

Canadian Railway and Marine World

September, 1918

The Advance of Freight Rates by Order in Council.

Canadian Railway and Marine World for August contained the full text of the Dominion Government's order in council of July 27, passed under authority of the War Measures Act, 1914, increasing freight rates on railways. Following are copies of the order in council of July 16, directing the Board of Railways Commissioners to prepare a schedule of increased freight rates, of the Chief Commissioner's report thereon and of the Chief Commissioner's recommendation that the Toronto Board of Trade's protest against the increased rates be dismissed:—

similar demands have been made on other railway companies in Canada; that the attached letter from the Chairman of the Board of Railway Commissioners has been received by the acting Premier, and referred by him to the Minister of Railways and Canals, from which letter it appears that the extra amount of wages which the three larger systems, viz., Canadian Pacific, Grand Trunk and Canadian Northern, would be called upon to pay, should the same rate of wages be adopted in Canada as is now in force in the United States, would be \$36,865,894.00, while on government lines the increase

in Canadian territory should be increased as increased in U.S. territory, by the award commonly known as the McAdoo award, as the same may be from time to time amended or extended, in so far as the Government Railways are concerned, and that it is advisable in the public interest that companies, privately owned, should make similar increases to their employees. That the net earnings of the railway systems as a result of increased costs of transportation, which has already accrued, have greatly decreased. That the net earnings of the Grand Trunk in 1917 decreased to £26,279, against



Organization of Canadian Board of Adjustment No. 1 by Canadian Railway War Board and Labor Organizations.

This photograph was taken in the Canadian Railway War Board's office in Montreal recently, when Canadian Board of Adjustment No. 1, consisting of 6 representatives of railway companies and 6 representatives of railway employees' organizations was organized, to deal with railway employees' wages questions. Those shown in the group are as follows:—

BOTTOM ROW, from left to right:—Jas. Murdock, Vice President, Brotherhood of Railway Trainmen; J. H. Walsh, General Manager, Quebec Central Ry.; Major G. A. Bell, C.M.G., acting Deputy Minister of Railways; D. B. Hanna, Third Vice President, Canadian Northern Ry.; Ash Kennedy, Assistant Grand Chief Engineer, Brotherhood of Locomotive Engineers; S. N. Berry, Vice President, Order of Railway Conductors.

TOP ROW, from left to right:—C. A. Hayes, General Manager, Eastern Lines, Canadian Government Railways; W. V. Turnbull, Vice President, International Brotherhood of Maintenance of Way Employees; S. J. Hungerford, General Manager, Eastern Lines, Canadian Northern Ry.; S. R. Payne, Manager, Ottawa & New York Ry.; J. M. Mein, Deputy President, Order of Railway Telegraphers; H. Shearer, General Superintendent, Michigan Central Rd.; F. F. Backus, General Manager, Toronto, Hamilton & Buffalo Ry.; G. K. Wark, Vice President, Brotherhood of Locomotive Firemen and Enginemen; Sir Geo. Bury, Vice President, C.P.R.

The Minister of Railways' Recommendation of Increased Wages and Freight Rates.

The following report of the committee of the Privy Council was approved by the Governor General on July 16:—The committee of the Privy Council have had before them a memorandum, dated July 15, from the Minister of Railways and Canals, stating that representations have been made by the organization of railway employes for an increase in the scale of wages of employes engaged on the Intercolonial, National Transcontinental and Prince Edward Island Railways, and that

would amount to \$5,600,000.00, and it further appears that the railway companies are of the view that the wages paid railway employes in Canada ought to be the same as that adopted in corresponding territories in the U.S., as the class of work is the same in both countries. That there is a large interchange of traffic, and that as a result, many employes work in both countries; and on the further grounds that different organizations are international in their scope, and that heretofore the wage scale in both countries have been relatively the same. That in view of the increased cost of living, wages

£1,202,281 in 1916, and the deficit of the Canadian Northern largely increased, while the Canadian Pacific net earnings in the first six months of this year decreased some \$7,000,000, and the increased scale of wages as contemplated will cost that company alone \$15,000,000 over and above its present costs. That in order to enable the railways of Canada to meet the increased wage charges which they will be obliged to pay by reason of the increases hereinbefore referred to, the Minister of Railways and Canals believes that similar action ought to be taken in Canada as was taken under similar cir-

cumstances in the United States, and that freight rates be raised in Canada as such rates have been raised in adjacent United States territory.

The Minister recommends, under the authority of the War Measures Act:— That the scale of wages of railway employes as fixed by the McAdoo award in U.S. territory, including any amendments or extensions thereof, be applied in Canadian territory, in so far as all lines of railway owned, operated or controlled by

the government, are concerned. That the wage scales of privately owned railways companies in Canada should be similarly advanced. That increases be made in the freight rates of all Canadian railway carriers, subject to the jurisdiction of Parliament, as have been made in the rates of U.S. carriers by the Interstate Commerce Commission, and under orders of the Director General of Railroad Administration of the U.S. That on the acceptance

by the Canadian Pacific, Grand Trunk, Canadian Northern and other railway companies of the said McAdoo schedule, the Board of Railway Commissioners be required to forthwith prepare a schedule of rates which will grant similar increases in railway freight rates in Canada to the increases already granted in U.S. territory, effective as of Aug. 1, 1918. The committee concur in the foregoing recommendation, and submit the same for approval.

The Chief Railway Commissioner's Report Recommending Increases in Rates.

Following is the report made by Sir Henry Drayton on July 25, on which the order in council of July 27 was based:—

Under order in council 1768, the opinion is expressed that, in view of the increased cost of living, the wages in Canadian territory should be increased as increased in United States territory by the award commonly known as the McAdoo award, as the same may from time to time be amended or extended, in so far as the Government railway systems are concerned; and that it is advisable, in the public interests, that the companies privately owned should make similar increases to their employes. The order definitely advances the scale of wages of railway employes, as fixed by the McAdoo award, for lines of railway owned, operated, or controlled by the government, and recommends that the wage scale of privately owned railway companies in Canada should be similarly advanced. The order further provides that should the privately owned railway companies adopt the McAdoo schedule, the Board of Railway Commissioners shall forthwith prepare a schedule of rates which will grant similar increases in railway freight rates in Canada to the increases already granted in U.S. territory, effective as of Aug. 1, 1918. The railway companies have notified their employes of their acceptance of the McAdoo scale. The effect of the order is to reimburse the companies for the additional increased cost to which they will be put by the adoption of the scale and in their railway operation. The advance is limited to freight rates, and is also limited to the advances already made in U.S. territory for the same purpose. The estimates of the increased costs filed by the Canadian Railway War Board show a total of \$50,616,226, in addition to which there are further claims to be settled by the McAdoo award, which, if settled adversely to the companies, might call for an additional \$19,930,000, making a possible outlay of \$70,546,260.

The McAdoo award is popularly supposed to increase freight rates 25%. In some instances, not amounting, however, to a great volume, the McAdoo award exceeds this percentage. In a large number of instances, owing to maximum advance limitations and to a flat rate increase, which, while advancing in a higher percentage the rate for the shorter mileages, holds down all longer movements, the increase of 25% is not obtained. The Railway Statistics for 1917 show the total freight earnings of all systems in Canada as amounting to \$215,245,256.49. This includes railways which are not under the Dominion Parliament's jurisdiction and whose increases are not mirrored in the companies' estimates. The difference, however, would not be very great. Assuming, however, that the whole amount represented earnings of companies under Dominion jurisdiction, and assuming, further, that the increases under the McAdoo scale would net in gross the whole 25%, which they will not, the total amount of

the resultant increases under the McAdoo award would amount to \$53,811,314. These figures, however, cannot be accepted. On the one hand, the freight earnings in 1917 were very large—the volume may not prove representative—but, on the other hand, as rates have already been increased, the resultant gross revenues may well be much larger. As the board has not had the time necessary to compile statistics based on the newer rates, the U.S. increases, which were arrived at as necessary in U.S. territory after much investigation, are treated as those necessary, subject to the recommendation hereinafter made for rate reduction. The increases herein covered are those permitted under the order of the Director-General of the U.S. Railroad Administration, when the Canadian rate situation permits the adoption of the whole increase, and in other instances the extent that the increases may be adopted.

Different action has been taken in the U.S. in connection with the eastern and western territories. Different action has also been taken by the board. In order to arrive properly at a conclusion, the different increases already granted by the board in Canada in many instances will have to be deducted before the gross increases granted in the U.S. are given full effect. As the increases made by the board differ in eastern territory, as against the western territory, it is necessary that the matter be dealt with separately. Rate decisions increasing rates in eastern territory have been made from time to time in both jurisdictions. At a comparatively recent date the rates in eastern U.S. territory were increased by varying, but large, percentages. No such increase took place in Canada, but a general increase was made in Canada under the board's judgment in the 15% case. It is impossible at the moment to report the full effect of the increases in both countries for the past few years. In arriving at the net increase which ought to be given in Canada, in order to make similar increases to those made in the U.S., the board, therefore, has not considered any increase granted in either jurisdiction prior to the application of the so-called 15% case in both countries, justification for these applications being the increase of all costs, and, therefore, a proper point at which to commence.

Territory East of Fort William—Class Rates.—The Interstate Commerce Commission on June 29, 1917, granted a 15% increase in class rates in eastern U.S. territory. This board made a similar increase in class rates in eastern territory on Dec. 26, 1917. The order of the Director General of the U.S. Railroad Administration (for the sake of brevity, hereinafter called the "McAdoo order"), gives a direct increase of 25% in U.S. eastern class rates. As similar increases have been granted in both territories, in order to bring the final increase to a parity, an increase of 25% in Canadian territory ought to be made in the existing sched-

ules. A result of the McAdoo order is to create a direct advance in the minimum charge. As a result of this increase, all class rates are increased more than 25%, in so far as all movements up to 25 miles are concerned.

Sec. 1, ss. (d) of the McAdoo order reads: "After such increase, no rates shall be applied on any traffic moving under class rates lower than the amount in cents per 100 lb. for the respective classes as shown below for the several classifications."

Official Classification scale.					
1	2	3	4	5	6
25	21½	17	12½	9	7
cents per 100 lb.					

In order to carry the McAdoo increase into effect in Canada, while it will be necessary to repeat its provision as to minima, the proper first class minimum rate in Canadian territory is 24c, rather than 25c, having regard to the Canadian rate scale. This is practically the same increase.

In addition to the percentage increase, the McAdoo order provides that the minimum charge on less than carload shipments shall be that provided in the classification governing, but in no case less than 50c. The minimum charge in Canada is in no case less than 35c. The increase involved, therefore, is 15c.

Commodity Rates.—Rates on coal were increased by the board's order of Dec. 26, 1917, by 15c a ton flat. Similar increases were since granted by the Interstate Commerce Commission. The increases, however, were not put generally into effect as in Canadian eastern territory. The McAdoo order, however, reads:—

"Where rates have not been increased since June 1, 1917, the increase to be made now shall be determined by first adding to the present rate 15c a ton, net or gross as rated, or if an increase of less than 15c a ton, net or gross as rated, has been made since that date, then by first adding to the present rate the difference between the amount of that increase and 15c a ton, net or gross as rated; and to the rates so constructed the above increases shall now be added."

As a result, the increases granted under the McAdoo order for the coal traffic are increases calculated either on a previous 15c advance, or else upon a 15c advance made necessary and justified by the order itself. The conditions are, therefore, similar in the two territories. In order to give the railways in Canada similar increases as in the U.S., it will be necessary to adopt the section of the McAdoo order giving the coal schedules, reading as follows:—

"Where rate is 0 to 49c a ton, 15c a net ton of 2,000 lb.
 "Where rate is 50 to 99c a ton, 20c a net ton of 2,000 lb.
 "Where rate is \$1 to \$1.99 a ton, 30c a net ton of 2,000 lb.
 "Where rate is \$2 to \$2.99 a ton, 40c a net ton of 2,000 lb.
 "Where rate is \$3 or higher a ton, 50c a net ton of 2,000 lb."

Coke stands in exactly the same position as coal in so far as increases in both countries are concerned. The increase in the McAdoo award, however, is higher than in the case of coal, the rates being advanced to the following scale:—

"Where rate is 0 to 49c a ton, 15c a net ton of 2,000 lb.
 "Where rate is 50 to 99c a ton, 25c a net ton of 2,000 lb.
 "Where rate is \$1 to \$1.99 a ton, 40c a net ton of 2,000 lb.
 "Where rate is \$2 to \$2.99 a ton, 60c a net ton of 2,000 lb.
 "Where rate is \$3 or higher a ton, 75c a net ton of 2,000 lb."

It is unfortunate that through rates do not apply on movements of coal and coke to Canadian points. Prior to the McAdoo order, the rate on anthracite in U.S. territory was \$2.15 to Buffalo. Under the McAdoo order that rate became \$2.60. The present Buffalo-Toronto rate is 81c. Under the McAdoo order that rate would become \$1. The increase on the McAdoo order, if the traffic moved under a joint tariff, would be held down to an increase of 50c in all; a difference of 14c, as against an increase under the present system of 64c. This matter is entirely out of the hands of Canadian railway companies or this board.

Iron Ores.—While commodity rates were generally advanced by the Interstate Commerce Commission, iron ores were made an exception in Canadian eastern territory. This board increased the rates on them 15%. The McAdoo order deals with the movement of this commodity as follows:—

"30c a net ton of 2,000 lb. except that no increase shall be made in the rates on ex-lake ore that has paid one increased rail rate before reaching lake vessel."

The reference to an increased rail rate in connection with the boat movement does not of necessity show any general increase in the iron ore rate. The board is not advised of any general increase in U.S. territory. The effect of the 30c increase is to give a greater increase than that already given by the board on all traffic carried at a rate of less than \$2 a ton, while it holds down the increase for the longer movements. To place the increases on a parity, the board's increase of 15% should be struck out and 30c a net ton added to the former Canadian rate.

Stone, artificial and natural, building and monumental, except carved, lettered, polished or traced.—In U.S. territory the Interstate Commerce Commission by its order of Mar. 12, 1918, increased the commodity rates, with certain exceptions in which stone is not included, by 15%. The board made a similar increase in its judgment of Dec., 1917, in eastern territory. The increase in the McAdoo order amounts to 2c per 100 lb., and the like increase will follow in Canadian territory.

Stone, broken, crushed and ground.—This stone is of low value and for that reason the Canadian board held down the increase in its 15% case to a flat addition of 5c a ton. An increase was allowed of 15% in U.S. territory. As many of the hauls are comparatively short, there probably is not much disparity in the results in the two countries; the Canadian increase would be somewhat the smaller. The advance under the McAdoo order is 1c per 100 lb. The same increase should be made in corresponding Canadian territory.

Sand and Gravel.—These rates are in exactly the same position as stone, broken, crushed and ground. The McAdoo order allows a similar increase of 1c per 100 lb., and the same increase should be allowed here.

Brick, except enameled or glazed.—Similar increases have been granted in both countries by the respective commissions. The McAdoo order allows an advance of 2c per 100 lb., which should also be permitted in Eastern Canada.

Cement.—An increase of 15% has already been made in Canada. Specific ad-

vances were also allowed by the Interstate Commerce Commission on Jan. 15, 1918, is so far as a very large amount of traffic in U.S. territory is concerned. It is impossible to state what the actual results of the increase over the whole field may be, increases having been made in both territories, some of those in the U.S. being much heavier than the Canadian increase of 15%. The increase under the McAdoo order, which amounts to 2c per 100 lb., can be applied.

Lime and Plaster.—Lime is not excepted from the increase of 15% in commodity rates given by the Interstate Commerce Commission and already has been increased by the board 15%. The addition of the increase under the McAdoo order of 1½c per 100 lb. in Eastern Canada will restore the parity.

Lumber and other forest products not otherwise herein specifically dealt with.—An increase of 15% was granted by the board in Eastern Canada. An increase was also given in U.S. eastern territory by the Interstate Commerce Commission, but the increase made by the Interstate Commerce Commission was held down to an increase of 1c per 100 lb. In order to put the increase on a parity, the increase of 15% already allowed by the board will have to be taken off, and 1c added to the former tariff, which will then be increased by 25%, but not exceeding 5c per 100 lb.

Pulpwood.—The Canadian board allowed an increase of 15% on pulpwood. In the Maine and New Hampshire districts, where pulpwood is produced and comes directly into competition with Canadian pulpwood, the U.S. railways put into force an advance of 15% before the McAdoo order was made, and on international business the increase granted by the McAdoo order, which amounts to 25%, but not exceeding 5c per 100 lb., is already in effect. Parity is, therefore, obtained by increasing the present rates in Canada as provided by the McAdoo order.

Cordwood, slabs and mill refuse for fuel purposes.—The rates on these articles were advanced 15% in Canada under the board's judgment. Under the Interstate Commerce Commission order an increase was granted of 1c per 100 lb. in some instances and 15% in others. Under the McAdoo order the rates take an advance of 25%, but not exceeding an increase of 5c per 100 lb. Taking the rates for a 60-mile haul, the Canadian position is as follows:—Prior to the 15% increase, the rate was 4¼c, the increase being to 5c. Applying the McAdoo order on the present Canadian rate of 5c, the rate would become 6½c. A considerable quantity of cordwood is hauled 125 miles. The old rate for this distance was 5¼c; the 15% case made it 6c, and the McAdoo advance would make it 7½c; while, if the Interstate Commerce Commission's increase of 1c was added to the original rate and the McAdoo increase added, the rate would be 8c. The railways' attention has been called to the fact that owing to the shortage of coal it is desirable that as much cordwood be carried as possible. While the railways insist that the expenses to which they have been put, having particular regard to the recent increase in wages, are such that the whole increase of the McAdoo order would be absolutely required, under the circumstances they raise no objection if, instead of applying the full increase, a flat increase of 1c over the present rate is applied to the whole movement. The result would be that the increase on this commodity would make the new rate for 60 miles 6c instead of 6½c. and for 125 miles 7c instead of 7½c.

Wheat.—The board advanced the rate in eastern territory 15%, subject to a

maximum increase of 2c per 100 lb. The Interstate Commerce Commission had advanced the rate in U.S. territory 15%, without limiting the increase by a maximum. Comparative increases will be secured by the companies carrying the board's former judgment into effect, without the limit imposed of 2c per 100 lb., and adding the increase provided by the McAdoo order, which amounts to 25%, but not exceeding an increase of 6c per 100 lb.

Other Grains, Flour and other mill products.—These rates should be treated in the same way as the wheat rates. The McAdoo order in dealing with them reads:—"25%, but not exceeding an increase of 6c per 100 lb., and increased rates shall not be less than new rates on wheat."

Livestock.—Similar increases have been made in both countries by the respective commissions. The McAdoo order increases the rates 25%, but not exceeding an increase of 7c per 100 lb. where rates are published per 100 lb., or \$15 per standard 36-ft. car where rates are published per car.

Packing House Products and Fresh Meats.—An increase of 15% has been made in both countries by the respective commissions. The McAdoo order makes a further increase of 25%, except that the rates published from all Missouri River points to Mississippi River territory and east thereof shall be the same as the new rates from St. Joseph, Mo. The exception is without significance, having regard to territory contiguous to Canada. The adoption of the McAdoo order will make a parity of increase.

Bullion, base (copper or lead), pig or slab, and other smelter products.—15% increases have already been granted in both countries. The McAdoo order increases the rates 25%, and may be adopted.

Sugar, including syrup and molasses, where sugar rates apply thereto.—A 15% increase was granted by the Interstate Commerce Commission. A 15% increase was also granted by the board. Canadian eastern territory is contiguous to U.S. territory covered by the Official Classification. Under the McAdoo order, sugar rates are to be advanced 25%, except that where the Official Classification applies the 5th class rates as increased will apply. Commodity rates for sugar were in effect in U.S. eastern territory prior to the McAdoo order and are today in effect in eastern Canada. Sugar classifies 5th class, and only moves on 5th class in so far as the all rail movement from eastern to western Canada is concerned. The district covered by sugar commodity tariffs stops at North Bay, on the Grand Trunk, and at Sudbury on the C.P.R. The effect of the McAdoo order is to increase the rates on sugar between points in the U.S. formerly covered by commodity tariffs to a greater extent than 25%. For example, the former commodity rate on sugar from New York to Detroit was 24½c. Under the McAdoo order it now becomes 35c, an increase of 42%. From New York to Chicago the commodity rate was 32½c; new rate 45c, an increase of 43%. The New York to St. Paul and Duluth rate was 38½c; new rate 65c, an increase of 69%. As the commodity rates in Eastern Canada were not based on any fixed proportion of the 5th class, the percentage of the resulting increase would change in almost every instance. As similar increases were made in both countries before the McAdoo order, the parity of treatment in increases will be obtained by providing for an increase of 25%, except that in Canada, where the Canadian

Freight Classification applies, the 5th class rate as increased would be substituted.

The effect of the McAdoo order on the sugar movement from Montreal to Toronto would be as follows:—The present rate is 18½c per 100 lb., while the present 5th class rate is 26½c, and as increased under the McAdoo order would be 33c. As a result, the rate would be increased 14½c per 100 lb., or 78.3%. The increase would make the freight costs 0.33c a lb., as against 0.185c a lb., and on a 10 lb. purchase by the consumer 3.3c, as against 1.85c.

Ice.—No authority to increase ice rates in U.S. eastern territory prior to the McAdoo order appears. Under these circumstances, the increase of 15% allowed by the board should be cancelled, and the McAdoo advance of 25% should be calculated on the former rate.

Commodity rates not included in the foregoing should be increased 25%, as allowed by the McAdoo order.

Territory West of Fort William.—Class rates.—No increase was made in class rates in western territory by the Interstate Commerce Commission. An increase of 15% was allowed by this board. As a result, the increase granted by this board should be cancelled and the 25% increase allowed by the McAdoo order calculated on the old rates. The position in so far as minimum rates are concerned is similar to the position already covered, having regard to the eastern rates. The result is that the same minimum of 24c 1st class, in view of the Canadian tariff construction, should be adopted in lieu of the 25c minimum provided by the McAdoo order. The minimum charge on less than carload shipments will also be increased so as to provide for a minimum charge of 50c, instead of 35c, as in eastern territory.

Coal.—The McAdoo order makes the same increases on coal as in eastern territory, and in view of the provision of the order that in any case where a flat 15c had not already been allowed the increased rate should be calculated upon that basis, makes the situation such that to arrive at a comparative increase the full McAdoo increases must be adopted as in eastern territory.

Coke.—The position as to coke is exactly the same as to coal, and the increases here, again, are the same as already shown for eastern territory.

Iron Ores.—This is not an important movement in western Canada. No increase was made in the U.S. rate prior to the McAdoo order, which allows a flat increase of 30c a net ton of 2,000 lb., except that no increase shall be made in rates on ex-lake ore that has paid one increased rate before reaching lake vessel. As a result, the existing tariffs to cover this movement should be cancelled and the 30c a net ton allowed by the McAdoo order added to the rates existing prior to the 15% case.

Other Ores.—Ores other than iron under the McAdoo order are covered by a general increase of 25%. The U.S. rate situation does not at all compare with the situation in western Canada. Ore rates to western Canadian smelters are compiled for the lower values on the rubble and dimension stone commodity mileage basis, on values exceeding \$50, to \$100 on the 10th class distributing rates, and on values exceeding \$100, on the 10th class standard rates. In the U.S., however, the ore rates have no such relation. It is inadvisable to change the Canadian basis. Increases, however, can be obtained

by advancing the Canadian rates in the same manner as the McAdoo award advances the commodity and class rates upon which the Canadian rates are based. The district particularly interested is the Kootenay. On low grade ores of the value of \$5, the old rate was \$1.35 a ton from Kimberley to Trail. An increase of 10% has since been made, so that the existing rate is \$1.50 a ton. Under the basis recommended this rate will become \$1.55 a ton. If the straight McAdoo increase had been applied, the rate would become \$1.70 a ton. For the same movement on ores of \$15 a ton the old rate was \$1.65, increased to \$1.80, and the proposed increased rate will be \$1.85. Under the McAdoo award the increased rate would amount to \$2.10.

The increases on the rubble and stone commodities are but 1c per 100 lb., and the increases in the ore rates are thus held down. Values from \$25 to \$50, inclusive, are based on the dimension stone commodity tariff. The increase here under the McAdoo order is 2c per 100 lb., and the result is that on the same movement of ore of the \$25 value, the old rate of \$1.90 a ton, which has been increased to \$2.10 a ton, and would move at a rate of \$2.30 a ton. Under the McAdoo order the rate would be \$2.40.

For the \$50 ore the old was \$2.80, the rate as increased is \$3.10, and the increase which should be allowed would bring the rate up to \$3.20. In this case the McAdoo order would allow an increased rate of \$3.50. On \$100 ore the old rate was \$4 a ton; as increased, \$4.40 a ton, and would become \$5. It is to be observed that the basis of the McAdoo increase would make the same \$5 rate.

Over and above the ordinary ore rates there are other ore rates covering train load lots. These have been increased in Canadian territory. The increases granted ought to be disallowed and the new rates be based on the former rates, plus an advance by 25%, as per the McAdoo order.

Stone, artificial and natural, building and monumental, except carved, lettered, polished or traced.—The rates on these commodities were advanced by the board in the 15% case. No advance was made by the Interstate Commerce Commission. The advanced tariff approved by the board should be cancelled, and the 2c per 100 lb. called for by the McAdoo order added to the tariffs as they existed prior to the 15% case.

Stone, broken, crushed and ground, sand and gravel.—The rates on these commodities were advanced by the board in the 15% case. No advance was made by the Interstate Commerce Commission. The advanced tariff approved by the board should be cancelled, and the 1c per 100 lb. called for by the McAdoo order added to the tariffs as they existed prior to the 15% case.

Brick, except enameled or glazed.—The rates on this commodity were advanced by the board in the 15% case. No advance was made by the Interstate Commerce Commission. The advanced tariff approved by the board should be cancelled and the 2c per 100 lb. called for by the McAdoo order added to the tariffs as they existed prior to the 15% case.

Cement.—The position of relative increases is similar to that in eastern territory and the same action may be taken.

Lime.—An increase of 15% has already been made in Canada. No increases were allowed by the Interstate Commerce Commission. The advanced tariff approved by the board must be cancelled and the increase under the McAdoo order, which

amounts to 1½c per 100 lb., applied in the former rate.

Lumber.—The most important movement in western territory is from British Columbia, which province, together with Washington and Oregon, are closely in relation one to the other in the production of lumber. The Canadian mills sell in U.S. territory in competition with the U.S. producer, and the U.S. producers sell in Canadian territory in competition with British Columbia mills. The original rates were the same. The rate from Vancouver to Winnipeg was 40c. The rate from Portland and from Seattle to St. Paul and Winnipeg was also 40c, the Winnipeg rate being competitive. Some years ago the U.S. lines, with the subsequent approval of the Interstate Commerce Commission, advanced their rate from 40c to 45c to St. Paul, although for competitive purposes, owing to the fact that Canadian lines could not increase their rates, the U.S. 40c rate to Winnipeg was maintained.

The matter of lumber rates was considered by the board in the 15% case. The situation was found to be such that no flat 15% increase could be allowed. The consideration of chief importance in lumber rates was found to be the relation one to the other, having regard to the different points of production in Canadian territory. Certain advances were allowed, and among them the rate Vancouver to Winnipeg was advanced to 45c. The main rate was, therefore, restored to a parity with the U.S. rate as formerly. Under the McAdoo order the U.S. lines have increased their rate to St. Paul and Minneapolis from 45c to 50c. Other rates in U.S. territory have been advanced to the full 25% allowed by the McAdoo order, subject to the maximum of 5c. The increase given by the board in the 15% case practically restored parity between Canadian and U.S. rates. If the increase allowed by the McAdoo order of 25%, subject to a maximum of 5c per 100 lb., is allowed in the existing tariffs, that parity would be maintained. The increases will, of course, extend not only to movements in local territory, but also to eastern Canada and to the eastern States.

Other sources of local supply are the northern spruce belt and the Lake of the Woods, Rainy River and Thunder Bay districts. Under the McAdoo order these rates will take the same advance.

Grain and Grain Products to Fort William and Port Arthur.—These rates in Canadian western territory are lower than the rates in contiguous U.S. territory. The U.S. hauls are to the terminals at St. Paul, Minneapolis and Lake Superior ports. All these terminals take the same rate. The haul within Canadian territory is to Port Arthur and Fort William. For example, the rate from Garrison, Mont., to Minneapolis, 1,172 miles, was 33c. The haul from Lethbridge to Fort William, 1,177 miles, had a 23c rate. Under the McAdoo order the rate from Garrison moved up a further 6c, making that rate 39c, while under the board's order the grain rate from Lethbridge was increased 2c, making that rate 25c, so that the difference became much accentuated. The parity of increase in haul, although, of course, not in rate, which is not for a moment recommended, can be easily obtained by adding the increase under the McAdoo order to the old rates for mileages substantially similar to those in the U.S. The following table is submitted as showing the results of the application of the McAdoo scale on this basis to points representing different mileages:—

From.	Miles	Old rate	Pre rate as increased by board	New rate based on McAdoo incr. for similar U. S. mileages
Winnipeg, Man.	420-CP	10		
Portage la Prairie, Man.	475-CP	12	14	16
Brandon, Man.	553-CP	13	15	17 1/2
Minnedosa, Man.	554-CP	13	15	17 1/2
Souris, Man.	570-CP	14	16	18 1/2
Dauphin, Man.	613-CN	15	17	19 1/2
Arcola, Sask.	672-CP	16	18	21 1/2
Estevan, Sask.	710-CP	17	19	22 1/2
Weyburn, Sask.	735-CP	18	20	24
Regina, Sask.	777-CP	18	20	24
Moose Jaw, Sask.	819-CP	18	20	24
Swift Current, Sask.	929-CP	20	22	26
Maple Creek, Sask.	1014-CP	21	23	27
Saskatoon, Sask.	900-CP	22	24	28
Biggar, Sask.	960-GTP	23	25	29
Kindersley, Sask.	1066-CN	24	26	30
Kerrobert, Sask.	1041-CP	24	26	30
Hanna, Alta.	1202-CN	25	27	31
Medicine Hat, Alta.	1077-CP	22	24	28
Prince Albert, Sask.	977-CP	23	25	29
Lethbridge, Alta.	1178-CP	23	25	29
Calgary, Alta.	1243-CP	24	26	30
High River, Alta.	1278-CP	25	27	31
Red Deer, Alta.	1282-CP	25	27	31
Edmonton, Alta.	1243-GTP	25	27	31

Grain and grain products between local points and the Pacific coast.—In so far as local rates and rates to Vancouver are concerned, the McAdoo order would also increase these 25%, with a maximum of 6c per 100 lb. The simplest way of dealing with these movements, which are not in any way related to the U.S. market or U.S. competition, is to disallow the increase already made by the board and calculate the increases on the old rates.

Livestock.—Attention has not been called to any increase either on the Great Northern or on the Northern Pacific Railways. These companies occupy territory contiguous to that of Canadian carriers in the west. Increases in the U.S. livestock rates in the more southerly territory were granted in 1915. These increases would not, however, appear to control the situation. The increase already granted by the board should, therefore, be struck out and the increase allowed under the McAdoo order of 25%, but not exceeding an increase of 7c per 100 lb. for rates published per 100 lb., or \$15 per standard 36-ft. car, where rates are published per car, added.

Packing house products and fresh meats.—These rates were advanced by the board in the 15% case. No increase was allowed by the Interstate Commerce Commission. The advance under the McAdoo order is 25%. The advance tariffs authorized by the board should be cancelled and the increase calculated on the tariffs in effect prior to Mar. 15, 1918.

Bullion. base (copper or lead), pig or slab, and other smelter products.—The McAdoo order allows an increase of 25% on existing rates, except that:—1. Rates from producing points in Arizona, California, Idaho, Montana, Nevada, New Mexico, Oregon, Utah and Washington to New York, N.Y., shall be \$16.50 a net ton, with established differentials to other Atlantic seaboard points; and 2. Rates from points in Colorado and El Paso, Texas, to Atlantic seaboard points shall be increased \$6.50 a net ton. Separately established rates used as factors in making through rates to the Atlantic seaboard shall be increased in amounts sufficient to protect the through rates as above increased.

There are three smelters in British Columbia, one at Greenwood, one at Grand Forks, and one at Tadanac (Trail). The chief movement of the smelter products in Canadian territory is to Toronto, Hamilton and Montreal. The exact percentage of increase, owing to the blanket form of the McAdoo order, is somewhat

difficult to apply to any mileage basis, or to the Canadian rate basis. Under the order, the rates to Buffalo from Northport, which is the U.S. smelter nearest to the Canadian group, is 71 1/2c per 100 lb. An increased rate to the Canadian carriers, which would place Toronto and Hamilton on the same basis as Buffalo, would be reasonable and fair. This 71 1/2c rate produces a rate per ton of \$14.30. The present rate to Toronto for the Canadian haul is \$13.40. Under the McAdoo order the Boston rate becomes \$16.90 a ton, while the New York rate is \$16.30. The Montreal rate ought to be held down to the New York rate. To territory east of Montreal in Canada the usual arbitraries should be added to the Montreal rate. Rates to points in Western Canada should take the advance of 25%, as provided by the McAdoo order. In view of conditions existing at Canadian smelters and the cost of production of zinc, the present zinc rates for domestic purposes should be reduced to the copper and lead rates already referred to.

Sugar, Syrup and Molasses.—Sugar is refined in western territory in Vancouver, whence the movement extends as far east as Winnipeg. The McAdoo order is difficult to apply to this traffic. For example, it provides that from points in California to points taking Missouri River rates and those related thereto, under the Interstate Commerce Commission's 4th section order, and to points east of the Missouri River, an increase of 22c per 100 lb. was made. The order, of course, includes an increase of 25%, except in specific cases. As already pointed out in connection with the eastern movement, it makes a large increase by cancelling the commodity rates and making the increased 5th class rates applicable. Sugar from Vancouver to destinations in the west moves under commodity rates, as eastern sugar moves locally in Eastern Canada. The eastern refiner has long alleged an undue preference which enables the British Columbia shipments to be carried as far as Winnipeg under the commodity tariff, while he, shipping all rail to the western provinces, has to pay the 5th class rates, and the complaint has also been made that the B.C. tariff is out of scale. Judgment has been reserved for a considerable time by the board in this question, but a readjustment of the sugar rates will have to be made before the question is properly and finally determined. The fairest way of increasing the B.C. sugar rates would appear to be to apply to them the same basis and principles as recommended for eastern territory.

Commodity rates not included in the foregoing should be advanced by adding the increase of 25% provided by the McAdoo order, to the rates as they existed prior to the increase of 15% permitted by the board, and the board's increase disallowed.

General class rates between points in Eastern and Western Canada.—The eastern portion of these rates was increased 6c in the 1st class shortly before the 15% application had been made, a further increase of 10% being then allowed by the board. The increase in western Canada was 15%. The like U.S. rates were increased, in so far as eastern territory was concerned approximately 10%, this increase being made on Mar. 15, 1918, the former New York-Duluth rate being \$1.18 1st class and increased in July, 1917, to \$1.30. Under the McAdoo order the rates have increased 25%, so that the present rate is \$1.62 1/2. In order to produce a like parity in Canada, the McAdoo increase in eastern territory of 25% will be calculated on the existing rates, but in

western territory the 15% already allowed by the board must be disallowed and a 25% increase made on the old rates.

Commodity rates between points in Eastern and Western Canada.—Specific commodity rates in the separate territories have already been dealt with, and in both territories commodity rates which are not covered by specific provision are shown to require an increase of 25% in order to give the increase called for under the McAdoo order. In connection with commodity rates between eastern and western Canada, the appropriate increases would, therefore, be those which would obtain hereunder in the different territories in like commodity rates therein, in so far as the portion of the rate in each territory is concerned.

Both export and import rates are cancelled by the McAdoo order, although the right to make a differential rate has been reserved. The Canadian rate structure and traffic conditions do not permit similar action.

The question of export rates had already been dealt with by the board.

The increases in import rates which would result by the general adoption of the increased scales for local tariffs as provided by the McAdoo order ought not to be allowed. With the longer rail haul in Canada, and the different traffic conditions obtaining, in order to do business the railways in the past have deemed it necessary to maintain an import rate basis which would be as low as that obtaining from the U.S. port enjoying the lowest rate. Just so soon as these rates became equalled by local rates in Canadian territory, local rates from that point onward obtained. The only increase that ought to be permitted in import rates, if the very proper policy of the past is continued, is to authorize increases in the import rates, subject to the limitation that the rates as increased shall not exceed in any particular class or commodity the lowest import rates to the same points, from Baltimore or any North Atlantic seaport in the U.S.

Disposition of Fractions.—In applying rates fractions should be disposed of as follows:—

Rates in cents or in dollars and cents per 100 lb. or per package: Fractions of less than 1/4 or 0.25 to be omitted. Fractions of 1/4 or 0.25, or greater, but less than 3/4 or 0.75, to be shown as 1/2. Fractions of 3/4 or 0.75, or greater, to be increased to the next whole figure.

Rates per ton: Amounts of less than 5c to be omitted. Amounts of 5c or greater, but less than 10c, to be increased to 10c.

Rates per car: Amounts of less than 25c to be omitted. Amounts of 25c or greater, but less than 75c, to be shown as 50c. Amounts of 75c or greater, but less than \$1, to be increased to \$1.

Observance of Differentials.—The McAdoo order contains the following provision:—

"In establishing the freight rates herein ordered, while established rate groupings and fixed differentials are not required to be used, their use is desirable, if found practicable, even though certain rates may result which are lower or higher than would otherwise obtain."

There is no objection to the adoption of this clause. As a matter of fact, it merely applies to the scales as advanced, the practice usually followed in the preparation of schedules.

Miscellaneous.—It should be pointed out that in the preparation of the schedule of increases in this report the provisions of order in council 1768 have been adhered to, and the directions to establish similar increases to those granted in adjacent U.S. territory have been complied

with to the extent the Canadian rate system and conditions permit. In the result the previously existing parity of rates in Canadian and U.S. territory has been as near as may be preserved, and whenever under the former rate schedules Canadian railway rates have been on a lower rate basis, lower rates in Canada have been maintained. In the general result it will be found that smaller increases will obtain in Canada than in the United States. Where it has been found impracticable to give the full increase allowed in U.S. territory under the McAdoo order, the matter has been fully discussed with the chief traffic officers of the companies chiefly concerned.

It is difficult accurately to forecast the increased gross earnings that the rate increases will give. It is much more difficult to arrive with any degree of accuracy at the result of the net. Traffic conditions and operating expenses constantly change. The U.S. authorities have gone into all the circumstances requiring and the added expenses necessitating a rate increase with much care. As a result of this study, in the opinion of those authorities, the so-called 25% increase was necessary.

Increased costs and war conditions bear even more hardly upon railway conditions in Canada than in the U.S. The Canadian railways themselves are large contributors to increased U.S. freight charges. Railway coal for Quebec, Ontario, and a considerable portion of the western prairies is imported from the U.S. coal mines and subject to long hauls by the U.S. carrier. The G.T.R. estimates that the additional amount its coal for the year will cost, owing to the increase of freight rates alone in U.S. territory, is approximately \$800,000, the C.P.R. \$900,000, and the Canadian Northern \$450,000. A large percentage of other raw materials required by the railways in their operation are also imported from the U.S. The Canadian railways not only pay the ordinary duty, but also a special war tax on their coal.

It is also clear that the increases authorized by the McAdoo order, to the extent adopted by order in council 1768, will not give the Canadian railways the increases U.S. lines receive under it. No increases are allowed on Canadian lines on passenger sleeping or parlor car tariffs. It is also true that the increases

on a large volume of the traffic will fall a considerable degree short of the 25% increase popularly connected with the McAdoo order, owing to the maximum limitation the order creates and the flat increases in other cases allowed. The order in council was not passed for the purpose of increasing company profits over those of previous years, but for the purpose of meeting the advanced costs of transportation, of preventing strikes, and the collapse of the country's transportation. The railway executives, while stating that the increases allowed will enable transportation to continue in efficiency, claim that such increases will not be sufficient to cover the whole increased cost of operation. Whether this will or will not be the case is largely a matter of speculation. Under all the circumstances, it is submitted that the board be instructed to advise the cabinet, through the Minister of Railways, month by month, the monthly net results of the operations of the three larger systems, i.e., the Grand Trunk, Canadian Pacific, and Canadian Northern, to the end that any increases that may be found to be unnecessary be promptly curtailed.

Toronto Board of Trade's Protest Against Increased Freight Rates Dismissed.

The Chief Commissioner, Board of Railway Commissioners, Sir Henry Drayton, made the following report to the Dominion Government, Aug. 3:—

A protest has been made by the Toronto Board of Trade against the order in council raising freight rates, and amendments to the order are requested. This application has been referred by the acting Prime Minister to be reported upon. Two questions are raised in the application: (1) It is argued that the new sugar rates "will place upon this staple food product an unwarranted burden," and that it should not be called upon to bear a greater increase than other commodities. It is also submitted that the order should not become effective until Aug. 27, so as to give time to the public to adjust itself to commercial conditions. Complaint is also made in the same city that the increase was made without consulting either the shippers or the general public.

It is important that the basic principles on which the order was made should not be lost sight of. The position with which the government was confronted was that a strike of certain railway employees was imminent; that a lengthy investigation had been made by a competent and in every sense well qualified commission in the United States, as a result of which wages were very substantially advanced in U.S. territory; that the increased cost of living to which the railway employees, in common with the general public, were subject obtained in Canada as well as in the U.S.; and that operating conditions in both countries were largely similar; that, as a measure of justice to railway employees, their wages had been advanced in U.S. territory; and that in order to provide sufficient revenues to cover the increased costs, substantial rate increases had also been made, not only for freight, but passenger traffic as well; that, as a measure of justice to Canadian railway employees, many of whom work on both sides of the line, the government requested Canadian railways under its jurisdiction to adopt the so-called McAdoo wage scale, and for the purpose of providing the necessary funds, directed similar rate advances (although perhaps slightly lower than the advanced rates in U.S. territory), but on freight traffic only.

The rates as fixed by the order in council are war rates, to meet a war emergency. In reporting upon similar increases in Canadian rates to those prescribed by the McAdoo order in U.S. rates, the rates have not been passed upon by the Board of Railway Commissioners as permanent rates. They may bear no relation to what the final rates ought to be, having regard to different commodities, when the war is over and conditions become normal. The pressing necessity was to obtain revenue, in order that strikes might be prevented and transportation carried on. The urgency was immediate and required immediate action. Public hearings in the different provinces, or any hearings at all, could not be held. Complaints many and serious have been made from time to time, showing lack of facilities and unsatisfactory movements; many have come from Toronto. Adequate transportation can only be obtained if either the receipts or the reserves available are sufficient for the purpose of meeting, not only running expenses and maintenance, but also for the purpose of improving, where necessary, any inadequate facility.

Subject to such considerations, I deal with the complaint as to the rates on sugar. Sugar prices to the public have advanced considerably. Nevertheless, the article had moved at low commodity rates, and is carried at a lower basic charge than analogous commodities of probably similar value in the same group of the freight classification, a preference that, whatever its origin, of course has the effect of accentuating the amount of the increase allowed. The added burden complained of is a burden more in percentage than in fact, as compared with relative commodities. United States Director General of Railroads, Mr. McAdoo, was evidently of the opinion that sugar ought to move under its appropriate classification. There is no question but what the added receipts are necessary, and as already pointed out in the main report, the cost of transporting a pound of sugar on the 330-mile haul from Montreal to Toronto had advanced from 0.185c to 0.330c. Expressed in percentage, the increase is undoubtedly great. In view, however, of the present financial neces-

sity (which is by no means confined to the necessities of companies, but is also national, in view of the fact that the country itself now owns and is responsible for a considerably larger mileage than Canada's largest individual railway, (the Canadian Pacific), the money must be obtained. I see no reason why the action taken in U.S. territory should not be duplicated in Canada. On the other hand, apart from the financial emergency and added costs, it ought to be. Sugar in Canada does move under the appropriate 5th class rate for longer mileages in eastern territory. The low commodity rates stop on the G.T.R. at North Bay and on the C.P.R. at Sudbury. There is more justification for applying a lower basis of rates to long hauls than to short hauls. Here the converse is applied. As a matter of justice, sugar rates ought to be placed on the same basis.

I now deal with the date on which the rates ought to become effective. It is much to be regretted that conditions are what they are; that the cost of living has gone up; that the war ever took place; and that, as a result, the costs of railway operation have increased. Unquestionably any advance in rates is a matter of annoyance, and sometimes loss to shippers. Unquestionably, also, the longer the notice that can be given, the less the resultant inconvenience and possible loss. The government, however, was obliged to deal with conditions as it found them. Among those conditions was the pressing necessity for an immediate wage increase without funds with which to meet it.

Reference is made in the Toronto Board of Trade's appeal to the action which has been taken in the U.S. It is true that there Mr. McAdoo's order did not go into effect until 30 days after its date. It is also true that in the U.S. the increased freight rates and the increased wage scale went into effect on June 25, so that the U.S. Railroad Administration obtained the benefit of the rate increase at the same time that it was put to the cost of the wage increase. It is also true that in Canada, in some instances, the new wage scale dates back, but, speaking generally, comes into effect Aug. 1. The railway systems in Canada, therefore, whether owned by the country or by companies,

only receive added revenues 12 days after the added costs have applied. They are thus put to a loss to which the U.S. Railroad Administration has not been subject, and a loss which is serious in view of the large amounts involved. The question raised as to further postponing the date is practically as to whether this loss shall be extended for 15 days more.

In view of the fact that the only complaint as yet received from any board of trade is that of the Toronto Board of Trade, not only for the sake of brevity, but for a more concise statement of the existing situation, I deal with the position of the Toronto shippers on the one hand and the G.T.R. on the other. The G.T.R. does the chief business in Ontario and carries a very large proportion of Toronto's traffic, both in and out. It is certainly fair to say that Toronto, as much as any other municipality, uses and benefits by the service supplied by the G.T.R. Nineteen hundred and sixteen was an exceptionally good year for the G.T.R., war costs in transportation had not commenced to be felt, at least to any serious extent, and the gross was large. War costs did commence appreciably to be shown in the spring of 1917. Bad as the results of 1917 were, the situation in 1918 is, however, worse. The following statement shows the company's gross receipts for the five months, January to May, in each year. It also shows the net receipts after paying costs of operation and taxes:

	1917.		1918.		Loss in net.
	Gross receipts.	Net receipts.	Gross receipts.	Net receipts.	
January	\$ 3,788,177	\$ 662,468	\$ 3,236,262	\$ 869,618	\$1,532,086
February	3,032,980	108,397	2,774,475	1,179,965	2,288,362
March	4,007,624	852,760	4,286,715	65,892	918,652
April	3,778,421	944,197	4,988,984	615,721	328,476
May	4,566,592	881,347	5,217,271	742,071	139,276
	\$19,173,794	\$3,449,169	\$20,503,707	\$ 757,683	\$4,206,852

After Mar. 15, 1918, the full effect of the increases granted by the board in the so-called 15% case, became apparent, but these rate increases have not covered the constant cost increases. In April and May, 1918, the gross receipts were \$10,206,255, against \$8,345,013 for these months in 1917, resulting in the substantial increase of \$1,861,242, or 22.17%. The net receipts, however, show a very different result. For the same two months in 1918 they were \$1,357,792, against \$1,825,544, a decrease of \$467,752, or 25.06%. Net operations for the two months on the higher rate basis give an operating ratio of 66.696, or in other words leave the company 13.304c out of each dollar earned with which to pay fixed charges and to apply on dividends. For the same period in 1917, operating on the lower rate basis, an operating ratio of 78.124 was secured, with a resultant balance out of each dollar earned of 21.876c. The operating ratio for the whole year 1916 was 73.60, leaving a balance per dollar of 26.40c. The operating ratio for the whole year 1917 was 83.94, leaving a balance per dollar of 16.06c.

The company's fixed charges amount to some \$9,617,979, which have to be paid before the preferred shareholders of the different classes can receive any dividend. If it be assumed that the large increased gross of April and May be maintained, and further assuming that no greater increase takes place in operating costs, and that the employees were denied the benefit of the wage increase provided by the McAdoo scale, and to which the government has found them entitled, the results would be as follows:—Fixed charges for two months period (average of the 12 months), \$1,602,996. Operating net, \$1,357,792. Resultant deficit in running

fixed charges, \$245,204. For the whole year, therefore, adopting these two months as a basis, under the rates as increased by the board and applicable before the order in council was passed, the position of the shareholders would be that not only could no dividends be paid, but \$1,471,224 would have to be found by the shareholders for the purpose of paying fixed charges.

The wage increase which the company is obliged to adopt under the original McAdoo scale and 8 hour day readjustment alone would increase that deficit by some \$7,157,000. It is absolutely obvious that the G.T.R. is in such a position that at the earliest possible moment the full amount of increases which can be given it under the order should accrue to it.

Over and above the fixed charges already referred to, the G.T.R. has outstanding a guaranteed stock issue, as well as 1st, 2nd and 3rd preference stock issues. These guaranteed and preferred stocks amount in all to \$124,503,747. The whole of these large issues obtained no return whatever in 1917. No regard is had whatever to the issue of ordinary stock, which is, however, nearly as large as the total of the guaranteed and preferred issues. No dividend has ever been earned on this stock. In 1916 the amount available for dividends on the guaranteed and preferred stocks amounted to \$3,899,085. It is obvious that this profit to the shareholders can well be described as rea-

sonable, leaving out of consideration the question as to whether the dividends were really earned, in view of the condition of the property, lack of proper maintenance and locomotive power, which have already been reported on.

Many rates in Eastern Canada have always been held down by the rates that the G.T.R. itself has operated on in adjacent U.S. territory, and by the necessity of meeting the low rate scale obtaining in the eastern states, as well as by water competition. The board put into effect its 15% increase just as soon as these factors permitted, and shortly after the G.T.R. increased its tariffs in U.S. territory. The McAdoo order rendered possible the further increase which the government has authorized. This increase, large and all as it is when expressed in percentages, is not sufficient to remunerate the company doing a very large public service for Toronto's shippers.

The G.T.R. is a large system; it has of necessity large terminals in Toronto. Its facilities there, however, are not excessive. The contrary is really the case. I have never seen any charge substantiated that railways were unduly taxed in Canada. The G.T.R., however, in 1917, was assessed by Toronto on its land and buildings \$10,679,028, and the amount of the G.T.R.'s resultant tax bill was \$272,315.21. In 1918, the company's assessment is \$11,178,724. The abnormal tax rate for the year, in view of Toronto's increased expenses, of 30.05 mills, results in a tax charge to the G.T.R. of \$340,951.08, an increase in the one year of \$68,635, or 25.20%. In 1916 the gross earned was \$47,723,936, and in 1917, \$52,125,842, an increase of \$4,401,906. Notwithstanding this increase in gross, the net of 1916 of \$5,842,085 (surplus \$3,899.05, contingen-

cies reserve \$1,944,000) disappeared in 1917 and the reserve was reduced to \$127,715. While the G.T.R. shareholders paid Toronto in 1917 for taxes \$272,315.21 on but a small part of its investment, the result of the use of the whole of the G.T.R. system in the service of the public at large, was that the shareholders not only obtained no profit, but actually lost \$1,816,285. The members of the protestant board of trade are very directly interested in the service now being afforded by the G.T.R. without remuneration to the company's shareholders, and the company's tax payments to the general city fund cannot be a matter of indifference to them. The position of the company in 1918 is shown to be still more unfortunate. With increased gross receipts for the five months already referred to of \$1,329,913, the net receipts of 1917, inadequate as they proved to be, of \$3,449,169, became an actual operating deficit of \$757,683. This deficit, of course, the company has to make good, and in addition has had to find money to the extent of \$4,642,833 with which to pay fixed charges. Beyond all question the company's situation is indeed one which requires all the relief that the new rates will afford and without further delays.

The larger share of Toronto's business being carried by the G.T.R., that company's position ought properly to be first considered in connection with a Toronto complaint. The C.P.R.'s position is very different to the G.T.R.'s, with the benefits it has received under the original agreement, the long through hauls it enjoys, and the multiplicity of its operations, coupled with the fact that much more money has been put into its property actually in public service than its total bond and stock liabilities. No comparison exists between the two companies. But as a matter of fact, if the earnings of 1917, the drop in net receipts that has already developed in 1918, and the increased costs to which the C.P.R. is now subject to, be considered, unless action had been taken by the government in raising rates, not only would the company earn no surplus over dividends, but the dividends themselves would be impaired. The amount of business the Canadian Northern does in Toronto is relatively small and the increasing deficits of that system too familiar to require comment. I, for the foregoing reasons, beg to report that in my opinion the Toronto Board of Trade's application be dismissed.

The Cornwall Terminal Co., Ltd., the incorporation of which, with \$100,000 capital, and office at Montreal, was announced in our last issue, is associated with the Meigs Pulpwood Co.'s interests in New York, and it is the company's intention to carry on a lumber and pulpwood business, for which it is applying for a license in Ontario.

The Northern Pacific Ry. announced Aug. 18, it would suspend its freight and passenger service between Vancouver and Huntingdon, B.C. It is expected that the company's offices in Vancouver will be closed. The reason given for the change is that the company is desirous of conserving both men and equipment during the present period of pressure owing to war traffic conditions.

The Alberta & Great Waterways Ry. has been given a contract for carrying mail to the end of its track and there on to McMurray, Alta. Heretofore the mails have been taken by Canadian Northern Ry. to Athabasca Landing, thence by motor boat to House River, and then by pack horse to McMurray.

