

CANADIAN  
NORTHERN  
DEVELOPMENT

1918

short or cross, Edmonton, Alta., are so  
licitors for the applicants.

The Canadian Northern Ry.'s locomotive  
house at Portage la Prairie, Man.  
was destroyed by fire, Jan. 16.

A transfer track is reported to be under  
construction at Stettler, Alta., to connect  
the Canadian Pacific and Canadian Northern Railways.  
It was expected to have the connection made by Jan.  
31. Stettler is on the C. N. Ry.'s Vegreville-Calgary line, and on the C. P. R.'s  
Kerrrobert-Lacombe line. (Jan. pg. 12).

Grand Trunk Pacific Ry.—It is reported  
that negotiations are practically completed  
under which the G. T. P. R. will utilize certain of the C. P. R. tracks in  
Saskatoon, Sask. At present the company runs outside Saskatoon, and in order  
that its trains may run through the C. P. R. station, connections will have to  
be made with that company's tracks near

January  
1918

they could fight as well as they could build, and special congratulations have been given them from headquarters."

### The Arbitration on the Value of Canadian Northern Railway Stock.

The arbitration board to determine the value of 600,000 shares of C.N.R. stock (par value \$60,000,000), 510,000 shares of which are owned by Mackenzie, Mann & Co., Ltd., and pledged to the Canadian Bank of Commerce as collateral, opened in Toronto, Jan. 28, the arbitrators being Sir Wm. Meredith, Chief Justice of Ontario, representing the Dominion Government; Wallace Nesbitt, K.C., of Toronto, representing Mackenzie, Mann & Co., and the Canadian Bank of Commerce; and Mr. Justice R. E. Harris, of Halifax, formerly President, Nova Scotia Steel & Coal Co., who was selected by the other two arbitrators to be the third arbitrator. The following counsel appeared: For the Dominion Government, W. N. Tilley, K.C., Toronto; Gerard Ruell, Chief Solicitor, C.N.R.; and E. E. Fairweather, Solicitor, Railways Department, Ottawa. For the Canadian Northern Ry., F. H. Phippen, K.C., General Counsel, Toronto; and O. H. Clarke, Western Counsel, Winnipeg. For Mackenzie, Mann Co., McGregor Young, K.C., Toronto; and Pearce Butler, Minneapolis. For the Canadian Bank of Commerce, I. F. Hellmuth, K.C., Toronto, and A. M. Stewart. It was announced that regular sittings would commence in Toronto on Feb. 4.

The agreement, under which the arbitration is proceeding, was entered into Oct. 1, 1917, between the King, represented by the Ministers of Finance and of Railways and Canals, Mackenzie, Mann & Co., Ltd., and the Canadian Bank of Commerce. Under authority of the act passed at the Dominion Parliament's last session providing for the acquisition of the C.N.R.'s capital stock, the arbitrators are to determine the value of the 600,000 shares as at Oct. 1, 1917, and may consider the reproduction cost of the C.N.R. system, but shall not include therein any increase in value, due to the war, of labor,

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INDIAN RAILWAY AND MARINE WOR

material, or of property. Should the value of the 600,000 shares be determined as \$10,000,000 or more, the price to be paid therefor shall be \$10,000,000, but if the value determined shall be less than \$10,000,000 the value so determined is to be the price to be paid. The arbitrators' decision is to be final, if unanimous, but if not unanimous is to be subject to appeal as provided in the act. The award is to be made by Mar. 1, or within such further period as the parties to the agreement may agree upon. The price determined is to be paid by the government within three months from the receipt of the award, less its proportionate share of the amount of any liabilities ascertained by the government to be outstanding against the C.N.R. system or any of its constituent companies, and undisclosed to, or in excess of the liabilities disclosed to, the arbitrators, apart from liabilities which will be properly chargeable to capital account, unless the corresponding value produced thereby has been taken into consideration as an asset of the company.

The agreement provided that immediately after its execution, at least five-sixths of the 600,000 shares be transferred to the Finance Minister, free of all encumbrances. Sixteen thousand shares, par value \$1,000,000, deposited with the British Columbia Government as security for contracts made by the Canadian Northern Pacific Ry. with that government were to be transferred to the Finance Minister on an order from the owners. Unless the whole 600,000 shares are transferred to the Finance Minister, the Governor in council may declare any shares not transferred to be so transferred, and until all the shares are transferred the Dominion Government may retain, out of the purchase price decided by the arbitrators, the pro rata value of such shares, to be paid over as they are transferred.

The arbitrators have power to employ such legal, engineering or other professional or expert assistance as they may require, the cost thereof to be part of the arbitration costs. ~

Freight and Passenger Traffic Notes.

January  
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## Canadian Northern Train Sheds and Concourse at Vancouver.

Among other works being carried out at False Creek, Vancouver, by the Canadian Northern Pacific Ry. in connection with its new station building, are a concourse and train sheds. The concourse at the rear of, and adjoining, the station building, is 387 ft. long and 40 ft. 9 in. wide, the floor being of reinforced concrete slab construction, carried on piles. The roof, which is about 19 $\frac{1}{4}$  ft. above the concourse floor, covers an area 307 ft. x 40 ft. 8 in., and is supported by the rear wall of the station, and columns at outside edge of concourse respectively. A slight fall towards the columns having been given to take care of surface water, which will be carried to drains, through the down spouts at the columns. These columns are carried on pile foundations,

to the down spouts at the various columns.

One advantageous point which may be claimed for this construction of train sheds, is that of placing the columns supporting the roof covering, between the tracks, thus permitting a clear platform, with no obstacles to prevent the easy and swift manipulation of baggage and express trucks, and thus affording freedom of movement by passengers.

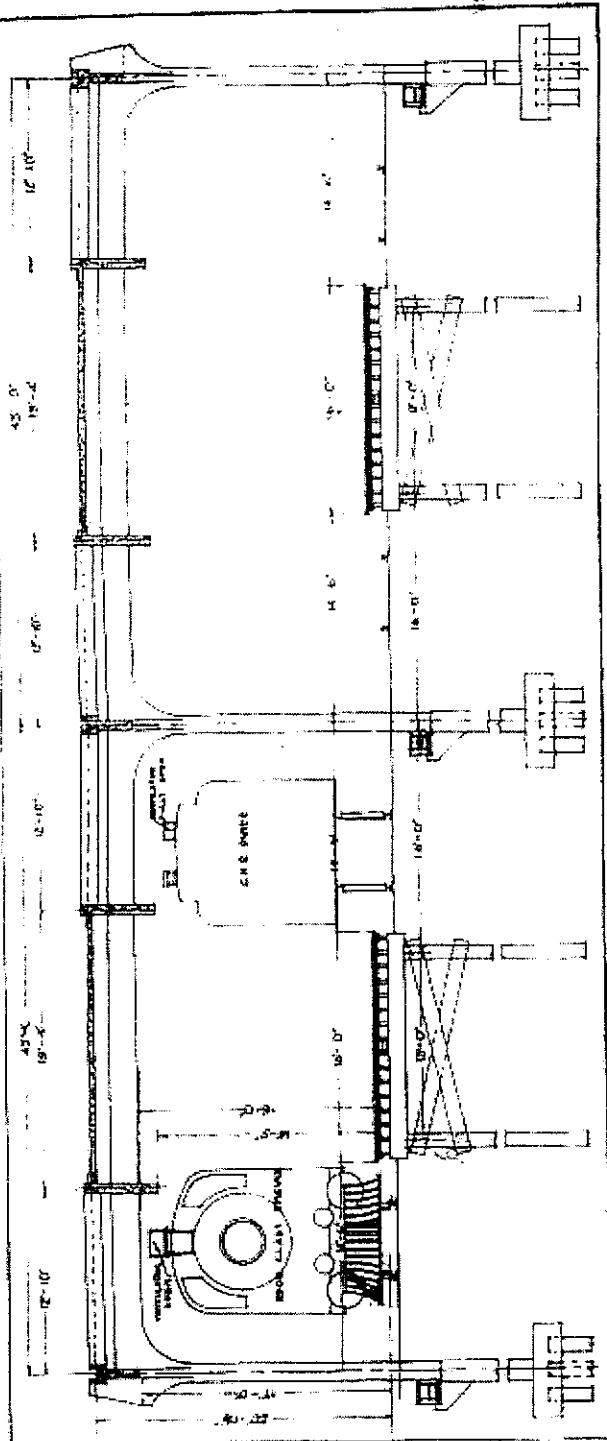
A complete system of electric lighting will be installed on both concourse and platforms, controlled from the concourse, with separate switches to the different portions of the concourse and platforms. Allowing of the illumination of all portions as may be required. A telephone system will also be installed, with outlets

The annual meeting of this society, the last under this name, was held at Montreal, Jan. 22-24. For some time past it has been intended that the scope of the society should be enlarged by embracing other branches of the engineering profession, and this is being carried out. In view of this, a change of name was considered desirable, and it was decided to adopt the title of the Engineering Institute of Canada.

An honor roll, consisting of 862 members, etc., who have gone overseas during the war, was unveiled. It was announced that 66 members, etc., have received decorations for gallantry in action, and that 58 members, etc., have been killed in action, or died as the result of wounds. H. H. Vaughan, Vice President and General Manager, Dominion Bridge Co., Vice President and Managing Director,

## Canadian Society of Civil Engineers' Annual Meeting.

*February  
1918*



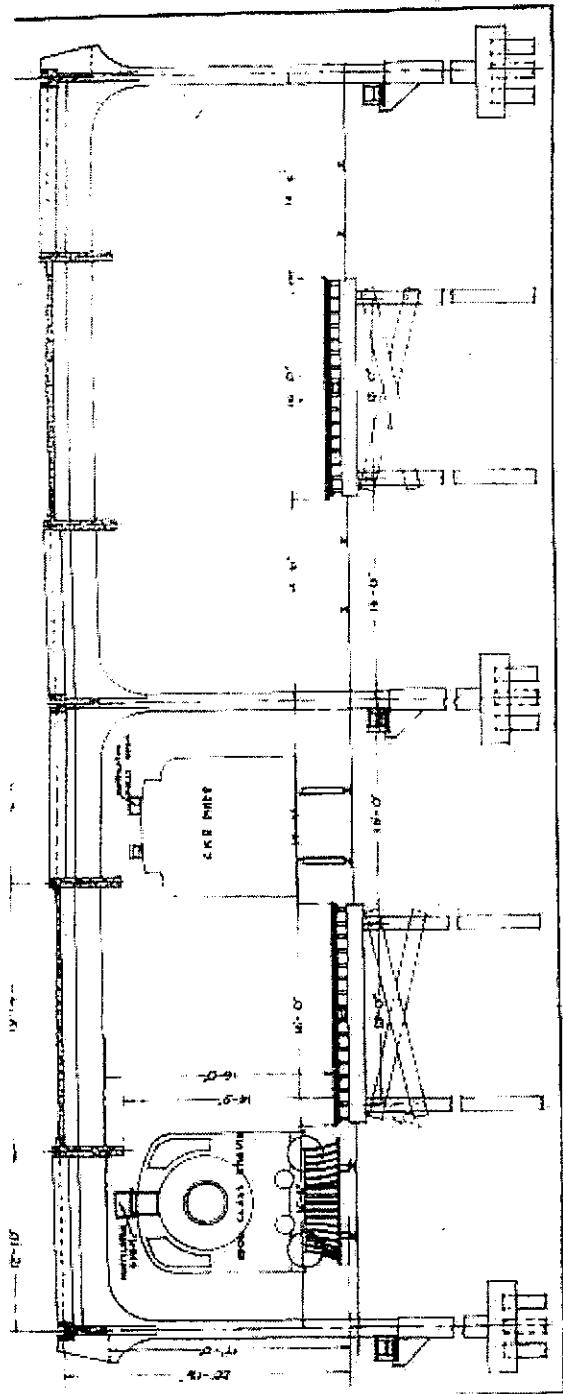
Transverse Section of Train Shed, Canadian Northern Railway, Vancouver, B.C.

are placed at intervals of 46 ft. 1 $\frac{1}{4}$  in. along the concourse, and are of reinforced concrete construction, as is also the concourse roof slab. Natural light to the

various points along the platform, for the convenience of passengers and the railway officials.

Steam feeders will be carried the full

Dominion Products Co., and Consulting Engineer, C.P.R., Montreal, was elected President; and Prof. H. E. T. Haultain, University of Toronto, and R. F. Haynes, Niagara Western Can-



THE HUMANE SECTION OF TRAIN SHED. CANADIAN Northern RAILWAY.

are placed at intervals of 46 ft. 1½ in. along the concourse, and are of reinforced concrete construction, as is also the concourse roof slab. Natural light to the concourse roof is obtained by a roof light 21 x 21 ft., placed in each bay, between the column centre lines. A ventilator is placed in each of these roof lights.

Two wooden train platforms, in course of construction, are 16 ft. wide and 900 ft. long, starting from the edge of the course. They are carried on piles, and are pincered at 45 ft. centres, with two sets of rails between them. Between these two sets of rails are placed the columns supporting the beams carrying the roof slabs over the train platforms. These columns are on 30 ft. centres the whole length of the sheds, and 45 ft. centres, crosswise, with beams longitudinally and crosswise at the roof level. At a height of 19 ft. and directly over the train platform, is a slab 20 ft. wide and 900 ft. long, forming the roof covering for the platforms, the remainder, viz., above the railings, being left entirely open, with the exception of the cross beams, which, supported by the columns, are 30 ft. apart, which construction permits the escape of steam and smoke from the locomotives. The entire construction of the train shed is of reinforced concrete design, the roof slabs and beams being properly graded to ensure the surface water being carried

at various points along the plazas, facilitating the convenience of passengers and the railway officials.

Steam feeders will be carried the full length of the platforms. For the easy supply of steam to the cars, while standing on the platform trucks.

The estimated cost of the work is approximately \$163,000. It is being carried out under the direction of M. H. MacLeod, General Manager and Chief Engineer; Pratt and Ross, of Vancouver and Winnipeg, being the architects and engineers.

June Mechanical Convention.—The executive committee of the American Railway Master Mechanics' Association and the Master Car Builders' Association decided at a joint meeting in New York recently, that in view of the present state of affairs, no convention be held in June. It was also decided that if conditions warrant it, a business meeting be arranged for sometime

Dominion Products Co., and Consulting Engineer. C.P.R., Montreal, was elected President and Proc. H. E. T. Fauteuil University of Toronto, and R. F. Hayward Managing Director, Western Canada Power Co., Vancouver, B.C. were elected Vice Presidents. The following councillors were elected: District 1, Prof. Ernest Brown, McGill University, and J. M. Robertson, Montreal. District 2, F. H. McDougall, General Manager, Dominion Iron and Steel Co., Sydney, N.S. District 3, N. E. Brooks, Sherbrooke, Que., formerly Engineer, Maintenance of Way Western Lines, C.P.R. District 4, John Murphy, Electrical Engineer, Railway Department, and Board of Railway Commissioners, Ottawa. District 5, Prof. Peter Gillespie, Toronto University. District 6, L. A. Thornton, Public Utilities Commissioner, Regina, Sast. District 7, Prof. F. G. Mathewson, British Columbia University.

Canadian Northern Realties Ltd. has been incorporated under the Dominion Companies Act, with \$10,000 capital and office at Toronto, to own, lease and exchange, and otherwise deal in lands and general real estates and for other purposes. The incorporators are D. B. Hanna, their Vice President; G. Fael, General Solicitor; R. H. M. Templeton, of the legal department, and G. N. Lamprecht and W. Bayler, all in the C.N.R. services.

February 1910.

10

Co., and 34 box cars, 80,000 lbs. capacity, from American Car & Foundry Co.

The C.P.R., between Feb. 14 and Mar. 14, received the following additional rolling stock from its Angus shops, Montreal: 60 steel underframe coal cars, 1 steel underframe stores supply car, and 2 decoupled locomotives.

The Timiskaming & Northern Ontario Ry. has been voted by the Ontario Legislature as follows:—\$50,000 for betterments to locomotives, superheaters, brick arches, etc., and \$10,000 for betterments to passenger cars, etc.

New York reports indicate that the U.S. Government will place some large rolling stock orders during the current year, probably covering 300,000 cars, and that the first instalment of about 60,000 will be placed during April. It is stated that master car builders have been devoting their time to the standardization of

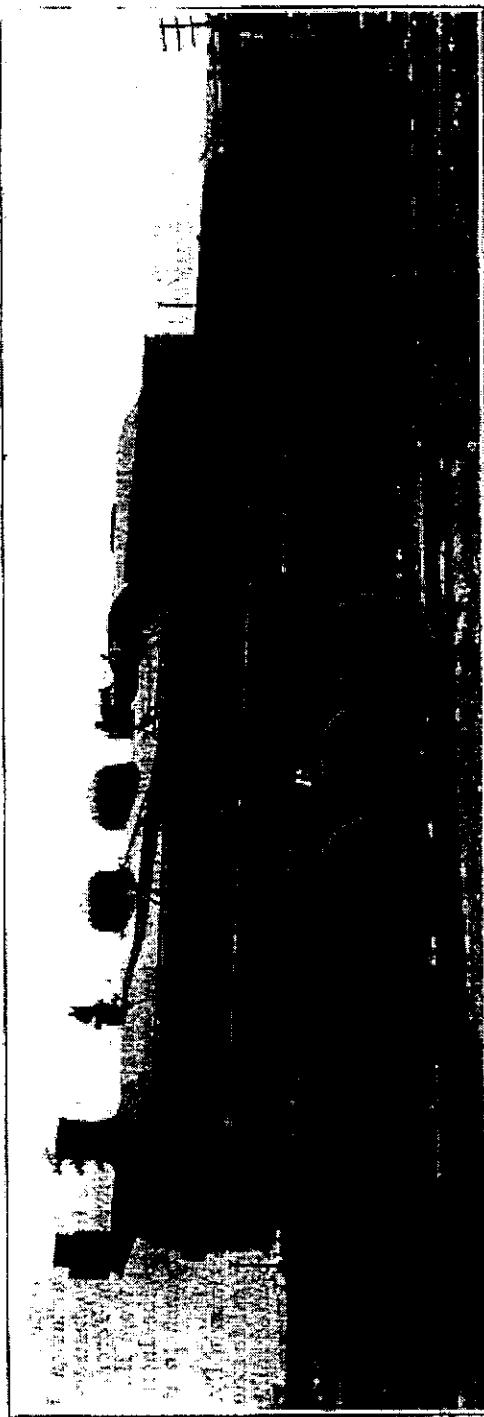
Length between truck centers	55 ft. 6 in.
Length over buffers	62 ft. 4½ in.
Foragers	Electric burner Co.
Loriotube	Electric and gas-tube type.
Train connector	Westinghouse cheap type.
Brakes	Simplex clear.
Brake beams	16 wheel.
Trucks	5 x 3 ft. 6 in.
Journals	5 x 3 ft. 6 in.
Journals, boxes	McCORD
Cylinders, diaphragm and stroke	5 ft. 6 in.
Boiler type	Extended wagon top, radial stay.
Boiler pressure	130 lbs.
Tubes, no. and diam.	240—2 in.; 32—6½ in.
Tubes, length	20 ft.
Grate area	16 ft. 6 in.
Weight of tender loaded	166,000 lbs.
Water capacity	9,000 U.S. gall.
Coal capacity	12 tons
Tank, type	Water bottom with flexible connections.
Truck, wheel, diaphragm	84 in.
Journals, truck	6 in.
Brake beams	High speed. M.C.B. heads
Following are the chief details:	
Total weight	220,400 lbs.
Weight on drivers	196,900 lbs.
Wheel, no. and size	38, 68 x 16.
Boiler type	Extended wagon top
Boiler pressure	180 lbs.
Pitman box	64½ by 110 13/16 in.
Front, height	48 in. 6 ft.

The illustration on this page shows one of the 10 consolidation locomotives being built for the Canadian Northern Ry., by Canadian Alis-Chalmers, Ltd., Toronto, some details of which have been given in previous issues. Four of these locomotives have already been delivered and the balance is expected to be delivered shortly. Following are the chief details:

Total weight	220,400 lbs.
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#### Dominion Government Orders for Rolling Stock.

The Minister of Railways has been de-



Consolidation Locomotive for Canadian Northern Railway

Tubes, no. and diam.	2622 10; 245-5 in.
Tubes, length	115 ft. 3 in.
Heating surface, firebox	180 sq. ft.
Heating surface, tubes	2,116 sq. ft.
Superheater type	Locomotive Superheater Co.'s ton headers
Driving wheel base	16 ft. 6 in.
Wheel bases, engine and tender, total	60 ft. 2½ in.
Length, engine and tender, over all	66 ft. 7¾ in.
Cylinder, diaphragm and stroke	24 x 32 in.
Driving wheels, diaphragm	63 in.
Journals, main	16 x 14 in.
Journal, others	16 x 16 in.
Coal capacity	10 tons
Water capacity	5,500 Imp. gall.

freight cars, and that eight different types, known as M.C.B. cars, have been agreed upon, with a view to evolving one standard type of car suitable to all roads. The average price of the standard type, agreed upon at present, is given as \$2,000 each.

