the superintendency of the company's Montreal terminals.

Sir Sandford Fleming, in offering to present the city of Halifax with about 80 acres of land on the western side of the northwest arm of the harbor as a public park, has made it a condition that a tower in commemoration of the 150th anniversary of the establishment of parliamentary institutions in the province be erected.

Fred. Cumberland Salter, whose appointment as European Traffic Manager G.T.R., and Canadian Ex. Co., with office at Liverpool, Eng., was announced in our July issue, was born at Sarnia, Ont., Aug. 31, 1863, and entered railway service in 1882, under F. W. Cumberland, General Manager Northern Ry. of Canada, subsequently serving in various capacities with the G.T.R., Erie Rd., and Northern Pacific Ry.; leaving the last mentioned company when General Eastern Agent, to re-enter G.T.R. service in Europe.

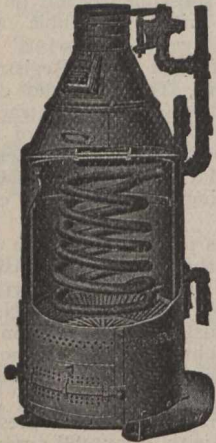
Four members of the Canadian Railway Club have been elected presidents of important transportation organizations as follows: H. H. Vaughan, Assistant to Vice-President C.P.R., Montreal, President American Railway Master Mechanics' Association; J. H. Callaghan, General Storekeeper C.P.R., Montreal, President Railway Storekeepers' Association; W. J. Camp, Electrical Engineer C.P.R., Montreal, President Association of Railway Telegraph Superintendents; J. Powell, chief draughtsman Motive Power Department G.T.R., Montreal, President Association of Railway Club Secretaries.

B. W. Greer, who recently resigned the position of General Freight Agent, C.P.R. Pacific Division, at Vancouver, to enter another business, has been paid a unique compliment by a committee of his fellow-citizens. A petition has been forwarded to Sir Thos. G. Shaughnessy, dilating on the personal feelings always existing between them and Mr. Greer, and concluding: "We therefore respectfully venture to request that if it be at all possible, Mr. Greer's services be retained in connection with your freight department here, and ask that your board will give the subject most favorable consideration."

Ernest Alexander, whose appointment as Assistant Treasurer of the C.P.R. was announced in our last issue, was born in Yorkshire, Eng., Dec. 8, 1862, and commenced his railway career in 1882 as private secretary to the Superintendent of the Southern Division, G.T.R., and remained in that position until the abolition of the general offices of the company at Hamilton early in 1893; on Mar. 1, 1893, he took service with the C.P.R. as Secretary to the President, Sir William C. Van Horne, and on the retirement of Sir William from the presidency in 1899 he remained in the same capacity with Sir Thomas G. Shaughnessy, which position he held until his present appointment.



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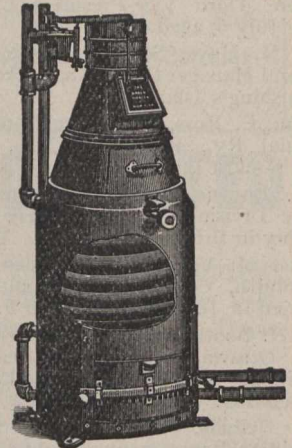
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WORKS & OFFICE - - - ST. THOMAS, ONTARIO



Jas. E. Hutcheson, Superintendent and Purchasing Agent, Ottawa Electric Ry., whose portrait appears on the first page of this issue, was born at Brockville, Ont., Sept. 15, 1858. He entered railway service in 1874 in the G.T.R. mechanical department, afterwards serving in that company's ticket, freight and telegraph departments. In 1884 he was appointed a C.P.R. train dispatcher at Ottawa, and in 1886 was made Chief Dispatcher, and in 1888 Trainmaster, which position he held until 1891, when he took charge of the Ottawa Electric Ry. Co.'s operation. He has taken an active part in the Canadian Street Railway Association's work for several years, having served as a member of the executive committee, as Vice-President, and at the recent annual meeting he was elected President.

W. D. Reid, who has been elected President Reid Newfoundland Co., was born in Australia, Mar. 20, 1867, and came to Canada with his parents in 1871. Educated in the public schools, and at the Collegiate Institute, Galt, Ont., he became associated with his father, the late Sir Robt. G. Reid, in some of his C.P.R. contracts, and subsequently undertook some contracts on his own account on the C.P.R. Algoma branch, and on the Intercolonial Ry. from Hawkesbury to Grand Narrows, N.S. He joined his father in the latter's enterprises in Newfoundland, and from 1890 had practically full charge of the work in the island. When the Reid Newfoundland Company was formed in 1902, he was elected Vice-President, and appointed General Manager, which positions he held until his election to the Presidency.

G. H. Daniels, who died at Lake Placid, N.Y., July 1, aged 66, commenced his railway career on the North Missouri Rd., now part of the Wabash system, in 1857, but it was not until 1872, when he was appointed General Freight and Passenger Agent of the Chicago and Pacific Ry., that his real railway career commenced. In 1880 he became General Ticket Agent of the Wabash, St. Louis and Pacific Rd., now the Wabash Ry., and after occupying that position for two years, filled positions with various traffic associations until 1889, when he was appointed General Passenger Agent New York Central and Hudson River Rd. In that capacity he carried out an advertising campaign which made the line and his name known throughout the world. He was relieved of the heavier responsibilities of the passenger department in 1905, and resigned from active service in May, 1907.

J. K. McNeillie, who has been appointed Superintendent, district 1, C.P.R., Toronto, was born there Feb. 23, 1874, and entered railway service in 1890, his record being: May to July, 1890, call boy and clerk in stores department, G.T.R., Lindsay, Ont.; July, 1890, to Nov., 1891, apprentice G.T.R. roundhouse, Lindsay; Nov., 1891, to Sept., 1896, apprentice, locomotive fitter and machinist, G.T.R. shops, Point St. Charles, Montreal; Sept., 1896, to Nov., 1897, clerk in Superintendent and Trainmaster's office, C.P.R., Farnham, Que.; Nov., 1897, to Nov., 1899, chief clerk in Superintendent's office, C.P.R., Farnham, Que.; Nov., 1899, to May, 1900, clerk in General Superintendent's office, C.P.R., Winnipeg; May, 1900, to July, 1902, chief clerk in same office; July, 1902, to Mar., 1903, Car Service Agent C.P.R., Winnipeg; Mar., 1903, to Oct., 1907, in Car Service Department, C.P.R., Montreal, in charge of the distribution of passenger equipment; Oct., 1907, to June, 1908, Assistant Superintendent of Terminals C.P.R., Toronto.

D. I. Roberts, who has been appointed General Manager Quebec, Montreal and Southern Ry. and Napierville Jct. Ry., was born at Waynesburg, Pa., June 27, 1853, and entered railway service April,

1873, since which his record has been: April, 1873, to Mar., 1874, clerk General Freight Agent's office, Pittsburg, Cincinnati and St. Louis Rd., Pittsburg, Pa.; Mar., 1874, to Feb., 1876, chief clerk car service department, same road; July to Oct., 1877, traveling freight agent, same road; Oct., 1877, to June, 1884, freight and ticket agent, same road, at Washington, Pa.; June, 1884, to May, 1885, travelling passenger agent, Pennsylvania lines; May, 1885, to April, 1886, District Passenger Agent, Pittsburg, Cincinnati and St. Louis Rd., and Chicago, St. Louis and Pittsburg Rd., Columbus, Ohio; April, 1886, to Oct., 1890, Assistant General Passenger Agent, Pennsylvania lines west of Pittsburg, at Cincinnati, Ohio; Oct., 1890, to Dec., 1891, Assistant General Passenger Agent, New York, Lake Erie and Western Rd., Chicago, Ill., in charge of all passenger business west of Buffalo and Salamanca, N.Y., including the Chicago and Erie Rd.; Dec. 7, 1891, to 1901, general passenger agent, New York, Lake Erie and Western Rd., and its successor the Erie Rd.; 1901 to 1905, Vice-President Little Kanawha Rd., and President Marietta, Columbus and Cleveland Rd.; from 1905 to Jan. 1, 1908, Mr. Roberts was not in railway service, from which latter date to July 20 he has been General Canadian Freight and Passenger Agent, Delaware and Hudson Co., Montreal, and General Freight and Passenger Agent Quebec, Montreal and Southern Ry., and Napierville Jct. Ry.

#### Central Railway of Canada.

Press reports announced recently that a contract had been awarded to the Dominion Engineering and Construction Co., Ltd., of which Randolph Macdonald, of Toronto, is President, for the construction of the Central Railway of Canada. As a matter of fact, the contract was signed a year ago, to go into effect as soon as the railway company could make the necessary financial arrangements, but the matter has remained in abeyance on account of the financial stringency. Press reports state that 5% first mortgage bonds to the value of £2,350,000, to be issued to the public at 96, have been underwritten in England. We have not received any official confirmation of this, but have been advised from a reliable source that a portion at least of the bonds have been underwritten. The Hon. A. Campbell, of West Toronto, Ont., President of the company, left for England, July 25, in connection with its affairs. Surveys for the line were made by J. M. Shanly, C.E., of Montreal, some two or three years ago. We are advised that there is a probability that construction will be started this year.

The company was originally incorporated in 1903, as the Ottawa River Ry. Co., with an authorized capital stock of \$500,000, to construct and operate a railway from Grenville to Montreal, via the counties of Argenteuil, Two Mountains, Laval, and Jacques Cartier, with branch lines from St. Andrew's to St. Côme, up the Riviere Rouge to Lake Rouge, and to connect with the Canada Atlantic Ry. at Hawkesbury. Power was granted to issue securities to the extent of \$20,000 a mile, and to enter into agreements with the Jacques Cartier Union Ry., Canada Atlantic Ry., Carillon and Grenville Ry., Central Counties Ry., Great Northern Ry. of Canada, C.P.R., G.T.R., Chateauguay and Northern Ry., Montreal Park and Island Ry., and Montreal Terminal Ry. The company was also empowered to utilize waterpowers, etc., for the use and transmission of electric power for its railway; to acquire hotels, parks, etc.; to construct and operate telegraph and telephone lines; to build docks, dockyards, wharves, warehouses and other terminal facilities on navigable waters, for vessels and elevators, and to own and operate

steam and other vessels on navigable waters which are reached or connected with by its railway. In 1904, the company was granted additional powers, to extend its railway from Grenville to Ottawa; to issue bonds to the extent of \$30,000 a mile of the railway constructed or under contract; to make agreements with the Montreal and Northern Ry., Irondale, Bancroft and Ottawa Ry., Central Ontario Ry., and G.T. Pacific Ry.; and the time within which construction was to be completed was extended. In 1905 the name was changed from the Ottawa River Ry. Co. to the Central Ry. Co. of Canada, and further additional powers granted; to extend the proposed line from Ottawa to Georgian Bay at Midland, Ont., passing through the counties of Russell, Carleton, Lanark, Frontenac, Lennox and Addington, Renfrew, Hastings and Haliburton, and Muskoka and Parry Sound districts; to enter into agreements with the Ottawa Valley Ry., Ottawa River Ry., and Quebec Southern Ry.; and a further extension of time was granted within which construction was to be commenced and completed. In 1906, an act was passed to increase the capital stock to \$10,000,000; empowering the issue of bonds upon terminal properties at Owen Sound, Midland, Stratford, London, St. Thomas and Toronto, confirming the agreements for the purchase of the Ottawa River Ry., for 2,000 fully paid-up shares in the company, and for the purchase of the Carillon and Grenville Ry.; declaring the undertaking to be for the general advantage of Canada, and extending the time for the construction and completion of the project.

The company bought the Ottawa River Navigation Co.'s property, including the Carillon and Grenville Ry., but it is said that only a portion of the purchase price has been paid. It is also reported to have obtained an option on the Irondale, Bancroft and Ottawa Ry.

#### Recent Dominion Legislation.

Among the acts passed at the recent session of the Dominion Parliament to receive the Royal Assent July 20, were:

ALBERTA AND BRITISH COLUMBIA RY.—Act of incorporation.

CANADA SHIPPING ACT.—Amendments.

CANADIAN NORTHERN RY.—Aids for extension.

DRY DOCKS.—To encourage construction. EDMONTON, YUKON AND PACIFIC RY.—Aids for extension.

GRAND TRUNK PACIFIC RY.—Guarantee of bonds.

GRAND TRUNK RY.—To authorize sale of portion of Major's Hill Park, Ottawa.

HAMILTON, WATERLOO AND GUELPH RY.—Amending act of incorporation.

LAKE CHAMPLAIN AND ST. LAWRENCE SHIP CANAL Co.—Amending act of incorporation.

MANITOBA GRAIN ACT.—Amending same.

NIAGARA, ST. CATHARINES AND TORONTO RY.—Amending act of incorporation.

PRINCE EDWARD ISLAND RY.—To authorize construction of branch line from Harmony, on Souris branch, to Elmira.

QUEBEC BRIDGE AND RY. Co.—Respecting property of the company.

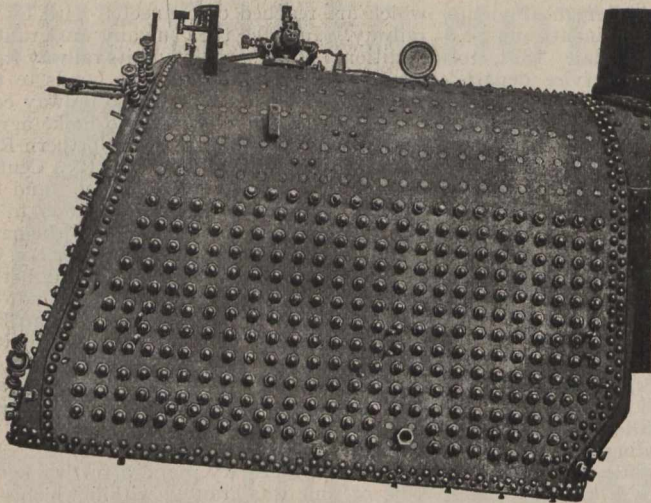
RAILWAY ACT.—To amend same as respects constitution of Board of Railway Commissioners.

RAILWAY ACT.—To amend same with respect to telegraphs and telephones, and the jurisdiction of the Board of Railway Commissioners.

TELEGRAPH SERVICE.—To assist in maintaining an independent and efficient service.

The C.P.R. has arranged to have branches of the Railway Y.M.C.A. started at Chapleau and Schreiber, Ont., divisional points on its Lake Superior Division.





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- The Canadian Street Railway Association.
- The Canadian Ticket Agents' Association.
- The Toronto Transportation Club.

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TORONTO, CANADA, AUGUST, 1908

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The Governor-General has approved of revised regulations, being "General Instructions to Employees of the Passenger Department of the Intercolonial and the Prince Edward Island Railways," and under the provisions of chap. 36 of the Revised Statutes, ordered that they be put in force.

C. M. Hays, Second Vice-President and General Manager G.T.R., is reported to have told Alderman Dagenais, Chairman of the Montreal City Council Hygiene Committee, recently, that the G.T.R. would endeavor to arrange for the preparation of a special place at Bonaventure station for the storage of milk, and would also see if anything could be done so that cars could be cooled while milk is in transit. This latter is a difficult matter to deal with.



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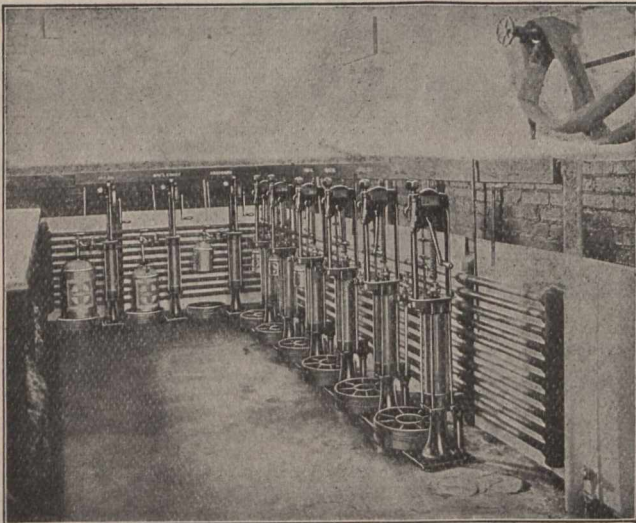
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**TRANSPORTATION APPOINTMENTS.**

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. Any of our readers who may notice any error in our announcements will confer a favor by advising us.

**Bay of Quinte Ry.**—D. A. Valteau, heretofore Assistant Superintendent, having been appointed Superintendent of the Oshawa Ry. (electric), the position vacated on the B. of Q.R. is not being filled for the present at least.

**Canadian Pacific Ry.**—H. E. Suckling's appointment as Treasurer was announced in our last issue. Sir Thos. G. Shaughnessy's circular announcing it says: "H. E. Suckling has been appointed Treasurer of the company, succeeding W. Sutherland Taylor, who at his own request, has been relieved from the duties of the office that he filled most satisfactorily during a long period of years."

C. A. Labege has been appointed town ticket agent at St. John's, Que., vice L. N. Hebert.

J. K. McNeillie, heretofore Assistant Superintendent of Terminals, Toronto, has been appointed Superintendent District 1, Ontario Division, vice W. K. Thompson, transferred. He will also have charge of Toronto terminals. Office, Toronto.

W. K. Thompson, heretofore Superintendent District 1, Ontario Division, has been appointed Superintendent District 3, vice J. R. Nelson transferred. Office, Toronto.

T. Grimes, heretofore yardmaster West Toronto, has been appointed General Yardmaster, Toronto terminals, with general supervision over yard and transfer work, and such other duties as may be assigned to him.

J. R. Nelson, heretofore Superintendent District 3, Ontario Division, with headquarters at Toronto, and acting Superintendent District 2, with headquarters at London, has been appointed Superintendent District 2, vice C. Murphy, promoted. Office, London, Ont.

J. T. Trueman has been appointed town ticket agent at Midland, Ont.

J. H. Munro has been appointed Locomotive Foreman at Muskoka, Ont., the divisional point on the new line between Bolton Jct. and Romford Jct.

R. R. Jamieson, General Superintendent, Central Division, Winnipeg, having been granted six weeks' leave of absence, he is relieved by J. T. Arundel, Superintendent District 2, Pacific Division; D. C. Coleman, Superintendent District 3, Pacific Division, being temporarily transferred to District 2, and F. Walker, Chief Train Dispatcher Nelson, B.C., acting as Superintendent District 3, Pacific Division.

C. A. Cotterell has been appointed Chief Train Dispatcher, District 5, Central Division. Office, Saskatoon, Sask.

A. Price, General Superintendent Western Division, Calgary, Alta., having been granted leave of absence, J. Brownlee, Superintendent District 4, is acting as General Superintendent; and E. L. Chudleigh, Trainmaster, Cranbrook, B.C., is acting as Superintendent, District 4.

G. B. Coombe has been appointed Travelling Passenger Agent, with headquarters at Calgary, Alta.

A. R. Owen, heretofore General Traffic Agent for Japan at Yokohama, has been appointed Agent at Shanghai, China, vice J. Rankin, transferred.

J. Rankin, heretofore Agent at Shanghai, China, has been appointed Agent at Kobe, Japan, vice H. T. Wilgress, transferred to Yokohama office.

The above transfers of Messrs. Owen, Rankin and Wilgress to their former positions were made in consequence of W. T. Payne's return to Yokohama as Manager of the Trans-Pacific Steamship Line.

**Duluth, Rainy Lake and Winnipeg Ry.**—M. A. Murphy is reported to have been appointed General Manager with office at Virginia, Minn.

**G.T. Pacific Ry.**—H. H. Brewer has been appointed Superintendent, Lake Superior Division, with headquarters at Westfort, Ont.

**Grand Trunk Ry.**—N. Dore, son of J. H. Dore, G.T.R. agent at Mitchell, Ont., has been appointed as one of the company's assistant travelling auditors.

W. Hamilton, heretofore Locomotive Foreman, Palmerston, Ont., has been appointed Locomotive Foreman, Stratford, Ont., succeeding J. A. Mitchell, resigned to enter G.T. Pacific Ry. service.

I. Jefferis has been appointed acting Locomotive Foreman at Palmerston, Ont., vice W. Hamilton, transferred.

**Pennsylvania Rd.**—L. J. Fox, heretofore chief clerk to Division Freight Agent, Pittsburg, Pa., has been appointed Canadian Freight Agent, vice W. H. H. Willis, promoted. Office, Traders Bank Building, Toronto.

W. H. H. Willis, heretofore Canadian Freight Agent, has been appointed District Freight Solicitor, vice J. E. Weller, promoted. Office, Bessemer Bldg., Pittsburg, Pa.

**Quebec, Montreal and Southern Ry.**—Napierville Jct. Ry.—D. I. Roberts, Canadian General Freight and Passenger Agent Delaware and Hudson Co., and General Freight and Passenger Agent Quebec Montreal and Southern Ry. and Napierville Junction Ry., has also been appointed General Manager Quebec, Montreal and Southern Ry. and Napierville Jct. Ry., vice C. B. Hibbard, resigned to engage in service with another company.

**Quebec and Lake St. John Ry.**—J. G. Scott, General Manager and Secretary, having resigned, the position of General Manager has been abolished.

W. H. Moore, Secretary Canadian Northern Ry. Co., has also been appointed Secretary Q. and L. St. J.R. Co.

**Wabash Rd.**—D. O. Ives having resigned to accept service elsewhere, W. C. Maxwell, heretofore Assistant General Traffic Manager, has been appointed General Traffic Manager.

G. D. Maxfield, heretofore District Passenger Agent Indianapolis, Indiana, has been appointed General Agent Passenger Department, with jurisdiction over New York State except New York City. Office 287 Main St., Buffalo, N.Y.

J. J. Mossman, heretofore General Agent at Buffalo, remains there as General Agent in charge of operating and freight matters.

The House of Commons passed resolutions, June 25, with respect to the salaries of Deputy Ministers and other civil servants, which were subsequently incorporated in an act respecting the Civil Service. The resolutions provide that the salary of the Deputy Minister of Railways and Canals may be \$8,000 a year, while those of the Deputy Ministers of other departments, excepting Justice (which is placed at \$7,000 a year), Finance and Agriculture, may be \$5,000 a year.

During May, 22 men were killed and 31 injured while engaged in railway work in Canada. Of the fatal accidents, 9 were due to being run over by trains, 3 each to dynamite explosions and being swept away by floods, 2 each to being caught between cars and to falling material, and one each to a collision, to a fall and to heat prostration. Of the non-fatal accidents, 7 each were due to collisions and to falls, 5 to derailments, 2 each to being struck by trains, to machinery, to blasting, to scalding by steam, and to falling material, and one each to being caught between cars, and to being run over.

**Quebec and Lake St. John Ry.**

Following are extracts from the report for the year ended Dec. 31, 1907, presented at the annual meeting July 9:

The total mileage operated during the year was:

	Miles.
Main line, Quebec to Roberval.....	189
Eastern extension, Chambord to Chicoutimi.....	51
Roberval to Government wharf.....	1
Total.....	241

And the mileage under construction and completed since the close of the fiscal year was:

From Jeannotte to La Tuque.....	40
From Valcartier towards Gosford.....	5½
Total.....	286½

The gross earnings and expenses compare as follows:

	1906.	1907.
Passenger earnings.....	\$179,067	\$195,179
Freight.....	369,843	406,737
Mails.....	13,417	14,456
Express, telegraph, parlor and sleeping cars.....	15,156	17,254
Car rental, etc., etc.....	24,593	23,076
Canadian Northern Ry., rental of offices.....	398	380
Canadian Northern Ry., share of maintenance, Rivière à Pierre Jct.....	1,065	1,114
Quebec dock receipts.....	4,210	4,927
	\$607,749	\$663,123
Expenditure.....	409,449	499,796
Net earnings.....	\$198,300	\$163,327

The number of passengers carried during the year was 361,100, against 325,639 in 1906. The average earnings per passenger were 56.4c., against 57.6c. in 1906. The number of tons of freight carried was 366,557, against 367,879 in 1906, and the average earnings \$1.13½ a ton, against \$1.01½ in 1906. The train mileage was 452,307 miles, against 379,469 in 1906. The freight was divided as follows:

	Cars.	Tons.
1907	1907	
1435 Cordwood.....	28,700	
2514 Pulpwood.....	50,280	
4255 Sawn lumber	106,140	
478 Square timber		
574 Ties	181,437	
1586 Pulp and paper		
138 Brick and stone		
59 Cheese		
382 Grain	366,557	
6587 General merchandise		
18008		

Whilst there was an increase in gross earnings of \$55,374, or 9.11%, the net earnings decreased \$34,973, or 17.63%, due chiefly to the increased cost of labor and fuel, and in the increased cost of materials required for maintenance and operation. The pay lists for the year were \$213,920 against \$177,172 in 1906, an increase of 20.74%. This company, in common with other companies, was compelled to raise its scale of wages to all employees, and whilst it is not expected that ordinary labor will become much cheaper during the next fiscal year, it has been found possible to effect considerable economies in administration since the close of the present fiscal year by working in closer conjunction with the Canadian Northern Quebec Ry., the result of which will no doubt be apparent in the next annual report.

The increase of 35,460 in the number of passengers carried is gratifying; and in view of the increase of population along the railway, and the development of industries in various districts served by it, there is every reason to hope that the increase will continue. It is also reasonable to anticipate an even greater popularity for the Province of Quebec among tourists and sportsmen. The Tercentenary celebrations this year will do more to advertise the country adjacent to the railway than any other event since the enterprise was projected, and the directors are fully alive to the opportunities thus created for an expansion of traffic.