Steam Railway Statistics for Year Ended June 30, 1917.

Name of Railway	Passengers carried	Passengers carried one mile	Revenue per passenger per mile, cents.	Mileage of revenue passenger trains	Mileage of revenue mixed trains	Mileage revenue freight	Tons of freight carried	Tons carried one mile	Revenue per ton per mile, cents.	Mileage of non revenue trains
Alberta & Great Waterways.....	10,105	573,072	3.869	11,665	20,566	28,075	61,305	5,268,141	0.626	250
Algoma Central & Hudson Bay...	27,142	1,806,461	3.927	59,296	18,928	308,911	866,402	91,477,568	0.744	11,397
Algoma Eastern.....	69,735	1,647,065	2.804	56,470	.....	110,396	2,261,317	26,953,203	1.941	849
Atlantic, Quebec & Western.....	39,471	1,296,019	2.935	26,256	37,411	34,658	169,535	7,184,863	1.382	3,436
Brandon, Saskatchewan & H.B....	24,253	895,106	2.503	43,125	.....	21,032	30,862	1,321,268	1.203	7,389
British Yukon.....	9,605	569,191	9.118	1,262	51,758	22,325	81,187	7,234,200	3.035	5,907
Canada Southern.....	1,686,530	143,723,752	2.346	2,003,748	156,936	1,798,962	9,749,315	1,441,621,450	0.651	48,106
Canada & Gulf Terminal.....	24,713	523,118	3.118	.....	20,450	.....	32,310	854,755	3.186	524
Canadian Government Railways										
Intercolonial.....	4,498,678	315,155,132	1.555	3,238,783	404,461	4,832,116	7,120,511	1,900,097,294	0.576	142,670
International of N. B.....	32,585	1,467,499	2.489	1,940	66,732	19,960	128,982	6,830,276	1.407	6,107
St. John and Quebec.....	42,073	1,175,717	2.416	325	70,356	336	55,851	2,077,887	2.419	2,828
Prince Edward Island.....	393,758	9,748,268	1.661	54,973	282,102	25,141	159,041	6,207,036	3.792	10,260
National Transcontinental...	820,107	50,145,704	1.660	689,670	513,305	2,175,982	3,398,031	1,200,857,918	0.503	77,205
Canadian Northern System.....	10,367,933	324,137,952	2.089	6,329,672	1,969,884	10,185,308	14,406,630	4,597,599,850	0.688	926,560
Canadian Pacific.....	16,267,599	1,438,404,245	1.942	18,577,524	2,099,519	26,068,815	31,334,238	149,186,662,202	0.676	1,020,943
Cape Breton.....	10,392	234,398	2.890	.....	19,406	.....	6,430	190,743	2.584	.....
Caraquet.....	19,150	792,202	2.891	.....	49,563	.....	41,304	1,693,464	3.166	.....
Central Canada.....	2,328	111,522	3.759	200	3,700	3,462	8,232	390,919	1.693	100
Central Vermont.....	374,939	3,654,837	3.165	141,954	26,696	68,062	469,632	12,452,779	1.509	5,096
Crows Nest Southern.....	13,054	352,941	3.502	33,072	.....	42,676	198,895	7,584,365	1.099	15,721
Cumberland Ry. & Coal Co.....	44,896	514,499	2.680	.....	29,952	9,738	322,770	2,490,153	3.100	.....
Dominion Atlantic.....	519,867	19,569,366	2.288	306,039	155,313	114,670	399,106	26,672,361	2.298	10,708
Eastern British Columbia.....	3,206	30,574	5.553	.....	8,304	.....	90,775	867,699	2.985	1,020
Edmonton, Dunvegan & B.C.....	43,967	5,184,564	3.589	90,100	65,135	64,257	170,706	16,944,253	1.549	1,908
Elgin & Havelock.....	7,590	106,260	.....	.....	16,200	.....	8,983	89,830	.....	.....
Esquimalt & Naniamo.....	265,720	6,095,270	2.960	150,783	4,120	105,431	475,948	15,812,166	2.712	5,814
Essex Terminal.....	.....	.....	.....	.....	24,000	.....	299,208	1,496,040	.....	.....
Fredericton & G. L. Coal & Ry. Co.	11,366	243,571	3.152	.....	31,794	.....	163,334	5,650,763	1.522	.....
Grand Trunk.....	12,112,864	585,618,284	1.901	7,896,179	774,804	10,588,729	21,512,160	4,214,229,916	0.738	528,692
Grand Trunk Pacific.....	402,230	49,268,821	2.126	967,017	178,802	1,513,550	1,725,708	623,645,559	0.731	225,549
Grand Trunk Pacific branch lines..	283,741	13,960,474	2.254	324,834	145,024	407,023	1,040,763	102,677,453	1.104	106,974
Hereford.....	32,094	579,038	3.219	33,390	32,648	8,172	122,543	3,033,272	1.657	2,876
Kettle Valley.....	49,972	5,099,768	2.966	204,162	39,831	174,171	300,563	24,854,982	1.549	60,816
Lotbiniere & Megantic.....	10,446	148,477	2.717	.....	18,780	.....	54,723	792,211	3.643	.....
Maine Central (Princeton Branch)	96,385	491,564	2.364	3,900	6,105	4,320	227,801	1,161,785	0.605	81
Manitoba Great Northern.....	8,848	202,248	2.721	9,980	24,255	7,138	102,413	6,284,921	0.554	523
Maritime Coal, Ry. & Power Co...	21,001	203,486	3.014	.....	33,263	.....	298,531	3,274,901	2.661	.....
Massawippi Valley.....	155,880	2,470,859	2.704	87,626	14,072	59,996	558,512	16,543,569	0.880	3,766
Midland of Manitoba.....	66,845	4,147,847	2.333	102,046	.....	50,340	269,164	19,225,973	0.884	132
Moncton & Buctouche.....	331,640	7,829,834	2.471	141,968	151,912	231,049	1,694,075	86,018,107	1.188	7,129
Montreal & Atlantic.....	26,248	566,447	2.185	.....	19,393	.....	25,568	460,278	4.570	838
Morrissey, Fernie & Michel.....	114,000	695,400	1.675	.....	29,700	.....	397,936	2,427,409	2.656	.....
Napierville Junction.....	22,637	388,072	2.623	4,687	12,972	25,077	668,994	19,222,514	0.765	963
Nelson & Fort Sheppard.....	20,257	537,462	3.257	36,880	.....	18,501	34,711	1,261,966	2.295	5,745
New Brunswick Coal & Ry. Co....	21,728	526,398	2.418	.....	35,515	.....	21,878	723,402	2.393	.....
New Brunswick & P.E.I.....	14,644	298,502	2.815	396	30,904	12,932	61,197	1,418,030	2.615	2,820
New Westminster Southern.....	5,349	61,084	3.166	.....	12,474	495	102,069	877,801	2.397	.....
Ottawa & New York.....	133,824	3,249,596	2.441	78,857	.....	65,663	580,704	30,979,122	0.577	20,416
Pere Marquette.....	246,610	4,872,190	2.319	218,799	.....	837,907	2,970,266	507,807,460	0.591	7,764
Quebec Central.....	463,122	19,951,653	2.235	265,824	238,073	228,015	1,158,456	91,096,678	1.334	245,725
Quebec, Montreal & Southern.....	273,127	6,487,822	2.451	124,502	75,228	83,043	461,654	20,293,668	1.382	1,763
Quebec Oriental.....	36,601	2,160,820	2.621	28,028	33,837	80,303	168,726	14,345,284	1.101	9,641
Quebec Ry., Light & Power Co...	81,650	577,265	1.491	5,181	.....	27,594	259,564	2,628,219	3.438	830
Red Mountain.....	10,240	92,026	2.718	10,882	.....	72	41,609	373,929	3.835	.....
Roberval-Saguenay.....	29,401	458,883	2.692	70,134	248,975	.....	169,090	2,241,256	1.743	.....
Rutland & Noyan.....	112,453	381,216	.....	4,990	.....	2,181	226,500	766,835	.....	.....
Salisbury & Albert.....	11,645	324,755	.....	.....	31,185	.....	48,045	1,151,985	.....	.....
St. Lawrence & Adirondack.....	660,209	13,445,536	1.659	179,969	.....	130,092	1,828,822	70,479,217	1.089	6,341
St. Martins.....	7,764	146,503	2.521	.....	16,550	.....	16,005	240,260	6.034	.....
Sydney & Louisburg.....	152,473	2,124,738	2.306	24,409	18,440	162,054	3,905,872	58,407,794	1.161	.....
Temiscouata.....	61,697	1,773,099	2.729	52,919	70,020	4,875	165,393	6,410,978	2.512	14,101
Thousand Islands.....	43,698	263,808	2.943	.....	95,278	.....	39,244	235,464	11.327	.....
Timiskaming & Northern Ontario.	498,076	30,367,383	2.219	447,307	61,246	514,267	886,912	146,125,191	0.921	28,639
Toronto, Hamilton & Buffalo....	611,087	18,968,400	2.250	287,913	.....	181,247	3,057,598	113,998,532	1.350	7,847
Vancouver, Victoria & Eastern...	157,147	4,224,255	2.832	116,258	96,557	83,935	1,048,689	33,464,921	0.907	27,478
Victoria & Sidney.....	81,618	1,061,764	2.390	35,470	2,413	7,777	31,286	290,068	6.545	.....
Victoria Terminal Ry. & Ferry Co.	78,843	78,055	2.383	2,197	151	481	16,370	16,206	6.389	.....
Wabash.....	564,212	37,866,291	1.012	500,014	.....	1,311,812	3,100,380	650,673,278	0.518	5,744
York and Carleton.....	6,612	.....	.....	.....	7,223	.....	7,940	.....	.....	.....
Total	53,749,680	3,150,127,428	.....	44,083,575	8,746,811	62,863,724	121,916,272	1,186,707,851	.....	3,627,901

In addition to the revenue train mileage given in columns 4, 5 and 6, there was a total special revenue train mileage of 102,990, distributed over 24 railways

Minimum Carload Weights for Commodities.

With a view to accomplishing further progress in the direction of loading freight cars to full capacity, and thereby conserving car supply, upon which it is expected a very heavy demand will be made during the ensuing autumn and winter, particularly, negotiations completed recently, to which representatives of the Board of Railway Commissioners, boards of trade, Canadian Manufacturers Association and the Canadian Railway War Board were parties, have resulted in an agreement that carload minima applying to certain commodities be increased. A statement of the present and new minimum figures with the commodities to which they are related, is given below. These alterations apply in railway commodity tariffs and become effective on legal notice. It is suggested to member lines of the Canadian Railway War Board, that they have tariffs amended without delay so that they may be in a position to take advantage of the new arrangements not later than the time of commencement of the grain movement.

Minimum Carload Weights.

Commodity.	Present Minimum.	New Minimum
Acid, Acetic, in barrels	24,000	36,000
Ammonia, Sulphate of	50,000	60,000
Asbestos cement	40,000	60,000
Asbestos fibre	24,000	40,000
Ashes, coke	50,000	60,000
Bags or bagging (cotton or jute in bds.)	24,000	30,000
Beans	40,000	50,000
Beans mixed with grain products	40,000	50,000
Beet pulp, sugar wet	40,000	60,000
Bleaching powder in barrels, casks or drums	30,000	40,000
Bottles, glass	24,000	30,000
Brick, or lining, stove	30,000	60,000
Brick (specific commodity rate only)	24	Marked capacity of car, but not less than 60,000 lb.
Calf meal	40,000	45,000
Canned goods	30,000	40,000
Cardboard	30,000	36,000
Ceiling board and wall-board	30,000	36,000
Cigar box lumber	30,000	36,000
Coal	Varies from 25 net tons to capacity of car	Marker capacity of car, but not less than 60,000 lb.
Coal screenings	50,000	Marked capacity of car, but not less than 60,000 lb.
Cooperage stock, staves and heading	24,000	40,000
Mixed cars staves, headings and hoops	24,000	35,000
Cotton mill sweepings	24,000	30,000
Cross arms	30,000	45,000
Caustic soda	40,000	50,000
Filled boards	30,000	36,000
Ferro silicon	30,000 to 35,000	60,000
Grain products (straight or mixed cars (Exception), Pea and oat hulls and bran)	45,000	50,000
Granite	60,000	Marked capacity of car, but not less than 60,000 lb.
Hay (domestic consumption or export)	20,000	24,000
Hubs, wood	30,000	40,000
Leather, scrap or refuse	20,000	24,000
Linseed oil in barrels	24,000	30,000
Marble blocks and marble waste	60,000	Marked capacity of car, but not less than 60,000 lb.
Marble	60,000	Marked capacity of car, but not less than 60,000 lb.
Mill cinder and scale	18 gross tons	Marked capacity of car, but not less than 30 gross tons
Nitre cake	50,000	60,000
Millboard	30,000	36,000
Iron ore	25 gross tons	Marked capacity of car, but not less than 30 gross tons
Ore, silver	40,000	60,000
Paper—		
Rags	30,000	36,000
Core	30,000	40,000
Envelope	30,000	36,000
Newsprint	30,000	40,000
Printing	30,000	40,000

Toilet	30,000	30,000
Unfinished, in rolls	30,000	40,000
Wall, unfinished in rolls	30,000	40,000
Wrapping	30,000	40,000
Writings	30,000	36,000
Mixed cars, bags, toilet and wrapping	30,000	36,000
Petroleum products in packages	26,000	30,000
Pig lead	30,000 to 36,000	60,000
Rails and fastenings	30 gross tons to 30,000 to 60,000	Marked capacity of car, but not less than 60,000
Rice and rice flour	24,000	36,000
Resin	40,000	50,000
Salt	45,000	50,000
Scrap leather	20,000	24,000
Scrap tin	40,000	50,000
Starch, straight cars	24,000	30,000
Syrup of glucose	30,000	40,000
Mixed cars, starch, syrup and glucose	24,000	30,000
Sugar	30,000	40,000
Stone, field	80,000	Marked capacity of car, but not less than 60,000
Spraying composition in metal cans	24,000	30,000
In wood	24,000	36,000
Syrup and molasses	30,000	40,000
Tankage	40,000	60,000
Woodpulp	40,000 to 6,000	50,000 in rolls 60,000 N.O.S.
Woodpulp board	30,000	36,000
Iron and steel articles in box cars	Various	40,000
On flat cars	Minimum not to be increased, but understanding is that wherever possible cars are to be loaded to capacity.	
Bars, muck, or puddle	25 gross tons	30 gross tons
Billets, blooms and ingots	25 gross tons	30 gross tons
Crop ends	25 gross tons	30 gross tons
Pig iron	25 gross tons	30 gross tons
Wire rods	25 gross tons	30 gross tons
Chain, iron or steel	30,000 to 60,000	40,000, except no reduction will be made where tariffs provide a minimum in excess thereof
Note:—The minimum weight for mixed carloads of manufactured articles of iron and steel as shown in the lists contained in the various building materials—		
Cinders, coal	50,000	60,000
Clay, common	80,000	Marked capacity of car, but not less than 60,000 lb.
Gravel	80,000	"
Gypsum rock	80,000	"
Sand, building or core	80,000	"
Slag, furnace	80,000	"
Stone, cobble, crushed, etc.	80,000	"
Stone screenings	80,000	"
Blocks, building, concrete	50,000	"
Blocks, gypsum	50,000	"
Blocks, paving, asphalt or stone	80,000	"
Blocks, plaster fireproofing	50,000	"
Brick, building, except enamelled or glazed	50,000	"
Drain tile, concrete or earthenware	40,000	50,000
Fire brick and fire clay, straight or mixed carloads	50,000	Marked capacity of car, but not less than 60,000 lb.
Lime	40,000	50,000
Plaster, wall, in packages	40,000	50,000
Roofing tile, earthenware	40,000	50,000
Sand, moulding	80,000	Marked capacity of car, but not less than 60,000 lb.
Sand common	80,000	"

Selling Standardized Tickets at Special Windows.

The sale of railway tickets out of Washington, D.C., has been greatly facilitated by the arrangement at the union station of special windows for tickets to Baltimore, Philadelphia, Wilmington, and New York. These tickets can now be handled as rapidly as theater admissions. In the past persons desiring to purchase these standard tickets have sometimes had to wait in line while tickets covered by more complicated rates were being worked out. The result of the change has

been to facilitate the sale of both classes of tickets. A large proportion of the travel out of Washington is to the points mentioned.

Similar arrangements are being made in other large cities wherever it is possible to thus care for standardized tickets for which there is a heavy demand.

The Grand Trunk Railway's Proposed Extension to Providence, R. I.

From Engineering News-Record, New York.

The United States Railroad Administration has been petitioned to approve and provide funds for the completion of the branch of the Grand Trunk Ry. in southern New England to Providence, R. I., which was partly constructed in 1911-12. It is claimed that this additional outlet to tidewater from the G.T.R. system would help relieve congestion on New England railways.

How brief is the time since those stirring events in railway history, of which that Providence extension of the G.T.R. was a part, and what revolutionary changes have occurred since then! One recalls the ambitious projects for which the late Chas. M. Hays, as President of the G.T.R., was responsible, and his reception in Providence and Boston and other New England cities, where he painted glowing pictures of the benefits of railway competition, while the countryside was excited by the operations of mysterious surveying parties, and New England imagined it was to witness another era of competitive railway promotion and construction such as had prevailed a half century before. Then came Hays' tragic death on the ill-fated s.s. Titanic, followed by the revelation that the financing of his ambitious projects was not provided for. It was, in part at least, the public disappointment over this fiasco that led to the legislative investigation which revealed first the New Haven and Grand Trunk agreements and fallings out over New England territory, and later the extent to which the New Haven financial structure, once a tower of strength, had become a hollow shell.

Whether or not we are to return after the war to private ownership of railways, it seems unthinkable that we shall return to the old time competitive railway construction—the building of strategic lines, not for public benefit but to defeat a rival. The public will never again look upon the railways of the country as private business enterprises as it did in the past, nor will it long endure any system of control that does not place the public interest first.

This means, too, that engineers will have to study railway construction problems from a broader standpoint than was ever possible in the past. Instead of the old time questions, what profit will this proposed line yield to the company which is to own it, or what injury will it do to a competitor, the engineer must determine the problem whether the proposed line will render a service to the public that will make its cost a justifiable investment. If public convenience and necessity demands the construction of a road, then it may be built. If the contrary is the case, the construction cannot be permitted.

It was announced, Aug. 15, that the overhauling of the Prince Edward Island car ferry had been completed, and that the regular ferry service between Cape Tormentine, N.B., and Borden, P.E.I., would be resumed Aug. 19.

The Canadian Pacific Railway's Second Track Work between Leaside Jct. and North Toronto.

Present and prospective large increase in traffic made it necessary to complete the double tracking of the C.P.R.'s North Toronto line this year. The rapid expansion of the City of Toronto to the north, and the completion last year of a

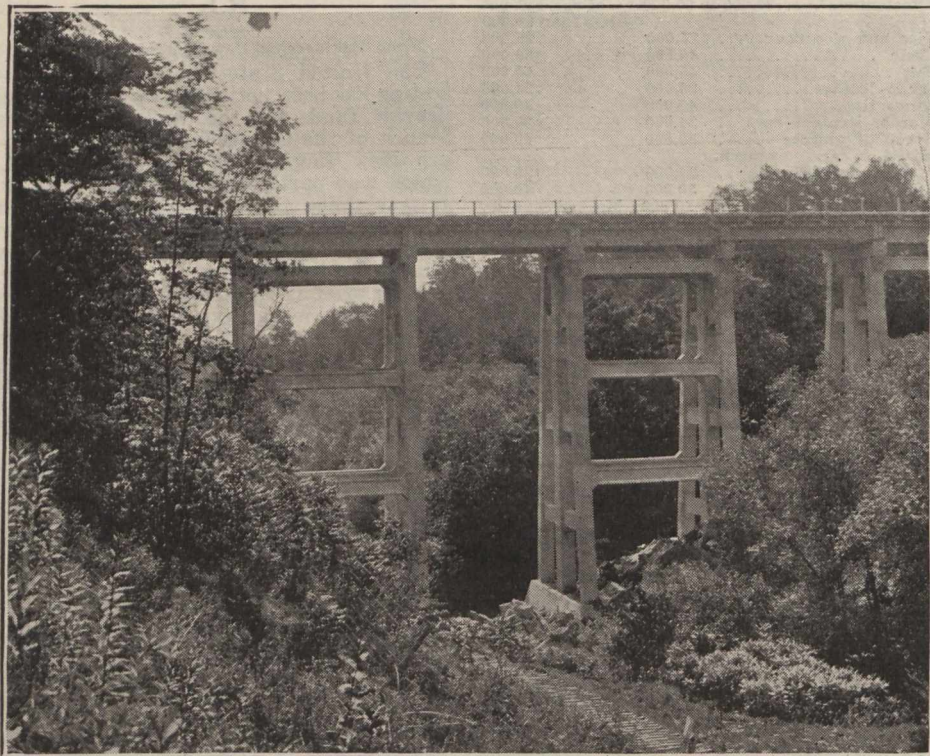
side one another, they form a complete deck to carry the ballast and track work. A narrow sidewalk for railway employes only is provided on each side, protected by a pipe hand-rail, attached to reinforced concrete posts.

8 struts of one system are not in the same plane with the other, but at approximately the points of contraflexure; in this feature the structure is unusual.

The bents consist of 4 posts, of which the 2 outer ones are battered, and the interior ones are vertical. They are in turn supported on substantial piers which are continuous transversely across the bridge. The floor slabs, as above stated, were all pre-cast and were placed on the transverse caps of the towers by derricks. The deck was waterproofed in the usual manner, with a membrane and a protective layer of asphalt, after which the ballast and ordinary track ties were laid.

In order to maintain traffic and build the new bridge on the correct line, it was found necessary to build a temporary trestle on the north side of the structure, and entirely remove the old steel work. This allowed the use to the most economical length of concrete spans and also ensured that the new concrete would not be disturbed by the vibrations due to traffic passing on the old bridge.

The nature of the reinforcement in the towers is not different from modern practice. It consists of vertical rods located in the rectangular post sections. These rods are securely tied across to opposite rods, at close intervals, by units composed of rods previously bent to suitable shapes. The towers were poured story by story and splices in reinforcing bars were located immediately above the horizontal struts. The length of the horizontal girder slabs was dictated by the size of the reinforcing bars, the maximum size of which was 1 5/16 in. diam., bent up in the usual manner to take care of shear. All ends of the rods were bent in hook

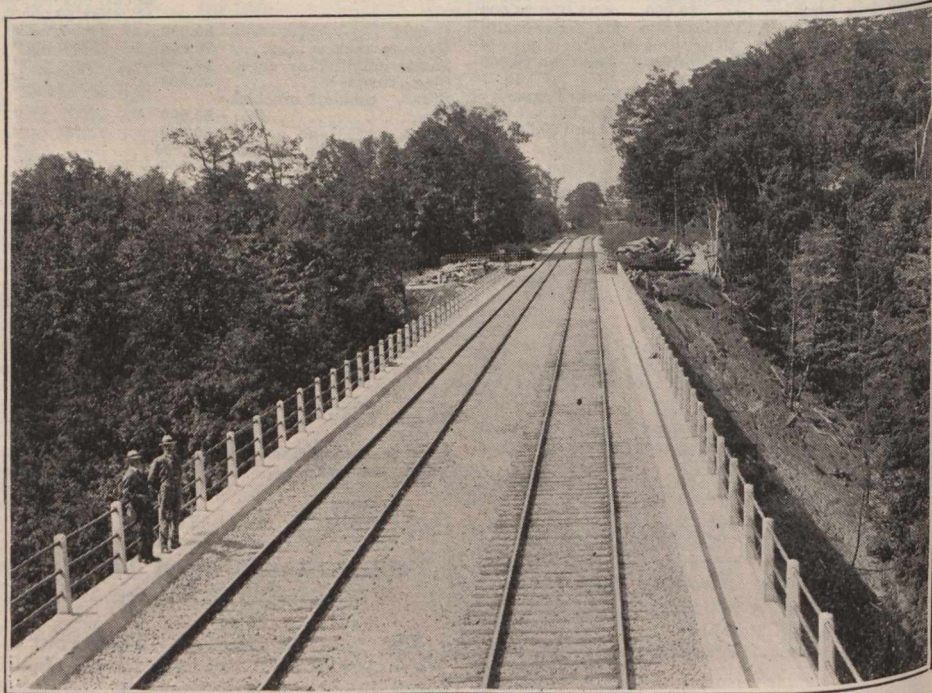


Canadian Pacific Ry. bridge over Toronto Belt Line Ry. ravine, between Leaside Jct. and North Toronto.

handsome, modern passenger station at North Toronto have greatly increased the passenger traffic of this line, which also handles the heavy freight traffic between the east and the Buffalo and Detroit gateways. The two miles of single track between the double track east of Leaside Jct., and west of North Toronto was a very busy piece of line and the increased traffic in immediate prospect necessitated prompt relief.

In building the second track which has been completed recently, no material changes in grade or alignment were made, as the new work runs to 0.4% for the former, and 3° for the latter. The grading was comparatively light, and this, together with all track work, was handled by the company's forces. It was, however, necessary to replace two single track steel viaducts, the one over the Toronto Belt Line by a 2-track, and the one over Reservoir Park ravine by a 3-track structure. This has been done in reinforced concrete and is now completed and ready for the heavy winter traffic which commences with the close of navigation on the Great Lakes.

The bridge over the Reservoir ravine is known as 1.8 North Toronto Subdivision, and consists of a 3-track structure, located with its south track approximately on the site of the existing main line, which is being used as a new switching lead, the other two tracks being used for eastbound and westbound traffic. The structure is 386 ft. long and 88 ft. high, supported on 2 abutments and 5 towers, which in turn support pre-cast T-beam floor spans of such design that, laid along-



Canadian Pacific Ry. bridge over Toronto Belt Line Ry. ravine, between Leaside Jct. and North Toronto, looking west.

The towers are of unusual design, in that no diagonal bracing is used; but instead thereof, a system of horizontal struts, to reduce the stresses in the columns from the longitudinal and transverse horizontal forces. The immediate

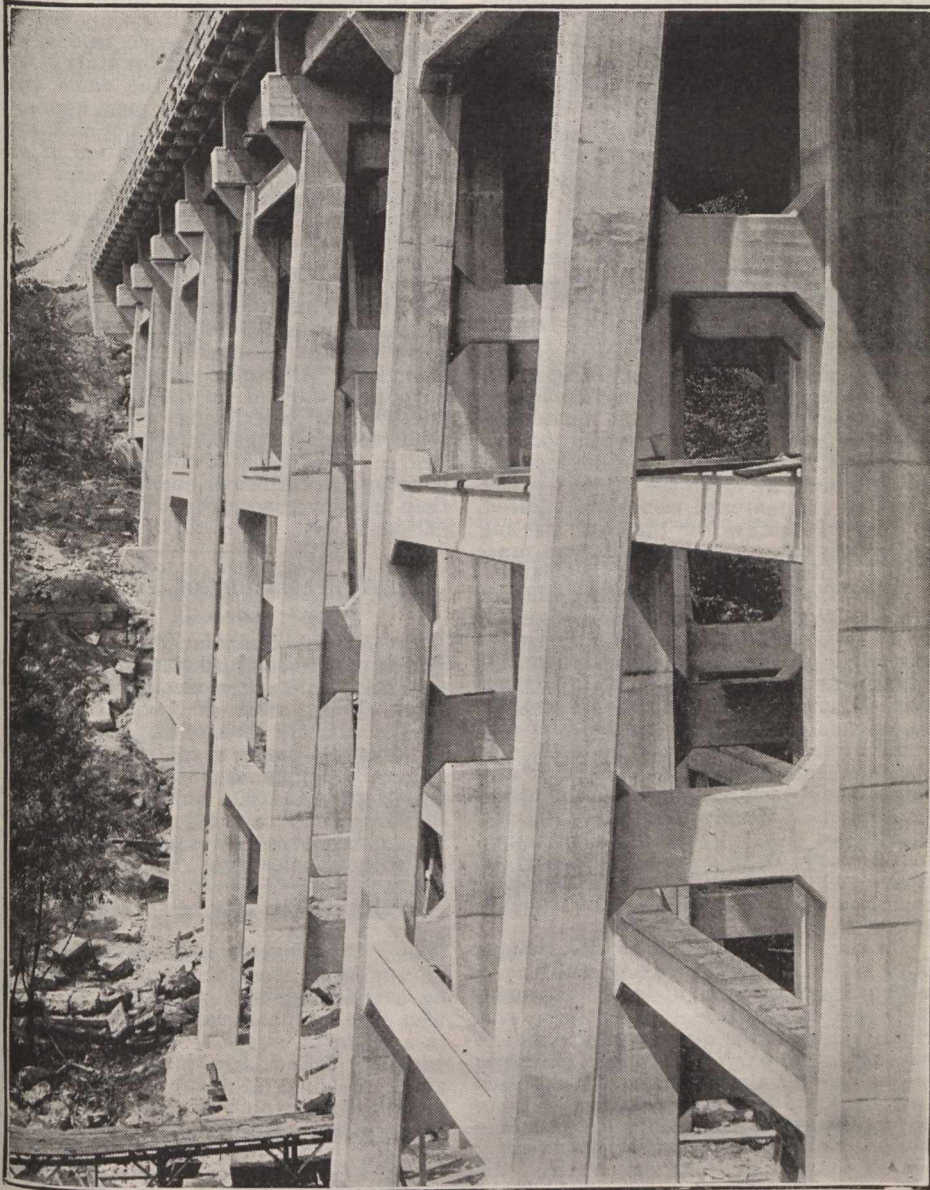
form to give mechanical bond. Each of the finished slabs weighs approximately 57 tons, and this, as well as the size of the rods, was the controlling feature in deciding span lengths.

The bridge over the Toronto Belt Line

Ry. is known as 0.9 North Toronto Sub-division, and is similar in general elevation to the Reservoir ravine bridge as well as in length and height. It has the same number of towers and abutments.

Both bridges were designed to carry the heaviest locomotives in existence, with a considerable margin of safety, and are epoch-making in bridge engineering inasmuch as they have demonstrated that

attempted; the spans of these two structures are each from 35 to 37 ft. long. These spans were made possible by the employment of unit construction, by which each span was designed as two T beams, which were laid side by side on the previously built reinforced concrete, after being manufactured near the work towers. The towers are really reinforced concrete structures constructed in the usual manner by means of wooden forms built around a steel reinforcement, which was assembled previously and securely wired together. When all was in readiness, the concrete was poured by means

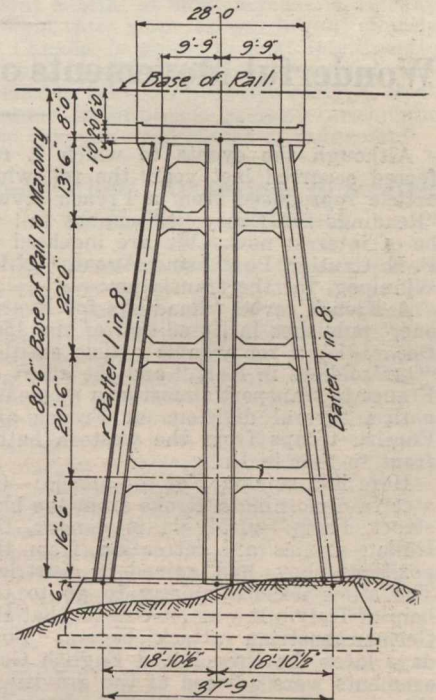


Canadian Pacific Ry. bridge over Reservoir Park ravine, near North Toronto station.

It supports, however, only 2 tracks, instead of 3. The bents consist of 3 posts, 2 outer-battered and 1 inner-vertical, and being a 2-track structure, the width is

reinforced concrete can take the place of steel for a very large number of permanent bridges.

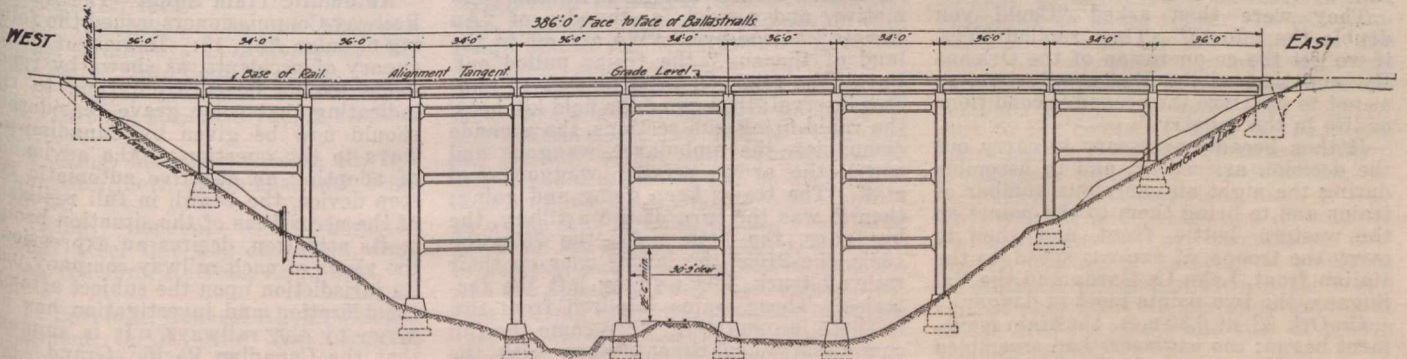
The length of the individual spans and



Bent No. 7 of Canadian Pacific Ry. bridge over Toronto Belt Line Ry. ravine.

of long spouts which led in several directions from the main mixing tower. The pouring of the concrete was maintained as continuously as possible until a whole tower was completed. This work was done during the winter, when the temperature was below freezing; it was performed inside of what was virtually a building erected to maintain a suitable temperature around the newly deposited concrete until it was out of danger of being damaged by frost.

The method employed in the erection of the reinforced concrete spans is specially interesting. Each slab, as a unit, weighed 55 tons, which was the limit load



Canadian Pacific Ry. bridge over Toronto Belt Line Ry. ravine, between Leaside Jct. and North Toronto.

correspondingly narrower. There are 2 narrow sidewalks for railway employes, protected by reinforced concrete posts and rail fence of same general character as the other bridge.

the details of their construction are claimed to be unprecedented in the engineering world. It is said that previous to this no reinforced concrete beam with a length of more than 25 ft. had been

that could be handled by the C.P.R. 100-ton standard wrecking crane. The crane engaged handled no less than 110 slabs, each 55 tons in weight, or in all something like 6,000 tons, and all this was

done without a single mishap to either men or material. Another remarkable feature is that both structures were built without interruption from the beginning of June, 1917, to the beginning of July, 1918, which was a shorter period than would have been required to manufacture and erect similar structures in steel. Passenger and freight traffic was continued without interruption during the progress of the work.

Both works were executed under the supervision of J. M. R. Fairbairn, Assistant Chief Engineer, Eastern Lines, now Chief Engineer of the entire C.P.R. sys-

tem, the designs being made by P. B. Motley, Engineer of Bridges, and the work was carried out under J. H. Barber, Engineer in Charge. The contractors of bridge 1.8 were Wells and Gray, Ltd., and for bridge 0.9 the Dominion Construction Co. The two steel trestles were removed by James Finley, structural contractor, Tweed, Ont. The temporary trestle over the reservoir ravine was erected by C.P.R. forces.

Work was started on the temporary trestles and grading, July 16, 1917, and the second track was put in operation July 4, 1918.

Wonderful Movements of Troops by French Railway.

Although the events to which it referred occurred last year, the following article reproduced from a French revue, "Readings for Everyone," cannot fail to be of interest now. We are indebted to F. E. Gautier, Purchasing Agent, C.N.R., Winnipeg, for the translation:—

A French revue, "Readings for Everyone," publishes in its edition of the 15th Dec., 1917, a remarkable article entitled "Our soldiers in Italy," and the effort of France to transport almost at a moment's notice, several divisions of French and English troops from the western battle front to that in Italy.

Here is a summary of the article:—On a certain morning a stroke from the blue struck Paris:—"Italy is in danger, the Italian armies are retreating from the positions they had gained in Austria." The allies decided quietly to go to the help of Italy. It was on Oct. 23 that the German-Austrian attack began. Four days later the French and English Governments were advised of the gravity of the situation. The English Ambassador in Paris received instructions to offer Great Britain's fullest co-operation. The General in Chief of the French armies, the managers and chief engineers of the railways were summoned to Paris by telegraph. A meeting was held at 4 p.m. and by 6 o'clock the whole plan of assistance had been formulated. The military general staff instructed the division commanders and issued orders as to the immediate mobilization of different units.

The railway managers were asked: "Can you in 24 hours assemble sufficient material so as to throw 120,000 men over the Alps?" and the answer was "If necessary, we will do it in 18 hours." They were told to go ahead, and in 20 minutes the orders were issued to the different railways.

They were then asked "Could you double the effort?" They replied "Yes, if we get the co-operation of the Orleans Ry. and that of the Eastern System, so as not to paralyze the economic conditions of life in the country."

It then became necessary to carry out the decision arrived at, and to assemble during the night an enormous number of trains and to bring them to the points on the western battle front, and then to carry the troops, at express speed, to the Italian front, Lake La Garda and the Val Sugana, the two points most in danger.

On Oct. 22, at 6.30 a.m., the train movement began; the engineers had assembled in the office of the chief engineer; the time tables were established, a statement made out of all the cars and locomotives available; then the wires were kept hot. Twelve thousand railway carriages and 500 high speed locomotives were on their way two hours later; for the northeastern

frontier, at full speed. Everything in the way of traffic not absolutely necessary, was cancelled; every station master received definite instructions; every locomotive house, every department, knew exactly the minute at which the services of the men and the material would be required, so that 24 hours after the first meeting of the war council, 12,000 cars were practically behind the battle front in France.

Now what about the military side of the situation? The units were fighting or in battle array, while the trains were spreading northeast to embark them. It is not wise to speak of the military organizations at the front, but this can be said: as soon as a train arrived, the staff sergeants went to work and with a piece of chalk indicated very clearly, on each carriage, where each regiment, each company or section belonged; there were 40 cars to a train; this train carried a battalion, one battery of 75's, a half battery of heavy artillery, with the necessary ammunition for men and guns, and a squadron of aviators.

On the evening of Oct. 28, the general staff had instructed the army staffs as to which divisions were to leave. Locomotives and still more locomotives, with their trains of carriages, began to arrive, so that at 4 p.m. thirty-eight complete trains were on six large side tracks which had been built in the meantime. Long before the arrival of the trains, every man had his orders as to what he was to carry on his journey to Italy; the work of the non-commissioned officers was admirable. The temporary station was ablaze with electric reflectors. The first battalions started for the trains, and so perfect were the arrangements that every man stood in front of the particular carriage he was to occupy. Then at a bugle call all got on board, then a whistle from the locomotive, and amidst a thunder of "Au Revoir," "Good-bye," "We are off to the land of the sun," the trains pulled out. Battalions followed battalions at 10 minutes interval; then came the field kitchens, the rapid firing gun sections, the grenade companies, the ambulance waggons and corps, the army service waggons and staff. The trains keep going and going; then it was the turn of the artillery, the big guns, the little ones, the 75's, the 155's, the 210's, the larger ones on their railway truck, just as they left the factories. These trains required from two to three locomotives. Then came the full commissary department corps with the food. The night was well advanced when the last red light, on the last train, disappeared in the darkness. The speed was 35 kilometres an hour. The first train reached its destination on Nov. 2 on the Italian battle front at Asiago. Two trains carried the material necessary for

the depot commissariat, all the food for 180,000 men, bread, flour, fish, wine, etc. It takes 6,000 head of cattle a month to feed the troops; 30 cars a day are required to transport supplies of all sorts, but of this the censor will not let us say.

All of the above relates only to the transportation of the French troops, but what of the English effort for Italy? The French railways during the same time furnished the transport for men, ammunition, food, etc., etc. We are not acquainted with the military organization of our allies, but they performed the same feat. It was by thousands that their men went to Italy, and the French railways transported them and their equipment. The feeding alone of such an enormous number of allied troops in Italy, as well as the horses, and the continuous supply of ammunition, is a problem in itself. Then there are the returning trains with the wounded. All these great movements have been carried on quietly, smoothly, and without interfering with the daily requirements of the civilian population of France. Few know of the real hard work done by our railways and the difficulties they must overcome, often at a few hours' notice.

An Appreciation of J. E. Quick.

The Eastern Canadian Passenger Association unanimously adopted the following resolution at its last meeting:—Whereas J. E. Quick, after 47 years continuous service with the lines of the Grand Trunk Ry. System, has retired from service as General Baggage Agent, under the company's pension rule, now be it resolved, that this association express to Mr. Quick its most sincere regret at the severance of business ties that have existed for many years, and the equally sincere hope and wish that he may be spared for many years to come to enjoy the fruits of his labor. Mr. Quick's instinctive gentility, unvarying courtesy and kindly disposition have endeared him in the hearts of all who have been associated with him, either in a business or social way; his dealings with his fellow men have always been along the lines of justice and right and devoid of any taint of selfishness or self aggrandizement and his judgment of the soundest. His withdrawal from the field in which he has so long been a leader and active worker will be keenly felt by those who know his sterling worth, ability, and willingness at all times to put his shoulder to the wheel, or reach out a hand to assist any in distress or need of help.

Automatic Train Stops.—The Board of Railway Commissioners issued the following circular Aug. 13:—In view of the frequency of accidents, as shown by reports made to the board from time to time, indicating that some grave consideration should now be given by Canadian railways to the question of the advisability of adopting an effective automatic train stop device, the board, in full realization of the necessities of the situation brought to its attention, desires an expression of the views of each railway company under its jurisdiction upon the subject after full consideration and investigation has been given by the railways. It is suggested that the Canadian Pacific, Grand Trunk, Michigan Central, Canadian Northern, St. Lawrence & Adirondack, Grand Trunk Pacific, and Toronto, Hamilton & Buffalo Railways should appoint a special committee to consider the matter, a report as to progress to be made to the board within 90 days.

Birthdays of Transportation Men in September.

Many happy returns of the day to:—
 W. B. Bamford, District Freight Agent, C.P.R., Toronto, born at Belleville, Ont., Sept. 10, 1863.
 G. T. Bell, Passenger Traffic Manager, G.T.R., Montreal, born there, Sept. 7, 1861.
 W. H. B'ggar, K.C., Vice President and General Counsel, G.T.R., and G.T.P.R., Montreal, born at The Carrying Place, near Trenton, Ont., Sept. 19, 1852.
 E. J. Blais, Foreman Tinsmith, Canadian Government Railways, Transcona, Man., born Sept. 26, 1876.
 E. R. Bremmer, ex-Division Freight Agent, Ottawa Division, G.T.R., Ottawa, born at Toronto, Sept. 9, 1875.
 M. H. Brown, District Freight Agent, Ontario District, C.P.R., Toronto, born at Victoria Square, Ont., Sept. 2, 1866.
 W. B. Bulling, ex-Assistant Freight Traffic Manager, Eastern Lines, C.P.R., born at Montreal, Sept. 16, 1858.
 W. E. Burke, Assistant Manager and Director, Canada Steamship Lines, Ltd., Toronto, born at Belleville, Ont., Sept. 23, 1881.
 A. D. Cartwright, Secretary, Board of Railway Commissioners, Ottawa, born at Kingston, Ont., Sept. 30, 1864.
 A. S. Dawson, M.Can.Soc.C.E., Chief Engineer, Department of Natural Resources, C.P.R., Calgary, Alta., born at Pictou, N.S., Sept. 6, 1871.
 H. B. Dufief, Assistant Solicitor, Grand Trunk Pacific Ry., Winnipeg, born at Washington, D.C., Sept. 16, 1883.
 W. E. Duperow, General Passenger Agent, Grand Trunk Pacific Ry., Winnipeg, born at Stratford, Ont., Sept. 4, 1872.
 C. B. Foster, Assistant Passenger Traffic Manager, Eastern Lines, C.P.R., Montreal, born at Kingston, N.B., Sept. 30, 1871.
 G. J. Fox, Superintendent, Calgary Division, Alberta District, C.P.R., Calgary, Alta., born at Montreal, Sept. 24, 1883.
 R. S. Gosset, Auditor of Disbursements, Canadian Northern Ry., Toronto, born there, Sept. 28, 1879.
 E. Goulet, Agent, C.P.R., New Westminster, B.C., born at Quebec, Que., Sept., 1865.
 D. W. Hatch, ex-Travelling Agent, Atchison, Topeka & Santa Fe Ry., Montreal, born at Bedford, Que., Sept. 1, 1841.
 W. B. Howard, District Passenger Agent, C.P.R., Toronto, born at Chatham, N.B., Sept. 15, 1877.
 W. R. Howard, dispatcher, C.P.R., Brownville Jct., Me., born at St. Andrews, N.B., Sept. 14, 1871.
 J. E. Hutcheson, General Manager, Montreal Tramways Co., Montreal, born at Brockville, Ont., Sept. 15, 1858.
 G. C. Jones, Assistant to President, G.T.R., Toronto, born at Clyde, N.Y., Sept. 24, 1869.
 C. B. King, Manager, London St. Ry., London, Ont., born at Galena, Ind., Sept. 12, 1871.
 S. King, London, Ont., Director, National Steel Car Co., Hamilton, Ont., born at Thetford, Norfolk, Eng., Sept. 12, 1853.
 R. E. Larmour, General Agent, Freight Department, C.P.R., New York, born at Brantford, Ont., Sept. 26, 1868.
 C. D. MacKintosh, Superintendent, Lethbridge Division, Alberta District, C.P.R., Lethbridge, Alta., born at Auckland, New Zealand, Sept. 24, 1882.
 W. A. Mather, Assistant General Superintendent, British Columbia District,

C.P.R., Vancouver, born at Oshawa, Ont., Sept., 1885.
 M. B. Murphy, Manager, Winnipeg Joint Terminals, Winnipeg, born at Napa, Cal., Sept. 11, 1866.
 J. Paul, District Freight Agent, Canadian Northern Ry., Winnipeg, born in Euphrasia Tp., Ont., Sept. 13, 1858.
 W. D. Robb, Vice President, G.T.R., Montreal, born at Longueuil, Que., Sept. 21, 1857.
 H. T. Ruhl, Engineer, Maintenance of Way and Structures, Delaware & Hudson Co., Albany, N.Y., born at Mifflinburg, Pa., Sept. 29, 1882.
 A. Scott, Resident Engineer, Prince Edward Island Ry., Charlottetown, P.E.I., born at Kirkcaldy, Scotland, Sept. 6, 1884.
 J. M. Silliman, Resident Engineer, London Division, Ontario District, C.P.R., London, Ont., born at Easton, Pa., Sept. 8, 1885.
 H. A. Young, formerly Ontario Storage & Cartage Co., Ltd., Toronto, now of Buffalo, N.Y., born at Brooklyn, N.Y., Sept. 1, 1864.

Advance in Freight Rates Compared with Advances in Goods.

The Canadian Railway War Board announced recently that a detailed study had been undertaken which will show not merely the increase in the cost of railway haul in the manufacture of common necessities of life, but will go into the actual cost of the labor and raw materials in these articles with a view to proving that while railway rates have increased possibly 30% since the war began, while railway costs of operation have increased by a larger percentage, manufacturers have actually increased their rate of profit out or all proportion to the actual increase in their cost of production.

One of the board's officials said in an interview recently:—"It is just about time that the public was shown who are the real profiteers at public expense. If all service, and if all production in Canada, was as efficiently carried on, if the standards were as high and the profits as low as they are on Canadian railways—there would be much less need for worrying over the cost of living. Railway service in Canada is cheaper than in any other country in the world except one—India, which is cheaper on account of the cheap labor.

"Washington has had to spoonfeed just over \$203,000,000 to keep the U.S. railways alive. It has had to boost not only freight, but passenger rates, curtail service, cut out conveniences and put up with congestion at the same time. This is the inevitable result of their previous diligence in paring railway earnings to the bone, insisting upon feverish competition, and enacting into law almost every and any crank idea that some political incompetent could dream of for harassing and embarrassing the managements. Control as we have it in Canada does everything good for the public that the U.S. aimed to achieve, but there are a few fanatics who are apparently ready to wreck Canadian railway efficiency, upon the maintenance of which the country's business depends, by following the methods the U.S. people are repenting so bitterly these days.

"Listen to this list: Boots and shoes have risen in price since the war began, 100%; beef, 35%; clothing, 50%; coal, 100%; cordwood, 100%; flour, 90%; gaso-

line, 100%; hardware, 100%; pork, 75%; sugar, 80%; and tobacco, 50%. The roads are paying now a 100% higher pay-roll; 210% more for axles; 110% for brass castings; 200% for malleable castings; 100% for coke; 157% for iron and steel bars; 153% for fir; 80% for oak; 100% for pine and spruce; 130% for oil fuel at Montreal; 32% for oil at Vancouver; 50% for kerosene; 125% for steel tires; 100% for cleaning waste; 200% for lubricating waste; 90% for cast iron wheels—and then the precious private profiteer, whose prices, profits and standards of workmanship or quality are not fixed by government regulation, has the hardihood to talk about a total of 30% increase in railway freight rates since the war began! Surely if Canada is going to deal intelligently with her post-war problems we must commence to take at once some early A. B. C. lessons in ordinary business arithmetic and common uprightness of judgment."

Regulations Requiring Reporting of Railway Accidents.

The Board of Railway Commissioners passed general order 244, July 26, as follows:—Upon the report of the board's Chief Operating Officer to the effect that railway companies are not fully complying with the requirements of the Act in reporting accidents to the board, and pointing out the desirability of a uniform practice on the part of railway companies in making returns of accidents, and upon his recommendation, it is ordered that every railway company be required within six days after the head officers of the company have received information of the occurrence upon the railway belonging to it of any accident, attended with personal injury to any person using the railway, or to any employe of the company, or whereby any bridge, culvert, viaduct, or tunnel on or of the railway has been broken or so damaged as to be impassable or unfit for immediate use, to give notice thereof to the board, such notice to be addressed to the board's Chief Operating Officer and to be made on hard paper in the forms A (relating to highway crossing accidents only) and B (relating to accidents other than those occurring at highway crossings, schedules to this order; such reports to be limited to accidents caused by transportation, that is to say, where train movements are involved, and not to apply to accidents occurring in railway shops or other manufacturing establishments, the property of railway companies.

2. In the case of derailments, collisions, and highway crossing accidents attended by personal injury, and in the case of any damage to any bridge, culvert, viaduct, or tunnel so as to render the same impassable or unfit for immediate use, the conductors or other employes of every such company shall, at the expense of the company and at the same time they report to the company, send to the board, addressed to its Chief Operating Officer, a telegram containing the following information:—Date and place, name of railway, number and description of train or trains, locomotive or locomotives concerned, number of passengers, employes or others killed and injured, a short and concise statement of the apparent cause of the accident, name and title of person sending report.

3. That where any such company grants or has granted running rights, or the joint use of its line or any portion thereof, to another company and the last named company is concerned in an accident occurring on said joint section re-

quired under this order to be reported, both companies shall report to the board as herein provided.

4. That every such railway company place before their conductors or other employes affected by the order a copy of

paragraph 2, directing said conductors or other employes to comply directly with the requirements of the provision.

5. That general order 39, circular 110, with supplements 1 and 2, circular 131, and circular 161 be rescinded.

Railway Operating Difficulties in Winter.

By G. Beckingham, Superintendent of Track, G.T.R., Montreal.

During last winter almost all railways in North America suffered from extreme cold and snow; the delay to traffic was very great, to say nothing of the enormous expense in endeavoring to keep the line open. Why should there have been such delay to traffic, and is there a means to prevent it?

There are many maintenance officials on railways today who have been connected with railways for 30 years or more. Many of these officers can call to mind when our locomotives weighed from 30 to 40 tons, and at that time the railways did not experience the interruption to traffic met with last winter. Some of our locomotives today weigh 446,000 lb. with a steam pressure of 220 lb., and with this large size locomotive and high steam pressure, railways in winter time are not operated more successfully than they were with the small locomotive of 30 years ago, except, of course, that the locomotives haul a greater tonnage. This being the case, there must be a reason which did not exist 30 years ago for traffic being delayed during the winter. Any person with a knowledge of operating trains in winter in this northern country, would naturally think with the difference in locomotives of the present, compared with 30 years ago, that the trouble in running trains should be greatly eliminated.

In the first place, the men responsible for the keeping open of the road 30 years ago, were men who thoroughly understood their work, whereas in a great many instances today this work is handled in an altogether different method. Years ago, every man, regardless of his occupation, felt a certain responsibility, and everything in his power was done to keep the lines open for traffic. It would not be right or proper to say there are not some men of this class on railways today, but they are not in the same numbers as in years gone by, and with the improved equipment we have today, it would be well for stockholders of railways if men were of the same caliber as 30 years ago.

There is another reason for operating traffic so successfully 30 years ago, and that was some railways were better equipped with snow ploughs and flangers than they are today. Locomotives in those days were equipped with flangers. These flangers were placed on the pilot and were operated by the locomotive man by a lever. If our locomotives today were equipped with flangers as they were in days gone by, the interruption to traffic through snow would be reduced to almost nothing. In addition, it would be necessary, of course, to run wing ploughs over the line from time to time, or as often as would be required to keep the snow winged back from the track 6 or 7 ft. If this were done the flanger on the locomotive would clear the snow sufficiently from the rail to permit the locomotive to haul its train.