The Canadian Government Railways

dining cars,<sup>7</sup> of which have been ordered from the Pullman Co., will be of steel underframe, superstructure and exterior,

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February

## 2 decapod locomotives.

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## Journals boxes

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Total weight	250,000 lb
Weight on drivers	30,000 lb
Tractive effort	36,664 lb
Boiler pressure	160 lb. per sq. in.
Firebox area	64 $\frac{1}{2}$ sq. ft.
Steam容量	110 cu. ft.
Water容量	166,000 lb.
Boiler type	McGard
Tubes, no. and dia.	240—2 in. 32—4 $\frac{1}{2}$ in.
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Gauge, in.	56 $\frac{1}{2}$ in.
Weight of tender loaded	1,900 U.S. ton.
Water capacity	12 tons
Coal capacity	12 tons
Furn. type	Water bottom with vertical connections
Journals	High speed, M.C.B. heads
Brake hoses	High speed.

## Consolidation Orders for Rolling Stock

The Minister of Railways has been devoting considerable time recently to se-

lecting, under the direction of Mr. McCord

Boiler, type ... Extended wagon top, radial stay

Boiler pressure ... 180 lb.

Tubes, no. and dia. .... 240—2 in. 32—4 $\frac{1}{2}$  in.

Tubes, length ... 160 in. 11

Gauge, in. .... 56 $\frac{1}{2}$  in.

Weight of tender loaded ... 1,900 U.S. ton.

Water bottom with vertical connections

Water capacity ... 12 tons

Coal capacity ... 12 tons

Furn. type ... Water bottom with vertical connections

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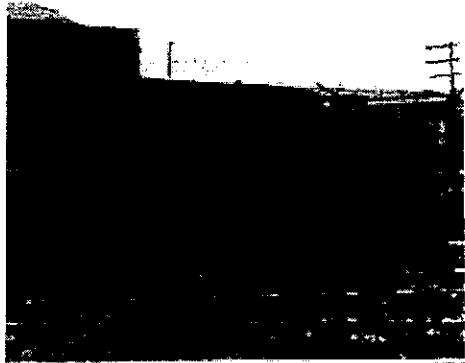
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High speed, M.C.B. heads

JOURNAL  
Brake beam High speed, M.C.B. heads  
**Dominion Government Orders for Rolling Stock.**

The Minister of Railways has been devoting considerable time recently, to se-



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uring extra rolling stock necessary, not only for the Canadian Government Railways, but also for the Canadian Northern Ry., which is now owned by the government. The latter road, owing to its financial difficulties, has not been in a position to make any purchases for some time past, and is in fact more in want of rolling stock than the Canadian Government Railways, so that the bulk of the orders placed recently, and to be placed in the near future, are for the C.N.R. Early in March, a series of conferences were held in Ottawa between the Minister and various officials, the Railways Department being represented by G. A. Bell, Assistant to the Minister; A. E. Warren, Chief Operating Officer; and L. Lavoie, Purchasing Agent; the Canadian Northern Ry., by D. B. Hanna, Third Vice President; A. J. Mitchell, Assistant to Vice President; S. J. Hungerford, General Manager, Eastern Lines; and A. L. Graburn, Assistant Superintendent of Motive Power, and the Canadian Government Railways, by W. U. Appleton, Superintendent of Motive Power; and G. R. Smart, Superintendent of Car Department. W. H. Ralph, Vice President, C.G.R., also at

## THE WORLD.

### Dominion Aid for Canadian Northern and Grand Trunk Pacific Railways.

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In the main estimates presented to the House of Commons, Mar. 22, provision is made for a loan of \$7,500,000 to the Grand Trunk Pacific Ry., \$3,000,000 of which is a revote of the unused portion of the loan voted in 1917. This loan is to be repayable on demand and to bear interest, payable half-yearly, at the rate of 5% a year. It is to be used for the payment of interest on G.T.P.R. and G.T.P.C. branch lines bonds, to meet deficits in the operations of the G.T.P.R., and to pay for betterments and equipment for that system. It is to be secured by a mortgage upon the company's undertaking, and it is to be expended subject to the government's direction. The company has agreed that it will constitute its board of directors as may be required from time to time by the government.

Another item provides for a loan of \$25,000,000 for the Canadian Northern Ry. The appropriation is made by way of loan, because, although the government has acquired the whole of the C.N.R. common stock, it has continued the C.N.R. Co. as a corporate entity. The government is thus making a loan to a company which it controls. The loan is to be made on the same terms as to payment of interest and repayment of principal as that to the G.T.P.R., and is to be secured by a mortgage on the C.N.R. The money is to be used to pay interest on debentures and maturing loans of the C.N.R., and to meet the cost of construction, betterments and equipment. Material for betterments and new equipment is being procured by the government.

The House of Commons, without discussion as to details, has voted one-sixth of the total amount of all the estimates.

In connection with the votes above mentioned, a return has been made by the Department of Railways, showing the distribution of the \$25,000,000 loan to the Canadian Northern Ry. in 1917. The return states that \$1,750,000 was paid to the Central Trust Co., New York, in payment of a loan to the C.N.R. The Guaranty Trust Co., New York, was paid \$300,000 in reduction of a loan, and the Columbia Trust Co., New York, received \$1,500,000.

The railway's rolling stock securities demanded a payment of \$4,975,500 for principal of equipment bonds and of \$1,075,002, interest on equipment bonds, the \$25,000,000 amount-

February  
1918

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The railway's rolling stock securities demanded a payment of \$4,976,500 for principal of equipment bonds, and of \$1,076,002, interest on equipment bonds. The remainder of the \$25,000,000, amounting to approximately \$15,000,000, was divided between the 13 companies forming the C.N.R. system. The \$25,000,000 was paid as follows:

Nov. 19, 1917	\$12,500,000.00
Nov. 25, 1917	2,540,481.97
Dec. 10, 1917	34,750.00
Dec. 27, 1917	1,938,503.47
Jan. 3, 1918	1,250,000.00
Jan. 18, 1918	2,000,000.00
Jan. 24, 1918	2,000,000.00
Jan. 30, 1918	2,017,458.77
Feb. 4, 1918	664,361.79
Total	\$25,000,000.00

The Grand Trunk Pacific Ry. started a double weekly steamship service between Seattle, Victoria, Vancouver and Prince Rupert, Mar. 17, and announced that the direct service to Alaska would be resumed June 24.

The G.P.R. has been authorized by the Board of Railway Commissioners to start its morning train 509 from Montreal for Ottawa at 8:20 instead of 8:15 a.m., and to start its afternoon train from Montreal for Ottawa at 4:45 instead of 4:30.

February  
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MAY, 1918.]

CANADA

put our shoulders to the wheel and do all in our power to win this war for freedom and democracy. Then after the victory, let us not shirk our duty, but assume the responsibility of self government, making sacrifices where necessary, and thereby making democracy a real success.

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The "Mackenzie-Mann" Bugaboo.

Sir Donald Mann has written as follows:—"My attention has been called to the press report of proceedings before the Power Controller, April 18, in which Sir Adam Beck refers to 'the London Electric Co., a Mackenzie-Mann concern,' to 'Toronto Electric Light Co. and other Mackenzie-Mann companies,' and again to the power given the Mackenzie-Mann Co. to go on using extra water at Niagara."

"The use of the name Mackenzie & Mann in this connection is absolutely without justification. Mackenzie, Mann & Co. have no interest, and have never

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MAY 1918

~~Upper left view removed. Lower left view, punk leaving Bamburgo~~

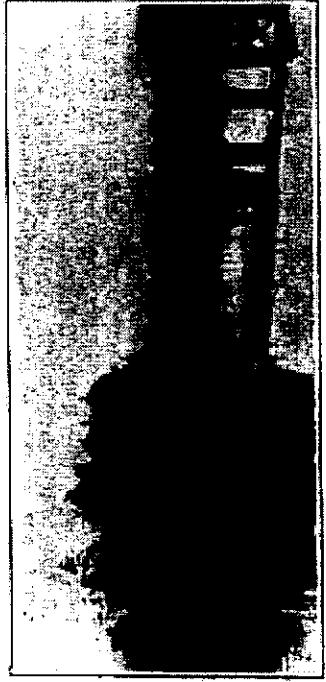
had an interest in the London Electric Light Co., in the Toronto Electric Light Co., in any of the companies developing power at Niagara Falls, or in any of their subsidiaries. Personally I have neither capital holdings nor official position in any of the Niagara companies or their subsidiaries. One would expect from a man occupying Sir Adam's responsible position something more than reliance upon street gossip; in fact, one would expect a careful adherence to facts, certainly in matters such as this where the facts are readily obtainable. I have not followed hydro-power matters in Ontario closely enough to know the merits of the controversy, but if the rest of the information which Sir Adam has so freely given to the public is "no more accurate than heaven help the public,"

MAY  
1918

## Rolling Lift Bridge on Canadian Northern Railway at Victoria.

A single track, deck girder, rolling lift bridge across Selkirk Water, Victoria, B.C., for the Canadian Northern Pacific Ry., has been completed recently. The

Cook, Resident Engineer, C.N.P.R., Victoria. The cost, including interlocking, was about \$21,000.



Canadian Northern Ry., Rolling Lift Bridge over Selkirk Water, Victoria.

Jengah, centre to centre of end bearings, is 77 ft. From base or rail to high tide, 13 ft., from from base of rail to low tide, 23 ft. There is a clear channel of 70 ft. and at low tide 16 ft. headroom. The substructure is of concrete.

The counterweight is composed of concrete and steel punchings, averaging 271 lb. a cu. ft., aggregating 66 cu. yards. All is below the deck and as the bridge rises the counterweight descends slowly to the concrete pit provided. The bridge is operated by hand power and so far



Until recently nearly all coal used on locomotives was mine run, i.e., the entire unscreened product of the mines. In the past few years, however, increasing quan-

## Thermite Welding on Michigan Central Railroad.

We have made a great many Thermite welds on locomotive frames in the Michigan Central shops at St. Thomas, Ont., and in every case they have proved successful. While we have endeavored to obtain good ones, I would like to call attention, however, to the accompanying illustration of my last weld, made on Nov. 3, on locomotive 7540, which was electric welded on the lower rail, and after breaking again at that point finally caused the top rail to break also. Both these fractures were then welded by the Thermite process, using 126 lb. of Railroad Ther-

mite. The result is shown in the photograph. The relative values of several sizes of coal for locomotive use have not been well understood, since most laboratory and road tests have been made with mine run, or occasionally with lump coal, and the data are inadequate and conflicting. A series of tests to determine the value of different sizes of coal has been conducted by the University of Illinois Engineering Experiment Station under a cooperative agreement with the Interna-



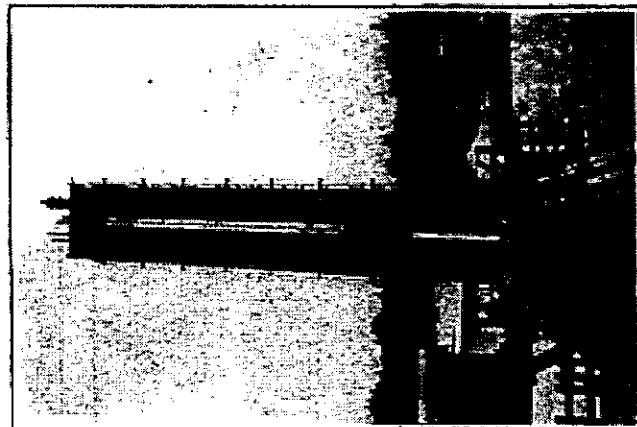
Thermite Weld on Locomotive Frame.



May 1918  
INTERNATIONAL ENGINEERING EXPERIMENT STATION, ANN ARBOR, MICHIGAN.

Ry., has been completed recently. The length, centre to centre of end bearings, is 77 ft. From base or rail to high tide, 13 ft., from from base of rail to low tide, 23 ft. There is a clear channel of 70 ft. and at low tide 16 ft. headroom.

The counterweight is composed of concrete and steel punchings, averaging 271 lb. a cu. ft., aggregating 65 cu. yards. All is below the deck and as the bridge rises the counterweight descends slowly to the concrete pit provided. The bridge is operated by hand power and so ar-



ranged that an electric motor for operation can be attached when desired. The machinery forms a small percentage of the weight and is considered highly satisfactory. One man can raise or lower the span in about three minutes.

The whole layout is arranged with a view to duplicate the span for second track when required. The bridge was designed in accordance with Dominion Government specification, class heavy loading, under the direction of W. P. Chapman, M.C.M.Soc.C.E., Engineer of Bridges, C.N.R., Toronto, by the Scherzer Roller Lift Bridge Co., the erection being done under the supervision of E. F.

## Thermite Welding on Michigan Central Railroad.

We have made a great many Thermite welds on locomotive frames in the Michigan Central shops at St. Thomas, Ont., and in every case they have proved successful. While we have endeavored to obtain photographs, it has been difficult to obtain good ones. I would like to call attention, however, to the accompanying illustration of my last weld, made on Nov. 3, on locomotive 7540, which was electric welded on the lower rail, and after breaking again at that point finally caused the top rail to break also. Both these fractures were then welded by the Thermite process, using 125 lb. of Railroad Thermite.



Thermite Weld on Locomotive Frame.

This repair was accomplished without keeping the locomotive out of service more than four days.

Another difficult weld which we were called upon to make was on one of our largest freight locomotives, the break being 5 x 14 in., and located just back of the right cylinder. We removed 1 in. from the butt of the main cylinder in order to provide room for a riser. This weld was made six months ago, and has given satisfactory service ever since. We find our Thermite welds not only satisfactory, but money savers as well.

## Workmen's Compensation in Alberta.

In connection with the Workmen's Compensation Act passed by the Alberta Legislature, it is stated that by an arrangement with the railway labor unions, it has been decided that the act will not apply to railway employees, but that their case will be dealt with next year.

The Canadian Government Railways informed the House of Commons, Mar. 27, that 20,917 persons were on the Canadian Government Railways pay rolls on Dec. 31, 1917, of whom 1,901 were on steamships and car ferries, and 480 were on military service.

tities of screened lump coal have been used in locomotive service. This increase in the consumption of lump coal has been due partly to the belief that lump coal, when burned on a locomotive, produces enough more steam than mine run coal to compensate for its greater cost. Special considerations, such as the desire to lessen the amount of smoke formed, have also led in some instances to the use of lump coal, which is generally believed to require less skill in firing than mine run coal. The introduction of mechanical stokers for locomotives has resulted in the use of increasing amounts of various sizes of screenings. Thus far there has been little use of such sizes as egg, egg run, and nut coal on locomotives, although traffic and market conditions occasionally make it feasible and desirable to use them.

The relative values of several sizes of coal for locomotive use have not been well understood, since most laboratory and road tests have been made with mine run, or occasionally with lump coal, and the data are inadequate and conflicting. A series of tests to determine the value of different sizes of coal has been conducted by the University of Illinois Engineering Experiment Station under a co-operative agreement with the International Railway Fuel Association and the U. S. Bureau of Mines. A minkado locomotive, weighing 142 tons, belonging to the B. & R.O. Ry., was used, the tests being made in the locomotive laboratory at Urbana. The results are published in bulletin 101, entitled, "Comparative tests of six sizes of Illinois coal on a minkado locomotive." Copies may be had without charge by addressing the Engineering Experiment Station, Urbana, Illinois.

**The Reid Criminal Libel Case.**—When this case, which was taken against Sir William D. Reid, formerly President, Reid Newfoundland Co., by a Newfoundland politician, came before the local magistrate at St. John's, Nfld., recently, it was dismissed, as no case was made out.

Action was taken subsequently by indictment before the Supreme Court, and at the sittings in April, the grand jury threw out the bill. The Chief Justice, in stretching the grand jury, stated that, if they found that the letter sent by Sir William Reid to Lord Shaughnessy did not mean what the indictment said, it meant, they could not bring in a true bill, but if they found that the words of the letter were libellous in themselves, they could bring in another bill.

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Toronto was abandoned. (Mar., pg. 98.)

### Canadian Northern Railway Construction, Betterments, Etc.

A press report states that a contract has been let to Joe Gosselin, Quebec, for the erection of the substructure of a bridge across the St. Maurice River, at Grand Mere, Que. The superstructure will be erected by the Dominion Bridge Co., Montreal. The estimated cost of the entire work is \$170,000.

Satisfactory progress is reported to have been made with the company's terminal facilities at Leaside, Toronto. The buildings under construction include a 10-stall locomotive house with turntable, water tank and coaling station, locomotive repair shop, freight and passenger car repair shops, planing mill, transfer table, icehouse, and general offices.

M. H. MacLeod, General Manager, Western Lines, was in Port Arthur, May 3, in consultation with the city council in connection with trackage matters at the Port Arthur Pulp & Paper Co.'s plant.

The Fort William, Ont., City Council, on May 14, authorized the company to build a spur line across Cameron St. to reach the freight sheds proposed to be erected near the new station building.

A press report states that six work trains will be put on during the summer between Port Arthur and Rainy River, Ont.; that a considerable mileage will be relaid with heavier rails, and that large quantities of ballast will be spread. The same report states that a new brick station will be built at Rainy River.

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A press report states that during this year about \$2,000,000 will be expended upon betterments of the company's lines west of Winnipeg, and that the major part of this work will be done on the lines in Saskatchewan and Alberta. The line from Battleford to Edmonton, 248 miles, and from Edmonton to Edson (a station on one of the sections of the Grand Trunk Pacific Ry., linked up when track was taken from these two companies' lines for use in France), will be ballasted. There will be considerable sums expended upon station buildings, works of water supply, building section houses, the laying down of passing tracks, and increasing yard and siding accommodation all along the lines. New 80-lb. rails will be laid from Manson to Hanna, 42 miles, and 25 miles of second track work will be built from Drumheller, easterly, to provide for the increasing traffic from the collieries there. In the vicinity of Edmonton, work is reported to have been restarted on the filling in of the trestle at the west end of the bridge across the Saskatchewan River at Fort Saskatchewan, and it is reported filling in on all the trestlework on the line right up to the Edmonton city limits will be completed this season.

The Medicine Hat, Alta., City Council has been advised of the passing of an order in council authorizing the company to proceed with the construction of the Hanna-Medicine Hat branch. Hanna is situated at mileage 262 on the line from Saskatoon to Calgary, 52 miles west of Drumheller, where the line south from Vegreville, runs in, and projected branch runs southerly and easterly. A press report states that if rails can be obtained, track will be laid to the South Saskatchewan River this year. (May, pg. 196.)

Tenders were received to May 27 for the excavation of a reservoir at McCrae, mileage 142.1, Dauphin subdivision, Man.

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## Arbitrators Value 600,000 Shares Canadian Northern Railway Stock at \$10,800,000.

After sitting on 60 days in March, April and May, taking over 1,600,000 words of evidence, and filing 211 exhibits, the three arbitrators, Sir Wm. Meredith, Chief Justice of Ontario, representing the Dominion Government; Wallace Neesbitt, K.C., of Toronto, representing Mackenzie, Mann & Co., and Chief Justice Harris, of Nova Scotia, selected as the third, gave the following unanimous award on May 26:—

That the value of the 600,000 shares of the Canadian Northern Ry.'s capital stock, as of the date of the agreement entered into on Nov. 15, 1917, between the King, Mackenzie, Mann & Co., Ltd., and the Canadian Bank of Commerce, was \$10,000,000; that the parties shall respectively pay and bear their own costs of the arbitration, except that the Dominion Government shall pay the expenses of taking and transcribing the evidence, the remuneration of the secretary and messenger employed by us and the incidental expenses incurred by the secretary. The question to be determined by us was one of great difficulty, and one which, of necessity, admitted of great diversity of opinion. We heard much testimony and had the benefit of assurance of experienced and able counsel on both sides, and carefully investigated every matter which seemed to throw any light upon the question to be determined. As to whether or not there was a surplus of assets over liabilities, was naturally a subject which engrossed much time and consideration. It is, of course, not a conclusive test as to the value of the stock, but it is an ele-

value, and in arriving at a conclusion, we have given careful consideration to the past history of the company, its earnings and expenditures, the present financial position of the company, the location of its lines and their construction, the other railways already existing in competition, the rate of interest on the company's funded and other debts, the probable future growth of the population and business of the country, and all other factors which seemed to us to have any bearing upon the question. It is apparent that there was great room for difference of opinion in a matter involving so many elements of uncertainty and speculation, but after taking into consideration all the circumstances which appeared to us to be entitled to weight in determining so difficult a question, we came to the conclusion we have mentioned."

### Terms of Agreement.

The agreement, under which the arbitration was held, was entered into Oct. 1, 1917, between the King, represented by the Ministers of Finance and of Railways and Canada, Mackenzie, Mann & Co., Ltd., and the Canadian Bank of Commerce. Under authority of the act passed at the Dominion Parliament's 1917 session providing for the acquisition of the C.N.R.'s capital stock, the arbitrators were to determine the value of the 600,000 shares of railway at St. Leonards, and also owns

the National Transcontinental Ry., which passes through St. Leonards, but does not connect with the International Ry. or the Van Buren Bridge Co.'s line. The Dominion Government is thus maintaining two stations and staffs. The agreement provides for the leasing by the Van Buren

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recently, it was announced that Mackenzie, Mann & Co., had transferred to the government \$1,600,000 of common stock, making with the \$40,000,000 acquired by the government previously, \$41,600,000 out of a total of \$100,000,000.