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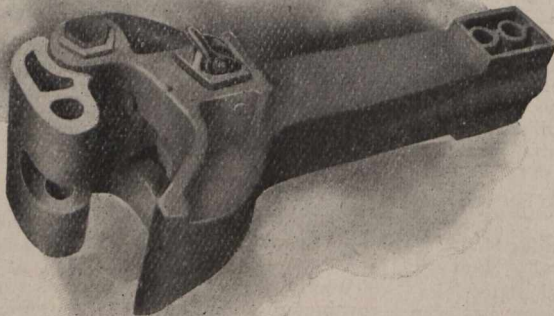
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With regard to freight business, there is a decrease in the number of cars of pulpwood carried, and an increase in shipments of pulp and paper. The decrease in pulpwood was merely incidental to market conditions, which led to many paper mills in the U.S. being temporarily closed. This has produced some effect upon the movement of general freight, such as supplies for men engaged in pulpwood operations. The increase in the shipments of pulp and paper is partially due to the establishment of new mills at St. Raymond and Jonquière. In all respects the relation of the company to the pulp and paper industries is exceedingly favorable. The U.S. is the largest consumer of pulpwood and its products. In that country the rapid diminution of the supply of timber has seriously alarmed the public, as well as those engaged in the business, and the territory served by the railway is more and more looked to as the source of supply for the U.S. paper market. The construction of the La Tuque branch line furnishes an admirable instance of the development of the timber resources of Northern Quebec. The water-power on the St. Maurice River at La Tuque, which is capable of developing 80,000 h.p., has been acquired by a powerful syndicate of U.S. paper manufacturers, who have also purchased 158,000 acres of the land granted your company, and have undertaken to erect mills and works for utilizing the timber grown upon that large area of land. By agreement with the syndicate the railway company will get the benefit of the carriage of their output for a period of years. The La Tuque branch brings into commercial utility the whole of the region of the Upper St. Maurice River, with its numerous tributaries and water-powers, and the directors look for rapid increase of business in this direction. Already a flourishing town has been established at La Tuque, and, as the National Transcontinental Ry. crosses the St. Maurice at this point, and a physical connection has been made by it with your railway, the construction of that railway will furnish, for some time to come, much profitable traffic to your company. The development at La Tuque is likely to be repeated at other points on the railway, as various U.S. capitalists are in negotiation over pulpwood areas, and new industries are projected at Metabetchouan, Ouïatchouan and Chicoutimi. The diminution of the world's supply of pulpwood has led to a much more careful policy of cutting the timber than prevailed a few years ago. It has been demonstrated that, with judicious cutting, the same territory is again soon available for further cutting. The exploitation of pulpwood territory, therefore, means permanent industry and population, and therefore, continued revenue for the railway.

There is a steady increase in the amount of business derivable from the colonization of the Lake St. John region, and the repatriation of French-Canadians who migrated to the New England States, has been considerably accelerated by the unfavorable industrial conditions which have prevailed there. The Dominion Government is continuing its policy of encouraging settlement of the rich lands around the lake, and a proposed extension of the line from Roberval will, if carried out, not only produce considerable additional traffic for the railway arising from the development of agriculture over a wider area, but will bring into business large additional areas of timbered lands, and will also secure better means of access to the mining districts around Lake Chibougamoo, of the wealth of which the reports of the Quebec Government agents are exceedingly favorable.

The net earnings for the fiscal year were \$163,326.99, and the fixed charges \$209,-

337.34, showing that the net earnings fell short of the fixed charges by \$46,010.35. This is partly due to the fact that whilst the interest on the prior lien bonds, amounting in principal to £150,000, representing the amount expended in the construction of the La Tuque branch, is charged to net earnings for the fiscal year, the branch was not operated by your company, and therefore no revenue appears in the statements under review. As previously stated, however, the directors anticipate with confidence a profitable return from the construction and operation of this branch.

The officers and directors for the current year are: President, D. B. Hanna; Vice-President, Z. A. Lash, K.C.; Secretary, W. H. Moore; other directors: L. W. Mitchell, J. D. Morton, F. C. Annesley, A. J. Mitchell, F. Nicholls, Toronto; Hon. J. Tessier, E. Beaudet, Quebec; J. G. Garneau, Mayor of Quebec, ex-officio; G. Tanguay, M.P.P., and Hon. P. A. Choquette, representing the Quebec Government, and Mr. Justice Gagne. Chicoutimi, representing that municipality. The only changes on the board are the substitution of L. W. Mitchell and J. D. Morton, of Mackenzie, Mann & Co.'s Toronto staff, for G. LeMoine and J. T. Ross, of Quebec. Last year there were two vice-presidents, G. LeMoine and Z. A. Lash. This year Mr. Lash is the only Vice-President. J. G. Scott, General Manager and Secretary, having resigned, the position of General Manager has been abolished, and W. H. Moore, Secretary of the Canadian Northern Ry. Co., etc., has also been appointed Secretary of the Q. & L. St. J. Co.

**Signal Outfits for Locomotives.**—The Board of Railway Commissioners has passed the following order: "In pursuance of the powers conferred upon it by secs. 30, 268, and 269 of the Railway Act, and of all other powers possessed by the Board in that behalf, the Board orders that the locomotive engines of every railway company subject to the legislative authority of the Parliament of Canada, operating a railway by steam power, be equipped with a full set of signals, to include red and white lamps, torpedoes, fuses, and red and white flags, such equipment to be kept in good order, and to be always available and ready for immediate use. That every such railway company disobeying or failing to comply with the provisions of this regulation be liable to a penalty of \$25 for every such disobedience or failure to comply with the provisions of this regulation."

T. J. Wall has been appointed Travelling Passenger Agent, C.P.R., St. Louis, Mo., succeeding W. S. Merchant, resigned. Office at 725 Olive St.

The C.P.R., between June 15 and July 22, ordered the following rolling stock: 10 ten-wheel passenger and freight locomotives, and 4 single-truck snow plows, at its Angus, Montreal, shops; and 10 ten-wheel, and 10 consolidation locomotives at the Montreal Locomotive Works.

The Randolph Macdonald Co., Ltd., Toronto, has secured a contract for dredging and constructing a breakwater at Cobourg harbor, Ont., principally to accommodate the car ferry steamboat, Ontario No. 1, which the G.T.R. runs between Cobourg and Charlotte, N.Y. The work is estimated to cost about \$150,000.

The C.P.R., between June 15 and July 22, received the following additions to rolling stock: 2 Pacific locomotives, 7 sleeping cars, 9 first-class cars, 11 baggage cars, 6 mail and express cars, 1 baggage and smoking car, 267 box cars and 1 ballast trimmer, from its Angus, Montreal, shops; and 9 Hart ballast cars from the Dominion Car and Foundry Co.

### Interstate Commerce Commission Decisions.

Jones Bros. Co., a corporation with its principal office in Boston, Mass., recently made a number of complaints to the Interstate Commerce Commission alleging overcharges on shipments of building granite from Barre, Vt. All the cases have been decided in complainants' favor as follows:

Aug., 1907, shipment one carload to Bushwick Junction, Long Island, N.Y., over Central Vermont Ry., Montpelier & Wells River Rd., New York, New Haven & Hartford Rd., and Long Island Rd. Car was assessed at 20c. per 100 lbs. upon a minimum carload weight of 40,000 lbs., and freight charges of \$80 were paid. The car was less than 36 ft. long, carried an actual weight of 32,900 lbs., and should have been assessed at \$65.80. The complainant has therefore sustained damages in the sum of \$14.20, which it is entitled to recover from defendants, with interest from Sept. 1, 1907.

Aug. 12, 1907, shipment one carload to same destination by same route as above. Car was assessed on minimum carload weight of 40,000 lbs., at 20c. per 100 lbs., aggregating \$80. The car was less than 36 ft. long, and the actual weight of the contents was 30,600 lbs. Freight charges should therefore have been assessed at \$61.20, and complainant has suffered damage of \$18.80, which it is entitled to recover, with interest from Sept. 1, 1907.

Oct., 1907, shipment one carload to Scranton, Pa., over Central Vermont Ry., Montpelier & Wells River Rd., and Delaware & Hudson Co. Freight charges assessed at 17c. per 100 lbs. on a minimum carload weight of 40,000 lbs., an aggregate sum of \$68, which was paid by complainant. The car was less than 36 ft. long, and carried 39,400 lbs. The freight charges should have been \$66.98, an overcharge of \$1.02, which complainant is entitled to recover, with interest from Nov. 1, 1907.

Dec. 12, 1907, shipment one carload to Chesaning, Mich., over Montpelier & Wells River Rd., Boston & Maine Rd., C.P.R., and Michigan Central Rd. Car was assessed at less than carload rate of 29c. per 100 lbs. and complainant compelled to pay as freight \$75.60. Contents of car weighed 26,100 lbs., and the car, which was less than 36 ft. long, should have been assessed at carload rate of 21c. upon a 30,000-lb. minimum, or \$63. Complainant has therefore been overcharged \$12.60, which it is entitled to recover, with interest from Jan. 1, 1908.

Dec., 1907, shipment one carload to same destination and by same route as last case mentioned above. Car contained an actual weight of 31,900 lbs., but was assessed upon a minimum of 40,000 lbs., at a rate of 20c., aggregating \$80, which complainant paid. Car was less than 36 ft. long, and freight should have been charged upon actual weight, but at rate of 21c. per 100 lbs. The charges should have been \$66.99, and complainant has been overcharged \$17.01, which it is entitled to recover, with interest from Jan. 1, 1908.

G. L. Courtney, C.P.R. District Freight and Passenger Agent, Victoria, B.C., has resigned to enter private business. We were advised, July 27, that no appointment had then been made to fill the vacancy.

The Montreal Board of Trade's Transportation Bureau will be put in operation on Sept. 1. The Board's Council has appointed as Chief of the Bureau W. S. Tilston, who for the past two years has been chief clerk to the C.P.R. Import Freight Agent at Montreal, and who was previously chief clerk to the G.T.R. Division Freight Agent at Toronto.



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**Railway Storekeepers' Association.**

At the recent convention held in Chicago, J. Osborne, General Superintendent Ontario Division, C.P.R., contributed the following paper:

The real purpose of the stores department is:

To keep one month's supply of staple articles required by every branch of the railway on hand.

To keep a ledger account of the supplies issued to each consumer.

To see that consumers are not given more than a sufficient quantity for one month's consumption without receiving a satisfactory explanation, approved of by a responsible officer.

To make a careful examination of all supplies received from manufacturers, or others; check the quantity or weight with the invoices, and satisfy themselves that the quantity of the goods are up to the standard charged for.

To see that supplies are unpacked and shelved immediately on receipt, and that proper care is taken of all perishable or breakable supplies.

To see that regular monthly requisitions are filed on regular dates, and that all emergent requisitions are filled on date of receipt.

To have travelling inspectors to see that supplies issued to local stores and to consumers are properly cared for, and that waste and misappropriation are avoided.

J. Shaw, Assistant Electrical Engineer, C.P.R., read a paper on "Caring for Electrical Supplies and Material."

Lincoln Smith, formerly Superintendent C.P.R. Upper Lakes Steamship Service, was presented with a purse of gold and a gold locket, and Mrs. Smith with a set of china, on their departure from Owen Sound for Montreal, where he has been assigned other duties in the C.P.R. service.

The C.P.R. is arranging to begin work on laying out the fishery reserve on the Cowichan River, Vancouver Island. The work to be done this season includes the cutting of a trail from Sahtlam to the head of the stream, and the construction of a simple suspension bridge across the river at Duncans.

The bill introduced by Senator Casgrain to amend the Railway Act by restoring the status of bonds to the position held prior to 1903, when they ranked as a first claim against railway property, in preference to claims for operating expenses, etc., was "killed" July 3, the motion that the committee rise without reporting progress being carried.

The Supreme Court has decided that the Ottawa Northern and Western Ry. has fulfilled the conditions under which the Pontiac and Pacific Junction Ry., and the Ottawa and Gatineau Valley Ry., had been granted an exemption from taxation for a period of years by the city council of Hull, Que. The city contended that the O. N. and W. Ry., which was a merger of the two companies named, had never fulfilled the conditions, and claimed \$1,555.93 as taxes and interest for 1904-05 and 1905-06. The decision just given confirms that of the lower courts.

The West Kootenay Power and Light Co., which was incorporated by the B.C. Legislature in 1897, is making an issue of £240,000 of 6% first mortgage bonds, due 1940. The prospectus states that the C.P.R., realizing the great value of the water powers controlled by the company, and that in the near future it would require a large amount of power for its mountain line, has purchased a large interest in the company. The directors include C. R. Hosmer, director C.P.R., and W. R. Baker, Secretary and Assistant to President C.P.R.

**Prince Edward Island Tunnel.**

The House of Commons recently directed the making of a return showing all the correspondence, etc., connected with the proposal to construct a tunnel between the mainland in New Brunswick and Prince Edward Island. In the course of the discussion it was stated that some years ago Sir Douglas Fox estimated the cost of a tunnel at \$10,000,000, and in 1906 he wrote to Rev. Father Burke, to the effect that since he reported on the tunnel many devices had been introduced for reducing cost and it would now be possible to materially reduce that estimate. The Government had not done anything to test the feasibility of the tunnel. At the end of the season of 1907 the Minister of Finance promised that surveys would be made, but nothing had been done.

An estimate of the cost of the construction of a tunnel was obtained by A. A. Lefurgey, M.P., from H. B. Reed, one of the engineers in charge of the construction of the East River tunnel, New York. This estimate was based on the information collected by the Department of Railways and the maps, etc., on file in the Department, and was for a single track tunnel, the distance from portal to portal being  $7\frac{1}{2}$  miles. In the course of his letter Mr. Reed said:

"It seems that the safest and most practical way to execute this work, located as it is, nearly 160 ft. below mean high water, would be by the shield method, with shields so designed as to be able to cope with the difficulties likely to arise in an undertaking of this nature and magnitude. I do not mean to say that should the excavations be found to be of such a nature that the full hydrostatic pressure would be encountered at any point under the straits, the shield or any method of timbering would be of much use, for in that event at that depth it would be impossible for men to work in the air pressure required. The approximate estimate of cost is based, therefore, on the assumption that the materials to be excavated will be found practically impermeable to water, and on the use of hydraulic shields, with the cast iron concrete tube type of construction, and is as follows:

"For $7\frac{1}{2}$ miles of tube, 18 ft. inside diameter, thoroughly waterproofed, including duct, banks, drains and track.....	\$12,950,000
"For 2 permanent shafts with pumps and chambers for ventilation and pumping apparatus.....	650,000
"Total for tunnel and shafts complete.....	\$13,600,000

"Before the final method of construction is adopted, I would suggest that you take up for consideration the feasibility of building the tunnel on the bed or bottom of the straits in very much the same manner as the Harlem River section of the New York subway was built, and the Detroit River tunnel, now being constructed between Detroit and Windsor. By this method the tubes are built in sections on shore, floated into position and lowered to their resting place, previously prepared, on the river bottom, after which the sections are bolted together and calked by divers, and the final work of the interior finish done under compressed air. Should it be found that this method could be used there would be no question as to the success of the project, and the work being done for a reasonable price, for the greatest depth at which the tunnel would be placed would probably be not more than 90 ft. below mean high water, that being a safe depth at which men can work under pressure."

The Premier pointed out that the Government had placed in service between the Island and the mainland a succession of steamers, each better than the preceding

one, and was preparing to replace the present steamer by a still better one. While this would be to a certain extent an experiment, it was hoped it would fill the requirements. Of course all would agree that no boat would be as satisfactory as a tunnel, which could be used under all weather conditions and through which trains could be run on schedule time. (June, 1907, pg. 409, and May, 1907, pg. 327).

The Canadian Freight Association held its summer meeting at Cushing's Island, Me. There were about 85 in the party, including ladies, most of them leaving Montreal July 14, at 8 a.m., by special G.T.R. train, arriving at Portland in the evening and from thence by ferry to the Ottawa House, Cushing's Island. On July 15, meetings of the freight, classification and executive committees were held in the morning, the general meeting being held in the afternoon, after which there was a baseball match, won by the eastern men. On July 16, the party had an electric car ride round Portland and suburbs, looked over the G.T.R., Boston & Maine, and Maine Central Terminals, a sail round the bay and a clam bake at Long Island. On July 17, they left Portland in the morning by Maine Central Rd., having luncheon at Fabyan, N.H. It was intended to ascend Mount Washington, but this part of the programme was abandoned, owing to the hotel having been burned down, Montreal was reached in the evening, via C.P.R.

The C.P.R., it is reported, has plans prepared for the erection of houses to cost from \$3,000 to \$4,000, to meet a demand that has grown up in Vancouver, B.C.

Capt. Morden, of the Morden Lumber Co., who recently completed 50 years of service on the lakes, has retired. He was born at Uxbridge, Ont., Aug. 1, 1837, and sailed, 50 years ago, on the schooner Alice Grover, of which vessel he subsequently became captain.

The action of the Turbine Steamship Co. against the owners of the Knapp roller boat, for damage caused to the s.s. Turbinia, when the roller boat broke from its moorings in Toronto bay some time ago and collided with the Turbinia, was dismissed at Toronto, July 15, for want of prosecution.

The Grand Trunk Pacific Town and Developing Co. has been granted a license to carry on business in British Columbia, under the Provincial laws. The company's head office is in Montreal, and it has a capital of \$5,000,000. Its office in British Columbia is at Victoria, E. V. Bodwell being its attorney.

The Lyall-Mitchell Co., Ltd., has been incorporated under the Manitoba Companies Act, with a capital of \$250,000, and office at Winnipeg, to carry on the business of contractors for all kinds of work. The provisional directors are: P. Lyall, P. Lyall, Jr., Montreal; G. A. Mitchell, J. A. M. Aikins, and J. McCrear, Winnipeg.

Returns recently presented in the House of Commons showed that there were 7,054 tons of 80-lb. steel rails lying along the line of the Intercolonial Ry., all of which, except 2,500 tons delivered in the fall of 1907, had been delivered in the winter of 1906-07. On Dec. 31, 1907, there were 51 locomotives out of service, eight being small ones awaiting repairs; four had been out of service since 1906, and the remainder going out of service during 1907. Of the 12 heavy power locomotives awaiting repairs, three had been out of service since 1906, and two others over a year. On the eight light locomotives and 12 heavy ones repairs had been commenced, and in addition there were 31 locomotives in the shops which had been undergoing repair for periods running up to a year and nine months.



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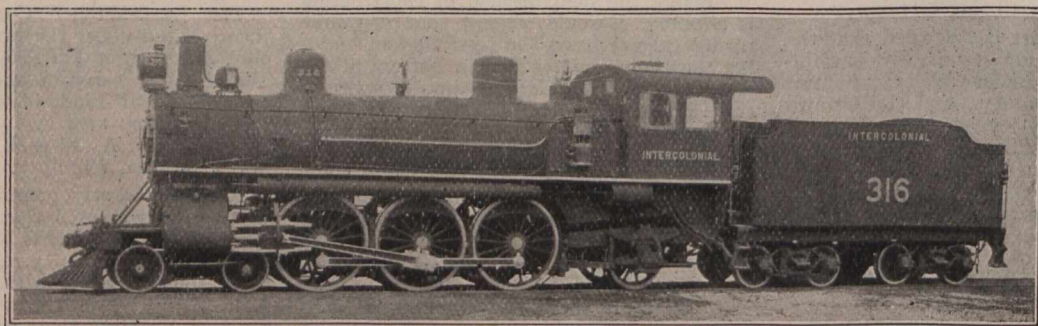
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## ELECTRIC RAILWAYS.

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**British Columbia Electric Ry.**—Good progress is being made with the grading on the 12 mile section of the Chilliwack line, now under construction between New Westminster and Cloverdale, B.C. The steel rails for the track have been ordered in Great Britain, and the first consignment of 2,000 tons is expected in Vancouver by Oct., by which time the grading on to Cloverdale should be completed.

All obstacles have now been set aside, says the Monetary Times, in connection with the reclamation of 30,000 acres of land on the Sumas prairie. The work will be undertaken by a company subsidiary to the B.C. Electric Ry. Co., and will cost \$995,000, according to the estimate prepared. The B.C.E.R. line, which has already been commenced, will run through this land, which should be very fertile. This company is extending its lines all over the lower mainland, and the advantage of rapid and frequent transportation will encourage settlers to take up small holdings. These are now being advertised in England by the company, and the incoming of settlers who will adopt agriculture, will develop a resource which has long remained latent, but in which there are great possibilities.

The company is building a bandstand at Kitsilano Beach, and is arranging to carry out some additional second-track construction on Harris St., and Boundary Ave., in order to improve the service. The electrification of the line from New Westminster to Eburne will, it is stated, be started early in August. Negotiations are in progress with representatives of Point Grey municipality for a franchise for a line. A draft agreement is to be prepared, based on agreements with other municipalities, and discussed at a future meeting. (July, pg. 507.)

**Calgary.**—The City Engineer of Calgary, Alta., is preparing to ask for tenders for the laying of rails on Eighth Ave., from Third St. East to Fourth St. West, and along First St. West under the subway, the work to be done at the same time as the street paving of this portion of the city is being done. He was also instructed to revise the regulations previously adopted regarding the construction of a street railway in the city with a view of advertising for tenders.

The route of the proposed line as finally agreed upon is as follows: Ninth Ave. from Fifteenth St. East, near Cushing's factory, to Sixth St. East, then north to Eighth Ave. Eighth Ave. West to Mewata Park at Eleventh St., with double track from Fourth St. East to Fourth St. West; Eleventh St. West, south to Seventeenth Ave.; Seventeenth Ave., from Eleventh St. West to Second St. East; Second St. East, from Seventeenth Ave. North to Eighth Ave.; Ninth St. West, from Eighth Ave. to the pumping station, near Louise Bridge; First St. West, from Eighth Ave. to Tenth Ave., under the subway. The total length will be about 7½ miles, which will form the main system, and it was further decided that upon its completion the following extensions would be constructed as required: (1) A belt line across Louise Bridge and around over Crescent Heights to the Langevin Bridge, and up Fourth St. East to the main line on Eighth Ave. (2) Third Ave., from Louise Bridge to Fourth St. East. (3) East of Elbow along Macleod trail and out to the abattoir and cement works. (4) First St. West, and out to Mission Bridge. (5) Twelfth and Fourteenth Avenues.

The specifications agreed upon include the use of 80-lb. rails on the principal streets;

70-lb. rails on the outlying streets; iron posts for carrying the overhead work on Eighth Ave., and cedar posts elsewhere. The rails and ties are to be laid on six inches of cement. It is likely that iron ties will be used for the Eighth Ave. track.

The special railway committee of the city council has had under consideration a proposal from the Montreal Engineering Co. to build and operate a street railway in Calgary. The company asks for a 25-year franchise, and the right to sell its surplus power. After considerable discussion, the following resolution was passed July 17: That the committee recommends that the proposition of any company applying for a franchise be considered, but in no case for more than 15 years; that the city would require a percentage of the profits after a period to be arranged, and have the option of purchase at the expiration of the franchise.

The proposal of P. A. Rodrigue, to construct a line in the city, is not being given any further consideration. (June, pg. 431.)

**Edmonton.**—The whole question of the operation of the street railway under construction in Edmonton, Alta., is expected to come up for discussion at an early date. Owing to the recent tightness in the money market the financing of the completion of the line met with a check, and the starting of a car service was put off indefinitely. Several offers have been received from English and other companies for a franchise to operate the line, but nothing has been decided on. (June, pg. 431.)

**Galt, Preston and Hespeler Ry.**—Press reports state that surveys have been made for the construction of an extension of this line from Berlin, via Puslinch Lake to Guelph, Ont. (July, pg. 509.)

We are advised that the company has no intention of making any extension this year.

**Hamilton Street Ry.**—The negotiations between the city council committee and the street railway management respecting a new agreement are practically complete. The final draft of a new agreement which is being drawn up provides for a considerable amount of reconstruction of roadbed, the substitution of 80 and 94-lb. rails for lighter ones now in use, and for some additional lines. (July, pg. 509.)

**Hamilton, Waterloo and Guelph Ry.**—An act authorizing the company to increase its bonding power to a maximum of \$37,500 a mile has been passed by the Dominion Parliament. (July, pg. 509.)

**Hull Electric Co.**—The agreement between the company and the city council of Hull, Que., respecting the double-tracking of the company's lines was signed July 8. The work was reported to be well advanced July 15. (July, pg. 509.)

**Montreal and Southern Counties Ry.**—We are advised that an agreement has been entered into between the company and the G.T.R., for the operation of its cars over the Victoria Bridge across the St. Lawrence. The present intention is that the north driveway of the bridge shall be utilized for the tracks, which will connect with the G.T.R. yards at Point St. Charles, for delivery of freight to Montreal. As to the progress of construction we are advised that the steel work has been put on the Blacks (swing) bridge on the Lachine Canal for reinforcing, and that the feeder cables have been laid under the canal. Access to the Victoria Bridge will be made over the Harbor Commissioner's property. It is hoped to have the line between Montreal, the entrance to which city has been arranged by by-law 376, and Longueuil, in operation at an early date. This section will be of 6.3 miles, and the cars will be

operated by a 600 volt direct current. The total length of line in the city will be 1,600 ft., over portions of Common, Grey Nun, and Youville streets, on which the agreement provides for a single track with turnout and switches as the engineers may stipulate. The lines which it is proposed to construct first south of the bridge will have a length of 24 miles. The first of these will be to Longueuil, another will be from St. Lambert to the Chambly district, and a third from St. Lambert towards Huntingdon. (July, pg. 509.)