It has been said that railways should not operate snow flangers in front of locomotives for the reason that they are dangerous, in that they would remove a

torpedo from the rail if placed there in case of danger. If this is the case, the same would apply by a plough run ahead of the locomotive. In any event, I do not think railways can attribute many accidents to torpedoes being removed from the track by the flangers on locomotives. I am sure if railways today could go back 30 years and operate locomotives not equipped with flangers, the interruption to traffic would be so great there would be weeks at a time the line would be tied up.

There is one other feature very necessary in connection with the successful operation of snow ploughs and flangers; that is, a special siding should be provided for them at terminals where this equipment is kept. This siding should be constructed with a pit underneath track, which would permit of ploughs and flangers receiving proper inspection. Immediately when a plough arrives it should be placed on this track. In addition to its being thoroughly inspected, snow and ice should be cleaned away. In other words, everything necessary, including turning the plough, should receive immediate attention, on its arrival. There are very often serious delays due to this work being neglected.

It is also important that sufficient men trained to operate ploughs should know the line thoroughly. This is very necessary in order that the plough be operated successfully. When starting out with a plough, the conductor, locomotive man and man operating the plough should have it thoroughly understood as to the speed at which they wish to run, and to see that all concerned understand the signals, etc., as a mistake on the part of the locomotive man or man operating the plough might cause a very serious accident. There is no work on a railway more hazardous or of more importance than operating a wing plough ahead of a locomotive. Dispatchers and all concerned should exercise the greatest care while ploughs are being run in this manner.

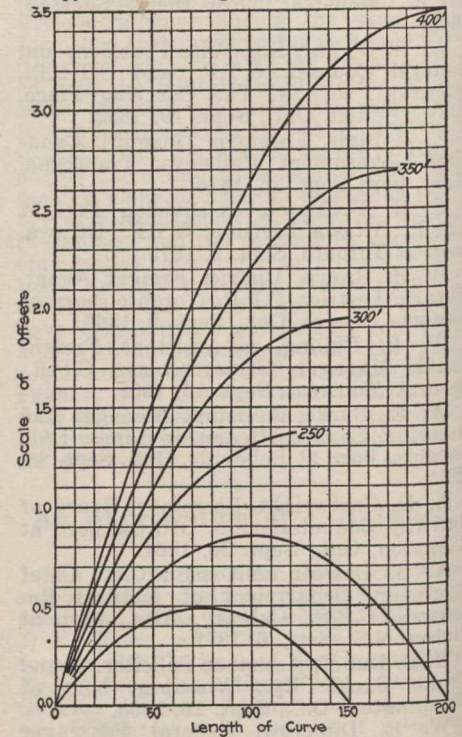
A ballast leveller can be used to good advantage throughout the winter in yards, to clear snow from the tracks instead of loading up on to cars. There are cases where a leveller has cleared as many as 10 tracks, moving the snow to the outside. It is not always possible to use the leveller owing to local conditions, but where it can be used to advantage it does the work quickly and reduces expenses fully 75%.

Women for Railway Work.—Washington, D.C., press dispatch, Aug. 13:—Thousands of women will be drawn into railway employment within the next few months, to take the place of men entering the army and going to other industries, according to plans now being formulated by the U.S. Railroad Administration. Women are to be employed extensively as clerks in railway offices, as expert accountants, ticket sellers, station agents, crossing watchmen, car cleaners and to some extent as track laborers.

Laying out Railway Curves from Long Chords.

By H. N. Graham, Penticton, B.C.

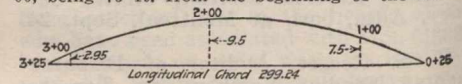
The accompanying diagram I have found very useful on railway survey work. It enables the user to lay out a simple railway curve by means of offsets from the long chord, where great accuracy is not required, such as in heavy brush or in swampy land. The diagram is for a 1° curve; for



other curves the offset should be multiplied by the degree of curvature.

The length of curve to which the long chord applies is shown by the curved lines on the diagram. The scale of offsets is read on the left-hand scale.

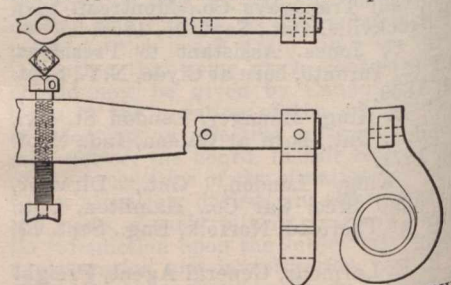
Following is an example: For a 5° curve, using a long chord of 300 ft., with the beginning of the chord at sta. 0+25, the first offset, to sta. 1+00, being 75 ft. from the beginning of the chord,



is 1.5 × 5 or 7.5 ft.; the second offset, to sta. 2+00, being 125 ft. from the end of the chord, is 1.9 × 5 or 9.5 ft.; the third offset, to sta. 3+00, being 25 ft. from the end of the chord, is 0.59 × 5 or 2.95 ft., as indicated in the smaller sketch. Engineering News-Record.

An Arch-Tube Straightener.

The accompanying sketch illustrates a device used in straightening arch tubes for locomotives. It consists of a wrought-steel bar 4 ft. long, tapering from 3½ in. at the center to 1½ in. at the ends, and is ⅞ in. thick. This bar is provided

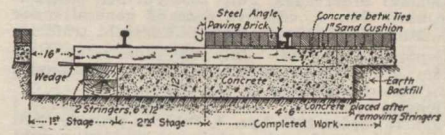


with a hook at each end and a setscrew in the middle. To operate it the tube is set on the end hooks and is straightened by pressure brought to bear by the setscrew. This device has been in use for some time on several railways, and has been found to be a very simple and effective method for straightening arch tubes.

Canadian Pacific Railway's Honor Roll 37.

Angell, Joseph	Specialist	Angus	Gassed
Atkinson, James	Storekeeper	Bredenburg	Died of wounds
Atkinson, James M.	Trainman	British Columbia Dist.	Killed in action
Berry, Ernest M.	Yardman	Calgary	Presumed dead
Boles, Ivo	Assistant agent	Treherne	Wounded
Caley, Alfred	Clerk	Montreal	Killed in action
Childs, Geo. M.	Boilermaker's helper	Lambton	Wounded
Coleman, Cecil C.	Messenger	Edmonton	Wounded
Copeland, Thos.	Locomotive fireman	Revelstoke	Killed in action
Daly, Milfred J.	Apprentice	Winnipeg Shops	Wounded
Delaney, Reginald J.	Clerk	Regina	Killed in action
Devane, Guildford	Upholsterer	Mount Stephen House	Killed in action
Doyle, Frank	Bulldozer man	Winnipeg	Wounded
Dykes, Samuel	Clerk	Montreal	Presumed dead
Earl, W.	Miner	Lethbridge	Wounded
Edlund, Carl O. L.	Assistant agent	Clareholm	Wounded
Edwards, Mervyn	Clerk	Calgary	Died of wounds
Flyan, Edward	Wiper	Weyburn	Wounded and missing
Fowler, John	Inspector	Vancouver	Wounded
Fox, George A.	Cook	Vancouver	Died of wounds
Francis, David	Checker	Kenora	Killed in action
Grignon, Lorenzo	Car repairer	Glen Yard	Presumed dead
Grundy, James	Porter	Moose Jaw	Wounded
Hall, Bernard	Apprentice	Winnipeg	Wounded
Hall, Robert B.	Clerk	Montreal	Killed in action
Hathaway, Albert	Wiper	Moose Jaw	Killed in action
Hoall, Charles W.	Springmaker	Ogden Shops	Killed in action
Holmes, John E.	Operator	Winnipeg	Wounded
Kelly, Thomas	Porter	Port McNicoll	Killed in action
Kinnear, William	Case washer	Angus	Killed in action
Lauder, Robert	Clerk	Winnipeg	Wounded
Lester, Joshua	Tuber	Wynyard	Died of wounds
Livock, John C.	Machinist	Angus	Killed in action
Longpre, Maxime O.	Waiter	B.C. Coast Service	Died of wounds
McDonald, Malcolm	Waiter	B.C. Lake Steamers	Presumed dead
Mann, James	Storekeeper	Estevan	Wounded
Marks, Albert	car repairer	West Toronto	Wounded
Mattheson, Thos.	Wiper	Lethbridge	Died of wounds
Meadows, Henry F.	Storeman	McAdam	Wounded
Moran, Richard	Helper	Angus	Died of wounds
Muske, Loftus G.	Fitter	Chapleau	Died of wounds
Poole, Thomas	Helper	Winnipeg Shops	Killed in action
Porteous, Hubert B.	Stenographer	Montreal	Wounded
Puncher, Gabriel S.	Baggage man	North Bay	Wounded
Radford, Arthur G.	Bookkeeper	Vancouver	Gassed
Reid, James	Timekeeper	Vancouver	Killed in action
Riddell, James D.	Steward	Winnipeg	Killed in action
Rolfe, Frederick C.	Car cleaner	B.C. Coast Service	Wounded
Samson, John	Chief clerk	Winnipeg	Wounded
Sanger, George	Clerk	Montreal	Wounded
Saunders, Walter F.	Clerk	Angus	Wounded
Sawkins, Frederick F.	Locomotive fireman	Toronto	Wounded
Scott, Edward	Locomotive fireman	Kenora	Wounded
Seddon, Thomas E.	Messenger	Calgary	Shell shock
Shuttleworth, Wm. J.	Stenographer	Brandon	Killed in action
Simpson, Harold I.	Waiter	Souris	Wounded
Slater, Edward	Section foreman	Montreal	Presumed dead
Smith, Wm. A.	Fitter	Hamiota	Killed in action
Stephens, Chas. G.	Clerk	Cartier	Wounded and prisoner
Stuart, Thomas C.	Call boy	Winnipeg	Killed in action
Surbeck, Theodore A.	Rodman	Calgary	Killed in action
Sussams, George	Car repairer	Weyburn	Wounded
Thomas, Albert	Waiter	Winnipeg	Killed in action
Thomas, William P.	Apprentice	B.C. Lake Steamers	Killed in action
Veziua, Cyril	Locomotive fireman	Ogden Shops	Wounded
Weavers, Frederick	Section foreman	Chapleau	Wounded
Webb, William	Boilermaker's helper	Provost	Presumed dead
		Winnipeg	Wounded

The timber stringers are then removed, and concrete is filled under and between the ends of the ties. A small rib or stringer of concrete is laid along the inside of each track rail to carry the steel angle which forms the flangeway guard, this angle being anchored to the concrete. A 1 in. sand cushion is then spread on

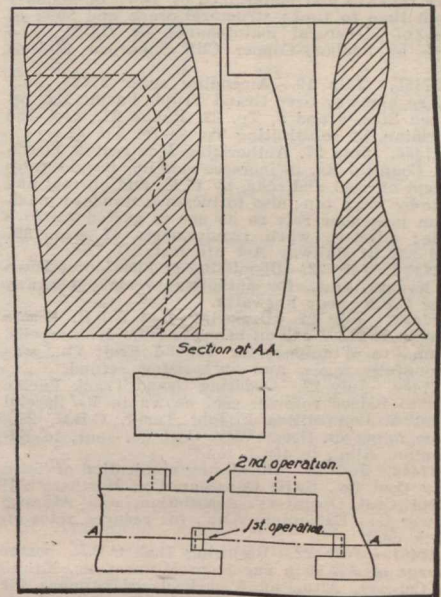


the concrete base and the brick paving is laid and grouted.

Traffic is maintained without interruption, but all trains are required to slow down in passing over the work. It is stated by C. M. Buck, Division Engineer at Topeka, Kan., that as the adjacent roadbed has 12 in. or more of stone ballast, the concrete crossing does not make a noticeably hard-riding spot in the track even though trains often pass over outlying streets at a speed of 20 miles an hour.—Engineering News Record.

Die for Forging Hand Brake Ratchets.

The accompanying plan shows a die used at the C.P.R. shops at Ogden, Alta., in an Ajax machine for forging hand brake ratchets. A cylinder cover grinder



is made up of a 9½ in. Westinghouse air pump steam cylinder and top head, with extension piston and attachments. It is operated by compressed air, and makes a very effective cylinder cover grinder. The setting and operating can be seen from the plan without explanation.

St. John & Quebec Ry. Financing.—The New Brunswick Government has issued writs against J. K. Flemming, former premier, to recover \$100,000; W. B. Tennant, to recover \$133,000, and T. Nagle, to recover \$20,000, money alleged to have been paid to them for political influence out of funds provided by the government for building the St. John & Quebec Ry. A commission of investigation found that these sums had been paid to the persons named by A. R. Gould, the then President of the company, and by contractors and sub-contractors, thus unduly enhancing the cost of building the railway.

United States Exports Control Committee.

The Secretary of War, the Secretary of the Navy, and the Director General of Railroads, have, on behalf of the U.S. Government, created the Exports Control Committee, consisting of Maj. Gen. G. W. Goethals, U.S. Army, representing the War Department; Rear Admiral C. J. Peoples, U.S. Navy, representing the Navy Department; G. D. Ogden, representing the Railroad Administration; P. A. S. Franklin, representing the Shipping Control Committee; D. W. Cooke, representing the traffic executives controlling allied traffic.

The committee, which has its headquarters at Washington, is to inform itself as to the probable amount of freight which must be exported for the prosecution of the war; how this war freight can best be routed through the various ports; how much of other essential export traffic has to be handled, and the amount of local traffic necessary for each port.

The committee will have authority to select the port to which specified freight shall be transported for trans-shipment overseas for the use of the War and Navy Departments, the allied governments, and others. The committee will also decide

the distribution of the combined amount of all exports, as between the various ports, so as to facilitate its handling at and avoid congestion in any one port.

Railway Crossings Have Concrete Base.

Paved street crossings on the Atchison, Topeka & Santa Fe Ry. frequently have the tracks supported on a 12 in. concrete base, and have concrete filled between the ties to carry the paving. Brick is used mainly for the paving, as it more generally conforms to the street construction, but a concrete surface is used in some cases. The general design of the brick-paved crossings is shown in the accompanying drawing.

To reconstruct a crossing on this plan, excavation is first made along and under the ends of the ties to a depth of about 13 in. On each side two timber stringers are placed, just outside the rails, and are wedged up to give the ties a firm bearing. In the middle of the track, excavation is made between and under the ties to a depth of 12 in. This space is filled with concrete, which is packed under the ties and is then allowed to set for two weeks before the load is transferred to it.

Orders by Board of Railway Commissioners for Canada.

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

General order 243. July 25.—Further postponing until Oct. 1, effective date of general order 230, May 17, re interswitching of freight traffic.

General order 244. July 26.—Specifying time when, and manner in which railway companies shall report accidents to the board.

General order 235. Aug. 8.—Amending clause 4 of general order 186, Apr. 4, 1917, to provide that, until further order the minimum carload weight of flour shall be 50,000 lb. when loaded in cars of 60,000 or 70,000 lb. capacity.

General order 246. Aug. 12.—Permitting railways in Canada engaged in eastbound transcontinental traffic to increase commodity rates from Pacific coast terminals in B.C. This order is given in full on another page.

27448. July 18.—Authorizing C.P.R. to build spur for Imperial Oil, Ltd., Vulcan, Alta.

27449. July 17.—Extending to Sept. 30 time within which C.P.R. shall build standard 2 station at Hayter, Alta., according to order 26140, May 22, 1917.

27450. July 18.—Approving clearances of coal and tipples works for Edmonton Collieries, Ltd., on Great West Coal Co.'s spur, Clover Bar, Alta.

27451. July 19.—Approving Central Vermont Ry. resolution June 28, authorizing N. W. Hawkes, General Freight Agent, to issue tariffs of tolls.

27452. July 18.—Dismissing application of residents of Massett, B.C., for order directing Grand Trunk Pacific Coast Steamship Co. to reduce freight rates from Vancouver and Prince Rupert, B.C.

27453. July 17.—Relieving Canadian Northern Ry. from providing further protection at highway just east of Cardinal, Man.

27454. July 18.—Apportioning cost of maintenance of bridge over C.P.R. on Nelson St., Sudbury, Ont., as follows:—actual planking of surface renewed and maintained by Town of Sudbury from time to time; structural work and 80% of cost of structural maintenance by C.P.R., and 20% by Sudbury-Copper Cliff Suburban Electric Ry.

27455. July 19.—Amending order 27423, July 17, re highway over Grand Trunk Pacific Ry. between Secs. 5 and 6, Tp. 32, Range 27, west 2nd meridian, by substituting Tp. 34 for Tp. 32.

27456. July 27. Authorizing Montreal & Southern Counties Ry. to increase existing freight rates except on coal and coke, by 15%, and on coal and coke by 15c a ton; also to increase standard maximum passenger rate so as not to exceed 2.875c a mile; effective when requirements of secs. 327 and 331 of Railway Act are met.

27457. July 22.—Dismissing application of Town of Kenora, Ont., for authority to make highway over C.P.R. near Keewatin.

27458. July 22.—Declaring that C.P.R. heater charge of \$15 a car on bananas from Minneapolis, Minn., to Winnipeg, for Vipond Fruit Co., was wrongfully made, and authorizing refund.

27459. July 22.—Ordering Grand Trunk Pacific Ry. to reduce rate on coal shown in its Special Joint & Competitive Freight Tariff, C.R.C. 285, from mines on Great West Coal Co. spur, to Edmonton, Alta., to 45c a ton.

27460. July 20.—Dismissing application of Twin City Coal Co., Swift Canadian Co., Northern Alberta Coal Operators' Association, and Alliance Power Co., Edmonton, Alta., for reduced rates on slack coal.

27461. July 22.—Declaring that C.P.R. heater charge of \$22.50 a car from Minneapolis, Minn., to Calgary, Alta., on 5 carloads of bananas for Plunkett & Savage was wrongfully made, and authorizing refund.

27462. July 22.—Dismissing application of Security Traffic Bureau, Minneapolis, Minn., alleging overcharge by C.P.R. on shipment from Winnipeg to Wilkie, Sask., Apr. 27, 1912.

27463. July 22.—Authorizing G.T.R. to build siding for I. Cohen, Kingston, Ont.

27464. July 23.—Authorizing G.T.R. to remove siding built under order 27134, to relay same and build additional tracks for Lindsay Factories, Ltd., Toronto.

27465. July 22.—Authorizing Canadian Northern Quebec Ry. to build siding for Canadian Ferro Alloys, Shawinigan Falls, Que.

27466. July 22.—Ordering Canadian Northern Ry. to erect fences along right of way in north half of Lots 7, 8 and 9, Con. 6, Glamorgan Tp., to be completed by Sept. 1.

27467. July 22.—Amending order 26944, Jan. 28, 1918, so as to extend express collection and delivery limits in Winnipeg.

27468. July 20.—Authorizing Canadian Northern Ontario Ry. to build temporary siding from C.P.R. to C.N.R. ice house at Leaside yard, Toronto, for stocking ice house and delivery of construction material in connection with C.N.R. yard.

27469. July 22.—Approving location of Esquimalt & Nanaimo Ry. station at Bainbridge, B.C.

27470. July 18.—Authorizing Lake Erie & Northern Ry. to operate over joint section without pilots being furnished by G.T.R., upon installation

of electric train staff system authorized by order 27180; provided that in event of electric train staff system failing to work at any time, L. E. & N. R. to stop trains before entering G.T.R. tracks and hold them until necessary repairs have been made; rules governing operation of joint system to be submitted for approval by board's chief operating officer.

27471. July 22.—Authorizing Hamilton Radial Electric Ry. to increase its standard maximum freight mileage tariff by 15%, and its carload rates on coal and coke by 15c a ton; to increase its passenger tariff from 2c to 2½c a mile, subject to limitations created by bylaws of Saltfleet Tp., Burlington Village, Nelson Tp., and Oakville, Ont.

27472. July 19.—Authorizing C.P.R. to build siding for Montreal, Light, Heat & Power Co., Montreal.

27473. July 22.—Authorizing C.P.R. to build spur for Maple Leaf Harvest Tool Co., Tillsonburg, Ont.

27474. July 23.—Approving Esquimalt & Nanaimo Ry. plan M. 846, of shelter and platform at Bowser, B.C.

27475. July 23.—Authorizing Saskatchewan Highways Department, on behalf of Colonsay rural municipality 342, to make public highway over Grand Trunk Pacific Ry., Young to Prince Albert Branch.

27476. July 23.—Authorizing Grand Trunk Pacific Ry. to build spur from G.T.P.R. and C.N.R. joint section at mileage 1053.2 Winnipeg west, in Cariboo District, B.C., to connect with Lucerne gravel pit.

27477. July 19.—Amending order 27366, June 27, by declaring that Toronto, Hamilton & Buffalo Ry. is senior to Toronto, Niagara & Western Ry. in connection with T. H. & B. R. branch near Beach Road, Hamilton, Ont., no matter when laid.

27478. July 19.—Approving plans and specifications of Southwold Tp., Ont., showing work to be done on McIntosh drain 2 under G.T.R. on east half of Lot 10, Con. 3, Southwold Tp.

27479. July 22.—Approving location of Esquimalt & Nanaimo Ry. shelter at Fanny Bay, B.C.

27480. July 25.—Ordering Canadian Northern Ry. to install standard one-car pen at Prince, Sask., with partition to divide mixed shipments of pigs and cattle; to be completed by Oct. 1.

27481. July 25.—Dismissing application of Town of Greenfield Park, Que., for order directing two limited through cars of Montreal & Southern Counties Ry. to leave Greenfield Park daily except Sundays at 6.20 and 7 a.m.; and two through cars from Montreal to Greenfield Park for Greenfield Park People only to leave Montreal daily except Sundays at 5.40 and 6.20 p.m.; and that all local cars stop at each street in Greenfield Park, including Murray and Fairfield Aves., and all Chambley and Granby cars stop at Greenfield Park.

27482. July 25.—Approving location of Canadian Northern Ontario Ry. station at Yarker, Ont.; and authorizing C.N.O.R. to rearrange tracks and cross Vanluven and Bridge Sts., and street running from Bridge to Center St., with pipe line.

27483. July 25.—Approving location of Canadian Northern Ry. station at Rainy River, Ont.; and C.N.R. to build two additional tracks across Government Road and Little St.

27484. Authorizing Toronto, Hamilton & Buffalo Ry. to build second main track at grade across certain highways in Con. 4, Barton Tp., Ont.

27485. July 25.—Authorizing C.P.R. to build spurs for James Richardson & Sons elevators, and Saskatchewan Co-operative Elevator Co., Port Arthur, Ont.

27486. July 25.—Authorizing City of Toronto to remove cattle market bridge across G.T.R. and C.P.R. east of Strachan Ave.

27487. July 26.—Authorizing Alberta Public Works Department to build highway over C.P.R. in n.e. ¼ Sec. 25, Tp. 40, Range 24, west 4th meridian; cost to be paid by Municipal District 398.

27488. July 27.—Dismissing application G. Boyer, M.P., the municipal councils of Cedars, Coteau du Lac, Coteau Station and St. Zotique Parishes and Coteau du Lac and Coteau Landing Villages for order directing G.T.R. to sell commutation tickets between Montreal and stations in Soulanges county, Que.

27489. July 25.—Authorizing C.P.R. and Hull Electric Co. to operate trains and cars over crossing at St. Hyacinthe St., Beemer, Que.

27490. July 29.—Authorizing Toronto, Hamilton & Buffalo Ry. to remove regular agent at Mount Pleasant, Ont., and close station as agency point; caretaker to be appointed to see station is kept clean and heated for passengers and care for l.c.l. and express freight.

27491. July 27.—Authorizing G.T.R. to build spur for E. Long Mfg. Co., South Orillia Tp., Ont.

27492. July 25.—Amending order 26486, Aug. 31, 1917, re highway crossing over Canadian Northern Ry. in Sec. 18, Tp. 15, Range 12, west 2nd meridian.

27493. July 29.—Ordering Canadian Northern Ry. to move station, siding and loading platform near Looma, Alta., to be completed by Sept. 1.

27494. July 30.—Authorizing C.P.R. to build spur for M. J. O'Brien, Ltd., Horton Tp., Ont.

27495. July 29.—Authorizing Lake Erie & Northern Ry. to build interchange track with Michigan Central Rd., at Waterford, Ont., and rescind-

ing order 21986, June 15, 1914.

27496. July 30.—Authorizing Canadian Northern Ry. to build spur through Blocks 81, 80 and 122, and T. Eaton Co.'s warehouse site, in Dominion Park, and cross Scarth St., Hamilton, Fifth and Sixth Aves., Regina, Sask.

27497. July 24.—Ordering Canadian Northern Ry. to extend walls of culvert opposite Marsh Engineering Works' property, Belleville, Ont., and to clean and widen ditch without prejudice to any claim C.N.R. may have under contract for construction of track by C.P.R.; work to be completed by Sept. 15.

27498. July 30.—Authorizing G.T.R. to build extension of siding for John Johnson, Vespra Tp., Ont.

27499. July 29.—Authorizing G.T.R. to build spur connecting with Grand River Ry., and using portion of its track; thence along and across Industrial St., for Dominion Tire Co., Kitchener, Ont.; and to rearrange lead and connection with main siding.

27500. July 29.—Relieving C.P.R. from providing further protection at first crossing west of West Shefford station, Que.

27501. July 23.—Authorizing Canadian Northern Ry. to build bridge over Riviere a Pierre, on Quebec & Lake St. John Ry., 57 miles from Quebec, Que.

27502. July 30.—Authorizing Saskatchewan Highways Department, on behalf of Fertile Valley rural municipality no. 205, to make highway over Canadian Northern Ry. Delisle-Elrose Branch on north boundary, Sec. 1, Tp. 28, Range 9, west 3rd meridian.

27503. July 31.—Relieving Canadian Northern Ry. from providing further protection at highway 7 poles east of mileboard 291, Hanna Sub-division, near Mecheche, Alta.

27504. July 30.—Ordering Canadian Northern Ry. to move machinery loading platform at North Battleford, Sask., and to extend freight shed 40 ft. and arrange for general waiting room not less than 20 by 23 ft., ladies' waiting room 16 by 19 ft., and lavatories flushed by city water.

27505. July 30.—Ordering C.P.R. to build 2-pen stock yard at Cairns, Alta.; to be completed by Sept. 1.

27506. July 29.—Ordering Grand Trunk Pacific Ry. to build station at Lydden, Sask., by Oct. 31.

27507. July 29.—Dismissing application of Ribstone, Alta., Board of Trade, for order directing Grand Trunk Pacific Ry. to erect station building there, and ordering G.T.P.R. to appoint station agent at Ribstone by Sept. 1.

27508. Aug. 1.—Approving Montreal & Southern Counties Ry. Standard Maximum Freight Mileage Tariff C.R.C. 33, and Standard Maximum Passenger Tariff C.R.C. 21.

27509. July 31.—Approving proposed Supplement 11 to Canadian Freight Classification 16 as submitted for approval by G. C. Ransom, Chairman, Canadian Freight Association, June 4, containing certain increased, reduced, and additional ratings.

27510. July 29.—Ordering Edmonton, Dunvegan & British Columbia Ry. to appoint caretaker at Bushby station, Alta.

27511. July 31.—Authorizing Moose Jaw rural municipality 161 to build highway over Grand Trunk Pacific Ry. between Sec. 19, Tp. 17, Range 27, and Sec. 24, Tp. 17, Range 28, west 2nd meridian, Sask., and rescinding order 21858, May 22, 1914, in so far as it requires the opening up of this crossing.

27512. July 30.—Dismissing complaint of Canadian Corrugated & Fibreboard Container Association, Toronto, against proposed increase in ratings in supplement 11 to Canadian Freight Classification 16 on bonnets and hats, trimmed and untrimmed, when shipped in fibreboard, pulpboard, or corrugated strawboard containers.

27513. July 29.—Authorizing Edmonton, Dunvegan & British Columbia Ry. to remove station agent at Cardiff, Alta., and open agency at Morinville, Alta., in lieu thereof; Cardiff to be continued as non-agency station and caretaker appointed to keep station clean and when necessary heated and lighted.

27514. July 31.—Relieving Canadian Northern Ry. from providing further protection at first crossing north of Edberg station, Alta.

27515. Aug. 6.—Approving agreement, July 18, between Bell Telephone Co. and Scottish Canadian Magnesite Co., Argenteuil County, Que.

27516. Aug. 6.—Authorizing Canadian Northern Ry. to build siding for N. T. Turgeon & Co. in Portneuf Parish, Que.

27517. Aug. 1.—Approving Hamilton Radial Electric Ry. standard maximum freight mileage tariff C.R.C. 5, and standard maximum passenger tariff C.R.C. 4, subject to compliance with Secs. 327 and 33 of Railway Act.

27518. July 31.—Amending Order No. 27228, May 14, re G.T.R. siding facilities for Dominion Steel Foundry Co., Hamilton, Ont.

27519. Aug. 2.—Authorizing Esquimalt & Nanaimo Ry. to build spur for Bainbridge Lumber Co., Alberni District, B.C.

27520. Aug. 1.—Authorizing G.T.R. to build siding from Oxford St. southwesterly into Block B, Brantford, Ont.

27521. Aug. 1.—Authorizing G.T.R. to build siding for R. McDougall Co., Galt, Ont.

27522. Aug. 2.—Authorizing C.P.R. to rebuild bridge 27.3, Minnedosa Subdivision, Man.
 27523. Aug. 7.—Authorizing G.T.R. to build spur for William Harris & Co., Toronto.
 27524. Aug. 7.—Authorizing C.P.R. to build spur from yard to elevator 0, Montreal St., Fort William, Ont.
 27525. Aug. 7.—Authorizing C.P.R. to open for traffic additional track mileage 0 to 2, and to use 2 concrete viaducts at mileage 0.9 and 1.8, Toronto Terminals, North Toronto Branch.
 27526. Aug. 7.—Authorizing Canadian Northern Ry. to rebuild bridge over Little Batiscan River, Lake St. John Division, 107 miles from Quebec.
 27527. Aug. 6.—Authorizing C.P.R. to build spur for Imperial Munitions Board and extensions to sidings on Godson Contracting Co.'s premises, Toronto.
 27528. Aug. 2.—Amending order 27472, July 19, re C.P.R. siding for Montreal Light, Heat & Power Co., Montreal.
 27529. Aug. 8.—Ordering Canadian Northern Ry. not to exceed 10 miles an hour with trains over highway first north of Edberg station, Alta., and rescinding order 27514, July 31.
 27530. Aug. 2.—Ordering C.P.R. and Canadian Northern Ry. to hold their trains 454 and 457 respectively at Montfort Just., Que., at least 10 minutes, if not at time more than 10 minutes late, to enable passengers on either of trains to make connection.
 27531. Aug. 1.—Extending to Sept. 1 time within which Canadian Northern Ry. under order 27348, June 25, shall provide well and extra yard for pigs at Kuroki, Sask.
 27532. Aug. 8.—Amending order 27412, July 8, re Grand Trunk Pacific Ry. and C.P.R. connections at 3 points in Saskatchewan.
 27533. Aug. 8.—Authorizing Vancouver, Victoria & Eastern Ry. & Navigation Co. (G.N.R.) to build spur for Allen & King Logging Co., Pine Grove, B.C.
 27534. Aug. 1.—Authorizing Kettle Valley Ry. to divert public road in Lot 1822 on Copper Mountain Branch, B.C., for eliminating crossings at mileage 11.87 and 12.06; maximum grade on division is fixed at 8%, conditional upon B.C. Government paying not more than \$145 to cover cost.
 27535. Aug. 2.—Dismissing application of Canyon City Lumber Co., Creston, B.C., for order disallowing C.P.R. charge of \$3 a car for handling on applicant's spur carload freight other than that consigned to applicants.
 27536. Aug. 2.—Ordering that shipments of fruit and vegetables by Similkameen Farmers' Institute, Keremeos, B.C., to points in Alberta and Saskatchewan be moved via Sweet Grass on Great Northern Ry., and Coutts on C.P.R.; C.P.R. and G.N.R. to file tariffs showing rates from Similkameen Valley to Alberta and Saskatchewan points as far east as Moose Jaw by suggested routing.
 27537. Aug. 8.—Authorizing Grand Trunk Pacific Saskatchewan Ry. to operate over C.P.R. crossings at Weyburn, Sask., until Jan. 1, 1919, pending installation of interlocking plant as required by order 18064; crossings to be protected by flagmen appointed by C.P.R., at expense of G.T.P.S.R.
 27538. Aug. 9.—Approving clearances at Grand Trunk Pacific Branch Lines Co.'s tracks at freight shed, Calgary, Alta.
 27539. Aug. 1.—Amending order 8942, Nov. 30, 1909, re Michigan Central Rd. and Pere Marquette Ry. crossings at Highgate and Muirkirk stations, Ont.
 27540. Aug. 2.—Amending order 26798, Dec. 4, 1917, re G.T.R. and Pere Marquette Ry. crossing of Devonshire Road, Walkerville, Ont.
 27541. Aug. 9.—Ordering G.T.R. not to exceed 10 miles an hour with trains over crossing at Grant St., St. Johns, Que.
 27542. Aug. 10.—Authorizing Edmonton, Dunvegan & British Columbia Ry. by special tariff to vary terms of its livestock contract form limiting its liability as follows:—"No head of cattle, except calves exceeds \$40 in value; no head of sheep exceeds \$5, and that the said contents of no car exceeds \$600."
 27543. Aug. 10.—Dismissing application of Brotherhood of Locomotive Engineers for order directing that switch and transfer locomotives be equipped with wedge tanks low enough for locomotive men to see over and with headlight on rear.
 27544. Aug. 10.—Ordering Canadian Northern Ry. to erect 4th class station at Ashern, Man., by October 1.
 27545. July 31.—Ordering that crossing of Niagara, St. Catharines & Toronto Ry., by G.T.R. at Port Colborne, Ont., be protected by derails on N. St. C. & T. R. and home signals on G.T.R., G.T.R. tracks to be bonded for 1,400 ft. to east and 2,600 ft. to west; signals on G.T.R. to be left normally clear and levers operated by N. St. C. & T. R. conductors; work to be done by N. St. C. & T. R. and completed by Dec. 31.

When the Quebec & Saguenay Ry. is opened for traffic between St. Joachim and Baie St. Paul, Que., early in September, the passenger traffic at Quebec will be handled in and out of the St. Andrew St. station, and the freight traffic will be handled in and out of the Limoilou station of the Quebec & Lake St. John Ry.

Grain in Store at Terminal Elevators, Interior Terminal Elevators and at Public Elevators in the East.

Week ending Aug. 9, 1918.	Wheat. Bushels.	Oats. Bushels.	Barley. Bushels.	Flax. Bushels.	Totals. Bushels.
Fort William—					
C.P.R.	73,553	114,592	26,124	6,230	220,499
Consolidated Elevator Co.	6,749	91,742	11,825	32,305	142,621
Empire Elevator Co.	†9,293	107,317	17,982	28,157	144,163
Ogilvie Flour Mills Co.	51,532	126,001	32,491	.....	210,024
Western Terminal Elevator Co.	†33,340	81,877	12,827	48,423	109,787
G.T. Pacific	16,878	306,322	40,469	14,657	378,326
Grain Growers' Grain Co.	†2,420	724,185	67,968	.....	789,533
Fort William Elevator Co.	†42,784	310,087	17,019	7,186	291,508
Eastern Terminal Elevator Co.	†7,875	47,509	11,314	.....	50,948
Northwestern Elevator Co.	26,198	139,817	12,669	.....	178,684
Port Arthur—					
Port Arthur Elevator Co.	†6,004	601,208	114,844	19,364	729,412
D. Horn & Co. . . . .	.....	.....	.....	.....	.....
Canadian Government Elevator	†36,358	265,269	14,122	43,391	286,424
Thunder Bay	19,825	531,663	42,032	14,254	607,774
Davidson & Smith	6,688	98,416	75,248	.....	180,352
Saskatchewan Co-op. Elevator Co.	6,423	183,153	19,690	24,154	233,420
Total Terminal Elevators	69,771	3,729,159	516,624	238,121	4,553,675
Saskatoon Can. Govt. Elevator					
Moose Jaw Can. Govt. Elevator	25,352	187,283	5,911	754	219,300
Calgary Can. Govt. Elevator	6,109	175,445	70	103	181,728
Vancouver Can. Govt. Elevator	3,429	230,896	19,883	1,921	256,129
.....	48,762	19,761	.....	.....	68,523
Total interior terminal elevators..	83,652	613,385	25,864	2,779	725,680
Depot Harbor					
Midland—					
Aberdeen Elevator Co.	29,839	14,507	.....	.....	44,346
Midland Elevator Co.	1,100	22,044	438	.....	23,582
Tiffin, G.T.P.	37,323	8,633	.....	.....	45,956
Port McNicol	85,301	137,801	28,035	.....	251,137
Collingwood . . . . .	.....	.....	.....	.....	.....
Goderich—					
Elevator & Transit Co.	35,362	353,586	3,750	.....	392,698
Western Canada Flour Mills Co., Ltd. . . . .	.....	.....	.....	.....	.....
Kingston—					
Commercial Elevator Co.	30,392	25,138	491	.....	56,021
Port Colborne Dom. Govt. Elevator . . . . .	.....	312,821	.....	.....	312,821
Port Colborne Maple Leaf Milling Co.	17,296	.....	.....	.....	17,296
Prescott . . . . .	.....	.....	.....	.....	.....
Montreal—					
Harbor Commissioners no. 1	902,656	381,078	484,260	.....	1,767,994
Harbor Commissioners no. 2	63,940	387,955	104,318	.....	556,213
Montreal Warehousing Co.	363,517	251,243	111,334	.....	726,294
Quebec Harbor Commissioners	122,817	504,795	48,556	*39,010	715,178
West St. John, N.B.	123,390	12,445	50,752	.....	186,587
Halifax, N.S.	126,192	23,500	.....	.....	149,692
Total public elevators	1,939,125	2,435,546	832,134	*39,010	5,245,815
Total quantity in store	2,092,548	6,778,090	1,374,622	240,900	10,525,180
*Corn. †Wheat overshipped.					

Canadian Northern Railway Construction, Betterments, Etc.

Quebec Union Station.—A press report states that plans have been prepared for the erection of a new station to replace the old Quebec & Lake St. John Ry. St. Andrew St. station. The intention is said to be to build a union station for all lines owned or operated by the Dominion Government, entering Quebec.

Regina Siding.—The company is applying to the Board of Railway Commissioners for permission to construct a spur track through blocks 80, 81 and 82, and the T. Eaton warehouse site in Regina, Sask.

New Westminster-Steveston Line.—It was reported in New Westminster, B.C. Aug. 17, that it is not likely that any work will be done for some time towards the rebuilding of the half mile trestle on the branch line to Steveston, which was burned in June.

Vancouver Island Lines.—The company's line on Vancouver Island is graded from Victoria to Nitinat River, over 100 miles, and on this about 10 miles of track has been laid from the south end. About 40 miles beyond the present end of track is the Sooke River, where there is some bridge work to be done. The B.C. Government has been advocating the laying of track from the north end, so as to connect with the Esquimalt & Nanaimo Ry., to get out spruce for aeroplane manufacture, the rails to be supplied by the B.C. Government. Referring to the matter on Aug. 10, the B.C. Premier is reported to have said that however desirable it would be to have an additional 22 miles to con-

nect Sooke and Cowichan Lakes, he did not see that the government could reopen the question with the Dominion Government.

It would appear from statements reported to have been made by the B.C. Premier and others, that the arrangement is that rails for laying some 70 miles of track on C.N.R. lines on Vancouver Island are to be supplied by the B.C. Government from Pacific Great Eastern Ry. orders.

M. H. MacLeod, General Manager and Chief Engineer, Western Lines, C.N.R., was in Victoria recently in consultation with the government upon the matter.

The question of the purchase of additional land on the Songhees Reserve at Victoria for terminal purposes has been settled, 40 acres additional having been granted to the company, at a price agreed upon. (Aug., pg. 335.)

Reid Newfoundland Co.'s Department of Resources.—A department for the development of the natural resources of Newfoundland, is reported to have been started by the Reid Newfoundland Co., under the charge of J. W. Forbes. According to a press report, the department will make a thorough survey and exploration of all the lands in the colony owned by the company along its railway lines and ascertain its mineral, timber, agricultural and water resources, and take steps to have them developed. It is expected that as a result new industries will be brought into the colony, and a larger population attracted. The R.N. Co. is preparing to operate a coal mine on block 7 of its land area.

Canadian Transportation Men, Engineers, Etc. in the War.

Canadian Railway and Marine World is desirous of publishing all the information possible about the war work of Canadian transportation men, engineers, etc., and invites its readers to send in information for use in this connection. No doubt a large number of our readers receive many letters from the front, etc., extracts from which would prove of interest in these columns. We should be glad to be favored in this respect.

Canadian Railway Troops' Work.—The Roman Catholic Bishop of London, Ont. (M. F. Fallon), who has been visiting the British western front, is reported to have said in an interview in London, Eng.:—"In the matter of transportation Canada has secured a decided triumph. This is particularly the case with regard to her railways and her system of tramways. In rapid and effective construction, our railway troops are unequalled, and to them is due very much of the credit for the rapid and constant provision of all the supplies needed by the men in the trenches."

Track Making at the Front.—The Toronto Globe says:—"The Canadian railway men have done great work at the front, but it is the Germans who are making tracks just now."

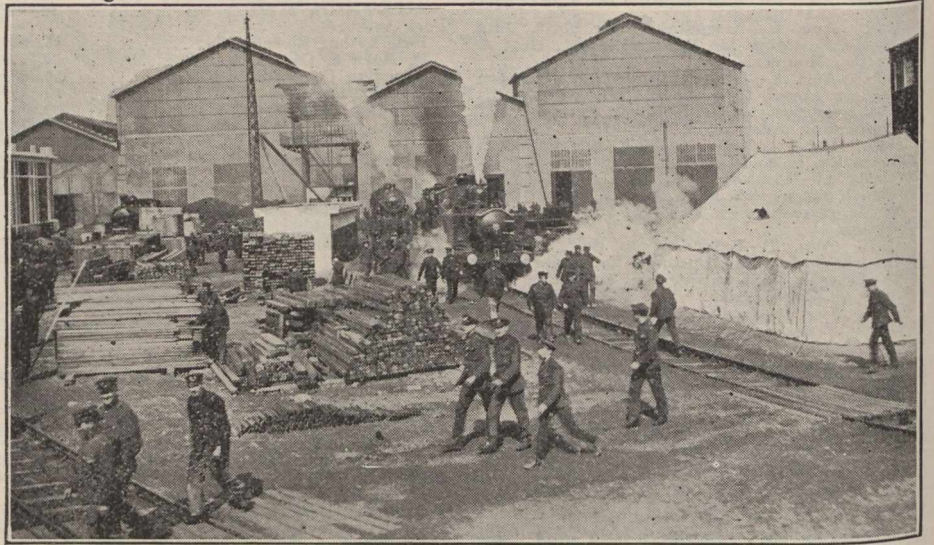
The Timiskaming & Northern Ontario Railwaymen's Patriotic Association had contributed \$89,436.86 to the Canadian Red Cross and Canadian Patriotic Fund, up to Apr. 30.

ver Pilotage Authority, is on leave in Vancouver, having been in the Royal Navy since the outbreak of war.

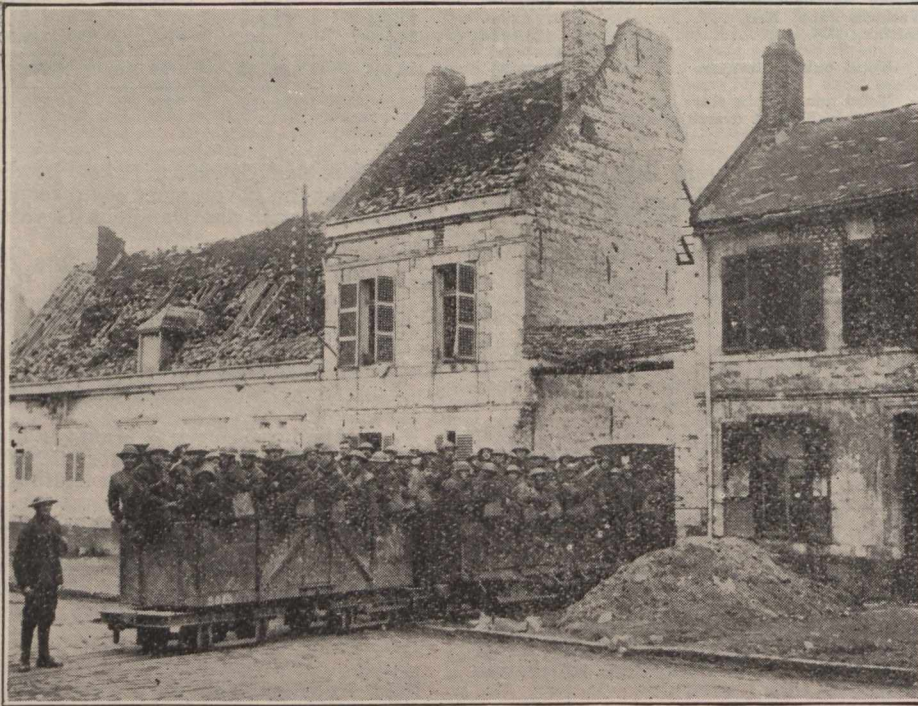
Brigadier-General A. C. Joly de Lotbiniere, C.I.E., has been gazetted Chief Engineer in the Imperial Army. He was born at Quebec, Que., and educated at Lennoxville, Que., and at the Royal Mil-

hydro electric power installation on the River Shelum in Kashmir, which supplied power for the operation of the Abbotabad Srinagar Ry., for dredging the River Shelum in Kashmir and for industrial purposes in Kashmir and the Punjab.

Capt. C. S. L. Hertzberg, A.M.E.I.C., who was invalided from the front some



In a locomotive yard on the British Western Front in France. British official photograph. Crown copyright reserved. Photograph loaned by C.P.R.



A short cut to the front line on the British Western Front in France. A light railway running through a house. British official photograph. Crown copyright reserved. Photograph loaned by C.P.R.

PERSONAL NOTES.

Lieut.-Col. T. V. Anderson, D.S.O., who has been gazetted commandant of the Engineers' Training Corps, Seaforth, Eng., with the title of Assistant Director of Signals, is a son of Col. W. P. Anderson, C.M.G., Chief Engineer, Dominion Marine Department.

Capt. F. W. Evans, R.N.R., a former commander of one of the Canadian Pacific Ocean Services' steamships on the Pacific Ocean, and also a member of the Vancou-

etary College, Kingston, Ont., graduating in 1883, and receiving a commission in the Royal Engineers in 1886. Prior to the present war, his service has been chiefly in India, where he proposed and carried out the first large hydro electric transmission power scheme in the East, viz., the Cauvery Falls transmission to the Kolar goldfields in Mysore, which was, for some time, the longest power transmission line in the world. He was also engaged on the construction of the large

months ago, and has since held positions at the Spadina Military Hospital and the District Depot, Toronto, and has been transferred to the Canadian Engineers' office at Toronto Military headquarters, is a son of A. L. Hertzberg, M.E.I.C., Engineer, Ontario District, C.P.R., Toronto.

Lieut. W. L. Lanigan, Royal Air Force, whose death in an airplane accident in England was announced in our last issue, was son of W. B. Lanigan, Assistant Freight Traffic Manager, C.P.R., Winnipeg. The funeral took place July 16, and was attended by A. V. Clark, Secretary to European Manager, C.P.R., London, Eng.

Lieut. Robt. Luxton, Canadian Railway Troops, has been awarded the Military Cross. While on a battery being subjected to heavy enemy fire, he observed an enemy shell hit one of the dugouts near the battery. He and two sappers thereupon volunteered their services and went out and dressed the wounds of one man, whom this officer got away to the dressing station on a lorry. After working tirelessly for half an hour, he succeeded in extricating two noncommissioned officers and two men belonging to the battery, who had been buried beneath the debris. Though this splendid and gallant work of rescue was carried out under a heavy and harassing fire, the rescuers acted throughout with an utter disregard of their personal safety, and their conduct was worthy of the highest praise.

Capt. Malcolm A. McKechnie, No. 6 Field Ambulance, reported killed in action, Aug. 8, was formerly a physician for the Canadian Northern Ry., and went overseas from Winnipeg with the Cameron Highlanders.

Lieut. T. C. Martin, R.A.F., who was reported missing on Aug. 10, is son of G. C. Martin, General Traffic Manager, Toronto, Hamilton & Buffalo Ry., Hamilton, Ont.

Capt. E. G. T. Penny, reported killed in action, Aug. 8, was a son of E. Goff Penny, of Montreal, Manager of the Memphramagog Navigation Co., Georgeville, Que., and brother of A. G. Penny, formerly Advertising Agent, Canadian Northern Ry., Toronto, now editor of the Quebec Chronicle, and a member of a party of Canadian editors who recently visited the front.

Temporary Colonel C. W. P. Ramsey, C.M.G., Canadian Railway Services, has been seconded for duty with the War

Office. He went overseas early in 1915, in command of the Canadian Overseas Railway Construction Corps, with the rank of Lieutenant-Colonel, and was created a Companion of the Order of St. Michael and St. George, for service in the field, in June, 1916. Prior to entering military service, he was Engineer of Construction, Eastern Lines, C.P.R., and was granted extended leave of absence.

Lieut. F. W. Rous, who has been reported as in a hospital in London, Eng., with gunshot wound in the shoulder, was

formerly Secretary-Treasurer, Canada & Gulf Terminal Ry.

Lieutenant A. T. Shaw, Royal Warwick Regiment, who died of wounds received in action in Italy, in June, was, prior to enlistment, in the Traffic Department, Canadian Northern Ry., Birmingham, Eng. He enlisted as a private in 1915 and was wounded in that year. He went to Italy in Dec., 1917, having been granted a commission, and his commanding officer reported that his conduct under fire was magnificent.

Organization of Board of Adjustment for Railway Employes' Wages.

The illustration on the first page of this issue shows the railway officials, and the railway employes organizations' officials, who attended a meeting in Montreal Aug. 7, when the following agreement was entered into:

Memorandum of agreement made between the Canadian Railway War Board, acting for the railways of Canada, members thereof, of the one part; and the Brotherhood of Locomotive Engineers; the Brotherhood of Locomotive Firemen and Enginemen; the Order of Railway Conductors; the Brotherhood of Railroad Trainmen; the Order of Railway Telegraphers and the International Brotherhood of Maintenance of Way Employes, acting for the said classes of employes on the said railways, of the other part.

Whereas the parties hereto, in united desire to avoid disputes or misunderstandings which would tend to lessen the efficiency of transportation service in Canada during the war, have resolved upon the appointment of a board composed of members to be selected as hereinafter prescribed, which shall have full power and authority to determine all differences which may arise between any of the said railways and any of the classes of its employes above mentioned, and which shall not be promptly adjusted between the officers and employes of the railway concerned; including the interpretation or application of wage schedules or agreements, and the application to the railways of Canada of General Order 27 of the Director General of the United States Railroad Administration; with authority to make such amendments or additions in line with such amendments or additions as may be made thereto for the railways in the U.S. as may be necessary, having due regard to the rights of the several classes of employes and of the railways respectively. Now therefore it is agreed by and between the parties as follows:

1. There shall be at once created a board, to be known as Canadian Board of Adjustment No. 1, to consist of 12 members, 6 to be selected by the Canadian Railway War Board, and compensated by the railways, and 6 by the executive officers of the organizations of employes hereinbefore named, and compensated by such organizations.

2. The Canadian Board of Adjustment No. 1 shall meet in Montreal within 15 days after the selection of its members and select a chairman and a vice chairman, who shall be members of the board. The chairman or vice chairman will preside at meetings of the board, and both will be required to vote upon the adoption of all decisions by the board.

3. The board shall meet regularly, at stated times each month, and continue in session until all matters before it are considered.

4. Unless otherwise mutually agreed, all meetings of the board shall be held in Montreal; provided, that the board shall

have authority to empower two or more of its members to conduct hearings and pass upon controversies when properly submitted at any place designated by the board; provided further, that such division of the board will not be authorized to make final decision. All decisions shall be made, approved or ratified by the board as herein provided.

5. Should a vacancy occur in the board for any cause, such vacancy shall be immediately filled by the same appointive authority which made the original selection.

6. The Canadian Board of Adjustment No. 1 shall render decisions on all matters of controversy arising from interpretations of wage agreements and other matters in dispute, as provided in the preamble hereof, and when properly submitted to the board.

7. Wages and hours established by General Order 27 of the Director General of the U.S. Railroad Administration, and amendments thereto, shall be incorporated into existing agreements on the several railways, and should differences arise between the management and the employes on any of the railways as to such incorporation, such questions of difference shall be decided by Canadian Board of Adjustment No. 1, when properly presented thereto.

8. Personal grievances or controversies arising under interpretation of wage agreements, and all other disputes arising or now properly pending between officials of a railway and its employes covered by this understanding, will be handled in their usual manner by general committees of the employes up to and including the chief operating officer of the railway (or some one officially designated by him), when, if an agreement is not reached, the chairman of the general committee of employes may refer the matter to the executive officer of the organization concerned, and if the contention of the employes' committee is approved by such executive officer, then the chief operating officer of the railway and the executive officer of the organization concerned shall refer the matter, with all supporting papers, to Canadian Board of Adjustment No. 1, which board shall promptly hear and decide the case, giving due notice to the chief operating officer of the railway interested and to the executive officer of the organization concerned of the time set for hearing.

9. No matter will be considered by Canadian Board of Adjustment No. 1 unless officially referred to it in the manner herein prescribed, provided, however, that no case having origin in circumstances occurring prior to the date hereof shall be referred to the board, except those arising out of the application of the said General Order 27, or arising out of disputes properly pending at the date of this agreement, as mentioned in clause 8.