The \$10,800,000 award places a value on the 600,000 shares of \$18 each, but as the amount to be paid is limited by the agreement to \$10,000,000, it will be at the rate of \$16.66 a share. Mackenzie, Mann & Co. are said to have 510,000 shares prior to transferring them to the government, a portion at least of which was pledged to the Canadian Bank of Commerce, and the other 80,000 were distributed among various holders. It is said that the arbitration cost approximately \$500,000.

## Joint Traffic Arrangement at St. Leonards, N.B.

The Dominion Parliament was asked at its recent session to confirm an agreement, dated Mar. 8, between the Dominion Government and the Van Buren Bridge Co. The company owns a railway bridge across the St. John River, giving connection between a branch of the Bangor & Aroostook Ry. in the State of Maine, and the Province of New Brunswick, and a short piece of line connecting the bridge with St. Leonards, N.B. The Dominion Government holds, under an agreement to purchase, the International Ry. of New Brunswick, which connects with this piece of railway at St. Leonards, and also owns

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entered into on Nov. 10, 1917, the King, Mackenzie, Mann & Co., Ltd., and the Canadian Bank of Commerce, was \$10,000,000; that the parties shall respectively pay and bear their own costs of the arbitration, except that the Dominion Government shall pay the expenses of taking and transcribing the evidence, the remuneration of the secretary and messenger employed by us and the incidental expenses incurred by the secretary.

"The question to be determined by us was one of great difficulty, and one which, of necessity, admitted of great diversity of opinion. We heard much testimony and had the benefit of assistance of experienced and able counsel on both sides, and carefully investigated every matter which seemed to throw any light upon the question to be determined. As to whether or not there was a surplus of assets over liabilities, was naturally a subject which engaged much time and consideration. It is, of course, not a conclusive test as to the value of the stock, but it is an element which cannot be ignored. Its importance was perhaps emphasized by the fact that a Royal commission had reported the company's assets and liabilities to be about equal. This report, which was made in a proceeding to which the company and its shareholders were not parties, was admittedly based on a misconception of some of the facts, and there were omissions of both assets and liabilities. It should also be pointed out that the work of the Royal commission had reference to a date anterior to Oct. 1, 1917, and there were changes in the interval.

"In arriving at the surplus of assets over liabilities, the report of Prof. Swain as to the reproduction cost now of the physical property, based on pre-war de-prices, and also his estimate of the depreciation, has been adopted and after a careful examination we found the surplus of assets over liabilities of the company on Oct. 1, 1917, on a conservative basis, to be not less than \$25,000,000, after deducting the full amount of depreciation found by Prof. Swain and making such reduction in the value of the land grants and other assets as seemed reasonable. It is to be pointed out that a valuation of the physical property of a railway company by the reproduction new method, less depreciation, is not to be regarded as an ascertainment of the actual value. It is only a means to that end, but as it was the best, and in fact the only estimate available, it has been adopted as a basis for the foregoing calculations.

"While the surplus of assets over liabilities is an element for consideration, as has been already pointed out, it is not conclusive as to the value of the company's stock. Its prospective earning power is perhaps more important than any other element in ascertaining such

elements of value, but after taking into consideration all the circumstances which appeared to us to be entitled to weight in determining so difficult a question, we came to the conclusion we have mentioned."

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The agreement provided that immediately after its execution, at least five-sixths of the 600,000 shares be transferred to the Finance Minister, free of all encumbrances. Sixteen thousand shares, par value \$1,000,000, deposited with the British Columbia Government as security for contracts made by the Canadian Northern Pacific Ry. with that government were to be transferred to the Finance Minister on an order from the owners. Unless the whole 600,000 shares are transferred to the Finance Minister, the Governor in council may declare any shares not transferred to be so transferred, and until all the shares are transferred the Dominion Government may retain, out of the purchase price decided by the arbitrators, the pro rata value of such shares, to be paid over as they are transferred.

During the debate on the Canadian Northern bill in the House of Commons

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The Dominion at its recent session, dated Mar. 1, 1918, Government and Co. The comparison across the St. John River between a Aroostook Ry. in the Province of short piece of it with St. Leon: Government hold purchase, the L. Brunswick, which of railway at St. John, the National Tr. passes through connect with the Van Buren Bridge Co. to certain land national Ry., continental Ry., t way tracks the or the N.T.R. 1934, at a rentation to the entire operation, and tracks and int be required. other sections etc.

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During the debate on the Canadian Northern bill in the House of Commons

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## Canadian Northern Railway Construction, Betterments, Etc.

The Dominion Government has authorized the expenditure of \$7,185,200 for construction and betterment work on various parts of the C.N.R. system during this year. Following are details of the various works proposed to be done:—

The Montreal Terminal are reported to be over 90% completed, and it is expected that they will be ready for operation by the end of August. It is important that the small amount of work yet to be done be completed in order to make the terminal ready for use. The temporary station on Lagauchachere St. was reported practically completed at the end of April, and the tunnel work was very nearly finished at the end of May. The principal work to be done consists of the final completion of the various sections and the linking together of the whole work.

The Duncan-Toronto connecting line which the C.N.R. has partially completed extends from the Duncan Station, 11.1 miles from Toronto on the Toronto-Sudbury line to the east end of the C.P.R. bridge over the West Don River. Track has been laid, but before the line can be operated it requires to be ballasted and otherwise finished up, and the interlocking appliance with the C.P.R. trucks have to be installed. The C.P.R. tracks between Leaside Jct. and North Toronto and westerly for a short distance will be used by the C.N.R. as a joint section under an agreement. The completion of the line from Duncan to the C.P.R. line will enable the C.N.R. to operate its trains into North Toronto station and to utilize its terminal yards at Leaside.

The Leaside Terminal adjoins the C.J.R. freight yard at Leaside Jct., Toronto, and the expenditure will provide for laying out the yards and building shops, etc., for taking care of the equipment on eastern lines.

The buildings to be erected will comprise a 10 stall locomotive house of solid brick on concrete foundation. Each stall will be 14 ft. wide in front, 30 ft. wide at the rear, and 100 ft. long, with drop-pits for drivers, tender trucks and locomotive engines. It will be steam heated from the

tion paper, 2 by 8 in. studs, and  $\frac{1}{8}$  in. t. and G. interior sheathing.

The office building will be a 2-story frame structure, 36 x 60 ft., on concrete foundation. The basement will contain a boiler room, coal room, vault, locker room and lavatories for train crews. On the first floor will be the yardmaster's office, agent's office, local office, supervisor's office, lunch room, officers' and men's lavatories, and on the upper floor will be offices for the superintendent, assistant superintendent, chief and other train dispatchers, general office, rest room and women's lavatories.

The stores and office building will be of brick on concrete foundations, 60 x 180 ft.; the stores section will be 2 stories high, and the offices section will be 3 stories high.

There will be three shops, a locomotive shop, 161 x 300 ft., of brick on concrete foundation, with 12 pits; a car shop, 140 x 283 ft., of brick on concrete foundation, and containing 12 tracks; a blacksmith shop, 70 x 100 ft., also of brick on concrete foundation. In connection with these buildings will be a transfer table, 80 x 372 ft., on concrete.

Construction was started early in February, and it is expected to have the whole work completed by the autumn. The yards, etc., have been planned under the direction of A. T. Stewart, Chief Engineer, Eastern Lines. The plans for the buildings were prepared by G. C. Briggs, Supervisor of Buildings, and they are being built direct by the company under his supervision. The site was graded by Princeashin & Co.

**Central District.**—On the Port Arthur-Winnipeg section of the line, the 129 miles between Twin City Jct. and Attikokan will be relaid with 85 lb. steel. The traffic on this section is very heavy. The present rail will be utilized on branch lines. The Thunderhill branch extends from Swan River, Man., to Preceeville, Sask. An extension of 27 miles has been graded from Preceeville westerly, on which track is to be laid and the extension completed. This work has been delayed hitherto owing to inability to obtain rails.

between the C.N.R. and the Grand Trunk Pacific Ry. for the erection of a union station at Moose Jaw had been approved and only awaited the Board of Railway Commissioners' formal approval. It is expected that the work of linking up the G.T.P.R. tracks with those of the C.N.R. will be taken in hand at once, and that the station will be located on Main St. Alberta District.—Some grading has been done from Hanna, Alta., on the Saskatoon-Calgary line, southwesterly, the branch being intended ultimately to reach Medicine Hat, Sask. It will serve a considerable area of territory north of the Red Deer River, in which there has already been a large settlement. It is intended to complete the first section of 47 miles to the Red Deer River. We were officially further advised recently that tenders for construction have been asked.

An Alberta Government official was reported subsequently to have stated that a contract has been let to W. A. Dutton, Winnipeg, for the grading on this branch and that it is expected to have track laid this year.

On the Goose Lake line, which is another name for the Saskatoon-Galaxy branch, it is proposed to lay heavy steel rails from Hanna westerly to Drumheller, 62.2 miles, with a double track from Wayne to Manson Jct., 20.1 miles, to property service the Drumheller coal district, the mines in which 21,876 tons for the three months ended Mar. 31, and are capable of increasing their output considerably if adequate facilities are provided. The line from Oliver Alta., 8 miles east of Edmonton, northerly and easterly to St. Paul de Metis has been graded to mileage 100, and track has been laid on 44 miles, but owing to the difficulty of obtaining rails nothing more could be done. It is intended to complete the track laying to mileage 100, and to provide a train service to the settlers. The ultimate aim is to extend the line easterly, in order to meet the branch from North Battleford, now running north westerly to Turtlieford, 65.7 miles.

**Vancouver Terminals.**—It is proposed to complete the False Creek terminals at

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extends from the Duncan station, 11.1 miles from Toronto on the Toronto-Sudbury line to the east end of the C.P.R. bridge over the west Don River. Track has been laid, but before the line can be operated it requires to be ballasted and otherwise finished up, and the interlocking appliance with the C.P.R. tracks have to be installed. The C.P.R. tracks between Leaside Jct. and North Toronto and westerly for a short distance will be used by the C.N.R. as a joint section under an agreement. The completion of the line from Duncan to the C.P.R. line will enable the C.N.R. to operate its trains into North Toronto station, and to utilize its terminal yards at Leaside.

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The other terminal buildings will consist of a passenger car yard work shop, a one story frame structure on post foundations, 21 x 48 ft., for car cleaners, etc., and a 2,000 ton capacity frame ice house, 30 ft. wide, 176 ft. long and 24 ft. high at wall plate. It will be built of  $\frac{3}{4}$  in. outside t. and g. sheathing, insulation paper,  $\frac{1}{8}$  in. t. and g. sheathing, 2 x 6 in. studs,  $\frac{3}{4}$  in. t. and g. sheathing, insula-

tion and containing 12 tracks; a blacksmith shop, 70 x 100 ft., also of brick on concrete foundation. In connection with these buildings will be a transfer table, 80 x 372 ft., on concrete.

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The Thunderhill branch extends from Swan River, Man., to Preeceville, Sask. An extension of 27 miles has been graded from Preeceville westerly, on which track is to be laid and the extension completed. This work has been delayed hitherto owing to inability to obtain rails.

From Avonlea, Sask., on the Moose Jaw-Radville line, a line is in operation westerly to Gravelbourg and it is proposed to complete the extension to mileage 93 this year, to give facilities to settlers.

A branch from the Saskatoon-Calgary line runs from Delisle, mileage 25.6 from Saskatoon, southerly to Elrose Jct., 50.7 miles from Delisle, and then another branch runs 8.9 miles easterly to Dunblane. The latter extension, known as the Luck Lake branch, is partly graded and it is expected to complete 14 miles this year. It is stated that the settlers have petitioned the company to have the whole of the branch completed, and that they have offered to purchase bonds for \$300,000 to enable this to be done.

A line from Elrose Jct. westerly is in operation to Eston, 84.4 miles, and it is intended to extend it 43 miles to Alsask, where the Saskatoon-Calgary line crosses the Saskatchewan-Alberta boundary. There is a large settlement along the projected route, and some grading has been done. The difficulty of obtaining rails having been overcome, it is expected to have the extension completed in the autumn.

**Moose Jaw Station.**—The Minister of Railways for Saskatchewan is reported to have stated June 2 that an agreement

Winnipeg, for the grading on this branch, and that it is expected to have track laid this year.

On the Goose Lake line, which is another name for the Saskatoon-Calgary branch, it is proposed to lay heavy steel rails from Hanna westerly to Drumheller, 52.2 miles, with a double track from Wayne to Manson Jct., 20.1 miles, to properly service the Drumheller coal district, the mines in which 21,376 tons for the three months ended Mar. 31, and are capable of increasing their output considerably if adequate facilities are provided.

The line from Oliver, Alta., 8 miles east of Edmonton, northerly and easterly to St. Paul de Metis has been graded to mileage 100, and track has been laid on 44 miles, but owing to the difficulty of obtaining rails, nothing more could be done. It is intended to complete the track laying to mileage 100, and to provide a train service to the settlers. The ultimate aim is to extend the line easterly, in order to meet the branch from North Battleford, now running north westerly to Turtleford, 55.7 miles.

**Vancouver Terminal.**—It is proposed to complete the False Creek terminals at Vancouver at the earliest date possible. The funds accruing from the British Columbia bonds are lying at the credit of a trust account in a bank. Tenders are under consideration for additional filling to be done on this site.

**Entrance Into Vancouver.**—The Dominion Parliament has ratified an agreement dated Aug. 11, 1913, made between the Vancouver, Victoria & Eastern Ry. & Navigation Co. (a subsidiary of the Great Northern Ry., U.S.) and the Canadian Northern Pacific Ry. The V.V. & E.R. & N. Co. grants to the C.N.P.R. the equal joint possession and use of its line from the International Boundary at Sumas to the southerly approach of the Fraser River bridge at New Westminster, owned by the Province of British Columbia, and from the northerly approach of the bridge to Vancouver, at a rental of  $2\frac{1}{4}\%$  a year upon a capital value of \$3,985,448.75, to be increased by  $2\frac{1}{4}\%$  a year on any additional capital expenditure necessary and agreed upon, provided always that if similar facilities shall be granted to any other railway company, the rental shall be reduced to 2% for the first additional company, and to  $1\frac{1}{4}\%$  for additional companies. The C.N.P.R. is also to pay on a mileage basis the cost of maintenance and operation of the property leased. Either company may connect branch lines with

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the railway, but the C.N.P.R. is not to use the V.N. & E. Ry. spur tracks, or industrial sidings in New Westminster, except to reach its own station and team tracks. The agreement contains provisions as to the operation of trains, the settlement of differences by arbitration, and the declaration that the C.N.P.R. shall make its own agreement with the B.C. Government for the operation of its trains across the Fraser River Bridge.

**Dominion Legislation.**—The Dominion Parliament has extended the time within which the Toronto, Niagara & Western Ry. may build its projected railway from Toronto to Hamilton and thence to the International Boundary at Grand Island or Niagara Falls, Ont., and with the consent of the authorities, to a point in the State of New York, with a branch from St. Catharines through Thorold to Welland. The bill met with considerable opposition, but was passed on a statement by the Minister of Railways that the company is absolutely owned by the C.N.R., and that therefore all its property and rights will pass to the Dominion Government on the taking over of that company; and that all restrictions heretofore made with regard to the route of the line in Toronto still exist and will be observed by the government. No construction has been done on the line, but \$1,500,000 has been expended upon surveys and right of way.

The Dominion Parliament has authorized the company to build a line from near the head of Long Lake, near Longueuil, by the shortest possible route northwesterly and westerly to a junction with the National Transcontinental Ry. east of Lake Nipigon, Ont.

**Expenditures Necessary for Completion.**—In connection with the second reading of the bill supplementary to chap. 24 of the statutes of 1917, respecting the Canadian Northern Ry. and the Dominion Government relationship thereto, during the recent parliamentary session, Hon. A. K. Maclean, acting Minister of Finance gave a great many details respecting the company's affairs. One of the tables gave estimates of the amounts necessary to complete lines and terminals in Western Canada which were under construction at Sept. 30, 1917. It is as follows:—

		Estimated Miles.	Cost
Manitoba—	Portage-Jct., Puddingston	4.88	\$88,827

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canada which were under construction on Sept. 30, 1917. It is as follows:-

	Miles	Estimated cost
<b>Manitoba—</b>		
Portage Jct.—Paddockton	3.56	\$81,421
<b>Saskatchewan—</b>		
Swift Current	25.74	\$15,773
Elbow extension	52.00	383,873
Vonda north easterly	26.00	240,219
Thunderhill branch	47.27	452,772
Luck Lake Branch	36.00	473,826
N Battleford—Turtleford	5.31	52,876
<b>Alberta—</b>		
Hanna—Medicine Hat	143.76	1,344,294
Calgary—MacLeod	100.29	1,009,392
Strathcona—Calgary	72.66	666,029
Peace River City	42.52	671,178
Oliver northerly	116.00	911,979
MacLeod—Pincher Creek	34.00	463,896
<b>British Columbia—</b>		
Vancouver Island Lines (ABC)	100.00	682,368
(D) 48.67		1,182,603
Okanagan branches	141.00	4,460,335
New Westminster to Steveston	12.35	136,049
Total . . . . .	984.96	\$17,846,226

Following are the details as to terminals, etc.: -

	Miles	Estimated cost
Moose Jaw, Sask.	7.95	\$451,784
<b>British Columbia—</b>		
Vancouver		2,162,309
Car ferry		99,189
Steveston		60,746
Port Mann		54,679
New Westminster		226,085
Victoria		853,125
Total . . . . .		\$3,837,906

The grand total of the estimated cost of the completion of the lines is therefore \$20,958,142.

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## Canadian Northern Railway Construction, Betterments, Etc.

**Eastern Lines Track Renewals.**—We

are advised that it had been arranged that the C.N.R. should receive 67 lb. rails sufficient to lay 76 miles of track, out of the rails ordered by the Russian Government and lying at Vancouver, B.C. These rails were to be used to replace 56 miles of 56 and 60 lb. rails on the Quebec & Lake St. John Ry., and 20 miles to replace rails of similar weight on the Halifax & South Western Ry. There appears to be some difficulty temporary at least, in obtaining the release of these rails from Vancouver.

**Quebec Union Station.**—S. J. Hungerford, General Manager, Eastern Lines, was in Quebec, July 10, looking into the company's terminal facilities there. According to a press report, it is intended to build a passenger and freight station on St. Andrew St., on the site occupied formerly by the old Quebec & Lake St. John Ry. station. The new building to be used jointly by the C.N.R. and the Quebec & Saguenay Ry., which is a part of the Canadian Government Railways system. The new building will be larger than the one which has been demolished, as it will be laid out to meet the requirements of the liner mentioned for some years to come.

**Leaside Terminal Yards.**—The new terminal yard near Toronto lies immediately north of the C.P.R. right of way, and extends from opposite Leaside Jct. station easterly. The work at present in hand is the construction of a freight yard for about 600 cars; a passenger car yard for about 140 cars; a circle track for turning railcars which were de-

signed to a press report from Edmonton, Alta., that the company proposed to take up the rails on its line from Alberta Beach to Lethbridge, 36 miles, and run its trains over the approximately parallel Grand Trunk Pacific Ry., we are officially advised that the approval of the Railways Department would have to be obtained before this could be done.

In respect to a press report from Edmonton, Alta., that the company proposed to take up the rails on its line from Alberta Beach to Lethbridge, 36 miles, and upon which it is proposed to lay rails, details of which were given in our July issue, pg. 293.

With reference to track laying on the Oliver-St. Paul de Metis line, we are officially advised that everything depends upon when delivery of the rails can be made. The same condition, we are advised, applies to all other western lines upon which it is proposed to lay rails, details of which were given in our July issue, pg. 293.

**Vancouver Terminal.**—Tenders are reported to have been called for shifting of a further 2,000,000 cubic yards of filling in connection with the reclaiming of the False Creek area for railway purposes by the C.N. Pacific Ry.

**False Creek Wharf Litigation.**—The

Dominion Department of Public Works

Premier of British Columbia, and the

C.N.R., subject to approval by the

Dominion Government by which the C.N.R.

is to immediately undertake the comple-

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July

skin rails or from elsewhere. Seventy miles of the rails so loaned would be used on the lines mentioned on Vancouver Island, and the other 70 miles would be delivered in Alberta. On behalf of the B.C. Government, the B.C. Premier denied that there had been any difficulty about Songhees Reserve land, and added that the price would be fixed and the rails supplied.

The Premier is also reported to have stated in an interview on July 4, that no action in respect to further construction on Vancouver Island must be obtained from C.N.P.R. officials, and that the company objected to paying any higher price for terminal lands on the Songhees Reserve than the price paid by the C.N.P.R. (July, pg. 293.)

An Ottawa dispatch of July 19 stated that an agreement had been reached between the Dominion Railways Department and the British Columbia Government under which the Pacific Great Eastern Ry. rails offered by the B.C. Government will be used to lay 70 miles of track on C.N.R. lines on Vancouver Island, as soon as they can be delivered. The conditions upon which the C.N.R. will do the work is said to be that the B.C. Government will grant it an additional 40 acres of the Songhees Reserve lands at Victoria for terminal purposes.