**Montreal Park and Island Ry.**—The Montreal City Attorney has expressed an opinion to the effect that the company's cars had no legal right to enter the city, and that no extra charge should be levied when passengers were transferred to cars going to wards which had recently been annexed to the city. On this opinion instructions have been issued to the City Clerk to see that the company's cars do not enter the city, and that the Montreal Street Ry. extend its lines into all the new wards that have been annexed to Montreal. (July, pg. 509.)

**Montreal Street Ry.**—The Superior Court has given a decision in the case of the Montreal Harbor Commissioners against the M.S.R. Co., and the City of Montreal, defendant in warranty, which has been before the courts for six years. The city council gave the M.S.R. Co. permission to lay its tracks on Commissioner St., and the tracks were laid there. The Harbor Commissioners sought an injunction, but this was refused, and an action in warranty was taken. By the decision the M.S.R. Co. is ordered to remove its tracks within two months, and the city ordered to pay the costs on account of its having given permission for the laying of the tracks on what has been found to be the Harbor Commissioner's property. (April, pg. 283.) See also Montreal Park and Island Ry.

**Morrisburg Electric Ry.**—An act was passed last session of the Ontario Legislature incorporating a company with this title to construct an electric railway from Morrisburg, through Williamsburg, Winchester, Chesterville, and Morewood to Russell, with a branch line to Winchester Village. It is reported that negotiations are in progress for the obtaining of franchises from the municipal councils of the district. This is a revival of a charter granted by the Ontario Legislature in 1902. (April, pg. 283, and June, 1902, pg. 143.)

**Niagara, St. Catharines and Toronto Ry.**—Surveys are being made at Welland, Ont., for an extension to connect with the Toronto, Hamilton and Buffalo Ry., and the Michigan Central Ry., in that town. The company's line at present ends at the river bank, and it will be necessary to construct a bridge to carry the extension across. (July, pg. 509.)

**North Midland Ry.**—It is reported that A. E. Welch has completed arrangements in London, Eng., for financing the construction of this projected railway between London and Stratford, Ont., via St. Mary's, and that an announcement will shortly be made as to the date when construction will be started. (July, pg. 509.)

**Ottawa, Brockville and St. Lawrence Ry.**—See under Railway Development.

**Ottawa Electric Ry.**—Arrangements are being completed for the erection of an extra barn adjoining the present one on Albert St. The proposal to extend the line to the cemetery is under consideration, and the company offers to meet the wishes of the city council in this respect if the city will provide a free right-of-way and grade the line. The city desires that the company



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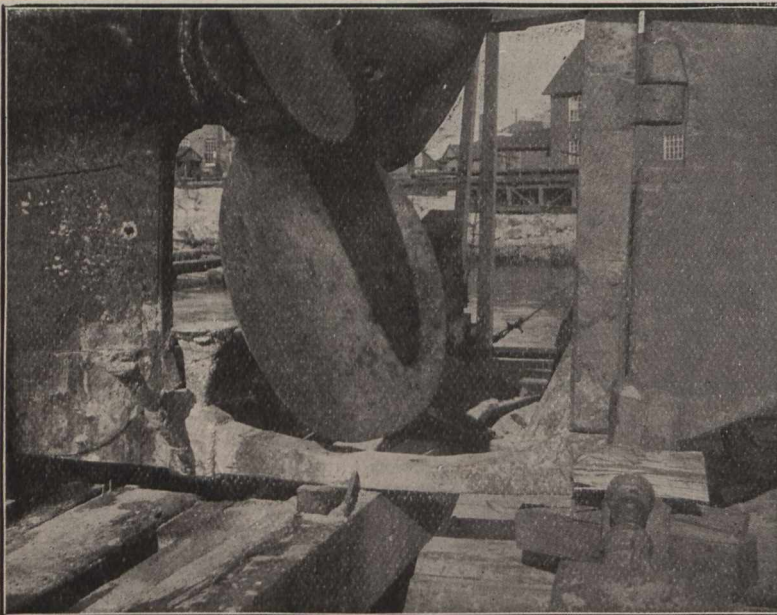
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charge city fares to the cemetery. (May, pg. 353.)

**Quebec Ry., Light and Power Co.**—The work of reconstructing the company's power line is approaching completion. The transmission line has been changed from one of 5,000 volts to one of 25,000 volts. A large storage battery has been installed for use at the busy times, when extra power is required. A new substation has been completed, and is being utilized. The Canadian Westinghouse Co. supplied the transformers, switchboards, lightning arresters, and other apparatus. (Feb., pg. 121.)

**Southwestern Traction Co.**—The several questions in dispute between the company and the Yarmouth Township Council have been settled, with the exception of that of the rates between St. Thomas and Union, Ont. (April, pg. 283.)

**Stratford and St. Joseph Radial Ry.**—N. M. Cantin, one of the original promoters of this projected line, was in Stratford, Ont., July 3, in company with Z. H. Atkinson, of Bethlehem, Pa., representing a firm which it is said is prepared to finance construction. Mr. Cantin says the line will be constructed. (July, pg. 509.)

**Electric Ry. Finance, Meetings, Etc.**

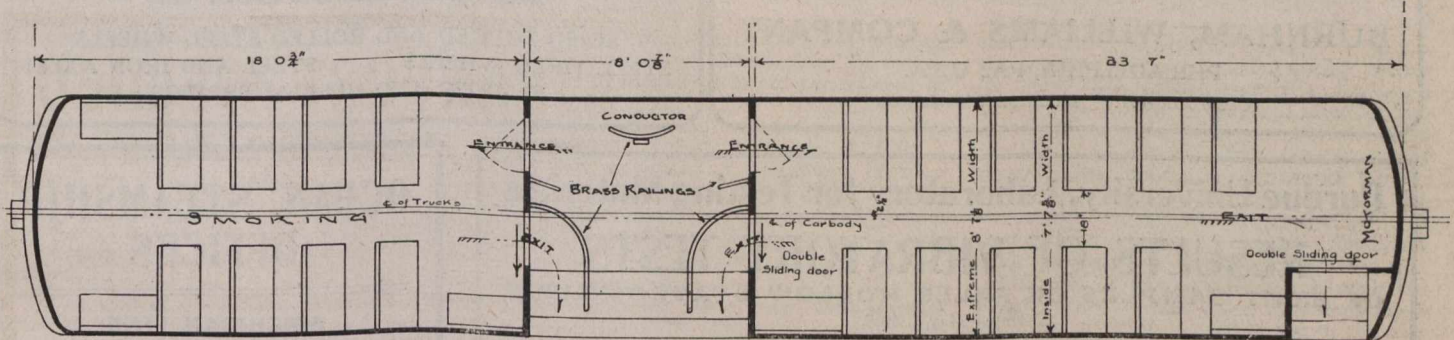
**Berlin, Waterloo, Wellesley and Lake Huron Ry.**—The Board of Railway Commissioners has recommended to the Governor-in-Council for approval, agreements for the purchase by this company of the Galt, Preston and Hespeler St. Ry., and the Preston and Berlin Ry., also of a lease by the B.W.W. & L.H. Ry. Co of its properties to the C.P.R. for 99 years. (July, pg. 507.)

**British Columbia Electric Ry.**—Gross earnings for May, \$161,212; expenses, \$95,643; net earnings, \$65,569; other income, \$11,036; renewal funds, \$10,750; against \$126,804 gross earnings; \$67,521 expenses; \$59,283 net earnings; \$9,536 other income; \$9,325 renewal funds for May, 1907. Total earnings for 11 months ended May 31, \$1,805,197; net earnings, \$851,644; against \$1,317,119 gross and \$642,721 net earnings for same period, 1906-07.

**Galt, Preston and Hespeler St. Ry.**—See Berlin, Waterloo, Wellesley and Lake Huron Ry.

**Halifax Electric Tramway Co.**—Receipts for June, \$16,215.65, against \$15,604.83 for June, 1907. Total receipts for 6 months

**Port Arthur Street Ry.**—The award of the Ontario Railway and Municipal Board as to the value of the portion of the P.A.S.R. in the limits of Fort William, Ont., which the corporation of that city desires to purchase, provides as follows: "We find that the actual value to the city of Fort William is \$52,000 for the portion of the street railway owned and operated by the city of Port Arthur within the limits of the city of Fort William, and the roadbeds, rails, plant and overhead construction, and appurtenances, having regard to the requirements of the various systems now in operation, together with the proportion of the cars which Fort William has agreed to take, being one-half of the rolling stock and being seven cars, and the accessories appurtenant thereto, and the motor generator in the transformer station of the Kaministikwia power station in Fort William and the real estate." The real estate referred to is the lot at the west end terminus, where the loop is located. The award also directs that Port Arthur must equip car 18 with new trucks and make some improvements to cars 7 and 10; that \$52,000 shall be paid over to Port Arthur within 60 days, and shall be used as a sinking fund to redeem the debentures still



FLOOR PLAN, MONTREAL STREET RY. PAY-AS-YOU-ENTER CAR FOR SUBURBAN TRAFFIC.

**The Toronto and York Radial Ry.** is planning to erect a station and freight shed at Queensville, and a car house and shop at Deer Park, on its Metropolitan Division. The North Toronto Council has decided to ask the Ontario Railway and Municipal Board to compel the company to carry out a number of improvements upon the Metropolitan Division, including the provision of additional ballast on the line.

Additional car accommodation is required on the Kingston Road line, and it is said that land has been purchased near Victoria Park, on which car barns will be erected to serve this line, and to relieve the city car barns. (June, pg. 431.)

**Toronto Suburban Ry.**—Application has been made to the York Township council for an extension of the company's franchise for 25 years, and the matter will be taken up at the next meeting. The company is asking for this extension in order that it may secure the funds necessary to construct the proposed extension through Swansea to the Lake Shore Road. (June, pg. 431.)

**Windsor, Ont.**—A project is under consideration in Windsor, Ont., for the organization of a company to operate an electric railway to connect with Detroit, by way of the tunnel now under construction by the Michigan Central Ry. Among those interested in the new proposal are: J. A. Smith, Dr. Revell, A. J. Nelles, G. J. Leggatt, W. Bong, Windsor; G. Bouteillier, Walkerville, Ont., and G. King, Detroit, Mich.

**Yarmouth Street Ry.**—Some improvements and extensions of the electric railway at Yarmouth, N.S., are contemplated. It is also proposed to purchase some new plant, including a 300 k.w. generator, turbines, etc.

ended June 30, \$80,576.80, against \$77,370.10 for same period 1907.

**Kingston, Portsmouth and Cataraqui Street Ry.**—Arrangements are being made, it is stated, for the submission of a by-law at the city elections in Jan., 1909, in favor of the municipal ownership of the street railway. It has been discovered, a press dispatch states, that the city light, heat and power plant has been supplying the company with power at a loss. The company pays the city 1.66 cents a kilowatt at the switchboard, and it costs the city 1.94 cents a kilowatt to produce it.

**London St. Ry.**—A half-yearly dividend of 3% was declared at a meeting of directors held July 7.

**Montreal St. Ry.**—Gross earnings for June, \$331,211.91; operating expenses, \$166,083.56; net earnings, \$165,128.35; city percentage on earnings, \$28,895.88; interest on bonds and loans, \$19,652.21; contingent for renewals, \$16,095.35; rent leased lines, \$444.43; surplus, \$100,040.48; against \$325,252.26 gross earnings; \$175,030.77 operating expenses; \$150,221.49 net earnings; \$27,638.33 city percentage on earnings; \$11,904.88 interest on bonds and loans; \$15,902.39 contingent for renewals; \$339.96 rent leased lines; \$94,435.93 surplus for June 1907. Total earnings for 9 months ended June 30, \$2,672,763.53; operating expenses, \$1,651,707.09; net earnings, \$1,021,056.44; standing charges, \$450,876.10; surplus, \$570,180.34, against \$2,424,887.90 total earnings; \$1,585,598.38 operating expenses; \$909,289.58 net earnings; \$389,614.22 standing charges; \$519,675.36 surplus for same period 1906-07.

A quarterly dividend of 2 1/4%, payable Aug. 1 to shareholders of record July 13, has been declared.

outstanding in respect to the different portions of the property included in the award. By an agreement made during the course of the arbitration proceedings Fort William is to pay Port Arthur all the profits of the road until Dec. 1, 1913, after the expenses of operation, including the amount of the award, the sums spent in double tracking and in building certain branch lines from Simpson St. to the Empire elevator, an extension from the present western terminus to the west limit of the city, and an extension to the terminals of the G.T. Pacific Ry., have been deducted.

**St. John Ry.**—The questions of snow removal and street repairing, in reference to which there is considerable difference of opinion between the company and the city council of St. John, N.B., are under discussion by the Public Works Board and the company. The Board desires a five-year contract at \$12,000 a year for snow cleaning and the company asks for a contract for 10 years. The matter is still under consideration, it having been decided July 8 that a special meeting of the council would be held at which all questions about which there is a difference of opinion would be brought up for settlement. (June, pg. 431.)

**Suburban Tramway Co., Montreal.**—Following are the officers and directors for the current year: President, Hon. L. J. Forget; Vice-President, K. W. Blackwell; other directors: P. Galibert, Sir H. M. Allan, R. Meighen; Secretary-Treasurer, P. Dubee; General Manager, W. G. Ross.

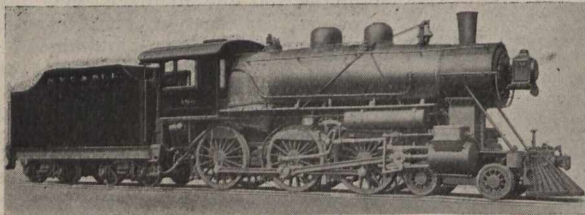
**Toronto and Mimico Ry.**—The railway portion of the company's undertaking having been acquired by the Toronto and York Radial Ry., the name of the company has been changed to the Toronto Power Co.



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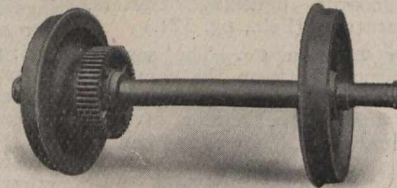
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OF EIGHT SAMPLES OF FALLS HOLLOW STAYBOLT IRON

Date—May 7, 1908.

No.	Tension Load lbs. per sq. in.	Revolutions per minute	Number of Revolu- tions to rupture
1.	4,000	100	10,188
2.	4,000	100	13,123
3.	4,000	100	8,339
4.	4,000	100	9,363
5.	4,000	100	8,868
6.	4,000	100	10,880
7.	4,000	100	11,888
8.	4,000	100	5,318
Average.....			9,746

The tests were made on an Oslon Staybolt Machine in accordance with the specifications recommended by Committee on Staybolts of the American Society for Testing Materials.

These specifications include the following tensile strength: Not less than 48,000 lbs. per sq. in. Per cent of Elongation in 8 inches, not less than 28. Per cent of Contraction of area, not less than 45. Must stand 6,000 revolutions, when one end is fixed and the other end (8 inches from fixed end) is moved in a circle of 3/32 inches radius, while the bolt is under a tension load of 4,000 lbs. per sq. in. The bolts were threaded with standard staybolt dies—12 threads to the inch.

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### WHITE STAR LINE

New York—Liverpool—Queenstown—  
Sailing from New York Thursdays.

N.Y.—Plymouth—Cherbourg—South-  
ampton

Sailing from New York Wednesdays.

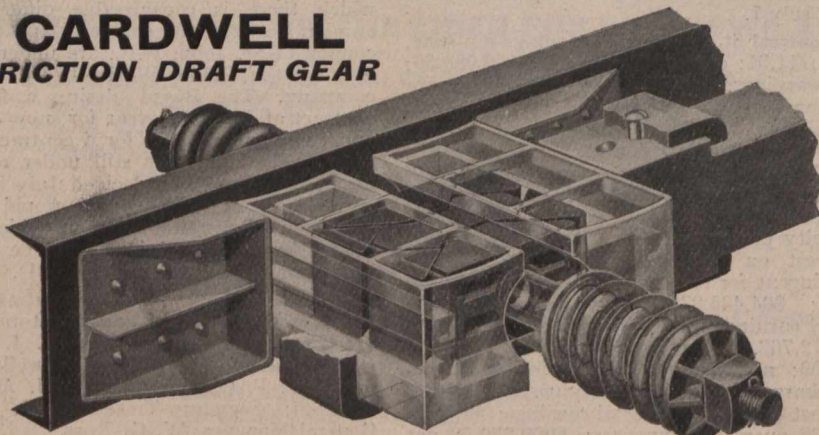
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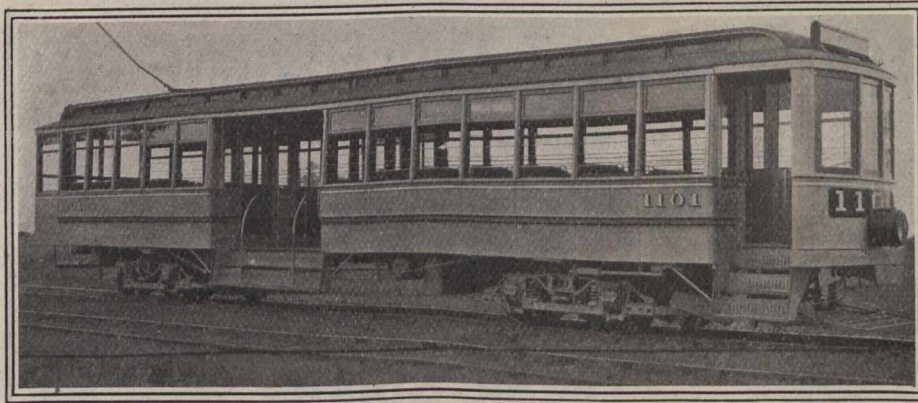


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MONTREAL STREET RY. PAY-AS-YOU-ENTER CAR FOR SUBURBAN TRAFFIC.

The Toronto Power Co., formerly known as the Toronto and Mimico Ry. Co., has been granted supplementary letters patent, increasing its capital stock from \$100,000 to \$1,000,000.

Toronto Ry.—Car earnings for June, \$301,842.19; against \$285,622.43 for June, 1907. Total earnings for 6 months ended June 30, \$1,673,147.86; against \$1,576,279.24 for same period 1907.

**Electric Railway Notes.**

The British Columbia Electric Ry. has completed arrangements for equipping all its city cars with air brakes.

The Windsor, Essex and Lake Shore Rapid Ry. is reported to be in the market for a number of box cars for its freight traffic.

D. A. Valleau, heretofore Assistant Superintendent Bay of Quinte Ry. at Napanee, Ont., has been appointed Superintendent Oshawa Ry. (electric).

F. E. Low, heretofore Superintendent St. Paul City Ry., St. Paul, Minn., has been appointed Manager Windsor, Essex and Lake Shore Rapid Ry., succeeding W. N. Warburton, resigned.

The Montreal Street Ry. is giving free trolley rides to the poor children of the city at fixed hours in the day. The trip lasts about three hours. During the summer of 1907, over 50,000 children were taken round the city on the company's cars.

W. N. Warburton, who has been Manager of the Windsor, Essex and Lake Shore Rapid Ry. practically since its formation, was presented recently with an oak chair and a travelling bag by the business men of Kingsville, Ont., and a case of silver knives and forks by the employes, on resigning his position.

The Toronto Ry. has given notice to the Ontario Railway and Municipal Board of its intention to appeal from the decision of the Divisional Court confirming the assessment levied by the city on the storage battery plant at Front and Frederick streets, Toronto. The assessment is \$100,000, but in 1907 it was reduced to \$75,000 by the Ontario Railway and Municipal Board.

The Kootenay Development Syndicate has been granted a license under the British Columbia Act respecting foreign corporations to do business in the province. The provincial offices are at Nelson, R. S. Lennie being its attorney. The company has power to develop water powers and distribute electrical energy, and to construct, acquire and operate tramways and street railways.

The Toronto City Board of Control proposes to direct the attention of the Crown

Attorney to a clause in the Criminal Code which makes it an offence for any person to stop a railway service or to interfere with it in any way, and to the action of the Toronto Ry. in stopping the service on July 11. In this connection it might be just as well to consider how this clause affects the Orange procession, the passing of which brought about the stopping of the cars.

The St. Thomas, Ont., City Engineer recently submitted an estimate for the extension of the municipal street car system to Port Stanley. The cost of roadbed is placed at \$6,638 a mile for 7 miles, totalling \$46,466; bridges, \$3,000; turnouts, \$1,500; a total cost, exclusive of equipment, of \$51,200. Overhead construction was estimated at \$1,670 a mile, or a total of \$11,690; and incidental expenditure \$5,000, bring the outlay up to a total of \$67,950.

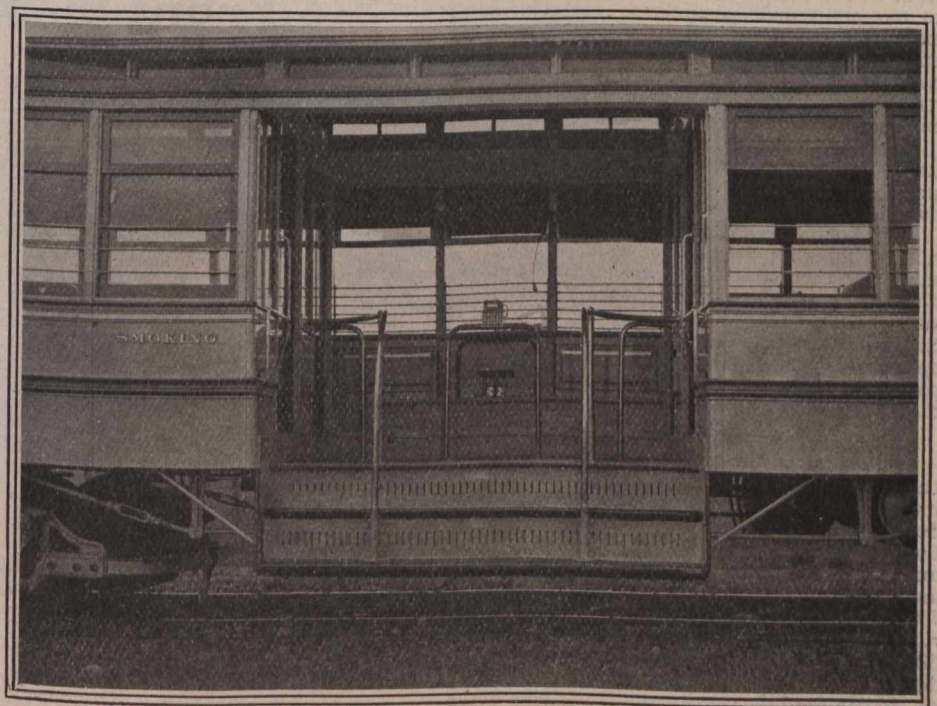
C. K. Green, heretofore Traction Manager of the Dominion Power and Transmission Co., Hamilton, Ont., is reported to have been appointed Master of Construction; F. P. Griffith to have been appointed Superintendent of Traction, temporarily, and Jno. Gibson as Assistant. We are advised that the reports are incorrect, that the changes are in the nature of an experiment, and are not permanent, and that no titles have been given in connection therewith.

**M.S.R. New Suburban Car.**

The Montreal Street Ry. has placed in service on its suburban line—the Montreal Park and Island Ry.—a new pattern pay-as-you-enter car, specially designed for suburban or interurban lines. It weighs 58,400 lbs., is 50 ft. long, 8 ft. 7 1/8 in. wide at belt rail, and 8 ft. 5 in. high from bottom of sill to top of roof. It is ventilated by sash ventilators, fitted with air brake and modern fender; and equipped with a 40 h.p. motor for direct current.

As will be seen by reference to the accompanying illustrations the platform, instead of being at the rear end of car, is placed about three-quarters' distance from the front, the back compartment being set apart for smokers. This car has all the latest improvements and is claimed to be one of the most comfortable and prettiest cars in operation on any system in the world. The windows being large and low give passengers every opportunity of admiring the scenery along the route through which it operates; the doing away with the rear platform is a decided improvement, as it prevents rocking, the car being evenly balanced. Passengers are not allowed to stand at the entrance, thus ensuring free passage for those getting on or off cars, and the conductor being always stationed at the entrance provides against the possibility of an accident whilst getting on or off cars. Passengers enter the space between the two brass bars and, after depositing their fare in the fare-box, enter either the front or rear compartment of the car as they may desire. The exit doors are always closed, and after passengers leave the car, the conductor, by pressing a pedal which is operated by compressed air, closes the doors, thus ensuring absolute safety.

The car is handsomely fitted with the latest type of rattan seats. Its capacity is 26 seated in front and 22 seated in the rear. The finish of the car inside is cherry, natural color. The passage and aisles are covered with interlocking rubber tiling. The car is well lighted throughout, the main lighting being done in the centre of the roof, and individual lights over the seats, thus making reading an easy matter. The fittings are of polished brass. The ventilation is of the



ENTRANCE AND EXITS MONTREAL STREET RY. PAY-AS-YOU-ENTER-CAR FOR SUBURBAN TRAFFIC.



latest approved method and the car is found to be specially free from dead air. The car was built at the company's shops, Hochelaga, at a cost of \$11,000.

A floor plan of the car is given on pg. 585, by reference to which it will be noticed that in addition to the two central exits, one for each compartment, there is one in front alongside the motorman.