10. In hearings before Canadian Board

of Adjustment No. 1 in matter properly submitted for its consideration, the railway shall be represented by such person or persons as may be designated by the chief operating officer, and the employes shall be represented by such person or persons as may be designated by the executive officer of the organization concerned.

11. All clerical and office expenses will be borne equally by the Canadian Railway War Board and the organizations above mentioned. The railway directly concerned and the organization involved in a hearing will, respectively, assume any expense incurred in presenting a case.

12. In each case an effort should be made to present a joint concrete statement of facts as to any controversies, but the board is fully authorized to require information in addition to the concrete statement of facts, and may call upon the chief operating officer of the railway or the executive officer of the organization concerned for additional evidence, either oral or written.

13. All decisions of Canadian Board of Adjustment No. 1 shall be approved by a majority vote of all members of the board.

14. After a matter has been considered by the board, and in the event a majority vote cannot be obtained, then any 6 members of the board may elect to refer the matter upon which no decision has been reached to a referee to be unanimously agreed upon by the board, and in failure to agree, application shall be made to the Governor General in council for appointment of a referee, whose decision shall be final.

15. Canadian Board of Adjustment No. 1 shall keep a complete and accurate record of all matters submitted for its consideration and of all decisions made by the board.

16. A report of all cases decided, including the decisions, will be filed with the Canadian Railway War Board, and with the chief operating officer of the railway affected, and with the executive officer of the organization concerned.

17. The Canadian Railway War Board further agrees that Canadian Board of Adjustment No. 1 shall have like authority to determine differences between any of the railways represented herein and any other classes of employes of such railway who may request and consent to submitting differences to Canadian Board of Adjustment No. 1, and to agree that the decision of the said board of adjustment shall be final.

18. This agreement shall remain in full force and effect during the period of the present war, and thereafter unless the Canadian Railway War Board, on the one hand, as representing the railways, or a majority of the executive officers of the organizations, on the other hand, as representing the employes, shall desire to terminate the same, which can, in these circumstances, be done on 30 days notice.

This agreement was signed on Aug. 7 for the Canadian Railway War Board by U. E. Gillen, Chairman, and W. M. Neal, General Secretary, and for the railway employes' organizations as follows:—Brotherhood of Locomotive Engineers, by Ash Kennedy, A.G.C.E.; Brotherhood of Locomotive Firemen and Enginemen, by G. K. Wark, Vice President; Order of Railway Conductors, by S. N. Berry, Vice President; Brotherhood of Railroad Trainmen, by Jas. Murdock, Vice President; Order of Railway Telegraphers, by J. M. Mein, Deputy President; International Brotherhood of Maintenance of Way Employes, by W. V. Turnbull, Vice President.

Personnel, Etc., of Board of Adjustment.

In conformity with the above agreement, the Canadian Railway War Board

appointed its 6 representatives as follows: F. P. Brady, General Manager, Western Lines, Canadian Government Railways; S. J. Hungerford, General Manager, Eastern Lines, and A. J. Hills, Executive Assistant, Canadian Northern Ry.; A. D. MacTier, General Manager, Eastern Lines, and G. Hodge, Assistant to General Manager, Eastern Lines, Canadian Pacific Ry.; U. E. Gillen, Vice President, Grand Trunk Ry.

The railway employes organizations' representatives were appointed as follows: Ash Kennedy, A.G.C.E., Brotherhood of Locomotive Engineers; G. K. Wark, Vice President, Brotherhood of Locomotive Firemen and Enginemen; S. N. Berry, Vice President, Order of Railway Conductors; Jas. Murdock, Vice

President, Brotherhood of Railroad Trainmen; J. M. Mein, Deputy President, Order of Railway Telegraphers; Wm. Dorey, Vice President, International Brotherhood of Maintenance of Way Employes.

The Board of Adjustment held its first meeting at Montreal, Aug. 19, and elected U. E. Gillen, Vice President, G.T.R., as chairman; S. N. Berry, Vice President, Order of Railway Conductors, as vice chairman, and W. M. Neal, General Secretary, Canadian Railway War Board, as General Secretary.

It was decided to hold regular monthly meetings during the remaining portion of 1918, as follows: Sept. 10, Oct. 8, Nov. 12, Dec. 10. All decisions of the board will be issued over the chairman and vice chairman's signatures.

Transportation Appointments Throughout Canada.

The information under this head, which is gathered almost entirely from official sources, is compiled with the greatest care, so as to ensure absolute accuracy. Anyone who may notice any error in our announcements will confer a favor by advising us.

Canadian Government Railways.—E. E. STEVENS, heretofore Claims Agent, Moncton, N.B., has been appointed Safety Engineer, Eastern Lines, vice J. E. Long, appointed Superintendent of Safety, Delaware & Hudson Ry. Office, Moncton, N.B.

T. THORNING, heretofore hostler, Cochrane, Ont., has been appointed acting Locomotive Foreman, Hearst, Ont., vice C. W. Wilson, Locomotive Foreman, on leave of absence for military service.

H. MITCHINSON has been appointed Safety Engineer, Western Lines, vice J. E. Long, appointed Superintendent of Safety, Delaware & Hudson Ry. Office, Winnipeg.

Canadian Northern Ry.—W. ADAMS has been appointed Signal Inspector, Port Arthur, Ont., vice H. E. McDonald, transferred to Duluth, Winnipeg & Pacific Ry. service, as reported in our last issue.

J. J. CROWE has been appointed acting Signal Inspector, Edmonton, Alta., as reported in our last issue.

Canadian Pacific Ry.—W. R. MacINNES, heretofore Freight Traffic Manager, has been appointed Vice President in charge of Traffic (Freight and Passenger), vice G. M. Bosworth, who has retired, but who retains his other position, viz., Chairman, Canadian Pacific Ocean Services, Ltd., to which he was appointed Jan. 1, 1916. The President, Lord Shaughnessy, issued the following circular in this connection, Aug. 14:—"Geo. M. Bosworth, Vice President of the company, will retire Sept. 1, proximo, to become Chairman of Canadian Pacific Ocean Services, Ltd., and the directors have appointed Wm. R. MacInnes, Vice President, to succeed him. Mr. MacInnes will have charge of all matters connected with the company's Traffic Department, and will perform such other duties as may be assigned to him."

W. B. LANIGAN, heretofore Assistant Freight Traffic Manager, Western Lines, Winnipeg, has been appointed Freight Traffic Manager, vice W. R. MacInnes, promoted. Office, Montreal.

W. B. BROWN, heretofore Car Service Agent, New Brunswick District, St. John, N.B., is temporarily engaged on special duty.

W. COULTER has resumed as Freight Agent, Ottawa, vice E. A. Campbell, transferred.

Canadian Pacific Ocean Services, Ltd.—E. Alexander, Secretary, issued the following circular, Aug. 14:—"Pursuant to

a resolution of the directors, GEO. M. BOSWORTH, Chairman, will, on and after Sept. 1, devote all his time to the affairs of the company as chief executive. Officers of the company will report to him and be governed by his instructions." Office, Montreal.



Wm. R. MacInnes
Vice President, Canadian Pacific Railway.

Central Vermont Ry.—The following appointments have been made by J. W. Wardlaw, General Manager, under the U.S. Railroad Administration, all with offices at St. Albans, Vt.:—

E. DESCHENES, heretofore Auditor, has been appointed General Auditor.

J. W. REDMOND, heretofore Counsel, has been appointed General Solicitor.

P. D. FITZPATRICK, heretofore Valuation Engineer and General Roadmaster, has been appointed Chief Engineer.

W. H. CHAFFEE, heretofore Treasurer, has been appointed Local Treasurer.

H. L. BLACK has been appointed Superintendent of Signals. Office, Portland, Me.

Delaware & Hudson Ry.—J. E. LONG, heretofore Safety Engineer, Canadian Government Railways, Moncton, N.B.,

has been appointed Superintendent of Safety, D. & H.R. Office, Albany, N.Y.

Duluth, South Shore & Atlantic Ry.—E. R. LEWIS, heretofore Assistant to General Manager, has been appointed Chief Engineer. Office, Duluth, Minn.

Grand Trunk Ry.—E. L. DYSON has been appointed Division Signal Foreman, Montreal Division, vice H. L. Black, transferred. Office, Richmond, Que.

F. E. LITTLE has been appointed Water Service Foreman, Montreal Division, vice J. C. Gokey, transferred. Office, Richmond, Que.

G. MURGATROYD has been appointed Assistant Engineer, Montreal Division, vice C. B. Weiss, transferred. Office, Montreal.

B. J. FARR, Master Mechanic (Road), Battle Creek, Mich., has had his jurisdiction extended to include the locomotive shops there; J. C. GARDEN having been transferred to Stratford, Ont., as announced in our last issue.

C. J. PIERCE, heretofore Manager, National-Despatch Great Eastern Line, Boston, Mass., has been appointed General Agent, Freight Department, G.T.R. Lines in Canada, in charge of traffic to and from points in the New England States. He continues to act as Manager, National Despatch-Great Eastern Line, in respect to business which that line handled prior to June 1. Office, Boston, Mass.

ROY BULLEN, General Agent, Freight Department, Minneapolis, Minn., and T. C. BURGESS, Commercial Agent there, having been assigned to other duties, JAMES WAUGH, heretofore Commercial Agent, San Francisco, Cal., has been appointed Commercial Agent, G.T.R. Lines in Canada, Minneapolis, Minn. Office, 713 Metropolitan Life Bldg.

The following appointments have been made for G.T.R. Lines in New England, under the U.S. Railroad Administration:

G. L. NELSON, heretofore Division Freight Agent, Portland, Me., has been appointed Traffic Manager. Office, Portland, Me.

J. H. EDWARD, heretofore agent, Portland, Me., has been appointed Local Treasurer and Paymaster. Office, Portland, Me.

A. E. PLANT, heretofore chief clerk, Montreal, has been appointed General Auditor and Freight Claims Agent. Office, Portland, Me.

H. P. SWEETSER, heretofore Solicitor, has been appointed General Solicitor. Office, Portland, Me.

M. W. STEVENS, heretofore Storekeeper, Portland, Me., has been appointed Purchasing Agent and Storekeeper, Portland, Me.

White Pass and Yukon Railway Reorganization.

J. W. FARRELL, heretofore Trainmaster, Island Pond, Vt., has been appointed Superintendent. Office, Portland, Me.

J. HAY, heretofore Foreman, Sarnia, Ont., has been appointed Master Mechanic. Office, Portland, Me.

E. W. WILLIAMS, heretofore Traveling Inspector, Western Lines, Chicago, Ill., has been appointed chief clerk and Superintendent Car and Time Service, Portland, Me.

C. B. WEISS, heretofore Assistant Engineer, Montreal Division and Montreal Terminals, has been appointed Chief Engineer. Office, Portland, Me.

J. M. GIBSON, heretofore General Foreman, District 1, has been appointed Supervisor of Bridges and Buildings. Office, Portland, Me.

J. J. FOLEY has been appointed Supervisor of Track, east of Shelburne, N.H.

M. CORCORAN, heretofore Supervisor of Track, Gorham, N.H., has been appointed Supervisor of Track, west of Shelburne, N.H.

W. M. COOPER, heretofore Road Foreman of Locomotives, has been appointed Trainmaster and Road Foreman of Locomotives. Office, Portland, Me.

Great Northern Ry.—J. M. GRUBER, heretofore Vice President and General Manager, has been appointed Federal General Manager. Office, St. Paul, Minn.

E. J. HEALY, District Traffic Agent, Tacoma, Wash., is reported to have been appointed District Traffic Agent, Vancouver, B.C., K. J. Burns, Assistant General Freight and Passenger Agent there, having resigned to enter other service.

Michigan Central Rd.—E. A. WIGREN, heretofore Assistant Auditor, has been appointed Auditor, M.C.R., Toronto, Hamilton & Buffalo Ry., Toronto, Hamilton & Buffalo Navigation Co., and Chicago, Kalamazoo & Saginaw Ry., vice F. O. Waldo, resigned. Office, Detroit, Mich.

Northern Pacific Ry.—E. E. DILDINE, heretofore Assistant Superintendent of Telegraph, Tacoma, Wash., has been appointed Superintendent of Telegraph, St. Paul, Minn.

Pacific Great Eastern Ry.—G. L. COURTNEY has been appointed General Manager, the former General Manager, A. H. Sperry, having resigned. Office, Vancouver, B.C.

Pere Marquette Ry.—F. H. ALFRED, Federal Manager, Detroit, Mich., has had his jurisdiction extended to cover the car ferry lines on Lake Michigan, formerly operated by the Ann Arbor, Pere Marquette and Grand Trunk Rys.

Temiscouata Ry.—A. NADEAU has been appointed General Freight and Passenger Agent, vice F. X. Belanger, who has resigned on his appointment in charge of traffic department, Fraser Companies, Ltd., Edmundston, N.B. Office, Riviere du Loup, Que.

T. N. WALSH has been appointed Freight Claim Agent, Riviere du Loup, Que.

Toronto, Hamilton & Buffalo Ry.—G. C. MARTIN, heretofore General Freight and Passenger Agent, has been appointed General Traffic Manager. Office, Hamilton, Ont.

R. F. HILL, heretofore Assistant General Freight and Passenger Agent, has been appointed General Freight and Passenger Agent, vice G. C. Martin, promoted. Office, Hamilton, Ont.

A. I. COOMBES, heretofore General Manager's chief clerk, has been appointed Assistant to General Manager. Office, Hamilton, Ont.

C. M. DENT, accountant, is reported to have been appointed General Manager's chief clerk, Hamilton, Ont., vice A. I. Coombes, promoted.

Meetings of the holders of the company's 5% consolidated first mortgage debenture stock, and of the 6% debentures, of income debenture stock, and of ordinary shares of the White Pass & Yukon Ry. Co., were called to be held in London, Eng., Aug. 2, by order of the court, to approve a scheme for the reorganization of the capital. The proposals are outlined as follows:—

Under the abnormal condition produced by the continuance of the war, it is essential that the White Pass enterprise should be provided with a further £95,000, to be applied, £52,000 for working capital, £15,000 in paying off the advance from Glyn, Mills, Currie and Co., about £23,000 in paying off the loan of \$110,000 to the Pacific and Arctic Ry. and Navigation Co. from the Mortgage and Debenture Co., which became due Jan. 1, and £5,000 in paying commission and the expenses of carrying through this scheme. It is accordingly proposed to create £100,000 7% prior lien debenture stock, repayable Dec. 31, 1935, and constituting a first charge on the whole of the assets and undertaking, to be secured by a trust deed which will provide, among other things, that further prior lien debenture stock up to £200,000 ranking pari passu with the £100,000 prior lien stock may hereafter be issued from time to time as to £100,000 if the necessity is decided by the directors and approved by Close Bros., who have agreed to be a financing syndicate, and as to a further £100,000 if the holders of the prior lien stock approve. The company may redeem all or any part of the stock at any time on 6 months notice at a premium of 5%. It is proposed to issue the stock at 95 and to offer it in the first instance to the existing shareholders. It is further proposed to give to each subscriber for £25 prior lien debenture stock one A share.

It is also proposed to create £5 consolidated mortgage debenture stock for £315,163, constituting a second charge on the assets and undertaking, the stock to be issued and transferable in multiples of 1s, repayable Dec. 31, 1950. Interest during 5 years to be reckoned from June 30 next following after the end of the war will be payable in each year only out of the net profits for that year after payment of all outgoings and expenses, and after provision has been made for a sinking fund for the redemption of the prior lien debenture stock and for depreciation and reserve, and will not be cumulative during that period.

It is further proposed to reduce the existing amount of income debenture stock by two-thirds, and to create by way of substitution 6% income debenture stock up to £589,465 4s., issuable and transferable in multiples of 1s. The stock will constitute a third charge by way of floating security, will be repayable Dec. 31, 1950, and interest will be payable only if and so far as in any financial year there may be net profits available for that purpose, after paying all outgoings and expenses, including interest on the prior lien stock and the consolidated stock, and after the directors have made such provision as they may think proper for depreciation, reserve fund, and contingencies.

The £211,932 existing debentures, the £23,308 10s. income debenture stocks, and the £67,000 branch line bonds of the British Yukon Ry. Co. in the hands of the sinking fund trustees will be cancelled. The holders of existing debenture stock,

and income debenture stock respectively will surrender their present securities to the company and accept for each £100 of debenture stock £40 of consolidated stock and £60 of 6% income stock; for each £100 of debentures £30 of consolidated stock and £70 of 6% income stock; for each £100 of existing income stock 33 1/3% of new 6% income stock.

W. B. Close will put at the disposal of the company 1,000 fully paid £10 shares, which will be sub-divided into £1 A shares, these shares having the right to 80% of the profits available for dividend in each year; if the company be wound up to 80% of the assets available for distribution among the members; to 40 votes in respect of each A share; and to nominate two directors. Each subscriber for prior lien debenture stock will receive one A share in respect of each £25 of that stock allotted to him, and the remainder of the 6,000 A shares will be transferred to the financing syndicate as a commission for undertaking the financial arrangements. In addition to £2,000 payable in cash for their services in connection with this scheme, a commission of 5% in cash on all prior lien debenture stock subscribed and paid for in cash by security holders or shareholders of the company, and a commission of 10% payable in prior lien debenture stock taken at 95 on an amount representing the difference, if any, between £100,000 and the face value of the prior lien debenture stock actually subscribed and paid for by the security holders and shareholders of the company, this difference being the amount which the syndicate will have to find if the whole of the prior lien debenture stock is not subscribed for. Close Brothers and Co. will, if and so far as sufficient prior lien stock shall not be subscribed to enable the company to make the payments and provide the working capital necessary, arrange that the debt due to the Mortgage and Debenture Co. shall be discharged by their accepting the amount in prior lien debenture stock at par and relevant A shares and provide until Dec. 31, 1920, a working capital of £50,000. All advances made by them or on account of the company will be secured by prior lien debenture stock of a face value greater by 25% than the amount of the money advanced, and will carry interest at 1% above the current rate for the time being on the Pacific Coast of America. Any advance by them for working capital will be repaid in each year out of the available earnings of the local companies. The capital of the company is to be reduced from £1,700,000 in 170,000 £10 ordinary shares to £283,000 in 10,000 £1 A shares and 136,500 £2 ordinary shares, the reduction to be effected by reducing the amount of each ordinary share from £10 to £2 and by cancelling the unissued shares; each reduced ordinary share will have one vote.

Vessel Control in Canadian Territorial Waters.—An order in council has been passed, subsequent to a conference between representatives of the Canadian, British and U.S. Navies, when it was agreed that the U.S. should control all coast patrols, sea patrols, protection of traffic and offensive action against enemy submarines as far east as the 65th meridian (Lockeport, N.S.), including the outer part of the Bay of Fundy, providing that U.S. naval officers be authorized to visit and search all vessels within Canadian waters west of the 65th meridian.

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Railway Development, Projected Lines, Surveys, Construction, Betterments, Etc.

Alaska Railways.—Announcement was made in Washington, D.C., Aug. 2, that only 3,000 men would be employed by the government upon construction of the railway in Alaska during this year, against 6,000 in 1917. Several sections of the coast lines will be linked up by the end of the year, and it is expected to have about 40 miles of additional grading on the inland section completed this year. Of the 560 miles of main and branch lines projected, 296 miles have been completed, of which 215 miles are main line.

Canadian Pacific Ry.—We are officially advised that the work being done by the company at St. John, N.B., under the Board of Railway Commissioners order 27431 of July 12, is the construction of a second track, alongside the existing main line between Fairville and Bay Shore stations, 1.3 miles. It consists of linking up existing side tracks by the construction of half a mile of new track and the conversion of eight-tenths of a mile of siding into main line. The existing gradients and curves are not to be changed. Five streets are crossed at grade, and a second crossing of the St. John Ry. is to be made at Main St., Fairville, within the protection of the present half interlocking plant. The work is being done by the company's own forces, and is expected to be completed by Oct. 1.

A half mile timber trestle over the valley near Elbow, Sask., built in 1909 on the Moose Jaw-Kerrobot line, settled some 8 ft. during the filling in process on Aug. 9. The trestle was strengthened temporarily and traffic was resumed in a few days. It will be some little time, a press report says, before the permanent strengthening of the structure is completed. (Aug., pg. 344.)

Central Canada Ry.—Good progress is reported to have been made to date with the erection of the superstructure of the bridge across the Peace River, and it is expected to have it ready for running trains early in 1919. A description was given in Canadian Railway and Marine World for June, 1917, pg. 224. (July, pg. 285.)

Dominion Atlantic Ry.—The station at Round Hill, N.S., was destroyed by fire July 24, after being struck by lightning. (Jan., 1917, pg. 24.)

Edmonton & Southwestern Ry.—The Edmonton, Alta., City Council has declined to grant the Hydro-Electro Co.'s request for an extension of time to carry out its construction programme, which included the building of a railway from Edmonton to the Blue Falls on the Saskatchewan River. (Aug., pg. 337.)

Essex Terminal Ry.—The Board of Railway Commissioners has authorized the opening for traffic of the extension from Ojibway to Quarries, Ont., where the Brunner, Mond Co. is erecting a large Solway process plant. The contract for building the extension was let to the Chick Construction Co., Windsor, Ont.

We are officially advised that nothing has been done in the way of work or survey on the proposed extension to Pelton, Ont. (Jan., pg. 12.)

Grand Trunk Ry.—The freight sheds at the central station, Ottawa, were destroyed by fire started by an explosion of a tank of gasoline, Aug. 16. The loss is placed at: freight shed, \$15,000; twenty-eight freight cars, \$20,000; contents of freight shed and cars, \$50,000. The freight sheds were 800 x 40 ft.

The station at Mitchell, Ont., was de-

stroyed by fire, Aug. 14. The building, which was 100 ft. x 30 ft., was a frame structure erected about 45 years ago to replace the original station, which also was burned. It was shown that the fire originated through H. Daoust, a former employe, lighting a match over a little pool of alcohol which had leaked from a barrel. It was reported Aug. 21 that criminal proceedings were likely to be taken against him.

The new freight shed on Sandwich St., Windsor, Ont., is reported completed and in use. (Aug., pg. 337.)

Grand Trunk Pacific Ry.—H. G. Kelley, President, G.T.R. and G.T.P.R., returned to Montreal July 30, after completing an inspection of the system. The physical condition of the G.T.P.R., he is reported to have said, is excellent, and traffic is increasing satisfactorily. It is not proposed to extend any of the company's branch lines at present, but certain improvements, calculated to increase the efficiency of the lines, are in progress at various points. These included the filling in of some of the large trestle bridges, the construction of buildings, etc. (June, pg. 240.)

Medicine Hat, Alta.—Some years ago a short spur line was built connecting the Ansley coal mine with Medicine Hat, Alta. We are officially advised that J. B. Swan and his associate, J. Smith, who are developing the Swan mine, are building an additional 3.50 miles of line, to connect the Swan mine with the Ansley spur line, and so to give it connection with the C.P.R. at or near Medicine Hat. The country through which the spur is being constructed is of an unpromising character, being made up of side hills, coulees and saw tooth pinnacles. The distance from the mouth of the mine to the prairie is 1.50 miles, and there is a rise of 150 ft.; but the route has been so located that the steepest gradient is 2% and the sharpest curve 4 degrees. From the prairie to the old Ansley spur, the route is practically level. Construction was started by M. Higdon, June 25, and it is expected that grading will be completed about Sept. 15. We were advised Aug. 2, that grading had been half completed, 47,000 cubic yards of material having been shifted during July. A newspaper account of the work states that one cut is 53 ft. deep, and another 38 ft., the material from which is being utilized in two fills, one of which requires 23,142 cu. yd. of material, and the other 17,600 cu. yd. The yards have been laid out about 500 ft. from the mouth of the mine. Grading has been completed for 4 tracks and provision is made so that 2 more can be laid when required. The track is expected to be laid and the spur to be ready for operation by Oct. 1. C. Le B. Miles is engineer in charge of the work. Arrangements have been made, we are advised, for leasing a locomotive from the C.P.R., but nothing definite had been done, up to Aug. 12, with respect to cars.

The distance of the Swan mine from Medicine Hat is about 7 miles. The machinery, including the electric cutting plant, is being installed. The seam of lignite to be worked is 7 ft. thick, and is said to be of superior quality. It is expected to be able to begin shipping at the rate of 350 tons a day, and to increase the output in a short time to 500 tons a day.

Kettle Valley Ry.—A press report states that grading on the 14 mile branch to the Copper Mountain mining area, is about 50% completed, and that the lower

end of the line, on which is the lightest part of the work, will be completed early in November. The upper end of the line, upon which location surveys are being completed, will have some heavy cuts and rockwork. W. P. Tierney is the contractor, and he is reported to have over 300 men employed. (July, pg. 285.)

Michigan Central Rd.—The new reinforced concrete bridge over the M.C.R. at Wyandotte St., Windsor, Ont., was opened for traffic recently. The first application for the erection of the bridge was made in 1908, but it took several years to settle the plans as between the company and the city, and it was not until 1917 that the contract for the work was let. The bridge was erected by the John W. Gray Construction Co., Toronto. It is 66 ft. wide, 32 ft. long in the clear, with approaches of 200 ft. each side. The tracks have been lowered 6 ft. (Feb., pg. 57.)

Pacific Great Eastern Ry.—On July 15, the Lieut.-Governor of British Columbia issued a proclamation bringing into force sec. 2 of the P.G.E. Settlement Act, under which the B.C. Government takes over the P.G.E. Development Co.'s lands and property.

A. F. Proctor, Chief Engineer, B.C. Railways Department, completed a trip of inspection over the line recently, and is reported to have said in an interview, the line from Squamish to the end of steel beyond Clinton, 181 miles, has been ballasted and surfaced, and is in first class condition. At 61-mile house, a station, warehouse and cattle pens are under construction. The end of track is near 100-mile house, and it is hoped to get it carried to Soda Creek early in 1919. There is water navigation from Soda Creek to Prince George.

Tenders were received to Aug. 2, for the completion of 42 miles of uncompleted line beyond the present end of track on a unit price basis or in the alternative, on a cost plus percentage basis. We have been officially advised that there are about 6 miles of light grading to be done, and there are about 1,000,000 ft. of timber work and some other work to be done to get ready for tracklaying. Tenders are reported to have been received among others from: The Foundation Co. of B.C., Ltd., Grant Smith & Co., Northern Construction Co., the Cotton Co., McKinnon & Co., Palmer Bros., Robinson & Co., Sullivan & Co., H. A. Stewart, J. W. Lund. A press dispatch, Aug. 16, reported the B.C. Premier as stating that the contract would likely be let to the Cotton Co. (Ltd.), Vancouver.

A Victoria press dispatch of Aug. 25 says:—"The Northern Construction Co. has secured the contract for the 42-mile extension of the Pacific Great Eastern Ry. The tender was \$419,000 on the unit basis, 5% ½ commission. There will be no commission on excess of estimate of cost. The contractors are to furnish steam shovels, rolling stock, and construction equipment free, and will get 25% on the saving of the unit prices."

Negotiations are reported to be practically completed in Seattle, Wash., for the purchase of a tug and a barge, to replace those now rented for the transfer of freight cars from Vancouver to Squamish. The tug formerly in use was destroyed by fire at the end of July. (Aug., pg. 337.)

Quebec & Saguenay Ry.—We are officially advised that the tenders received recently for station buildings on the line

were considered to be too high, and none were accepted. The question of erecting stations is in abeyance for the present. The line will be opened for traffic between St. Joachim and Baie St. Paul early in September. (Aug., pg. 337.)

Quebec Bridge.—A press dispatch of Aug. 13 stated that the contractors had completed all their work on the bridge, and that it was ready to be taken over by the government in its entirety. (June, pg. 241.)

The final official test of the bridge was made Aug. 21, in the presence of representatives of the Railways Department, the Quebec Bridge Commission, the Canadian Government Railways and the St. Lawrence Bridge Co., the builders. The bridge was tested by the operation over it of trains of the heaviest capacity operated, and by bringing them to a standstill on the central span. The test is reported to have been satisfactory in every particular. The results of the observation of the engineers were to be reported to the Railways Department, which would then formally take over the structure from the contractors.

St. John & Quebec Ry.—A press report states that as a result of the speeding up notice served by the New Brunswick Government on the Nova Scotia Construction Co., an additional number of men have been put on the construction of the extension of the line from Gagetown to the C.P.R. near Westfield, 37.8 miles. (Aug., pg. 337.)

Railway Rolling Stock Orders and Deliveries.

The British Columbia Government is reported to have bought 30 freight cars in Chicago, Ill., for the Pacific Great Eastern Ry.

Canadian Government Railways have received 6 switching locomotives from Canadian Locomotive Co., for the western lines, and 106 steel frame box cars, 40 tons capacity, from Canadian Car & Foundry Co., on account of orders placed in March.

The C.P.R., between July 16 and Aug. 14, received the following additions to rolling stock:—2 steel mail cars, 15 express refrigerator cars, 160 steel under-frame box cars, and 1 decapod locomotive, from its Angus shops, and 7 vans from its Winnipeg shops.

The U.S. Government has ordered an additional 500 consolidation locomotives from the Baldwin Locomotive Works; 15 additional light mikado locomotives from the Lima Locomotive Corporation, and 10,000 box, gondola and tank cars, distributed amongst 8 car building companies, for use of the U.S. Army in France.

The Dominion Government has bought 2 Marion ditchers for Eastern Lines, Canadian Government Railways, \$11,125 each, from F. H. Hopkins & Co.; 15 steel tank cars, 40 tons capacity, \$3,500 each, from American Railway Equipment Co.; 3 switching locomotives, \$43,095 each, from Toronto, Hamilton & Buffalo Ry., and 10 locomotives, \$10,000 each, from G.T.R., for Canadian Northern Ry.

The Canadian Government Railways are having a number of freight cars repaired and overhauled. Approximately 200 standard wooden box cars are to be repaired at Canadian Car & Foundry Co.'s Amherst, N.S., plant. These are of from 30 to 40 tons capacity, and some of them, where the roofs are defective, will be remodelled as roofless pulp cars. About

100 similar cars and some steel frame cars of 40 tons capacity, will also be repaired at the company's Montreal plant. A number of 40 ton box cars, and also some Hart-Otis cars, will be overhauled by the Eastern Car Co.

Following are chief details of the rotary snow plough, without tender, which the Dominion Government has ordered from the Montreal Locomotive Works, for the Canadian Northern Ry., as mentioned in a previous issue:—

Cylinders.....	17 x 24 in.
Plough truck wheels.....	33 in.
Boiler.....	60 in. diam.
Boiler pressure.....	190 lb.
Fire box.....	92 x 50 in.
Tubes, no., diam. and length.....	202—2 in. x 9 ft. 8 in.
Truck wheel base.....	4 ft. 6 in.
Wheel base, total.....	19 ft. 8½ in.
Weight in working order, front truck.....	82,500 lb.
back truck.....	73,500 lb.
Total.....	156,000 lb.
Fuel.....	soft coal
Heating surface, tubes.....	1,022 sq. ft.
Heating surface, firebox.....	130 sq. ft.
Heating surface, total.....	1,152 sq. ft.
Grate area.....	31.9 sq. ft.
Width of cut.....	15 ft.
Rotary wheel diam.....	9 ft. 8½ in.
Weight per axle.....	40,000 lb.
Length over all.....	38 ft. 3 in.
Height above rail, smoke stack.....	15 ft.

Freight and Passenger Traffic Notes.

The Edmonton, Dunvegan & British Columbia Ry. has put in operation specially low rates for cattle and sheep going into the north country, and for feed going out.

A Quebec press report states that the traffic through Quebec on the National Transcontinental Ry. at present is about double what it was at the same time last year.

Protests are being made at various western points regarding the use of private cars, and the suggestion is made that regulations restricting their use for strictly official purposes only be put in force.

The Grand Trunk Pacific Ry. announces that it has completed arrangements for the issue of through tickets from points on its lines to any point on the Edmonton, Dunvegan & British Columbia Ry., the Central Canada Ry., and the Alberta & Great Waterways Ry.

The Quebec & Saguenay Ry. was opened for traffic from St. Joachim to Baie St. Paul, Aug. 20, one train a day being run in either direction, Tuesdays, Thursdays and Saturdays. This service is being given by the contractors, O'Brien & Doheny, and connection to and from Quebec is made via the Quebec Ry., Light & Power Co.'s line.

The C.P.R. has discontinued the serving of night lunch free to Alaska passengers on local steamships between Vancouver, Victoria and Seattle. The service is, however, continued between Vancouver and Skagway. The night lunch on local vessels, for which a charge of 50c is made, includes meat or fish, while the free night lunch on other vessels is plain.

A new government regulation requires all aliens to produce their certificates of parole, with notice of permission to travel from one point to another when purchasing railway and steamship tickets in Canada. The order as to the registration of enemy aliens also requires all persons, 16 years old and upwards, to be registered. Heretofore only adults were required to be registered.

A Moncton, N.B., press dispatch, Aug. 19, states that it has been decided for

the present to keep the steamer Northumberland on the Summerside-Point du Chene route, and to put off until further notice the resumption of the car ferry service between Cape Tormentine, N.B., and Borden, P.E.I. It had previously been announced that this latter service was to be resumed Aug. 20.

The divisional point at Graham, Ont., on the National Transcontinental Ry., has been renamed Sioux Look Out. This is the name of the village and post office, which existed prior to the building of the railway, when the station was named Graham, after the then Minister of Railways. The station heretofore known as Knowlton, on the line between Superior Jct. and Fort William, has been renamed Graham.

A. H. Brittain, Montreal, in addressing the Canadian Fishermen's Association at Halifax, N.S., Aug. 10, dealt with the equipment necessary for the transportation of fish to inland points. He advocated the building of special express cars, similar to those used on western lines, to be run on passenger trains. The success of the business, he said, depends upon the provision of suitable cars, and their being run on passenger and not freight trains.

Railway Finance, Meetings, Etc.

The Grand Trunk Ry. is reported to have paid off, on Aug. 1, out of earnings, \$2,000,000 two-year 5% collateral gold notes issued in 1916, and offered by Blair & Co. at 98½ and interest.

Canadian Pacific Ry.—Dividends of 2% for the half year ended June 30, and of 2½% on the common stock, for the quarter ended the same date, being at the rate of 7% per annum from revenue and 3% per annum from special income account, have been declared payable Oct. 1 to shareholders of record Aug. 31.

Timiskaming & Northern Ontario Ry.—Passenger earnings for June, \$54,449.64; freight earnings, \$150,056.74; total earnings, \$204,506.38, against \$56,820.46 passenger earnings; \$120,419.57 freight earnings; \$177,240.03 total earnings for June, 1917.

Grain Inspection at Western Points.

The following figures, compiled by the Trade and Commerce Department's inspection branch, show the number of cars of grain inspected on railways at Winnipeg and other points in the Western Division, for July, and for 11 months ended July 31, compared with the number for the same period in 1917:—

	July, 1918	11 months to July 31, 1918	11 months to July 31, 1917
C.P.R.	1,248	91,328	123,307
C.N.R.	829	54,876	71,296
G.N.R., Duluth ..	4	714	3,511
G.T.P.R.	183	23,369	22,697
Totals	2,264	170,287	225,811

Two C.P.R. sleeping car conductors were committed for trial at Winnipeg, Aug. 1, charged with carrying passengers in sleeping cars who had not secured passenger tickets, and with not turning in the sleeping car fares collected. It is reported that similar charges have been preferred against sleeping car conductors at Montreal, Vancouver, and other places. The company's allegation is that passengers are handed over from one conductor to another from coast to coast, and that the cash received from such non ticketed passengers is divided between the conductors in the ring.

Mainly About Railway People Throughout Canada.

G. A. Mountain, M.E.I.C., Chief Engineer, Board of Railway Commissioners, Ottawa, has resumed his duties after a long absence due to illness.

Hon. F. Cochrane, M.P., ex-Minister of Railways and Canals, returned to Ottawa early in August from St. Andrews, N.B., where his family are spending the summer.

P. J. Dooley, who has been appointed dispatcher, Canadian Northern Ry., Dauphin, Man., was, for 8 years, operator, C.P.R., White River, Ont., and dispatcher, C.P.R., Schreiber, Ont.

S. L. Schoonmaker, Chairman of the Board, American Locomotive Co., and also of the Montreal Locomotive Works, shot himself while suffering from melancholia, at his home at Rosebank, N.Y., Aug. 17.

George Ham, of the C.P.R. headquarters staff, was entertained to dinner at Montreal, Aug. 23, by a number of C.P.R. officials, on the occasion of his 71st birthday, when he was presented with an oil painting of himself.

G. J. Harris, formerly Lake and Rail Agent, G.T.R., Chicago, Ill., and who, as announced in our last issue, was assigned to other duties on account of ill health, died at Chicago recently, of myocarditis, aged 62.

C. S. Mellen, formerly President, New York, New Haven & Hartford Rd., is suing for a divorce, on account of alleged desertion by his wife, who has already figured as defendant in another case, and who has entered a counter suit.

H. R. Safford, heretofore Chief Engineer, G.T.R., Montreal, has, according to a press report, been appointed Engineering Assistant to the Regional Director of the Central Western District, U.S. Railroad Administration.

Mrs. R. L. Smith, widow of Mr. Justice Smith, of the Manitoba bench, and mother of R. Home Smith, Toronto, President, Algoma Central & Hudson Bay Ry., died at Niagara on the Lake, Ont., Aug. 26, after a short illness.

Miss Doris Bury, younger daughter of Sir George Bury, Vice President, C.P.R., was married at St. George's Church, Montreal, to Capt. J. S. Allen of Vancouver, B.C., Aug. 26. After the ceremony they left for North Carolina, where they will reside.

D. J. Murphy, Roadmaster, Dominion Atlantic Ry., Kentville, N.S., was seriously injured at Bridgewater, N.S., at the end of July, when the trolley car on which he was riding on the track, was run into at a crossing by an automobile. He was conveyed to his home at Yarmouth.

Jos. H. Edwards, who has been appointed Local Treasurer and Paymaster, G.T.R. Lines in New England, Portland, Me., was born Dec. 1, 1872, and entered G.T.R. service Dec. 1, 1894, since when he has been, to June 1, 1897, clerk; June 1, 1897, to July 1, 1918, agent at various points.

R. E. Marks, whose appointment as passenger Trainmaster, Eastern Lines, G.T.R., Montreal, was announced in our last issue, was born at Brockville, Ont., Aug. 11, 1875, and entered G.T.R. service May 27, 1897, since when he has been, to May 15, 1906, brakeman; May 15, 1906 to July 9, 1918, conductor, all at Montreal.

J. G. Sullivan, M.E.I.C., M.Am.Soc.C.E., who resigned his position as Chief Engineer, Western Lines, C.P.R., recently, has opened a consulting engineer's office at 703 McIntyre Block, Winnipeg, making a

specialty of all kinds of railway work, mining, foundations, tunnelling, elevators, etc.

W. C. Riddell, whose appointment as Advertising Agent, Grand Trunk Pacific Ry., Winnipeg, was announced in our last issue, was presented with a leather travelling bag by his associates at Montreal, prior to leaving there at the end of July, after having been chief clerk, General Advertising Agent, G.T.R., for 16 years.

Harry P. Sweetser, who has been appointed General Solicitor, G.T.R. Lines in New England, Portland, Me., under the U.S. Railroad Administration, was born July 20, 1873, and entered G.T.R. legal department in Oct., 1898, and for about 8 years acted as Assistant Solicitor, and from Jan. 1, 1917, as Solicitor, G.T.R., Portland, Me.

Alfred Edward Plant, who has been appointed General Auditor and Freight Claims Agent, G.T.R. Lines in New England, Portland, Me., was born Apr. 8, 1878, and entered G.T.R. service Jan. 1, 1908, since when he has been, to July 1, 1912, clerk; July 1, 1912, to Aug. 1, 1914, bookkeeper; Aug. 1, 1914, to July 1, 1918, chief clerk, all at Montreal.

Michael Corcoran, who has been appointed Supervisor of Track, west of Shelburne, N.H., G.T.R. Lines in New England, was born at Valcartier, Que., Sept. 4, 1863, and entered G.T.R. service May 10, 1888, since when he has been, to June, 1891, trackman, North Stratford, Ont.; June, 1891, to Feb. 8, 1911, track foreman, North Stratford, Ont.; Feb. 8, 1911, to July 1, 1918, Supervisor of Track, Gorham, N.H.

James M. Gibson, who has been appointed Supervisor of Track, east of Shelburne, N.H., G.T.R. Lines in New England, was born June 17, 1856, and entered G.T.R. service May 1, 1872, as apprentice in the engineering department. He was appointed first assistant foreman, in 1886, Foreman, Bridge and Building Department, Portland, Me., in 1896, General Foreman, District 1, in Jan., 1902, holding the last position at the time of his present appointment.

Gardner Ludwig Nelson, who has been appointed Traffic Manager, G.T.R. Lines in New England, Portland, Me., under the U.S. Railroad Administration, was born June 28, 1862, and entered G.T.R. service Nov. 23 1879, since when he has been, to Mar. 15, 1893, clerk in Transportation Department, Portland, Me.; Mar. 15, 1893, to Jan. 1, 1903, agent, National Despatch-Great Eastern Line, Portland, Me.; Oct. 1, 1905, to July 1, 1918, Division Freight Agent, G.T.R., Portland, Me.

James W. Farrell, who has been appointed Superintendent, G.T.R. Lines in New England, Portland, Me., was born Aug. 1, 1863, and entered G.T.R. service Aug. 1, 1881, since when he has been, to May 1, 1883, telegraph operator; May 1, 1883, to May 24, 1898, dispatcher, Island Pond, Vt.; May 24 to Nov. 1, 1898, instructor of standard rules at various points; Nov. 1, 1898, to Oct. 1, 1907, Chief Dispatcher, Island Pond, Vt.; Oct. 1, 1907, to July 1, 1918, Trainmaster, Island Pond, Vt.

William Morley Cooper, who has been appointed Trainmaster and Road Foreman of Locomotives, G.T.R. Lines in New England, Portland, Me., under the U.S. Railroad Administration, was born July 25, 1875, and entered G.T.R. service July 8, 1894, since when he has been, to Aug.

10, 1895, road house foreman; Aug. 10, 1895, to Sept. 12, 1898, locomotive fireman; Sept. 12, 1898, to Nov. 1, 1904, locomotive man; Nov. 1, 1904, to July 1, 1918, Road Foreman of Locomotives at various points.

Joseph Hay, who has been appointed Master Mechanic, G.T.R. Lines in New England, Portland, Me., under the U.S. Railroad Administration, was born July 4, 1876, and entered G.T.R. service Feb. 24, 1893, since when he has been, to May 1, 1893, call boy, Belleville, Ont.; May 1, 1893, to Nov. 19, 1898, apprentice; Nov. 19, 1898, to Aug. 1, 1900, fitter; Aug. 1, 1900, to Apr. 1, 1907, foreman, Palmerston, Ont.; Apr. 1, 1907, to Feb. 1, 1911, foreman, London, Ont.; Feb. 1, 1911, to July 1, 1918, foreman, Sarnia, Ont.

Maynard W. Stevens, who has been appointed Purchasing Agent and Storekeeper, G.T.R. Lines in New England, Portland, Me., was born July 8, 1888, and entered G.T.R. service Sept. 1, 1906, since when he has been, to Feb. 1, 1910, bonding clerk, Island Pond, Vt.; Feb. 1, 1910, to Sept., 1914, chief clerk, Water Power Department, Island Pond, Vt.; Sept., 1914, to Feb., 1915, in charge of stores; Feb., 1915, to Aug. 1, 1917, in charge of general inventory work on the road; Aug. 1, 1917, to July 1, 1918, storekeeper, Portland, Me.

John Martin Gilmour, whose appointment as Yardmaster, Edmonton and Strathcona Terminals, C.P.R., Edmonton, Alta., was announced in our last issue, was born at Ottawa, Ont., Aug. 21, 1885, and entered C.P.R. service in 1902, since when he has been, to 1906, stenographer, consecutively, at Ottawa, Ont.; Regina, Sask.; Fort William, Ont.; Winnipeg, Man.; and Calgary, Alta.; 1906 to June, 1910, rodman and clerk, Engineering Department, Calgary, Alta.; June, 1910, to Jan., 1912, assistant chief clerk, Superintendent's office at Calgary, Lethbridge and Edmonton, Alta., consecutively.

E. E. Dildine, who has been appointed Superintendent of Telegraph, Northern Pacific Ry., St. Paul, Minn., was born at Hawtrey, Ont., Sept. 1, 1866, and entered railway service Sept. 15, 1883, since when he has been, to 1884, with the Flint & Pere Marquette Rd., now the Pere Marquette Ry.; 1884 to 1886, with Canada Southern Ry., part of the Michigan Central Rd.; from 1886 to date, his service has been with the Northern Pacific Ry., except for a period in 1892, which he served with the C.P.R. Telegraphs at Toronto, and the Western Union Telegraph Co., Chicago, Ill.

L. R. Pyle, Fuel Supervisor, Minneapolis, St. Paul & Sault Ste. Marie Ry., Minneapolis, Minn., has been appointed Supervisor of the fuel conservation section of the Central Western Region, under the U.S. Railroad Administration, with office at Chicago, Ill., and gives special attention to the conservation of fuel used on locomotives, in shops, at terminals, at water stations and for all miscellaneous purposes, and to the preparation of fuel received, and to its quality, and will make investigations and recommendations in regard to its transportation and handling at fuel stations.

Chas. H. Tillett, whose appointment as Electrical Engineer, G.T.R., Montreal, was announced in our last issue, was born at Peru, Ind., Dec. 8, 1884, and entered railway service in Aug., 1907, since when he has been, to Nov., 1907, signal repair man, Pennsylvania Rd., Fort Wayne, Ind.; Apr., 1908, to Feb., 1910, signal re-

pair man, Great Northern Ry., Seattle, Wash.; Feb., 1910, to July, 1913, Signal Inspector, Chicago & Eastern Illinois Rd., Chicago, Ill.; July to Oct., 1913, Signal Inspector, G.T.R., Montreal; Oct., 1913, to July, 1918, Supervisor of Signals, G.T.R., Montreal.

Edgar E. Stevens, who has been appointed Safety Engineer, Eastern Lines, Canadian Government Railways, Moncton, N.B., was born there Oct. 19, 1887, and entered Canadian Government Railways service, Sept. 17, 1903, since when he has been, to Feb. 1, 1917, in various positions from messenger to chief loss and damage claim investigator in the Freight Claims Department; Feb. 1 to May 24, 1917, chief clerk to General Solicitor; May 24 to July 10, 1917, Travelling Freight Claim Adjustor, Freight Claims Department; July 10, 1917, to Aug. 1, 1918, Claims Agent, all at Moncton.

James J. Ginty, whose appointment as Supervisor of Signals, Eastern Lines, G.T.R., Montreal, was announced in our last issue, was born at Lockport, N.Y., Nov. 3, 1884, and entered transportation service in 1906, since when he has been, to 1907, construction hand, Western Lines, New York Central Rd.; 1907 to 1908, assistant construction foreman, General Railway Signal Co., Rochester, N.Y.; 1908 to 1913, general construction foreman, Union Switch & Signal Co., New York, N.Y.; 1913 to 1916, General Signal Foreman, G.T.R., Montreal; 1916 to July, 1918, Chief Signal Inspector, G.T.R., Montreal.

W. Sutherland Taylor, formerly Treasurer, C.P.R., died at his home at Montreal, Aug. 22, after a short illness. He was born at Dornoch, Scotland, Oct. 18, 1839, and entered railway service in Canada as Secretary, during construction, of the Toronto, Grey & Bruce Ry., now part of the C.P.R., and was from 1873 to Jan. 1, 1884, Secretary and Treasurer, Toronto, Grey & Bruce Ry.; and from Jan. 1, 1884, to June, 1908, Treasurer, C.P.R., Montreal, at which latter date, he retired from active service. The funeral at Montreal, Aug. 24, was attended by a large number of C.P.R. and other transportation officials.

Rowland F. Hill, who has been appointed Assistant General Freight and Passenger Agent, Toronto, Hamilton & Buffalo Ry., Hamilton, Ont., was born there, Dec. 14, 1889, and entered T.H. & B.R. service in July, 1906, since when he has been, to Sept., 1906, stenographer in Master Mechanic's office; Sept., 1906, to Sept., 1909, stenographer in General Freight and Passenger Agent's office; Sept., 1909, to Nov., 1911, Soliciting Freight Agent; Nov., 1911, to May, 1915, rate clerk; May to Sept., 1915, chief clerk, General Traffic Manager's office; Sept., 1915, to Aug. 9, 1918, Assistant General Freight and Passenger Agent, all at Hamilton, Ont.

George L. Courtney, who has been appointed General Manager, Pacific Great Eastern Ry., Vancouver, B.C., was born at Chatham, Ont., Oct. 7, 1868, and entered railway service in 1885, since when he has been, to Aug., 1890, clerk, G.T.R.; Aug., 1890, to Aug., 1898, with C.P.R. consecutively as clerk, travelling passenger agent, contracting freight agent and agent at Victoria, B.C.; Aug., 1898, to 1908, Traffic Manager, Esquimalt & Nanaimo Ry., and during the latter portion of that period, General Agent, C.P.R., Victoria, B.C. He resigned from the service in 1908, and was subsequently engaged in the tugboat business as a partner in the firm of Greer, Courtney & Skene, Ltd., Victoria, B.C.

Chester Barrett Weiss, who has been appointed Assistant Engineer, G.T.R.

Lines in New England, Portland, Me., under the U.S. Railroad Administration, was born Dec. 27, 1889, and entered railway service in 1909, since when he has been, to 1910, on reconnaissance surveys, Louisville & Nashville Rd.; 1910 to 1911, tunnel inspector, Lexington & Eastern Rd.; 1911 to 1912, Masonry Inspector, Tuscaloosa Mineral Rd.; 1912, in private business as masonry engineer, Detroit, Mich.; Sept. 15, 1912, to Feb. 1, 1916, Grade Separation Engineer, G.T.R., Detroit, Mich.; Feb. 1, 1916, to July 1, 1918, Assistant Engineer, Montreal Division and Montreal Terminals, G.T.R., Montreal.

W. W. Walker, Federal Manager, Duluth, South Shore & Atlantic Ry., Duluth, Minn., who died recently following an operation, was born at St. Catharines, Ont., June 3, 1868, and entered railway service in 1883, as office boy with the G.T.R. In 1884 he entered the Queen and Crescent Route service, as clerk in



Morley Donaldson, M.E.I.C.
Formerly Vice President and General Manager,
Grand Trunk Pacific Railway, who died at
Ottawa Aug. 27, 1918.

the traffic department, and in 1887 transferred to Chicago & North Western Ry. service in the claims department, and from Oct., 1888, to Feb., 1890, was rate clerk and chief clerk in the Great Northern Ry. general freight department, and in 1890 was appointed Travelling Freight Agent, Duluth, South Shore & Atlantic Ry.; 1897, Assistant General Freight Agent; July, 1901, General Freight Agent; Dec. 1, 1911, to the passing of the railway under the U.S. Railroad Administration, Vice President and General Manager.

W. B. Lanigan, who has been appointed Freight Traffic Manager, C.P.R., Montreal, was born at Three Rivers, Que., Oct. 12, 1861, and entered railway service in 1879, on the North Shore Rd., between Montreal and Quebec. He took service with the G.T.R. in Jan., 1881, remaining there until he went to the C.P.R. in Aug., 1884, since when he has been, to Oct., 1886, operator and relieving agent, Sharbot Lake, Ont.; Oct., 1886, agent, Claremont, Ont.; Nov., 1886, to April, 1887, agent, Myrtle, Ont.; April, 1887, to July, 1888, agent, Dundalk, Ont.; July, 1888, to

July, 1891, agent, Galt, Ont.; July, 1891, to April, 1900, Travelling Freight Agent, Ontario Division; April, 1900, to July, 1901, Assistant General Freight Agent, Ontario Division; July, 1901, to Feb., 1908, General Freight Agent, Western Division, Winnipeg; Feb., 1908, to Aug., 1918, Assistant Freight Traffic Manager, Western Lines, Winnipeg.

Morley Donaldson, M.E.I.C., who died at his home in Ottawa, Ont., Aug. 27, resigned the position of Vice President and General Manager, Grand Trunk Pacific Ry., Winnipeg, in Aug., 1917, on account of ill health. He was born near Edinburgh, Scotland, May 1, 1851, and was educated in France and Canada. After spending some time in E. Gilbert & Co.'s engine works at Montreal, he entered W. & F. Shanly's service, and was with them during the construction of the Hoosac tunnel in Massachusetts. He entered railway service in 1881, as chief draftsman, Canada Atlantic Ry., and subsequently was Superintendent, Mechanical Department; Superintendent of Traffic and Mechanical Department, and to Apr. 11, 1898, Superintendent, same road, Ottawa, and on the absorption of the Canada Atlantic Ry. by the G.T.R., and its operation as the Ottawa Division, he was appointed Superintendent, retaining that position until June 17, 1912, when he was appointed Vice President and General Manager, Grand Trunk Pacific Ry., and Grand Trunk Pacific Coast Steamship Co., Winnipeg.