We were officially advised, July 25, that an arrangement has been made between the Dominion Minister of Railways, the Dominion Department of Public Works Premier of British Columbia, and the C.N.R., subject to approval by the Dominion Government by which the C.N.R. is to immediately undertake the comple-  
41-1-200 miles of railway northward

**Quebec Union Station.**—S. J. Hungerford, General Manager, Eastern Lines, was in Quebec July 10, looking into the company's terminal facilities there. According to a press report, it is intended to build a passenger and freight station on St. Andrew St., on the site occupied formerly by the old Quebec & Lake St. John Ry. station, the new building to be used jointly by the C.N.R. and the Quebec & Saguenay Ry., which is a part of the Canadian Government Railways system. The new building will be larger than the one which has been demolished, as it will be laid out to meet the requirements of the lines mentioned for some years to come.

**Leaside Terminal Yards.**—The new terminal yard near Toronto lies immediately north of the C.P.R. right of way, and extends from opposite Leaside Jct. station easterly. The work at present in hand is the construction of a freight yard for about 600 cars; a passenger car yard for about 140 cars; a circle track for turning trains, and the buildings which were described in Canadian Railway and Marine World for July. The yards are planned so that additions may be made as required without interference with the work now being done. The grading of the yards is, we are officially advised, approximately 50% completed; the locomotive house and store, and the ice house, are nearly completed; the walls of the passenger car shop are practically completed; the foundations of the general store are in; the water tank is erected, and the foundations for the coaling plant and the turntable are nearly finished. The whole of the buildings are being erected by the company's own forces under the direction of G. C. Briggs, Supervisor of Buildings, and the company's own gangs will lay the rails and ballast the track. The cranes will be supplied by Northern Crane Works, Walkerville, Ont., and the coaling plant by Canadian Fairbanks-Morse Co.

**Ontario District.**—We are officially advised that a contract has been let to Chambers, McQuigge & McCaffrey for building a deviation on the Toronto-Sudbury line, about 1.25 miles, between mile-age 139 and 141 on the Muskoka Subdivision. The purpose of the diversion is to avoid three trestles, the filling of which would be an expensive process. The diversion will reduce the gradient slightly and give a better alignment. The greater part of the grading will be through rock, and it is not expected to have the work completed until April, 1919.

**Central District.**—Application was made to the Regina, Sask., City Council, Jan. 11, for permission to build a spur track through Block 80, in order to supply trackage facilities to the T. Eaton Co. M. H. MacLeod, General Manager, was advised that formal permission would be granted at the council's next meeting. (July 16.)

vised, applies to all other western lines upon which it is proposed to lay rails, details of which were given in our July issue, pg. 293.

In respect to a press report from Edmonton, Alta., that the company proposed to take up the rails on its line from Alberta Beach to Lobstick, 36 miles, and to run its trains over the approximately parallel Grand Trunk Pacific Ry., we are officially advised that the approval of the Railways Department would have to be obtained before this could be done.

**Vancouver Terminals.**—Tenders are reported to have been called for shifting of a further 2,000,000 cubic yards of fillings in connection with the reclaiming of the False Creek area for railway purposes by the C.N. Pacific Ry.

**False Creek Wharf Litigation.**—The Dominion Department of Public Works has decided that the Champion and White wharf in the False Creek area of Vancouver, B.C., was erected without the department's sanction and must be removed, unless terms be arranged with the Canadian Northern Ry. and the city for its remaining. The owners of the wharf secured an injunction against the C.N.R., preventing it going ahead with part of its seawall construction because it interfered with access to the wharf. The injunction was upheld on appeal. The Department of Public Works' action will enable the railway to proceed with its development work.

**Vancouver Island Lines.**—In speaking at Victoria, the British Columbia Premier gave some details of his late negotiations with the Dominion Government upon the C.N.P.R. situation as affecting the B.C. Government since the company's system had been taken over by the Dominion. The principal portion of his speech, however, was directed to efforts made to get sufficient steel rails from those bought for Russia and lying at Vancouver, in order to lay track on the C.N.P.R. on Vancouver Island from Victoria to Sooke, 40 miles, and from Nitinat to Cowichan, 30 miles, in order to aid in getting out spruce for aeroplane work and logs for ship construction. If this could have been arranged for, the Imperial Munitions Board would have undertaken to build a logging railway through the timber limits to connect with the line. The Dominion Minister of Railways advised the B.C. Government, June 24, that the laying of additional track on the C.N.P.R. lines on Vancouver Island was bound up with the question of the province selling additional land on the Songhees reserve in Victoria for terminal purposes, and asked that a price be fixed for the land required. If this were done, the Dominion Government would accept rails to lay 140 miles of track, which the B.C. Government had offered to loan out of what it had purchased for the Pacific Great Eastern Ry., such rails to be returned from the Rus-

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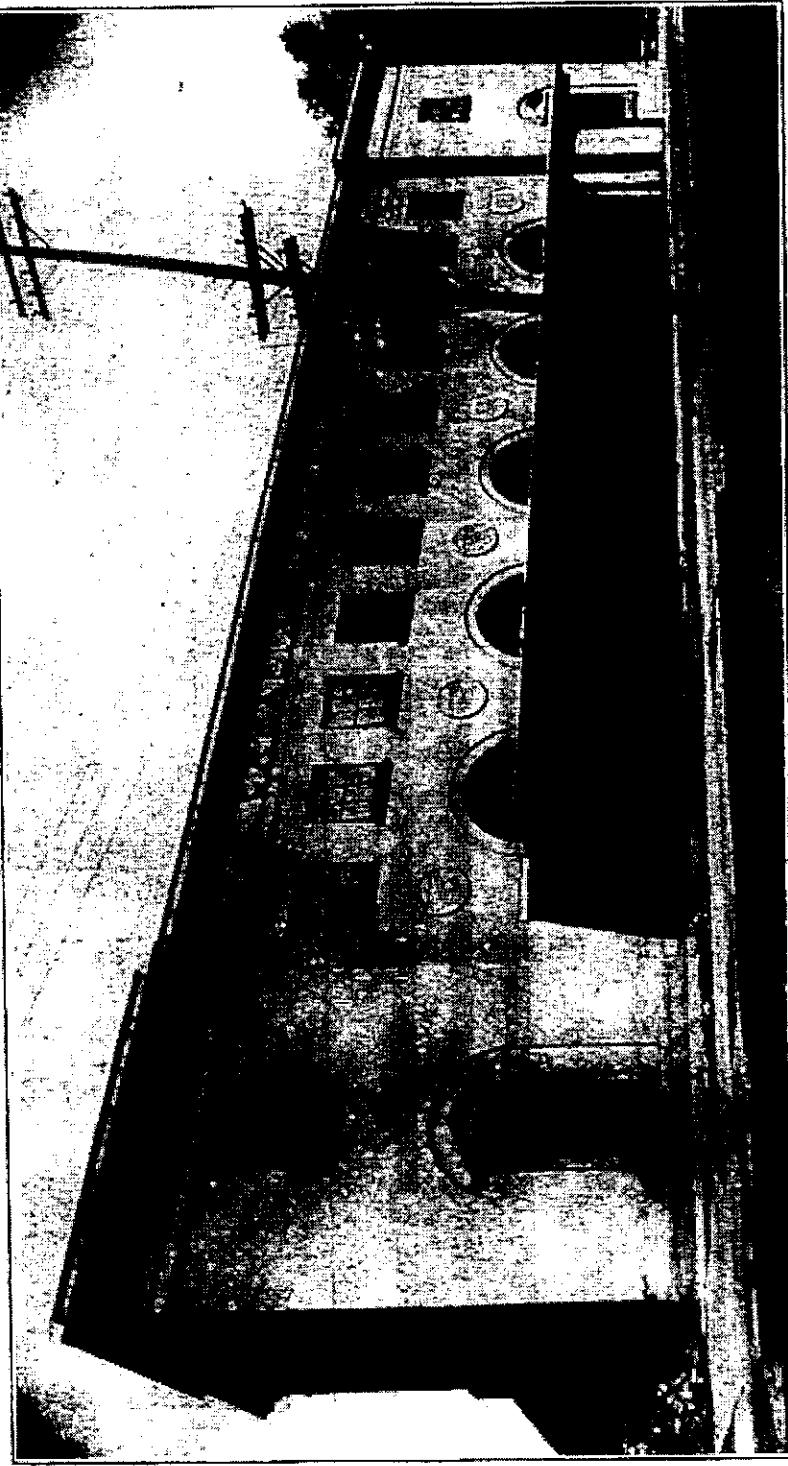
October 1918

## Canadian Northern Railway's Temporary Passenger Station, etc., in Montreal.

The Canadian Northern Ry's temporary passenger station at the corner of L'Assomption and St. Monique Streets, Montreal, is practically completed. It is a reinforced concrete structure, with two stories above grade and one below. The

side by a retaining wall 18 ft. high, which is run back for 50 ft. The court is 33 ft. wide and is paved with brick. It will serve as a wagon approach to the incoming baggage room, which has two wide doors opening directly on the court.

At its right descends a broad staircase, leading directly to the trains. There is also an entrance to the women's waiting room from the entrance vestibule and it contains space for telegraph office and news stand. The arrangement of the em-



The Canadian Northern Railway's Temporary Station in Montreal, L'Assomption St. front.

exterior walls are lined with 6 in. terra cotta blocks, with an air space between the concrete outer wall and the lining. The main facade faces L'Assomption St. The building is of classic design, the passenger entrances being five large arched

A passenger entering the building from L'Assomption St. will go immediately into the entrance vestibule, which is about 30 x 80 ft. It will be the heart of the building, from which all its activities will radiate. It will also be used, in some de-

gree, as a lounge for travellers. A large entrance vestibule has been made with the idea of saving the traveller as many unnecessary steps as possible; he may transact all his business here, check his baggage, purchase his tickets, obtain his newspaper, check parcels and proceed di-

October 1918



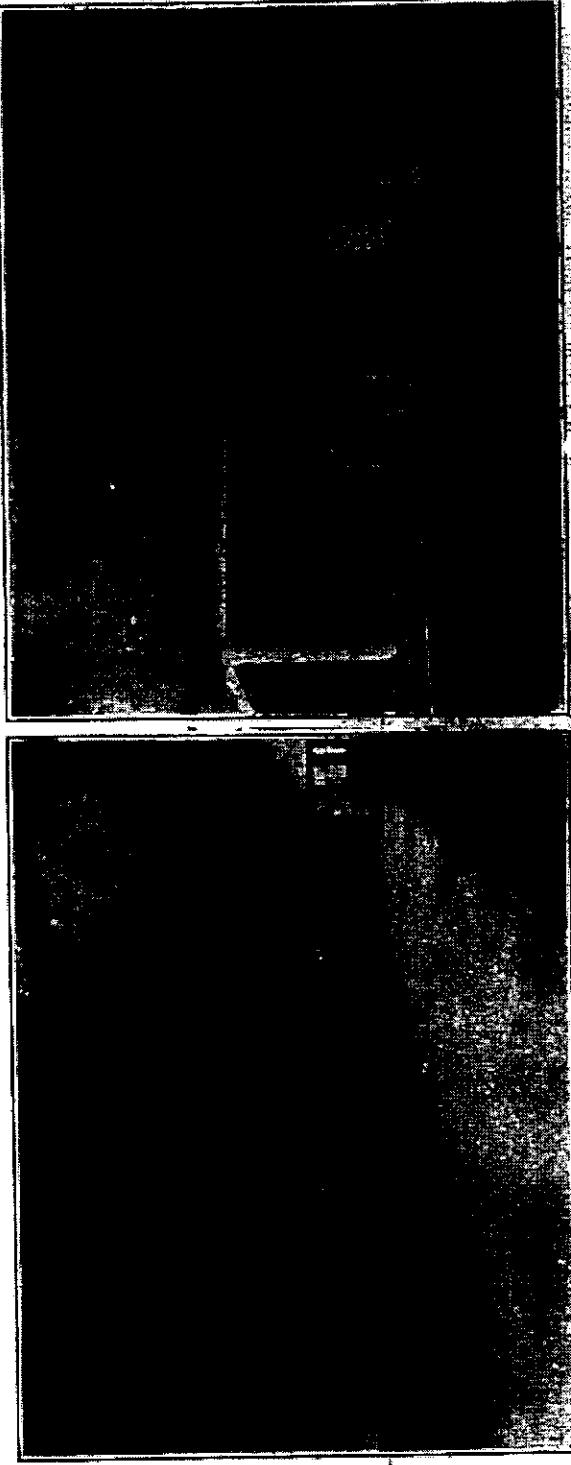
The Canadian Northern Railway's temporary station in Montreal, L'Assomption St. front.

exterior walls are lined with 4 in. terra cotta blocks, with an air space between the concrete outer wall and the lining. The main facade faces L'Assomption St. The building is of classic design, the passenger entrances being five large arched

A passenger entering the building from LaGauthiere St. will go immediately into the entrance vestibule, which is about 30 x 80 ft. It will be the heart of the building, from which all its activities will radiate. It will also be used, in some de-

gree, as a waiting room for those who have not the time nor inclination to go back to the main waiting room, which will immediately adjoin it at the rear.

Upon this entrance vestibule, on the side opposite the entrance on L'Assomption St., is a marquee, protecting the sidewalk from rain and snow. To the right of the building is a court, formed on its outer



The Canadian Northern Ry.'s temporary station in Montreal. Rotunda and ticket office to left, waiting room to right.

rectly to his train without traversing the main waiting room. If he arrives well ahead of train time and wishes to sit down for a while, he may cross the entrance vestibule to the main waiting room, which is immediately behind it, and is 50 x 80 ft. The bastined ceiling of this latter room is supported by two columns,

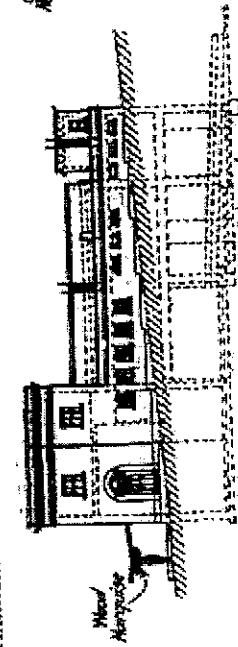
October, 1918.]

CANADIAN RAILWAY AND MARINE WORLD.

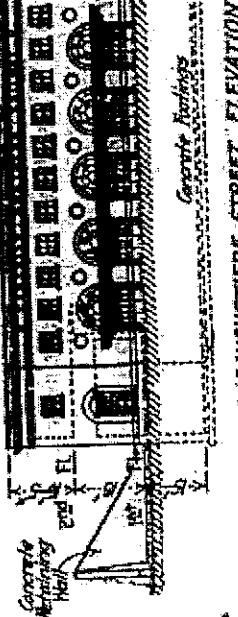
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the beams of the ceiling radiating from the column heads, forming a diamond pattern. Between the main waiting room and the entrance vestibule are ticket offices, enclosed with terra cotta walls and ornamented with marble slabs and bronze

area of 2,100 sq. ft. As before stated, this room has two large doors opening out on the wagon court, and at the extreme rear there is a freight elevator large enough to receive trucks, which will descend to the outgoing baggage room,



ST. MONIQUE STREET ELEVATION

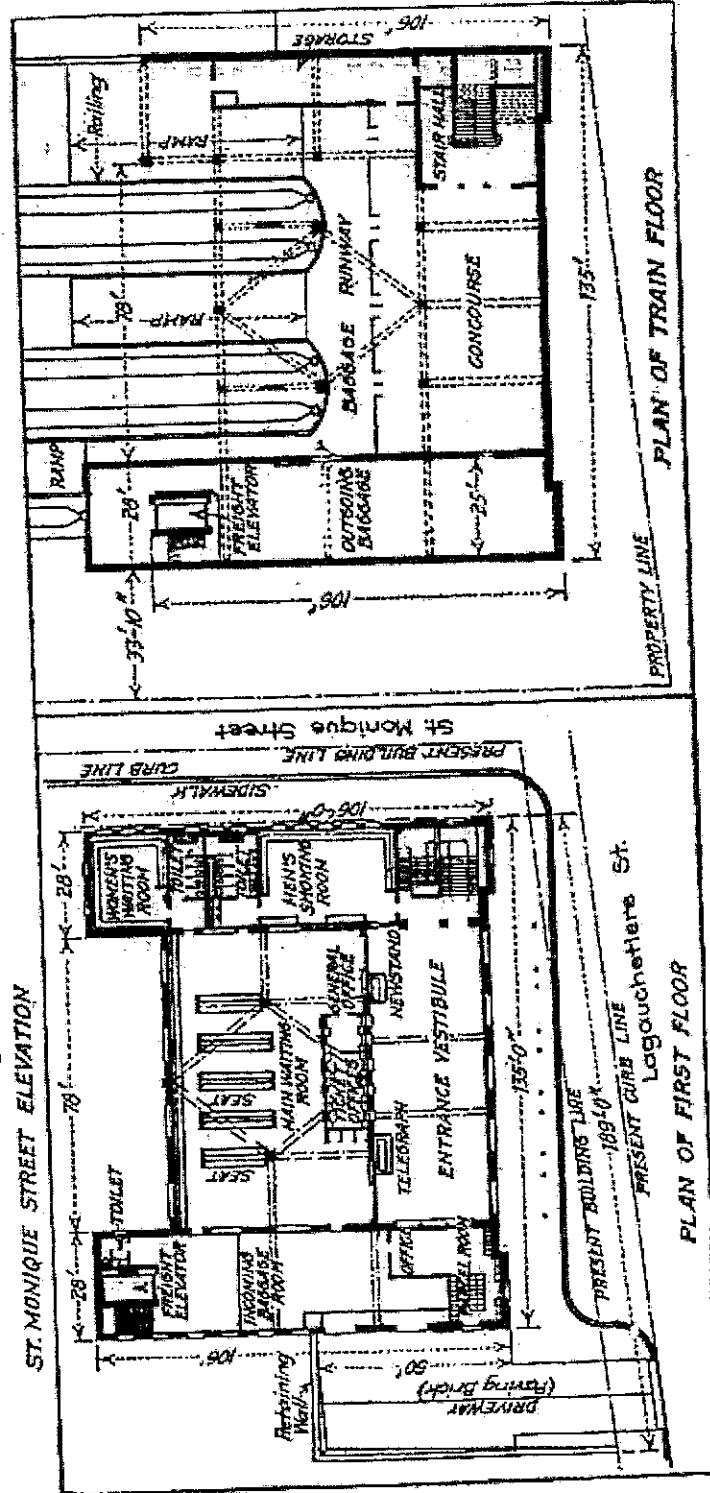


LA SALLE STREET ELEVATION



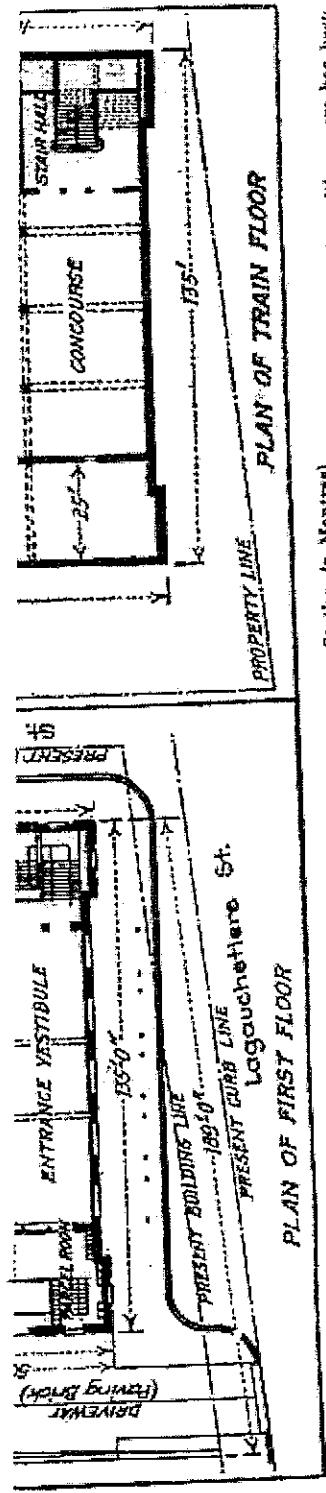
GRAND RUE ELEVATION

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The Canadian Northern Ry's Temporary Station in Montreal. The space originally intended for a women's waiting room has been made into a men's smoking room, and the space originally intended for a men's smoking room, the laundry room, has been made into a women's waiting room. The laundry room has been converted, as shown on the plan, have been reversed.