#### Front Seats on Open Cars.

The Secretary of the Ontario Railway and Municipal Board issued the following circular, July 13, to electric railway companies under the Board's jurisdiction:

"The regulation prohibiting passengers riding on front of open motor cars. The result of the conference between the Board and the representatives of the municipalities and of the railway companies, which was held in June last at the Parliament Buildings, in reference to this matter, was to convince the Board that to pass a general regulation, without discrimination, prohibiting electric and street railways from allowing passengers to occupy the front seat on open motor cars, was impracticable, and would in many instances be oppressive. The reasons why such a regulation should not be passed are now obvious to the Board. The local conditions differ in each city or town. A regulation that might be practicable in one town would be perfectly unsuitable to another.

"The Board have concluded that the only reasonable and practicable course to pursue is to request each railway company to pass a regulation, subject to the approval of the Board, regulating the occupation by passengers of the front seat in front of open motor cars, which will meet the local circumstances of the company, and which, at the same time, will be adequate for the protection of the public. The Board therefore suggest that you should pass such a regulation at an early date and submit it for their approval."

In accordance with the request of the Board, the following regulations have already been passed:

**OTTAWA ELECTRIC RY.**—"After this date, conductors and motormen will not allow any passengers upon the front platform of their car except those who can be seated on the front seat of open cars, which will be limited to five adult male passengers. No persons except officials of the company will be permitted to stand on the front platform of any car. The motormen will be held equally responsible with the conductors for the proper enforcement of this order."

**SANDWICH, WINDSOR AND AMHERSTBURG RY.**—"Passengers must not be allowed to stand on the front platform. Motormen must enforce this order."

**THE TORONTO RY.** has had the following rules in force for about two years, and has submitted them to the Ontario Railway and Municipal Board for approval: "Women and children are not allowed, under any circumstances, to ride on the front seat of open cars. Officers of the company and policemen only are allowed to stand on the front platforms."

The Hamilton Street Ry. has agreed with the city council to provide 50 new cars for its lines as follows: By May 24, 1909, ten double-truck cars; in 1910, five double and five single-truck cars; in 1911, two double and eight single-truck cars, and two double and three single-truck cars in each of the four following years. The company has the right to substitute single-truck cars after 30 cars have been provided if the traffic does not warrant double-truck cars. The specifications of the cars are under discussion. The company desires to put on side-seated cars, and the council committee desires to have cross-seated cars.

## TORONTO BOLT AND FORGING CO.

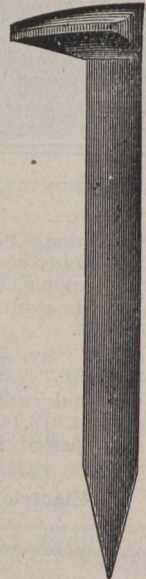
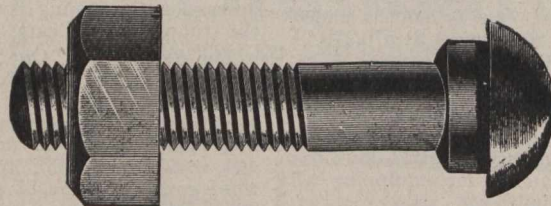
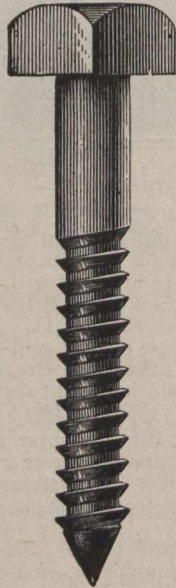
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OF ALL KINDS, INCLUDING

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**Bridge Rivets**



TORONTO

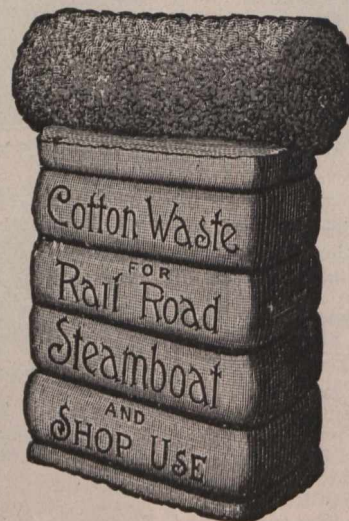
CANADA

## THE N. L. PIPER RAILWAY SUPPLY CO.

LIMITED

314 Front St. West, TORONTO

COTTON WASTE



Colored and White all Grades. In Bales of 50 lbs., 125 lbs., 250 lbs., 500 lbs.

We carry a large stock and fill orders promptly at Lowest Market Prices.



**Grain Elevator Notes.**

The Canadian Elevator Co. is about to erect an elevator at Elstom, Sask.

The Nanton Grain and Lumber Co. has decided to build an elevator of 30,000 bush. capacity at Cayley, Alta.

The Smith Grain Co.'s elevator at Stockholm, Sask., was recently destroyed by fire, the damage being estimated at \$5,000.

The Dominion Parliament has voted \$21,500 on capital account for work at the grain elevator at Port Colborne, Ont.

The Consolidated Elevator Co. is reported to be arranging for the enlargement of its elevator at Fort William, Ont., to double its present capacity of 600,000 bush.

Notice has been given that the Didsbury Elevator Co., Ltd., and the Alberta Pacific Elevator Co., Ltd., of Alberta, are to be dissolved and their names removed from the register.

Press reports state that a large number of applications have been granted by the G.T. Pacific Ry., for the construction of elevators along the route through Manitoba, Saskatchewan and Alberta, and that by the time the crop is ready, there will be at least 30 elevators ready to receive grain.

The British America Elevator Co., of Winnipeg, is to erect 10 elevators along the Canadian Northern Ry.'s Brandon-Regina branch, seven of which, press reports state, are to be built between Regina and Kaiser, where the C.N.R. and C.P.R. lines intersect. Work is proceeding on three of these elevators.

The Security Elevator Co., Ltd., has been incorporated under the Dominion Companies Act, with a capital of \$500,000 and office at Winnipeg, to construct, acquire and operate elevators, with the requisite docks, wharves, engines, plant and appliances; to purchase or otherwise acquire and operate steam and other vessels, and to carry on a transportation business by land or water. The provisional directors are: L. P. Downing, R. H. Moore, H. Phillips, T. Gillespie, W. K. Chandler, Winnipeg.

**MARINE DEPARTMENT.**

**Duty on Vessel Repairs.**

Following is the full text of the amendment to the Customs Act, Revised Statutes of Canada, 1906, chap. 48, passed by the Dominion Parliament at its recent session:

"Sec. 70. The equipments or any part thereof, including boats purchased or supplied in a foreign country for, or the expenses of repairs made in a foreign country upon, a vessel intended to be employed, or which is thereafter employed, in the coasting trade of Canada, shall, on the arrival of such vessel in any port of Canada, if arriving within one year after such repairs have been made or equipments purchased or supplied, be liable to entry and the payment of duty on the cost thereof in such foreign country at the following rates, viz.: (a) On the expenses of repairs, 25% ad valorem; (b) on equipments, including boats, the same rate of duty as if the articles were imported into Canada in the ordinary course.

"2. If the owner or master of such vessel shall wilfully and knowingly neglect or fail to report, make entry and pay duties as herein required, such vessel, with her tackle, apparel and furniture, shall be seized and forfeited.

"3. If the owner or master of such vessel shall, however, furnish good and sufficient evidence that such vessel, while in the regular course of her voyage, was compelled by stress of weather or casualty to put into such foreign port to make such repairs, to secure the safety of the vessel to enable her to reach her port of destination, or that it would be impracticable to make the repairs in Canada for the want of a dock of sufficient capacity to receive the vessel, then it shall be competent for the Minister of Customs to authorize the refund of the duties on such repairs, and such vessel shall not be liable to forfeiture under the next preceding section. Provided that repairs in the course of being made to a vessel in a foreign country at the time when this Act comes into force or made prior to such time shall not be dutiable under the said Act."

A deputation of some 15 to 20 members

of the Dominion Marine Association, representing the principal companies in its membership, waited on the Ministers of Customs and Marine on July 2, and protested strongly against the proposal to impose a duty of 25% on all vessel repairs and equipments made in the U.S. The deputation's protest finally resolved itself into a very emphatic one, declaring it to be unfair to impose a duty even in cases where a Canadian dock might not be available for repairs. The Minister of Customs was equally emphatic in saying that if a vessel owner did not care to tie up his vessel and wait until the Collingwood dry dock was empty, he could take the alternative, that is, go to the U.S. and pay the duty when his vessel returned. The Minister of Customs expressed no intention to have any mercy upon vessel owners, and insisted on the propriety of his resolution, in the face of the apparent fact that it would establish a monopoly at Collingwood, where whatever prices the yard thought proper might be charged, so long as they were less than U.S. prices, plus the duty. H. H. Gildersleeve, Manager of the Northern Navigation Co., who lives at Collingwood, made a very clear and forcible address, in which he pointed out that the present action, although possibly designed to foster Canadian industries, would be of little benefit for the present, as the Collingwood dock was getting plenty of work, and the result of the Minister's resolution would simply be to force Canadian vessels to go to the U.S. for repairs and pay a duty. Of course the Government's revenues would be swelled by this tax levied on vessels. Incidentally the Collingwood dry dock would become a monopoly as well. Mr. Gildersleeve pointed out very clearly that a duty on repairs is not sufficient to encourage the shipbuilding industry in Canada, as shipbuilding is the key to the success of a shipyard, and occasional repair work would not keep a yard going. When the Minister of Customs' resolution came up in the Commons July 4, he stated that the only conditions under which he would permit a refund of duty would be where a vessel was compelled by stress of weather or cas-

**LIST OF STEAM VESSELS REGISTERED IN CANADA DURING JUNE, 1908.**

Name.	No.	Where and When Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Port of Registry	Owners.
Adelard.....	126,143	Yamaska, Que., 1907.....	Screw, 8 N.H.P.....	46.5	9.5	3.4	17	10	Sorel, Que.....	A. E. Belisle, Yamaska, Que.
Eldred.....	122,445	The Range, N.B., 1907.....	" 13 ".....	51.4	12.6	5.4	25	17	St. John, N.B.....	J. F. Bridges Tugboat Co., Gagetown, N.B.
H. O. G.....	122,200	Surrey, B.C., 1906.....	" 12 ".....	29.6	9.0	3.7	6	4	N. Westminister, B.C.....	C. H. Green and F. Hatt, Elgine, B.C.
Harland.....	122,580	Shelburne, N.S., 1908.....	" 33 ".....	113.0	27.0	6.7	352	217	Yarmouth, N.S.....	New Burnal Johnson Iron Co., Yarmouth, N.S.
Hera.....	126,087	Vancouver, B.C., 1908.....	" 1 ".....	24.5	7.1	3.2	5	3	Vancouver, B.C.....	A. Macallum, Vancouver, B.C.
J. P. Douglass	126,079	" ".....	Paddle, 3 ".....	83.4	20.4	5.1	237	149	" ".....	A. E. Yates, " "
Leebro.....	122,394	Victoria, B.C., 1908.....	Screw, 22 ".....	123.5	28.8	11.1	323	198	Victoria, B.C.....	Leeming Bros., Victoria, B.C.
Lilloet.....	122,395	" ".....	" 94 ".....	163.0	27.0	13.0	575	311	" ".....	B. C. Marine Railways Co., Victoria, B.C.
Semiahmo.....	126,086	Vancouver, B.C., 1907.....	" 1 1/2 ".....	33.5	10.6	4.5	16	11	Vancouver, B.C.....	R. T. Burtwell, Vancouver, B.C.

**LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA DURING JUNE, 1908.**

Name.	No.	Where and When Built.	Rig.	Length	B'dth.	Depth.	Gross Tons	Reg. tons.	Port of Registry.	Owners.
Amarins.....	126,145	Sorel, Que., 1907.....	Sloop	106.6	23.2	7.2	..	131	Sorel, Que.....	N. Laroche, Sorel, Que.
Bonnie B.....	126,106	Tancook, N.S., 1908.....	Schr.	48.4	13.0	6.5	..	19	Lunenburg, N.S.....	P. Publicover, Blandford, N.S.
Emid Hazel.....	126,181	Shelburne, N.S., 1908.....	"	52.0	18.0	6.7	..	31	Shelburne, N.S.....	R. Forbes, Forbes Point, N.S.
Ethel R.....	122,593	St. George, N.B., 1902.....	Sloop	26.0	11.7	6.0	..	12	St. Andrews, N.B.....	C. M. Richardson, Grand Manan, N.B.
Gander.....	122,622	Bay du Vin, N.B., 1908.....	Schr.	32.9	10.0	4.9	..	10	Chatham, N.B.....	H. Williston, Bay du Vin, N.B.
John Kennedy.....	126,151	Levis, Que., 1892.....	Dred.	92.2	36.7	6.9	..	359	Montreal.....	Harbor Commissioners, Montreal.
Keewaydin.....	94,853	{Port Grenville, N.S., 1889 } {Liverpool, N.S., 1908..... }	"	"	"	"	"	"	"	"
Mabel C.....	121,880	Cape Island, N.S., 1905.....	Sloop	108.0	28.4	9.4	..	158	Liverpool, N.S.....	I. A. Hopkins, Halifax, N.S.
Manseau.....	126,144	Sorel, Que., 1908.....	Sloop	32.0	10.6	6.0	..	10	Barrington, N.S.....	A. Nickerson, Cape Island, N.S.
Oriole B.....	122,427	Chezetcook, N.S., 1908.....	Schr.	82.2	21.1	5.7	..	32	Sorel, Que.....	M. Paulhus, Sorel, Que.
Pride of the Fleet	122,623	Caraquet, N.B., 1908.....	"	60.0	18.4	6.8	..	67	Halifax, N.S.....	J. Bellefontaine, Chezetcook, N.S.
Oscar Rouette.....	126,152	Point du Lac, Que., 1900.....	"	44.0	14.7	6.5	..	24	Chatham, N.B.....	P. J. Fiott, Caraquet, N.B.
Qualla.....	122,198	N. Westminister, B.C., 1908.....	"	75.0	19.9	5.3	..	53	Montreal.....	O. Rouette, Point du Lac, Que.
Rustic.....	122,624	Chatham, N.B., 1907.....	Barge	96.0	32.0	7.0	..	188	N. W'minster, B.C.....	S. Emerson, New Westminister, B.C.
Viv. B. Walters.....	126,105	Lunenburg, N.S., 1908.....	Schr.	33.0	11.0	4.6	..	10	Chatham, N.B.....	J. Fraser, Rexton, N.S.
			"	91.3	24.5	10.5	..	86	Lunenburg, N.S.....	W. C. Smith, & Co., Lunenburg, N.S.



ually to put into a foreign port to make repairs in order to secure her safety, or enable her to reach her port of destination, or where there is no dock in Canada of sufficient capacity to receive the vessel, or where the repairs are pending at the time the Act comes into force.

**Atlantic and Pacific Ocean Marine.**

Capt. G. P. Outram, of the Allan Line s.s. Corsican, stated recently that in his opinion the St. Lawrence channel was one of the safest and best lighted in the world.

The s.s. Pelican, chartered by the Hudson Bay Co., was in Montreal recently, loading supplies, after which she sailed for Fort Churchill, Hudson Bay, calling at H.B.Co. stations.

The s.s. Portsmouth, bound from Great Britain to Quebec with 3,700 tons of coal for use of the fleet accompanying the Prince of Wales to the Quebec Tercentenary celebrations, ran ashore near Cape Chatte lighthouse in the Gulf of St. Lawrence, July 13.

Press reports state that negotiations are in progress between the Jamaica Government and the C.P.R., for the establishment of a steamship service between Montreal and the West Indies, and it is stated that it is not improbable that the C.P.R. will agree to place vessels on the route.

The s.s. Bengore Head, which sailed from Montreal and Quebec at the end of May, ran amok in Portsmouth harbor, Eng., recently, colliding with and damaging H.M.S. Vengeance, and finally running aground. She was subsequently floated, when it was found that a large hole had been made in the bows above the waterline.

The s.s. Glenfarg, which has been chartered by the C.P.R. for the trans-Pacific route, arrived at Victoria recently, and has been placed in service. She is owned by the Glen Steamship Line, and was formerly operated between Liverpool, Eng., and Yokohama, and latterly was chartered by the Toyo Kissen Kaisha, in the South American service.

J. E. Furness, manager of Furness, Withy & Co., Ltd., recently returned to Halifax, N.S., after a visit to Great Britain. It is stated that his visit was due to the arrangements in progress for the improvements of the company's Canadian service, and to the inspection of plans and specifications of the new vessels it is proposed to build specially for the route.

The salvage operations on the s.s. Anselm, wrecked off the New Orleans coast, were placed by the London Salvage Association in the hands of Capt. Logan, Superintendent of the Manchester Liners, Montreal, and have been successfully accomplished. The vessel was stripped and floated with comparative ease, after which she proceeded to New York, about 1,800 miles, under her own steam. It is estimated that the loss will be rather less than 40%.

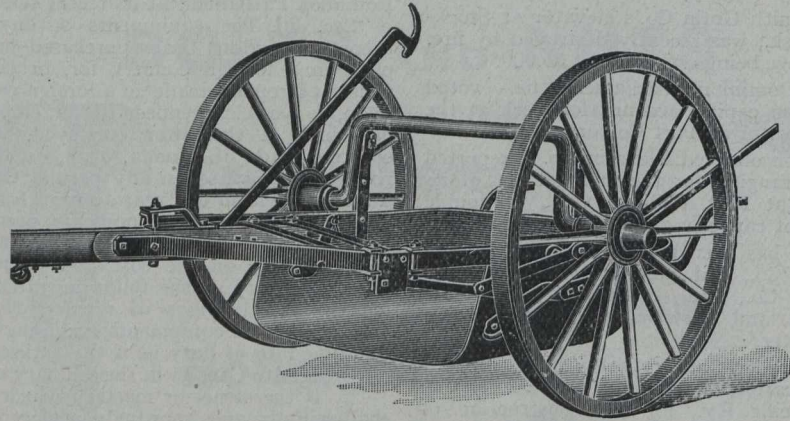
The Thomson Line s.s. Arcola struck on St. Paul Island, off the Nova Scotia coast, July 8, and foundered, and is regarded as a total loss. She was built at West Hartlepool, Eng., in 1897, and is a screw-driven vessel with engines of 240 n.h.p. Her dimensions were: Length, 314 ft.; breadth, 44.1 ft.; depth, 20.7 ft.; tonnage, 2,599 gross, 1,651 register. This is one of 10 large ocean-going vessels which were transferred from the British to the Canadian register during 1907.

Replying to a question in the House of Commons recently, the Premier said it is not the intention of the Government either to oppose or to suggest any port in connection with the suggested All-Red Line. This is

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**TORONTO, CANADA**

**LIMITED**



Our **SOLID PRESSED BOWL DRAG** and **WHEEL SCRAPERS** are the most satisfactory in the market. They are pressed out of one solid sheet of steel and have no joints or seams.

We manufacture a complete line of Contractors' Supplies, including

- PLOUGHS**
- DUMP CARS**
- DUMP WAGONS**
- DUMP CARTS**
- WHEELBARROWS**
- TRUCKS**
- CEMENT MIXERS**
- WAGONS**

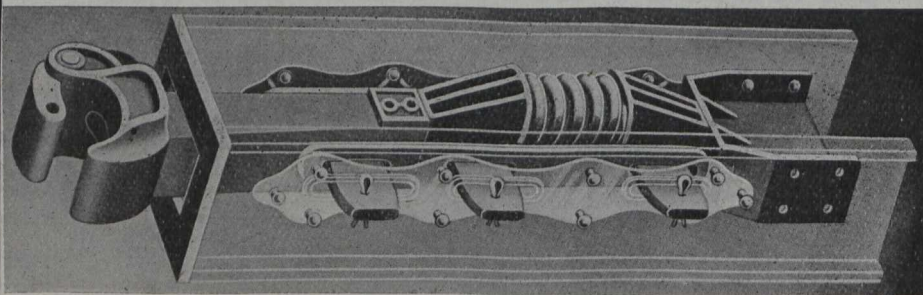
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**FARLOW TWIN SPRING DRAFT GEAR**



Designed for Wooden or Steel Cars and Engines.

Pulling Strains Distributed Equally on the Three Cross Keys.

Buffing Shocks Distributed on End Sill, Three Cross Keys, Filler Block and Body Bolster. Cannot be Pulled Out or Driven Back and Will Not Spread Sills.

**FARLOW DRAFT GEAR CO.**

**BALTIMORE, MD.**

**CHICAGO, ILL.**



a question, he said, which should be decided on purely business reasons, and left altogether to the company which may undertake the service, the only condition to be insisted upon by the Government being that the service must be between the United Kingdom and Canada.

Captain Gray, of the Hudson Bay Co.'s s.s. Pelican, who has been intimately connected with transport service on Hudson Bay for nearly 40 years, is reported to have recently expressed his opinion as to the use of the route for grain transportation to the effect, that it is dangerous on account of icebergs, that it is only safe for three months in the year, and that it is closed too early to be available for the transportation of grain. Most of the harbors, he also says, are too shallow for large vessels.

The s.s. Regulus, from Philadelphia to St. John's, Nfld., was reported ashore at Petty Harbor, about 10 miles south of St. John's, July 10. The steamships Adventure and Petrel were sent to her assistance, but her position and the prevalence of fog render the chance of saving her very poor. The Regulus is owned by Harvey & Co., St. John's, and trades between that port and Philadelphia with coal. She was built at Newcastle-on-Tyne, Eng., in 1878, and is a screw-driven vessel, with triple expansion engines of 126 n.h.p., having cylinders 17½, 28 and 47 ins. diam., by 33 ins. stroke; her dimensions are: Length, 209.5 ft.; breadth, 30.6 ft.; depth, 13.3 ft.; tonnage, 1,137 gross, 649 register.

The International Mercantile Marine Co. has recently acquired the ship Mersey, having dimensions as follows: Length, 271 ft.; breadth, 39 ft.; tonnage, 1,829 gross register, with the intention of utilizing her as a training ship for mercantile marine officers, for the fleets of its associated lines. About 60 boys will be accommodated, preference being given to those who have gone through a preliminary training on the school ships Conway and Worcester. The control of the vessel will be with the White Star Line, and the customary routine on similar vessels will be followed. The period served will be 4 years, or 3 years in the case of those who have previously served 2 years on the Conway or Worcester, after which, on obtaining second mate's certificate, opportunity will be given to join steamers of a certain size, where qualifications as mate and master follow in due course. The terms are: First year, \$350; second year, \$300; third year, \$200; fourth year, \$150; payable in advance, \$50 being repaid to all cadets passing the necessary examinations and holding officers' positions in one of the associated lines to the managers' satisfaction for 3 years.

#### Maritime Provinces and Newfoundland.

J. A. McDonald has been appointed Harbor Master at Mulgrave, N.S.

G. Robertson has been appointed Port Warden at Bathurst, N.B.

M. Turner, a retired master mariner of Glace Bay, N.S., was drowned off Cape Smokey, July 3.

G. T. Douglas, A. Vernon and A. Fowler have been appointed Commissioners of the pilotage district of Amherst, N.S.

Capt. H. T. Whelpley, St. John, N.B., died there recently as the result of a fall into the hold of the schooner Ruth Robinson.

The Belmont Shipping Co.'s bark Belmont, of Yarmouth, N.S., was considerably damaged by a fire which broke out in Boston harbor, July 8.

The signal tax, amounting to \$1, hitherto levied on all vessels entering Halifax harbor,

has been cancelled so far as regards vessels of less than 150 tons register.

The name of the schooner Keewaydin, official number 94,853, registered at Liverpool, N.S., has been changed by order-in-council to Myrtle V. Hopkins.

W. C. Job, who returned to St. John's, Nfld., July 4, announced that he has placed an order in Glasgow, Scotland, for the building of a high speed sealing steamboat.

The St. John, N.B., ferry steamboat Ludlow collided with the schooner Virginian, July 6, both vessels being considerably damaged in the bows. An investigation will probably be held.

J. Fleming, a well-known coast pilot for over 60 years, died at Ketch Harbor, N.S., July 12, aged 98. He ran the blockade at Halifax harbor with the confederate cruiser Tellahassee in the war of 1864.

J. W. Carmichael & Co. launched the first steel sailing vessel built in the Maritime Provinces, from their New Glasgow, N.S., yards, July 14. The vessel will register 410 tons, and carry about 500,000 feet of lumber.

R. Moffat and J. E. Kelly, Campbellton, N.B., have deposited with the Minister of Public Works, plans and descriptions of two wharves and approaches which they propose to construct in the Restigouche River at Campbellford.

The Allan Steamship Line has paid \$1,100 to the owners of the Lunenburg, N.S., schooner Beatrice S. Mack, for damage sustained in a collision with the s.s. Victorian, outward bound from Halifax to Liverpool in March. The owners of the schooner sued for \$3,000.

The dispute between the Dartmouth, N.S., Ferry Commission and its engineers, as to hours and wages, has been settled. The pay has been fixed at \$67 a month, with 25c. an hour for overtime, and no work in the shops. The hours have been changed from an average of 9¼ to 9 a day.

The Newfoundland Government has authorized the payment of bounties on all vessels having whole or fixed decks, newly built and registered in the colony. The bonus is to be paid to the person for whom the vessel is built, and varies, \$10 a ton being paid on vessels of 80 tons and upwards, built to Lloyd's specifications, and graduated amounts for smaller vessels.

The Pilotage and Harbor Committee of the Halifax Board of Trade at a recent meeting decided to ask the Dominion Government to supply a steamboat suitable for the requirements of the port to serve as a quarantine vessel in place of the Argus now in use. It was stated that the Argus, which has been in service for a number of years, was a second-hand vessel when purchased, and was condemned three years ago, and at that time an estimate of \$20,000 was passed for the purchase of another vessel, but the amount has not been used.