James B. Lambkin, who died at the Royal Victoria Hospital, Montreal, Aug. 1, from diabetes and tuberculosis, was connected with transportation service for many years. He was born at Quebec, Que., Apr. 5, 1858, in barracks, his father being a sergeant-major, attached to the 17th Leicestershire Regiment, then stationed there. As a boy he entered the Ottawa River Navigation Co.'s service as a messenger, and later entered Pullman Co.'s employ. From 1881 to 1898, he was in C.P.R. service, and in 1898 was appointed District Passenger Agent, Intercolonial Ry., Montreal, and was subsequently appointed Assistant General Passenger Agent, I.R.C., Halifax, N.S., remaining there until 1912, when he left railway service. Though young, he served as a trumpeter with the Ottawa Field Battery during the Fenian raids in 1870, and was for several years connected with the Princess Louise Dragoons at Ottawa, and acted as state herald to H.R.H. Princess Louise, wife of the then Governor General. During the present war he served as conducting officer for the Invalided Soldiers' Commission, with the rank of captain.

G. M. Bosworth, who has retired from the position of Vice President, Traffic Department, C.P.R., and will devote his whole time to his duties as Chairman, Canadian Pacific Ocean Services, Ltd., both of which positions he has held since the organization of the latter company, was born at Ogdensburg, N.Y., Jan. 27, 1858, and entered transportation service May 1, 1875, since when he has been, to Feb. 21, 1881, office boy, clerk in Local Freight Department, in Audit Department, and in General Freight Department, Ogdensburg & Lake Champlain Ry., Ogdensburg, N.Y.; Feb. 21 to Aug. 1, 1881, General Freight Agent, same road; Aug. 1, 1881, to May 1, 1882, Travelling Freight Agent, National Despatch Line, Chicago, Ill.; May 1, 1882, to Jan. 1, 1884, Assistant General Freight Agent, Ontario and Quebec Lines, C.P.R.; Apr. 15, 1885, to Jan. 1, 1896, Assistant Freight Traffic Manager, lines east of Fort William, C.P.R.; Jan. 1, 1896, to Dec. 1, 1901,

Freight Traffic Manager, C.P.R.; Dec. 1, 1901, to Aug. 15, 1918, Vice President, Traffic Department, and from Jan. 1, 1916, also Chairman, Canadian Pacific Ocean Services, Ltd., Montreal.

Earl Washington Williams, who has been appointed chief clerk and Superintendent, Car and Time Service, G.T.R. Lines in New England, Portland, Me., was born Aug. 8, 1879, and entered railway service May 1, 1898, since when he has been, to Mar. 2, 1899, clerk, Baltimore & Ohio Rd., Cumberland, Md.; Mar. 2, 1899, to Nov. 11, 1900, clerk to Trainmaster, same road, Cumberland, Md.; Nov. 11, 1900, to Nov. 29, 1903, clerk to Superintendent same road, Grafton, West Virginia; Nov. 29, 1903, to Apr., 1909, chief clerk to General Yardmaster, same road, Grafton W.V.; Apr. to Nov. 21, 1909, extra Yardmaster, same road, Grafton, W.V.; Nov. 21, 1909, to July 6, 1911, chief clerk to Trainmaster, Missouri Pacific Rd., Wichita, Kan.; July 8 to 14, 1911, assistant chief clerk to General Superintendent, same road, St. Louis, Mo.; July 20 to Nov. 7, 1911, chief clerk to Trainmaster, G.T.R., London, Ont.; Nov. 7, 1911, to Feb. 8, 1912, assistant chief clerk to General Superintendent, same road, Toronto; Feb. 8, 1912, to Feb. 7, 1918, chief clerk to Superintendent, same road, London, Ont.; Feb. 7 to July 1, 1918, Travelling Inspector, Western Lines, same road, Chicago, Ill.

G. C. Martin, who has been appointed General Traffic Manager, Toronto, Hamilton & Buffalo Ry., Hamilton, Ont., was born at Creemore, Ont., Jan. 2, 1866, and commenced his railway career as assistant to agents, Northern and North Western Ry., at Creemore, New Lowell and Thornbury, Ont. He was engaged as an operator on construction, C.P.R., near Calgary, Alta., and at Hawk Lake, Ont., in 1883, and was appointed agent and operator, Northern and North Western Ry., Colwell Jct., Ont., in 1884, was moved to Caledon East, Ont., in 1886, to Cardwell Jct., Ont., in 1888, and to the city ticket office, London, Ont., in 1889. He entered C.P.R. service in 1891 as relieving agent, and after doing station work, station auditing, dispatching, etc., for several years, he left railway service for one year, returning to the service as clerk in the G.T.R. ticket office, union station, Toronto and in 1897 entered Toronto, Hamilton & Buffalo Ry. service, since when he has been, to Oct., 1909, chief clerk, General Freight and Passenger Agent's office; Oct., 1909, to July 22, 1912, Assistant General Freight and Passenger Agent; July 22, 1912, to Aug. 9, 1918, General Freight and Passenger Agent, all at Hamilton, Ont.

Wm. R. MacInnes, who has been appointed Vice President, Traffic Department, C.P.R., Montreal, was born at Hamilton, Ont., June 7, 1867, and educated at Marlboro College, England. He is a son of the late Senator MacInnes, a former director of the C.P.R., and a grandson of the late Sir John Beverley Robinson, Bart. He entered C.P.R. service July, 1884, since when he has been, to Nov., 1885, clerk in Purchasing Department; Nov., 1885, to Sept., 1886, clerk in Solicitor's office; Sept., 1886, to May, 1887, clerk in General Traffic Manager's office; May, 1887, to Mar., 1896, chief clerk, same office, all at Montreal; Mar., 1896, to June, 1899, General Agent, Freight Department, C.P.R., and Agent, Canadian Pacific Despatch, Chicago, Ill.; also representative of Duluth, South Shore & Atlantic Ry. and Minneapolis, St. Paul & Sault Ste. Marie Ry. there; July, 1899, to June, 1901, General Freight Agent, Lines west of Lake Superior; June, 1901, to

Jan., 1903, Assistant Freight Traffic Manager, Western Lines, Winnipeg; Jan., 1903, to Aug. 15, 1918, Freight Traffic Manager, Montreal. He is a member of the Bank of British North America's Canadian advisory board.

C. W. Van Buren, General Master Car Builder, C.P.R., Montreal, was killed in an automobile accident near Albany, N.Y., Aug. 24. The car in which he was travelling swerved over an embankment and fell about 15 ft., in front of an eastbound New York Central express train. He was born in Rensselaer county, N.Y., Oct. 15, 1867, and entered railway service in Mar., 1889, since when he was, to Nov., 1891, carpenter, New York Central Shops, West Albany, N.Y.; Nov., 1891, to Sept. 1, 1893, assistant foreman; Sept. 1, 1893, to Sept. 1, 1896, in charge of Car Department work, Adirondack Division, same road, Herkimer, N.Y.; Sept. 1, 1896, to July 16, 1905, Car Foreman, Adirondack Division, and Mohawk Division, New York Central and West Shore Rds.; July 16, 1905, to July 1, 1906, General Car Inspector, Eastern Lines, C.P.R., Montreal; July 1, 1906, to July 1, 1909, Divisional Car Foreman, Eastern Division, C.P.R., Montreal; July 1, 1909, to May 31, 1911, Master Car Builder, Eastern Lines, C.P.R., Montreal; July 1, 1911, to Jan. 1, 1915, Assistant to General Manager, Union Stock Yard and Transit Co., Chicago, Ill.; Jan. 1 to April 1915, General Foreman, Car Shops, Milwaukee Refrigerator Transit & Car Co., Milwaukee, Wis.; and from Apr., 1915, General Master Car Builder, C.P.R., Montreal.

Canadian Railway War Board's Work.

Aisle Strips in Passenger Cars.—In the interest of sanitation and economy in materials, a majority of member lines having voted in favor of a proposal to discontinue the use of aisle strips, either carpet or linoleum, in day passenger cars on all railways operating in Canada, commencing not later than Oct. 1, all railways have been asked to place this arrangement in effect on their lines, if it does not already govern.

Anthracite Coal Consumption.—In view of the increasing difficulty in obtaining necessary supplies of anthracite coal, and the possibility of further reduction in the allotment to Canada during this year, railways have been called upon to effect a heavy reduction in their requirements. In order to permit of accomplishment of the necessary reduction, therefore, it has been arranged that the railways will discontinue the use of anthracite coal, except to the extent required for consumption in heaters in passenger equipment. In all other circumstances where hard coal has been used in previous seasons, it is necessary to arrange for the burning of coke or other suitable substitute.

The Fuel Administration has stated that for every ton of hard coal which was used in Canada last year, in excess of the amount allotted for the coming season, 1½ tons of bituminous coal will be allowed.

J. E. Quick, who retired recently from the position of General Baggage Agent, G.T.R., in writing to have his address changed from Toronto to R.F.D. 2, Port Huron, Mich., said: "I have been a constant subscriber since Canadian Railway and Marine World was started and have found it very interesting, and undoubtedly will continue to do so now that I have retired from active service."

Canadian Government Railways, Construction, Betterments, Etc.

Prince Edward Island Ry.—C. A. Hayes, General Manager, Eastern Lines, Canadian Government Railways, made a trip of inspection over this railway Aug. 16. A press report states that he informed the Charlottetown Board of Trade that there was a possibility of a third rail being laid between Borden and Summerside and Charlottetown at an early date to enable standard gauge cars to be operated between these points. A large quantity of standard gauge ties have been delivered, and it is reported that special switches to suit both narrow and standard gauges are being manufactured. (June, pg. 241.)

Sydney Yard Extension.—A press report of Aug. 9, stated that in preparation for extending the yards at Sydney, N.S., an area of 1,000 x 400 ft. near Ferry St. was being filled in, and that four steam shovels were at work on a nearby hill getting out material.

Halifax Ocean Terminals.—According to a press report of Aug. 17, it is expected to have the temporary station at the new ocean terminals ready for occupation early in October. The new structure is of frame and faces Pleasant St., and is 180 ft. long by 80 ft. wide, and 30 ft. high. The waiting rooms are on the north side, the general waiting room being 100 x 40 ft. Adjoining this is an L section, 240 x 150 ft. wide, on the ground floor of which are the baggage room offices, 3 express rooms, milk store and commissariat store, while upstairs are the conductors' rooms, the commissariat and other offices. Along the east side of this building are doors for loading and unloading produce, etc. The platform is sheltered by an overhang of the roof. The train sheds are permanent structures of reinforced concrete and extend back to the waterfront. The contract for the train sheds was let to the Bate, McMahon Co., and that for the station building to Morrison & Downey.

Yard Improvements at Moncton.—A press report states that a number of improvements have been made at the yards at Moncton, N.B. (See Intercolonial Ry., Aug., pg. 337.)

C.P.R. Irrigation Developments.—Tenders are under consideration by the C.P.R. Natural Resources Department for the Magrath, Alta., diversion works, comprising the construction of a spillway, sluice gates and headgates in the N.W. ¼ of Sec. 23, Tp. 5, R. 22, West of 4th Meridian, approximately 1½ miles directly south of Magrath station, in the Lethbridge irrigation system. The structure will contain approximately 1,600 cubic yards of concrete and 97,000 lb. of reinforcing steel. A. S. Dawson, Calgary, Alta., is Chief Engineer.

Railway Lands Patented.—Letters patent were issued during July in respect of Dominion railway lands in Manitoba, Saskatchewan, Alberta and British Columbia, as follows:—

Alberta & Great Waterways Ry.....	6.00
Calgary & Edmonton Ry.....	9,564.00
Central Canada Ry.....	203.28
Canadian Northern Ry.....	640.18
Canadian Pacific Ry.....	16.82
Grand Trunk Pacific Ry.....	12.24
Qu'Appelle, Long Lake & Saskatchewan Rd. & Steamboat Co.....	5,785.17
Total	16,227.69

By arrangements made by the Alberta Government, farm laborers were enabled to travel anywhere within that province during August at 1 a mile, going to and from farm work.

Canadian Railway AND Marine World

ESTABLISHED 1898.

Devoted to Steam and Electric Railway, Marine, Express, and Telegraph, also Railway and Canal Contractors' Interests.
Official Organ of various Canadian Transportation Associations.
Published on the first of each month.

ACTON BURROWS, LIMITED - Proprietors,
70 Bond Street, Toronto, Canada.

ACTON BURROWS, A.E.I.C.
Managing Director and Editor-in Chief.
AUBREY ACTON BURROWS - Secretary and Business Manager.

Associate Editors
JOHN KEIR AND DONALD F. KEIR

United States Business Representative,
A. FENTON WALKER, 143 Liberty St., New York

Member of
Canadian Press Association,
Associated Business Papers,
Audit Bureau of Circulation.

Authorized by the Postmaster General for Canada,
for transmission as second class matter.

SUBSCRIPTION PRICE, including postage anywhere, \$2 a year.

SINGLE COPIES, 20 cents each, including postage.
The best and safest way to remit is by express money order. Where one cannot be obtained, a post office money order, or bank draft, payable at par in Toronto, may be sent. Cheques or drafts not payable at par in Toronto cannot be accepted. Remittances should be made payable to Canadian Railway and Marine World.

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TORONTO, CANADA, SEPTEMBER, 1918.

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Signals for Railway Grade Crossings.

The Board of Railway Commissioners passed general order 247, Aug. 6, as follows:—By circular 156, dated Jan. 15th, 1918, railway companies were directed to consider the adoption of a metal disc to be used as a standard at railway grade crossings protected by watchmen, and to file their comments with the board within 30 days therefrom.

Upon reading the replies filed by the companies affected, and upon the recommendation of the board's Chief Operating Officer, it is ordered that railway companies be directed to adopt and put into use at all grade crossing protected by watchmen during the daytime, a metal disc, 16 in. in diameter, with a short handle having a white background, with the word "Stop" in large black letters and a black border. That rule 33 of General Train and Interlocking Rules, which provides that "watchmen stationed at public crossings must use a green signal to prevent persons and vehicles from crossing the track when trains are approaching," be amended to conform with the standard hereby directed to be adopted.

Wedge Tanks for Switching and Transfer Locomotives Refused.

D'Arcy Scott, Assistant Chief Commissioner, Board of Railway Commissioners, gave the following judgment July 31 re the application of the Brotherhood of Locomotive Engineers, for an order directing that all switch and transfer locomotives be equipped with wedge tanks, low enough for locomotive men to see over, and with a headlight on the rear; the case having been heard at Ottawa, May 7:

A number of railway companies have switching locomotives equipped with a sloping tender so that the locomotive man when backing the locomotive can see a man whose duty it would be to couple the locomotive to a car. This would, doubtless, lead to the prevention of an accident where the tender is being coupled to a car, but in many cases of shunting, the car which is being attached or separated from the train, is not next the locomotive, but some distance away from it. In such a case, where there is a box car between the man on the ground and the locomotive man, the box car obstructs the view and the sloping tender is of no avail. Some railway officials object to sloping tenders, because the capacity of the tender for carrying coal and water must be curtailed.

The board's operating department reports that in so far as equipping the rear of tenders with headlights is concerned, that as a matter of fact nearly all the switchers now in use are so equipped. A headlight on the rear end of a tender would, of course, be obstructed by a box car attached to the tender, as the view of the locomotive man would be obstructed by a box car as I have already mentioned.

It is apparent that the changes asked for would have some advantages and some disadvantages, but it does not appear to me that the sloping tender, or the rear headlight, would be sufficiently important in the lessening of the occurrence of accidents to warrant the board in putting the railway companies to the expense of equipping their shunting and switching locomotives accordingly. The present time is quite inopportune, when

the resources of railway companies are being taxed to the utmost by war necessities, and material and labor are so difficult and expensive to obtain, to place any such burden upon railway companies.

As I have already pointed out, some of the railway companies have already many shunting locomotives equipped in the way the applicants desire. The companies are, of course, free to continue arranging for such equipment if they so desire. I do not think the board should order them to do so. The application should be dismissed.

Deputy Chief Commissioner Nantel and Commissioner Boyce concurred in the judgment. Commissioner McLean said:—"Independently of the question of expense, a case for the order asked for has not been made out."

Canadian Northern Railway Construction, Betterments, Etc.

Gross earnings, working expenses, net earnings, increases, or decreases, compared with those of 1916, from July 1, 1917:

	Gross		Net	
	Earnings	Expenses	Earnings	Decrease
July	\$3,844,900	\$2,940,000	\$ 904,900	\$ 292,500
Aug.	3,405,200	2,812,000	593,200	478,800
Sept.	3,341,700	2,915,800	1,924,000	306,700
Oct.	3,941,600	3,350,500	591,100	629,200
Nov.	4,050,200	3,295,500	754,700	495,300
Dec.	3,273,200	3,207,900	65,300	758,500
Jan.	2,715,300	3,290,300	x575,000	1,057,100
Feb.	2,691,000	3,171,400	x480,400	588,600
Mar.	3,436,300	3,225,900	210,400	407,700
Apr.	3,958,100	3,416,800	541,300	216,600
May	3,762,000	3,381,100	380,900	673,500
June	4,031,100	3,516,900	514,200	573,400
	\$42,450,600	\$38,524,100	\$3,926,500	\$6,477,900
Inc.	.....	\$ 5,272,000	.....	.....
Dec.	\$ 1,205,900	.....	\$ 6,477,900	.....

Approximate earnings for July, \$3,739,400, and for three weeks ended Aug. 21, \$2,591,600, against \$3,844,900, and \$2,270,000 for same periods in 1917.

Canadian Pacific Railway Earnings, Etc.

Gross earnings, working expenses, net earnings, and increases or decreases, compared with those of 1917, from Jan. 1, 1918:

	Gross		Net	
	Earnings	Expenses	Earnings	Increase
Jan.	\$10,789,818	\$9,621,824	\$1,167,993	\$1,263,485
Feb.	9,574,302	8,983,404	590,898	1,396,151
Mar.	12,427,915	9,435,134	2,992,781	944,536
Apr.	13,328,849	9,873,459	3,455,390	719,588
May	13,314,117	9,626,341	3,687,776	863,944
June	12,577,286	9,765,139	2,812,147	1,103,759
	\$72,012,289	\$57,305,302	\$14,706,985	\$6,290,464
Inc.	\$ 655,510	\$ 6,945,974	.....	.....
Dec.	.....	.....	\$ 6,290,464	.....

Approximate earnings for July, \$11,920,000, and for three weeks ended Aug. 21, \$8,583,000, against \$12,925,000, and \$8,005,000 for same periods in 1917.

Grand Trunk Railway Earnings.

Aggregate from Jan. 1 to July 31:—

	1918		1917	
	Earnings	Expenses	Earnings	Decrease
G.T.R.	\$31,951,008	\$29,042,498	\$2,908,510	.....
G.T.W.R.	5,934,536	5,545,031	389,505	.....
D.G.H. & M.R.	1,748,861	1,940,817	.....	\$191,956
Totals	\$39,640,405	\$36,528,346	\$3,106,059	.....

Grand Trunk Pacific Ry. Earnings.

Aggregate earnings from Jan. 1 to June 30, \$2,861,179, against \$2,509,457 for same period in 1917. Earnings for three weeks ended Aug. 21, \$304,969, against \$338,139 for same period 1917.

E. E. Stevens, Safety Engineer, Canadian Government Railways, Moncton, N. B., writes: "I have always found Canadian Railway and Marine World to be of great interest and value."

Traffic Orders by Board of Railway Commissioners.

Increases in Electric Railway Freight and Passenger Rates.

Orders passed by the board, authorizing increases in freight and passenger rates on certain electric railways, are given in the electric railway department of this issue on page 397.

Wood Pulp Rates for Bromptonville.

The Assistant Chief Railways Commissioner, D'Arcy Scott, gave the following judgment, Aug. 2, on the Fort Frances Pulp & Paper Company's application for an order compelling the Grand Trunk and Canadian Northern Railways to re-establish joint commodity rates on wood pulp from Bromptonville, Que., to Fort Frances, Ont.:

The applicant has large pulp and paper mills at Fort Frances. It manufactures its own ground wood, one of the ingredients in newsprint, but owing to the increased demand for newsprint for newspapers published in Western Canada and to a lessening in its supply of pulpwood, on account of low water in Rainy River, the company was compelled to buy wood pulp from some eastern mills. Effective Dec. 19, 1917, a special joint commodity rate from Bromptonville to Fort Frances of 22c per 100 lb., was arranged between the railways interested. (See G.T.R. Tariff, Supplement 7 to C.R.C. no. E-3483.) This rate was taken out on May 8, and there being no special rate available, the wood pulp moved under the 10th class of 49c.

The distance from Bromptonville to Fort Frances is 1,393 miles. At the hearing the Canadian Northern Ry. undertook to endeavor to secure the establishment of a 28c rate, which would give the railways a gross revenue of four-tenths of a cent a ton a mile from Bromptonville to Fort Frances. After allowing this matter to remain in abeyance, with the expectation that some agreement would be arrived at, we have now been advised that the 28c rate is not agreeable to the G.T.R., but that that company would be agreeable to the establishment of a joint rate of 35c per 100 lb.; that is, the company wants an increase of 25% on the 28c rate suggested. In view of the general increase in freight rates granted by the Governor in council, by order dated July 27, which would, of course, automatically have increased the 28c rate had it been made effective, it seems to me to be not unreasonable to increase this rate in accordance with the order in council. Wet wood pulp is 10th class freight, and the present 10th class rate from Bromptonville to Fort Frances is 49c. Taking the east and west factors of this rate and applying the increase of the order in council in the same ratio to the 28c rate, the result would give a through commodity rate of 33½c, which rate should be established and made effective not later than Aug. 15.

Minimum Carload Weight of Flour.

General order 245. Aug. 8. Re complaints of Dominion Millers' Association and Toronto Board of Trade against increased carload minimum weights on grain and grain products for domestic consumption, published by railway companies to take effect April 2, 1917; and re application of Canadian Railway War Board for permission to increase minimum carload weight of flour as fixed by general order 186, April 4, 1917: Upon the consent of the Dominion Millers' Association and the Toronto and Montreal Boards of Trade, on file with the board, it is ordered that clause 4 of general order

186 be amended so as to provide that, until further order, the minimum carload weight of flour shall be 50,000 lb. when loaded in cars of the capacity of 60,000 or 70,000 lb.

Eastbound Transcontinental Freight Rates.

General order 246. Aug. 12. Re eastbound transcontinental freight rates, and the powers conferred upon the board under sec. 323 of the Railway Act; and re application of W. C. Campbell, Secretary, Canadian Freight Association, Winnipeg, on behalf of railway companies engaged in transcontinental transportation from Pacific coast terminals in British Columbia to eastern Canada, for permission to increase their so called commodity rates on not less than 5 days notice. Whereas the eastbound transcontinental freight rates on specific commodities from points in British Columbia, recognized as Pacific coast terminals, to destinations in eastern Canada, have been in the past and are now lower than the regular scale of rates under the Canadian Freight Classification, and are related to the rates on like commodities when shipped from the corresponding terminals in the contiguous State of Washington to eastern destinations; and whereas by order of the Director General of the U.S. Railroad Administration, U.S. carriers increased their freight rates, including their said transcontinental rates, from June 25, 1918, by 25%, subject to certain modifications with respect to specific commodities, and because of the competitive character of the traffic it is expedient to continue at least the said relationship—it is ordered that the railway companies in Canada engaged in eastbound transcontinental traffic be permitted to increase their present commodity rates from the said Pacific coast terminals in British Columbia to destinations in eastern Canada, subject, however, as a maximum, to the lowest rates now in effect from the corresponding terminals in the State of Washington on like commodities to corresponding eastern destinations, and that the rates so increased be permitted to become effective not earlier than Sept. 9, 1918, upon not less than 5 days notice to the board and to the shipping public, by filing and posting in the manner prescribed in the Railway Act.

Commutation Tickets, Montreal to Points in Soulanges County, Que.

27488. Re application of G. Boyer, M.P., the municipal councils of Cedars, Coteau du Lac, Coteau Station, and St. Zotique parishes, and the villages of Coteau du Lac and Coteau Landing, for an order directing the G.T.R. to sell commutation tickets between Montreal and stations in Soulanges County, Que.: Upon hearing the application at Ottawa, July 9, Mr. Boyer appearing for himself and on behalf of the municipal councils named; no discrimination in violation of the provisions of the Railway Act being established, the board is without jurisdiction to make the order applied for. It is therefore ordered that the application be dismissed.

Supplement to Canadian Freight Classification.

27509. July 31. Re application of Canadian Freight Association, on behalf of railway companies, under sec. 321 of the Railway Act, for approval of proposed Supplement 11 to Canadian Freight Classification 16, containing certain increased, reduced, and additional ratings. Notice having been

given in The Canada Gazette by the railway companies, as required by sec. 321 of the Railway Act, and the proposed changes having been fixed by consent of the parties or by orders of the board, or reserved for order of the board; upon the consideration of what has been filed, and upon the report and recommendation of the board's Chief Traffic Officer, it is ordered that the proposed supplement, as finally revised and submitted for approval by the Chairman of the Canadian Freight Association, by letter dated June 4, be approved.

Rates on Bonnets and Hats.

27512. Re complaint of Canadian Corrugated & Fibreboard Container Association, Toronto, against proposed increase in ratings published in Supplement 11 to Canadian Freight Classification 16, on bonnets and hats, trimmed and untrimmed, when shipped in fibreboard, pulpboard, or corrugated strawboard containers: Upon hearing the complaint at Toronto, June 24, the complainants, the Canadian Freight Association, the Toronto Board of Trade, and the Canadian Manufacturers Association being represented, and upon the report and recommendation of the board's Chief Traffic Officer, it is ordered that the complaint be dismissed.

Spur Carload Freight.

27535. Aug. 2. Re application of Canyon City Lumber Co., of Creston, B.C., for an order disallowing charge of \$3 a car made by C.P.R. for handling on the applicant company's spur, carload freight other than that consigned to or shipped by the applicant company: Upon hearing the application at Calgary, June 10, in the presence of counsel for the applicant company and the railway company, and what was alleged, and upon reading the further submissions filed, it is ordered that the application be dismissed.

Fruit and Vegetable Routing from Similkameen District.

27536. Aug. 2. Re application of Similkameen Farmers' Institute, of Keremeos, for better connections and joint freight rates on fruit and vegetables over the Great Northern and Canadian Pacific Railways, in the Similkameen District, to points in Alberta and Saskatchewan: Upon hearing the application at Winnipeg, June 15, in the presence of counsel for the railway companies, no one appearing for the applicant, and what was alleged; and upon reading the further submissions filed, it is ordered that the applicant's shipments of fruit and vegetables to points in Alberta and Saskatchewan, to and including Moose Jaw, be moved via Sweet Grass, on the G.N.R., and Coutts, on the C.P.R.; the C.P.R. and G.N.R. forthwith to file tariffs showing rates from the Similkameen Valley to Alberta and Saskatchewan points as far east as Moose Jaw via the routing suggested.

Beverley Coal Co. Running Rights.

27557. Aug. 14. Re application of Beverley Coal Co. for running rights over a portion of the spur line between the Grand Trunk Pacific Ry. main line and the Humberstone Coal Co.'s line to the point of the proposed spur into the Beverley mine, and for an order fixing the terms of the user. Upon hearing the application at Edmonton, June 11, the applicant company, the Grand Trunk Pacific Ry., and the Humberstone Coal Co. being represented, and what was alleged, and upon reading the further written submissions filed, it is ordered that the application be, and it is hereby, dismissed.

Electric Railway Department

Increases in Electric Railway Freight and Passenger Rates.

The Board of Railway Commissioners has passed the following orders, in addition to those given in Canadian Railway and Marine World for May to August, both inclusive:—

Montreal & Southern Counties Ry.—27456, July 27. Re application of Montreal & Southern Counties Ry. for an order permitting it to file tariffs providing for a general advance in tolls for carriage of passengers and freight over its line in the same manner and to the same extent as permitted by the board in the case of steam railways: Upon hearing the application at Montreal, June 10, in the presence of counsel for the company and the municipalities of Greenfield, Longueuil, Montreal South, and St. Lambert, and what was alleged, and upon reading the further submissions filed, it is ordered that the company be authorized to publish and file tariffs increasing its existing freight rates, except on coal and coke, by 15%, and its rates on coal and coke by 15c a ton; also to increase its standard maximum passenger rate so as not to exceed 2.875c a mile. The increased rates herein authorized shall not become effective until the company has complied with the requirements of sec. 327 and 331 of the Railway Act.

27508, Aug. 1. Re application of Montreal & Southern Counties Ry., under sec. 327 and 331 of the Railway Act, for approval of its Standard Maximum Freight Mileage Tariff C.R.C. 33, and its Standard Maximum Passenger Tariff C.R.C. 21: The said tariffs having been filed on the basis permitted by the board in order 27456, July 27, it is ordered that they be approved, subject to compliance with the requirements of secs. 327 and 331 of the Railway Act before being made effective.

OTHER APPLICATIONS AND INCREASES.

British Columbia Electric Ry.—We were advised Aug. 14 that the fares then in force on this company's system of city lines were as follows:—

Vancouver City: Fare, 6c with transfer privilege, or 6 tickets for 35c. This fare replaced the 5c fare, or 6 tickets for 25c, both of which carried transfer privilege.

South Vancouver and Point Grey municipalities: The fare within the confines of these individual municipalities is 6c, with transfer privilege, from any one point to any other point within the municipality. Settlers' tickets are 10 rides for 70c, with transfer privilege from the municipality to Vancouver City cars. This replaced the previous settlers' rate of 10 rides for 50c, which carried transfer privilege to Vancouver city lines.

New Westminster City: The fare is 6c, with transfer privilege, or 6 tickets for 35c, also with transfer privilege. This rate of fare replaced a straight 5c fare which carried transfer privilege.

North Vancouver City: The fare is 6c, with transfer privilege, or 6 tickets for 35c, also with transfer privilege. This fare replaced a straight 5c fare, which carried transfer privilege. The company has also granted North Vancouver City and district a special ticket of 10 rides for 70c, with privilege of a transfer from North Vancouver cars to Vancouver City cars.

North Vancouver district: The fares

are the same as those within North Vancouver City.

Victoria City: The fare is a straight 5c one, without transfer privilege. This fare replaces a 5c fare, with transfer privilege, or 6 tickets for 25c with transfer privilege.

No changes have been made in the interurban fares, but the company has applied to the Board of Railway Commissioners for permission to increase commutation fares for the carrying of passengers on the Vancouver & Fraser Valley Ry., covered by tariff B.C.E.R. 11, C.R.C. 5, on the basis as outlined in tariff B.C.E.R. 19, C.R.C. 7.

The following information is gathered from unconfirmed press reports:—

The Mayor of Vancouver informed the city council Aug. 11, that he would not sign the bylaw and agreement authorizing the company temporarily to charge a 6c fare on its city lines. He demanded that the rates for domestic lighting be reduced immediately, which the company declined to do, whereupon he stated that unless the company reduced the rate for lighting, he would not sign the agreement as authorized by the council, to permit the company to increase its street railway fare to 6c. He wrote the Attorney General, asking him if he would use his good offices to the fullest extent to the end that a director or receiver be appointed under the B.C. Minister of Railways, in case the company took its cars back to the barns, so that the public might be assured of a car service until such time as a public utilities commission should be appointed by the government to control this and other similar situations. Following the mayor's announcement of his intention, citizens using the street cars began on the evening of Aug. 12 to refuse to pay more than 5c. The Attorney General is reported to have said, Aug. 15, that he would take all the necessary proceedings to enforce the rights of the citizens should the B.C.E.R. fail to operate its lines in Vancouver. The company has announced that it cannot grant any reduction in the rates for light under present conditions; that it insists on the 6c fare, and that it has no intention to cease operating its cars.

North Vancouver City Council and North Vancouver District Council, have approved of bylaws authorizing the B.C.E.R. to increase its fares to 6c within their respective limits. The bylaws are to be submitted to a vote of the electors on an early date.

Burnaby Tp. Council has under consideration a bylaw authorizing an increase of fares on the electric line in Burnaby to 6c, and on the Burnaby-Vancouver line to 7c.

Cap Breton Electric Co.—The enquiry by the Nova Scotia Public Utilities Commission into the proposed increase of fares on this company's lines, particulars of which were given in Canadian Railway and Marine World for August, was resumed Aug. 13, and was concluded Aug. 16, judgment being reversed.

Hamilton Radial Electric Ry.—Following the Board of Railway Commissioners order published in Canadian Railway and Marine World for August, pg. 346a, authorizing the company to increase its passenger rates from 2c to 2½c a mile,

subject to the limitations created by its franchise bylaws of Saltfleet and Nelson townships, Burlington village and Oakville town, General Manager Coleman sent the following communication on Aug. 17 to all the municipalities interested:—
“The attention of your council is called to the following statement of facts and notification:—The Hamilton Radial Electric Ry. has throughout its history been a losing concern. Scarcely a year since its inauguration has it anything to show as the result of operations but loss. The rates of fare insisted on by municipalities in their bylaws are quite too low for a well equipped and well managed system to avoid constantly recurring returns of actual loss. The present cost of materials and wages and other necessary outlays has greatly aggravated this loss, which has become intolerable. Electric railways all over the continent have been allowed to increase their fares, and the Board of Railway Commissioners has expressed the opinion that the present rates of fare are unreasonably low. The company is therefore compelled, with a view to reducing its loss as far as possible, to reduce its scale of operations to the simple requirements of the franchise bylaws. The municipal councils, in a sense representing the public, have the responsibility cast on them of avoiding or removing any inconvenience that may be suffered, but from any reasonable view of the situation, it cannot be expected that the company must voluntarily continue to lose more and more as the traffic increases. The company has been and is willing to leave the fixing of the rates of fare to the adjudication of the Board of Railway Commissioners, the municipal bylaws to be amended accordingly; but notice is hereby given that under the present rates of fare, the service must, and will, on and after Sept. 15, 1918, be reduced to the number of cars each way required by the bylaws.”

The company's action means that the service will be reduced to 6 trains a day, in each direction, instead of 19, as during the last winter season.

The Moncton Tramways, Electricity & Gas Co., Moncton, N.B., will, according to a press report, put in force shortly a straight 5c fare on its street railway.

Montreal Tramways Co.—The hearing of the appeal of the Montreal Tramways Co., and of the municipalities within which it operates, against the schedule of fares ordered by the Montreal Tramways Commission, and published in Canadian Railway and Marine World for August, was begun before the Quebec Public Utilities Commission July 31. After sitting for three days, the commission adjourned to Aug. 8, and concluded its hearing of the case Aug. 10, after three additional days sittings, when judgment was reserved.

Soon after the commission started hearing the appeal, it was informed that judgment had been given in a Quebec court by Justice Mercier dismissing the petition of Dr. L. Dubois and H. Robert for an interlocutory order restraining the commission from hearing the appeals. An effort had been made to postpone the hearing of the appeals by the commission until this matter had been disposed of, but the commission decided that it had plenary powers in its own field, and was

not a court of inferior jurisdiction to the superior court.

The matter of the writs before the superior courts did not end with the dismissal of the petition for an interlocutory writ by Justice Mercier on July 31. On the original writ applied for by Dr. Dubois and H. Robert, Justice Monet issued an order in the practice court, which the commission held did not bind it. Further proceedings were taken in the superior courts, where application was made for an interlocutory writ, the object being to ascertain whether the issue of the first order did not actually restrain the commission from hearing the appeals until judgment had been given on the merits of the application. This application Justice Mercier dismissed with costs. On Aug. 5, J. L. Perron, K.C., filed an inscription in law in the practice court, in connection with the original petition, with the object of having such petition quashed. On the hearing of the matter Aug. 6, Justice Duclos maintained the inscription and dismissed the writ of prohibition. Proceedings were initiated by Dr. Dubois and H. A. Robert, Aug. 14, to carry the matter to the Court of Appeal, with a view of obtaining a reversal of Justice Duclos' decision.

The case for the Montreal Tramways Co. was presented before the Public Utilities Commission by J. L. Perron, K.C., Chief Counsel, and evidence was given by E. A. Robert, President; J. E. Hutcheson, General Manager; H. E. Smith, Comptroller; W. F. Graves, Chief Engineer; D. E. Blair, Superintendent of Rolling Stock, and A. S. Byrd, Superintendent Power Plants, and other company officials, who were cross examined by A. W. Atwater, K.C., representing Montreal; Senator Beaubien, representing Outremont; J. W. Wilson, representing Westmount, and J. F. Hackett, representing Montreal West. These counsel, and also counsel for Montreal North, Pointe aux Trembles, and Lachine, presented brief arguments in support of the appeals made by the municipalities. Mr. Perron replied on the whole case, and the commission adjourned to consider the evidence.

The company, through Mr. Perron, asked that for a 7c cash fare, with 4 tickets for 25c; and free transfers within the uniform fare territory. No appeal was made against the proposed schedule of fares for the territory outside the uniform fare territory. On the basis of the present traffic in the uniform fare territory, the 7c fare asked for would, it is estimated, give the company, including miscellaneous earnings, an income of \$10,681,120.

Quebec Railway, Light & Power Co.—In reference to the use of workmen's tickets by females, which was mentioned in Canadian Railway and Marine World for August, pg. 346c, we are advised that in the revised tariff agreed on between the company and the city council recently, the company agreed to sell workmen's tickets for use by bona fide workmen between 6 and 8 a.m., and 5 and 7 p.m. Considerable opposition was, however, made on account of there being a large number of females engaged in shoe factories and other munition factories in the city and district who heretofore travelled on workmen's tickets, and at the request of a number of organizations acting on behalf of the working women, and at the request of the city council, the company agreed to extend the sale of workmen's tickets to working women. Literally speaking, it is workmen only who are entitled to use these tickets, and while the company has not as yet put into force an identification card or badge system, it may de-

side on this action should it find that the privilege is being abused. From information received from the conductors, it is stated that, so far as they can judge, only bona fide working men and women are using the tickets. Article 2013a of the Civil Code, as amended by 7 George V, chap. 52, with reference to privileges of workmen, builders and other persons, says: "the work 'workmen' includes the artisan the laborer and generally everyone who make his living by manual labor." The privilege given to the working women may be cancelled at any time, it being an act of courtesy only on the company's part to honor these tickets from working women.

Regina Municipal Ry.—At a meeting of the Regina, Sask., City Council's street railway committee, Aug. 4, the question of increasing fares on the municipal railway was discussed at length and it was decided to make no alteration in the present rates.

Toronto & York Radial Ry.—The Ontario Railway and Municipal Board issued the following order July 9:—Re application of Toronto & York Radial Ry. for permission to increase its freight rates by 15%, in line with advances granted to other electric railways operating in Ontario: Upon reading what has been submitted by the railway in support of its application, and upon the report and recommendation of the board's Traffic Expert, it is ordered that the T. & Y.R. Ry. be authorized to increase its standard freight rates by 15%; provided that in the disposition of fractions of 1c the following rule shall be observed:—0.24 and under to be dropped; 0.25 to 0.74 to be counted as $\frac{1}{2}$ c; 0.75 and over to be counted as 1c.

The Ontario Railway and Municipal Board, on Aug. 7, approved the T. & Y.R. Ry.'s standard freight tariff of maximum mileage tolls filed with the board, the said tariff with reference to the order to be published in two consecutive issues of the Ontario Gazette.

Winnipeg Electric Ry.—A Winnipeg press dispatch stated recently that the company was considering the question of applying to the city for authority to increase its fares from 5c to 6c each, with 1c for transfers. Up to the time of writing (Aug. 24), no action had been taken.

Electric Railway Fares, Etc. in Great Britain.

The recent report of the select committee on tramways appointed by the House of Commons, recommends that the Board of Trade should be empowered by legislation, to permit, until two years after the war, the modification of statutory requirements with regard to the charges for the conveyance of traffic on tramways and railways constructed wholly or mainly on public roads, in the case of undertakings the financial circumstances of which are proved to have been injuriously affected by the war. Evidence was given that wages had risen from 60 to 100%, and the cost of materials from 100 to over 200% since the war. In addition, there is the increased cost of fuel, and consequently of power, coupled with restrictions on supply. Statistics were supplied showing that out of 80 municipal undertakings, only 28 were charging maximum fares to ordinary passengers, and 44 maximum workmen's fares. The committee was satisfied that some relief should be afforded to those undertakings that cannot increase their revenues, to compensate them for the abnormal working expenses occasioned by war conditions.

The Toronto Railway Overcrowding and the Order for Additional Cars.

In response to questions by the Mayor of Toronto, as to the cause of the delay in the Toronto Ry. not complying with the Ontario Railway and Municipal Board's order to have 100 additional cars in service by Jan. 1, 1918, and another 100 by Jan. 1, 1919, who authorized the delay, and why the company's car shops are not in full operation, the following information was supplied recently:—

"The delay in obtaining results from the board's order arises from the times fixed for the sittings of the court, which cannot be expedited by any known process. The dates of the sittings of the court are fixed by the judges of the Supreme Court each year for the following year and provide dates and appointments for each of the judges throughout the whole year. It will readily be understood that these cannot be re-arranged to suit the convenience of litigants. The company's General Manager, while under oath before the board, stated that it was impossible to obtain men to conduct a factory in Toronto, the material for the cars or power to run the cars. The Legislature, at its last session, with the consent of the civic authorities, waived the provision in the agreement requiring the company to manufacture all its cars at a factory within the city. This was done for the purpose of widening the field upon which the cars might be obtained."

The Toronto Ry.'s appeal against a fine of \$24,000 inflicted by the Ontario Railway and Municipal Board for failure to comply with the order to provide additional cars, is due to come before the courts shortly, on a question of jurisdiction, and in the meantime nothing is being done regarding the cars, the company claiming that, on account of the general conditions, it is not possible to obtain the necessary materials and labor.

The mayor, however, with his customary misdirected energy, insists on obtaining more indictments for overcrowding of cars, and states that the board and the courts are trifling with the matter, and that if there is not more progress, he will seek advice outside the city's legal department.

Alberta Motor Vehicles Act Amended.

The Alberta Government has, by order in council, repealed section 49 of the Motor Vehicles Act, and replaced it by a new section which deals with automobiles passing street cars.

The old section provided that: "In approaching or passing a car of a street railway which has stopped or is about to stop to allow passengers to get on or off, the operator of every motor vehicle shall bring said motor vehicle to a stop and not proceed until the car has started and all passengers who have alighted shall have gotten safely clear of the motor vehicle."

The new section reads as follows: "In approaching or passing a car of a street railway which has stopped to receive or discharge passengers, the person operating a motor vehicle shall bring such motor vehicle to a full stop in the rear of the said car and shall not proceed until all passengers getting on or off the said car shall have gotten safely clear of the motor vehicle."

Zone Fares for Increased Revenues.

The following has been received from a correspondent in connection with the more or less general applications for increased fares on electric railways. While in no way committing itself as to the best methods to obtain increased revenue from street railway patrons, Canadian Railway and Marine World would be pleased to receive the views of those chiefly concerned, with the object of publishing them for general enlightenment.

"While increases in passenger and freight rates are the order of the day for steam railways, and to a limited extent for electric railways, the regular street railway systems seem to be expected to preserve the status quo ante bellum. Apart from those operated by municipalities, most street railways appear to be bound by agreement with the municipalities in which they operate, to provide transportation under any and every condition at a fixed maximum rate, with special privilege tickets at reduced prices. It is remarkable that greater elasticity in revenue is experienced on those systems which are not municipally operated, but even there there is a limit, and this seems to have been reached. On the present basis of rate fixing, there appears to be only one means of meeting the situation, viz., by increasing the 5c limit. This has been done in several cases in the United States, but in others, the proposal to raise the limit is not favored, counter proposals being made, for the adoption of a zone system of fares. This seems to me to be, not only a proper method to adopt in the present emergency, but the correct thing to do all the time. The main principle to be followed, is that each passenger should pay for the service rendered, and the short haul passenger should not be penalized for the benefit of the long haul passenger. The arrangement of zones could not possibly be made on a fixed basis to apply to all systems, but could, without doubt, be so mapped out in each locality as to meet the demands of the particular district concerned, having regard to the general trend and density of traffic, but such arrangement should not be made arbitrarily with a pair of compasses from a central point on a map. I am of the opinion that the general adoption of zone systems of fares based on a fare in accordance with the service rendered, would relieve the present situation by producing increased revenue, and would tend toward a better, and perhaps more economical operation of the system.

"In connection with the Rhode Island Co.'s street railway system at Providence, R.I., the Rhode Island House of Representatives has adopted the zone system in preference to raising the fare limit to 6c, but action by the Senate is yet to be taken. The legislative committee of the house rather favored the higher unit fare, and in the course of the hearing of the application, it transpired that the estimated increased revenue from a 6c fare was from \$440,000 to \$500,000, and from the zone system of fares it was from \$400,000 to \$550,000. Reasons given in favor of the higher unit fare as against the zone system, were: that it was the mode of relief already granted elsewhere; that the zone system as proposed had not been applied to another community of the size of Providence; that it was simpler of operation and easier as a measure of temporary relief; that it would not result in any disturbance of community life or of property and rental values; and that the increased fare is a burden which

should be shared by all patrons of the system.

"In my opinion, the fact that the zone system has not been applied to any system of considerable size, is no reason why it should not be, and I think it may fairly be said that the other points are debatable. The success of the modified zone systems used on practically all the street railway systems in Great Britain, is evidence that such a system can be operated efficiently as well as successfully, and I think that the statistics of the larger systems there will compare favorably with those of like systems on this side of the Atlantic."

Lever and Street Car Pull Sheet Piles.

Improvised methods of pulling sheet piles were used at the Macomb St. bridge in Mt. Clemens, Mich. The circular cofferdam for the pivot pier had two rows of 9 in. T-girder rails. Those of the outer row were placed in radial position and alternated with heavy planks driven between the webs. Those of the inner row had their webs in a circumferential line, the heads and flanges being connected by lugs and clamps.

To pull the outer rails, a heavy timber was rigged as a lever, with its short end hooked to a hole in the rail web while four to six men on the long end kept the lever "teetering" until the pile came loose. At the same time a man with a sledge hammer struck the rail to help to jar it free. When it was loosened, it was pulled out by means of a chain hoist hitched to the bridge.

For pulling the inner ring a work car of the electric interurban railway was used. A rope hitched to the car on the bridge was led through a snatchblock hooked to the handrail, then down through an open panel in the cement sidewalk to a snatchblock at the water's edge and then back to the cofferdam. This rope was attached to a ring fitted to a hole in the web of the rail. By moving the car forward the rail was pulled sideways and torn away from its next neighbor. When thus loosened it was pulled up by means of the chain hoist and lowered upon a raft. Men with rail tongs carried it on a working platform to the shore.—Engineering News Record.

The International Railways and Canadian Money.

A Niagara Falls, Ont., press dispatch stated recently that the International Ry. of Buffalo, N.Y., was absolutely refusing to take Canadian bank notes. Enquiry of the company by Canadian Railway and Marine World has elicited the following reply:—

"This company, being international, operates part of its railway in the U.S. and part in Canada. Naturally revenue derived on the Canadian side is deposited in Canadian banks. Canadian visitors to Niagara Falls, N.Y., spend money shopping and sight seeing, using Canadian currency, which in the early stages of the war was accepted at par by U.S. merchants, as well as banks. Lately, however, the banks refused to take deposits of Canadian money without charging us a discount, which has ranged nearly as high as 3%. To overcome this difficulty, we then deposited the Canadian money we received with our banks in Canada. To further complicate the situation, the banks are now charging exchange or discount on funds we withdraw from Canadian

banks, so no matter how we handle Canadian currency we are compelled to stand a discount. We are not as fortunate as merchants, who can always charge more for their wares to offset discount rate, while we are compelled to do business at a fixed rate. We instructed our agents lately to accept Canadian currency, provided those tendering it are willing to pay the discount. So long as the banks compel us to pay exchange and will not accept deposits from us except at a discount, it seems to us that our position in the matter is fair and just, otherwise we would lose from 2 to 3% on all Canadian currency handled. The whole trouble rests with the banks, in charging us exchange, thus compelling us to charge a discount to protect ourselves from loss. You can readily understand that we do not wish to do anything to cause our patrons inconvenience, and it is only due to circumstances beyond our control that makes it necessary for use to charge a discount on Canadian currency tendered to us in the U.S. From the above it is obvious that we do accept Canadian money."

Montreal Tramways Mutual Benefit Association Report.

The 15th annual report for the year ended April 30, 1918, gives the following summary of relief work done during the past year:—

Members disabled through sickness or injury	1,529
Visits made by physicians to disabled members	607
Consultations given by physicians to disabled members	8,653
Prescriptions issued	6,594
Paid for sickness and injury	\$13,825.80
Paid for medicine	2,294.73
Paid for pensions	1,714.00
Paid for withdrawals	932.22
Paid for death and burial insurance	6,830.80

The following benefits have been paid since the formation of the Association to April 30, 1918:—

Death and burials	\$113,992.88
Sickness and injury	144,677.60
Pensions	7,563.50
Withdrawals	4,312.85

There has also been paid \$62,264.81 for medical attendance and medicine. The expenses of management amounted to \$81,156.80. The amount received from members for fees and dues for the same period was \$208,539.50.

The committee gratefully acknowledges receipt from the Montreal Tramways Co. of \$14,659.67, which amount, added to the fees and dues received from members, viz: \$16,483.50, and the interest received on investments and bank deposits, amounting to \$10,404.89, makes the total revenue for the year \$41,548.06, and expenses being \$35,590.47, leaves a surplus of \$5,957.59, which has been transferred to the reserve fund.

The officers for the current year are:—President, J. E. Hutcheson; Secretary-Treasurer, Patrick Dube; Assistant to Secretary-Treasurer, S. A. Caron; committee of management, E. A. Robert, A. Gaboury, Hon. J. L. Perron, K.C., D. E. Blair, A. S. Byrd, R. M. Hannaford, J. C. Brossard, E. Renaud, R. Lavigne, M. Paiement, D. Mathieu, O. Marleau, A. Bessette.

Calgary Municipal Ry.—The Calgary, Alta., City Comptroller's department has issued its report on the civic finances for the half year ended June 30. The three public utilities operated by the city show increased revenues of approximately \$20,000 as compared with the corresponding period of 1917; the increase in revenue of the municipal railway being approximately \$6,000.

Electric Railway Municipal Franchises and Limitations of Passenger Fares.

Canadian Railway and Marine World for August contained two orders passed by the Board of Railway Commissioners, one authorizing the Hamilton Radial Electric Ry. to increase its passenger fares from 2c to 2½c a mile, subject, however, to the limitations created by certain of its franchise bylaws; the other the Montreal & Southern Counties Ry. to increase its freight and passenger rates to the same extent as permitted by the board in the case of steam railways, notwithstanding the provisions of its franchise from the town of St. Lambert. These judgments are of such great importance that the following extracts from them are given:—

Hamilton Radial Electric Ry.

The Chief Commissioner, Sir Henry Drayton, after dealing with the company's capital, earnings, etc., said:—It has a line of 25 miles, and has also 8.69 miles of second track. The company is not one which can well be compared with the trunk line railways, as claimed by the city of Hamilton. It can be much more reasonably compared with the London & Port Stanley Ry., which has a mileage of some 29 miles. The board has only recently considered the L. & P.S. Ry.'s application for an increase of rates and found that increase to be justified. Comparisons may be much more fairly instituted between these two radials than between any radial and a steam railway. Here again comparisons cannot be exactly made. The London & Port Stanley's business is much more remunerative than the Hamilton Radial's, and no reasonable rate increase of the Hamilton Radial tariffs could put the net earnings of the systems on a parity. While the Hamilton Radial earns on its freight traffic but \$12,368.72, the London & Port Stanley earns \$147,826.72.

The passenger traffic returns, however, may be compared. The London & Port Stanley's standard passenger rate before its rates were increased was 2½c a mile, subject, of course, to the usual minimum of 5c. Its standard rate as increased is 2.875c a mile. The Hamilton Radial's standard passenger tariff is 2c a mile. The London & Port Stanley's standard passenger rate is therefore 43.75% higher than the Hamilton Radial's.

Much traffic, of course, does not move on the standard rate, but moves under special tariffs. The statistics for 1917 show that the Hamilton Radial carried 1,322,615 passengers, with a resulting gross earning of \$148,175.56, which gives an average rate per passenger carried of 11.20c. In the same year the London & Port Stanley carried 726,799 passengers, with a resultant income of \$147,470.44, an average rate per passenger of 20.29c. The Hamilton Radial, therefore, had a passenger traffic amounting in load to 82% more than the London & Port Stanley, but its remuneration per passenger was 48% less than that received by the London & Port Stanley.

The excess of passenger density on the Hamilton Radial is not as great as the excess figures would show, as reducing the number of passengers to the passenger car mileage basis, the statistics show that the passenger car miles of the Hamilton Radial amounted to 489,658, with passengers, as already noted, of 1,322,615, resulting in an average of 2.72 passengers per car mile. The London & Port Stanley has a passenger car mileage of 440,315, carrying 726,799 passengers, making an average of 1.65 passengers per car mile. The car mile traffic density on the London & Port Stanley is, therefore, but 39.4%

less than that of the Hamilton Radial, indicating that the London & Port Stanley has the benefit of a longer haul, approximating 50%, and which of necessity, apart from rate differences, would increase the passenger returns.

The Hamilton Radial's returns from operating, after deducting taxes, amount to \$24,015.89. Those of the London & Port Stanley for the same year were \$106,162.88. The Hamilton Radial earns \$960.63 a mile of line; the London & Port Stanley \$3,660. The London & Port Stanley is prosperous; the Hamilton Radial is maintained only on advances made by the Dominion Power & Transmission Co.