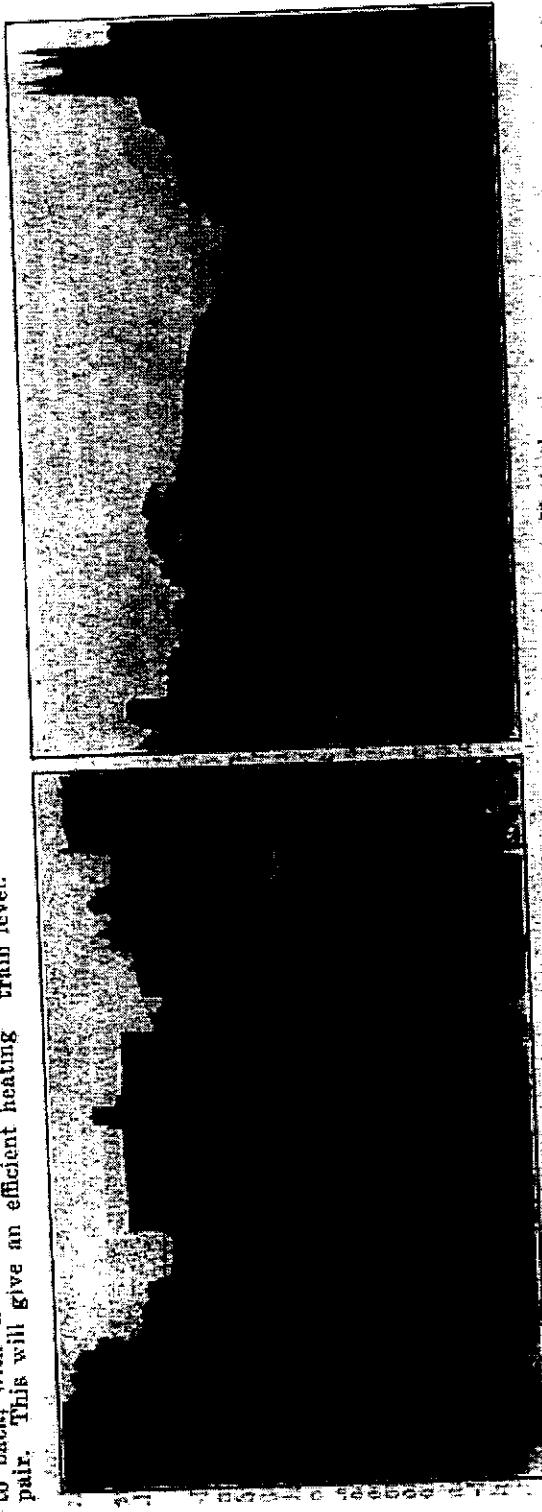
From the women's waiting room up



The Canadian Northern Ry.'s Temporary Station in Montreal. Since the plan shown above, in the lower left hand corner of the group, was made, the space originally intended for a men's smoking room has been made into a men's smoking room, and the spaces originally arranged, as shown on the plan, have been reversed.

Immediately below, at the train level, there is a staircase in the incoming baggage room, which also leads down to the gage room, which also leads down to the train level. There is a staircase in the incoming baggage room, which also leads down to the train level. This will give an efficient heating system and at the same time all the radiators are concealed. Along the tops of the seats are lines of electric lights with reflectors. At the left of the main waiting room is the incoming baggage room, with an

PROPERTY LINE PLAN OF TRAIN FLOOR



The Canadian Northern Railway's temporary station is Montreal. The left view shows the rear of the station, from Dorchester St. Bridge, the right view is looking towards Mount Royal tunnel portal. Opposite the incoming baggage room at the right of the main waiting room are the men's smoking room and the women's waiting room, with lavatories between them. Both of these rooms have windows facing on St. Monique St. They are good sized

contains broad concrete stairs, leading to the train level, and a narrower staircase to the offices on the second floor. Descending the staircase, the passenger will arrive in the lower staircase hall, which in turn opens to the concourse. The concourse

station, from the rear of the station.

The Canadian Northern Railway's temporary station is Montreal.

## CANADIAN RAILWAY AND MARINE WORLD.

[OCTOBER, 1918.]

course contains approximately 3,600 sq. ft., and is separated from the train room by an iron and glass screen, immediately inside of which is the baggage runway, connecting to the outgoing baggage room at the left. The outgoing baggage room is immediately below the incoming baggage room on the first floor, and is of the same dimensions, and as previously stated, is connected with it by a staircase and large freight elevator.

There are five tracks arranged in the present construction. From the baggage runway, ramps with a grade of 5% descend to the platform level.

To the right of the baggage runway are the machinery and storage rooms, and here are installed the apparatus for heating the water supply to the leveries and cooling the drinking water. The

heating plant for the building is installed in a separate structure behind the outgoing baggage room.

Along the Lagacnietiers St. front, on the second floor level, is approximately 4,000 sq. ft. of office space, which is to be subdivided later when its uses are determined. On this floor are lavatories and other facilities required for use of the office staff.

Passenger Car Cleaning on the Canadian Pacific Railway.

By E. Eley, Master Car Builder, Eastern Lines, C.P.R.

Cleaning passenger equipment cars includes toilets under washstands, and lockers. Now it is ready to receive the one of the operations all railroads have to contend with. When this is stowed away,

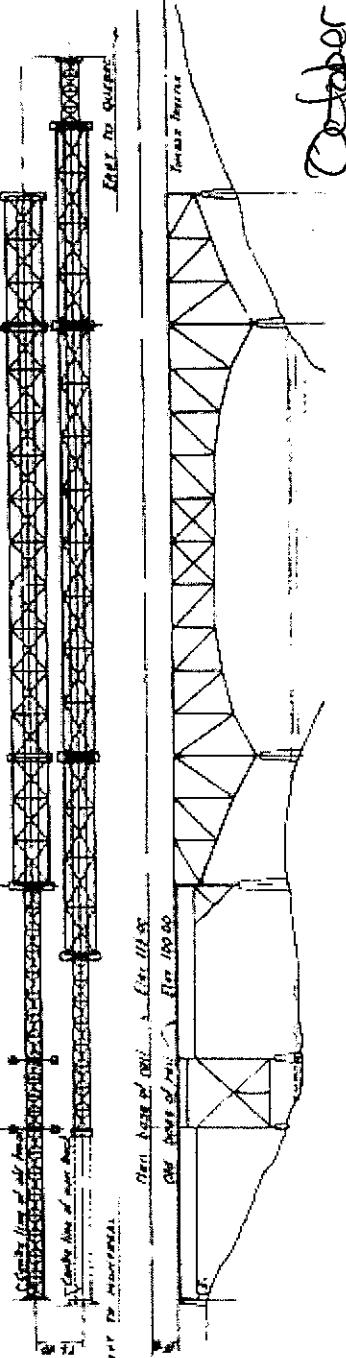
October 1918

## Canadian Northern Railway's Bridge over the St. Maurice River at Grand Mere.

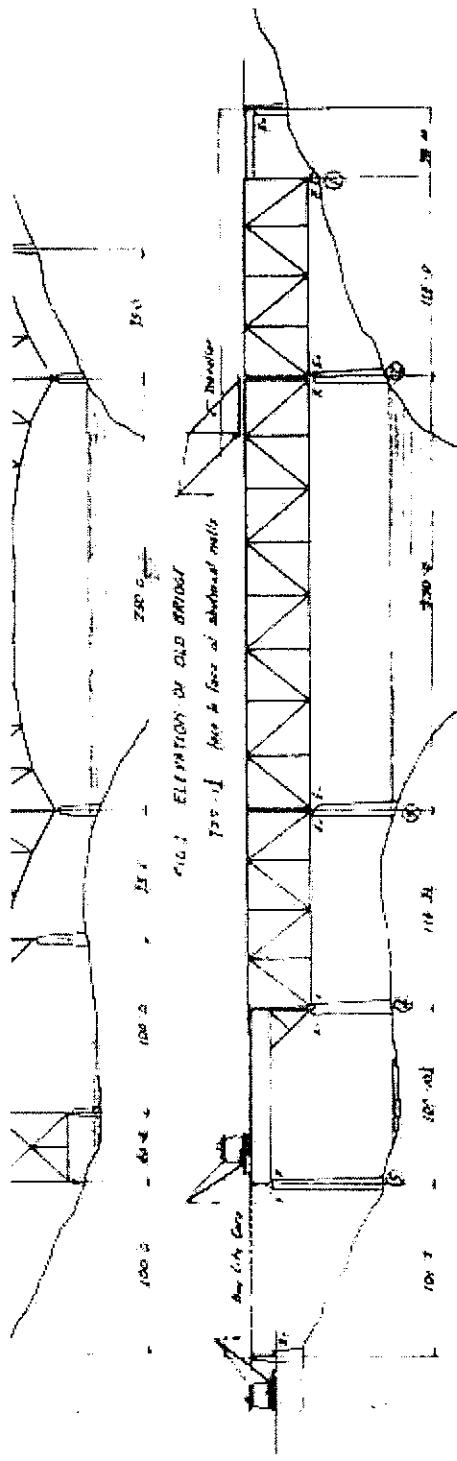
A new bridge, replacing the old cantilever, has been completed recently on the Canadian Northern Ry. Eastern Lines, over the St. Maurice River, about a mile east of Grand Mere, Que. The bridge, as seen in the plan, fig. II, consists of two 100 ft. deck plate girder spans, two 115 ft. deck truss spans, one 250 ft. deck truss span and one 38 ft. deck plate girder span. The old cantilever bridge, shown as fig. I, was built by the Dominion Bridge Co., in 1895, and was flanked on the western side by a 100 ft. deck lattice span, the remaining portions of the depression being served by wooden trestles. In 1910 the western wooden trestle was burned and the lattice span wrecked by a train, the bracing of the west anchor arm of the cantilever being at the same time slightly damaged. To take the place of the destroyed truss and lattice span, a

erection stresses were nowhere large enough to affect the sections of the truss members, so that no extra metal was necessary by erecting in this manner. The west truss span was erected first. A timber bent was built at the center of this span and the truss was assembled by means of a Bay City derrick car working from the old bridge. A 12-ton stiffleg derrick was then set up on the span, on trucks which ran on the top chords, and with this derrick the west half of the channel span was erected, cantilevering out from pier 3. The 115 ft. span was used as an anchor arm and additional struts were designed to permit of jacking counterweight over and above the weight of the stanchions as they were put in the anchor spans as they were erected, but the stringers and strainterching of the channel span were omitted until the anchor spans were jacked up,

lowered still more, the diagonal connection and top chord splices were bolted. As soon as the top chords touched at the center the loosening of the anchorage was stopped and the span was left partially suspended until all the splice rivets were driven in the bottom chord. This method insured tight joints in the bottom chord splices and secured a very satisfactory camber. The ends of the anchor spans were then jacked up and the erection links removed. The top chords, being now in compression, were riveted under the best possible condition. All the end bottom struts were designed to permit of jacking so that the pier members may be repaired or renewed at any time. The deck steel



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Canadian Northern Bells) and New Mexico Central at Grand Mere, Que.

The cantilever portion was connected to the anchor span of the top chord by four 12 x 1 in. plate links on 5 in. dia. pins, and at the bottom chords were held apart by cast steel rocker blocks. These links were made 4 1/2 in. short of the normal length, in order that the ends of the cantilever at the center of the channel would project beyond the top chord.

steel truss, consisting of 2 bents and 3 deck plate girder spans, was constructed by the Dominion Bridge Co. In 1915 the heavy and stronger bracing of the main cantilever were reinforced and in this condition the old structure served to carry the traffic until the summer of 1918. In order to reduce the excessive grade

and the cantilever condition removed, thereby minimizing the erection stresses. In the meantime, these stringers were placed on the ends of the anchor spans, giving additional counterweight, as it was considered advisable to keep the strain on the erection anchors in the concrete piers.

length, in order that the ends of the cantilevers at the center of the channel would be elevated above normal to facilitate making the center connection. The expansion pier members were arranged to accommodate the expansion of the bottom chords during the change from the cantilever to the simple span conditions. To permit of a final adjustment in case the chords did not meet at the center of the channel span, both pier members on pier 3 were on rollers, on which the west half, both cantilever and anchor span, could be moved a few inches forward or backward as might be necessary. However, no such adjustment was necessary, as when the last section of bottom chord was lowered into place it fitted perfectly and the bolts connecting it to the center bottom lateral plate were put in place without difficulty. The anchorages were then gradually loosened, allowing the middle of the channel span to descend, and as the holes in the gunnel plate came to a match with those in the web of the bottom chord, the bolts were entered, and the span being

The pier being about 60 ft. high and the river very deep, erection by the cantilever method was naturally adopted. The

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CANADIAN RAILWAY AND MARINE WORKS

at the center on April 2, and riveting of the trusses was completed about June 3. The steel on the two 115 ft. trusses weighed 616,650 lb., in the 250 ft. span 936,000 lb., and the total steel in the structure, including girder spans, about 1,890,000 lb. The superstructure was designed and built by the Dominion Bridge Co.,

the writer having special charge of the design and the development of the erection scheme. The whole work was subject to the approval of W. P. Chapman, Engineer of Bridges, C.N.R., and C. H. Connell, Engineer, Quebec Division, C.N.R.—By H. M. White, of Dominion Bridge Co., in Contract Record.

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October 1918

## CANADIAN RAILWAY AND MARINE WORLD.

October, 1918.

## Canadian Northern Railway Construction, Betterments, Etc.

would have fallen into enemy hands. A number of breaks had to be repaired, and at one part of the journey the locomotive had to be taken over an 8 in. break in the rails. In spite of heavy machine gun and rifle fire, he was successful and the locomotive was then used to haul a trainload of material. He showed great courage under very trying conditions.

Lieut. Edward Blattery, holder of the distinguished conduct medal, and the military medal with two bars, who was killed in action, Aug. 30, was, before enlisting, engaged as a car cleaner in the C.P.R. Englewood Yard, Montreal. He enlisted as a private, and received the military medal for bravery in July 1917, two bars being added for his work during the Vimy Ridge encounters. The distinguished conduct medal was awarded in Aug. 1917, and he was promoted to lieutenant on the field in April, 1918.

Lieut. E. G. Stevenson, St. John, N.B., Canadian Railway Troops, has been awarded the Military Cross for conspicuous gallantry and devotion to duty in an attempt to save two 12 in. railway howitzers.

The track behind the guns had been broken and the breaks had to be repaired. This was accomplished under heavy shell fire, and the guns pushed for half a mile by hand. It was only when the shelling became intense, and machine gun fire became intense, and the infantry had to take up another position behind the guns, that the attempt had to be abandoned.

Brigadier-General J. W. Stewart, of Foley, Welch & Stewart, railway contractors, who has been associated throughout the war with the work of the Canadian Railway Troops, is mentioned as likely to be appointed Director of the whole transportation system in France and Flanders. In speaking of him recently the Dominion Minister of Militia paid special tribute to the work for which he is responsible.

Private I. H. Summerhill, reported recently as wounded in action, was formerly in the Engineering Department, Canadian

## Railway Finance, Meetings, Etc.

Burrard Inlet Tunnel & Bridge Co.—At the annual meeting of shareholders, who are, with a few exceptions, representatives of city and other municipal councils in the vicinity of Vancouver, on Sept. 11, the President—Reeve Bridgeman of North Vancouver City—Reported that there was no change in the company's affairs since the last annual meeting, except that the Dominion Parliament had extended its charter privileges until May, 1920. Nothing in the way of construction was proposed to be done, and all the directors proposed to do was to keep the charter clear until conditions became normal. The shareholders are—City of Vancouver, 2,000 shares; City of North Vancouver, 2,000 shares; North Vancouver district, 2,000 shares; Carter Garton, 20 shares; \$3,875 shares; Loutet, 20 shares; McNaught, 20 shares; and McLean, 20 shares. The directors and officers were re-elected, as follows:—President, E. H. Bridgeman; Vice President, G. W. Vance; other directors:—Messrs. Loutet, McBain, MacLurg, Woodside, and Carter-Cotton; Secretary, R. F. Archibald.

**Grand Trunk Ry.**—An issue of \$3,000,000 three year notes at 6%, at 99, partly to replace \$2,000,000 5% notes due shortly, has been authorized in England. The City of Guelph, Ont., has received recently \$17,000 as a three months dividend on its stock in the G.T.R., against \$10,600 for the corresponding period of 1916-17. The dividends received for the first nine months of this year aggregate \$40,375.

**Montreal Tunnel Opening.**—The tunnel under Mount Royal, which gives the C.N.R. an entrance into the center of Montreal, was officially opened for traffic Sept. 21. The first train arriving in Montreal by the tunnel was a special one from Ottawa, carrying G. A. Mountain, Chief Engineer, Board of Railway Commissioners, and several C.N.R. officials, and travelling over the direct line between the two cities. The distance between Montreal and Ottawa by the new route is 112 miles, instead of 180 miles by the old line via Joliette. The new line follows the Ottawa River from Hawkesbury, crosses the Back River to Montreal Island, and reaches the center

Oct 18

Timiskaming & Northern Ontario Ry.;—Passenger receipts for July, \$53,578.42; total re-

Oct 18

## CANADIAN RAILWAY AND MARINE WORLD.

### A Canadian Northern Railway Construction, Betterments, Etc.

St. Charles River Bridge.—A new bridge across the St. Charles River, at Quebec, is under construction. The present bridge, known as the St. Anne bridge, was built for the Quebec & Lake St. John Ry., and was subsequently used in addition by the Canadian Northern Ry. and the Quebec Ry., Light & Power Co. It was condemned as insufficient for the traffic requirements about nine years ago, but the proposal to rebuild was left in abeyance until the completion of certain river improvement works. However, the condition of the bridge became such that the work of erecting a new bridge became an immediate necessity. The piers for the new bridge, which will be located immediately to the west of the present bridge, are being put in as part of the river improvement works being carried out for the Dominion Government by Quinlan & Robertson. They provide for a superstructure to carry a double track railway, electric railway tracks, and highway for general traffic, but only a single track will be laid until the river improvement works are completed. The contract for the superstructure is reported to have been let to the Dominion Bridge Co. The piers are being erected under the supervision of E. A. Hoare.

Montreal Tunnel Opening.—The tunnel under Mount Royal, which gives the C.N.R. an entrance into the center of Montreal, was officially opened for traffic on Sept. 21. The first train arriving in Montreal by the tunnel was a special one from Ottawa, carrying G. A. Mountain, Chief Engineer, Board of Railway Commissioners, and several C.N.R. officials, and travelling over the direct line between the two cities. The distance between Montreal and Ottawa by the new route is 112 miles, instead of 160 miles by the old line via Joliette. The new line follows the Ottawa River from Hawkesbury, crosses the Back River to Montreal Island, and reaches the center of the city via the tunnel. The divisional yard is at Cartierville, and between there and the Montreal terminal electric locomotives will be used. A through service between Montreal and Toronto via Ottawa will be started at an early date.

Connecting Link Near Grenville, Que.—Tenders were received to Sept. 10 for the construction of about a mile of railway to connect the Canadian Northern Ontario Ry. and the Canadian Northern Quebec Ry. at Cushing in Argenteuil county,

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yard is at Cartierville, and between ~~unite~~  
and the Montreal terminal electric locomotives will be used. A through service  
between Montreal and Toronto via Ottawa  
will be started at an early date.

Connecting Link Near Grenville, Que.—  
Tenders were received to Sept. 10 for the construction of about a mile of railway to connect the Canadian Northern Ontario Ry. and the Canadian Northern Quebec Ry. at Cushing in Argenteuil county, Que., but we have been officially advised that owing to the lateness of the season and other contingencies it has been decided to defer the work for the present and no contract has been let.

Western District.—In connection with the plans for the extension of the Luck Lake Branch, upon which the Dominion Government authorized the company to lay 14 miles of track this year, a delegation from Rosetown, Sask., and vicinity waited upon the Dominion Government at Ottawa recently to press for the laying of a greater mileage.

The Board of Railway Commissioners has directed the company to build an additional 40 ft. to its freight sheds, and to provide adequate waiting room accommodation at North Battleford, Sask.

Vancouver Island Lines.—The Premier of British Columbia is reported to have said in Vancouver, Sept. 12, that rails were being transferred from Port Mann, to Victoria, and that they were being laid on the line from Victoria towards the Nitinat River. (Sept., pg. 385.)

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## The Canadian Northern Railway's Reorganization, Etc.

The principal event of the past month in Canadian railway circles has been the final steps in the transfer of the C.N.R. ownership to the Dominion Government, the retirement of the President and Vice President, Sir Wm. Mackenzie and Sir Donald Mann, and most of the other directors, the election of new directors and the election as President of D. H. Hanna, heretofore Third Vice President.

### Legislation, Agreement and Arbitration.

In 1913 the Dominion Parliament passed an act to grant subsidies towards the construction of lines as follows: Canadian Northern Ontario Ry., from Ottawa to Toronto, not exceeding 250 miles, at \$6,400 a mile; Canadian Northern Ontario Ry., from Ottawa to Fort Arthur, not exceeding 910 miles, \$12,000 a mile; Canadian Northern Alberta Ry., from Edmonton to the boundary between Alberta and British Columbia, not exceeding 280 miles, \$12,000 a mile. It was provided that before any of the subsidies be paid, the C.N.R. Co. should transfer to the Finance Minister, in trust for the government, \$7,000,000 of common stock.

In 1914 the Dominion Parliament passed an act providing that the government might aid in the construction, completion, equipment and betterment of the C.N.R. system, by guaranteeing its common stock, making, with the \$7,000,000, the Finance Minister, in trust for the government, of \$38,000,000 of C.N.R. common stock, making, with the \$7,000,000 previously transferred, a total of \$45,000,000. The act also provided that while any of the guaranteed securities were outstanding the government might appoint any person to be a director of any or all of the companies included in the C.N.R. system, and by the transfer to the C.N.R. system.