The Interprovincial Navigation Co., of Campbellton, N.B., has chartered the Magdalen Islands Steamship Co.'s s.s. Lady Sybil to take the place of the s.s. Lady Eileen, recently wrecked near Gaspé, Que. The recent attempt to save the Lady Eileen has been abandoned, and she is considered a total loss. The company has a mail contract between Campbellton and Gaspé ports, and it is not considered probable that it will build another vessel to replace the one lost, but rather that if the Government will release the contract the company may wind up the business.

An order-in-council has been passed approving an amendment to the rules and regulations for the government of pilots

in the pilotage district of Shediac, N.B., by the addition of the following to no. 7: "That all ships or vessels propelled by steam or driven by power other than sails shall pay 4c. per ton on her register tonnage in addition to the above rates." This amendment was approved at a meeting of the pilotage authority last year, the reason given being that it was considered essential in the best interests of the port that two efficient pilots be maintained, which on account of inadequate revenue was impossible.

The dimensions of the vessel recently ordered in Glasgow, Scotland, by Bowring & Co., Ltd., Liverpool, Eng., and Newfoundland, mentioned in our July issue, are: Length, 305 ft.; breadth, 42.9 ft.; depth, moulded, 24 ft. She will be fitted with triple expansion engines of about 2,600 n.h.p., with cylinders 24, 40 and 64 ins. diameter, by 42 ins. stroke, with forced draught, and capable of a speed of 13 knots an hour. Accommodation will be provided for 100 first-class and 60 second-class passengers. During the greater part of the year she will be on the St. John's, Halifax and New York route, and for the remainder, will engage in seal fishing.

#### Province of Quebec Marine.

The Montreal branch of the Canadian Manufacturers' Association has called the attention of the city council to the lack of proper fire protection at the wharves.

It is reported that the Montreal longshoremen have decided to form a local organization to look after their interests, and to separate from the International Union.

The Government icebreaking steamship Montcalm, which was damaged recently by colliding with the C.P.R. s.s. Milwaukee, was released from the Levis dry dock July 1, after completion of repairs.

The number of ocean-going vessels to enter Montreal from the opening of navigation to July 1, was 246, representing a tonnage of 655,155, an increase of 28 vessels and 79,467 tons over 1907. The harbor revenues for the same period were \$90,710, against \$76,697 in 1907.

The St. Lawrence Canadian Navigation Co.'s s.s. Imperial collided with the Richelieu and Ontario Navigation Co.'s s.s. Quebec, opposite Varennes, Que., July 5. Owing to the damage to the paddle wheel, the Quebec was towed to Montreal, where repairs were made during the week. Press reports state that the two vessels were proceeding along the river a few yards apart when the Imperial suddenly swerved and crashed into the Quebec's paddle box. The Imperial, formerly known as the Sovereign, was mulcted in damages last year for sinking the barge Germaine, through the wheel chains having jammed in the rudder blocks, which, it was stated in the course of evidence before Commander Spain, had happened on previous occasions.

#### Ontario and the Great Lakes.

The Owen Sound Dredging Co., Midland, has recently received a new dredge, built by M. Peatty & Sons, Welland.

The dredge under construction for the Toronto City Council was launched at Polson's Iron Works, Toronto, July 6.

The Hamilton Steamboat Co. has declared a dividend of 5% for the first half of this year, being at the rate of 10% per year.

The Ontario and Quebec Navigation Co.'s s.s. Niagara is reported to have been removed from the Welland-Buffalo route, and sent to Montreal.



J. H. Teare, J. McKechnie and W. T. Cook, have been appointed Government wharfingers at Port Finlay, Providence Bay and Cook's Bay, Ont., respectively.

The name of the steam tug Fannie L. Baker, official number 126,092, registered at St. Catharines, Ont., has been changed by order-in-council to Thomas Freel Battle.

The Lake Ontario and Bay of Quinte Navigation Co.'s s.s. Caspian was severely damaged recently by a steam yacht colliding with her in backing from her berth at Kingston.

The s.s. Amethyst, which ran ashore on Green Island June 30, was got off at high tide, with the assistance of the Government s.s. La Canadienne, July 2, without sustaining any damage.

The U.S. steamboat Arundel, which ran on a shoal near Thousand Islands in June, was subsequently released and taken to Kingston, where she was placed in the dry dock for repairs.

During June there entered Toronto harbor 57 propellers, 489 side-wheel steamers, and 92 sailing vessels, against 71 propellers, 541 side-wheel steamers, and 72 sailing vessels for June, 1907.

The Canadian Lakes Transportation Co.'s s.s. Tagona arrived in Toronto July 14, from Great Britain. She is a sister vessel of the Kenora and Regina, descriptions of which we have already published.

A gasolene boat named Priscilla, owned in the U.S., being held up by the break in the Cornwall canal, it was decided to attempt the passage up the Long Sault Rapids, which was successfully accomplished.

Tenders are under consideration by the Department of Railways and Canals for widening the deep water channel along the west pier at Port Colborne, at the Lake Erie entrance of the Welland canal.

W. D. Mathews, a director of the Niagara Navigation Co., stated recently that there was no foundation for the newspaper report to the effect that the Mackenzie, Mann & Co. interests were about to acquire control of that company.

The Muskoka Lakes Navigation and Hotel Co. has placed its steamboat Cherokee in service. She was built in Toronto last year, her dimensions being: Length, 120 ft.; breadth, 23 ft.; depth, 7.2 ft.; tonnage, 328 gross, 160 register, with engine of 41 n.h.p., driving a screw.

The Kingston schooner Acacia, from Oswego, N.Y., to Kingston, ran ashore near Sackett's Harbor, N.Y., July 8, and became a total loss. She was built at Smith's Falls in 1871, her dimensions being: Length, 102.3 ft.; breadth, 20.4 ft.; depth, 9.4 ft.; 188 tons register, and was owned by C. C. Simmons, and valued at \$2,500.

The s.s. Mary Horton, owned in Liverpool, Eng., and under a six months' charter to the Dominion Lumber Co., Montreal, in passing through lock 13, on the Welland Canal, July 14, backed on to the upper gates, which were carried away by the rush of water. The gates were replaced and traffic resumed on the following day.

The Merchants' Steamship Co.'s s.s. Beaverton arrived in Toronto July 14, from Great Britain, with a cargo of scoria blocks for W. H. Knowlton, Toronto. She will be operated on the Montreal-Fort William route, under the management of the Mathews Steamship Line, Toronto. A full description of her was given in our Feb. issue.

Tenders are under consideration by the Department of Railways and Canals for work on the Holland River branch of the Trent Valley Canal. The works to be carried out include the deepening and improving of a channel way from Cook's Bay, Lake Simcoe, to the mouth of the Holland

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Six Railways of the Canadian Northern System.*

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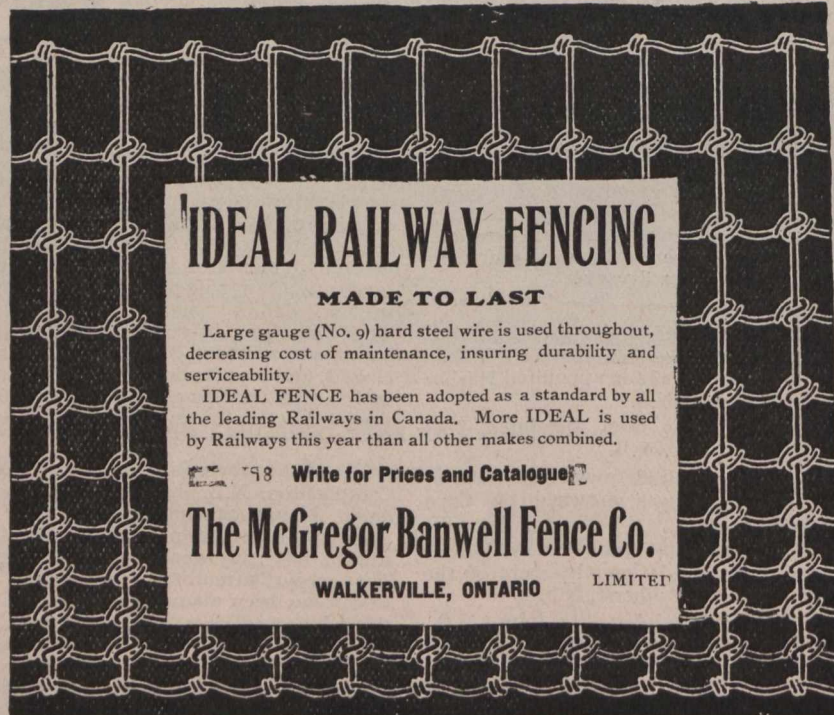
**QUEBEC**—Between Montreal and Quebec, the scenic route of the Canadian Northern Quebec, through the Laurentians, with through service over the Quebec and Lake St. John Railway to the Upper St. Maurice, Lake St. John and the Saguenay. All trains run into the station in Lake St. Joseph Hotel grounds, only fifty minutes from Quebec, and an ideal place from which to explore the historical riches of the Citadel City, and to cross the mountains to the Lake St. John country, where the Hotel Roberval offers equally good accommodation. Write about trains to Guy Tombs, G.P.A., Canadian Northern Quebec, and Quebec and Lake St. John Railways, Montreal.

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Lake Shore Express is without a superior.

**NEW LINE TO SUDBURY**—The Canadian Northern Ontario extension from Parry Sound to Sudbury is now open. The Lake Shore Express daily, except Sunday, being continued to Sudbury through the delightful fishing and camping regions of Bolger Lake, Deer Lake, Maganetawan, Still, Key, Pick-erel, French, and Wahnapiatae Rivers. Write C. Price Green, Passenger Agent, Canadian Northern Ontario Railway, Toronto.

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River, along the river and its eastern branch to the Bradford road at Holland Landing.

The Montreal and Lake Erie Steamship Co.'s s.s. City of Montreal, which stranded at Farran's Point in June, was subsequently released and towed to Ogdensburg, N.Y., for repairs. It is stated that the cost of floating her and the removal to Ogdensburg was \$20,000, and the repairs a further \$15,000. She was formerly known as the China, and was built at Buffalo, N.Y., in 1871.

In reply to a question by R. Blain, M.P., the Minister of Public Works said, July 6, that he had received a petition asking the Government to buy Port Credit harbor, it having been handed over to a private company by the Ontario Government several years ago. This he could not consider, but if steps were taken to prevail upon the Provincial Government to bear one-half of the cost of dredging, etc., he would recommend that the Dominion Government bear the other half.

The U.S. Lakes Survey reports the levels of the lakes in feet above tide water for June as follows: Superior, 602.62; Michigan and Huron, 581.60; Erie, 573.62; Ontario, 248.62. Compared with the levels in May, Superior is  $6\frac{1}{2}$  ins. higher; Michigan and Huron, 3 ins. higher; Erie, the same, and Ontario 2 ins. higher; and compared with the average levels for 10 years, Superior is about the same; Michigan and Huron,  $7\frac{1}{2}$  ins. above; Erie,  $10\frac{3}{4}$  ins. above; Ontario shows the highest level since 1870.

The Owen Sound Park Co.'s s.s. Canada was sold by auction recently to Chew and Doty, of Midland and Goderich. The price stated to have been paid is \$2,500. She is to be overhauled and refitted and operated in the lumbering business. She was built at Wallaceburg in 1874, and was formerly named Queen City and afterwards J. W. Steinhof. Her dimensions are: Length, 123.2 ft.; breadth, 24.1 ft.; depth, 8.7 ft.; tonnage, 312 gross, 209 register, with engine of 120 n.h.p., driving a screw.

The Northern Navigation Co. has sold its steamboat Britannic to the Montreal and Cornwall Navigation Co., for use on the route between Cornwall and Prescott. The Britannic, formerly known as the Rocket, was built in 1866 at Sorel, Que., and rebuilt in 1892. She was at one time owned by the Montreal and Cornwall Navigation Co., from which the Northern Navigation Co. purchased her in 1898. She is a paddle-wheeled steamer, her dimensions being: Length, 150.8 ft.; breadth, 25.6 ft.; depth, 9.2 ft.; tonnage, 428 gross, 228 register, with engine of 41 n.h.p.

The Ontario Railway and Municipal Board proposes to make an investigation in regard to the operations of the Huntsville, Lake of Bays, and Lake Simcoe Navigation Co.'s steamboats in the Lake of Bays district. The company also operates the Huntsville and Lake of Bays Ry., which has a length of about a mile across the portage between Peninsula and Fairy Lake. The Ontario Railway Act does not directly give the Board power over the steamship lines operated by railways over which it has jurisdiction, but the Chairman of the Board is hopeful that a conference between the parties interested will result in a settlement.

Notice has been given of the existence of a shoal in the St. Clair River extending from opposite the car ferry docks at Sarnia to below the line of the International tunnel. It lies about 700 ft. from the Canadian shore, and has about 20.5 ft. of water covering it. Instructions are issued to heavily laden downbound vessels after straightening out from the turn at the head of the shoal at the mouth of Black River, to keep a course as nearly parallel to the Canadian shore as possible till well below the tunnel. The

position of the shoal has been marked by a gas buoy painted red and black in horizontal stripes. A later report states that the Government has ordered dredges to be set to work at once for the removal of the danger.

The Toronto Ferry Co.'s steamboat Jasmine was taken for a trial trip to Oakville June 29, after having been overhauled at Toronto, and was subsequently placed on the island ferry route. The Jasmine has had a rather chequered career. She was originally known as the W. M. Aldersen and was built at Goderich, running for some time between Owen Sound and Wiarton. Later she was sold and operated on the lower lakes, where she was burnt to the water's edge. On being rebuilt at Toronto in 1892, her name was changed to A. J. Tymon. In 1902, an order was made by the Admiralty Court for the sale of the vessel to satisfy claims for wages preferred by the captain and crew, and the sale took place Jan. 28, 1903, after which she was re-named Ojibway, and operated by the Hiawatha Steamship Co., Sault Ste. Marie, Ont., to Georgian Bay ports. She was subsequently sold to a purchaser at Noyan, Que., from whom she was bought last fall by the Toronto Ferry Co. She is a screw-driven vessel, with engine of 18 n.h.p., her dimensions being: Length, 130.5 ft.; breadth, 21.6 ft.; depth, 8.7 ft.; tonnage, 194 gross, 132 register.

The C.P.R. s.s. Assiniboia, one of the vessels which arrived at the close of the navigation season last year, was divided at Quebec and towed in two sections to Buffalo, where the rejoining took place, left Owen Sound on her maiden lake trip July 4, for Sault Ste. Marie, Port Arthur and Fort William. It is alleged that on the down trip there was a race between the Assiniboia and the Northern Navigation Co.'s s.s. Huronic. Officials of the Northern Navigation Co. are credited with stating that the vessels left Port Arthur eight minutes apart and remained in that situation while passing Thunder Cape, and until Passage Island was reached, at 3.20 p.m., when the Huronic took the lead and gained about three lengths, which she retained until 7 p.m. At White Fish Point, 43 miles above Sault Ste. Marie, the Assiniboia was 10 minutes ahead of her rival, but the Huronic commenced to creep up, and at the point of separation for the different canals, but a short distance above the Sault, had reduced the time between her and the C.P.R. liner to five minutes. The actual time of the steamers on the run as given by the N.N. officials is: Huronic, 16 hours, 32 minutes; Assiniboia 16 hours, 35 minutes. M. McD. Duff, assistant to the Manager of the C.P.R. Steamship Lines, denies that any race took place, and says that before the Assiniboia started out strict orders were given that there was to be no racing, but that the boat was to keep as near to her schedule time as the safety of the passengers and interests of the company would permit.

#### Manitoba, Saskatchewan, Alberta, Etc.

The steamboat City of Grand Forks inaugurated a service between Grand Forks, N.D., and Winnipeg, July 10, and will make regular trips during the season. It is stated that this was the first time in 25 years that the upper Red River had been used for navigation.

Bright-Emerly Co., Ltd., has been incorporated under the Manitoba Companies Act, with a capital of \$50,000 and office at Winnipeg, to conduct a general wholesale fruit and produce business, and in connection therewith, to build, purchase or otherwise acquire and operate steam and other vessels, wharves, docks, engines, etc., and to transport persons and merchandise by land and water.

#### B.C. and Pacific Coast Marine.

W. J. Cullum and H. G. Robinson have been appointed assistant inspectors of boilers and machinery at Victoria and Vancouver respectively.

The Governor-General in Council has approved the amended rules and regulations for the management and working of the Esquimalt graving dock.

J. A. Thomson, local inspector of boilers and machinery, Victoria, has been appointed Supervising Inspector for British Columbia and Yukon Territory.

Steamer Leebro Ltd. has been incorporated under the B.C. Companies Act, with a capital of \$28,000, to build, purchase, charter or otherwise acquire, and to operate steam and other vessels, and to carry goods and passengers.

B. W. Greer, who recently resigned the position of General Freight Agent C.P.R., Vancouver, has been appointed Manager of the Johnson Wharf Co., Ltd., and also agent for C. W. Cook and Co., steamship agents, Vancouver.

The Victoria and Sidney Ry. and Ferry Co.'s car ferry steamboat was launched at Seattle, Wash., July 8. She is of the following dimensions: Length, 160 ft.; breadth, 32 ft.; depth, 10 ft.; and is built to accommodate 6 loaded cars.

The Dolaura, a steam yacht built at Glasgow for Lieutenant-Governor Dunsmuir of British Columbia, was recently launched there, and arrived at Quebec during the tercentenary celebrations, after which she will proceed to Vancouver by Cape Horn.

The Willow River Timber Co., Ltd., has been incorporated under the Dominion Companies Act, with a capital of \$250,000 and office at Vancouver, B.C., to deal in timber and lumber, and in connection therewith to build, purchase or otherwise acquire and operate steam and other vessels.

A company is in course of formation at Vancouver for the construction of a floating dock there. Some British capital is said to be interested in the scheme, which it is anticipated will be granted a subsidy under the new act relating to subsidies for dock construction throughout Canada.

The Alaska Transportation and Trading Co., Ltd., has been incorporated under the British Columbia Companies Act, with a capital of \$60,000, and office at Victoria, B.C., to build, acquire, and operate works of all kinds necessary and convenient for the purposes of transportation and trading.

A public meeting at Vancouver, July 9, passed a resolution appointing a committee to obtain information, and to take steps to bring before the Dominion Government, the necessity of developing the port of Vancouver, and the desirability of making it a free port, and that such development should be a national undertaking.

The Nimpish Lake Logging Co., Ltd., has been incorporated under the B.C. Companies Act, with a capital of \$400,000, to take over the properties of Stracey and Garland, Ltd.; to carry on the business of lumbermen, etc., and to construct, acquire and operate steam and other vessels, wharves, docks, piers, tramways, logging railways, etc., in connection therewith.

The Johnson Wharf Co., Ltd., has recently constructed a wharf at Vancouver, 750 ft. long from shore end to end of pier, 100 ft. wide, with an L on the shore end 150 by 80 ft. The main shed is 400 by 75 ft., clear without obstructions. The depth of water at the shore end of the main building is 20 ft. at low tide, and at the outer end of the wharf, 40 ft. C. Gardiner Johnson, Lloyd's Agent, is Managing Director of the company.



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Americanite, Magnet, Office and Annunciator Wires,  
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# SUBMARINE SIGNALS

Captain Watt, of the LUSITANIA, in an official report on Submarine Signals, says :

"Nearly all my sea life I have been looking forward to getting the assistance of a reliable sound signal. Now I feel that we have got it, and all that is required, in my opinion, is its universal application."

Full Particulars on Application to the

## Submarine Signal COMPANY

BOSTON, MASS.



The arrangements for the incorporation of a shipping and general freighting, towage, wharfage, coal and general business company are proceeding. Among those interested are: J. H. Greer, owner of several steam tugs; B. W. Greer, until recently General Freight Agent C.P.R. Pacific Division at Vancouver, and now Manager Johnson Wharf Co., Ltd., Vancouver; and G. L. Courtney, until recently District Freight Agent C.P.R. at Victoria. J. H. Greer was the originator of the present Canadian-Mexican Line, now under the management of G. T. Symons & Co. It is said that business will be opened in Victoria, Vancouver and Prince Rupert, where wharves, etc., are being acquired, and a press report states the s.s. Leenalaw is to be chartered. The Leenalaw is a U.S. vessel, built at Newcastle-on-Tyne, Eng., in 1886, having triple expansion engines of 1,800 i.h.p., with cylinders 22, 35, and 58 ins. diam., by 42 ins. stroke; her dimensions are: Length, 280.5 ft.; breadth, 36.2 ft.; depth, 23 ft.; tonnage, 1,924 gross, 1,496 register.

**Notices to Mariners.**

The Dominion Department of Marine has issued the following notices:

No. 52. June 25.—136. British Columbia, Strait of Georgia, Discovery passage, Cape Mudge, light improved. 137. British Columbia, Trincomali channel, Walker rock, Wigham light replaced by gas-lighted beacon. 138. British Columbia, Milbank sound, Seaforth channel, Ivory island, Surf point, fog alarm established. 139. British Columbia, Queen Charlotte islands, Graham island, west coast, rock southward of Frederick channel.

No. 53. June 26. 140. British Columbia, Vancouver island, Discovery passage, Chatham point, gas and bell beacon established.

No. 54. June 27.—141. New Brunswick, Bay of Fundy, Grand Manan island, Swallow-tail, change in character of light. 142. New Brunswick, south coast, Bay of Fundy, Chignecto channel, Cumberland basin, Peck point, description of light. 143. Nova Scotia, Cape Breton island, Gut of Canso, McMillan point, hand foghorn at light station. 144. Newfoundland, south coast, Fortune bay, St. Jacques island, lighthouse established. 145. Newfoundland, east coast, Trinity bay, Trinity harbor, Fort point, change in character of light.

No. 55. June 29.—146. Ontario, Lake Superior, Point Porphyry, fog alarm established. 147. Ontario, Lake Superior, Thunder bay, Welcome islands, fog alarm established.

No. 56. July 2.—148. New Brunswick, south coast, Bay of Fundy, Cape Spencer, fog alarm established.

No. 57. July 3.—149. New Brunswick, Northumberland Strait, Richibucto harbor entrance, changes in lights on south beach, range lights established on north beach.

No. 58. July 8.—150. Quebec, River St. Lawrence, Beaujeu bank, channel being dredged, changes in buoyage; Goose Island, range lights established.

No. 59. July 9.—151. Quebec, Ottawa River, Lake of Two Mountains, Oka wharf, light pole replaced by tower. 152. Ontario, Lake Erie, Port Stanley, substructure of extension of breakwater completed in length.

No. 60. July 16.—153 General, Canadian list of lights and fog signals, new edition. 154. Newfoundland, Labrador, Belle Isle, south end, temporary light 155. Isle of Man, east coast, Douglas Head, fog signal established.

No. 61. July 17.—156. Quebec, Gulf of St. Lawrence, Anticosti Island, Heath Point, lighthouse tower increased in height, intended change in character of light. 157. Newfoundland, west coast, Gulf of St. Lawrence, Rich Point, intended change in character of light. 158. Newfoundland, west

coast, Cape Anguille, intended light and fog alarm.

No. 62. July 18.—159. Ontario, Lake Ontario, Cobourg harbor, range lights established. 160. Ontario, Lake Ontario, Cobourg harbor, middle pier damaged, temporary light.

No. 63. July 20.—161. British Columbia, Vancouver Island, west coast, Estevan Point, fog alarm established. 162. British Columbia, Active Pass, Mayne Island, Helen Point, gas and bell beacon established.

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

No. 28. July 11.—1133. St. Mary's River, Bayfield Rock, buoy discontinued. 1144. Chesapeake Bay, Potomac River mouth, St. Mary's River and Smiths Creek, buoys to be established.

**Canadian Coasting Regulations.**

On July 4 the Minister of Finance gave notice that he would move the following resolution in committee of the whole in the House of Commons:

"Resolved, That it is expedient to amend the Canada Shipping Act, chap. 113, Revised Statutes of Canada, 1906, by repealing sec. 958 and substituting therefor: '958. The Governor-in-Council may from time to time,

(a) by order-in-council declare that the foregoing provisions of this part shall not, while such order-in-council is in force, apply, either throughout Canada or in any specified waters of Canada, to the ships or vessels, or to any specified ascertained or ascertainable class or number of the ships or vessels of any foreign country in which British ships are admitted to the coasting trade of such country, and to carry goods or passengers from one port or place to another in such country; and

(b) revoke or vary such order-in-council. '2. That the act founded on this resolution shall not come into force until his Majesty's pleasure thereon has been signified by publication in the *Canada Gazette*."

Sec. 958 of the Canada Shipping Act, which is to be amended as above, reads as follows: "The Governor-in-Council may from time to time declare that the foregoing provisions of this part shall not apply to the ships or vessels of any foreign country in which British ships are admitted to the coasting trade of such country and to carry goods and passengers from one port or place to another in such country."

"The foregoing provisions of this part," referred to in sec. 958, provide that no foreign built British ship, whether registered in Canada or elsewhere as a British ship, shall after Sept. 1, 1902, engage or take part in the Canadian coasting trade unless it has first been licensed by the Minister of Customs, who shall issue such license on application and upon the payment of 25% duty on the fair market value of the ship. It is also provided that no goods or passengers shall be carried by water from one port of Canada to another except in British ships.