There can be no question that it is entirely in the public interest to have railways self sustaining and capable of making the expenditures which the constant demands of transportation from time to time entail. The Hamilton Radial pays interest at only 7% on a capitalized value of \$13,723 a mile of line. The property unquestionably is worth much more. In so far as the merits go, there is no question that the company is entitled to a larger revenue and to increase its rates to those enjoyed by the London & Port Stanley. As I see it, however, the case cannot be dealt with on its merits. Certain portions of the company's tracks are laid under municipal bylaws and subject to municipal franchise. The Saltfleet Tp. bylaw, sec. 18 (a), reads as follows:

"The said company may charge and collect from any person on entering any of their cars for riding on any part of their railway the following fares: For any distance less than 3 miles, 5c, and for any greater distance, 2c a mile, and for a return trip from Hamilton to Burlington, or Burlington to Hamilton, the sum of 25c."

The Village of Burlington bylaw reads as follows:

Section 32 (b): "The company shall carry passengers for a rate not exceeding 5c each from any point within the limits of the Village of Burlington to the Burlington Canal, and shall carry passengers from Burlington Canal to any point within the limits of the Village of Burlington for a fare not exceeding 5c each, and children in arms shall be carried free, and the company shall sell tickets to school children residing in the Village of Burlington desiring to use the company's cars for the purpose of going to or coming from a public or private school, in the City of Hamilton, at a price not exceeding 4c tickets for \$1.85, but shall not be required to sell less than 4c tickets to any one or more of such school children, and each of such tickets shall be good for one fare from any point in the Village of Burlington to any point in the City of Hamilton, and from any point in the City of Hamilton to any point in the Village of Burlington, for school purposes only."

Sec. 37: "The company may carry passengers and charge and collect from every person on entering any of their cars or carriages for riding any distance on their railway within the Village of Burlington in the same continuous route, a sum not exceeding 5c, except children under five years of age accompanied by their parents or other persons having them in charge, such children will ride free, provided they do not occupy seats, and the company shall carry children between the ages of 5 and 12 years any distance on their railway within the Village of Burlington in the same continuous route for a cash fare of not more than 3c each; provided also that the payment of the said fares of 5c and 3c respectively hereinbefore mentioned shall entitle the person so paying the same to ride in the cars or carriages of the company from any point within the limits of the Village of Burlington to the Burlington Canal, and all such persons may return in the cars or carriages of the said company from said Burlington Canal to any place within the limits of the Village of Burlington upon payment of the said rates as aforesaid in this clause mentioned; and it is hereby declared and provided that the rate of fare payable by any adult now or hereafter residing in the said Village of Burlington for riding in the company's cars or carriages from any place within the limits of the Village of Burlington to any place within the limits of the City of Hamilton, and returning to any point within the said village on the line of said company shall not exceed the sum of 25c."

Sec. 38: "The said company shall keep tickets for sale upon their cars and shall sell tickets to persons desiring the same at a rate not exceeding 25c for 6 tickets, and each of such tickets shall be good for one fare to any point on their line within the limits of the Village of Burlington to the Burlington Canal and from the Burlington Canal to

any point within the limits of the said Village of Burlington."

The Township of Nelson bylaw, sec. 19 (a), reads as follows:

"The said company may charge and collect from any person on entering any of their cars for riding on any part of their railway, the following fares: For any distance less than 3 miles, 5c, and for any greater distances 2c a mile, and for return trip from Hamilton to Burlington, or Burlington to Hamilton, the sum of 25c, and for return trip from any point on the company's line in the Township of Nelson east of the Village of Burlington to the City of Hamilton and return, the sum of 30c."

The City of Hamilton bylaw also has rate stipulations which, however, are not of moment, as it was shown at the hearing that the company is not permitted to carry passengers in Hamilton, and the stipulations referred merely to Hamilton traffic.

It was urged at the hearing, as well as in written submissions, that the agreements with the municipalities absolutely concluded the matter, and that the rates could not be increased. The Railway Act leaves the whole subject of rate regulation in the board's hands. The matter is not left so that certain shippers or municipalities can obtain unduly low or discriminatory rates, whether by agreements or otherwise. Shippers and passengers cannot be discriminated the one against the other, nor can one locality or municipality obtain any more favorable treatment than the other. In other words, discrimination cannot be practiced either as between localities or individuals. Township regulations, which can cover only a part of the line, of necessity give way to power regulation over the whole and under which high rates on the one hand can be cut down, or unduly low rates on the other hand raised. The board's general jurisdiction under the Railway Act is not, therefore, ousted by any municipal agreement.

The Hamilton Radial, in the first instance, was incorporated and constructed under Ontario legislation. Under its act of incorporation, and under the Ontario law, it was open to municipalities to enter into franchise agreements and pass franchise bylaws, and the company then became bound by these. After the hearing, on looking into the company's statutory position, I find that it was declared to be a work for the general advantage of Canada by the statutes of Canada, 1918, chap. 117. Sec. 10 of that act reads as follows:

"Nothing in this Act contained, or done under or by virtue of the powers hereby granted, shall alter or affect the provisions contained in any bylaw of any municipality heretofore passed relating to the company, or to any portion of the company's railway heretofore or hereafter constructed, or contained in any agreement between any municipality and the company; but all such agreements and bylaws shall continue and remain in full force as between the municipality and the company as continued and incorporated by this act; and in case of any inconsistency between the provisions contained in any such bylaw or agreement and the provisions of The Railway Act, the provisions contained in the bylaw or agreement shall prevail, and all such bylaws and agreements and all rights, franchises, privileges, and exemptions of the company thereunder are hereby confirmed."

In view of this section, and following the opinion adopted by the board, having regard to the provisions of the Crow's Nest Pass Act and agreement, in my opinion the board is bound by the provisions of the municipal bylaws referred to, and ought not to authorize any tariff which would create charges higher than those stipulated in the different bylaws for the services set out in the bylaws. I do not repeat the grounds on which this opinion is based; it will be found in the Increased Rates Case 22, Can. Ry. Cases, 49, at pgs. 57-60. In my view, therefore, the only order that can be made is to

allow the Hamilton Radial rates to be increased to those enjoyed by the London & Port Stanley, subject, however, to the limitations created by the municipal franchise bylaws. It is probably the case that this restriction will largely prevent any relief whatever being granted the applicant company. The point which to my mind determines the issue was not raised at the hearing. In my opinion, it is so plain and clear that nothing would be gained by setting the case down for another hearing so that the matter could be discussed. As the company has not been heard on this question, however, it is entitled to a rehearing on this point if it so desires.

Montreal & Southern Counties Railway.
The Chief Commissioner, Sir Henry Drayton, after dealing at length with the company's capitalization, earnings, etc., said:—

Rates must not only be just and reasonable as between the public and the carrier, but they must also be free from discrimination not only as between individual shippers, but also as between localities. The present rates are clearly unremunerative.

I now deal with the question of municipal agreements. Mr. David, K.C., appeared for the St. Lambert and Montreal South municipalities. Mr. Chisholm, K.C., who appeared for the railway company, stated that the application to increase rates did not conflict with his company's agreement with the Montreal & Southern Counties Ry. Company; but there is no doubt whatever that the issue is direct in so far as the agreement with the Town of St. Lambert is concerned. Agreements are also relied on by the Greenfield Park and Longueuil Municipalities. The agreement made with the Town of St. Lambert, as contained in bylaw 44, was adopted by the electors. Sec. 6 provides for the rate of fares, as follows:

"The rate of fare to be charged and collected by the said company for commutation tickets, or for single and round trip tickets; between any point on their line in St. Lambert and their terminus in the City of Montreal, and vice versa, shall not exceed the rate or fare charged by steam railways for similar tickets between the said places at the date of the passing of the present bylaw by the city council."

If increased tariffs as applied for are allowed, these tariffs will not be higher than the existing rates on the steam roads, but will be higher than the steam railway rates in force at the time the bylaw was passed. Mr. David's submission, which is joined in by the other interested municipalities, is that the board has no jurisdiction to change the rates fixed by the agreement. His final submission on the point is:

"I submit that although the board may have a general jurisdiction over all railways, electric or steam, throughout Canada, whenever there is a private agreement between a municipality, in which one of the conditions is that the rate shall never exceed a certain amount, that contract should be accepted."

Mr. David, upon being asked how many other municipalities the line served, stated that it ran all along the south shore of Granby, passing through St. Lambert, Greenfield Park, Montreal South, Longueuil, Chambly, Richelieu,—a very large number altogether, and that the company's mileage in St. Lambert is only 1.4 miles. The Montreal & Southern Counties Ry. Co. was incorporated by an act of the Dominion Parliament declaring its undertaking to be a work for the general advantage of Canada. The company's mileage in all the municipalities having agreements limiting rates constitutes but a comparatively small part of the whole.

Beyond all question the company requires more revenues. There is no room for debate, in so far as municipalities are concerned which are without agreement.

Under the circumstances the company is entitled to increase tolls beyond all question in so far as such municipalities are concerned, but to increase the company's tolls in such municipalities without at the same time increasing the rates in St. Lambert and the other municipalities which have agreements with the railway, would be to produce a different scale of tolls between such municipalities and the municipalities with agreements.

The Railway Act further, does not contemplate rates being fixed by agreement. The board's jurisdiction over rates is not shared by one conferred upon municipalities. On the other hand, agreements between individual shippers and railways and separate municipalities or localities must inevitably tend to defeat the object of the act, which is to secure as far as possible a just and reasonable basis of charge free from discrimination. In the present case the agreements go further than to provide for merely a local rate within the bounds of the municipality and call for rates either into or out of the interested municipalities. The railway company can only recover such tolls as its tariffs filed with the board justify. Under the act, it is for the board, and not for the municipality, to determine whether or not the tariffs filed are unjust or unreasonable. The question as to whether tolls are, or are not, unjust or unreasonable cannot conclusively be determined by municipal agreement, even though fixed by a municipality as a condition of the franchise and so accepted by the carried. Agreements between the municipalities and the railway company do not oust the jurisdiction of the Dominion Parliament and the board in their administration of the Railway Act. The agreements in question have not been validated by legislation and have not been submitted to or approved by the board.

After citing a number of cases previously decided, the Chief Commissioner said:—Similar action has been taken by rate regulating commissions in the United States. Indeed, such action is the only logical result of either provincial or Dominion rate regulating laws. Rates cannot well be regulated by two conflicting jurisdictions. I find that the cost of the transportation service afforded by the company has greatly increased and that the increased rates the company desires to make effective are just and reasonable. In my opinion, an order ought to issue as prayed, notwithstanding any municipal agreement to the contrary.

London and Port Stanley Railway Report.

The London & Port Stanley Ry.'s report for the year ended June 30, was laid before the London, Ont., City Council, Aug. 21. Following is a table showing the earnings and expenses, the cents in each case being omitted. This table is compiled from press reports and is subject to correction:—

Passenger earnings.....	\$177,598
Freight earnings.....	143,608
Miscellaneous earnings.....	47,706
	\$368,914
Maintenance of way and structures.....	\$18,829
Equipment.....	23,030
Traffic expenses.....	33,109
Miscellaneous expenses.....	66,900
	254,659
Gross income.....	\$114,254
Taxes.....	\$2,251
Interest.....	53,732
Rental.....	20,000
Sinking fund.....	14,766
	90,750
Net earnings.....	\$23,503

Electric Railway Finance, Meetings, Etc.

British Columbia Electric Ry. and allied companies.—

			12 mths. to June 30, 1918	12 mths. to June 30, 1917
Gross	\$488,873	\$373,029	\$5,986,437	\$5,326,382
Expenses	388,019	351,784	4,630,691	4,263,007
Net	100,854	21,245	1,355,746	1,063,375

Calgary Municipal Ry.—A press report states that for the six months ended June 30, the C.M.R. showed net earnings of \$6,743, against a deficit of \$21,230 in the same period of 1917.

Cape Breton Electric Co.—

			12 mths. to June 30, 1918	12 mths. to June 30, 1917
Gross	\$40,097.83	\$37,078.16	\$486,048.17	\$425,543.92
Exp.	29,940.65	26,424.14	339,416.00	253,057.33
Net	10,157.18	10,654.02	146,632.17	172,486.59

Edmonton Radial Ry.—

		1918.	1917.
Revenue for June.....		\$40,868.20	\$39,508.68
Operating expenses.....		32,082.20	32,118.42
Net earnings.....		\$ 8,786.00	\$ 7,390.26
Revenue, six months ended			
June 30.....		\$264,243.72	\$254,865.24
Operating expenses.....		193,543.15	210,830.40
Net earnings.....		\$ 70,543.15	\$ 44,034.84
Fixed charges.....		124,777.86	127,965.18
Deficit.....		\$ 54,234.71	\$ 83,930.34
Passengers carried.....		5,383,584	5,255,778

Montreal Tramways Co.—The directors have deferred payment of dividend on common stock, ordinarily payable Aug. 1, until the appeal is decided regarding increases in fares.

The Nova Scotia Tramways & Power Co.'s comptroller advised the Halifax City Council, July 30, that on the following day there would be payable to the city \$11,436.51 on percentages account in respect of electric light and power and gas earnings, and that the city owed the company \$12,026.66 for public lighting. The city council proposed to tender a cheque for the amount due, less certain disputed items, on receipt of a cheque from the company for percentages.

Regina Municipal Ry.—A statement of the municipal finances for the six months ended June 30, issued by the city auditors, showed that there was a net deficit on the three public utilities operated by the city of \$37,616.02, of which \$30,223.57 was due to the operation of the R.M. Ry. At the beginning of the financial year provision was made for an estimated deficit of \$46,824.82 for the 12 months.

Toronto Civic Ry.—Traffic receipts for July, \$28,285.97, against \$23,262.63 for July, 1917. Passengers carried in July, 1918, and 1917, 1,691,403 and 1,380,801, respectively.

Toronto Ry.—Under the terms of a mortgage deed of Sept. 1, 1892, 304 4½% currency bonds have been drawn for redemption on Aug. 31, and cease to bear interest after that date.

Toronto Ry., Toronto & York Radial Ry. and allied companies.—

			6 mths. to June 30, 1918	6 mths. to June 30, 1917
Gross	\$1,035,932	\$984,529	\$6,356,169	\$5,873,584
Expenses	582,154	509,121	3,455,413	3,054,414
Net	453,778	475,408	2,900,756	2,819,170

Winnipeg Electric Ry. and subsidiaries.

			6 mths. to June 30, 1918	6 mths. to June 30, 1917
Gross	\$293,140	\$254,226	\$1,811,338	\$1,673,370
Expenses	218,282	204,562	1,385,293	1,237,473
Net	74,858	49,664	426,045	435,897

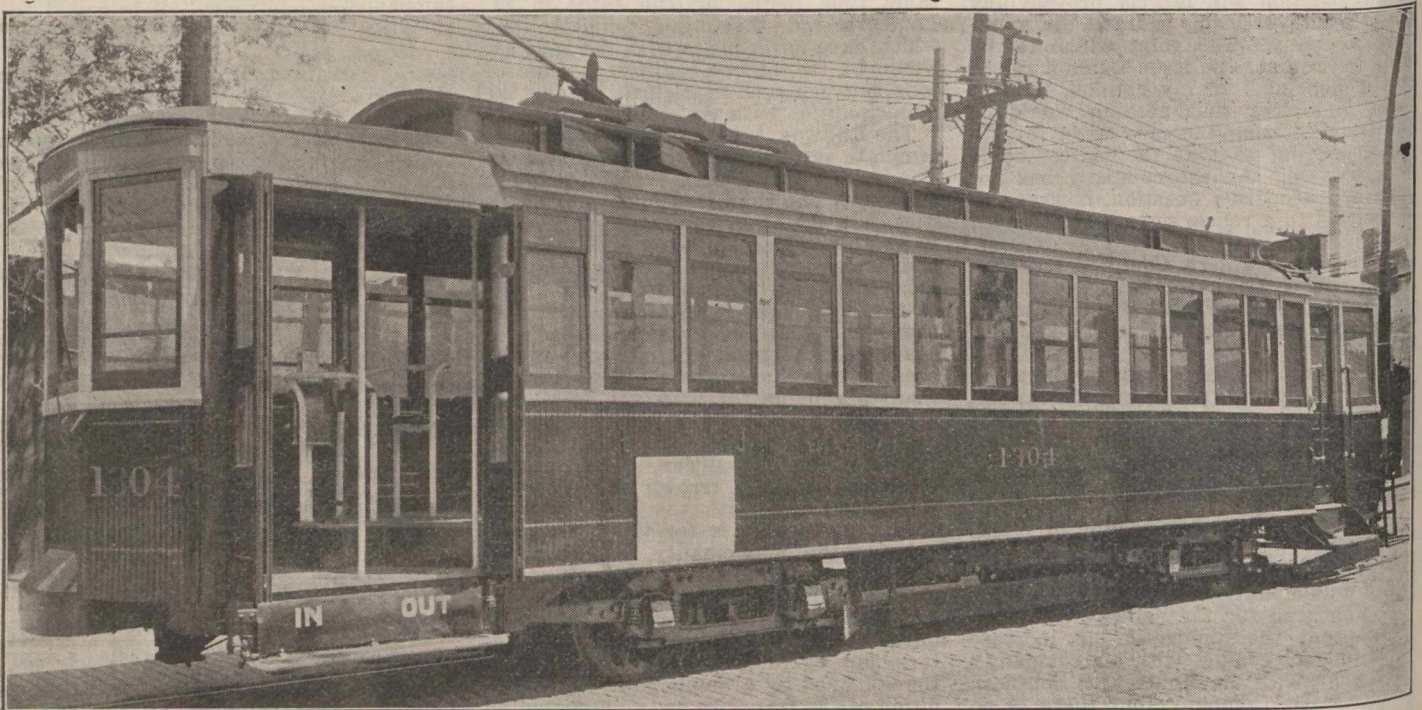
Gross earnings for June, \$293,139.92; net after operation, \$74,858.30; surplus after fixed charges, \$19,316.20.

The Toronto Railway Prepayment Cars.

The illustrations on this page show a remodelled double truck car on a p.a.y.e. plan, which the Toronto Ry. has com-

pleted recently, and which has been approved by the Ontario Railway and Municipal Board. The company is remodel-

case, passing on the conductor's left. When the car is full, the conductor will move the handle in front of him, to start matically giving the light signal to the motorman to start the car. The door opening is 5 ft. wide, and the

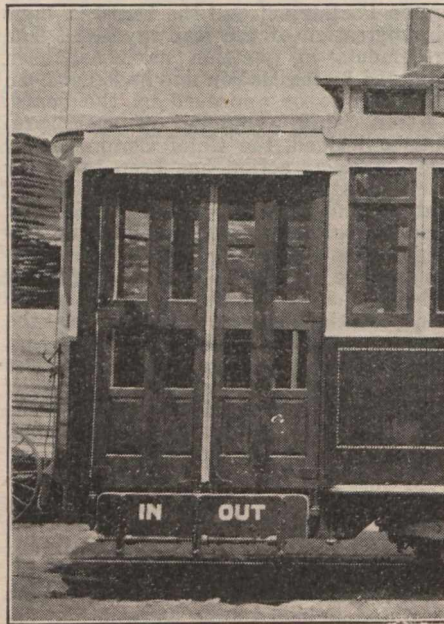


Toronto Railway Prepayment Car, with doors open and step down.

pleted recently, and which has been approved by the Ontario Railway and Municipal Board. The company is remodel-

line 50 cars on this plan, and if it is successful, further cars will be changed as soon as possible, so that the whole system may be operated on this plan. The changes made, are confined to the rear end, where the bulkhead is being removed, and the main floor of the car projected into the vestibule, in order to accommodate a seat for the conductor, and a stationary fare box. By this arrangement the seating capacity of the car is not interfered with, and there is ample room on either side of the conductor for entrance and exit of passengers. The rear vestibule is fitted with folding doors and folding step, and these are operated by a small pneumatic engine located above the door, and connected with a light signal to the motorman, to indicate immediately the doors are closed. The mechanism is supplied by the National Pneumatic Co., New York.

The space occupied by the conductor projects about 3 ft. into the vestibule, and is 2 ft. wide, the vestibule measuring 6½ ft. from the original car floor line. On entering the car, passengers will pass in front and to the right of the conductor,

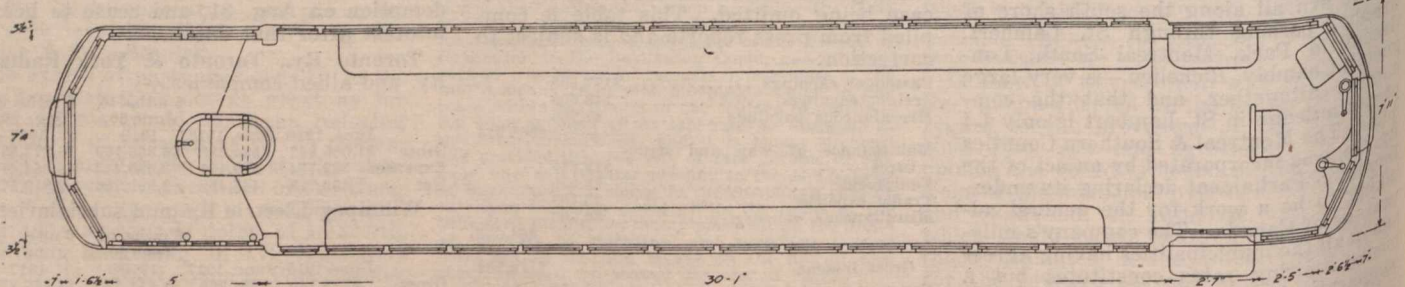


Toronto Railway Prepayment Car, rear vestibule, showing doors and step up.

folded step, when down to allow passengers to enter the car, is 15 in. from the street level, the next step is 12½ in. to the vestibule floor, which is 9½ in. below the main car floor.

Chatham, Wallaceburg & Lake Erie Ry.—A Chatham, Ont., press dispatch of Aug. 14 says the Ontario Railway and Municipal Board has authorized the C.W. & L.E.R. to use natural gas for fuel until Sept. 1.

Montreal Tramways Co.'s Franchise.—An action has been started in a Quebec court in the name of J. P. Lanctot, mayor of Ville , prior to its annexation to Montreal, who was formerly a member of the Montreal City Council, to annul the franchise granted the Montreal Tramways Co. on June 28. The City of Montreal, the Montreal Tramways Commission and the Attorney General of the province are made parties to the action. The plaintiff alleges fraud and false representations, and contends that the franchise, granting that it is a statute, is unconstitutional, because the legislature delegated wits powers without the right to do so. It is further alleged that the M.T. Co. sought to force the city council to grant a new franchise in 1914, and in



Toronto Railway Prepayment Car, floor plan.

place fare in the box and pass into the car. Exit will be made either from the front, or back of the car, in the latter

the door mechanism, thus closing the doors and raising the folding step in one operation, and at the same time, auto-

connection with this allegation the whole of the proceedings in the injunction cases are recited.

Electric Railway Projects, Construction, Betterments, Etc.

British Columbia Electric Ry.—An agreement was signed Aug. 9, between the company and the North Vancouver City Council, under which the car tracks at the foot of Lonsdale Ave. will be moved to the west side of the street, and several other improvements made at the street car terminal there, which will facilitate both street car and ferry traffic. (Aug., pg. 348.)

Calgary Municipal Ry.—The City Engineer reported as to the proposed change of route of the car line from Calgary to Ogden at a recent meeting of the commissioners. He estimates that it would cost \$25,000 to grade the new route, move the rails from the present track, relay them and do the ballasting. The cost of right of way and of any compensation in connection with the carrying out of the work would also have to be provided for. The proposed new route would reduce the length of the line from 9,420 ft. to 7,600 ft., and of the total trackage from 12,020 ft. to 9,950 ft. This does not provide for any change in the route east of the high bridge. The matter was taken under consideration. (Aug., pg. 348.)

Levis County Ry.—We are officially advised that the reconstruction of 11.50 miles of the company's lines, by being ballasted with crushed stone, is being gone on with, and that up to Aug. 10, work had been completed upon 1.75 miles. (Aug., pg. 348.)

London & Port Stanley Ry.—The London Railway Commission has decided to co-operate with the London City Council in an application to the Board of Railway Commissioners for permission to erect a foot bridge across the Thames River to Beatty Bros. plant in Chelsea Green. In order to reach the proposed bridge, a footway would have to be provided along the railway right of way; and if the work is carried out, the commission proposes to raise its own bridge at that point 2½ ft. in order to improve the location for the provision of siding tracks. The cost of the work to the railway is estimated at \$13,500. May, pg. 211.)

The Quebec Ry., Light & Power Co.'s roundhouse and paint shop were destroyed by fire, July 30, together with 1 passenger excursion car, 1 flat car, 1 box car and 1 gondola car. These buildings were on the north side of the track at St. Anne de Beaupre, and the loss, which is covered by insurance, is placed at \$8,419. It has not been decided to rebuild on the same location, but should it be so decided, the building will be approximately 80 ft. square. The operation of the machine shop at Montmorency Falls, as a locomotive house, machine and paint shop, is under consideration. (Aug., pg. 348.)

Moncton Tramways, Electricity & Gas Co.—Owing to the taking over of the Moncton & Buctouche Ry. by the Dominion Government, a new arrangement is being made with the M.T.E. & G. Co. respecting the section of the M. & B. Ry. it operates over.

Negotiations are still in progress for the extension of the company's line to Sunny Brae, but up to Aug. 19, nothing had been settled between the company and the Sunny Brae Council. (July, 1917, pg. 286.)

Ottawa Electric Ry.—The Ottawa City Council is proposing to rebuild the bridge over the Rideau River on St. Patrick St., at an estimated cost of \$190,000. The O.E.R. was asked to contribute towards the cost, but it was reported Aug. 20, that

the company was not disposed to make any contribution at all, considering that its franchise has so short a term to run.

Winnipeg Electric Ry.—On the amended plan for the Sargeant Ave. extension submitted to the Winnipeg City Council, the line is to be carried to Dominion St., approximately 2,800 ft. The original plan

was to build only 2,200 ft.

Application was made to the city board of control, Aug. 1, for an extension on Academy Road to the Midland Ry. of Manitoba tracks, but A. W. McLimont, General Manager, stated that it was out of the question to think of extending the line this year. (Aug., pg. 348.)

Electric Railway Notes.

The Regina, Sask., Municipal Ry. carried 171,241 passengers during the recent fair week, against 168,413 for the fair week of 1917.

North Vancouver, B.C., City Council is operating a municipal jitney service on the Lynn Valley Road between Center Road and the city limits.

The Moncton Tramways, Electricity & Gas Co. has decided to abandon for the present its car service from Moncton, N.B., to Lewisville and Humphreys Mills.

The Cape Breton Electric Co. has placed in operation, two one-man "safety" cars, received recently from the American Car Co., and which were ordered early in 1917.

The New Westminster, B.C., City Council has decided to wait and see the outcome of the litigation in Vancouver, before it takes steps to further restrict or prohibit the operation of jitneys.

The St. Thomas, Ont., City Council instructed its solicitor, Aug. 1, to take proceedings against the London & Lake Erie Ry. and Transportation Co., to recover \$8,000 for unpaid taxes and rentals.

The Windsor, Ont., City Council, on Aug. 19, refused to accede to the Sandwich, Windsor & Amherstburg Ry.'s request to release it from paying taxes levied on its property for patriotic purposes.

Men employed in Winnipeg railway yards and shops are asking for an increased night service on the Winnipeg Electric Ry., including a half hourly service between 2 and 6 a.m., when, under present arrangements, no cars are run.

Montreal Tramways Co.'s conductors were instructed Aug. 15 that the only persons entitled to free rides on the street cars are policemen and firemen in uniform, out of all the number of city employes who used to travel without payment.

North Vancouver, B.C., city authorities have taken proceedings against motor owners who used their vehicles as jitneys, and charged 25c and 50c fares, during the recent periods when the British Columbia Electric Ry. was not being operated, owing to strikes.

Jos. McGee, conductor, was found guilty in the Brantford, Ont., police court, Aug. 7, of stealing fares from the Brantford Municipal Ry. and was directed to make restitution to the extent of \$50, and to pay the costs, in which case sentence would be suspended.

The Board of Railway Commissioners has refused the town of Greenfield Park's application for changes in the Montreal & Southern Counties Ry. car schedule. The changes asked for included, among other things, the putting on of a special through car.

The Calgary, Alta., street railway department has been advised by the City Solicitor that it may collect a fee of admission to Bowness Park, if it is desired by the authorities, from every person seeking entrance, except persons residing within the Bowness limits.

The British Columbia Electric Ry. is giving a special rate, 5 tickets for 20c, to returned wounded soldiers in uniform, for

local traffic in Vancouver, New Westminster and North Vancouver. These tickets can only be obtained at the Carroll St. and Grenville St. ticket offices.

The Langley, B.C., municipal council has passed a bylaw regulating jitney traffic. The license fee is \$10 for six months; a bond for \$500 has to be carried; the total liability for any one accident is \$2,500, and the penalty for infractions of the bylaw is \$100 or 30 days in jail.

British Columbia Electric Ry. employes went out on a sympathetic strike, Aug. 2, at the call of organized labor. The mayor intervened and the street railway employes went back to work on Aug. 6. The stoppage of the car service nearly brought about a riot, returned soldiers protesting strongly.

The Winnipeg Electric Ry. dropped its belt line service, Aug. 1, and made a number of other changes which it is claimed will greatly expedite the cross city traffic. Protests were made about the change, and the city board of control, on Aug. 7, instructed the city solicitor to investigate the matter.

The Victoria City Council has under consideration a plan for the purchase of the British Columbia Electric Co.'s properties on Vancouver Island. The matter was expected to be discussed between the Council, G. Kidd, General Manager, and A. T. Goward, Local Manager, at Victoria, Aug. 21.

The Toronto Ry. has been granted leave to appeal to the Judicial Committee of the Privy Council, as to the proportion which it is to be called upon to pay the City of Toronto for the construction of the high level bridge carrying Queen St., and the Toronto Ry. tracks over the C.P.R., C.N.R. and the Don River.

As a result of a conference between officials of the New Brunswick Power Co. and the Superintendent of the St. John ferry service, a new schedule has been arranged by which there will be a close connection between the street cars and the ferry service during the greater part of the day across the bridge at the Reversing Falls.

The increased street railway fares in Edmonton, Alta., have necessitated the use of a large number of cents, and as the cent has never had much circulation in the west, the city treasurer has had to import \$1,000 worth, and on Aug. 13 it was reported that the supply was again so short that a further importation would have to be made.

The Hamilton, Ont., St. Ry. started the operation of p.a.y.e. cars on its belt line Aug. 4. This service necessitates the use of 22 cars, each with capacity for 45 passengers. We are officially advised that it is not at all likely that one man cars will be adopted in the city, the management's opinion being that they are not adapted to conditions prevailing in Hamilton.

The action of McKay vs. the City of Vancouver, to suspend the jitney elimination bylaw, a summary of which was given in our August issue, was argued before Justice Gregory, Aug. 5, who decided, Aug. 16, that he could not issue an

injunction to prevent the city prosecuting jitney men under the prohibitory bylaw, pending the trial of the main suit as to its legality.

A number of residents of Calgary, Alta., contend that the city council should not have withdrawn the 8 for 25c tickets in the evenings on the Calgary Municipal Ry. without having first taken a vote of the people. If every matter affecting the operation of a municipal public utility had to be submitted to a vote of the people, which would be the final outcome if the claim of the residents referred to were admitted, municipal ownership would not have the slightest chance of success anywhere.

The Toronto & York Radial Ry. has bought 2 cars from the Edmonton Radial Ry., Edmonton, Alta., for its Scarborough Division, to replace those lost by fire Feb. 24. These cars were built originally by the Preston Car & Coach Co., and are standard double truck cars with 33 in. rolled steel wheels, and are equipped with electric heaters, 4 G.E. motors with K6 controllers, Westinghouse automatic air compressor, and cross seats. They are 46 ft. 3 3/4 in. long over all, and 33 ft. 3 3/4 in. long over the body.

The Regina, Sask., City Council's chairman of its street railway committee is reported to have said on Aug. 17 that one-man cars and a 7c fare will likely be the ultimate solution of the problem of financing the municipal railway. He is not in favor of one-man cars until all the possibilities of the present system of operation have been tried out. Various suggestions are before the committee, although both the 7c fare and the one-man-car proposals have been defeated for the present.

The two cars which the Brantford Municipal Ry. has ordered from the Preston Car & Coach Co. for operation on the Brantford-Paris line, as mentioned in our last issue, will be 47 ft. long over vestibule, 35 ft. over corner posts, and 48 ft. over bumpers, with a width of 8 ft. 8 ins. over sheathing. The length of the vestibule will be 6 ft. framing of steel, with straight sides, turtle back roof, vestibule sash in one piece to drop, and other sash arranged with the upper sash stationary with art glass, and the lower to drop. The interior will be arranged with a smoking compartment, all seats of the walkover type upholstered in rattan, for 50 persons. The cars will be equipped with AMM Westinghouse airbrakes and Westinghouse 101B motors with K28 controllers.

Mainly About Electric Railway People.

D. Roche, heretofore chief clerk to General Storekeeper, Winnipeg Electric Ry., has been appointed Storekeeper.

Fred J. Pratt, for 16 years Storekeeper, Winnipeg Electric Ry., has been appointed Purchasing Agent, vice J. S. Mackenzie, appointed Assistant Treasurer.

Lawrence Palk, heretofore Assistant to General Manager, Winnipeg Electric Ry., who has been in the company's service for 14 years, has been appointed Assistant Secretary, and also Secretary of the company's subsidiary, the Winnipeg, Selkirk & Lake Winnipeg Ry. Co.

J. S. Mackenzie, heretofore Purchasing Agent, Winnipeg Electric Ry., has been appointed Assistant Treasurer, vice G. A. Henson, resigned. Mr. Mackenzie was at one time in Toronto Ry. service, going to the Winnipeg General Power Co. in 1902. When that company was amal-

gamated with the Winnipeg Electric Ry. Co. in 1906, he was appointed Purchasing Agent of the latter. Mr. Henson entered street railway service in Winnipeg in the old horse car days, and in 1890 was practically the whole office force of the horse car company there. When the horse cars were superseded by the electric ones, he went into insurance business. In 1900 he was appointed Accountant, Winnipeg Electric Ry., and Assistant Treasurer in 1915.

Women as Street Railway Conductors.

The question as to whether women should, or should not, be employed as conductors on street cars, is causing some agitation in various communities where such a course has been suggested, but not, as yet, adopted. Arguments have been used from both ethical and eugenic viewpoints, but as a matter of fact, all such arguments fall to the ground in view of the nature of work which women have been engaged in for many years past, and at any rate without any very strong protests on either ethical or eugenic grounds from the sources from which arguments of this nature now emanate. A summary of the points against employing women as conductors, as taken from a resolution passed recently by the Toronto St. Ry. Employees Union, is covered by the statement "that it would be an injustice to women to have them train for two weeks without remuneration, for conductors on street cars, only to realize, after a short period, that, owing to the system of operation, hours of labor and the conditions under which the work is performed, they were unable to stand the strain, and that it would not be conducive to either the health or moral standing of women to have them collect fares in crowded cars, such as are found on the system."

Where this work has been undertaken by women, and it is being carried on to a large extent, in Great Britain and the U.S., as well as other countries, chiefly, it must be admitted, as a war necessity, it is being done successfully, and without any apparent ill effects. Any detrimental moral effect which there may be, is infinitely less than in many occupations in which women are now working as a war necessity, and so far as any evil physical effects are concerned, women have been engaged for generations, in work, supposed to be natural to the sex, with far greater physical dangers than acting as conductors on up to date street cars.

The Toronto Ry., as announced previously, is remodeling a number of its cars for the adoption of a prepayment system, and when these are placed in operation, it is intended to employ women as conductors on them. The work will consist merely in receiving the fares, opening and closing the door, and giving the signals for stopping and starting. While this work is being carried on, the conductor can be seated, and in fact can remain seated the whole time she is on duty, if she wishes. There will be no passing through the car to collect fares, nor can the conductor be crowded in any way, as she will be, at no time, in physical contact with the passengers.

The argument is also used, that it is not required that women be engaged in this capacity as a war necessity, as should there be a real shortage of men for the work, which does not appear to be admitted, and when the company remodels its cars to the proposed prepayment plan, "returned soldiers should be engaged to

fill vacancies as they occur, since men in broken health, or those who have lost a leg, could fill the position." The weakness of this argument is apparent, when it is contended that returned soldiers, broken in health, or minus a leg, would be able to stand the strain involved better than a woman of ordinary physical capacity.

Reports as to the actual effect of the work on women, differ to a great degree in different countries, and even in the same country, and the only way to deal with the effects is by taking individual cases. The matter cannot be dealt with, and either approved or condemned, in general. A recent report after an investigation of one of the U.S. electric railways, was entirely in favor of women engaging in such work, while a report of another system states that they are not fit for the work, that while they can perform the duties as well as men, the strain, both physical and mental, the irregular hours, and the necessity for standing for long periods, are particularly detrimental to women's health.

With the equipment now provided on the latest type of prepayment car, any physical strain on the conductor is entirely eliminated, owing to the easy manipulation of the automatic machinery operating the doors and step; and the mental strain, if it ever existed, also disappears. The irregular hours can easily be dealt with, and as shown, there is no necessity for long periods of standing.

A Railway Without Rates.—The Spokane & Inland Empire Rd., operating out of Spokane, Wash., is in the peculiar position of having no authorized rates. The U.S. Government assumed possession of the road Jan., 1918, and established rates entirely different from those previously in force, and after these had been in force for a certain period, the U.S. Railroad Administration turned the railway back to the company. The question has arisen, as to what rates should be charged. If the original rates, approved by the State Commission, were suspended, information is desired as to which provision of the state statutes covers the case. Again it cannot be claimed that the U.S. Railroad Administration's rates are in force, and the new rates which are being applied at present are being protested because they impose a minimum charge of 10c for less than a mile. A report by the State Public Service Commission, on the matter, concludes with the statement that the company is "in a hell of a fix." Two of the commissioners, in concurring with the report, resent the form of words used to describe the position, but the chairman says that no other words fit the occasion.

A Common Blunder.—The Canadian Railway War Board's Secretary made the statement recently that gasoline had increased 100% in cost since the commencement of the war. Invoices in his possession show the purchase of gasoline before the war, at 16 1/2c a gallon, and purchases of recent date at 33c a gallon. S. R. Parsons, of the Canadian Manufacturers' Association, while not quoting figures, asserted that the price of gasoline had only increased 50%. Many people who ought to know better, consider that an increase such as that shown, is only 50%, because it is half of the increased price.

The Montreal Tramways Commission submitted to the Montreal City Commissioners, on July 11, a plan providing for the rerouting of cars affecting eight lines. At the date of our latest advice the plan had not been accepted either by the city or the company.

Marine Department

Cargo Steamship Building for Dominion Government.

The 3,750 Ton Type of Steel Cargo Steamship.

Canadian Railway and Marine World for August contained a full technical description of the 4,300 ton type of steel cargo steamships for the Dominion Government, which are to be built under the shipbuilding policy of the Minister of Marine, Hon. C. C. Ballantyne, as first detailed in Canadian Railway and Marine World for February. Following is a description of the 3,750 ton type.

The second keel under the new shipbuilding programme was laid by the Collingwood Shipbuilding Co. at Collingwood, Ont., during the first week in June. The vessel will be of the following leading particulars:—

Length251 ft.
 Breadth43½ ft.
 Depth26 ft.
 Draft, loaded22 ft. 2 in.
 Canal draft14 ft.
 Speed, maximum9 knots
 Deadweight on load draft3,750 tons
 Complement officers and men, including gunners.30

The vessel will be of the single deck type, with poop, bridge and fore-castle, straight stem, elliptical stern and subdivided into 12 water tight compartments. A double bottom 39 in. deep, with solid floors on alternate frames and on every frame forward and under the machinery will be fitted from the collision bulkhead to the after peak bulkhead, connected up in the usual way with the steam suction. The vessel will be built on the ordinary transverse system, the frames being of bulb angle spaced 24 in. apart, ample compensation being provided to the shell plating in lieu of side stringers. Bilge keels will be provided for a suitable length amidships.

The main deck, poop, bridge, and fore-castle decks will be of steel, sheathed with British Columbia fir in way of the accommodation. The cargo hatches will be arranged for the speedy handling of bulk cargoes and will be of the following dimensions:—No. 1 hatch, 20 x 18 ft.; no. 2, 24 x 18 ft.; no. 3, 24 ft. 18 ft.; no. 4, 20 x 18 ft. The usual stanchion arrangement in the holds will be dispensed with, in order to facilitate loading and unloading.

In accordance with what is now recognized practice in modern cargo vessels, the seamen and firemen will be housed under the poop deck aft, in large compartments. Separate mess rooms will be provided for the seamen and firemen, and all other requirements, such as lighting, ventilation, and sanitation, will be in conformity with the Board of Trade regulations governing the survey of masters and crew spaces. The ship's officers, etc., will be berthed in deck houses situated at the fore end of the bridge deck and alongside the engine casing, which will contain one cabin for each officer; wireless office, dining saloon, pantry, baths, water closets and the usual stores. The captain's cabin will be over the forward deck house, which will be surmounted by the navigating bridge. The galley will be placed between the engine and boiler casings. The cold chamber will be fitted on the port side, under the bridge deck aft. All the accommodation throughout will be steam heated.

The vessel will be provided with 4 derrick posts and 1 pole mast, carrying wire-

less aeriels. Each derrick post will have 2 derricks fitted, capable of lifting 5 tons each. There will be 7 cargo winches, 7 x 12 in., of the Clarke-Chapman type, manufactured by the Corbet Machine Co., Owen Sound. The windlass, which will be placed on the fore-castle head, will also be of the Clarke-Chapman type, manufactured by the same firm. The steering gear will be placed at the after end of the engine room casing, inside the bridge erection. The engine will be of the ordinary horizontal type, with cylinders 8 in. diameter by 8 in. stroke. It is being manufactured by John Hastie & Co. of Greenock, Scotland. The 10 k.w. electric generating set will be placed in the engine room. The dynamo, by Vickers, Limited, Sheffield, Eng., will be coupled to a single cylinder enclosed forced lubricating engine, manufactured by Goldie & McCulloch Co., Galt, Ont. The vessel will be fitted with a 2 k.w. wireless set supplied by Marconi Wireless Telegraph Co. of Canada.

The life saving appliances will be in accordance with the Canadian Board of Steamship Inspection's requirements, and will comprise 2 lifeboats, 24 ft. x 7½ ft. x 3 ft. 2 in., and 1 dinghy, 18 ft. x 5½ ft. x 2¼ ft. The vessel will be furnished with the usual armament as required by law and provision will be made for defence from floating mines.

The main propelling engine, which will be placed about amidships, will be of the triple expansion, surface condensing type, with cylinders 18 x 30 x 50 x 36 in. stroke, having a working pressure of 180 lb. a square inch, is being built by the Collingwood Shipbuilding Co. under British Corporation survey. The h.p. and i.p. cylinders will be fitted with piston valves and the l.p. with a double ported slide valve. The air pump and bilge pumps will be worked off the main engine. An independent pair of feed pumps by G. J. Weir & Co., of Glasgow, will be provided for boiler feed purposes. The main circulating pump will be of the centrifugal type, driven by an enclosed forced lubrication engine, manufactured by the Storey Pump Co., Toronto. The main condenser will have a cooling surface of 1,350 sq. ft., and an auxiliary condenser having 500 sq. ft. of surface will be provided, for taking the exhaust from the deck winches, etc. The general service pump will be of the vertical duplex type, 10 x 6 x 12 in., and the ballast pump of similar type, 10 x 10 x 12 in. The reversing engine will be of the direct acting type, manufactured by the builders, and a separate engine will be provided for turning the main engine in port. Steam will be generated in 2 single ended boilers, 14 ft. diameter by 10¾ ft. long, designed to work under Howden's system of forced draft, and having a working pressure of 180 lb. a sq. in.

The vessel is being built to British Corporation classification and under government survey. Satisfactory progress is being made with the construction in both the hull and machinery departments, and it is anticipated that the vessel will be placed in service before the close of navigation. The Collingwood Shipbuilding Co. has been given an order for a duplicate vessel of this type, as stated in Canadian Railway and Marine World for August, the same to be completed by the

opening of navigation in 1919.

Orders for Steamships.—We are officially advised that the Marine Department has given the following orders for steel cargo steamships, in addition to those mentioned in our August issue:—

British-American Shipbuilding Co., Welland, Ont.—2 of 4,300 tons d.w. capacity each.

Collingwood Shipbuilding Co., Collingwood, Ont.—2 of 3,750 tons d.w. capacity each.

Davie Shipbuilding & Repairing Co., Lauzon, Que.—2 of 5,100 tons d.w. capacity each.

Tidewater Shipbuilders, Ltd., Three Rivers, Que.—2 of 3,750 tons d.w. capacity each.

This makes order for 22 vessels given to date, as follows, the tonnage stated being deadweight in each case:—

	No.	Tons each.	Total tonnage
British-American Shipbuilding Co.	2	4,300	8,600
Canadian Vickers, Ltd.	1	4,300	4,300
Canadian Vickers, Ltd.	1	8,100	8,100
Collingwood Shipbuilding Co.	4	3,750	15,000
Davie Shipbuilding & Repairing Co.	2	5,100	10,200
Port Arthur Shipbuilding Co.	2	3,400	6,800
Tidewater Shipbuilders, Ltd.	4	3,750	15,000
Wallace Shipyards, Ltd.	2	4,300	8,600
Wallace Shipyards, Ltd.	4	5,100	20,400
	22		97,000

In addition to the above, the department has agreed to give Halifax Shipbuilders, Ltd., an order for 3 steel cargo steamships of approximately 10,000 tons d.w. capacity each when its yard at Halifax, N.S., is ready to begin building. Other orders will be placed, as berths may be becoming vacant, with the shipbuilders mentioned in Canadian Railway and Marine World for March and April, and if the St. John Drydock & Shipbuilding Co. goes on with its proposed shipbuilding plant at St. John, N.B., it will also probably be given some orders.

Wallace Shipyards, Ltd., North Vancouver, B.C.—A quantity of steel for the vessels to be built for the Dominion Government, arrived at the yard towards the end of July, and work is reported to be approaching completion on the preparation of the additional berths, so that three vessels may be proceeded with at the one time. Railway track has been laid to connect the stores with the berths, and two large oil furnaces have been installed, one for treating angles and the other for plates. An 1,800 ft. twin angle compound compressor for the pneumatic machinery has also been installed, and other machinery includes: 4 1¼ in. punches, an overhead monorail system and a 4,800 ton steel carrier.

Steam Navigation Co. of Canada, Ltd., has been incorporated under the Dominion Companies Act, with \$2,500,000 capital and office at Montreal, to carry on a general transportation business, with power to own and operate steam and other vessels, and other transportation facilities. The incorporators are connected with a legal firm in Montreal, but it is said that the Canadian registry is chiefly for holding purposes, local and U.S. interests being concerned.

Cargo Steamship Building in Canada for British Government.

Additional Orders.—Reference was made in our last issue to persistent rumors that the Imperial Munitions Board was about to place additional orders for steel steamships for the British Government. Wooden steamships should have been mentioned, instead of steel ones, as it was definitely arranged early this year that no further orders would be given in Canada for steel steamships for the British Government, and that as those under order were completed, the berths would be occupied in building steel steamships for the Dominion Government. If any further orders are placed for the British Government, they will be for wooden

Apr. 11, 1918—	War Comox, New Westminster Construction & Engineering Co., New Westminster, B.C.	3,080
Apr. 11, 1918—	War Masset, Foundation Co., Victoria, B.C.	3,080
Apr. 13, 1918—	War Tyee, Pacific Construction Co., Coquitlam, B.C.	3,080
Apr. 25, 1918—	War Haida, Cameron-Genoa Mills, Victoria, B.C.	3,080
Apr. 27, 1918—	War Cayuse, Wm. Lyall Shipbuilding Co., Vancouver, B.C.	3,080
May 11, 1918—	War Mohawk, Quinlan & Robertson, Ltd., Quebec, Que.	3,080
May 11, 1918—	War Sioux, Port Arthur Dredging Co., Port Arthur, Ont.	3,080
May 21, 1918—	War Atlin, Wm. Lyall Shipbuilding Co., Vancouver, B.C.	3,080
May 23, 1918—	War Tatla, Western Canada Shipyards, Ltd., Vancouver, B.C.	3,080

July 27, 1918—	War Ottawa, Fraser, Brace & Co., Montreal	3,080
Aug. 5, 1918—	War Chilkat, Cameron-Genoa Mills Shipbuilders, Victoria, B.C.	3,080

Total, 30 wooden steamships.....92,400
Total deadweight tonnage of 14 steel and 30 wooden steamships launched, 158,300.

Vessel Registry.—A report from Victoria, B.C., July 31, says that all wooden steamships built on the Pacific coast to the Imperial Munitions Board's orders for the British Government will be registered at the port of construction, in the name of the British Minister of Shipping, instead of in London, Eng. We are advised that any registration in Canada, if it takes place, is of a temporary character, the vessels proceeding overseas under special license, and then being registered in England.

British-American Shipbuilding Co., Welland, Ont.—The first of the three steel steamships to be built by this company for the British Government, under order from the Imperial Munitions Board, was launched Aug. 21, and christened War Weasel by Mrs. R. W. Leonard of St. Catharines, Ont. She is of steel throughout, 3,500 tons deadweight capacity, and has the following dimensions: length 261 ft., breadth 43½ ft., depth 23 ft.

Cameron-Genoa Mills Shipbuilders, Ltd., Victoria, B.C.—With the launching of the s.s. War Stikine by this company, July 27, its contract for 4 wooden steamship hulls with the Imperial Munitions Board was completed. To signalize this, the launching was turned over to the employees, and a committee was formed to handle it. The company was formed in 1916, and its first vessel, an auxiliary powered schooner, was launched Aug. 15 of that year, and named Margaret Haney, for Canada West Coast Navigation Co.,



Steel cargo steamship Alaska, for British Government, leaving J. Coughlan & Sons yards at Vancouver for trial trip.

steamships, but so far there is no indication that any such orders will be given.

Launchings of Steamships.—Following are particulars of steamships ordered by the Imperial Munitions Board for the British Government, and which had been launched up to July 31, giving in each case the date of the launching, the name of the steamship, the name of the builder and the deadweight tonnage:—

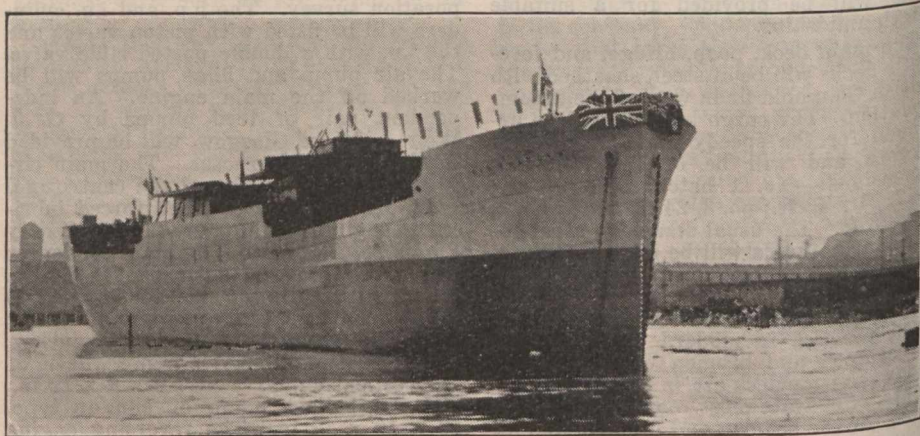
June 12, 1918—	War Skeena, Cameron-Genoa Mills Shipbuilders, Ltd., Victoria, B.C.	3,080
June 13, 1918—	War Seneca, Quinlan & Robertson, Quebec, Que.	3,080
June 14, 1918—	War Edensaw, New Westminster Construction & Engineering Co., B.C.	3,080

Steel Steamships.

May 18, 1917—	War Dog, Wallace Shipyards North Vancouver, B.C.	4,500
July 9, 1917—	War Wasp, Nova Scotia Steel & Coal Co., New Glasgow, N. S.	1,800
Aug. 19, 1917—	War Fish, Port Arthur Shipbuilding Co., Port Arthur, Ont.	4,300
Nov. 3, 1917—	War Dance, Port Arthur Shipbuilding Co., Port Arthur, Ont.	3,400
Mar. 16, 1918—	War Campi, J. Coughlan & Sons, Vancouver, B.C.	8,800
Mar. 23, 1918—	War Power, Wallace Shipyards, North Vancouver, B.C.	4,600
Apr. 3, 1918—	War Isis, Port Arthur Shipbuilding Co., Port Arthur, Ont.	3,400
May 8, 1918—	War Wizard, Collingwood Shipbuilding Co., Collingwood, Ont.	2,900
May 21, 1918—	War Bee, Nova Scotia Steel & Coal Co., New Glasgow, N.S.	2,400
May 27, 1918—	War Osiris, Port Arthur Shipbuilding Co., Port Arthur, Ont.	3,400
June 8, 1918—	War Earl, Canadian Vickers Ltd., Montreal	7,000
June 29, 1918—	War Duchess, Canadian Vickers, Ltd., Montreal	7,000
July 20, 1918—	War Hathor, Port Arthur Shipbuilding Co., Port Arthur, Ont.	3,400
July 29, 1918—	War Charger, J. Coughlan & Sons, Vancouver, B.C.	8,800
Total, 14 steel steamships.....		65,700

Wooden Steamships.