In 1917, the Dominion Parliament passed an act providing that it might acquire the remaining 600,000 shares of the C.N.R.'s capital stock, not then held by the Finance Minister in trust for the government, on terms to be set out in an agreement to be made between the government and the owners and pledges of government and the owners of that stock, not less than five-sixths of that stock, and for a price to be determined by arbitration; that upon the making of the agreement, at least five-sixths of the shares be transferred to the Finance Department in trust for the government, and

mine the value of the 600,000 shares as at Oct. 1, 1917, that should the value be determined as \$10,000,000 or more, the price to be paid therefor should be \$10,000,000, but if the value determined



David Birth Hanna,  
President, Canadian Northern Railway.

within three months of its receipt of the award, subject to deduction for undischarged C.N.R. liabilities, if any.

Under the agreement, the following arbitrators were appointed: Sir Wm. Macredie, Chief Justice of Ontario; Mr. Justice R. E. Harris, of Halifax, selected by the two other arbitrators. The arbitration opened at Toronto, Feb. 4, 1918, and continued at intervals until May 25, when the arbitrators gave a unanimous award, declaring that the value of the 600,000 shares was \$10,800,000, each of the parties to pay its own costs of the arbitration.

Under the terms of the agreement, the payment under the award was to be made by Aug. 25, but it was delayed for some two weeks, owing to certain matters which had to be cleared up. On Sept. 11, it was announced in Ottawa that payment had been made for \$10,000, payable jointly to Mackenzie, Mann & Co., the Canadian Bank of Commerce, the and the Canadian Bank of Montreal, the balance of the \$10,000 being held for the acquirement of the 90,000 remaining shares outstanding. As the holders of these shares were not parties to the agreement respecting the five-sixths of the 600,000 shares, it is said that they will be paid for on the basis of the arbitrators' determination of \$10,800,000, viz. \$18 a share, making the total payments \$10,120,000.

*Canadian Northern Railway System Properties.*

The companies amalgamated in 1914 as the C.N.R. system were as follows: Bay of Quinte Ry. Co., Brockville, Westport & North Western Ry. Co., Canadian Northern Ry. Co., Canadian Northern Alberta Ry. Co., Canadian Northern Western Ry. Co., Canadian Northern Saskatchewan Ry. Co., Canadian Northern Saskatchewan Ry. Co., Canadian Northern Manitoba Ry. Co., Canadian Northern Quebec Ry. Co., Canadian Northern Pacific Ry. Co., Canadian Northern Express Co., Canadian Northern Transfer Co., Canadian Northern Telegraph Co., Canadian Northern Steamships, Ltd., Canadian Northern System Terminals, Ltd., Central Ontario Ry., Duluth, Winnipeg & Pacific Ry. Co., Halifax & Southwestern Ry. Co., Iredale, Bancroft & Ottawa Ry. Co., Lake Superior Terminals Co., Minnesota & Ontario Bridge Co., Minnesota & Manitoba Rd. Co., Marmona Ry. & Mining Co., Mount Royal Tunnel & Terminal Co., Niagara, St. Catharines & Toronto Co., N.Y.

November  
1918

provided that ~~shares~~ Cu. should transfer to the C.N.R. Cu. to be paid, the Finance Minister, in trust for the Government, \$7,000,000 of common stock.

In 1914 the Dominion parliament passed an act providing that the government might aid in the construction, completion, equipment and betterment of the C.N.R. system, by guaranteeing its bonds, etc., to an amount not exceeding \$45,000,000, the guaranteed securities to be secured by a trust deed of securities of the railway, express, telegraph, transformer and other companies comprising the C.N.R. system, and by the transfer to the Finance Minister, in trust for the government, of \$13,000,000 of C.N.R. common stock, making, with the \$7,000,000 previously transferred, a total of \$40,000,000. The act also provided that while any of the guaranteed securities were outstanding the government might appoint any person to be a director of any or all of the companies included in the C.N.R. system.

In 1917 the Dominion Parliament passed an act providing that it might require the remaining 600,000 shares of the C.N.R.'s capital stock, not then held by the Finance Minister, in trust for the government, on terms to be set out in an agreement to be made between the government and the owners and pledges of the shares, be transferred to the Finance Minister in trust for the government, and not less than five-sixths of that stock, and for a price to be determined by arbitration, that upon the making of the agreement, at least five-sixths of the shares be transferred to the Finance Minister in trust for the government, and transferred as above required. The government was authorized, on the transfer of the shares referred to, the government might declare them to be the government's property, and that they should be paid for pro rata with the shares transferred as above required. The government was authorized, on the transfer of the shares referred to, the government value \$91,000,000, vested in the government, and shortly afterwards the Finance Minister announced that the government had become the "sole proprietor" of the system.

The agreement entered into between the government, MacKenzie, Main & Co., Ltd., and the Canadian Bank of Commerce, provides for a portion of the 600,000 shares, par value \$61,000,000, were transferred to the Finance Minister, making a total of 910,000 shares, par value \$91,000,000, vested in the government, and shortly afterwards the Finance Minister announced that the government had become the "sole proprietor" of the system.

The agreement, MacKenzie, Main & Co., Ltd., and the Canadian Bank of Commerce, provides for a portion of the 600,000 shares, par value \$61,000,000, were transferred to the Finance Minister, making a total of 910,000 shares, par value \$91,000,000, vested in the government, and shortly afterwards the Finance Minister announced that the government had become the "sole proprietor" of the system.

should be less than \$10,000,000, the value so determined was to be the price paid, in other words, no more than \$10,000,000 was to be paid, regardless of what the arbitrators might decide as to the price; payment to be made by the government.

able jointly with the Canadian Bank of Commerce, the and the Canadian Bank of Commerce, the balance of the \$10,000,000 being held for the acquisition of the 60,000 shares outstanding. As the holders of these shares were not parties to the agreement respecting the five-sixths of the 600,000 shares, it is said that they will be paid for on the basis of the arbitrators' determination of \$10,800,000, viz., \$16 a share, making the total payments \$10,120,000.

#### Canadian Northern Railway System Properties.

The companies amalgamated in 1914 to form the C.N.R. system were as follows: Bay of Quinte Ry. Co., Brockville, Westport & North Western Ry. Co., Canadian Northern Ry. Co., Canadian Northern Alberta Ry. Co., Canadian Northern Western Ry. Co., Canadian Northern Saskatchewan Ry. Co., Canadian Northern Saskatchewan Ry. Co., Canadian Northern Saskatchewan Ry. Co., Canadian Northern Manitoba Ry. Co., Canadian Northern Ontario Ry. Co., Canadian Northern Quebec Ry. Co., Canadian Northern Express Co., Canadian Northern Telegraph Co., Canadian Northern Steamships, Ltd., Canadian Northern System Terminals, Ltd., Central Ontario Ry., Duluth, Winnipeg & Pacific Ry. Co., Halifax & Southwestern Ry. Co., Irondequoit, Bancroft & Ottawa Ry. Co., Northern Consolidated Holding Co., Lake Superior-Terminal Co., Minnesota & Iowa & Ontario Bridge Co., Minnesota & Qu'Appelle, Long Lake & Saskatchewan Manitoba Rd. Co., Marquette Ry. & Min-Rd. & Steamboat Co., St. Boniface-Western Land Co., Winnipeg Land Co., Ningara, St. Catharines & Toronto Co., Niagara, Chatham, Wallaceburg & Lake Erie Ry., Chatham, Wallaceburg & Lake Erie Ry., Toronto Suburban Ry., and the Toronto & Eastern Ry., on the latter of which only a little construction has been done.

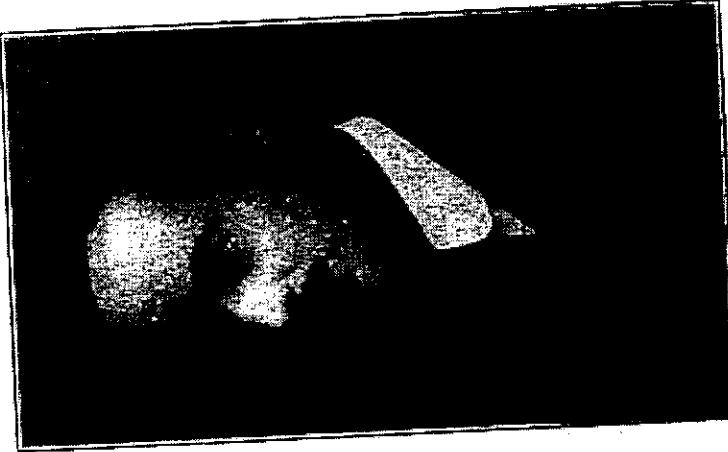
All three of these companies are controlled by Sir Wm. MacKenzie and associates. It is possible that some, if not all of them, may be transferred to the government.

#### Canadian Northern Railway Share-Holders.

The acting Minister of Finance, Hon. A. K. MacLean, stated in the House of



David Bryne Banns,  
President, Canadian Northern Railways.



Alfred J. Mitchell,  
Vice President, Finance and Accounting, Canadian Northern Railway.

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## NADIAN RAILWAY AND MARINE WORLD.

The country, therefore, has embarked upon a wide policy of state ownership under very favorable conditions. Difficult questions at once present themselves as to methods of operation. If the policy of State ownership is to be successful, certain conditions are essential, and the people must resolutely support the government in maintaining them. The methods by which the operation of the road is to be carried out must be as efficient as those of any private corporation. There must be no party political interference; that would be absolutely fatal to discipline, to efficiency and to success. On the other hand, there must remain with the people and parliament of the country a general control which is incident to and indeed inherent in ownership. The government's proposals will be made public almost immediately, and they will be based upon the considerations I have mentioned. The total mileage owned by Canada is very large, comprising nearly

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George, Toronto, and H. W. Richardson, Kingston, Ont., representing the government. Messrs. Nicholls and Richardson resigned from the Board on their appointment to the Senate, and Graham A. Bell, then Assistant to the Minister of Railways and Financial Comptroller, Railways Department, was appointed as one of the government directors.

On Sept. 6, 1918, Sir Wm. Mackenzie, Sir Donald Mann and all the other directors, except D. B. Hanna and G. A. Bell, the latter of whom had in the meantime been appointed acting Deputy Minister of Railways, retired; A. J. Mitchell, theretofore assistant to Vice President, C.N.R., and Comptroller, Mackenzie, Mann & Co., was elected a director, and on Sept. 18 it was announced that the following additional directors had been elected, of course, on the government's nomination:—Robt. Hobson, President, Steel Co. of Canada, Hamilton, Ont.; F. P. Jones, Vice President and General Manager, Canada Cement Co., Montreal; E. R. Wood, President, Dominion Securities Corporation, Toronto; R. T. Riley, President, Northern Trust Co., Winnipeg; C. M. Hamilton, farmer, Weyburn, Sask. E. R. Wood, who had been a member of the board, resigned at the same time as Sir Wm. Mackenzie, Sir Donald Mann, and others, and was re-elected. D. B. Hanna was elected President, and A. J. Mitchell was appointed Vice President, in charge of finance and accounting.

The first meeting of the new directorate was held in Toronto Sept. 27, all the directors except E. R. Wood being present. After inspecting the new terminals at Leaside, they left that evening by special train for Ottawa and Montreal, to look over the terminals, etc., at those places, and inspect the line between Ottawa and Montreal, which will be opened for traffic shortly in connection with the line between Ottawa and Toronto, thus giving a through route between Montreal and Toronto. Until otherwise decided, the board will meet in Toronto each Friday.

In addition to the election of D. B. Hanna, as President, and the appointment of A. J. Mitchell as Vice President, Finance and Accounting, the only appointments that have been made are those of Senior Counsel, Assistant to the President, and Secretary, Z. A. Lash, K.C., who was a member of the old board, and also the company's Senior Counsel,



CANADIAN RAILWAY AND MARINE WORKERS

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spoken of, but the full organization may be delayed, pending the expected arrangements in connection with the Canadian Government Railways, which will probably be merged with the C.N.R. into one system, and also the possibility of the Grand Trunk Pacific, if not the Grand Trunk also, being taken in later on.

DAVID BLYTHE HANNA, President, was born at Thornliebank, Renfrewshire, Scotland, Dec. 20, 1858, and entered railway service there in 1874, since when he has been, to 1879, clerk and ticket agent, Glasgow, Barrhead & Kilmarnock Ry., at Kinnishhead, Pollokshaws and Barrhead; 1879 to 1882, cashier, Stobcross station, Glasgow, Caledonian Ry.; 1882 to 1884, in Auditor's office, and Travelling Auditor, G.T.R., Montreal; 1884 to 1886, clerk, General Auditor's office, New York, West Shore & Buffalo Ry., New York; 1886 to 1892, Chief Accountant, Manitoba & North Western Ry., Winnipeg; 1892 to 1896, Treasurer, and from 1893, also Land Commissioner, same road; 1896 to Nov., 1902, General Superintendent, first of Lake Manitoba Ry. & Canal Co., and afterwards of Canadian Northern Ry., Winnipeg; Nov., 1902, to the date of his present appointment, Third Vice President, Canadian Northern Ry. He has been associated with the Canadian Northern Ry. since its inception, and has been officially connected with all its subsidiary railway companies, now comprising the system.

ALFRED J. MITCHELL, Vice President, was born at Toronto, Sept. 28, 1879, and entered transportation service July 18, 1899, since when he has been, to Jan., 1902, chief clerk, Mackenzie, Mann & Co.; Jan., 1902, to Jan., 1904, accountant, same company; Jan., 1904, to July, 1908, Assistant Comptroller, same company; July, 1908, to Sept., 1918, Comptroller, same company; July, 1912, to Sept., 1918, also Assistant to Vice President, Canadian Northern Ry., all at Toronto.

MAJOR G. A. BELL, C.M.G., director, is acting Deputy Minister of Railways and Canals. Biographical data and portrait were published in our August issue, see page 229.

was engaged in farming in Ontario. He removed to Manitoba in 1881, where he has since been associated with a number of industrial, insurance and financial concerns, including the Northern Trust Co., of which he is President. He was one of the organizers, and is a director of the Great West Life Assurance Co., director, Union Bank of Canada, and a manager of the Winnipeg Stock Exchange.

E. R. WOOD, director, was born at Peterborough, Ont., May 14, 1866, and was educated there. He commenced business life as a telegraph operator, and subsequently entered the office of the Central Canada Loan and Savings Co., of which he became Vice President and General Manager. He is also President, Dominion Securities Corporation; Vice President, National Trust Co.; Director, Crow's Nest Pass Coal Co., Canadian Bank of Commerce, Western Assurance Co., Canada Life Assurance Co., San Paulo Tramway, Light & Power Co., Mexican Light & Power Co., and other industrial and financial concerns.

R. C. VAUGHAN, Assistant to President, was born in Toronto, Dec. 1, 1883, and entered railway service Oct. 3, 1895, since when he has been, to Mar., 1902, office boy, clerk and stenographer, General Freight Agent's office, C.P.R., Toronto; July to Dec., 1902, in Freight Department, G.T.R., Toronto; Jan., 1903, to July 1, 1910, clerk, secretary to Third Vice President and General Manager, and chief clerk to Third Vice President, Canadian Northern Ry., Toronto; July 1, 1910, to date of present appointment, Assistant to Third Vice President.

Changes in Offices, Etc.

There appears to be little doubt that the C.N.R. head office will remain in Toronto, unless a change should be determined on if the C.N.R. and the Canadian Government Railways are merged, and the Grand Trunk Pacific and possibly the Grand Trunk also taken in. The Winnipeg Board of Trade has started a movement in favor of the removal of the headquarters to that city, but this is not likely to take place.

President D. B. Hanna is moving down

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## CANADIAN RAILWAY AND MARINE WORLD.

# Canadian Railway AND Marine World

ESTABLISHED 1881

Devoted to Steam and Electric Railway,  
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TORONTO, CANADA, OCTOBER, 1918.

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## The Canadian Northern Railway's Presidency.

The Dominion Government has made a good start in the reorganization of the G.N.R. management. For some time it was feared that political considerations might prevail, and that a politician, without practical railway experience, would be appointed either chairman of the board or possibly as President. Such an appointment would have been a national calamity, and there was a good deal of apprehension in regard to it. Sir Robert Borden allayed this somewhat, when he stated at the Toronto Exhibition directors' luncheon, on Sept. 9, that there must be no party political interference in the management of the road, and there was a general feeling of relief when it was announced on Sept. 18 that a board of business men had been appointed, and that D. B. Hanna had been elected President, thus ensuring a business administration of the second largest Canadian railway system.

It is eminently fitting that Mr. Hanna, who in 1896 was the first official of the Little Lake Manitoba Ry. & Cen. Co., should have been chosen as its chief executive. He is acquainted with every detail of the building up of the system, and has been responsible for years for its operation and for many other branches of its organization. Laboring under difficulties that many men would have found insurmountable, he has carried on this operation in a most economical way and has proved himself a most capable administrator. During the recent arbitration proceedings, he surprised even his most intimate friends by his thorough knowledge of every phase of the company's operations—finance, construction and operation.

Mr. Hanna enjoys to an extraordinary degree the confidence and respect of the thousands of men on the C.N.R. pay rolls, and will undoubtedly receive an enthusiastic loyalty from them that no outsider could hope to secure. He is also very popular with other railway officials and with the large number of the general public with whom he has come in contact, and we believe that now he has a free hand to carry out his own ideas as

Hanna was building the comparatively insignificant road from Gladstone to Dauphin, which was to form the nucleus of the Canadian Northern. He wanted a Superintendent, and a friend recommended old Hanna, with the result that the brilliant promoter and the no less brilliant administrator joined hands.

The early days of the Canadian Northern, when Hanna was simply Superintendent of the little Lake Manitoba Ry. & Canal Company, form quite a contrast to the era that has since dawned. Those were the times when thirty men and a boy were sold to have been sufficient forces to operate the entire system. It was a period of versatility, when versatility was required, and faith and enthusiasm through it all. D. B. Hanna plodded along working overtime and inspiring courage in his subordinates.

His earlier career had all along been associated with railroading, in one form or another. Born at Thornlebank, Renfrewshire, Scotland, on December 20, 1858, he entered the service of the Glasgow, Barrhead & Kilmarnock Ry., at the age of 16, as ticket agent. In 1879 he transferred his services to the Caledonian Ry., becoming cashier at Stobcross station in Glasgow. Emigrating in 1882, he first served two years in the Auditor's office of the Grand Trunk in Montreal, and then two years in the Auditor's office of the New York, West Shore & Buffalo Ry. in New York. In 1886 he joined the Manitoba & Northwestern Railway as Chief Accountant, becoming its Treasurer in 1892, and also Land Commissioner a year later. Just 15 years ago he became Superintendent of what was to become the Canadian Northern Ry. and in 1902 received the appointment of Third Vice-President.

In dealing with a man of Mr. Hanna's character, it is quite impossible to avoid the laudatory style of treatment. As one of his intimates remarked, "You can't tell much about Hanna, because he hasn't any faults." Among the several hundred men in the head offices of the C.N.R. in Toronto, he is almost an object of worship. "There isn't a man among us who wouldn't die for him," was the somewhat extravagant assertion of one enthusiast, which may be taken as a fair indication of the esteem in which he is held. And this feeling extends outside to the other

Oct 18

who in 1895 was the first general manager of the Little Lake Manitoba Ry. & Canal Co., the nucleus of the present C.N.R. system, should have been chosen as its chief executive. He is acquainted with every detail of the building up of the system, and has been responsible for years for its operation and for many other branches of its organization. Laboring under difficulties that many men would have found insurmountable, he has carried on the operation in a most economical way and has proved himself a most capable administrator. During the recent arbitration proceedings, he surprised even his most intimate friends by his thorough knowledge of every phase of the company's operations—finance, construction and operation.

Mr. Hanna enjoys to an extraordinary degree the confidence and respect of the thousands of men on the C.N.R. pay rolls, and will undoubtedly receive an enthusiastic loyalty from them that no outsider could hope to secure. He is also very popular with other railway officials, and with the large number of the general public with whom he has come in contact, and we believe that now he has a free hand and can carry out his own ideas as to organization, etc., he will produce satisfactory results.

Of one thing the public need have no fear. Mr. Hanna will serve the new owners of the road—the people—as loyally and enthusiastically as he served its private owners, and no man could do more.

#### Character Sketch of D. B. Hanna.

Following are extracts from an article published in the Toronto Globe in 1911:

You may call him, if you choose, prime minister to the dual monarchy that reigns over the Canadian Northern Ry. System. You may regard him as the foster mother of the score or more enterprises in which these potentates are engaged. You may speak of him as one of the big men of the country, wealthy, respected and influential, or you may point to him as the steady yet agile climber up the slippery rungs of the ladder of success. And yet in the end you will get back to describing him simply as the warm hearted, genial Scotchman, David Blythe Hanna, unspoiled and unchanged by all the honors that have fallen to his lot.

D. B. Hanna was Treasurer of the Manitoba & Northwestern Ry. with headquarters in Portage la Prairie, when William Mackenzie first ran across him. Mac-

ferred his services to the Canadian Northern, becoming cashier at Stobcross station, in Glasgow. Emigrating in 1882, he first served two years in the Auditor's office of the Grand Trunk in Montreal, and then two years in the Auditor's office of the New York, West Shore & Buffalo Ry. in New York. In 1886 he joined the Manitoba & Northwestern Railway as Chief Accountant, becoming its Treasurer in 1892, and also Land Commissioner a year later. Just 15 years ago he became Superintendent of what was to become the Canadian Northern Ry., and in 1902 received the appointment of Third Vice-President.