On Jan. 13, 1907, an order-in-council was passed repealing after Jan. 1, 1909, various orders-in-council under which the ships of Italy, Germany, the Netherlands, Sweden, Norway, Austria-Hungary, Denmark, and the Argentine Republic were admitted to the Canadian coasting trade on the same terms as Canadian vessels, and declaring that after Jan. 1, 1909, the vessels of those countries should not carry any goods or passengers by water from one port of Canada to another. The effect of the Minister of Finance's resolution, and the act founded on it, will be that the Government may again extend Canadian coasting privileges to Norwegian and other vessels among others, and is an entire reversal of the policy put into effect in January last. In speaking in the Commons on July 10, the Minister of Finance said that the amendment was intended only to provide for allowing certain classes of Norwegian vessels to continue their present operations in the carriage of coal down east and for a limited time.

In an interview which a deputation of the Dominion Marine Association had with the Minister of Customs on July 4, he claimed that Canadian vessel owners monopolized the coasting trade. Members of the deputation pointed out that this was not the case, and that correspondence on file in the Department showed the necessity for amendment to the coasting laws to conform to those of the U.S., and to prohibit the carriage of goods in anything but British bottoms over any part of the route. At present grain is permitted to be brought in U.S. vessels from Fort William, Ont., to Sarnia, Ont., via Port Huron, Mich., the passage of the river being made in cars. Other violations of a similar nature, which occur in other lines as well, were pointed out, and the Minister promised to have the law amended to conform to the U.S. statute.

**SAULT STE. MARIE CANALS TRAFFIC.**

The following commerce passed through the Sault Ste. Marie canals in June:

ARTICLES.	CANADIAN CANAL	U.S. CANAL	TOTAL
Copper..... Eastbound..... Net tons	1,727	11,493	13,220
Grain..... "..... Bushels	875,979	1,050,759	1,926,738
Building stone..... "..... Net tons			
Flour..... "..... Barrels	121,704	378,125	499,829
Iron ore..... "..... Net tons	460,300	2,009,248	2,469,548
Pig iron..... "..... ".....		1,400	1,400
Lumber..... "..... M. ft. B.M.	4,662	68,611	73,273
Wheat..... "..... Bushels	3,412,814	2,246,849	5,659,663
General merchandise..... "..... Net tons	5,606	4,740	10,346
Passengers..... "..... Number	1,245	1,754	2,999
Coal, hard..... Westbound..... Net tons	74,088	145,765	219,853
Coal, soft..... "..... ".....	247,535	841,338	1,088,873
Flour..... "..... Barrels			
Grain..... "..... Bushels			
Manufactured iron..... "..... Net tons	16,108	18,638	34,746
Iron ore..... "..... ".....			
Salt..... "..... Barrels	6,874	29,507	36,381
General merchandise..... "..... Net tons	38,997	58,109	97,106
Passengers..... "..... Number	2,054	1,430	3,484
Vessel passages..... Number	688	1,264	1,952
Registered tonnage..... Net	952,813	2,445,375	3,398,188
Freight—Eastbound..... Net tons	610,673	2,277,523	2,888,196
"    Westbound..... ".....	377,711	1,068,276	1,445,987
Total freight..... ".....	988,384	3,345,799	4,334,183

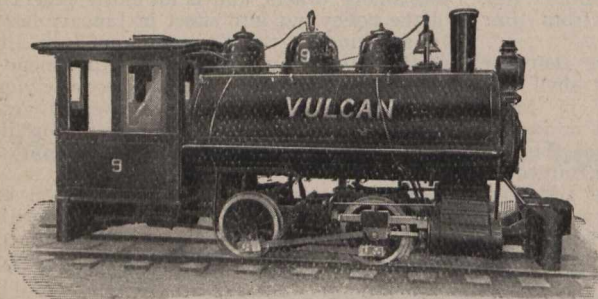


# HAYES DERAILS

ARE NOW

## MADE IN CANADA

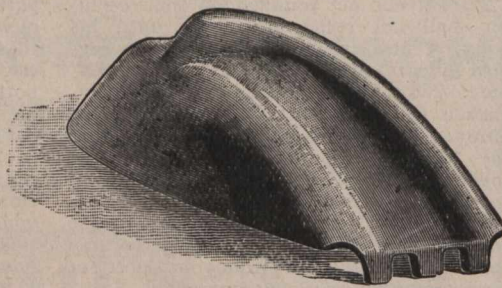
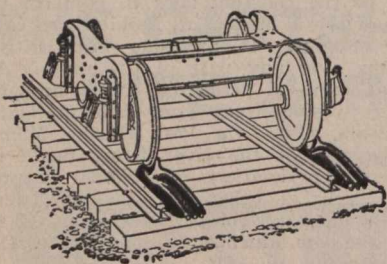
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**HAYES TRACK APPLIANCE CO., GENEVA, N.Y.**



EVERYBODY IS GOING into heavier cars and equipment, and of course heavier Dinkeys. Come along. We are ready for you. All sizes in stock.

**VULCAN IRON WORKS**  
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Canadian Representatives - - MUSENS LIMITED, MONTREAL

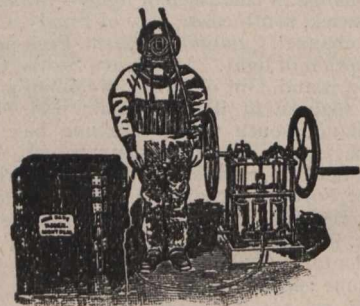


THE ALEXANDER REPLACER

## THE ALEXANDER CAR REPLACER

Manufactured at Montreal, Que., and Scranton, Pa., of pressed steel plate and guaranteed to re-rail heaviest equipment. SOLD BY

**F. H. HOPKINS & CO. and MUSENS LIMITED, MONTREAL**  
**59,500 PAIRS IN USE**



**JOHN DATE**  
 MANUFACTURER OF  
**DIVING APPARATUS**

FOR SALE OR HIRE  
**BRASS FOUNDER & COPPERSMITH**  
 152 Craig St. West, MONTREAL

## RAILWAY SPRINGS

**Locomotive, Tender and Passenger Car Springs**  
 of every description

**Equalizing, Draw-bar, Buffer and Spiral Springs**  
 of all kinds

**Street Railway Springs**  
 from the largest to the smallest

Manufactured by

**B. J. COGLIN & CO., 432 St. Paul St., Montreal, Can.**

## IMPERIAL BANK OF CANADA

CAPITAL AUTHORIZED - - \$10,000,000.00.  
 CAPITAL PAID UP - - 4,990,000.00.  
 REST - - - - 4,990,000.00.

AGENTS—London, Eng., Lloyds Bank Limited; New York, Bank of the Manhattan Co. Sterling exchange bought and sold. Letters of credit issued available in any part of the world. SAVINGS BANK—Interest allowed on deposits from date of deposit, and credited quarterly. A general Banking business transacted.

Branches in  
 Provinces of Ontario, Quebec, Manitoba, Saskatchewan, Alberta and British Columbia.  
 HEAD OFFICE - - - TORONTO



**International Mercantile Marine Co.**

The report for the year ended Dec. 31, 1907, shows: Gross earnings, \$39,266,588; operating and general expenses, \$32,242,542; net earnings, \$7,024,046; as compared with \$37,159,212 gross earnings; \$29,155,178 operating and general expenses; \$8,004,034 net earnings, for 1906. Excess premiums and interest credited to the insurance fund, \$441,661; against \$791,959 for 1906; and profit on bonds for the sinking fund, \$57,021; against \$28,597 for 1906, added to the net earnings, show total net profits of \$7,522,728, against \$8,824,590 for 1906. Interest and discount on bonds, interest on loans, and income tax in Great Britain, \$3,488,997, against \$3,795,836 for 1906; thus showing a surplus of \$4,033,731, against \$5,028,754 for 1906. The total surplus shown is \$4,312,637, against \$5,278,906 for 1906. Of this surplus \$4,000,000, as against \$5,000,000 for the previous year, has been applied to depreciation, and the balance taken to profit and loss.

**ASSETS.**

Cost of properties.....	\$173,011,332
Investments.....	13,012,058
Cash with trustees.....	25,461
Inventories.....	892,196
Accounts receivable.....	2,556,153
Bills receivable and loans.....	1,208,538
Interest received and accrued.....	12,906
Advances and current accounts.....	425,505
Agency balances.....	155,525
Stocks and bonds.....	599,811
Cash.....	577,623
Deferred charges.....	2,014,792
	<u>\$194,471,900</u>

**LIABILITIES.**

Preferred stock.....	\$ 51,730,971
Common stock.....	49,931,735
Stocks of constituent companies outstanding.....	1,697
Bonds and debentures.....	72,684,130
Loans on mortgages.....	707,671
Loans and bills payable.....	539,256
Accounts payable.....	3,449,581
Agency balances.....	211,316
Interest accrued.....	1,006,072
National Line's current account.....	54,036
Reserves.....	395,053
Deferred credits.....	2,095,454
Insurance fund.....	1,000,000
Depreciation fund.....	10,352,291
Surplus, Dec. 31, 1907.....	312,637
	<u>\$194,471,900</u>

The President, J. Bruce Ismay, in his report, states that all the company's property has been well maintained. The building scheme as outlined in the 1906 report is being actively carried out, and it is expected that the first new steamship for the St. Lawrence trade will be ready early in 1909, and the second one by June in the same year. At the annual meeting of shareholders the retiring directors were re-elected for the current year.

**Cost of Government Vessels.**

The cost of construction, or the purchase price of the vessels added to the Dominion fleet of steamships, etc., since 1900, was given by the Minister of Marine in answer to a question in the House of Commons recently. The list of vessels, etc., is as follows:

Lady Grey, built in Great Britain.....	\$207,507.83
Druid, built in Great Britain.....	110,960.00
Lady Laurier, built in Great Britain.....	184,933.33
Canada, built in Great Britain.....	215,600.00
Montcalm, built in Great Britain.....	265,233.33
Champlain, built in Great Britain.....	90,033.33
Arctic, purchased from German government.....	75,000.00
Maisonneuve, purchased and built in Canada.....	8,500.00
Princess, purchased in Canada, built in Great Britain.....	45,000.00
Falcon, purchased and built in Canada.....	9,000.00
Kestrel, built in British Columbia.....	63,920.00
Vigilant, built in Toronto.....	143,900.00
Lurher Anticosti, built in Toronto.....	179,950.00
Lillooet, built in British Columbia.....	143,000.00
Bayfield, purchased in Canada.....	50,000.00
Galveston, purchased in Great Britain.....	£30,000.00

The following were built by the Depart-

ment of Marine at the Government shipyard, Sorel, Que.:

Lafontaine, ladder dredge.....	\$ 95,172.35
Progress, dipper dredge.....	55,000.00
Fielding, ladder dredge.....	425,579.81
De Beaujeu, suction dredge.....	501,477.45
Champlain, tug.....	18,209.93
Frontenac, inspection steamer.....	50,117.51
De Lévis, inspection steamer.....	44,304.28
Lac St. Pierre, tug.....	26,777.07
Montcalm, tug.....	25,675.41
Portneuf, tug.....	20,765.89
Rouville, lighthouse steamer.....	85,925.50
Vercheres, lighthouse steamer.....	29,344.30
Hosanna, tug.....	21,383.80
James Howden, tug.....	36,350.29
Annette, tug.....	4,146.47
Marie, launch.....	1,787.31

The Minister added that there was at present under construction in Great Britain an icebreaking steamer for service between Prince Edward Island and the mainland, the contract price for which was £103,000. A contract had been entered into with Swan, Hunter and Wigham Richardson Co., of Newcastle-on-Tyne, England, for a lighthouse tender for the Georgian Bay, and there was under construction at the Government yard, Sorel, Que., a vessel for the lighthouses on Lakes Erie and Ontario. The Department of Marine did not at present contemplate the construction or purchase of any further or additional vessels. The Government was desirous of encouraging the building of vessels in Canada, and with this in view has had several vessels built at its own and at private yards. It would always give the preference to Canadian over foreign yards when the same could be done with due regard to economy and efficiency.

The Postmaster-General stated that his Department had in 1907 purchased in Great Britain the Deerhound (now the Lady Evelyn), for £12,500, as a mail tender at Rimouski, Que., and the Minister of Public Works said the list did not include tugs, barges and small vessels of that nature built or purchased by that Department, as he did not think information about them was required.

A contract has been let to the Reid Wrecking Co., Sarnia, Ont., for the raising of the Turret Bell and the Lady Eileen, both of these steamships being wrecked on the Atlantic coast. The former has been lying there for about two years, while the latter is a recent wreck, and both have been abandoned to the underwriters.

The Cornwall Canal was reopened for traffic July 10. A cut was made on the north side, of sufficient width and depth to allow of the passage of vessels, but for safety these were towed through. The work, which was carried out under the superintendence of J. L. Weller, Superintendent of the Welland Canal, has been expeditiously done, the delay to shipping having been reduced to a minimum.

The proposal to place the St. John, N.B., harbor under a commission has taken concrete form in the shape of a bill to be promoted with that object. The draft bill has been approved by the city council and forwarded to the Minister of Public Works. It is not anticipated that the commission can be formed and take over the harbor until 1910, and in the meantime steps will be taken to increase the facilities generally.

A bill to amend the Canada Shipping Act has been passed by the House of Commons, and assented to, July 20. The bill provides for the prevention of the duplication of ships' names; the admission to Canadian marine examinations of citizens of any country where there is not a similar reciprocity; and it compels vessels navigating the channel between Montreal and Quebec to carry a pilot. The Minister of Marine stated that temporary certificates would be issued to engineers on vessels with engines up to 14 h.p., of the compound type, instead of 9, as at present.

**Marine Votes for 1908.**

In addition to the amounts given on pg. 373 of our May issue, the Dominion Parliament has voted the following sums for various services connected with the marine interests. The votes have been made in connection with the Department of Railways and Canals, Public Works, Marine and Fisheries and Trade and Commerce, and include sums voted on capital account.

Hydrographic surveys.....	\$ 21,250.00
Marine hospitals and sick and distressed seamen.....	6,625.00
Steamboat inspection.....	5,937.50
Fisheries protection service.....	31,250.00
To provide for construction of a fishery protection cruiser, Pacific coast.....	28,125.00

**LIGHTHOUSE AND COAST SERVICE.**

Salaries and allowances.....	\$ 37,500.00
Agencies, rents, etc.....	4,125.00
Maintenance and repairs, lighthouses.....	81,250.00
Maintenance, etc., of dockyards.....	2,500.00
Lighthouse construction and equipment and provision of boats.....	157,500.00
Further amount required for lighthouse tender on Great Lakes.....	18,750.00
Icebreaking in Thunder Bay.....	5,000.00
Wireless telegraph service.....	16,443.75
Signal service, additional telephone lines, etc.....	11,562.50

**MAIL SUBSIDIES AND STEAMSHIP SUBVENTIONS.**

Great Britain and Canada.....	\$ 68,750.00
Other trans-Atlantic services.....	16,187.50
Canada and South America.....	10,087.50
Canada and South Africa.....	18,250.00
Canada and Mexico.....	12,500.00
Canada and New Zealand.....	6,250.00
Various services on the Atlantic Ocean, St. Lawrence and in Ontario.....	20,599.50
Various services on the Pacific coast.....	2,843.75

**HARBORS AND RIVERS.**

St. John, N.B., improvements, repairs and dredging.....	\$ 350,000.00
Summerside, P.E.I., breakwater.....	37,500.00
Quebec harbor improvement.....	62,500.00
Sorel, Que., deepwater wharf.....	37,500.00
Toronto.....	15,000.00
Port Colborne, ".....	2,500.00
New Brunswick, harbor and river improvements at 26 points.....	129,037.50
Quebec, harbor and river improvements at 84 points.....	487,200.00
Port Arthur and Fort William, Ont., harbor and river improvements.....	62,500.00
Red River, Winnipeg, improvements at St. Andrew's Rapids.....	37,500.00
Generally.....	1,250.00
" in Nova Scotia.....	22,500.00
" in Prince Edward Island.....	6,000.00
" in Maritime Provinces.....	2,500.00
" in North-West Territories.....	625.00
" to purchase creosoted timber.....	15,000.00
Improvements and repairs to wharves, piers and other harbor and river works at 16 points in Prince Edward Island.....	51,195.00
do. at 123 points in Nova Scotia.....	1,228,460.00
do. at 90 points in Quebec.....	89,523.00
do. at 52 " Ontario.....	104,552.00
do. at 5 " Manitoba.....	3,687.00
do. at 4 " Sask. and Alta.....	4,500.00
do. at 14 " Brit. Columbia.....	21,000.00
Improvements on Lewes and Yukon Rivers.....	937.50

**DREDGING.**

Repairs to plant, generally.....	\$ 14,375.00
New plant, generally.....	37,500.00
" Maritime Provinces.....	12,500.00
" Ontario and Quebec.....	13,750.00
" Manitoba.....	1,875.00
" British Columbia.....	12,500.00
Dredging, general service.....	625.00
" Maritime Provinces.....	37,500.00
" Ontario and Quebec.....	46,875.00
" Manitoba.....	3,750.00
" British Columbia.....	9,375.00

**CANALS.**

QUEBEC CANALS.—Steam road roller and stone crusher.....	\$ 875.00
Re-marking boundaries, surveys, etc.....	1,250.00
Dredging.....	2,312.50
LACHINE CANAL.—Rebuilding slope walls Building wharves and basins.....	29,843.75
Testing cement.....	37,500.00
Walls at basin no. 2.....	312.50
Workshops.....	18,775.00
BEAUHARNOIS CANAL.—Improvements.....	1,875.00
SOULANGES CANAL.—Improvements.....	1,250.00
CHAMBLE CANAL.—New power house at bridge weir 2.....	625.00
St. John's harbor improvements.....	6,750.00
Sundry works at St. John's, Ste. Therese and other points.....	4,437.50
CARLTON AND GRENVILLE CANAL.—Sundry works.....	1,800.00
CORNWALL CANAL.—Sundry works and repairs.....	3,757.50



# THE CLIFTON HOTEL

## NIAGARA FALLS, CANADA.

Rates \$4 per day up, American Plan. For weekly rates and further information, address: GEORGE R. MAJOR, Manager.

OPEN THE YEAR ROUND

THE ONLY HOTEL THAT COMMANDS AN UNRIVALLED VIEW OF BOTH FALLS  
**HOW TO REACH THE CLIFTON HOTEL**

Arriving on Grand Trunk Railway or Wabash Rd., at Niagara Falls, Ont. Hotel bus meets all trains or take trolley to hotel—7 minutes. Arriving on Michigan Central Rd., Canadian Pacific Railway, at Victoria Park station—Hotel bus meets all trains, only three minutes' walk from station to hotel.

International Railway (trolleys), connecting with Niagara Navigation Co. steamers at Queenston, to or from Toronto, pass the door.

### IMPORTANT

Guests coming to the Hotel should see to it that they are taken to The Clifton Hotel, CANADIAN SIDE, and also that their mail is addressed "Care of The Clifton Hotel, Niagara Falls, CANADA." To insure prompt delivery, don't forget to make CANADA plain in the address.

## C.P.R. LANDS

THE CANADIAN PACIFIC RAILWAY COMPANY have 9,000,000 acres of selected lands for sale in Manitoba, Saskatchewan and Alberta.

Maps, as enumerated below, showing these lands in detail, will be sent free on application.

Map No. 1—Winnipeg to Second Meridian.....	\$ 8.00 to \$15.00 per acre.
Map No. 2—South-Eastern Saskatchewan, 2nd to 3rd Meridians.....	10.00 to 25.00 per acre.
Map No. 3—Main Line, 3rd Meridian to Range 10 W., 4th Meridian(generally)	8.00 " "
Map No. 5—South-Western Alberta.....	8.00 to 15.00 per acre.
Map No. 6—Part of Alberta—Edmonton, Battle and Saskatchewan Rivers Districts—4th Meridian to Range 7, West 5th Meridian.....	10.00 to 25.00 per acre.
Map No. 7—Part of Western Saskatchewan, 3rd to 4th Meridians....	10.00 to 25.00 per acre.

All prices are subject to change without notice.

### TERMS OF PAYMENT

An actual settler may purchase not more than 640 acres on the ten instalment plan by paying a cash instalment at time of purchase, interest at six per cent. on the unpaid purchase money at the end of the first year, and the balance of the principal, with interest, in nine equal instalments annually thereafter, as shown in the following table:

160 Acres at \$ 8.00 per acre, cash payment	\$191.70	first year's interest	\$65.28	and nine instalments of	\$160.00
" " 9.00 " " "	215.70	" " " "	73.46	" " "	180.00
" " 10.00 " " "	239.70	" " " "	81.62	" " "	200.00
" " 11.00 " " "	263.60	" " " "	89.78	" " "	220.00
" " 12.00 " " "	287.60	" " " "	97.96	" " "	240.00
" " 13.00 " " "	311.55	" " " "	106.10	" " "	260.00
" " 14.00 " " "	335.60	" " " "	114.32	" " "	280.00
" " 15.00 " " "	359.50	" " " "	122.44	" " "	300.00

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

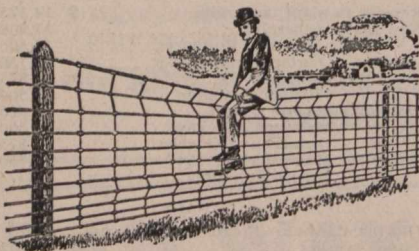
Interest at six per cent. will be charged on overdue instalments.

F. T. GRIFFIN, Land Commissioner, Winnipeg.

### CANADA NORTH-WEST LAND CO.

This Company has 525,000 acres of selected lands in Manitoba and Saskatchewan which offer excellent opportunities to settlers and investors who desire to secure good lands in well-settled districts. These lands are on sale at the Company's Office at Winnipeg, and at the various land agencies of the Canadian Pacific Railway Company.

F. T. GRIFFIN, Land Commissioner, Winnipeg.



## The "DILLON" HINGE-STAY FENCE

MANUFACTURED IN THREE WEIGHTS AND VARYING FROM FOUR WIRES 36" HIGH TO TWELVE WIRES 58" HIGH

All Strands are HIGH CARBON HARD Steel Wire

**Owen Sound Wire Fence Co. Limited**  
 Owen Sound, Ontario

## BRADSTREET'S

Capital and Surplus \$1,500,000

OFFICES THROUGHOUT THE CIVILIZED WORLD  
 EXECUTIVE OFFICES

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

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

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

CORRESPONDENCE INVITED

### OFFICES IN CANADA:

Halifax, N.S. Hamilton, Ont. London, Ont.  
 Montreal, Que. Ottawa, Ont. Quebec, Que.  
 St. John, N.B. Toronto, Ont. Vancouver, B.C.  
 Calgary, Alta. Winnipeg, Man.

THOS. C. IRVING,

Gen. Man. Western Canada, Toronto.

## WILLIAM ABBOTT

334 St. James Street

MONTREAL

SOLE AGENT IN CANADA FOR

"NOVO" "INTRA"  
**CRUCIBLE STEEL**  
 DRILLS, TOOLS, ETC.

## New and Relaying RAILS

FOR RAILWAYS, TRAMWAYS, GIRDERS, ETC.

LOCOMOTIVES, CARS, AND OTHER EQUIPMENT.

**John J. Gartshore**

83 Front Street West - TORONTO



ST. LAWRENCE CANALS.—Distric office.	\$ 875.00
GALOPS CANAL.—Upper entrance, final estimate.	825.00
North channel and cut dam between Les Galops and Adams Island, final estimate.	5,108.75
Retaining walls, etc.	1,125.00
RAPIDE PLAT CANAL.—Concrete super structure, south entrance.	125.00
MURRAY CANAL.—Sundry works.	3,750.00
ST. LAWRENCE RIVER.—Removal of shoals in river, upper entrance to Galops canal.	2,513.50
RIDEAU CANAL.—Improvements.	562.50
TRENT VALLEY CANAL.—Construction.	125,000.00
Improvements.	5,625.00
New lock and dam, Lindsay.	10,000.00
Dam at Buckhorn.	3,125.00
New dredge.	1,875.00
WELLAND CANAL.—Electric lighting and power plant.	6,250.00
Rebuilding centre piers and bridges at Queenston St. and Homer road.	3,750.00
Making survey of canal.	2,500.00
Widening canal at Welland.	6,875.00
Port Colborne, improvements.	14,375.00
Sundry improvements and repairs.	18,687.00
Renewing piers, Port Maitland.	12,500.00
SAULT STE. MARIE CANAL.—Construction	13,125.00
New lock gates.	2,500.00

**Statistics of Canadian Shipping.**

The Shipping List for 1907, recently published by the Marine Department, gives the total number of vessels of all kinds on the register at Dec. 31, 1907, as 7,528, measuring 698,688 tons, an increase of 16 vessels, and 44,509 tons over 1906. The number of steam vessels on the register is given as 3,007, with a gross tonnage of 471,795 tons, which, at the assumed average value of \$30 a ton, represents a total value of \$20,960,640. During the year, 392 vessels of 38,410 tons register, were built and registered in Canada; and 452 vessels were removed from the register, owing to transfers, wreckings, and to being broken up. A marked decrease has been noticed of late years in the tonnage of registered Canadian shipping, but it is pointed out that the decrease has in reality not been so large as the statistics would indicate. Many vessels were allowed to remain on the register, though they had ceased to exist, but these have now been removed, and care is taken now that the lists are kept clear of such. Of the 452 vessels removed from the register during the year, 21 were sold to foreigners, 56 wrecked, 19 stranded, 53 lost, 197 broken up, 5 abandoned, 4 collision, 2 missing, 13 foundered, 20 burnt, 8 condemned, 39 transferred to Newfoundland, 18 transferred to West Indies, 2 transferred to Great Britain, and 5 were due to other causes. During the same period the names of 20 vessels were changed by orders-in-council.