Dec. 28, 1917—	War Songhee, Foundation Co., Victoria, B.C.	3,080
Jan. 4, 1918—	War Nootka, Western Canada Shipyards, Vancouver, B.C.	3,080
Jan. 24, 1918—	War Yukon, Cameron-Genoa Mills, Victoria, B.C.	3,080
Feb. 16, 1918—	War Puget, Wm. Lyall Shipbuilding Co., Vancouver, B.C.	3,080
Mar. 6, 1918—	War Selkirk, Western Canada Shipyards, Vancouver, B.C.	3,080
Apr. 10, 1918—	War Caribou, Wm. Lyall Shipbuilding Co., Vancouver, B.C.	3,080



Steel cargo steamship War Charger, for British Government, just after launching by J. Coughlan & Sons, Vancouver.

June 15, 1918—	War Babine, Foundation Co., Victoria, B.C.	3,080
June 24, 1918—	War Nicola, Wm. Lyall Shipbuilding Co., Vancouver, B.C.	3,080
June 28, 1918—	War Quebec, Quebec Shipbuilding & Repairing Co., Quebec, Que.	3,080
June 29, 1918—	War Ontario, Toronto Shipbuilding Co., Toronto	3,080
July 5, 1918—	War Huron, Fraser, Brace & Co., Montreal	3,080
July 5, 1918—	War Erie, Fraser, Brace & Co., Montreal	3,080
July 6, 1918—	War Casco, Western Canada Shipyards, Ltd., Vancouver, B.C.	3,080
July 12, 1918—	War Sumas, Pacific Construction Co., Port Coquitlam, B.C.	3,080
July 24, 1918—	War Squash, Wm. Lyall Shipbuilding Co., Vancouver, B.C.	3,080
July 27, 1918—	War Gaspé, Quinlan & Robertson, Quebec, Que.	3,080

and subsequently 5 other similar vessels were built for the same interests. The first of the wooden steamships for the Imperial Munitions Board was launched Jan. 24, 1918, and named War Yukon, the total cargo tonnage of all vessels being 26,350 tons. The christening of the s.s. War Stikine was performed by Miss H. E. McLaughlin, one of the stenographers, who was presented with a souvenir. In a speech subsequent to the launching, J. H. Price, President of the company, stated that he was not in a position to state particulars of the company's future, but it could be taken for granted that within a month, the yard would be in full swing again.

Canadian Vickers, Ltd., Montreal,

launched the s.s. Samnanger, Aug. 3, Capt. H. Jonassen, Bergen, Norway, officiating. This is the Canadian Vickers third launching since the opening of the St. Lawrence navigation season. The Samnanger is a sister vessel of the s.s. Porsanger, which was launched from the same yard, Nov. 29, 1917, and handed over to Furness, Withy & Co., early this year, for operation on behalf of the British Government. She has been built to classify 100 A1 at Lloyd's, and also for Det Norske Veritas. Her dimensions are: length over all 394½ ft., breadth extreme 49¼ ft., depth moulded 30 ft.; deadweight tonnage 7,000; gross tonnage 4,670; load draft 24 ft. The hull is fitted with double

are 5 large cargo hatches, 11 steam winches, powerful steam windlass, steam and hand steering gear, 2 steel masts, the top masts being made telescopic to suit bridges across the Manchester (Eng.) ship canal.

J. Coughlan & Sons, Vancouver, B.C.—The second steel steamship to be built by this firm, for the British Government, under orders from the Imperial Munitions Board, and the third launched in this yard, was sent down the ways, July 27, and named War Charger, being christened by Miss Grace Coughlan. This launching would have taken place considerably earlier, had it not been for the disastrous fire at the yard a few weeks ago. She is

Fraser, Brace & Co., Ltd., Montreal.—The s.s. War Ottawa, the third of the four vessels on order for the Imperial Munitions Board, was launched July 27, the christening being performed by Mrs. C. Fraser. The fourth vessel, which was expected to be launched toward the end of August, is to be named War Niagara.

New Westminster Construction & Engineering Co., New Westminster, B.C.—A press report states that the launching of the wooden hulls War Kitimat and War Ewen, for the Imperial Munitions Board, have been postponed, owing to lack of accommodation at the assembling plants. These two vessels will complete the board's order with this company.

Port Arthur Shipbuilding Co., Port Arthur, Ont.—The s.s. War Hathor, which was launched July 20, as mentioned in our last issue, was expected to sail from Port Arthur, about the end of August, for delivery at Montreal by Sept. 1. Two other similar vessels are nearing completion for the Imperial Munitions Board, the War Horus, which will be launched about Sept. 20, and the War Karma, to be launched about Oct. 10. These will complete the Imperial Munitions Board's order for 6 steel steamships for the British Government.

Quinlan & Robertson, Ltd., Limoilou, Que.—The third of the wooden steamships building at this yard for the Imperial Munitions Board, was launched July 27, and christened War Gaspé. The christening was performed by Mrs. Bilodeau, wife of the yard superintendent. After launching, the vessel was towed to the Louise Basin, where her machinery is to be installed.

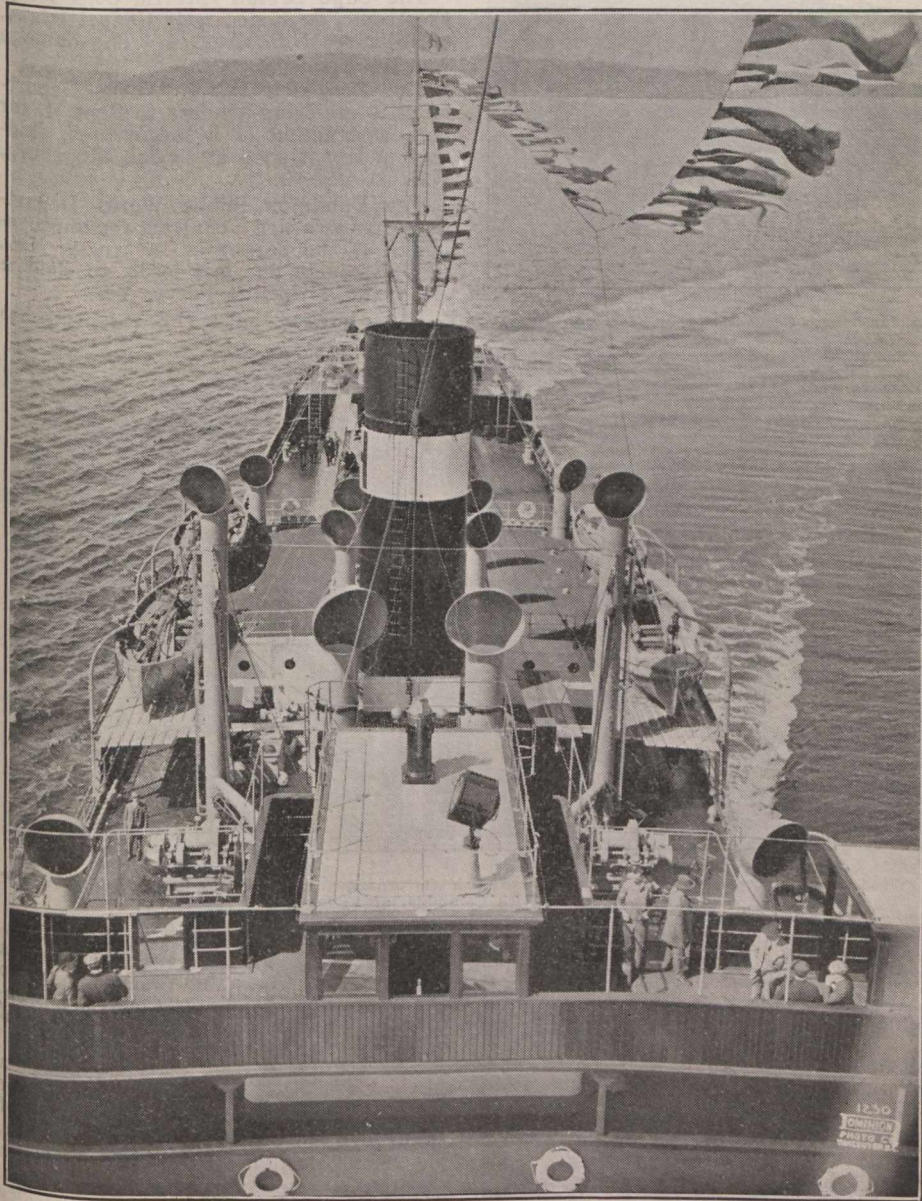
Western Canada Shipyards, Ltd., Vancouver, B.C.—The s.s. War Chilkat, the fifth of the 6 vessels ordered for the British Government by the Imperial Munitions Board, was launched Aug. 5, and was christened by Mrs. W. C. Ditmars of Vancouver. The last of these vessels, which is to be named War Tatoosh, was expected to be launched before the end of August.

One of our contemporaries announced in its August issue, that the company will establish a plant shortly. It is to be presumed that the vessels already launched just grew.

Sarnia Coal & Dock Co., Ltd., has been incorporated under the Dominion Companies Act, with \$20,000 capital and office at Sarnia, Ont., to carry on a coal and ice dealing business, and in connection therewith to own and operate steam and other vessels, and other means of transportation by land and water. Peter Paton, who resigned recently as Purchasing Agent, Canada Steamship Lines, Ltd., Montreal, to enter private business in Sarnia, is chiefly interested.

The Nova Scotia Transportation Co., Ltd., has been incorporated under the Dominion Companies Act, with capital of 1,000 shares of no nominal or par value, provided that business be carried on with a capital of \$5,000. The head office is at Toronto, and power is taken to own and operate steam and other vessels and to carry on a general navigation, manufacturing and forwarding business.

Lavonia Ship Co., Ltd., has been incorporated under the New Brunswick Companies Act, with \$24,000 capital stock and office at Memramcook, N.B., to carry on a shipowning and management business. The incorporators are:—R. McManus, Moncton, N.B., contractor; J. W. McManus, Memramcook, civil engineer; and E. E. McManus, Memramcook, merchant.



Steel cargo steamship Alaska, for British Government, built by J. Coughlan & Sons, Vancouver, on trial trip.

bottom fore and aft, subdivided into 14 separate water tight compartments, with total water ballast capacity of 1,630 tons. The officers' accommodation is in deck houses on the bridge, and the crew are berthed in the poop deck in separate two-berthed rooms. All accommodation is large and roomy and well ventilated and lighted. The vessel is provided throughout with Chadburn's ship telegraphs, manufactured by Taylor & Arnold, Ltd., Montreal. The propelling machinery consists of triple expansion engines, 2 main boilers and large donkey boiler. There

of 8,000 tons d.w. and is the second of 9 similar vessels to be built for the British Government under the Imperial Munitions Board orders.

The s.s. War Camp, which was launched Mar. 16, was scheduled for her trials during August.

Foundation Co., Victoria, B.C.—The fourth wooden steamship hull, built for the British Government under the Imperial Munitions Board orders, was launched at this year, Aug. 8, and named War Camchin. The company has one more hull to complete before finishing the board's order.

Atlantic and Pacific Ocean Marine.

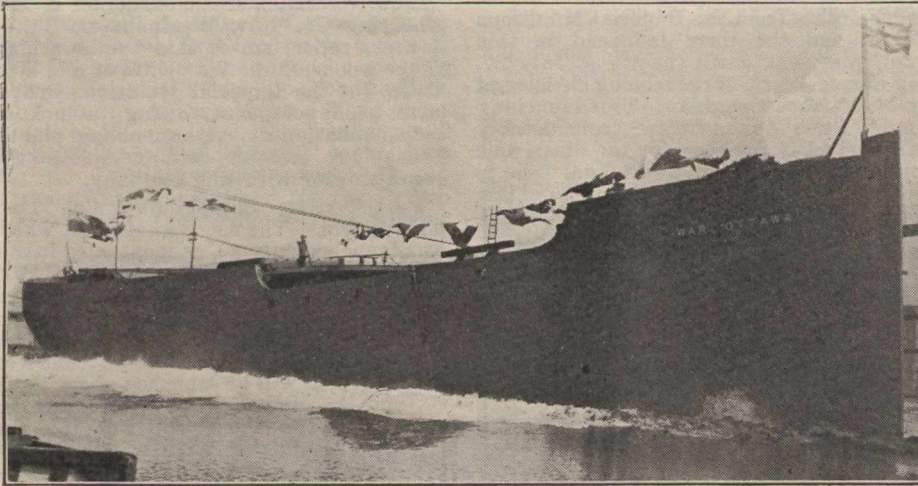
The Imperial Oil Co.'s oil tank s.s. Lux Blanca was torpedoed off the Atlantic coast, Aug. 5.

The Japanese s.s. Canada Maru, which ran aground on the rocky ledges near

mitted suicide, because he feared the possible disgrace which might attach to the casualty.

Bowring & Co.'s s.s. El Lobo was dry-docked at Esquimalt recently, for examination, after having struck a submerged reef off the Peruvian coast in July. It is reported that repairs, which will cost ap-

Sicilian collided in Quebec harbor, Aug. 6, with the Canadian Northern Ry. car ferry Canora, which was scheduled to leave Quebec some time during August, for the Pacific coast, and did considerable damage above the water line. An action has been entered in the Admiralty Division of the Exchequer Court, on behalf of the owners, the Canadian Northern Ry., and the builders, the Davie Shipbuilding & Repairing Co., Lauzon, Que., for \$80,000, and a warrant was issued for the vessel's arrest.



Launching of Wooden Cargo Steamship, War Ottawa, for British Government, by Fraser, Brace & Co.

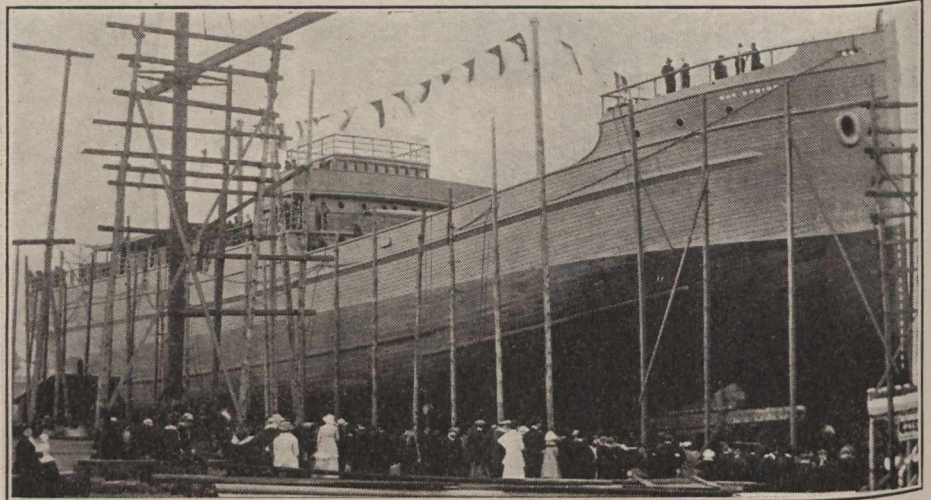
Cape Flattery, was released Aug. 6, and proceeded to Victoria.

The s.s. Key West, under time charter to Canadian Pacific Ocean Services, Ltd., for the Oriental trade, has been repaired at Victoria by Yarrows, Ltd., after having damaged her main air pump gear, when two days out of Vancouver recently.

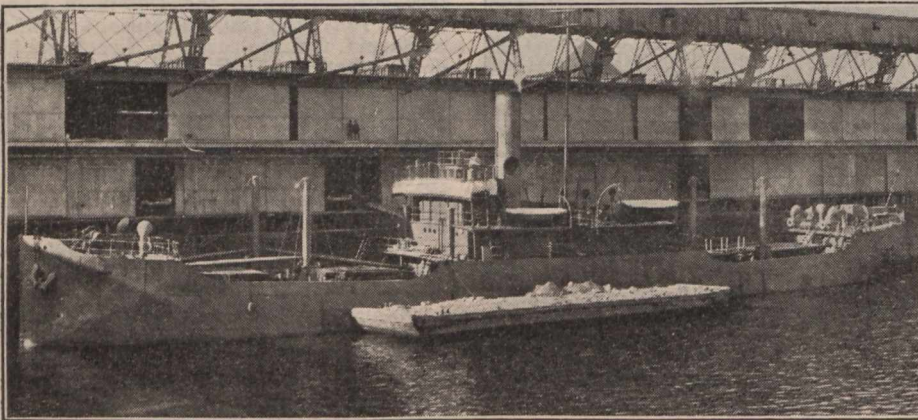
The s.s. Celtic Prince, which ran ashore recently at St. Barnabe Island, St. Lawrence River, was taken to the dry dock at Lauzon, Que., early in August, where she will be repaired by the Davie Shipbuilding & Repair Co.

The British Court of Appeal has dismissed the appeal of the owners of the s.s. Kingsway, from the judgment confirming the report of the Liverpool District Registrar, in assessing the amount payable by them to the Allan Line as owners of the s.s. Grampian, for damages sustained in a collision in the River Mersey, May 14, 1915.

The Japanese steamship Canada Maru,



Wooden cargo steamship War Babine, for British Government, just prior to launching by Foundation Co. of British Columbia, at Victoria.



Steel cargo steamship War Isis, built for British Government by Port Arthur Shipbuilding Co. The photograph, taken at Montreal, shows the steamship loaded with grain and ready for sea.

which ran ashore near Cape Flattery, late in July, was released by the salvage tug Salvor, Aug. 5, and proceeded to Victoria, B.C., under her own steam, for examination. It was announced Aug. 7, that Capt. Y. Yamomoto, master of the vessel, com-

proximately \$70,000, cover the renewal of about 37 plates, the straightening of 70 frames, and the repair of 4 bulkheads. It is expected that the contract will be given to Yarrows, Ltd.

Canadian Pacific Ocean Services' s.s.

laid proposals before the Louisburg, N.S., town council, for the construction of a dry dock there. The site mentioned is to the west of the Dominion Coal Co.'s property on the water front. The proposal will be submitted to the ratepayers.

The French Government has issued a writ against the Belgian s.s. Imo for \$2,000,000, in respect of the explosion of the s.s. Mont Blanc in Halifax harbor, Dec. 6, 1917, and a counter claim has been entered by the owners of the s.s. Imo. The case will be heard by Admiralty Court at Halifax, N.S.

The Strait of Canso Ferry Co. has purchased the s.s. Chignecto to replace the s.s. Arcadia, which it sold recently to Hendrys, Ltd., Halifax, N.S. The Chignecto was built at Port Greville, N.S., in 1908, and is screw driven by engine of 16 n.h.p. Her dimensions are: length 78.6 ft., breadth 17.8 ft., depth 7.2 ft.; tonnage, 86 gross, 36 register.

The Newfoundland schooner Gladys M. Hollett, 159 tons, which was attacked by a German submarine, Aug. 9, when bound from Twillingate, Nfld., for New York, was subsequently towed into port. The bomb placed on board, though having

Maritime Provinces and Newfoundland.

The Cape Breton Electric Co.'s ferry, Electronic, grounded near Chapel Island, off Sydney, N.S., Aug. 4. The damage was slight.

The Dominion Public Works Department is receiving tenders to Sept. 4, for the construction of a breakwater, skidway and boat shed at Lower Kingsburg, N.S.

The Dominion Public Works Department has awarded a contract for improvements to the harbor at Inverness, N.S., as outlined in our last issue, to Reid & Archibald, Granville Ferry, N.S.

It is reported that a U.S. syndicate has

exploded, failed to sink her. She will easily be righted and repaired.

A German submarine which has been operating off the Atlantic coast, seized the North Atlantic Fishing Co.'s trawler Triumph, about Aug. 20, and after equipping her with guns proceeded to harass the fishing fleet off the North Atlantic banks. Several fishing schooners have been torpedoed, as well as the large schooner Dornfontein, recently built in New Brunswick, and which had sailed on her maiden voyage to South Africa. It is reported that six submarines are working along the coast, with the avowed in-

ment of hands owing to the scarcity of labor, and the abnormal demands for wages.

There was a considerable decrease in the traffic passing through the Lachine canal during July, as compared with July, 1917. The chief decrease was in grain, of which 1,130,932 bush. passed through in July, 1918, compared with 2,998,051 bush. in July, 1917. The coal carried was 344,559 and 335,039 tons for the same periods respectively.

It was announced recently that the shipping of trans-Atlantic freight was too concentrated at Montreal during the cur-

Ontario and the Great Lakes.

The U.S. s.s. Wiley M. Egan, which sank in the Welland Canal, near the M.C. R. swing bridge south of Welland, July 15, was raised Aug. 6, and towed to Port Colborne.

The Webster Steamship Co.'s s.s. Muriel W., which grounded at Gabriels Point, near Port Colborne, July 30, while bound from Erie to Montreal with coal, was released Aug. 4, after lightering about 2,000 tons of coal.

The s.s. John Webster, which was built in the U.S. in 1917, for ferry service between Morristown, N.Y., and Brockville, Ont., is stated to have been requisitioned by the U.S. Government for service on the Erie Canal between Buffalo and Troy, N.Y.

The C.P.R. Great Lakes passenger service will close for the season, by the sailings of the steamships Assiniboia and Keewatin from both ends of the Port McNicoll route, Sept. 28, and of the s.s. Manitoba from Owen Sound, Sept. 30, and Fort William and Port Arthur, Oct. 3.

The Dominion Marine Department received tenders to Aug. 30, for breaking ice in the harbors of Port Arthur and Fort William, Thunder Bay, Lake Superior. The tenders cover periods of 5 and 10 years, the price for the work to be quoted for each year in either case.

The Marine Department has arranged with the Marconi Wireless Telegraph Co. to have the Great Lakes radiotelegraph stations broadcast weather forecasts from the stations at Toronto, Midland, Kingston, Sarnia, Sault Ste. Marie and Port Arthur, as they are received from the Meteorological Observatory at Toronto.

The Muskoka Lakes Navigation and Hotel Co.'s steamboat Kenozha was destroyed by fire while at her dock at Lake Joseph, Aug. 13. She was built at Gravenhurst, Ont., in 1883, and was screw driven by engine of 16 n.h.p. Her dimensions were: length 100.8 ft., breadth 18.2 ft., depth 6.2 ft.; tonnage, 225 gross, 124 register.

The U.S. Lake Survey reports the levels of the Great Lakes in feet above mean sea level, for July, as follows:—Lake Superior, 602.26 ft.; Michigan and Huron, 581.92; St. Clair, 575.98; Erie, 572.58; Ontario, 246.85. Compared with the average July levels for the past 10 years, Lake Superior was 9.20 ft. below; Michigan and Huron, 1.05 ft. above; Erie, 0.27 ft. below, and Ontario 0.09 ft. below.

Manitoba, Saskatchewan and Alberta.

The s.s. Kenora is being operated for excursion parties on the Red River between Winnipeg and Lake Winnipeg. She was owned formerly by the Rainy River Navigation Co., Fort William, Ont., and was sold about two years ago to Alex. Mackenzie, Winnipeg, and is now registered in the name of John F. Wallar, Winnipeg. We have been informed recently that negotiations are in progress which may lead to her being sold again for Pacific coast service, which would necessitate her dismantling and being shipped to the coast overland. She was built at Kenora, Ont., in 1897, and is screw driven by engine of 38 n.h.p. Her dimensions are: length 119.9 ft., breadth 28 ft., depth 8.3 ft.; tonnage, 486 gross, 269 register.



Wooden cargo steamship, War Sumas, for British Government, just prior to launching by Pacific Construction Co., at Port Coquitlam, B.C.

tention of destroying the fishing fleets. The protection of the coast line is under U.S. Navy jurisdiction, and the proper steps are being taken to deal with the menace.

Province of Quebec Marine.

The St. Lawrence Shipping & Trading Co.'s s.s. Guide sailed from Quebec, Aug. 2, for Lower St. Lawrence ports with a general cargo. It is said that she was compelled to go without a full comple-

ment season. This was regarded as detrimental to the interest of the port of Quebec, and the matter was taken up with the Imperial authorities, with whom the control at present rests. It is now stated that from enquiries which have been instituted at Quebec regarding the labor situation, two vessels a week can be handled, and should additional vessels require to be handled there, other local labor now engaged elsewhere would be recalled. It has since been announced that two steamships a week will be loaded at Quebec until the close of St. Lawrence navigation.

British Columbia and Pacific Coast.

Canada West Coast Navigation Co.'s auxiliary schooner Malahat has loaded lumber at Victoria, and sailed for Iquique, Chile.

The controlling interest in the British Columbia Marine Railway Co., Vancouver, held by G. G. Bushby, has been sold to I. Hopkins, J. K. McKenzie and associates.

The B.C. Government is reported to have purchased a sea-going steam tug in Seattle, Wash., for the Pacific Great Eastern Ry. service between Vancouver and Squamish.

The Dominion Public Works Department, received tenders, to Aug. 24, for repairs to the wharf at Victoria, and for the construction of a float at Hardy Bay, and also to Aug. 31, for repairs to the wharf at Tofino, Comox-Alberni District.

The C.P.R. discontinued the trips of the s.s. Princess Alice in the B.C. Coast Service, Aug. 10, and this necessitated changes in the sailing dates of the s.s. Princess Sophia, these being fixed for Aug. 17, 27, Sept. 7, 17, 28, Oct. 8, 19, 29, from Vancouver.

The channel in the First Narrows at Vancouver, has been dredged to a little over 900 ft. wide, with an average depth of 32 ft. at low tide. The cut on the north side of the Narrows and Parthia Shoal has been dredged to a depth of 35 ft. at low water. The sweeping of the shoal has been completed and there is a least depth of 22 ft. there at low water, with the exception of a point on the south side, where it is 29 ft.

The C.P.R. s.s. Tees is reported to have been bought by the British Columbia Salvage Co., to replace the s.s. Salvor, sold recently for the trans-Pacific trade. It is stated that she will be overhauled for salvage service, and renamed Salvor. She was built at Thornaby, Eng., in 1893, and is screw driven by engine of 95 n.h.p. Her dimensions are: length 165 ft., breadth 26 ft., depth 10.8 ft.; tonnage, 679 gross, 441 register.

The British Columbia Salvage Co.'s s.s. Salvor is reported to have been sold to Powell Davies, Montreal, for service between Vancouver and Australasian ports. It is said that she is to be overhauled and made suitable for freight service, when her name will be changed. She was built at Govan, Scotland, in 1869, and was formerly known as Danube. She is screw driven by engine of 65 n.h.p., and her dimensions are: length 215.6 ft., breadth 27.7 ft., depth 20.7 ft.; tonnage, 988 gross, 621 register.

The Union Steamship Co. of British Columbia is reported to have sold its s.s. Comox to the Gulf of Georgia Towing Co. She has been operated for several years on the logging camp and cannery routes out of Vancouver, it is now stated that she will be converted for towing purposes. She was built at Vancouver in 1891, the steel plates and frames having been shipped from England. She is screw driven by engine of 24 n.h.p., and her dimensions are: length 101 ft., breadth 18.1 ft., depth 5.2 ft.; tonnage, 101 gross, 60 register.

Increase in Charges for Elevating Grain.—The Board of Grain Commissioners has increased the charges for elevating grain from \$4 to \$4.35 per 1,000 bush., following an increase of from \$3 to \$4. The Dominion Marine Association has entered a protest against the latest increase.

Shipbuilding in Canada During 1918.

"Canada's War Efforts, 1914-1918," issued recently by the Director of Public Information, contains the following, under the head of "Shipbuilding":—

tracts in Canada, on behalf of various governments, for a number of submarines for the Imperial Government, as well as several submarines for the Italian and

Ships Which Have Been Launched Since Jan. 1, 1918, or Will Be Launched Before Dec. 31, 1918.

	Steel vessels.				Deadweight carrying capacity (approx.).	Wooden vessels.				Deadweight carrying capacity (approx.).
	Atlantic Coast shipyards.	Great Lakes shipyards.	Pacific Coast shipyards.	Total.		Atlantic Coast shipyards.	Great Lakes shipyards.	Pacific Coast shipyards.	Total.	
Built to Imperial Munitions Board order	5	18	11	34	179,800	14	4	27	45	138,600
Built to Marine Department order	4	4	3	11	48,000	..	..	..	..	..
Built under private contract...	8	5	1	14	62,400	..	..	8	8	17,800
Total .....	..	..	..	..	290,200	..	..	..	53	156,400
Grand total: Ships.....										112
Tonnage (approximate deadweight carrying capacity).....										446,600

The above figures do not include a large number of small craft of less than 1,000 tons building at present, such as trawlers, drifters, small schooners, etc.

In connection with the government shipbuilding programme, 20 ships, with a gross tonnage of 55,000, are under construction under contracts entered into by the Marine Department. Seven will be delivered during 1918, the remainder in 1919.

The Naval Service Department, since the outbreak of the war, has placed con-

Russian Governments; about 550 motor submarine chasers for the Imperial Government; about 36 motor submarine chasers for the French Government; a number of steel lighters, shipped in "knock-down" form, for the Imperial Government's use in Mesopotamia, and a large number of trawlers and drifters for the Imperial Government.

Mainly About Marine People.

K. J. Burns, Assistant General Freight and Passenger Agent, Great Northern Ry., Vancouver, B.C., is reported to have resigned to enter Canadian Robert Dollar Co.'s service there.

Capt. J. R. Grauer, master of the Gulf of Georgia Towing Co.'s tug Ellison, died at Vancouver, B.C., July 28, aged 54. He came to Canada from Norway in 1892, and had since been engaged on vessels plying out of Vancouver.

Capt. G. P. Mackay, Treasurer of the Lake Carriers' Association, Cleveland, Ohio, died there, Aug. 5, aged 80, after a long illness. He was connected with the Lake Superior trade for many years, and was well known throughout the Great Lakes.

Capt. L. F. Davison, Assistant Shore Superintendent, Canadian Pacific Ocean Services, Ltd., Vancouver, B.C., is reported to have been appointed master of the company's s.s. Monteagle, vice Capt. A. J. Hailey, who has been given extended leave of absence on account of ill health.

Hon. C. C. Ballantyne, Minister of Marine, was a guest at the Canadian Pay Corps dinner in London, Aug. 13. One press dispatch credits him with plainly hinting at the coming creation of a Canadian navy, and another report says he expressed the belief that Canada would have a maritime unit of its own shortly, working in harmony with the Admiralty.

E. S. Thompson, who retired as Passenger Manager, Allan Line, Liverpool, Eng., recently, after 40 years service, was presented with a silver tray and a cheque by a number of transportation friends. On account of Mr. Thompson's unavoidable absence, W. Baird of Canadian Pacific Ocean Services, Ltd., which now owns the

Allan Line, acted as the recipient.

G. M. Bosworth, Vice President (Traffic), C.P.R., and Chairman Canadian Pacific Ocean Services, Ltd., has retired from the former position, to devote his whole time to the duties of the latter position. Fuller particulars and biographical data will be found under Transportation Appointments and Mainly About Railway People in another part of this issue.

Sir George Gibbons, ex-Chairman of the Canadian section of the International Waterways Commission, died at the Royal Victoria Hospital, Montreal, Aug. 8, following an operation. He was born at St. Catharines, Ont., July 2, 1848, and educated there and at Toronto. He was admitted to the bar in 1869, and engaged in practice in London, Ont. He was engaged in the negotiations between Great Britain, Canada and the U.S., dealing with boundary waters, which led to appointment of the International Waterways Commission, and he was Chairman of the Canadian Section from 1905 to Nov. 10, 1911.

Coals, Limited, the incorporation of which was mentioned in our last issue, was formed to take over the coal handling plants owned formerly by Wilson-Pater-son Co., on the Lachine Canal basin and at Casgrain St., Montreal, on the C.P.R., and the new company is closely allied with the Ogdensburg Coal & Towing Co., and the Century Coal & Coke Co. The head office is at 134 McCord St., Montreal, and W. L. McDougald is President, F. F. McCourt, Vice President, and G. S. McSweeney, Secretary-Treasurer. It is reported that on the completion of organization, interests associated with Canada Steamship Lines, Ltd., will be represented on the board.

General Shipbuilding Notes Throughout Canada.

British-American Shipbuilding & Engineering Co., Vancouver, B.C.—It is reported from Vancouver, that contracts have been signed in London, Eng., for the construction by this company, of 20 wooden cargo steamships for Norwegian interests. The site of the plant is on the old Kitsilano Reserve, and it is said that 8 ways are to be laid down at once. The original plans showed 8 building slips, machine shops, blacksmith shop, mould lofts, etc., and a composite type of vessel is to be built. As announced in our May issue, the company has been granted an export permit to build 20 vessels for Norway.

Canadian Car & Foundry Co., Fort William, Ont.—The first of the 12 mine sweepers which are under construction by this company at Fort William, Ont., for the French Government was launched

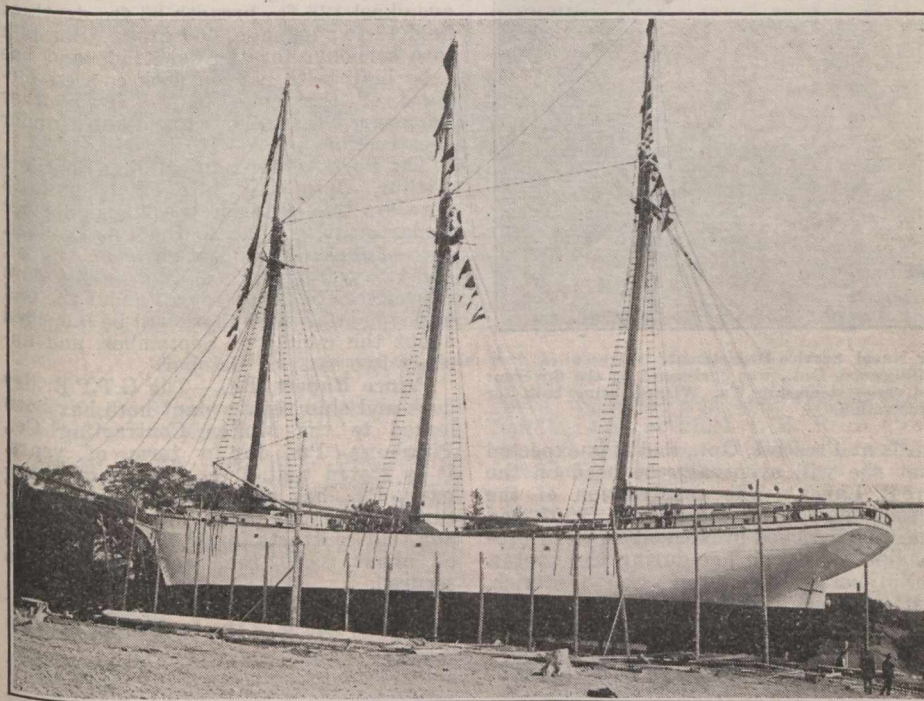
ways are to be laid down and the construction of 3 sailing vessels of 1,500 tons each commenced as soon as possible, for Norwegian interests. Two of these vessels are said to be for H. C. Hansen, and the third for the Porsgrund Steamship & Sailing Co., all of Porsgrund, Norway. Orders for another two vessels for the same interests are expected. Mention was made in our last issue of the negotiations then proceeding for the acquisition of a site for shipbuilding purposes by Chris. Cholberg, who is now mentioned as Manager of the new company.

Comeauville Shipbuilding Co., Comeauville, N.S.—A three masted schooner, 449 tons gross and 385 tons register, was launched at this yard, Aug. 8. This is the fourth vessel turned out by this company, but the first from this yard, the other three having been launched at

of shipbuilding berths throughout the Dominion as they became vacant. In presenting these details, we said: "The Davie Shipbuilding Co., Lauzon, Que., will have two berths available in August, and two additional before the close of navigation. It is expected to place contracts with this company as berths become vacant, for steamships of 3,000 tons deadweight capacity each. Delivery of the first of these is expected before the close of navigation this year, and of the balance during the summer of 1919."

We were officially advised, Aug. 15, that an order had been given the Davie Co. by the Marine Department for 2 steel steamships of 5,100 tons d.w. each. There appears to be no confirmation of the statement that the company is negotiating a contract for steel steamship building for U.S. interests, and under the existing circumstances, it scarcely seems likely.

Ernst Shipbuilding Co., Mahone Bay, N.S.—The schooner William Duff, built in this yard, was completed and ready for



The schooner Celina K. Goldman, built by St. Martins Shipbuilding Co., St. Martins, N.B., for British Colonies Transportation Co., before and after launching.

July 29, and the second on July 31. These vessels are 143 ft. over all, 135 ft. between perpendiculars, moulded breadth 22½ ft., moulded depth to main deck 13¼ ft., to quarter deck 14¼ ft. They have a displacement of 630 tons, and have a freeboard (Lloyd's) of 15 in.

Cape Breton Shipbuilding Co., Johnstown, N.S., has under construction a three masted schooner of 400 tons, which has been sold. The head office is at North Sydney, the shipbuilding yard being at Johnstown, and is in charge of A. Finlayson, as Managing Director. The officers are:—President, F. L. Kelly; Vice President, D. H. McDougall, President, Nova Scotia Steel & Coal Co.; Managing Director, A. Finlayson, formerly railway contractor in the west; Treasurer, W. Hackett; Secretary, N. A. McMillan. Other directors: G. W. Kyte, C. Mackenzie, R. T. Sainthill and R. Musgrave.

Cholberg Ship Co., Victoria, B.C.—It was reported that work would be commenced during August on laying out of a shipbuilding yard in the Victoria inner harbor, in the Mud Bay section of the Songhees reserve. It is stated that three

Meteghan. It is said that she has been sold to Newfoundland parties. Another schooner is well under way, and when launched will be named Edward L.

J. Coughlan & Sons, shipbuilders, Vancouver, B.C., entertained about 60 foremen and heads of departments at dinner recently, when they were complimented on the expeditious manner in which the work of rehabilitation after the recent fire, was carried out.

Davie Shipbuilding & Repair Co., Lauzon, Que.—It was reported recently that G. D. Davie, Managing Director, had visited the U.S. in connection with a contract for building of several steel steamships, and that the company had been invited to tender for the work. We are again constrained to call attention to the particulars relating to the Dominion Government's shipbuilding programme, and that there is practically no likelihood of the government permitting the construction of steel steamships for outside parties for some time to come. Canadian Railway and Marine World for April contained full details of the government's programme, and the proposed utilization

sea early in August, and left for Lunenburg. Her dimensions are: length of keel, 127 ft., breadth 33 ft., depth 12 ft. 7 in., and she has a net tonnage of 365. She is equipped with gasoline engine for hoisting sails, anchor, etc., and also with

Fauquier & Porter, Hantsport, N.S., launched the schooner Margaret F. Dick, August 24, for the British Colonies Transportation Co., Ltd., St. John, N.B. She is of about 1,000 tons capacity, and is the second vessel to be built for this owning company, which was incorporated recently. The first vessel, the Celina K. Goldman, built by the St. Martins Shipbuilding Co. at St. Martins, N.B., is mentioned elsewhere on this page.

G. Gulliford, Britannia, Nfld., has completed the three masted schooner Barbara Barr for G. M. Barr and J. T. Currie. She is 363 tons gross, and has the following dimensions: length 142 ft., breadth 29½ ft., depth 12 ft. She is equipped with an 8 h.p. engine for raising the anchor and sails, handling cargo, pumping, etc.

R. H. Howes Construction Co., Mete-

ghan, N.S.—The three masted schooner Richard B. Silver was launched at this yard at the end of July. She is built for Lloyd's class A1 with a star, for 12 year rating. Her dimensions are: length 150 ft., breadth 34½ ft., depth 14¼ ft.; tonnage, 485 gross, 400 register. She has been bought by H. W. Adams et al, Lunenburg N.S., and is at Liverpool, N.

miles, a speed of a little more than 9 miles an hour is said to have been made, on a consumption of 8 tons of coal, which included banking the fires three times and raising steam once. She has a cargo capacity of about 300 tons, and when fully loaded will have a draft of about 10 ft. On the completion of the trip she was placed in the Marine Department

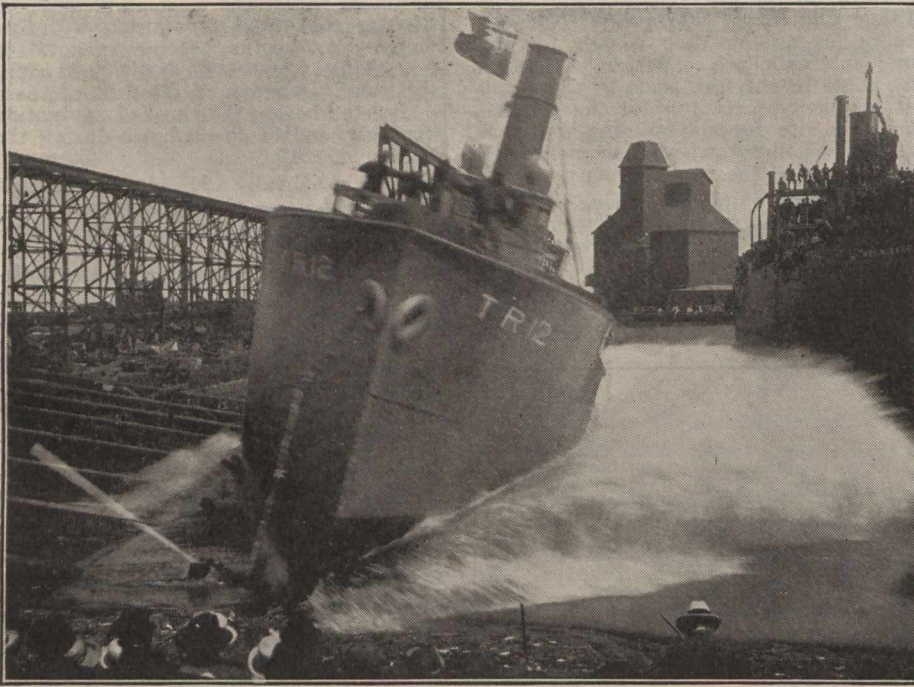
the St. Lawrence Dock, Levis, Que., a marine railway and slip, where work is proceeding on the conversion of the dredge Galveston, which was purchased from the Dominion Government, into a cargo freighter. When completed, this vessel will be taken over by French interests, for operation in the coal service between England and France. She will have a capacity of 2,500 tons. The Quebec Harbor Commission's dredge No. 1 was also purchased and has been remodelled and named Silene. She has now a dead-weight capacity of 2,350 tons, and was expected to sail for France for similar service, about the end of August. It is the company's intention to limit its new shipbuilding to small craft, such as steam trawlers, harbor tugs, etc.

Nova Scotia Shipbuilding & Transportation Co., Liverpool, N.S.—The schooner James G. Jov was launched Aug. 3, for Job Bros., St. John's, Nfld. This is the fourth vessel launched by the company since Nov., 1917. She is of the following dimensions: length over all 150 ft., length over keel 128 ft., breadth 33 ft., depth of hold 12 ft.; tonnage, 460 gross. She is a tern schooner for the fish trade and has been built with a poop deck carried forward of the main mast. Two other schooners of smaller capacity are under construction.

The Port Arthur Shipbuilding Co., Port Arthur, Ont., will, altogether, build 8 trawlers this year for the Naval Service Department, similar to the Castle class. Two of these sailed east early in August, and two were launched Aug. 3, and were expected to be ready to sail about the end of the month. Two more will be launched about the middle of September, and another two early in October.

Prince Rupert, B.C.—The G.T.P.R. dry dock and ship repair plant here has been leased to the Mullen Contracting Co., Pittsburg, Pa., for a term of years. It is stated that J. L. Mullen of Pittsburg, Pa., has undertaken the work of turning the dry dock into a shipyard, and that contracts for 10 steel steamships of about 8,800 tons each, have been secured.

Quebec Shipbuilding & Repair Co., Quebec, Que., has laid the keel for a 600 ton



Launching of steel steam trawler for Naval Service Department.

T.R. 12, built by Collingwood Shipbuilding Co., Collingwood, Ont., was christened by the Governor General's daughter, Lady Rachael Cavendish. The steel cargo steamship War Wizard, being built for the British Government, is shown to the right of the illustration.

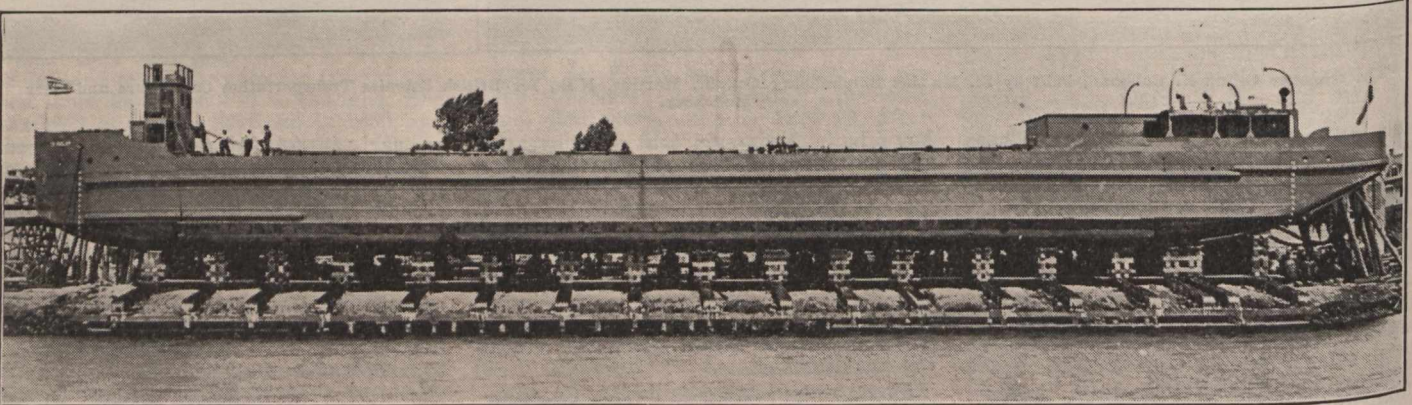
S., loading for Buenos Ayres. She is equipped with stockless anchors, and Canadian Fairbanks-Morse type Z engine.

McLean & McKay, Economy, N.S., have a 3 masted schooner of 400 tons capacity, nearing completion. The dimensions are: length over keel 136 ft., breadth 23 ft., depth of hold 12 ft.

Milton Shipbuilding Co., Yarmouth,

yards at Prescott, Ont., and it is expected that she will eventually be used on the Great Lakes. The construction of the vessel was commenced in Aug., 1907, and she was launched in November, work proceeding slowly on her during the winter.

National Shipbuilding Co., Goderich, Ont.—In our last issue, some comment was made on incorrect information given



Canada Steamship Lines steamship T. P. Phelan, just prior to launching at Three Rivers, Que.

N.S., has a schooner of about 350 tons under construction at Milton. Amongst those interested in the company are E. B. Ehrogott, H. C. Churchill, B. A. Wetmore, E. L. Crosby and T. A. Crosby.

Montreal Shipbuilders, Ltd., Montreal.—The trial trip of the reinforced concrete steamboat Concretia, on July 23 to 25, to which reference has been made previously, was on the St. Lawrence River between Montreal and Prescott, with overnight stops at Stanley Island and Morrisburg. During the trip of 108

in the daily press as to the establishment of a large shipbuilding plant on the south shore of the St. Lawrence River, to be operated by a large combination of Ontario and Quebec interests. At the same time we gave the correct details, so far as they were then available. We have since been advised by W. H. Hutchinson, President, National Shipbuilding Co., that the scheme for a shipbuilding yard at New Liverpool, Que., as mentioned in our July issue, is not to be proceeded with, but that his company is establishing at

schooner, to be built on the lines of the schooner M. P. Connolly, built by the same company, and which was wrecked at Sable Island, N.S., recently.

St. Martins Shipbuilding Co., St. Martins, N.B.—The schooner Celina K. Goldman, for the British Colonies Transportation Co., Ltd., St. John, N.B., was launched Aug. 7, the christening being performed by Mrs. C. E. A. Goldman, Toronto, wife of one of the directors of the company. The Celina K. Goldman is the first of three schooners which the

British Colonies Transportation Co. is having built for the South African trade. She has a carrying capacity of 1,000 tons, and is of the following dimensions: length over all 171 ft., length between perpendiculars 161 ft., length over keel 141 ft., breadth 35 ft., depth of hold 12 ft. 8 in.; tonnage, 525 gross, 477 register. She is loading lumber at Parrsboro, N.S., for South Africa. The St. Martins Shipbuilding Co. intends filling the moulds again, and expects to use considerable foreign wood, with the idea of obtaining a better class.

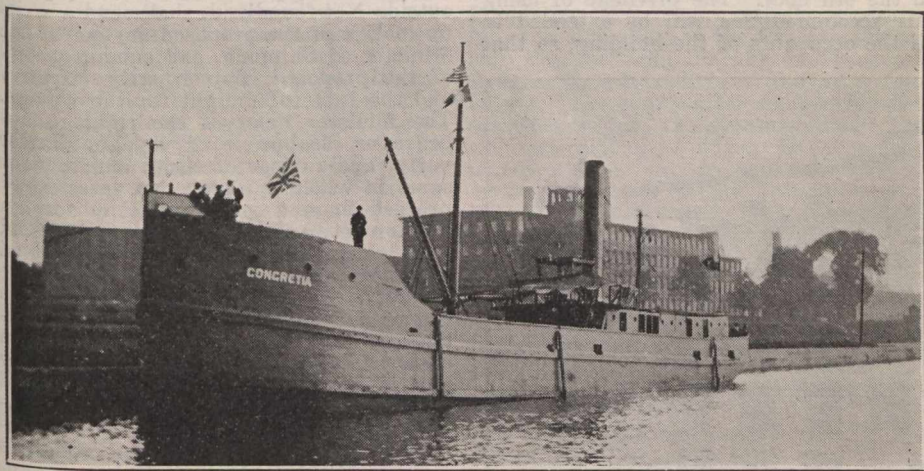
W. D. Sweeney, Yarmouth, N.S., launched the schooner Grace and Ruby, Aug. 8. She is 112 ft. long over all, and 85 tons register. She is to be equipped

result, permission has been granted to a company at Vancouver, B.C., to build 20 wooden vessels for Norwegian interests. It is stated that numerous applications for permission to build steel vessels for foreign register have been refused, as it is believed that the Dominion government's own shipbuilding programme would be interfered with. For some time past it has been stated orders have been offered at various plants in British Columbia for the construction of wooden vessels for outside interests, and it was mentioned, and as we pointed out, wrongfully mentioned, that they were for the British Government. Norwegian interests were reported recently to be negotiating for a site for a shipyard at the Songhees Re-

a little additional publicity. The following paragraph appeared in the August issue of a monthly devoted to marine "information":—

"Dominion Iron & Steel Co., Montreal, Que., Canada, last March, undertook to erect a steel plant at Sidney, B.C., capable of an annual output of 150,000 tons of ship steel. The plans, now completed, provide for a shipbuilding plant to be built at Halifax for the construction and repair of steel vessels. This part of the programme will be begun at once."

The Dominion & Steel Co., it is needless to point out, has not undertaken to erect a steel plant at Sidney, B.C., the company's plant being at Sydney, N.S. The plans which the company has in connection with the extension of its Sydney plant, for the manufacture of steel plates for shipbuilding, by arrangement with the Dominion Government, do not provide for a shipbuilding plant at Halifax. The shipbuilding plant at Halifax, which will utilize ship plates made by the Dominion Iron & Steel Co., at Sydney, N.S., is being built by Halifax Shipyards, Ltd., which company is erecting the plant, and which has no connection whatever with the Dominion Iron & Steel Co.



The reinforced steamship Concretia, built by Montreal Shipbuilders, Ltd.

with auxiliary power and will be used in the fishing business.

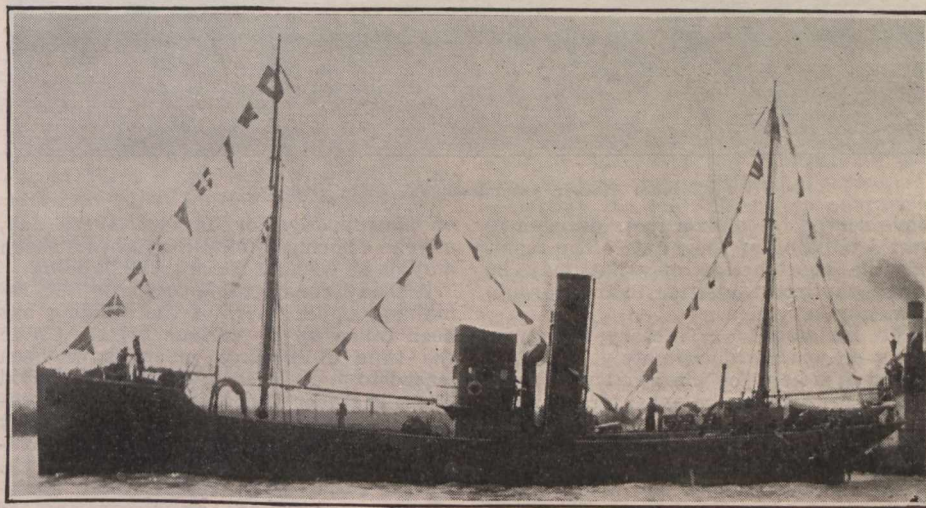
Three Rivers Shipyards, Ltd., Three Rivers, Que.—The National Shipbuilding Corporation of Boston, Mass., with a shipbuilding plant at New Orleans, La., is reported to have secured the capital stock of the Three Rivers Shipyards, Ltd., and it is stated that the building of wooden steamships for foreign account will be undertaken there, the National Shipbuilding Corporation having orders on hand amounting to between \$8,000,000 and \$10,000,000, which will keep the yards, with 15 ways, busy until the end of 1919. It is also stated that the National Shipbuilding Corporation intends converting the shipyards into a car building plant, should the shipbuilding show signs of declining. Three Rivers Shipyards, Ltd., which was incorporated early in the year, has a 5 acre site on the western side of Three Rivers harbor, and is building 2 wooden steamships for the British Government, under order from the Imperial Munitions Board, placed with T. M. Kirkwood, Toronto, who is President of the company.