In dealing with a man of Mr. Hanna's character, it is quite impossible to avoid the laudatory style of treatment. As one of his intimates remarked, "You can't tell much about Hanna, because he hasn't any faults." Among the several hundred men in the head offices of the C.N.R. in Toronto he is almost an object of worship. "There isn't a man among us who wouldn't die for him," was the somewhat extravagant assertion of one enthusiast, which may be taken as a fair indication of the esteem in which he is held. And this feeling extends outside to the other employees of the road. Even labor agitators, who might sometimes be expected to adopt a hostile attitude, have only good words to say for him.

When it comes to working, he does not believe in the eight-hour day—that is, for himself. It is no unusual thing for him to put in nine or ten hours at his desk, and throw in Saturday afternoons to boot, when, as he says, he can get a little house-cleaning done. On Sundays—well, of course, being a good Scotch Presbyterian, he doesn't indulge his hobby on the Sabbath. As for holidays, the frequent inspection trips which he must needs take, and almost annual voyages to England, provide sufficient variety, in his opinion, to make it possible to dispense with more formal vacations altogether. With so much of his time devoted to work, he is able to achieve wonders, getting through an immense amount of routine, and being interviewed by sometimes as many as fifty people a day.

The Third Vice-President of the C.N.R. is a big man, towering well over the 6 mark. Since he has seen fit on several occasions to joke about his appearance, it will not be derogatory to state that, like most men, he is not exactly in the Adonis class. One of his amusing reminiscences of his early life in Scotland has

October 1918

Oct. 16. Directing constituents of Marlin and Robertson, Ltd., and Imperial Hien Mills Co., Vancouver, B.C., against increased car load rates on rice from Vancouver to Eastern Canada, which went into effect August, 1917.  
Oct. 18. Extending by C.P.R. of its agreement of Oct. 16, 1916, to remain in effect until Aug. 1918.  
Oct. 27. Authorizing Canadian Northern to build spur to its freight shed at Parc William, connecting Victoria and Cameron Shs. 27750. Oct. 9. Authorizing Transcanada Ry. to remove regular station agent at St. Hubert, N.B., ratepayer to be appointed to see station kept clean and heated and lighted for passengers.  
Feb. 27, 1918. Order 2341. Amending order 2340, Feb. 1918, of Northern District Registrar, Supreme Court of British Columbia, making permanent lease and report upon cost of building and underlay Victoria, Victoria & Esquimalt Sh. 21, N.E., Vancouver, B.C.  
Oct. 9. Authorizing Canadian Northern Ry. to remove regular station agent at Brockville, Ont., within which A. H. Portman, District Registrar, Brockville, Ontario, had been asked for grand jury to examine tracks at the Morris St. yards, through the tunnel, was started Oct. 21.

**Mount Royal Tunnel.**—The President and directors made a trip of inspection over the line from Toronto, reaching Montreal Sept. 29. The regular operation of trains in and out of the temporary terminal on L'Ange-aux-herbes St., Montreal, was suspended, and the freight sheds through the tunnel, were Malvern, Ont., and mileage 10, on the Brockville subdivision at Brockville, Ont.  
Tenders have also been asked for grand jury to examine tracks at the Morris St. yards, through the tunnel, at the Morris St. yards, Toronto.  
The President and directors inspected the works in progress at the Leaside terminus, Toronto, Sept. 28. It was reported that progress on these works has not been as rapid as was anticipated, owing to the scarcity of labor and the difficulty of getting materials.  
**Central District.**—A press report states that the laying of the line west of Port Arthur with heavier steel rails has been completed as far as Monkton, 22 miles, and that work has been suspended for the season.  
A press report states that plans for the division of portion of road allowance between lines 2 and 7, Albion Rd., Peel County, 1000 feet west of mile 28.9, MacTier Subdivision, are being prepared by C.P.R. about half a mile east of Keweenaw Ave., as required by order 2740 July 30, 1918.  
Oct. 11. Authorizing C.P.R. to make a diversion in view of portion of road allowance between lines 2 and 7, Albion Rd., Peel County, 1000 feet west of mile 28.9, MacTier Subdivision, Keweenaw Ave., as required by order 2740 July 30, 1918.  
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W. J.  
published in

### Canadian Northern Railway Construction, Betterments, Etc.

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**Vancouver Island Lines.**—M. H. MacLean, General Manager and Chief Engineer, is reported to have informed the Premier of British Columbia, Oct. 10, that there were then 16 cars of steel rails at Patricia Bay, and that tracklaying out of Victoria towards Nitinat would be commenced Oct. 14 or 15; also that arrangements had been completed for the transportation of a continuous supply of the rails released by the B.C. Government from the Pacific Great Eastern Ry. dump at Squamish, and that 10 additional cars of rail, which had just been released from China for the P.G.E.R. would be diverted to the C.N. Ry. (Oct., pg. 440.)

Werner Horn, who was sentenced to 18 months imprisonment by a United States court for carrying dynamite, contrary to law, was brought before the U.S. Commissioner at Atlanta, Ga., Oct. 8, upon requisition proceedings from New Brunswick for carrying dynamite, contrary to law to answer a charge of blowing up the C.P.R. bridge on the New Brunswick-Maine boundary in 1898. Horn protested against the proceedings and asked to be interned in the U.S.

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

November 1918

## Directors' Inspection of Canadian Northern Railway.

Dr. R. Hanna President, and Rob. Hodson one of the other C.N.R. directors, left Toronto, Oct. 4, for an inspection of the main line to Victoria, R. P. Arms, by the company's Secretary, accompanied by them; S. J. Haugerud, Western Manager, Eastern Lines, and A. F. Stewart, Chief Engineer, Eastern Lines, travelled with them to Port Arthur where they were met by M. H. MacLeod, General Manager and Chief Engineer, Western Lines, and A. W. Ross, General Superintendent, Central Division. At Winnipeg they were joined by the two western directors, R. F. Kirby, of Winnipeg, and C. M. Hamilton, of Weyburn, Sask., who proceeded west with them right through to Victoria, B.C., which was reached Oct. 10. The principals' operating officers, whom punctuated the party with their respective jurisdictions. As Vancouver or Fort St. John's President, and other directors, met the Minister of Railways Hon. J. D. Reid, who accompanied them to Victoria, and also returned east with them. They also met the Minister of Public Works, Hon. F. H. Carrell, who accompanied them on their inspections of Victoria, Vancouver and New Westminster.

At Victoria, the president and other directors met the British Columbia Premier and other ministers and discussed various matters affecting the interests of the nation, and its relations with British Columbia, particularly in respect to the continuation of the line from Victoria to the Nootka district. The party were taken over the terminal area at the Seafarers Reserve, the harbor property, etc., by the mayor, who presented the city's point of view. Subsequently they met a delegation of the Victoria Board of Trade, and discussed the work necessary for the development of the trade at the port.

After hearing remarks by a number of members of the Victoria Board of Trade in the local papers, that he was glad to be able to assure the people of Victoria that within a few months 100 miles of the C.N.R. will be in operation on Vancouver Island. Now that the people of the province own the line, it has to be remembered that everything the people do themselves to popularize it will only benefit the system itself, but it will also tend towards the development of the country. And no province has a better climate than British Columbia, with her mineral, forest and agricultural wealth, and her great sea-

den that Victoria as a great port should be placed in the best possible position so far as the C.N.R. is concerned.

J. B. Hanna is reported to have stated further course of his remarks, that "we" would like the directors object to him at a large gross revenue, with a minimum of 25 per centure, so that it could be shown to the people of Canada that government ownership could be made to pay. After reviewing some points in the history of the line, he said that at the end of 20 years there were on the system seven 500-ton locomotives and 32,000 cars, and that a substantial financial appropriation bill had already been voted for the provision of the additional equipment needed rolling stock with that in mind, and with the plans that were assuming shape for the growing of business, he could safely predict that development would commence right on Vancouver Island and in the City of Vancouver and proceed eastward and not stop until it reached the Atlantic coast.

He had soon the system grow from some 500 miles of line to nearly 10,000 miles, and, measurable at the time, simply because the old management was not up to the task to procure sufficient rolling stock. His judgment based on over 20 years of experience with the company, was that under normal conditions, the C.N.R. would most certainly be a really live asset and not a liability. His expectations in this regard were, of course, based on the usual being managed on business principles and free from political interference. He was glad to be able to say that there was every indication that the board would perfect freedom of action. The people could make or unmake the C.N.R. system, and he looked to them exclusively for reasonable support. One of the company's best assets is the esprit de corps among all ranks of the service and the thorough feeling of loyalty in the system which prevails.

At Vancouver, the party visited the terminal works at False Creek and the harbor facilities generally, and then went to New Westminster and Port Mann. The Minister of Railways is reported to have said, in speaking at Vancouver, now that the Canadian Northern Ry. has become the property of the people, Canada, it is the Government's duty to operate it in the interests of the people and not in the interests of any contractors. There is work to do in Canada for the

Panama Canal to Liverpool, or across the Pacific to the Orient. There must be a large fleet provided to ply on the Pacific as well as on the Atlantic Ocean, in connection with the Government railways. With respect to the traffic between Vancouver and Victoria, a fast ferry is on its way from the Atlantic seaboard, and is expected to arrive at an early date. Its capacity is 21 cars and it will be able to handle all the traffic that may offer.

At North Vancouver, the party were received by the mayor and shown round. Mr. Hanna is reported to have said— "There is no obstacle to putting on a ferry between the government wharf in the Vancouver side and North Vancouver," the meaning of which, according to a recent report, is that if such an improvement be effected, truck connections would be made between the C.N.R. Pier, Creek terminals and the government wharf. The mayor promised to send all data in regard to the matter to the company's offices in Toronto for the directors' consideration.

On the return trip eastward, the party left Vancouver Oct. 13 and stopped off at Kamloops, where they looked over the terrain, with a view of extending the line from the junction with the town which will probably be done in the near future. Edmonston was reached Oct. 14, and after spending a day there they left for Calgary, and afterwards stopped over on Skunk Lake to Winnipeg, arriving there Oct. 17. At Winnipeg the Minister of Railways and the directors visited the C.N.R. shops at Fort Rouge, also the Canadian Government Railways shops at Transcona, with a view to continuing the work in the event of the amalgamation of the Canadian Northern and the Canadian Government Railways. Messrs. Ralph and Hamilton left the party at Winnipeg, and after spending three days there, the Minister of Railways and Messrs. Mann, Hobson and Ormsby started east making a short stop at Fort Arthur, and reaching

November  
1918

Sea Wall, Canadian Northern Terminal Pier, at Vancouver.

The Minister of Public Works, Hon. F. G. Galt, was in Vancouver for a

met the Minister of Public Works, Hon. J. H. Corry, who accompanied them on their inspections in Victoria, Vancouver, and New Westminster.

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After hearing remarks by a number of members of the Victoria Board of Trade, the Minister of Railways said, as reported in the local papers, that he was glad to find

in the interests of the people and not in the interests of any contractor. There is work to do in Canada for the whole system of Canadian Government Railways, now totalling about 16,000 miles. There are terminal facilities at Halifax and St. John, N.B., capable of handling the traffic, not only of the C.N.R., but of all the railroads in Canada, or any transoceanic traffic that could possibly be required. The C.N.R. would prove of great value to British Columbia, but this could only come to pass if it had facilities at Vancouver twice as good as those of the C.P.R. He had found since coming to Vancouver that though the people owned a railway and the government had built an elevator on Burrard Inlet, wheat could not be got to the elevator without paying heavy tolls for shunting care, to the C.P.R. and to the Great Northern Ry. That is an obstacle to the development of trade, and as soon as he returned to Ottawa it would be removed.

He thought that Victoria's position in relation to her possibilities of transportation had changed with the taking over by the government of the C.N.R. system. With docks and warehouses already established for public use, he had, and would continue, to urge upon the Minister of Public Works, the advisability of permitting them to form part and parcel of the C.N.R. system, instead of placing them within the control of the Public Works Department. He was amazed at the representations made in relation to the quantity of freight handled at the outer wharf, and the fact that an average of 30,000 tons required handling yearly, without solicitation of any kind, suggested the possibilities offered by a well organized Oriental campaign. He and the President and directors of the C.N.R. would return east fully seized with the

100 miles of line to nearly 10,000 miles. Some of the mileage built might not have been justified at the time, surely because the old management was not in a position to procure sufficient rolling stock.

His judgment, based on over 20 years of experience with the company, was that under normal conditions, the C.N.R. would most certainly be a really live asset and not a liability. His expectations in this regard were, of course, based on the road people could make or unmake the C.N.R. system, and he looked to them definitely for reasonable support. One of the company's best assets is the esprit de corps among all ranks of the service and the thorough feeling of loyalty to the center, which prevails.

At Vancouver, the party visited the terminal works at False Creek, and the harbor facilities generally, and then went on to New Westminster and Park Mann. The Minister of Railways is reported to have said, in speaking at Vancouver, now that the Canadian Northern Ry. has become the property of the people of Canada, it is the government's duty to operate it in the interests of the people and

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coastal route.

On the return trip eastward, the party left Vancouver Oct. 13 and stopped off at Kamloops, where they looked over the terminus with a view of extending the line from the junction into the town which was probably to be done in the near future. Edmonton was reached Oct. 15, and after spending a day there they left for Calgary, and afterwards stopped over at Drumheller, Alta., where 18,000 miners are producing from 3,500 to 4,500 tons of high grade lignite a day, with the expectation of substantially increasing this next year.

From Drumheller they went via Saskatoon to Winnipeg, arriving there Oct. 17. At Winnipeg the Minister of Railways and the directors visited the C.N.R. shops at Fort Rouge, also the Canadian Government Railways shops at Transcona, with a view to co-ordination of work in the event of the amalgamation of the Canadian Northern and the Canadian Government Railways. Messrs. Riley and Hamilton left the party at Winnipeg and after spending three days there, the Minister of Railways and Messrs. Hamm, Hobson and Ormsby started east, making a short stop at Fort Arthur, and reaching Toronto Oct. 21.

### Sea Wall, Canadian Northern Terminals Etc. at Vancouver.

The Minister of Public Works, Hon. F. H. Carver, was in Vancouver, Oct. 15, where he conferred with the mayor and representatives of the city council, open harbor development trustees. One of the pieces visited was the sea wall at False Creek, work on which has been stopped pending settlement of certain matters with Champion & White, who claim its erection will prevent their making use of their wharf. The city claims that it has a crown grant prior to Champion & White, and that the firm had never been authorized to build a wharf. All the facts in connection with the matter were laid before the minister, who stated that the erection of the sea wall would have to be proceeded with. He was shown the site of the proposed deep sea terminals at the Kitsilano reserve, and the route of the line connecting them with the Canadian Northern Ry. at False Creek, and the line out of the proposed docks at English Bay, and he is reported to have said on his return to the city that deep sea terminals are a logical necessity for the C.N.R.

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1918

## Canadian Northern Railway's Annual Report, Meeting, Etc.

The C.N.R.'s annual meeting was held in Toronto, Oct. 25, when the report for the year ended June 20, 1917, was presented, over the signature of Sir Wm. Mackenzie, the former President, the financial statements being signed by D. B. Hanna, the former Third Vice President, and now President. Owing to the late presentation of the report, much of the information contained in it is not of current interest, and therefore only brief extracts from it are given below.

The annual meeting was purely a formal one, and the board of directors as constituted recently, after the company's property passed into the Dominion Government's possession, was re-elected. Extracts from Annual Report. The results of the operations of the system for the year were as follows:

<b>Gross Earnings</b>	<b>\$11,101,942</b>
Passenger traffic	32,186,994
Freight traffic	7,914,408
Express, mail, telegraph, interest and profits from elevators and other subsidiary companies, investments, etc.	1,464,416
<b>Total</b>	<b>\$11,101,942</b>

**Gross Earnings**  
Passenger traffic  
Freight traffic  
Express, mail, telegraph, interest and profits from elevators and other subsidiary companies, investments, etc.

Net earnings	\$1,349,408
Net purchases	112,541,668.28
Interest, char. prop.	14,668,866.28
<b>Total</b>	<b>\$2,165,144</b>

**Net deficit**

The average mileage operated throughout the year was 9,396, compared with 8,948 for the previous year, the total mileage in operation at the close of this fiscal year being 9,435.4, an increase of 127.4 over the mileage in operation June 30, 1916.

on Oct. 26, 1917.

Canal traffic from the Drumheller district in Alberta is showing a very satisfactory development, the returns for the last six months of the calendar year showing an increase in tonnage of 138%. The total for the six months of 1917 being 122,552 tons, compared with 135,997 tons for the same period of 1916. The coal from this section is being used in a rapidly widening field with correspondingly increasing revenue for your system.

The territories served by your western lines continue to show most promising progress in the production of live stock, including hogs and sheep. This is reflected by the substantial increases in the number of head of cattle brought over our line to the Winnipeg market. For the last twelve months the returns of the Winnipeg market show that the Canadian Northern brought in to that market a very large proportion of the total cattle of cattle - 42,871 of hogs - 33,417 and of sheep 34,305. In the same period the number of cattle brought into the Winnipeg market by the S. R. increased from 63,000 to 120,335. The working expenses were - 4.7% of the gross earnings of the system proper, and including taxes - 2.08% of the gross earnings from all sources, compared with - 4.35% and 2.58% respectively last year.

November 1918

## Canadian Northern Railway's Annual Report, Meeting, Etc.

Hire, cleaning	68.69	59.16
Iron and soft steel bars	2.26	3.77
Steel and iron sheets	2.46	3.60
Lumber and timber increased 25% and all rubber supplies about 75%. Not only were prices high, but it was in many cases often impossible to obtain the required materials at any price. Since the close of the fiscal year, the above prices have shown further increases. The cost of living also increased. This was borne upon every class of labor employed by the railway as a ground on which to make demands for increased wages. On the top of this there developed a great shortage of unskilled labor, which was particularly felt in the maintenance of way department. Under such conditions it is remarkable that operating expenses only increased by \$5,246,663.86, or 20.10%. But, in order that there may be no misunderstanding about the matter, it is stated that due to the shortage of labor, work considered necessary and desirable could not be undertaken, and must therefore only be considered as deferred, and this situation aggravated to the extent that from the expenditure incurred for labor due to these conditions, less value is obtained for every dollar paid out. The operating ratio, in the face of these abnormal conditions, was maintained at the same percentage as last year. Only by the exercise of the strictest supervision trying one to railway officials generally, due to the many conditions which compelled to increase the working expenses of the railway. Early in the fiscal year the coal miners went on strike for three		

Esquimalt & Nanaimo Ry. Land Rights.  
In 1883 the British Columbia Govern-

MARINE WORLD.

DECEMBER, 1918.

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#### Canadian Northern Railway Con- struction, Betterments, Etc.

**Eastern Lines.**—Reports are current that extensive betterments are to be carried out on the company's eastern lines, and particularly on the line from Toronto via Parry Sound to the junction with the transcontinental line near Sudbury.

**Ottawa-Toronto Line.**—We are officially advised that a contract has been let to W. Leacey, Brockville, Ont., for the construction of 2 concrete abutments to replace wooden cribs under 1 beam span, under Y track at Brockville.

We are officially advised that a contract has been let to the Dominion Construction Co., Toronto, for putting in concrete abutments for a deck plate girder span over a creek and the C.P.R. spur to ballast pit, at mileage 12.9, on the Trenton subdivision near Malvern, Ont. The bridge is at present carried on pile foundations.

**Leaside Terminals.**—It is reported that the terminal yards and buildings at Leaside, Toronto, have been so far completed that it is expected to begin occupying them within a few weeks. Everything, however, is said to depend upon the arrival of rails for laying the tracks.

**Western Branch Line Betterments.**—A press report states that during the construction season, now practically closed, considerable betterment work has been done on many of the western branch lines. The policy of removing wooden bridges has been continued, and on the main line a number of old bridges have been taken out and replaced by permanent steel structures on concrete abutments.

**Moose Jaw, Union Station.**—Grading was started Oct. 25 for the tracks to the new union station at the Crescent, Moose Jaw, Sask. The new station will be jointly used by the U.N.R. and the Grand Trunk Pacific Ry. Representatives of the company, interviewing the city council, Nov. 4 on some matters connected with the work, are reported to have stated that it was hoped to have the rails laid by the end of the year or early in Jan., 1919.

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ballast pit at mileage 12.9 on the Trenton subdivision near Malvern, Ont. The bridge is at present carried on pile foundations.

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**Extension into Kamloops.**—We are officially advised that it is expected to complete, in the near future, a piece of line from 300 ft. from a junction with the line on the north bank of the South Thompson River into the town of Kamloops, B.C., where a station will be built. The bridge across the river has already been built. This piece of line will form part of the projected branch line to Vernon, etc.

**False Creek Terminals.**—At the request of D. B. Hanna, President, the City Engineer of Vancouver has forwarded to Toronto a complete set of his plans for the development of the False Creek terminals, sites and a copy of his report on harbor development. The plans show the proposed disposal of a 21 acre area of the reclaimed False Creek, through which it is proposed to have a 50 ft. channel. Provision is being made for interswitching tracks with all the railways entering the city. (Nov., pg. 485.)