Following is a summary of the number of vessels and their tonnage by provinces:

	Sailing ships and steam's	Gross tonnage of steam's	Net tonnage of sailing ships and steam's
Ontario.....	2,011	1,465	179,229
Nova Scotia.....	2,074	232	30,448
Quebec.....	1,338	420	112,914
British Columbia.....	872	582	76,648
New Brunswick.....	927	173	56,923
P. E. Island.....	145	17	4,110
Manitoba.....	144	104	8,200
Yukon District.....	13	11	3,042
Saskatchewan.....	4	3	281
Grand total.....	7,528	3,007	471,795

Total, 1906..... 7,512 2,810 375,263 654,179

The ports of registry are distributed as follows: Ontario, 38; Nova Scotia, 21; Quebec, 6; British Columbia, 3; Prince Edward Island, Manitoba, Yukon District and Saskatchewan, 1 each. In Alberta no provision has as yet been made for the registration of vessels.

The ports having a net tonnage of 10,000 tons and above, are:

	Sailing	Steam	Net tonnage
Montreal, Que.....	396	251	119,887
St. John, N.B.....	236	98	54,512
Victoria, B.C.....	114	142	46,465
Quebec, Que.....	474	159	40,811
Windsor, N.S.....	77	13	34,365
Toronto, Ont.....	81	307	33,765

	Vessels	Net tonnage
	Sailing	Steam
Ottawa, Ont.....	158	244
Vancouver, B.C.....	106	340
Lunenburg, N.S.....	274	10
Halifax, N.S.....	329	84
Farrsboro, N.S.....	90	6
Kingston, Ont.....	60	135
Yarmouth, N.S.....	289	28
Collingwood, Ont.....	3	77
Maitland, N.S.....	23	1
St. Catharines, Ont.....	37	59
New Westminster, B.C.....	70	100
Midland, Ont.....	2	22

The largest vessels on the register are:

Name	Port of Registry	Tonnage		
		Gross	Reg.	H.P.
Midland Prince.....	Collingwood, Ont.....	6,636	5,142	136
Ontario No. 1.....	Montreal, Que.....	5,146	3,229	293
Collingwood.....	Collingwood, Ont.....	4,529	3,480	163
Bessie Dollar.....	Victoria, B.C.....	4,329	2,798	244
Hazel Dollar.....	.....	4,304	2,804	241
Montreal.....	Montreal, Que.....	4,282	2,299	386
M. S. Dollar.....	Victoria, B.C.....	4,216	2,674	202
W. D. Mathews.....	Toronto, Ont.....	3,965	2,450	151
Assiniboia.....	Montreal, Que.....	3,880	2,486	299
Keewatin.....	.....	3,865	2,470	298
Agawa.....	Sault Ste. Marie, Ont.....	3,759	2,468	151
Himera.....	St. John, N.B.....	3,606	2,351	303
Trebia.....	.....	3,586	2,343	303
Sellasia.....	.....	3,474	2,263	303
Eretria.....	.....	3,464	2,255	303
Albuera.....	.....	3,460	2,258	303
Quebec.....	Montreal, Que.....	3,454	1,985	120
Pontiac.....	Pictou, N.S.....	3,345	2,072	343
Huronie.....	Collingwood, Ont.....	3,330	2,211	245
Pandosis.....	St. John, N.B.....	3,326	2,165	290
Tanagra.....	.....	3,317	2,159	290
Cheronea.....	.....	3,189	2,060	294
Cumaxa.....	.....	3,125	2,048	294
Leuctra.....	.....	3,027	1,950	290

**SAILING.**

Name	Port of Registry	Rig.	Reg. tonnage
Lord Wolseley.....	Victoria, B.C.....	Barge.....	2,454
Everett G. Griggs.....	.....	Bktn.....	2,351
Canada.....	Windsor, N.S.....	Ship.....	2,137
Kings County.....	.....	.....	2,061
Lord Templetown.....	Victoria, B.C.....	Bk.....	2,048

In 1906 there were only 7 steam vessels on the register over 3,000 tons gross, whereas in 1907 the number has increased to 24. This increase was chiefly the result of the transfer from the British register of the Thomson Line Steamships, consisting of 10 vessels, aggregating 33,574 gross tons. The Agawa, formerly a barge, has been rebuilt and engined.

The new vessels built during the year are as follows, by provinces:

	Vessels	Tons
Ontario.....	96	14,444
Quebec.....	50	10,326
British Columbia.....	97	7,115
Nova Scotia.....	109	5,116
New Brunswick.....	27	909
P. E. Island.....	7	215
Saskatchewan.....	3	201
Manitoba.....	3	84
Yukon District.....	.....	.....
Total.....	392	38,410

Total for 1906..... 397 21,741

The names, dimensions, etc., of these vessels were published in our columns from month to month during 1907, and lists of vessels registered during the current year are appearing monthly, and also the names of vessels removed from the register, together with the causes of removal.

**Vessels Removed from the Register.**—The following vessels have been removed from the Canadian register for the reasons assigned: Steam—Victoria, Winnipeg, 15 tons, broken up; Worlock, Victoria, B.C., 39 tons, sold to foreigners; Sailing—Cambridge, Halifax, N.S., 43 tons, lost; Fisher River, Winnipeg, 110 tons, broken up; Edith R. Balcom, Lunenburg, N.S., 100 tons, wrecked; F. L. Danforth, St. Catharines, Ont., 643 tons, wrecked; George R. Alston, Lunenburg, N.S., 99 tons, transferred to Newfoundland; Low Wood, St. John, N.B., 1,091 tons, condemned; Pansy, St. John, N.B., 76 tons, wrecked; Strathern, Maitland, N.S., 1,272 tons, abandoned at sea; Swanhild, Halifax, N.S., 52 tons, transferred to Newfoundland; Venturer, Liverpool, N.S., 318 tons, wrecked.

**Georgian Bay Canal Surveys, Etc.**

An interim report and estimate on the proposed canal from Georgian Bay to Montreal, by A. St. Laurent, Engineer in charge, was submitted to the House of Commons, July 6, by the Minister of Public Works.

The estimates are based on a project for a waterway at least 22 ft. deep. The style of navigation proposed is known as the dam and lock system, with slack water reaches between structures. The whole is

designed on such lines as to enable boats of large size (600 x 60 x 20 feet draught) to pass from Lake Huron to Montreal, the head of ocean navigation. The project is essentially a river and lake canalization scheme, taking advantage of natural channels, which can be made to form 80% of the distance. Of the many miles of projected navigation between the above mentioned points, from 410 to 420 miles follow the course of some river or lake. For that part of the route from Georgian Bay to the height of land separating the watersheds of the Ottawa River and the Great Lakes, 81 miles, the French and Pickering Rivers and Lake Nipissing are utilized.

From Lake Nipissing, through the height of land, 3½ miles, the route is an artificial waterway, with the exception of a few small lakes through which it is located. This artificial cut leads into Trout Lake, thence into Turtle Lake, the Little Mattawan River, and Talon Lake, which is utilized as far as Sand Bay, at its southern end, 21 miles. Trout and Talon Lakes referred to above are very deep and fairly large bodies of water. From Sand Bay there is a canal for 3 miles to the Mattawa River, which is utilized as far as Mattawa, 13 miles, where another canal cut of ¾ mile in length makes an entrance into the Ottawa River. This river, which expands into large and deep lakes in many places, is followed all the way down to the foot of the Lake of Two Mountains, 293 miles. From the foot of Lake of Two Mountains to Montreal, 25 miles, either the St. Lawrence River or the portion of the Ottawa River called Riviere des Prairies flowing north of Montreal Island, may be utilized. The former route is 5 miles of artificial waterway and the latter about 11 miles. By the first route the canal enters Montreal harbor at its upper end. By the second route the St. Lawrence ship canal is joined at Bout de l'Île, some 11 miles below the eastern boundary of Montreal harbor. From Port Arthur or Fort William, Montreal via the proposed waterway is 934 miles; via Lake Erie and the Welland Canal, 1,216 miles; via Buffalo and the Erie Canal to New York, 1,358 miles, giving a difference in favor of the projected route of 282 miles, as compared with the present St. Lawrence route and of 424 miles as compared with the Buffalo and New York route. Comparing the distance from Fort William to Liverpool via New York, we have: Fort William to Liverpool via Georgian Bay Canal, 4,123 miles; Fort William to Liverpool via New York, 4,929; a difference of 806 miles in favor of the Georgian Bay Canal-Montreal route. With the advantage of shorter distance between terminal harbors it is computed that the route will be from



1-3/5 to two days faster than any other existing water route under present conditions from the head of the Great Lakes to an ocean port, apart from also having an enormous superiority as to carrying capacity. But as compared with the possible improved system of St. Lawrence canals to a depth of 22 ft., assuming that the number of locks would be greatly reduced, probably no practical benefit in the time of transit could be claimed, the saving in distance being offset by the longer stretches of lake and wide river navigation which exist through the Lake Erie and Lake Ontario route, where higher speed would be permissible.

The total length of what may be termed canal cutting for the entire route is about 28 miles, by the project connecting the St. Lawrence River above Montreal, through Lake St. Louis; and 34 miles should the Riviere des Prairies route be selected. The length of submerged channels to be excavated is about 60 miles, in stretches of varying lengths. Apart from this is an aggregate of 14 1/4 miles where obstructions such as shoals, sharp bends, etc., have only to be removed to form very wide channels. Therefore, of the 440 miles constituting the waterway, 108 miles will require excavation work for locks, approaches, canals, submerged channels, etc., leaving 332 miles of natural river or lake channels, which will not require any improvement beyond the raising of the water surface, as recommended in connection with the project. Taking into account the 14 1/2 miles of obstructions which, after removal, will leave wide free channels, the route may be subdivided as follows, in relation to width:

	Miles.
Canal cuts, 200 to 300 ft. wide, including necessary restrictions at locks.....	28
Improved channels, submerged sides, 300 ft. wide.....	66
Free channels, 300 to 1,000 ft. wide and over.....	346
<b>Total.....</b>	<b>440</b>

The relative length of canals and submerged channels may be varied slightly, as it is an open question as to the exact point where the one ends and the other begins. The sides of all submerged cuts will be shown by piers or clusters of piles at suitable distances to indicate the channel and to aid the vessels in navigating. Along curves these piers will be provided and each different course will be defined by ranges. The restricted channels will be widened at all bends and conditions for navigation in these restricted parts will be as good, it is expected, as on the St. Mary's River or the St. Clair and Detroit River channels.

The depth of 22 ft. selected for the waterway will more than equal the conditions as they exist to-day in the channels connecting the waters of the Great Lakes, the St. Mary's River, Hay Lake, St. Clair Flats canal, and the Detroit River. The improvement carried out for these lake channels, since 1892, contemplated a depth of 20 ft. below the mean water surfaces, as determined up to that time. Since then, however, the prevailing water levels of Lakes Huron, St. Clair and Erie have been almost continuously below the mean stage as formerly determined, and in consequence the actual draught available on account of lake fluctuations has been only from 17 to 19 ft. It has therefore been found necessary to extend this depth, and some of these channels are now being deepened to 21 and 22 ft. in order to obtain a safe 20-ft. draught at all times. The Georgian Bay ship waterway, therefore, with a minimum depth of 22 ft., will compare favorably with any of the channels above mentioned which govern the draught of boats on the Great Lakes. The mileage of excavation in canals and channels for the route may be subdivided as follows for each class of material encountered: Dry excavation—rock, about

25 miles; earth, about 13 miles; mixed earth and rock, about 20 miles; total, 58 miles. Wet excavation—rock, about 18 miles; earth, 16 miles; mixed earth and rock, 16 miles; total, 50 miles; grand total, 108 miles. This mileage includes all points which are to be dredged or excavated, whether canal cuts, submerged channels or shoals. A small percentage of the excavation given as

submarine rock work, might possibly be done in the dry, and the cost therefore reduced. In the estimates when doubt existed, the rock excavation has been invariably classified as wet rock.

As the Montreal harbor forms the eastern terminus of the waterway, no special provision is made in the estimates for increased terminal facilities. By the time the water-

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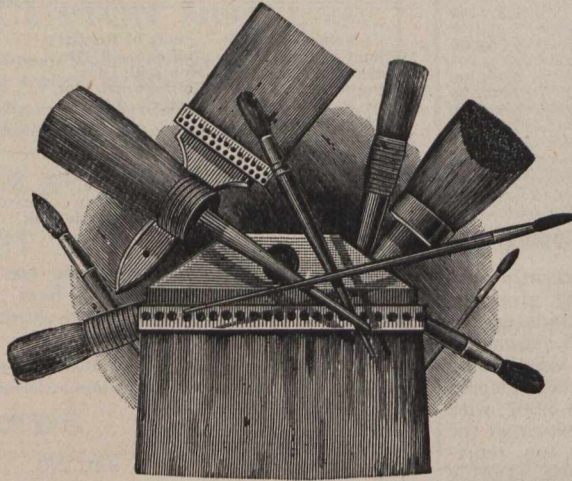
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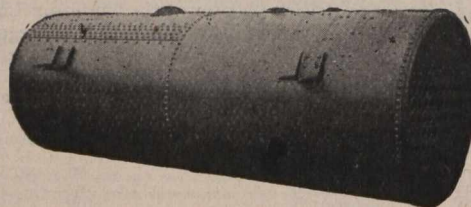
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way is completed, with the works now under construction and the extensive improvements proposed, the harbor will no doubt afford sufficient dockage facilities to meet the requirements of the increase in traffic contributed by the new route. As this traffic develops, facilities will be extended naturally as part of the harbor works. The western entrance to the waterway on Georgian Bay is formed by French Harbor. As this will be only a transit point to and from terminal harbors already established, no terminal facilities are required other than improvements in certain parts of the entrance, and increased aids to navigation. These improvements are included in the estimate. The summit level embraces Lake Talon, the Little Mattawan River, Turtle and Trout Lakes, their present surfaces being raised to elevation 677. Talon Lake will be raised 41 ft., and Trout and Turtle about 15 ft. above their present level. The locks at both ends of the summit are designed to allow of the large lake thus created being lowered to elevation 671, without interfering with navigation. In fact, besides affording a wide and unobstructed route for shipping in transit, the lake will have two important duties: to absorb in part the excess in floods and to store the reserves for the months of deficient water supply. From the careful hydraulic investigations made, the available supply from the summit watershed, with the storage provided, will be 540 cu. ft. per second throughout the season of navigation, which will allow of an average of 24 passages a day, or 5,040 passages for the navigation season. As the traffic develops, in the event of this supply being insufficient to meet the demand upon the summit, the supply can be augmented by 700 cu. ft. a second by creating storage reserves at the head of the Amable du Fond River, and diverting it from the present outlet into the Summit Lake. This can be accomplished at an expenditure of \$900,000.

From investigations made the opening and closing of navigation for the waterway would coincide closely to the opening and closing of ocean navigation for the Montreal harbor, the length of the season being perhaps a few days shorter. This would be governed by Lake Nipissing and conditions at the summit and the Mattawa reaches, and the indications are that an average of 210 days each year would be available.

The difference in elevation of 659 ft. between Montreal and the summit level, and of 90 ft. between the summit and Georgian Bay, is overcome by 27 locks ranging in lift from 5 to 50 ft. By the Riviere des Prairies route, however, this number is reduced to 26. All locks are designed to be built of concrete. Regarding their size, lake boats have attained a length of over 600 ft., and the minimum dimensions of lock chamber should not be less than 650 ft. by 65 ft. The estimated cost of the locks is based on these dimensions, but in the final report the additional cost of building these locks 800 ft. by 75 ft., should it be found desirable, will be given. In all cases the depth of water on the sills will be 22 ft. at extreme low stage. The navigation scheme requires the building of 45 dams of various sizes, not including those which will be required in connection with the system of storage reservoirs. Generally, where the quantity of water is much above the canal requirements the rock-filled type of dam has been adopted. Where, however, it is important to economize water for lockages concrete dams have been designed. The estimate of cost is based on these two kinds of dams, and the stop log system of regulation sluices has been adopted throughout, with the exception of a few locations, where stony sluices are deemed necessary.

Intimately connected with the naviga-

tion scheme is the question of control of flood waters of the Ottawa River. This would be of a great benefit to navigation as well as to industries along the river depending on waterpower. It is intended to effect this by creating large storage reservoirs, so regulated that during the flood season they will retain a portion of the surplus water which will be gradually released during the low water period. This question will be discussed in the report, but cannot be closed, as a complete solution of the problem will require more extended investigations than it has been possible to make so far. The present plans for the construction of the canal entirely alter the general features of the river. For the purpose of lockage the falls are concentrated, and all of the small rapids obliterated. The dams built for navigation purposes, by concentrating the fall at one point, eliminate the greatest difficulty in the development of the water powers. In addition, the needs of navigation require the elimination of extreme high water by the construction of a system of storage reservoirs at the upper reaches of the Ottawa River, and its main tributaries, the water stored to be released at low water period, thus increasing the average flow so that nearly 1,000,000 h.p. can flow for power purposes.

The cost of the canal is estimated at \$99,689,000 if the route via Ste. Anne de Bellevue, Lake St. Louis and the St. Lawrence River is followed to Montreal. If, however, the other mouth of the Ottawa River, known as Riviere des Prairies, is followed, the cost is estimated at \$93,890,000. In either case \$900,000 will have to be spent for a feeder at the summit of the canal, when this is required. The land damages are partly covered by the estimate and partly by contingencies. In most cases of undeveloped water powers it has been assumed that owners could be compensated by being granted power privileges at the nearest dam. The cost of damages cannot, however, be well defined. In 10 years from now it is likely that the damages to pay would be much larger, as conditions on the river would be much more involved. This amount cannot be well foreseen. It might be larger than estimated by from \$1,000,000 to \$2,000,000, according to conditions at the time of construction and the legal view taken of some of the claims.

The geology of the lower 200 miles of the Ottawa River creates 7 main steps, at each one of which one or more locks are required. The estimated cost of the Montreal reach from the custom house to Verdun is \$3,859,000, including the lock costing \$1,090,700 opposite the custom house near Mackay pier. The Lake St. Louis reach from Verdun to Ste. Anne's, 19 miles, is estimated at \$12,553,000, of which \$1,093,000 is set down at Verdun to gain the level of Lake St. Louis. The impounded basin from Point St. Charles westward affords an upper harbor of 5 miles long. The first series of locks and channels are to connect Oka Lake and Montreal harbor. Between these surfaces the rise is 55 ft., chiefly due to the plunge made by the St. Lawrence at Lachine Rapids. The Montreal lock is opposite the custom house, near Mackay pier. The Verdun lock, 5 miles further up, gains the surface of Lake St. Louis, through which the line ascends to Ste. Anne's. The Ste. Anne's lock makes the rise to Oka Lake, and the channel leads up to Point Fortune. The western part of Montreal, above Victoria bridge, is protected from high water by the Verdun dyke. This suggests keeping high water surface permanently by an embankment from Point St. Charles to Nuns' Island, and thence up to join the shore at Verdun hospital. The impounded basin would be 22 ft. deep, and afford an upper harbor 5

miles long. The time required to complete this reach depends upon the rate of excavation in Verdun Canal cutting—that is, 5 years—because the embankments are made up of the material excavated.

Estimate of Lake St. Louis reach (Verdun to Ste. Anne's, 19 miles)—Verdun lock, \$1,093,000; dam and regulation, \$12,200; channel, \$11,070,000; damages, \$677,000; total, \$12,553,000.

Above Verdun lock is a full depth cutting for 3 miles across the point to Lachine bank, then an embanked canal along shore for 2 miles up to Lachine. Through the northern portion of Lake St. Louis the channel proceeds to Ste. Anne's. The canal cut is 22 ft. deep, 200 ft. wide at bottom, and 290 ft. at top, with side slopes 2 out so 1 up. The canal excavation consists of 3,000,000 cubic yards of earth, and 2,000,000 of rock, all of which will be used to form the embankments for Montreal basin below the canal side banks above to Lachine. In Lake St. Louis there are 2,000,000 yards of rock and 2,000,000 of earth to be excavated. The north side of the lake is shallow, and the surface fluctuates so that it is not only necessary to dredge the shoals, but to dredge deep enough for 22 ft. at the lowest stage. The time probably necessary to complete this reach would be five years, owing to the heavy excavation. For a mile above Ste. Anne's lock there is a rock dredging to form the channel, and then earth dredging to Cadieux Island. The line then follows a deep portion of the lake to Hay Island, where 1,000,000 cubic yards of soft dredging is necessary. From this up the width narrows to a ½ mile, which continues 8 miles to Point Fortune. The lock at Ste. Anne's is crossed by the C.P.R. and the G.T.R., both double track, on drawspans. The excavation above Ste. Anne's will employ two dredging plants for five seasons, which would correspond to the time required for the work through Lake St. Louis. The Ste. Anne's to Point Fortune reach of 25 miles is estimated to cost \$2,334,000.

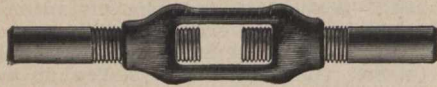
The estimates for the Back River route (ship channel to Sault au Recollet, 17 miles) are: Prairie lock, \$12,000; dams and regulations, \$114,100; channel, \$4,196,100; damages, \$574,600; total, \$5,697,800. The Back River line leaves the ship channel near Varennes and passes Bourdon Island at Bout de l'Île up to Des Prairies village. The width is 300 ft. widened at curves, and 4,000,000 cubic yards of soft dredging is required. Prairies lock is at the head of this channel, 8 miles from the ship channel. It and the dam and sluices are founded on solid rock. Visitation Island, at the head of this reach, obstructs the channel, and nearly 1,000,000 cubic yards of rock must be removed to enlarge the river and allow the natural flow to pass at moderate speed. Sault au Recollet to Point Fortune, 32 miles: Recollet rock, \$1,245,900; dams and regulations, \$367,900; channel, \$3,649,500; damages, \$513,300; total, \$7,776,600.

Above the lock is a canal 11 miles long, and 200 ft. wide, up to the entrance of Oka Lake. Through the east end of the lake there is 4,500,000 cubic yards of sand dredging. The line from Oka village to Point Fortune corresponds with the Montreal or front route. These two routes compare in cost as follows: Montreal, Ste. Anne to Point Fortune, \$18,746,000; ship channel, Back River to Point Fortune, \$13,474,400; difference, \$5,271,000.

From a common terminal at Point Fortune the time of transit by the Back River will be 8 hours to the ship channel at the foot of Montreal Island, and the time by Ste. Anne's and Lachine to the Custom House at Montreal 7½ hours. There is one lock less by the Back River. The Back River

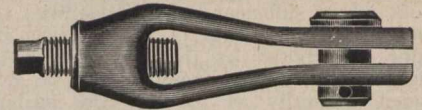


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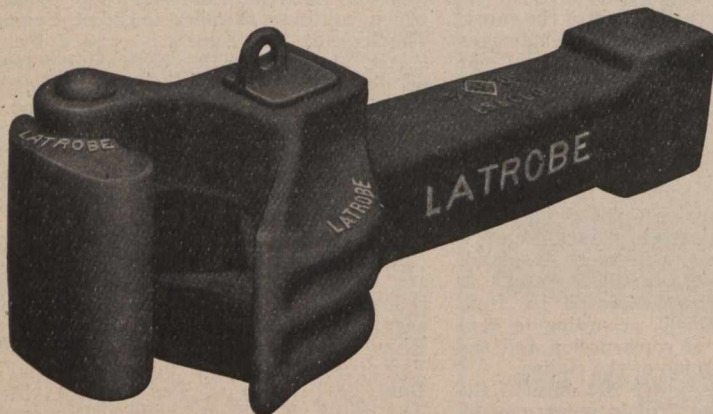
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from St. Genevieve to Sault au Recollet will remain in its natural condition.

Two locks are proposed at Hull to overcome the plunges at Deschenes, Romick's Rapids and Chaudiere Falls. A location in the valley of Brewery Creek in Hull has been chosen, and lock 1 so placed as to suit the necessary railway crossings. The estimated cost from lock 1 to lock 2 in Hull is \$3,383,800. Above the lower lock would be a  $\frac{5}{8}$  mile reach across Brewery Creek between concrete sidewalks, the creek itself being carried under the canal by a pipe culvert. Lock 2 is so placed that Brewery Street and its electric car line could be crossed at the lower end. The Aylmer electric line will be diverted to this bridge, and also the highway traffic of the Aylmer Road. Above lock 2 is 1 mile of canal, which issues into the raised level of the river, maintained by a large rock embankment with sluiceways, above Chaudiere Falls. The rock excavation from the canal furnished more than sufficient material for the dam. At Deschenes Rapids heavy rock excavation is necessary, not only for the boat channel, but to enlarge the river and prevent current. There is ample depth and width up Aylmer Lake for 20 miles to Crown Point, where soft material is to be dredged. Thence for four miles to Chats lock is free channel. The construction would take from three to four years, depending on the rate of work at Hull. The cost of the stretch from Hull to Chats Rapids, 33 miles, is estimated at \$5,599,100, which includes \$675,700 for lock 2 at Hull. It is estimated that the stretch from Chats Rapids to Chenaux Rapids, 20 miles, would cost \$8,745,600, which includes \$818,200 for the lock at the Chats.

The plans for the Riviere des Prairies (Back River route) estimate a cost of \$5,697,800 for the first 17 miles as far as Sault au Recollet. The Back River line leaves the ship channel near Varennes, and passes Bourdon Island at Baude Bout de l'Ile, up to Des Prairies village. Prairies lock is at the head of this channel. From Sault au Recollet to Port Fortune the cost is estimated at \$7,776,600.