C. T. White & Son, Alma, N.B.—The schooner Vincent A. White, 453 tons, was launched at this yard, Aug. 7, and this was followed on Aug. 9 with the launching of the schooner Meredith A. White. The first named vessel will load general merchandise at Apple River, N.S., for South Africa.

Wooden Vessels for Foreign Registry.—A press dispatch from London, Eng., states that Sir William Beardmore, of Wm. Beardmore & Co., shipbuilders, Glasgow, Scotland, and other shipbuilders, interviewed Hon. C. C. Ballantyne, Dominion Minister of Marine, in London, early in August, relative to the building in Canada of wooden vessels for Norwegian registry. It is stated that as a

serve, Victoria, and the Victoria Shipbuilding Co., in which J. H. Price, President, Cameron-Genoa Shipbuilders, Ltd., is chiefly interested, was said to have

The Montreal Dry Dock, Connaught.—A report is current in Montreal, that Canadian Vickers' floating dry dock is to be taken to Halifax for operation by Halifax Shipyards, Ltd. We have been unable to obtain any confirmation of this, but, if such an arrangement could be made, it would seem that there would be considerable advantage in having the dock there for the winter. There is no question but that additional dry dock facilities are urgently required at Halifax, and until the plans now being considered, can be carried out, some temporary accommodation should be provided to meet the needs of the situation. The matter is one which might profitably engage the attention of those concerned.



Steel steam trawler for Naval Service Department, built by Port Arthur Shipbuilding Co.

practically completed arrangements with the British Government for the construction of 20 wooden vessels.

"Information" That is Not Information.

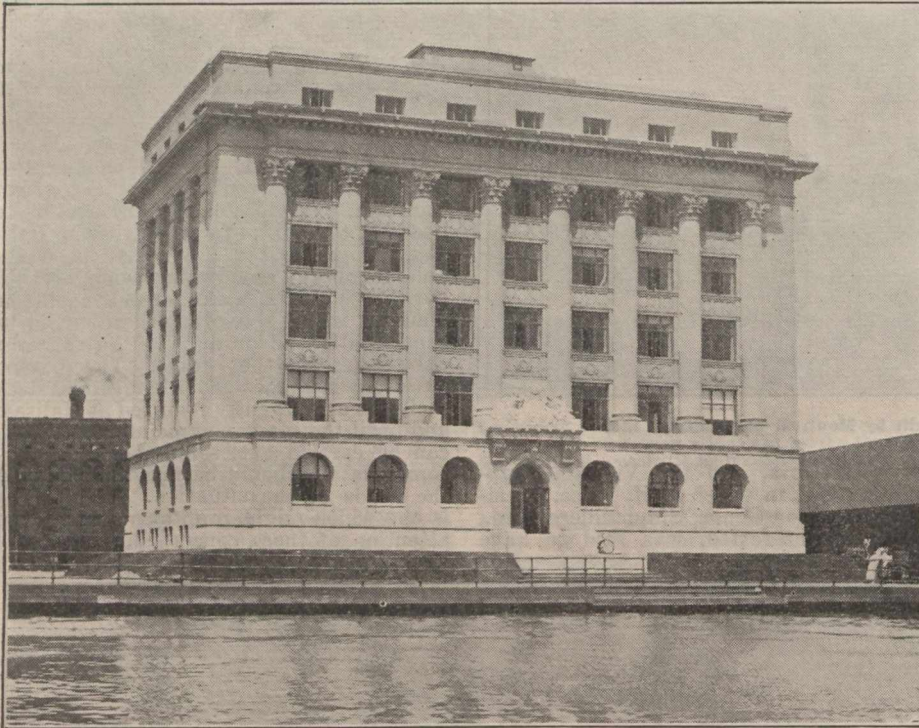
In our last issue we gave an instance of the type of incorrect information, which is being published in many papers, news, trade and technical. We do not wish to assume the task of correcting all the errors which find their way into print, nor even to pose as infallible, but some of the items are so absurd as to call for

The auxiliary schooner M. P. Connolly, which was launched at Quebec, Que., in October, 1917, was reported, Aug. 19, to have become a total loss, with her cargo, near Sable Island, Aug. 19. She was built by the Quebec Shipbuilding & Repair Co. at its St. Laurent yards, Isle of Orleans, and was the first wooden vessel built in Quebec since 1893. Her dimensions were: length over all 223 ft., breadth 42 ft., depth of hold 20 ft.; deadweight capacity about 2,100 tons; net register tonnage 1,350 tons. Full details of the casualty were not obtainable at the time of writing, the crew still being at Sable Island.

Toronto Harbor Commissioners' Office Building.

For several years back the need of an office building to accommodate the various interests doing business on the Toronto waterfront has been from time to time impressed upon the Toronto Harbor Commissioners. Along with a desire to do everything in their power to facilitate business around the harbor, it was felt by the commissioners that the time had arrived with an opportunity to show their unlimited confidence in the coming importance of the harbor front from the viewpoint of the development work which they are now undertaking. Consequently, with the nearing of the expiration of the lease of the commission's Bay St. offices and the necessity of obtaining larger quarters for the increased staff, all of the

continuous automatic record of the fluctuations in the water levels of the lake. On the main floor are the Comptroller's department, Harbor Master's office and the construction department. On the 2nd floor are the offices of the Chief Engineer and Manager, Assistant Chief Engineer, surveys and lands department, Secretary, industrial department and the board room, the latter being 35 by 16 ft., thus giving ample space for receiving deputations, etc. The third floor is partly occupied by the commission's designing and drafting department. Separate luncheon rooms for men and women are being fitted out on the 6th floor. The privilege of using this accommodation will be extended to all the occupants of the building, so that



Toronto Harbor Commissioners' Office Building.

above served to confirm their decision to erect a building of their own. The result was the construction of what may be termed the latest addition to the Toronto waterfront sky line.

The building is a 6 story structure, facing on what will ultimately be the 86 ft. Queen's Quay or marginal way serving the waterfront, having a frontage of 100 ft. along the water by 65 ft. deep, and is of reinforced concrete construction resting on spread footings. These footings are in turn carried by round bearing piles driven to rock. The walls are of Indiana limestone, furred with 4 in. hollow tile, and the building is fronted with 8 stone columns extending from the 2nd to the 6th floors.

The centre of the building is taken up by the stairs, 2 elevators, vaults and piping shaft, and around these run the corridors, serving the different offices and giving ideal lighting conditions for all of the offices. On each floor there is available for occupancy over 4,200 sq. ft. of space. In the basement, the floor of which is just 3 ft. below the grade of the street, and which is well provided with sunlight, are the janitor's quarters, photograph and blue printing departments, stationery storeroom and heating plant; also the hydrograph, operated by a float, giving a

on stormy days, or, in fact, every day, anyone desiring to obtain a light luncheon may do so without leaving the building.

Already considerable space in the remaining upper floors of the building has been taken up by various firms. Up to the time of writing, offices have been leased to J. E. Russell, contractor; David Ross, engineer and contractor; The Construction & Supply Co.; Roger Miller & Sons, contractors; Alfred Chapman, architect, and the Sherwood Construction Co. By the terms of the leases, the commissioners furnish the floor covering of battleship linoleum, and also supply the lighting current. The offices are being rented for \$1.50, \$1.25 and \$1 per sq. ft. per year. It is the commissioners' ultimate intention to enlarge their garage, located a short distance from the building, to afford accommodation to all the tenants and thus do away with any possible infractions of the city parking by-law, as well as affording protection for cars during stormy weather.

Along the face of the dock or landing stage, which has been constructed along the front of the building, are being provided facilities for public use for picking up and landing special parties. Seats are also being placed along the dockage, for the accommodation of any of the citizens

desiring to while away spare moments by the waterfront.

Control of Shipping in Newfoundland.

On the Minister of Shipping's recommendation, and under the authority of the War Measures Act, 1914, and amending acts, the Governor in council has approved the following regulations regarding the control and regulation of shipping:

The managing owner or agent of any vessel owned or registered in Newfoundland or of any vessel chartered in whole or in part by or to any person residing or trading there, before allowing it to proceed to any port or between any ports outside Newfoundland, shall send a written notice of the proposed voyage to the Minister of Shipping, and submit a copy of the proposed charter party (if any) and the rates of freight for the voyage. The minister reserves the right to approve or disapprove of voyage, charter party, and rates of freight, and to vary same in whole or part. No vessel shall proceed upon a voyage to any foreign port or between foreign ports unless and until the owner or agent has received official notification of the approval of the minister. The minister may instruct the Customs Department to refuse a clearance or entry to any vessel to or from any port in Newfoundland to or from any port or ports outside Newfoundland; and may also instruct any collector to withdraw or cancel any such clearance or entry already given which in the minister's opinion ought to be withdrawn or cancelled. Any master of any vessel sailing without a clearance or whose clearance has been withdrawn, shall be guilty of a breach of these regulations. Any person guilty of a breach of any of these regulations shall be liable to a penalty not exceeding \$5,000, or in default to imprisonment not exceeding 6 months, to be recovered and enforced in a summary manner before any magistrate or justice of the peace; and such penalty shall be in addition to and not in substitution for any penalty to which any person may be subject under sec. 8 of the War Measures Act, 1914.

Toronto Ferry Co.'s Fares.—The Toronto City Council is making another effort to prepare a bylaw for the Ontario Government's approval, granting the Toronto Ferry Co. power to increase its fares for adults' ordinary tickets for the round trip from the mainland to Toronto Island, from 10c to 15c, and from 5c to 8c for the single trip. The second attempt limits the increase for the duration of the war, and maintains the fares for children and picnic parties and for baseball combination tickets, as at present. There is continued opposition to the proposed increase, and the point has been raised as to what constitutes a picnic party. The dictionary definition is capable of considerable exploitation.

Vessel Losses by Submarines.—Vessels sunk during July by submarines aggregated 313,011 gross tons, of which 176,479 gross tons were British, and 136,532 tons belonged to allied and neutral countries. This is an increase of 10,965 gross tons British, and 20,552 gross tons allied and neutral, over June, and a decrease of 55,301 gross tons British, and 3,829 gross tons allied and neutral, as compared with the figures for May. The sailings to and from Great Britain during July showed a great increase, the total gross tonnage being 7,718,898 gross tons, an increase over June of 288,512 gross tons.

Wreck Commissioner's Enquiries and Judgments.

Halifax Shipyards Limited,

Enquiries have been held into the following casualties recently, and judgments delivered:—

Stranding of s.s. City of Vienna.

Held at Halifax, N.S., July 8, before Capt. L. A. Demers, Dominion Wreck Commissioner, assisted by Commander G. E. Bridge, R.N.R., and Lieut. J. L. Poppleton, R.N., as nautical assessors, into the stranding of British s.s. City of Vienna, owned by the Hall Line, Liverpool, Eng., on Black Rock, Sambro Ledges, at the entrance to Halifax Harbor, July 2, during a dense fog. The court found that the master, J. W. Partington, a stranger in those waters, and holding the highest grade certificate, navigated his vessel with every care and precaution which prudence demanded, from Cape Gaspe, where he encountered fog, taking his vessel, without sight of land or observation of any kind, from the Gulf of St. Lawrence into Cabot Strait, and out into the Atlantic afterwards to reach Halifax by a zigzag course. On July 1, he obtained a sight and found his position, which was verified by a cast of the lead. On that day he received a message warning him of the presence of an enemy submarine in the vicinity of Halifax, and he elected to alter his course more in shore, with the consent of the officer in charge of troops then on board. Weather conditions then permitted of him seeing from 4 to 5 miles, without perceiving land. The weather then became thicker and the speed was reduced to half and finally dead slow and stopped, and the vessel struck while barely moving. His attention to soundings was all that could be desired, and his vigilance on the bridge cannot be questioned, his actions throughout showing that he possessed very good judgment in resolving his calculations based on dead reckoning, and being a stranger, he was not aware of the fact that after a steady easterly wind, a set to westward is keenly felt, the allowance for which can only be arrived at by local knowledge. The court found him in error in not stopping his vessel upon hearing the Sambro fog signal ahead, or slightly on the port bow, and then circling until he heard the Chebucto Head fog signal, being then only 6 or 7 miles distant. This error is by no means culpable under the circumstances, but, unfortunately, it jeopardized valuable property. It was therefore held that the master was not in default, but that he committed an excusable error of judgment.

Regarding the discipline amongst the troops on board, all of whom were landed safely, the court remarked that this remarkable feat was without doubt due to the discipline which the officer in command had instilled in the men, with the help of his subordinate officers, the men, one and all going to their stations calmly, singing verses of song, and upholding in every way, the best traditions of British soldiers.

The court remarked on the evidence that there were only four lifeboats on board, but that 77 rafts had been added at Montreal. The officer in command stated that he had expostulated before leaving Montreal, at the insufficient number of lifeboats, but was told that there was a sufficient number of life rafts to compensate. It is within the province of the court to enquire into the equipment of vessels, and the court expressed the opinion that life rafts do not meet the requirements. They are not placed on vessels as substitutes for lifeboats, but as adjuncts, and it therefore condemned the

continuance of equipping vessels in this manner.

The court also expressed its surprise at the wholesale depredations and wanton destruction committed by residents in the vicinity of the wreck after it had been for the time abandoned. It suggested that means should be taken to prevent a recurrence of such disgraceful pillage, and for the punishment of the guilty parties.

Stranding of s.s. Eugenia John Diacaki.

Held at Halifax, N.S., July 11, before Capt. L. A. Demers, Dominion Wreck Commissioner, assisted by Commander G. E. Bridge, R.N.R., and Lieut. J. L. Poppleton, R.N., as nautical assessors, into the stranding of the Grecian steamship Eugenia John Diacaki, on Transport Ledges, Egg Island, N.S., during a fog, July 2. The court, after considering the evidence, which was obtained under the greatest difficulty, owing to necessary interpretation, and to the necessity of writing questions to the first mate, who is totally deaf, found the master and mate in default, and would have looked on the stranding with some leniency had the master and mate taken casts of the lead, and made some theoretical and practical efforts, which was part of their duty, and is obligatory to keep a dead reckoning of the distance run, and to maintain the position of the vessel at each change of course. It would also have allowed much for the panicky situation caused by the receipt of a message bearing on the presence of enemy submarines, if it had been shown that the slightest effort had been made to keep each position in view by other means than supposition and assumption. Having no jurisdiction over the certificates of these men, the Greek consul was advised of the finding, for the information of his Government.

Stranding of s.s. Ockenfels.

Held at Halifax, N.S., July 19, before Capt. L. A. Demers, Dominion Wreck Commissioner, assisted by Commander G. E. Bridge, R.N.R., and Lieut. J. L. Poppleton, R.N., as nautical assessors, into the stranding of the U.S. steamship Ockenfels, at Mars Head, N.S., June 30. The court found that the master, John Deery, from the time he left Philadelphia, navigated his vessel with prudence, and adopted every means at his disposal to obtain his position, almost from hour to hour. He, however, erred, involuntarily, in reckoning on an easterly current, while a westerly current was flowing, and also inadvertently ignored a possible leeway occasioned to the vessel by swell and the wind. This error is not considered culpable, and he was exonerated from blame, and the hope was expressed that on these matters being pointed out to him, he will exercise additional prudence in future. The evidence showed that the various messages he received as to the presence of submarines in the vicinity, did not in the least affect him in exercising proper judgment. The finding was forwarded through the usual channels to the U.S. Government.

The Lincoln Steamship Co., Selkirk Steamship Co., and Westham Steamship Co., all of Vancouver, B.C., are being wound up voluntarily, with L. Rogers as liquidator.

The North Vancouver ferry committee is considering the question of building a double end ferry steamboat, somewhat larger than the two now in operation.

Progress is being made on the work in preparation for the erection of the shipbuilding plant at Halifax, N.S., some details of which have been given in previous issues. It was originally intended that the plant would include 3 shipbuilding berths, but changes have been made in the plans, so that there will be 4 berths. The contracts for the excavating, which is in progress, and for the retaining walls, etc., have been placed, as already mentioned, with the Bedford Construction Co., which also has the contract for the erection of one of the buildings, which is partly completed. Contracts for the remaining buildings are yet to be awarded. The dry dock which was taken over by the Dominion Government recently, has been leased by the company, and the plans for the whole plant are so arranged as to provide for its enlargement.

It was announced recently that Jas. Carruthers, of Montreal, who is said to have subscribed for \$500,000 of the company's stock, had resigned the chairmanship of the board. In confirming this, Mr. Carruthers stated that he had resigned because two other directors, who are interested in the Maritime Wrecking & Salvage Co., which was incorporated Dec. 29, 1917, had refused to transfer their interests in it to Halifax Shipyards, Ltd., and he did not believe in any officer of a company being interested in other companies which might interfere with its earnings. Under its charter, Halifax Shipyards, Ltd., could carry on wrecking business itself.

Roy M. Wolvin, Vice President and Managing Director, Halifax Shipyards, Ltd., stated in this connection that Mr. Carruthers had some time ago expressed a desire to withdraw from the company, and in pursuance of his request his resignation had been accepted and his subscription already replaced.

Everybody connected with the company regretted Mr. Carruthers' decision, and the loss of his personality. The prospective operations of Halifax Shipyards, Ltd., were, however, of a national character, and he and all his associates realizing this, were striving to their utmost to successfully carry out the undertaking and were making very satisfactory progress in getting the new plant into operation. Mr. Wolvin further stated that no one interested in Halifax Shipyards, Ltd., was in any way, either directly or indirectly, interested in any subsidiary company which is in competition with the new company, and that there must be some misunderstanding in this connection.

It is stated that Sir Herbert Holt, one of the C.P.R. directors, and President of the Royal Bank, has bought a large block of stock of Halifax Shipyards, Ltd., and that while he may not become a member of the board, his interests will probably be represented by J. S. Norris, General Manager, Montreal Light, Heat & Power Co.

U.S. Lake Wages Scale.—Cleveland, Ohio, press dispatch, Aug. 14:—The committee appointed at the last meeting of the directors of the Lake Carriers' Association to fix a scale of wages made a report last night, and the schedule recommended by the committee was approved by the mobilization committee. The schedule, which calls for a general advance of from \$7 to \$20 per month, will be paid from Aug. 1. The mobilization committee also announced that an adjustment will be made of the wages of all licensed officers at the end of the season.

Investigation into Shipbuilders Employes Wages, etc. in Quebec.

The following report was approved by the Governor General July 29:—The committee of the Privy Council have had before them a report, dated July 25, from the acting Minister of Labor, submitting that there exists serious friction as between various firms in the Province of Quebec, engaged in the shipbuilding industry, and the employes of such firms in different classes of labor, the employing firms being occupied wholly or chiefly on work which is essential to the conduct of the war, and there is grave reason to apprehend that the unrest in question may result in a cessation of work and in serious injury to the public interests. The minister further submits that, with a view to the establishment of more harmonious and satisfactory relations between the employers concerned and their workmen, it is advisable that an enquiry be made into and concerning such unrest, with special regard to wages, piece-work, working hours, overtime and other conditions of labor and the nature and cause of the grievances alleged; and that the enquiry shall include particularly disputes which have come to the knowledge of the Minister of Labor, in the case of Fraser, Brace & Co. of Montreal; Quinlan & Robertson, Ltd., Quebec; the Davie Shipbuilding & Repairing Co., Lauzon, Que., and the Quebec Shipbuilding Co., Quebec, and their employes, and shall extend to such other disputes of like character as may be reported to the minister during the progress of the enquiry in question.

The minister, therefore, recommends: That it be referred to a commission under the provisions of part 1 of chap. 104, Revised Statutes of 1906 (the Enquiries Act), composed of Mr. Justice F. S. MacLennan, of the Superior Court of the Province of Quebec; Thos. E. Robb, Secretary of the Shipping Federation of Canada, Montreal, and J. M. Walsh, Secretary of the Quebec and Levis Federated Trades and Labor Council, to hold and conduct such enquiry, with all the power conferred by the aforesaid statute upon the commissioners. That the commissioners have the right to determine the manner of conducting the proceedings in respect to such enquiry and to make all necessary enquiries and investigation concerning the relations between said employers and employes, with a view to taking such steps as may seem calculated to promote and secure an amicable working arrangement between the employers in question and the employes concerned, and, failing the achievement of such amicable working agreement before the commission, the commissioners shall make such recommendations as will, in their opinion, be best calculated to remove or lessen the unrest now existing. That Mr. Justice MacLennan be appointed chairman of the commission, and that the report of the commissioners on the matters investigated and their findings and recommendations be presented to the Minister of Labor. That all fees and expenses payable to the commissioners, or to the witnesses or other persons who may under their authority be concerned in the proceedings of the commission, shall be governed by the provisions as to such matters of the Industrial Disputes Investigation Act, 1907, as if the commission were a board of conciliation and investigation established under that statute. That all expenses incurred by the commission be paid from the War Appropriation. The committee concur in the foregoing recommendations and submit the same for approval.

United States Great Lakes Training Station.

The U.S. Shipping Board has authorized the commissioning of a training ship on the Great Lakes for training of apprentices as seamen, firemen, and cooks on lake cargo carriers. The ship will be based at the station to be established at Cleveland, under the board's recruiting service for the lakes. This service, of which Henry Howard, of Boston, is director, is training 3,000 men a month for the new merchant marine on a fleet of training vessels maintained in Atlantic and Pacific waters. It is now seeking a suitable vessel for the lakes, which will be the thirteenth in the board's training fleet.

Recruiting of apprentices for the Great Lakes training ship will be carried on in the same recruiting stations of the board that are now providing large numbers of young men for coastwise and overseas ships. The board has nearly 2,000 of these stations in the seven states touching the lakes.

Shipbuilding in the United States.

All shipbuilding records went to smash in the U.S. in July. Statistics assembled by the U.S. Shipping Board Emergency Fleet Corporation, from reports sent in by the various shipyards, show that more ships were launched during July than had hitherto been launched in any 12 months from U.S. shipyards.

The figures reach the impressive total of 123 vessels with a dead-weight tonnage of 631,944. The launchings divide as follows:

Type of vessel.	Number.	Dead-weight tonnage.
Composite	3	11,000
Steel	67	433,244
Wood	53	187,700
Total	123	631,944

The following table shows launchings by months for 1918 in d.w. tons:

January	88,507
February	123,625
March	172,611
April	160,286
May	259,241
June	283,322
July	631,944
Total	1,719,536

There were completed in July, 41 vessels totaling 235,025 dead-weight tons. Of these 36 were steel vessels of 217,025 d.w. tons, and 5 were wood vessels of 18,000 d.w. tons. This does not include 2 steel vessels of 15,855 d.w. tons which were delivered from Japanese shipyards. If these were counted in the grand total of ships completed for the Shipping Board in July it would be 43 ships of 250,880 d.w. tons.

From Aug., 1917, when the present Shipping Board began operations, up to Aug. 1, 1918, there have been completed and delivered 37 steel contract vessels having a deadweight tonnage of 245,700, and 210 requisitioned vessels totaling 1,326,156 d.w. tons, a grand total of 247 ships, aggregating 1,571,856 tons, completed and placed in service. Almost half of this total tonnage was delivered during the last three months, the actual amount being 775,545 tons.

There are now 118 fully-equipped shipyards in the U.S., and 44 others partly complete, of which 23 are more than 75% finished, and only 6 less than 25%, ready to begin building tonnage. Many have been built from the ground up, while the others have been extended and enlarged to such a degree that many of them amount almost to new yards.

Thirty-seven steel yards which the

U.S. had when the war began have grown to 72. The old yards have been increased from 162 ways to 195, and more are being added. Eighty yards for building wooden ships are in operation or nearing completion. The remainder of the total number of yards are for building concrete ships, a new industry developed by the war need.

The 118 yards which are complete are distributed sectionally as follows: Pacific coast, 48; Atlantic coast, 38; Great Lakes, 16, and Gulf coast, 16.

With the success of its huge shipbuilding programme assured, the U.S. Shipping Board will now concentrate its power on the manning of the merchant marine with "all-American" crews.

St. John Dry Dock & Shipbuilding Co., St. John, N.B.—The company's shipbuilding and repair plant will be located immediately adjoining the dry dock, where work was commenced Aug. 5, on clearing the ground. In the course of a few weeks, a definite proposal regarding the plant is to be placed before the New Brunswick Government and the City of St. John. The Bedford Construction Co. has been awarded a contract for the removal of rock work from the dry dock site, and it is expected that by the end of the year, 250,000 cub. yds. of rock will have been removed from the prism of the dry dock and placed in the breakwater. A. R. Dufresne, formerly Assistant Chief Engineer, Dominion Public Works Department, Ottawa, has been appointed Manager in charge of the work at St. John.

Masters and Mates on Pacific Coast Vessels.—The Royal Commission, consisting of W. E. Burns, Chairman, E. A. James and J. H. McVety, appointed recently to investigate disputes between vessel owners on the British Columbia coast, and masters and mates engaged on their vessels, has concluded its enquiries, but had not reported at the time of writing. The application for an investigation, made by the men, stated the matters in dispute related to wages and working conditions, but in the course of the enquiry, it developed that the chief trouble was the question of the recognition of the Canadian Merchant Service Guild, by the employers. A press report from Victoria, late in August, stated that after having given 48 hours notice, the men had left their vessels, which were then tied up at various points.

Grain Shipments from Pacific Ports.—Several shipments of grain have been made through the Government elevator at Vancouver recently, for European ports, via the Panama Canal. The steamships Empress of Asia, Alaska, War Power and War Viceroy, have each taken cargoes, and so far as reports have been received, the grain has arrived at its destination in excellent condition. It was at one time thought that the varying climatic conditions would cause considerable deterioration of such cargoes, but so far this trouble has not been met.

The Champlain dry dock at Lauzon was opened for business Aug. 22, and two large Atlantic steamships were docked there for overhaul. A full description, with illustrations, was given in our June issue.

Canadian Pacific Ocean Services' s.s. Lake Manitoba was practically destroyed by fire, Aug. 26, while taking on oil at the Imperial Oil, Ltd., wharf at Longue Pointe, Montreal. She had about 8,000 tons capacity, and had been operated in the combined passenger and freight trade between Canadian and European ports for several years.

Welland Canal Lock Gate Accidents.

The s.s. Canobie, owned by Wilson-Patterson Co., Montreal, while upbound light, struck and carried out the two head gates of lock 8, Welland Canal, Aug. 10. Spare gates were placed in position and navigation resumed Aug. 11, after an interruption to navigation of 16½ hours. Owing to the comparatively short reach above lock 8, and a long one below, very little damage was done to the canal banks. The cause given for the accident was that the reversing machinery jammed and failed to work. The estimated damage is \$5,000.

A second accident occurred Aug. 16, when the Montreal Transportation Co.'s s.s. Pawnee, while upbound light, struck the tow path head gate of lock 12, carrying out both upper gates and the heel path lower gate. The banks on both sides of the canal at the head of lock 11 were badly washed by the water released. Spare gates were stepped and navigation resumed Aug. 17, after an interruption of 15 hours. The vessel was undamaged, and the cause alleged for the accident, was that the engine having centered, failed to reverse. The canal damage is estimated at \$7,500. Richard Carroll, a lock tender at lock 12, hung on to the hand railing of the lower gate, and was carried into the canal and drowned.

Canadian Pacific Ocean Services and New Steamships.

The Liverpool Journal of Commerce of July 25 publishes the following from a correspondent:—"I hear that the directors of the Canadian Pacific Ocean Services have ordered several big steamships, with which, it is hoped, the government will allow the company to proceed, so that the work may be completed in time for the conclusion of the war. As a matter of fact, one of them, a vessel of 9,400 tons carrying capacity, is, or was, in course of construction on the Tyne, while arrangements have been made for the building of others on a cost and percentage basis, 2 of them to have a length of 605 feet and a speed of at least 20 knots each. Lord Shaughnessy is, I believe, very hopeful about future prospects on the Pacific, and is not by any means pessimistic as to the result of Japanese competition, and the temporary breakdown in Russia. He is of opinion that, although it is difficult to be specific about plans, there will be some big developments on that ocean before very long. As a highway of commerce and travel it is gaining in importance every day, and it is only a question of time before the Atlantic will have to look closely to its laurels, or it will carry traffic second in volume to that of the Pacific. The awakening of the Orient and the development of the west coast of North America will force the shipping companies to increase their transport facilities very considerably."

This little bit of news concerning the purchasing and ordering of new tonnage, was contained in the C.P.R. report for the six months ended Dec. 31, 1916, issued in April, 1917, and published in Canadian Railway and Marine World for May, 1917. For obvious reasons it is impossible to give the position of affairs as regards these vessels at present. One steamship of 9,400 tons was purchased while under construction, and orders were placed, on a cost and percentage basis, for 2 steamships 605 ft. long, 20 knots speed, and 2 of 16 knots speed, with length of 546 ft.

British Shipbuilders Looking to Canada.

A Canadian Press dispatch from London, Eng., Aug. 12, referring to the Canadian newspaper men's party's visit to English manufacturing districts, said:—"The great captains of industry directing this war effort are alive to the possibilities of the future, and discuss freely their confidence in Canada. Unanimously they predict her prosperity. Among those who believe that Canada is on the eve of tremendous development are the shipbuilders on the Clyde, of whom Hugh Latta is one. One of these captains said to me: 'We already are preparing plans for works in Canada for ourselves. We believe opportunities for shipbuilding in your country are unexcelled anywhere. You have the raw material, and coal within easy access and what is of great importance, a manufacturer or builder may begin afresh with you on new plans and under new conditions.'"

Proceedings re Ship Protests.

Under an order in council of July 2, 1918, collectors of customs at ports of entry on the Pacific and Atlantic, including ports on the Gulf and River St. Lawrence up to and including Montreal, are authorized, during the war, to do any notarial act for the purpose of noting and extending ship protests, and are authorized to receive any statutory declarations required in connection therewith. Masters of all British ships have been instructed that no note of protest of loss or of any occurrence whatsoever arising in respect of their ships is to be made by them in the Dominion except before a collector of customs, who are instructed, when the master of a British ship reports inward and when issuing a clearance to a British ship, to direct the master's attention to the above requirements.

Protests by masters of British ships trading on the inland waters of Canada, or protests in respect of loss or other occurrence arising while a British ship is on any of the inland waters of Canada, do not require to be made before a collector of customs. In such cases the master may follow the usual and existing practice.

For the information and guidance of collectors before whom a master may present himself in connection with ship protests, it should be stated that a protest may be made in the first instance, or the master may desire to make a note or entry of protest only, which may later be extended to a regular protest before the same or another collector of customs. The note or entry of protest is merely a notice of the master's intention to protest, should an extended protest afterwards become necessary or advisable. A note or entry of protest, also a protest—if made in the first instance—should be made as soon as possible after the arrival of the ship in port. If made later than 24 hours after arrival, it should contain a brief statement of the cause of the delay. Note or entry of protest forms, protest forms, and extended protest forms, may be obtained from collectors of customs. The note or entry of protest should be made in duplicate, signed by the master and formally certified to by the collector, and one copy retained by the collector and placed on file. When a protest is made or extended, the original is to be retained and filed by the collector and certified copies are to be given or mailed to the master and to the owner of the ship.

The Australian Government Shipbuilding Programme.

Ottawa press dispatch, Aug. 12.—The Dominion Government has received an interesting statement in regard to the present position of shipbuilding by the Australian Commonwealth. Actual contracts entered into by the Australian Government include 26 steamships and 24 wooden ships, with a gross tonnage of 200,600. Twenty-seven distinct slips are being used for construction. When these contracts are completed, the Australian Government will own a fleet of 77 vessels, of a gross tonnage of 302,506. Of this number 14 have been purchased in England and 14 are being built in the United States.

At least one Nova Scotian vessel will, in all probability, be purchased by the Australian Government within an early date. The report states that as it is impossible to obtain adequate supplies of wire rope and the favored hemp sail canvas from the U.S., the attention of Canadian manufacturers of these articles is directed to the development of Australian shipbuilding as an outlet for their products.

British Mercantile Marine Pay.

The London, Eng., Times says that shipowners have not been able to see their way clear to accept the scales of pay for navigating and engineer officers serving under monthly articles on passenger liners approved by the Shipping Controller and accepted by the men. The controller, in view of the protracted negotiations which have taken place, has decided that his decision is to stand, and the scales of pay accordingly are promulgated.

The pay of a first mate with a certificate of superior rate on a vessel from 1,000 to 5,000 tons is to begin at £26 a month, on vessels from 5,000 to 9,000 tons £27, on vessels from 9,000 to 13,000 tons £28, and on vessels up to 18,000 tons £29, and after three years service is to be advanced to £29 a month in the first instance, and pro rata to £32 a month in the case of vessels of from 13,000 to 18,000 tons. The pay of other navigating officers of lower grades is proportionately improved.

Chief engineers' monthly pay on 1,000 to 5,000 tons vessels is to begin at £31, on 5,000 to 9,000 tons vessels at £33, on 9,000 to 13,000 tons vessels at £35, and on 13,000 to 18,000 tons vessels at £37, rising after five years to £41 in the first instance, to £47 in the case of the 13,000 to 18,000 tons vessels. The schedule covers other engineering ranks with and without certificates.

The Maple Leaf Shipping Co., Ltd., has been incorporated under the Dominion Companies Act, with a capital stock of 1,000 shares, without nominal or par value, provided that it shall carry on its business with a capital of \$5,000, and the head office is at Toronto. Power is taken to own and operate steam and other vessels, and to carry on a general navigation, manufacturing and forwarding business.

Making Hay While the Sun Shines.—There is a touch of humor about the announcement that, owing to the necessity of having the haying completed, employees of the St. Martins Shipbuilding Co., St. Martins, N.B., had been given a short leave, and as soon as the urgency of the crop situation had been met, shipbuilding operations would be recommenced.

The Future of Wooden Shipbuilding in Canada.

From the time when the conditions brought about by the adoption of unrestricted submarine warfare by the enemy, made it necessary to concentrate a considerable portion of the national energy on the speedy construction of ships, the merits and demerits of wooden ships, as compared with those built of metal, have been freely discussed. It cannot be said that the adoption of the wooden ship was anything but a temporary expedient, and certainly it was not intended that the building of wooden steamships by the British Government was to become a permanent part of its policy.

On account of the abnormal demands for steel of all kinds, it was considered advisable to have a number of vessels built of wood, and to cope with orders placed by the British and French Governments, several yards were established in Canada, and equipped for the building of wooden vessels only. Some time ago it was announced that the Imperial Munitions Board, acting for the British Government, would not place any further orders for wooden steamships, as the conclusion had been arrived at that for operation in war zones, they were not able to evade submarines, etc., so well as the speedier steel vessels.

In dealing with the Dominion Government's policy regarding the building of steamships, recently, the Minister of Marine announced that the Dominion Government did not intend to have any wooden steamships built, as a part of its shipbuilding programme. He stated that the wooden shipbuilding yards in different parts of Canada had many opportunities for building wooden ships for private interests for Canadian registry, and several were then working on such orders for allied and neutral countries. As some of the yards engaged on the construction of wooden ships are now approaching the completion of their Imperial Munitions Board contracts, it is feared that they will close, thus dissipating staffs, which, in some cases, have been got together with difficulty, and also losing the experience gained, in a work, which is not without considerable usefulness, both for the present, and the near future, when vessels in large numbers will be required, and when they could operate without fear of submarine attack.

The energy which has been shown on all sides in the establishing of new yards, and in pushing the construction of the vessels ordered, can well be renewed for the continuance of the yards and the construction of further vessels without the material aid furnished by the Imperial Munitions Board for vessels built under its orders. On this point, it is well to remember that practically the whole of the material required for the ships was supplied to the builders by the board, so that in the event of builders continuing the yards and canvassing the open market for orders, they would not be in quite so advantageous a position as in dealing with the board's orders, having to buy and sell both, in open competition.

The situation is clear, ships are wanted, and to a large extent, wooden ships meet the requirements. There seems little doubt that all vessels which the wooden shipyards in the Dominion can build for the next few years, would find ready purchasers, so that it remains for these yards to turn out the vessels. There is no likelihood of the Dominion Government subsidizing the building of wooden steamships in any way, but there are great in-

ducements in the way of customs drawback on imported materials. Nothing therefore remains for the successful continuation of the wooden shipbuilding industry, but energy, public spirit, and the judicious outlay of the necessary capital, combined with the judicious handling of labor, without which last, the other matters are mere waste. A combination of all forces should enable an important, and almost essential industry, to be firmly established in the Dominion, which is peculiarly fitted for such work, and which for the several years of shipbuilding rehabilitation ahead of us, is bound to play an important part.

Power Schemes Affecting St. Lawrence River Navigation.

The International Joint Commission met at Atlantic City, N.J., recently to consider two applications for approval of plans for the development of power affecting boundary waters; one made by the New York & Ontario Power Co. to improve its plant at Waddington, N.Y., in the south branch of the St. Lawrence, known as the Little River, between Ogden's Island and the U.S. main shore opposite the Morrisburg Canal, and the other made by the St. Lawrence Power Co., a subsidiary of the Aluminum Co. of the U.S., with reference to its plant at Massena, N.Y., to which water is drawn from the St. Lawrence, south of Long Sault Island, through an artificial canal and returned lower down through the Grasse River. The first proposal contemplates a new dam in, and an increased withdrawal of water through, the Little River, with certain remedial or compensating works to protect navigation in the Radipe Plat of the main channel and in the Morrisburg Canal, and the second contemplates the complete damming of the south branch of the river south of Long Sault Island, and the dredging of the approach to the power canal to Massena, with the advantage of establishing navigation to Massena, and also greatly increasing the power available for the output of aluminum.

The Dominion Marine Association is opposed at present to both proposals, in view partly of the prejudicial effect upon the navigability of the river, and also

because of its opposition to the parceling out of the St. Lawrence waters to private corporations, in a manner which is fast putting the river beyond the government's control, and would certainly materially prejudice any future general scheme designed to improve navigation and develop power as a national or international undertaking. Pending further investigation, the Dominion Government has withheld its approval, and in the Waddington case has filed pleadings in opposition to the proposal.

Counsel appeared for both the Dominion and U.S. Governments at the hearing at Atlantic City, and Francis King, counsel, Dominion Marine Association, appeared for that association, and also represented navigation interests, which by treaty are paramount. Mr. Kuntz, of Washington, for the U.S. War Department, supported the Massena proposal in the interest of an increased aluminum supply. A great array of engineering talent was also in attendance.

The Waddington proposal stands over for further evidence and argument at Ottawa on Oct. 1st, and the Massena project will come up for final hearing at Montreal on Aug. 29.

Canada Steamship Lines, Limited, Earnings.—At a meeting of directors at Montreal, Aug. 13, Jas. Carruthers, President, is reported to have stated that the business for the half year ended June 30, showed a satisfactory condition of earnings, these being considerably ahead of those for the same period of 1917. It is said that the returns indicate net earnings of over \$2,000,000 for 6 months. Taking into account that this covers the period when lake and river business is practically nil, the second half of the year ought to show considerably larger results. Last year net earnings were \$4,023,000 and in 1916 \$4,059,000, so that present indications point to even a higher result for the full year.

Vessel Repairs in Great Britain.—It is reported that between Aug. 3, 1917, and Apr. 25, 1918, 5,307 vessels were repaired and restored to service, representing an aggregate gross tonnage of 16,150,000 tons. The work has been thoroughly systematized, and whatever repairs can be carried out without docking the vessel, are so done.

Sault Ste. Marie Canals Traffic.

The following commerce passed through the Sault Ste. Marie canals during July, 1918.

ARTICLES.	Eastbound.		Total.
	Can. Canal.	U. S. Canal.	
Lumber m. ft. b. m.	1,951	49,786	51,737
Flour Barrels	724,660	654,924	1,379,584
Wheat Bushels	753,333	385,009	1,138,342
Grain, other than wheat Bushels	1,503,505	978,121	2,481,626
Copper Short tons	8,487	8,202	16,689
Iron Ore Short tons	1,232,853	9,178,004	10,410,857
Pig Iron Short tons	.....	.....	1,600
Stone Short tons	.....	1,600	11,411
General Merchandise Short tons	7,835	3,576	4,697
Passengers Number	3,541	1,156	.....
Westbound.			
Coal, soft Short tons	144,424	1,977,179	2,121,603
Coal, hard Short tons	21,450	212,314	233,764
Iron Ore Short tons	.....	22,680	22,680
Mfgd. Iron and Steel Short tons	564	7,183	7,747
Salt Short tons	5,600	7,992	13,592
Oil Short tons	5,520	63,089	68,609
Stone Short tons	.....	87,563	87,563
General Merchandise Short tons	37,209	23,331	60,540
Passengers Number	3,331	1,163	4,494
Summary.			
Vessel passages Number	805	2,441	3,246
Registered tonnage Net	1,495,526	8,177,657	9,673,183
Freight—			
Eastbound Short tons	1,376,227	9,370,019	10,746,246
Westbound Short tons	214,767	2,401,331	2,616,098
Total Freight Short tons	1,590,994	11,771,350	13,362,344

Grain Rates for Canadian Lake Shipments.

At a meeting of the Canadian lake carriers at Toronto, July 30, for the discussion of the vessel situation on the Great Lakes in preparation for the handling of the new wheat crop, resolutions were passed as follows:—

That Canadian carriers have given careful consideration to the proposal for mobilization of all their tonnage, either jointly with that of the U.S. lake carriers, or separately, but after full discussion and after having heard the opinions of those interested in the trade from all points of view, have come to the conclusion that they can best serve the prime object of all such proposals, namely: the contribution of the most effective assistance in the present unfortunate situation due to the war, by supporting a continuance of the arrangement which prevailed during the fall of 1917; an arrangement which gave general satisfaction and effectively met all requirements. They are influenced to some extent by the fact that in Canada there is no centralization of vessel management in any one locality, and, in consequence, an almost insuperable difficulty would be at once encountered in an attempt to manage the trade through a committee, yet, nevertheless, as already stated, this objection was subsidiary to the main question which was determined with reference to the general satisfaction expressed with the 1917 arrangement.

Canadian lake carriers, recognizing the obligation imposed on them of furnishing efficient aid to the transportation of the grain crops of Canada and the U.S., agree as follows:

1. That Lake Superior shall be served in preference to Lake Michigan and only surplus grain tonnage sent to Lake Michigan.

2. That Lake Superior wheat will be served in priority to any other grains.

3. That all tonnage to Duluth-Superior shall be allotted through the U.S. Grain Corporation office there; all tonnage for Lake Michigan ports through the U.S. Grain Corporation office at Chicago, and tonnage to Fort William and Port Arthur through the Winnipeg Chartering Committee, under the same conditions as prevailed in the autumn of 1917, but under such instructions as to allotments as may be acceptable to the Wheat Export Co. and the Dominion Government, and subject to insurance by the shipper against any grain shortage on outturn, in accordance with the present arrangement in the Buffalo trade.

4. That all unloading at Buffalo shall be directed by the U.S. Grain Corporation office at Buffalo.

5. That the Canadian lake carriers will provide tonnage for the grain movement at rates not exceeding basic rates of wheat, Lake Superior to Lake Erie, 4c a bushel until Sept. 1, and 4½c thereafter until Nov. 30, and wheat Lake Michigan to Lake Erie, 3½c a bushel until Nov. 30, with alternative and relative rates as follows: to Georgian Bay and Goderich, ½c under Lake Erie rates; to Port Huron, ¼c under Lake Erie rates; to Collingwood, ½c under Lake Erie rate, but terms of discharge at Collingwood to be the same as hereafter provided for discharge at Lake Erie side ports; to side ports other than Buffalo and Port Colborne, including Detroit, same rates as Buffalo, but with special agreement as to discharge, allowing two working days free, but thereafter vessel to receive ½c a bushel additional on entire cargo for each running eight hours or fraction thereof,

until fully discharged; to ports of light draft, vessel to be allowed freight calculated on its Buffalo capacity.

Other grains than wheat to net the vessel the equivalent of wheat cargo. Freight to Canadian vessels for carriage to U.S. ports shall be paid in funds current in U.S., and freight to Canadian vessels to Canadian ports shall be paid in funds current in Canada, and Canadian vessels, as much as possible, shall be employed in their customary autumn trade routes.

Among the Express Companies.

William Walsh has been appointed General Superintendent of Stables and Street Equipment, Dominion Ex. Co. Office, Toronto.

Thomas E. McDonnell, General Superintendent, Western Ex. Co., Chicago, Ill.,



T. E. McDonnell
Vice President and General Manager, Dominion Express Company.

has been appointed Vice President and General Manager, Dominion Ex. Co. Office, Toronto.

A number of Canadian Ex. Co.'s porters at Toronto Union Station, struck work during the early part of August, and returned to work, Aug. 9, on the promise that a conciliation board would deal with their grievances.

G. E. Whitney, formerly route agent, Dominion Ex. Co., Montreal, died at Orford Lake, Que. recently, aged 65, after a long illness. He retired from active service in January on account of ill health, and later spent some time in Florida.

The Board of Railway Commissioners has extended the express delivery and collection limits in Winnipeg to include the territory bounded on the north by Kylemore Ave., on the west by Cockburn St., on the south by the south line of Lot 17, St. Boniface Parish, and on the east by Daly St.

The American Railway Express Co., operating under the U.S. Railroad Administration has applied to the Interstate

Commerce Commission for increased rates on newspapers and other publications registered as second class matter by the postal service. It is proposed to establish pound rates to correspond in a general way to the increased zone second class postal rates, and for the return of publications to the shippers it is proposed to charge first class pound rates, with a minimum of 25c.

Thomas E. McDonnell, heretofore General Superintendent, Western Ex. Co., Chicago, Ill., who has been appointed Vice President and General Manager, Dominion Ex. Co., Toronto, was born in Chicago, Ill., his father having been born in Ontario, where his mother came at an early age. He entered express service in 1887 as a wagon boy for the United States Ex. Co., and subsequently filled all positions up to General Superintendent of the Western Department, resigning in 1910 to organize and take into Chicago, the business of the Western Ex. Co., which was closely allied with the Dominion Ex. Co., and which, so far as business in the west is concerned, has passed to the American Railway Ex. Co., under the U.S. Railroad Administration.

Telegraph, Telephone and Cable Matters.

John Ollerhead, one of the old time telegraphers, died at Heart's Content, Nfld., recently, aged 57.

The Great North Western Telegraph Co. has opened offices at St. Yvon, Que., Mimico, Ont., and Langruth, Man., and has changed the name of its office at Smiths Mills, Que., to Tomifobia.

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 distinctly to 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.

Metal & Thermit Corporation has removed its Toronto office to 15 Emily St.

The Independent Pneumatic Tool Co. has leased the entire 6th floor in the Otis Building, 600 W. Jackson Boulevard, Chicago, Ill., containing 12,000 sq. ft., and will occupy it for its general offices. J. D. Hurley, President, states that the great demand for pneumatic tools for government work and shipbuilding had forced his company to seek larger quarters.

Armstrong Whitworth of Canada, Ltd.—This company's tire and wheel plant at Longueuil, near Montreal, was formally opened July 31, in the presence of a number of railway officials and other guests interested in steel manufacture, who were shown the process of manufacturing tool steel and forging steel tires. After inspecting the works, the guests were given refreshments at the company's cafeteria, after which speeches were made by Senator G. G. Foster, K.C., Vice President, and M. J. Butler, C.M.G., Managing Director, Armstrong Whitworth Co.; D. H. MacDougall, President, Nova Scotia Steel & Coal Co.; Brigadier-General Sir Alex. Bertram, and W. D. Robb, Vice President, G.T.R.

The land occupied by the company comprises 216.6 arpents, the area of the buildings is 175,000 sq. ft., and between 600 and 700 men are employed. Three out of

the four methods of steel making are in process at the works, viz.: crucible process, electric furnaces, open hearth furnaces.

The steel making equipments consist of 72 pot crucible furnaces for manufacturing high speed steel; 1 three-ton Herroult electric furnace, 600 k.v.a.; 3 six-ton Herroult electric furnaces, 1,500 k.v.a. These electric furnaces are all 3 phase current, received at 22,000 volts, transformed to 100 volts at furnace. The carbon electrodes are 8 and 17 in. in diameter. There are two 18-ton open hearth basic furnaces fired with oil or powdered coal.

The boiler plant comprises 4 boilers of 500 h.p. water tube, fired with powdered coal; 2 boilers of 250 h.p. water tube, waste heat; and 1 boiler of 120 h.p. return tubular.

For the power plant, electric current is received of 22,000 volts, which drives motor generator set into d.c. current, 500 and 250 volts, for use on cranes, shop work, etc. Steam is used for driving hammers, steam intensifier, hydraulic forging presses. The 9 in. rolling mill engine is 18 x 30; the 20 in. rolling mill engine is 32 x 48, heavy duty. The tire and wheel rolling mill is equipped with a pair of simple 25 x 36 engines, fitted with a valve gear. The plant is heated by vacuum return system, using exhaust steam.

The forging shop equipment consists of one 500-ton steam intensifier hydraulic forging press, one 3-ton, one 1-ton, one 1,500 lb., one 800 lb., and one 500 lb. steam hammer.

The tire and wheel department equipment consists of one 2,000-ton steam intensifier hydraulic forging press, forging ingots into blooms for tire and wheel

work; one 600-ton steam intensifier hydraulic forging press, for decking tires; one 200-ton hydraulic press for marking tires, also a centering press; one 1,000-ton steam intensifier hydraulic press for dishing steel wheels, and making heavy forgings. This department is also equipped with continuous furnaces, two reheating furnaces, two electric servers, which handle the ingots from the furnace to the different machines. The powdered coal plant has a capacity of five tons an hour.

The small tool department is equipped with a repair shop for doing repairs throughout the mill, and a tool room for manufacturing small tools, such as drills, reamers, milling cutters, gauges and special tools of all description.

The rolling mills department contains one 3 high, 5 stand, 3 in. mill; one 2 high, 5 stand, 12 in. mill, and one 3 high, 20 in. mill, 2 in. stand, 20 in. mill.

Transportation Associations, Clubs, Etc.

The names of persons given below are those of the secretaries unless otherwise stated:

Canadian Car Service Bureau—W. J. Collins, Manager, 401 St. Nicholas Building, Montreal.
Canadian Electric Railway Association—Acton Burrows, 70 Bond Street, Toronto.
Canadian Freight Association (Eastern lines)—G. C. Ransom, Canadian Express Building, Montreal.
Canadian Freight Association (Western lines)—W. E. Campbell, 305 Boyd Block, Winnipeg.
Canadian Railway Club—J. Powell, St. Lambert, Que. Meetings at Montreal 2nd Tuesday, each month, 8.30 p.m., except June, July and August.
Canadian Railway War Board—W. M. Neal, Montreal.
Dominion Marine Association—F. King, Counsel, Kingston, Ont.
Canadian Ticket Agents' Association—E. de la Hooke, London, Ont.

Eastern Canadian Passenger Association—G. H. Webster, 54 Beaver Hall Hill, Montreal.
Engineers' Club of Montreal—R. W. H. Smith, 9 Beaver Hall Square, Montreal.
Engineers' Club of Toronto—R. B. Wolsey, 94 King Street West, Toronto.
Engineering Institute of Canada—F. S. Keith, 176 Mansfield St., Montreal.
Express Traffic Association of Canada—C. N. Ham, Montreal.
Great Lakes and St. Lawrence River Rate Committee—James Morrison, Montreal.
Hydro-Electric Railway Association of Ontario—T. J. Hannigan, Guelph, Ont.
International Water Lines Passenger Association—M. R. Nelson, New York.
Niagara Frontier Summer Rate Committee—James Morrison, Montreal.
Quebec Transportation Club—A. F. Dion, Quebec.
Shipping Federation of Canada—Thos. Robb, Manager, 42 St. Sacramento Street, Montreal.
Toronto Transportation Club—W. A. Gray, 143 Yonge Street, Toronto.
Transportation Club of Vancouver—H. W. Schofield, 553 Church Street, Vancouver, B.C.

CANADIAN PACIFIC RAILWAY COMPANY.

Dividend Notice.

At a meeting of the Board of Directors held to-day, the following dividends were declared:

On the Preference Stock, two per cent. for the half-year ended 30th June last;

On the Common Stock, two and one-half per cent. for the quarter ended 30th June last, being at the rate of seven per cent. per annum from revenue and three per cent. per annum from Special Income Account.

Both dividends are payable 1st October next, to Shareholders of record at 1 p.m. on 31st August instant.

By order of the Board,

ERNEST ALEXANDER,
Secretary.

Montreal, 12th August, 1918.



National Pneumatic Door and Step Control



Enables You to Put Salesmen on the Car Platform

So long as the operation of your cars requires severe manual labor, just so long will you be obliged to seek men for their physique rather than for their intelligence.

The application of **National Pneumatic Door and Step Control** actually will do even more for you than widening the age limits and lowering the physical standards of applicants for platform service; it will also permit you to draw upon the salesman type of men who—

Will gladly exchange their place behind the counter for a position where the selling of transportation service and not the tugging of levers is the predominant part of the job.

Let us assist you to attract individuals from this great reservoir of men.



National Pneumatic Company

New York

Chicago