A careful analysis of the work to be performed shows that it would take from 3 to 5 years to develop all contracts and place the whole route under active construction. Some of the sections where heavy submarine excavation is encountered would require at least 5 years to complete under the best conditions of labor and equipment. It may be fairly stated, therefore, that a period of 10 years from inception would be necessary to open the waterway to navigation. This would mean an average expenditure of about \$10,000,000 a year.

The revenue of the port of St. John, N.B., for the winter season, from Nov. 22, 1907, to May 2, was \$33,895.57, against \$21,616.87 for the 1906-07 season. The chief increases related to grain and lumber.

The Norwegian barque Atlantic had a peculiar experience recently, when, owing to a misunderstanding, she anchored near Partridge Island, N.B., having been directed to Carleton, N.B., instead of Carleton, Que.

Capt. Anderson, of the C.P.R. s.s. Assiniboia, was presented, recently, with an oak rocking chair and an address; Chief Engineer Cameron with a leather arm chair, and \$10 for division amongst the crew, by the citizens of Owen Sound, Ont.

J. Barron, son of Justice Barron, Stratford, Ont., who recently joined the cruiser Canada, is the first cadet to enter the Canadian service under the new naval cadet system. The course of study to be followed is similar to that of the British navy, and includes seamanship, navigation, gunnery and general discipline.

### C.P.R. Steamship Princess Charlotte.

The twin-screw steamship Princess Charlotte, which is being built for the C.P.R. Co., was launched at the Fairfield Shipbuilding and Engineering Co.'s yards, Govan, near Glasgow, Scotland, June 27, being christened by Mrs. R. Marpole, wife of the C.P.R. General Executive Assistant at Vancouver, B.C.

The new vessel, which is intended for coasting service between Vancouver, B.C., and Seattle, Wash., is, generally speaking, on the lines of the Princess Victoria, built at Newcastle-on-Tyne, for the C.P.R. in 1903, but she is larger and contains many improvements, especially in internal arrangements. The Princess Victoria, which is in regular service on the Pacific Coast, is, according to Lloyd's measurements, 300 ft. long, 40 ft. 5 in. wide, and 15 ft. 4 in. deep, while the new vessel is 342 ft. long, 46½ ft. broad, and 26 ft. deep, to shelter deck. The Princess Charlotte will, therefore, be a very important addition to the C.P.R. fleet in Pacific waters, and, apart altogether from the increase in size, she will illustrate the great advance that has been made in shipbuilding practice even within so short a period as the past five years, an advance that is not so apparent in general designs as in the many improvements that are continually being made in matters of detail, all going towards the more efficient and more economical working of vessels and the greater comfort of passengers.

The Princess Charlotte is constructed in seven watertight compartments, while the orlop deck is also watertight, thus adding greatly to the safety of the vessel. She has altogether five decks—the orlop, the main, the shelter, the promenade, and the shade decks. She has accommodation for a large number of first-class passengers, and a smaller number of second-class, all of whom will have cabins containing every possible comfort, and other rooms of the finest and most up-to-date description. The entrance to the passenger accommodation is through watertight doors on the ship's sides on the shelter deck forward. These doors lead to a splendid central hall, panelled in teak, and having a floor laid with terra cotta and white rubber tiles. There is another large central hall aft of the main entrance. This is fitted up with lounge seats, upholstered in crimson plush, and at its after end is the main staircase, which leads to the passenger accommodation and public rooms on the promenade deck. On either side of the forward central hall there are 12 special three-berth rooms, fitted up in a first-class manner, with electric radiators, sofa beds, washstands, etc., and also four rooms fitted as bridal chambers. Of these four, two are panelled in light mahogany, and two in satinwood, with dressing tables, washstands, electric heaters, large brass bedsteads, and private bathrooms. On either side of the shelter deck there is accommodation for 176 first-class passengers in two and three-berth rooms, fitted in the most modern style, with patent folding lavatories, wash basins, sofa seats, etc. At the after end of the shelter deck there is a central hall similar to that at the forward end, and on the promenade deck there are two spacious halls in a large deckhouse, with a well in the centre of each, giving ample light to the halls below. Over the forward well there is a large ornamental dome-topped skylight, with open sashes for ventilation purposes. On either side there is accommodation for 104 first-class passengers in two-berth rooms, furnished in a manner similar to the staterooms on the shelter deck. These rooms, and also a few on the shelter deck aft, have large, rectangular, horizontal, sliding windows, with Venetian blinds, which can be utilized for ventilating the cabins.

Of the public rooms on the vessel the most important is the first-class dining saloon. It is entered from the main deck aft, by a stairway from the central hall on the shelter deck. The saloon extends from side to side of the ship, and is capable of seating 133 persons. It is framed in white enamelled hardwood, relieved with gold mountings, and is finely lit by large patent pivoted sidelights. The floor is laid with oak parquet, and at the forward end there are two splendid sideboards with mirror backs.

At the forward end of the promenade deck house already mentioned, there is an observation room, which has specially large plate glass windows, from which passengers will have a splendid view of the vessel's surroundings. The room is tastefully designed, the framing being of mahogany, with a flat white ceiling which, combined with the elaborate electric light fittings, give a very fine effect. In this room there are cosy corners, in which many pleasant hours may be spent by passengers; and also writing tables, large comfortable basket chairs, stools, and circular radiators with marble tops. The room is carpeted and upholstered in green, with amber-colored and gold-fringed curtains.

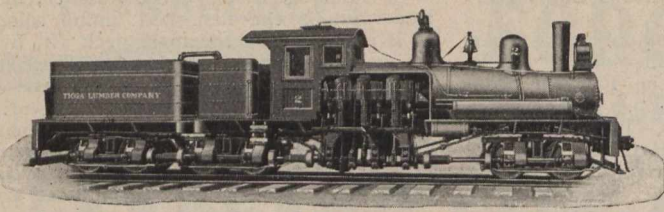
The smoking room, at the after end of the vessel, is framed in light fumed oak, with carved panels and large plate glass windows. The windows, with the circle-topped skylight overhead, provide plenty of light and ventilation. The interior of the room is broken up into several bays, with tables and chairs upholstered in brown hide leather. The floor is laid with rubber tiles, and at the forward end there will, when the vessel is completed, be a well-equipped bar. The ladies' tea room, at the after end of the shelter deck, is neatly finished in light oak, with inlay panels and blue and cream furnishings.

At the extreme forward end of the vessel there is a large smoking and sitting room, and also bar and dining saloon, for second-class passengers, to the number of 48, with a stairway leading to lavatory and sleeping accommodation on the main and orlop decks respectively. At the forward side of the main entrance to the passenger accommodation there are purser's office, barber's shop and baggage room, and forward of the saloon there are galley, pantry, and storerooms, with all the latest facilities, such as electric dish washers, lifts, etc., for catering for a large number of passengers. Far forward there are mail sorting room, petty officers' rooms, second-class lavatories, and the windlass compartment. On the shade deck, which forms a spacious promenade, to which access is obtained by ladders at the fore and after ends, there is a large deckhouse providing accommodation for captain and officers. The pilot house, from which the vessel will be navigated, is at the forward end of the shade deck, and above it there is the flying bridge, carrying steering standards and electric light projector, and from which also the vessel can be navigated. The orlop deck forward and aft is utilized for crews' quarters and officers' and engineers' mess rooms. At the stern of the vessel is the steering compartment, fitted with patent gear, controlled from the pilot house, the flying bridge, or the shelter deck aft.

On the main deck, amidships and forward, space is provided for carrying cattle or other cargo. To this space access is obtained by large watertight doors in the ship's sides. The accommodation aft is ventilated by electric fans as well as by ordinary means. The vessel, which is fore and aft rigged, has three funnels. These give her a very fast and handsome appearance. She will carry 10 steel lifeboats on the shade deck.

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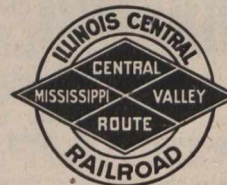
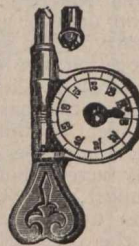
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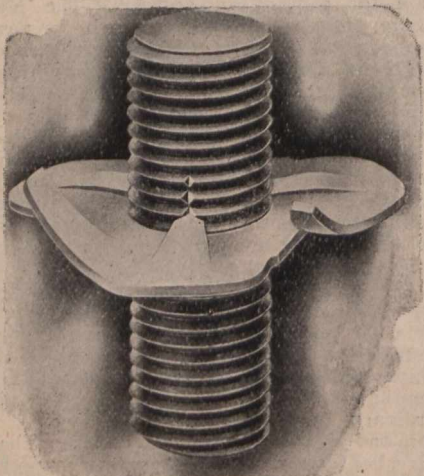
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sets of inverted, direct-acting, triple-expansion engines, each set having four cylinders and four cranks. The engines are balanced, and they have been specially designed so as to reduce the vibration to a minimum when running at a high speed. They are of the open fronted type, the four cylinders of each set being supported—on the side nearest the centre of the ship by four cast iron columns to which the cross-head guides are fixed, and on the outer side by six polished columns of forged steel. The main condensers are separate from the engines. All the pumps, including the air pumps, are independent and steam driven. The steam generating plant consists of six single-ended multitubular boilers of the cylindrical type, designed for a working pressure of 180 lbs. per square inch, and fitted with forced draught and open stokeholds.

Among those present at the launching were R. Marpole, General Executive Assistant C.P.R., Vancouver, and Mrs. Marpole; C. Gardiner Johnson and Mrs. Johnson, Vancouver, and A. Piers, Manager Steamship Lines C.P.R. At the luncheon after the launching Mr. Piers responded to the toast of the C.P.R. Co., saying that instead of working up slowly the speed of their Pacific Coast vessels, they had decided to go in at once for 19 knots. Admiral Sir Digby Morant proposed Mrs. Marpole's health, presenting her, on behalf of the shipbuilding company, with a gold watch bracelet. Mr. Marpole responded.

An order-in-council has been issued rescinding the regulations regarding fisheries bounties established Dec. 10, 1897, under the Bounty Act of 1891, and substituting revised rules and regulations.

During May, 9 men were killed and 8 injured in the course of their employment in Canadian navigation, 4 being killed by boiler explosions, 3 by falls and one each by drowning, and a collision; and 4 being injured by falling material, 2 by explosion, and one each by a fall and by burning.

The Department of Marine has chartered the steamboat Aranmore from Holliday Bros., Quebec, for lighthouse supply service on the St. Lawrence River and Gulf, at \$250 a day, and the steamboat Restigouche, from Bouchard Bros., Quebec, for lighthouse supply service on the Atlantic coast of Nova Scotia, at \$235 a day. In each case the charter includes wages of crew, engine room supplies, food, coal and all expenses in operation.

**Among the Express Companies.**

The Canadian Ex. Co. has opened offices at Newport Point, Que.; Parkindale, N.B., and Fountain Road, N.B.

G. W. Steavens has been appointed act-

ing agent, Canadian Northern Ex. Co., at Edmonton, Alta., vice T. Henderson.

G. L. Smith has been appointed Agent, Canadian Northern Ex. Co., at Dauphin, Man., succeeding J. A. Ferguson, resigned.

The Dominion Ex. Co.'s office at Grand

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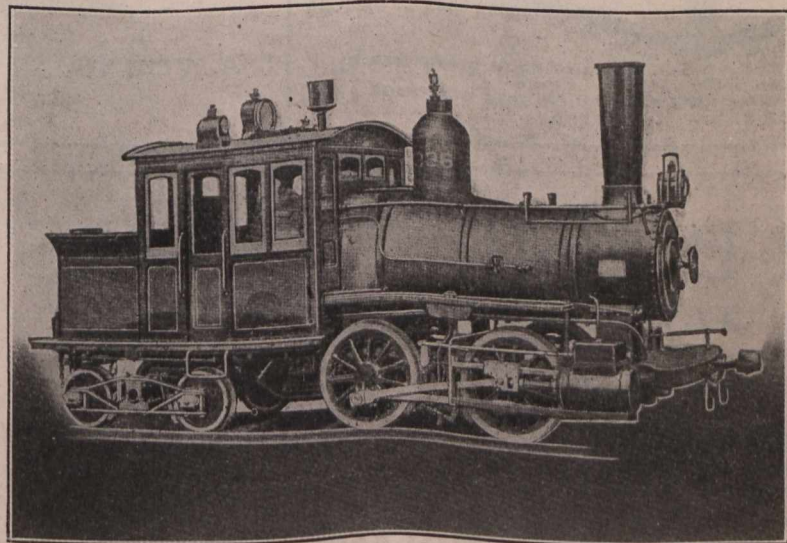
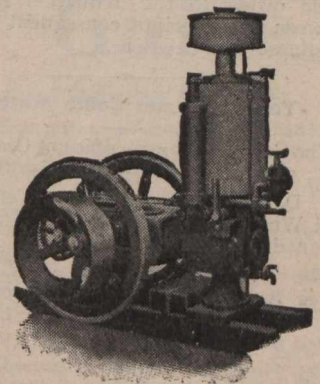
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MONTREAL, P.Q. Limited



Forks, B.C., was destroyed July 10 in a fire there which did total damage estimated at \$300,000.

W. S. Stout, President Dominion Ex. Co., Toronto, has been elected President of the Expressmen's Mutual Benefit Association for the current year.

The Dominion Ex. Co. has opened offices at Beleek, Bourkes, Byng Inlet, Chamberlain, Dane, Kenogami, Krugersdorf, Mathe-son, Ramora, Sesikinika and Swastika Ont.

The loss occasioned the Dominion Ex. Co., and the Canadian Ex. Co., at the recent fire, which did nearly \$2,000,000 damage at Three Rivers, Que., is placed at \$10,000 each.

The Dominion Ex. Co. is asking the Ontario courts to declare that a business tax on an assessment of \$1,700 in Chatham, Ont., is illegal, and for an injunction restraining the city from collecting taxes for 1907 and 1908 on the assessment. The company contends that as it merely rents part of the building in Chatham it is not liable for a business tax.

The Dominion Ex. Co. having put its service in operation on the C.P.R. route between Toronto and Sudbury, Ont., has reduced its rates from Toronto and 136 other points in Ontario to all points west of Sudbury. The reduction in rates is made owing to the reduction in mileage between these points consequent upon the opening of the new line.

#### Telegraph and Cable Matters.

The C.P.R. telegraph office at Grand Forks, B.C., was destroyed by fire July 10.

J. D. Oppe, General Manager of the Marconi Wireless Telegraph Co. of Canada, has resigned.

The G.N.W. Telegraph Co.'s office at Three Rivers, Que., was burnt out at the recent fire there, the damage being estimated at \$8,000.

The House of Commons passed the Government bill, to bring the telegraph and tele-

phone companies under the control of the Board of Railway Commissioners, July 2.

J. Kent, Manager, and W. J. Camp, Electrical Engineer, C.P.R. Telegraphs, accompanied by Mrs. and Miss Kent and Miss Camp, left Montreal, July 3, for the Pacific coast.

The British Columbia District Telegraph and Delivery Co., Ltd., has been re-incorporated under the B.C. Companies Act, with a capital of \$25,000, to deliver parcels, etc., and to perform all the duties appertaining to what is known as the District Telegraph System, in any town or city in British Columbia.

J. Henniker Heaton, M.P., the British postal reformer, speaking at a dinner of the American Society in London, Eng., July 4, said: "We will shortly have a penny-a-word cablegram; I am confident that with the assistance of the great electricians

whom we have interested in the matter, it will soon be successfully accomplished."

The Dominion Parliament has voted the following sums in addition to those previously voted on account of the Government telegraph lines:

Repoling lines in Cape Breton, N.S. ....	\$187.50
Improving repair service, Quebec lines. ....	500.00
Extension St. Charles to Peribonka, Que. ....	125.00
Extension to Pender and Mayne Islands, B.C. ....	50.00
Improvements Victoria-Cape Beale line, B.C. ....	750.00
Vernon-Kelowna-Penticton line, B.C. ....	437.50
Vernon-Lumley line, B.C. ....	212.50
New poles, Ashcroft-Quesnel line. ....	250.00

A bill was introduced into the House of Commons, July 8, providing for the payment to the Canadian Associated Press of sums as follows: For period, July 1, 1908, to Mar. 31, 1909, \$9,000; for period April 1, 1909, to Mar. 31, 1910, \$12,000; for period April 1, 1910, to June 30, 1910, \$3,000. These sums to be paid at such times and in such manner as the Finance Minister determines, to assist in

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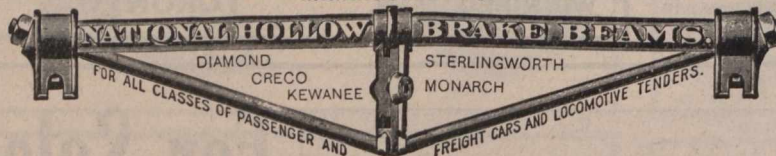
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The Wire and Cable Co., Ltd., has been licensed under the act respecting extra-provincial companies, to carry out one or any of the company's objects in British Columbia, with H. H. Abbott, Vancouver, as its attorney. The objects of the company include the manufacture and dealing in telegraph and telephone wire and appliances; to purchase, or lease, and operate telegraph and telephone lines, and to purchase shares or amalgamate with any similar company.

The annual meeting of the Dominion Telegraph Co. was held at Toronto July 8. The directors' report mentioned the regular payment quarterly, for the past 21 years, of he guaranteed interest of 6% on the capital stock of the company, by the Western Union Telegraph Co., lessees of the company's property. The lease is for 99 years from July 1, 1879. The assets show a total of \$1,310,247.87 and liabilities, including \$14,000 dividend payable July 15, \$1,015,739.08, leaving a balance of \$294,508.79, which has been taken to profit and loss account. The officers and directors for the current year are: President, T. Swinyard; Vice-President, Sir Henry M. Pellatt; other directors: A. G. Ramsay, T. F. Clark, C. O'Reilly, R. C. Clowry, B. Brooks, Æ. Jarvis; Secretary-Treasurer, F. Roper.

**Railway Telegraph Superintendents.**

The 27th annual convention of the Association of Railway Telegraph Superintendents was held at Montreal June 24 to 26. After addresses of welcome by Ald. Sadler, representing the Mayor, and by the Vice-President of the Business Men's League, the usual routine business, such as reading the minutes and receiving the Secretary-Treasurer's report, was transacted. This was followed by a paper, read by W. W. Ryder, Superintendent of Telegraphs, Chicago, Burlington and Quincy Rd., on Train Dispatching by Telephone. Other papers read during the session were: Commercial Reports, by J. P. Church, Wabash Rd. Telegraphs, Decatur, Ill.; Reduction of Telegraphing by use of printed forms, by O. C. Greene, Superintendent Northern Pacific Ry. Telegraphs, read by J. L. Davis, Chicago, Ill.; Dry Batteries and Telegraph Circuits, by U. J. Fry, Superintendent Chicago, Milwaukee and St. Paul Rd. Telegraphs, Milwaukee, Wis.; Adverse Railroad Legislation, by E. A. Chenery, Superintendent Missouri Pacific System Telegraphs; Past, Present and Future of the Association, by W. F. Williams, Seaboard Air Line Ry. Telegraphs; Qualifying Operators for Train Dispatching, by C. S. Rhoads, Superintendent Big Four Telegraphs; Wiring of Station

Buildings, from a contractor's standpoint, by J. H. Jacoby; Wireless Telegraphy, by W. Maver, Jr., New York.

It was decided to hold the next convention at Detroit, Mich., June 23, 24 and 25, 1909. The following officers were elected for the current year: President, W. J. Camp, Electrical Engineer C.P.R. Telegraphs, Montreal; Vice-President, G. W. Dailey, Superintendent Chicago and Northwestern Ry. Telegraphs, Chicago, Ill.; Secretary-Treasurer, P. W. Drew, Superintendent Wisconsin Central Ry. Telegraphs, Chicago, Ill.

On the afternoon of the first day the members of the association, as guests of the G.T.R., went by train to Lachine, and thence by steamboat back to Montreal via the rapids. On the second day the majority travelled to Quebec in sleeping cars, kindly provided by the C.P.R., where the party, at the invitation of E. A. Evans, General Manager Quebec Ry., Light and Power Co., proceeded to Montmorency Falls, and Ste. Anne de Beaupré, in special cars. The members of the Association spoke very highly of the courtesy and attention displayed by W. J. and Mrs. Camp, the latter, as chairman of the ladies' reception committee, being presented by the lady visitors with a silver card receiver, suitably engraved, as a mark of their appreciation of her efforts to make their visit enjoyable.

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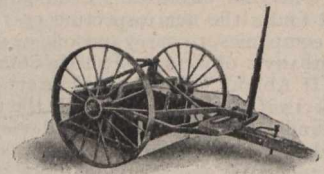
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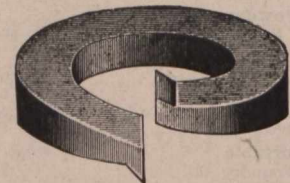
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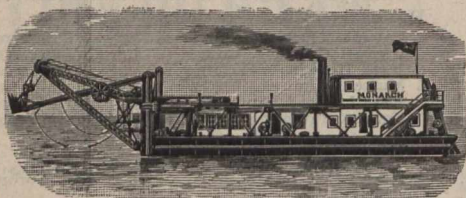
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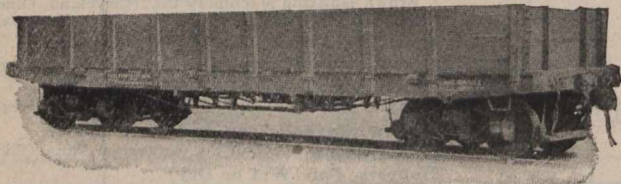


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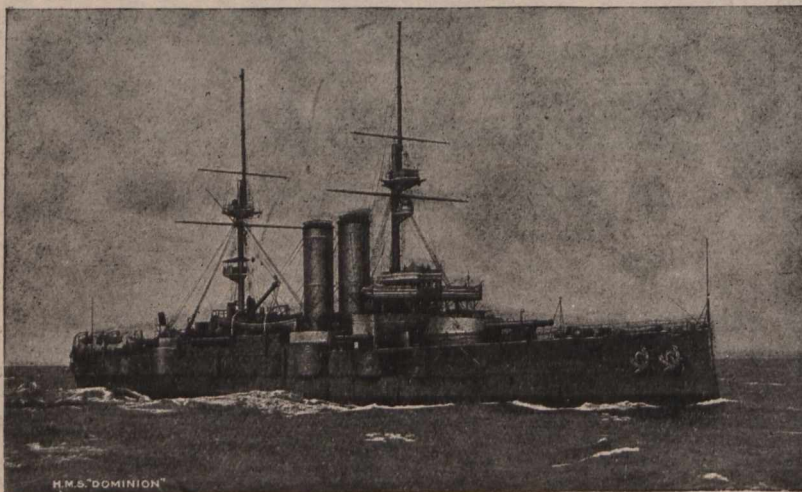
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 Wolfe Brush Co. . . . . Pittsburg, Pa.
- Painters' Scrubs**  
 Wolfe Brush Co. . . . . Pittsburg, Pa.
- Painters' Wall Brushes**  
 Wolfe Brush Co. . . . . Pittsburg, Pa.
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 Canadian Oil Co. . . . . Toronto.
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 The N. L. Piper Railway Supply Co. . . . . Toronto.
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 Wm. C. Baker Heating & Supply Co. . . . . New York.
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 Butterfield & Co. . . . . Rock Island, Que.
- Platforms, Steel**  
 Standard Coupler Co. . . . . New York City.
- Ploughs, Contractors'**  
 Mussels Limited . . . . . Montreal.  
 Toronto Pressed Steel Co. . . . . Toronto.
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 N. J. Holden Co., Ltd. . . . . Montreal.
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 S. F. Bowser & Co., Limited . . . . . Toronto.  
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 Ontario Wind Engine and Pump Co. . . . . Toronto.  
 James Smart Mfg. Co. . . . . Brockville, Ont.
- Pumps (Centrifugal)**  
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 J. J. Gartshore . . . . . Toronto.  
 F. H. Hopkins & Co. . . . . Montreal.  
 Kilgore-Peteler Co. . . . . Minneapolis, Minn.
- Rails (for relaying)**  
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 J. J. Gartshore . . . . . Toronto.  
 Mussels Limited . . . . . Montreal.  
 Jas. W. Pyke & Co. . . . . Montreal.
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 The Rail Joint Co. of Canada . . . . . Montreal.
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 F. H. Hopkins & Co. . . . . Montreal.  
 Mussels Limited . . . . . Montreal.
- Railway Supplies**  
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 The W. H. Kelson Co. . . . . Montreal.  
 The Hiram L. Piper Co. . . . . Montreal.  
 The N. L. Piper Railway Supply Co. . . . . Toronto.  
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 Standard Steel Works Co. . . . . Philadelphia, Pa.
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 Canadian Bridge Co. . . . . Walkerville, Ont.  
 Dominion Bridge Co. . . . . Montreal.
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 F. H. Hopkins & Co. . . . . Montreal.  
 The Hudson's Bay Co. . . . .
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 Crossen Car Mfg. Co. . . . . Cobourg, Ont.
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 O. M. Edwards . . . . . Syracuse, N.Y.
- Sash Locks**  
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 Montreal Steel Works . . . . . Montreal.
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 W. H. Knowlton . . . . . Toronto.
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 Chicago Railway Equipment Co. . . . . Chicago, Ill.
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 M. Beatty & Sons . . . . . Welland, Ont.  
 Canadian Fairbanks Co., Ltd. . . . . Montreal.  
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