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# The Consolidation of the Canadian Northern and the Canadian Government Railways' Management.

Sir Robert Borden, in speaking at the Toronto Exhibition directors' luncheon on Sept. 9, as reported in Canadian Railway and Marine World for October, said, among other things, "The total railway mileage owned by Canada is very large, comprising nearly 14,000 miles, and reaching from the Atlantic to the Pacific. All the lines included in this mileage should be operated as one system, and under one management. This system should not be administered by a department of the government, but it should be connected as soon as practicable with steamship lines on both the Atlantic and the Pacific, and last, but not least, its operation should be kept absolutely free from party political interference. For these reasons, and for this purpose, the Canadian Northern Ry. System's board will be reconstituted in the immediate future." To carry out the policy indicated by the Prime Minister, in order in council was passed Nov. 20, transferring the operation and management of the Canadian Government lines, including the Intercolonial Ry. and its recently acquired branch lines, the Prince Edward Island Ry., and the National Transcontinental Ry., to the Canadian Northern Ry. directors. The order is as follows:

"Whereas the Minister of Railways and Canals represents that under the provisions of the Department of Railways and Canals Act, Revised Statutes of Canada, chap. 25, the management, charge and direction of all government railways is vested in the minister, and by the Government Railways Act, chap. 36, Revised Statutes of Canada, sec. 49, the Governor in Council is authorized to make such regulations as he deems necessary for inter alia, the management of all or any of the government railways; and whereas the minister further represents that, with a view to attaining a maximum of economy and efficiency in the operation of the Canadian Government Railways and of the Canadian Northern Ry. System, it is desirable that there should be a board of management of the Canadian Government Railways, consisting of the persons who

given in "Transportation Appointments throughout Canada" on another page of this issue.

The C.N.R. management has secured the Old Imperial Hotel property on Adelaide St. East, Toronto, for traffic department and divisional operating offices.

The circulars announcing appointments of officials having jurisdiction over both the C.N.R. and C.G.R. are headed "Canadian Northern Railway—Canadian Government Railways," and the general office letter headings, etc., are printed in the same way. It is said that it is the government's intention to name the whole co-ordinated system Canadian National Railways, and that the necessary legislation will be introduced at the Dominion Parliament's next session.

Inspection of Canadian Government Rys.—D. B. Hanna, President, left Toronto, Nov. 26, for a trip over the C.G.R. in Quebec, the Maritime Provinces and Eastern Ontario, accompanied by most of the other directors, viz.: A. J. Mitchell, Vice-President; Major Graham A. Bell, C.M.G., acting Deputy Minister of Railways and Canals; Robt. Hobson, Hamilton, Ont., and R. T. Riley, Winnipeg. Other directors joined them en route, viz.: A. P. Barnhill, K.C., of St. John, N.B., at Ottawa; Sir Hornsby Laporte, at Montreal, and Thos. Cantley, of New Glasgow, N.S., further down the line. The party also comprised M. H. MacLeod, Vice-President, Operation, Maintenance and Construction; and R. P. Ormsby, Secretary, C.N.R.; S. J. Hungerford, Assistant Vice-President, Operation, Maintenance and Construction; and R. P. Ormsby, General Superintendent Car Service.

C. A. Hayes, heretofore Canadian Manager, Eastern Lines, C.G.R., Moncton, N.B., has been appointed Vice-President in charge of traffic, C.N.R. and C.G.R., at Toronto.

For operating purposes the C.N.R. and C.G.R. lines have been merged and divided into Eastern Lines and Western Lines.

From Toronto they went to Ottawa by C.N.R., thence to Montreal by C.G.R., and from there over the I.R.C., the Quebec Bridge and the N.P.R. to Quebec. The further itinerary planned included, from Lewis via I.R.C. to Moncton, N.B., where two days would be spent, and then on to Que.; the Western Lines comprising all C.N.R. lines east of O'Brien, Ont., and all C.G.R. lines east of O'Brien, Que.; the Eastern Lines comprising all C.N.R. lines west of O'Brien, Que.

St. Martins Sudbury & Albert York & Cartier	... ...	\$0.00
		44.00
		16.80
Prince Edward Island National Transcontinental	1,624.12 237.78	
	2,048.00	
	4,204.00	
Allied Northern System	9,406.44	
	14,616.57	

Additional Directors. In view of the extensive mileage in the Maritime Provinces and Quebec of the lines which have been consolidated, the government has recognized the importance of giving those provinces substantial representation on the directorate, and for this purpose the Canadian Northern Ry. directors have elected the following additional directors, viz.: Thos. Cantley, New Glasgow, N.S.; A. P. Barnhill, K.C., St. John, N.B.; and Sir Hornsby Laporte, Montreal.

Officials, appointments, jurisdiction, etc. As a result of the co-ordination of the various lines and for the purpose of effectually consolidating the management, the jurisdictions of the principal C.N.R. officials have been extended over the C.G.R. also, viz.: D. H. Hanna, President; A. J. Mitchell, Vice-President, Finance and Accounts; R. C. Vaughan, Assistant to President; Z. A. Lash, Senior Counsel; Gerard Ruest, Counsel; M. H. MacLeod, Vice President, Operation, Maintenance and Construction; S. J. Hungerford, Assistant Vice President; E. Langham General Purchasing Agent, and J. P. Driscoll, General Superintendent Car Service.

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Intercolonial Ry. and its recently acquired branch lines, the Prince Edward Island Ry., and the National Transcontinental Ry., to the Canadian Northern Ry. directors. The order is as follows:-

"Whereas the Minister of Railways and Canals, representatives that under the provisions of the Department of Railways and Chap. 35, the Management, charge and direction of all Government railways is vested in the minister and by the Government Railways Act, chap. 36, Revised Statutes of Canada, sec. 45, the Governor in Council is authorized to make such regulations as he deems necessary for inter alia, the management of all or any of the Government railways; and whereas the minister further represents that, with a view to attaining a maximum of economy and efficiency in the operation of the Canadian Government Railways and of the Canadian Northern Ry. System, it is desirable that there should be a board of management of the Canadian Government Railways, consisting of the persons who comprise the board of directors of the Canadian Northern Ry. Co.

"Therefore, the Governor General, by and with the advice and consent of the King's Privy Council for Canada, is pleased to order that the order in council of June 6, 1917, P.C. 1220, whereby C. A. Hayes was appointed General Manager of Eastern Lines, and F. P. Brady was appointed General Manager of Western Lines, Canadian Government Railways shall be, and the same is hereby rescinded, and the Governor General in council is further pleased to order and declare that the persons from time to time comprising the board of directors of the Canadian Northern Ry. Co. shall be, and they are hereby appointed, a board of management of the Canadian Government Railways, and are hereby given the now powers vested in the General Manager under the general regulations of the Canadian Government Railways, adopted by order in council of Jan. 22, 1914, P.C. 184."

The mileage of the co-ordinated lines as at June 30, 1917, was as follows:

Canadian Government Railways.	Miles
Canadian Transcontinental	1,610.40
Prin. & Hawlock International of N.B.	27.00
Montreal & Bustead	11.30
New Brunswick & P.E.I.	34.00
St. John & Quebec	148.30

Jurisdictions of the principal C.N.R. officials have been extended over the C.G.R. also, viz.: H. B. Hanna, President, A. J. Mitchell, Vice President, Finance and Accounts, R. C. Vaughan, Assistant to President; Z. A. Lash, Senior Counsel; Gerard Rue, Counsel; M. H. MacLeod, Vice President, Operation, Maintenance and Construction; S. J. Hungerford, Assistant Vice President, Accompanied the party to Quebec, and F. P. Brady, General Purchasing Agent, and J. J. Driscoll, General Superintendent Car Service.

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For operating purposes the C.N.R. and C.G.R. lines have been merged and divided into Eastern Lines and Western Lines, respectively; the Eastern Lines comprising all C.N.R. lines east of Port Arthur, Ont., and all C.G.R. lines east of O'Brien, Que.; the Western Lines comprising all C.N.R. lines, Port Arthur and west thereof, and C.G.R. lines west of O'Brien, Que. F. P. Brady, heretofore General Manager, Western Lines, C.G.R., Winnipeg, has been appointed General Manager, Eastern Lines, C.N.R. and C.G.R., at Montreal; and W. A. King, formerly General Superintendent, Quebec Lines, C.N.R., has been appointed Assistant General Manager, Eastern Lines, C.N.R. and C.G.R. at Montreal. A. E. Warren, General Manager, Western Lines, C.N.R., Winnipeg has had his jurisdiction extended to include C.G.R. lines west of O'Brien, Que. Louis Lavoie, heretofore Purchasing Agent, Canadian Government Ry., Railways and Canals Department, Ottawa, has been transferred to Toronto as Assistant General Purchasing Agent, C.N.R. and C.G.R.

The accounting and auditing departments for Eastern and Western Lines, C.N.R., located heretofore at Toronto and Winnipeg respectively, are being consolidated in Toronto. C. E. Friend, heretofore General Auditor, C.N.R., Winnipeg has been transferred to Toronto as Comptroller, C.N.R.; and J. D. Morton, heretofore Assistant Comptroller, C.N.R., Toronto, has been appointed General Auditor, C.N.R., there. Several other officials and their staffs will be transferred from Winnipeg to Toronto on Jan. 1, particeps, of which and other appointments are

C.M.G., acting Deputy Minister of Railways and Canals; Robt. Hobson, Hamilton, Ont., and R. T. Riley, Winnipeg. Other directors joined them en route, viz.: A. P. Barnhill, K.C., of St. John, N.B., at Ottawa; Sir Hormidas Laporte, at Montreal, and Thos. Cantley, of New Glasgow, N.S., further down the line. The party also comprised M. H. MacLeod, Vice President, Operation, Maintenance and Construction; and R. P. Ormsby, Secretary, C.N.R., S. J. Hungerford Assistant Vice President, accompanied the party to Quebec, and F. P. Brady, General Manager, Eastern Lines, joined them at Montreal. Division and other local officials joined the party en route travelling through their respective jurisdictions.

From Toronto they went to Ottawa by C.N.R. thence to Montreal by C.G.R. and from there over the I.R.C., the Quebec Bridge and the N.T.R. to Quebec. The further itinerary planned included, from Levis via I.R.C. to Moncton, N.B., where two days would be spent, and then on to Sydney, Prince Edward Island, Halifax and St. John, returning via Quebec and over the National Transcontinent, to Cochrane, Ont., and from there to Toronto, to the intention being to reach Toronto early in the second week of December.

The principal objects of the directors' trip are to consider the question of betterments, new construction, additional rolling stock, etc., as well as a possible reorganization of the C.G.R. staff. It is probable that after Mr. Hanna's return to Toronto a number of changes in the C.G.R. staff at Moncton, etc., will be announced.

St. Malo Ships, Que.—The Mayor of Quebec on Nov. 13 telegraphed the Minister of Railways, asking that the Northern Transcontinental Ry. ships at St. Malo, Que., be put into operation at once, in accordance with the agreement with the city, in order to provide against unemployment caused by the closing of munition plants. The Minister of Railways replied, stating that the operation of the Canadian Government Railways had been placed under the Canadian Northern Ry. directors, and advised the mayor to communicate with the President, D. B. Hanna. This is a good beginning, and it is to be hoped that a similar policy will be adhered to.

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firewall dividing. The interior is divided by terra cotta hollow block walls and the exterior walls are furred with the same material, all surfaces of walls and ceilings being plastered and painted. Lavatories and lockers are provided in each building for a full complement of workmen. Ample storage spaces for steel, wheels, lumber, etc., have been al-

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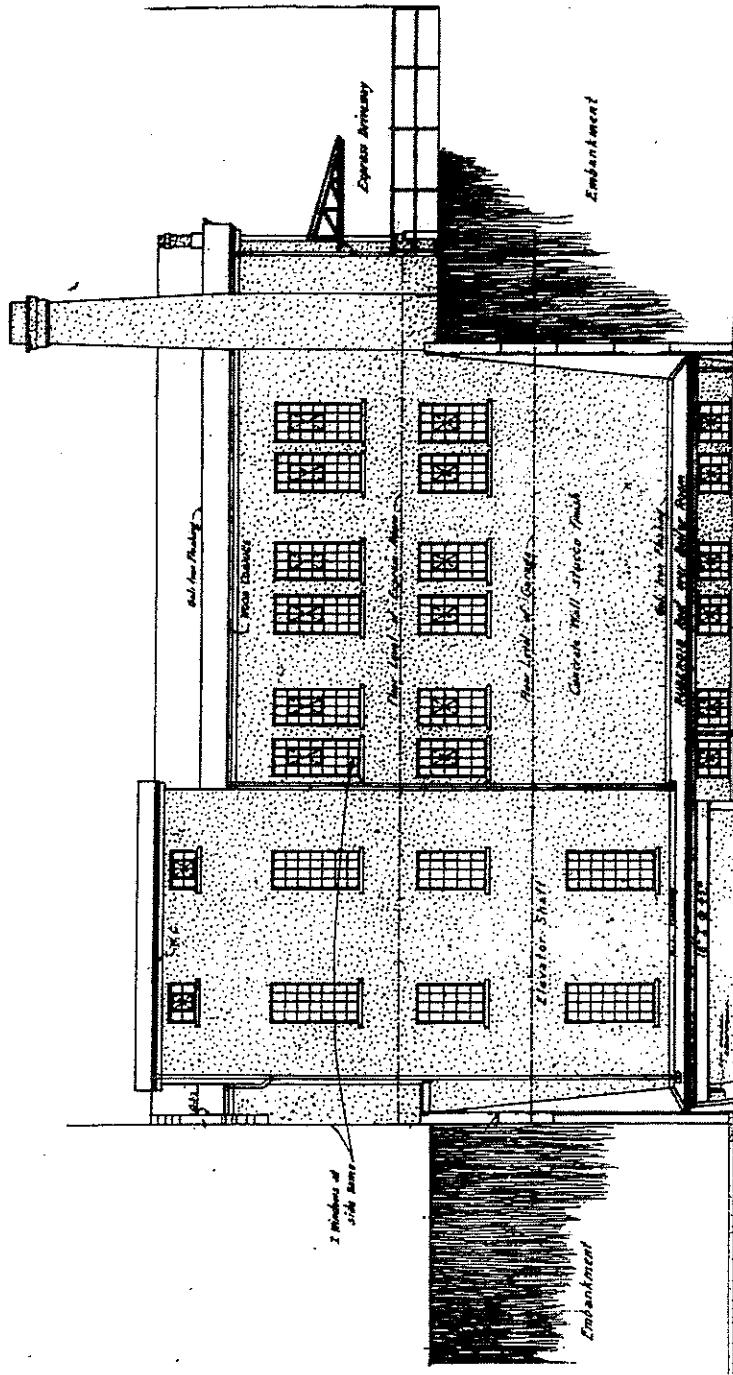
lowed for and the layout generally has been planned with special attention to economical working. The transfer table is 80 ft. long, designed to carry a 96 ton car. It will be operated by electricity. Electrical energy for lighting and operation of machines will be supplied by the Port Huron Electric Power Co. Provision has been made for fire protection by the erection of a 100,000 gal. steel storage tank, 100 ft. above the ground line, with a complete system of piping and fire hydrants situated at convenient points. The buildings have been planned and erected under the direction of the company's Chief Engineer, H. R. Safford, Montreal.

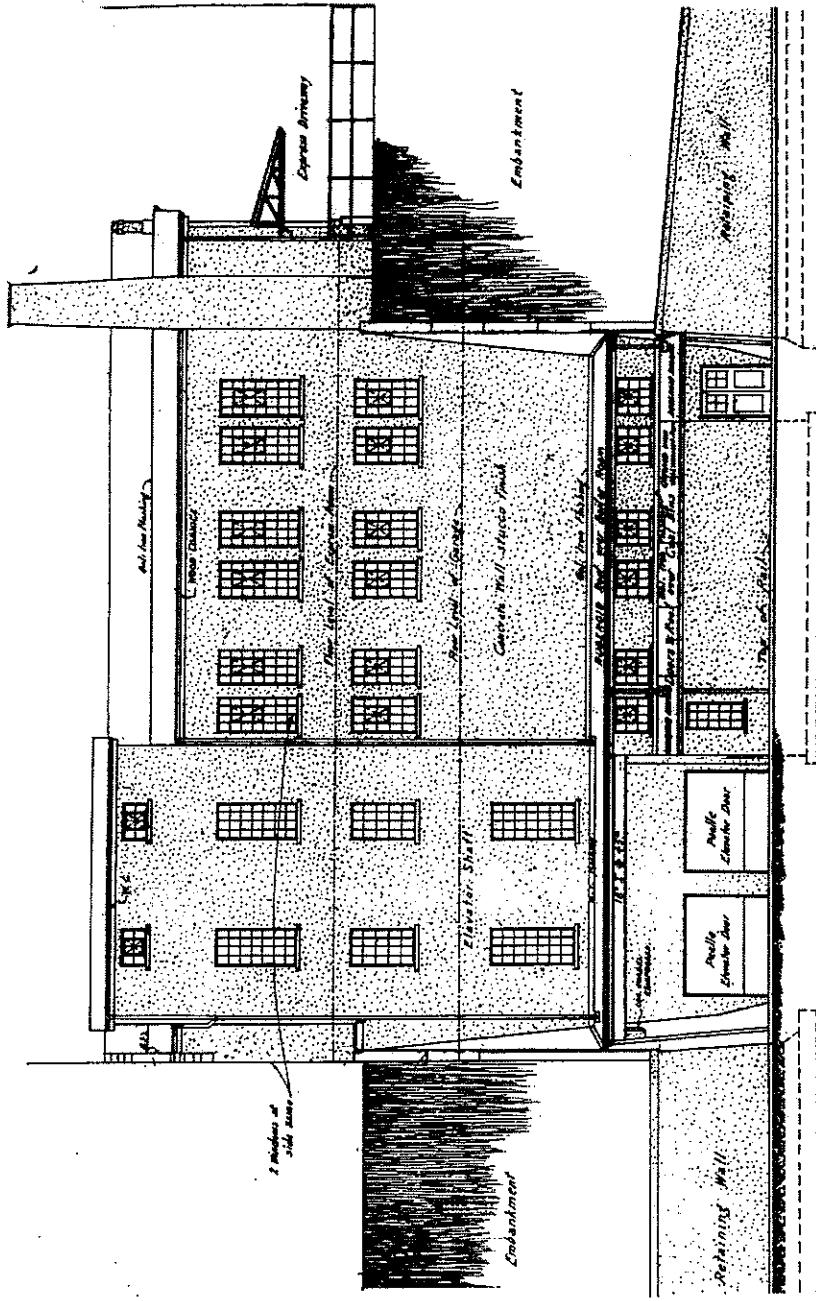
Canadian Northern Railway Terminal Buildings in Montreal.

The temporary station being built by the Canadian Northern Ry. at the corner of Lagauchetiere and St. Monique Street, Montreal, was fully described and illustrated in Canadian Railway and Marine World for July, 1917, and some additional information and plans were published in our November issue. The progress of the work on the temporary station is now

the vacuum principle and the waiting rooms and lavatories will be heated under thermostatic control.

The work remaining to be completed is the plaster work of the walls and ceilings, the cement plaster of train level portion of building, baggage room and lavatories, and the plaster finish of the waiting room, vestibule, etc. Then will building being erected on Mansfield St., also nearing completion, but owing to the retaining walls of the railway cutting no being ready, a portion of the rear of the building has to be left incomplete until the retaining walls are finished. The building proper has approximately 100 ft frontage by 80 ft. depth, with boiler room and freight elevators adjoining in the





Rear Elevation, Canadian Northern Express Co.'s Building, Montreal.

so far forward that a fair idea of the completed work can be had. The whole of the brick, tile, concrete and steel work is finished and the building is ready for the plasterers, the finished wood work, painting, etc. Following is a resume of what has been done and what is required to complete the structure:

After excavating for the foundation and piers, which were carried down to a rock foundation, the reinforced concrete work was proceeded with. The whole of the structural parts, including the walls, floors and roof are formed of that material, making an absolutely fireproof building. The inside of the outer walls and dividing partitions are of fireproof tile, which are ready for the plaster finishing. The roughing for the plumbing and heating is completed, including all pipe mains, and all the conduits for electric wirings, etc. The heating will be on

follow the carpenter trim, and the fixtures, which will be of Georgia pine throughout, finished with a turned oak flat finish. The marble work, plumbing fixtures and radiators will be proceeded with immediately after the plaster work is completed, and the wiring for power and light, and electric fixtures, etc., and finally the finishing by the decorators. Beside the finish of the wood work, the waiting room and vestibule walls will be painted with lead and oil paint, and the ceilings and walls of baggage room, lavatories, and train space will be treated with cement paint in suitable and harmonious colorings. Provision is being made for telephone and telegraph, and a system of time clocks controlled by the Great North Western Telegraph Co.

#### Express Building, Garage and Boiler Room.

The Canadian Northern Express Co.'s

rear. The building is divided into three parts, viz., express room, garage and boiler room. Facing Mansfield St., the building shows as one story and a half and basement, but on the rear appears much higher owing to the deep cutting, which is 46 ft. below the level of Mansfield St. The main floor will be occupied as the express room, with shipping doors on the northwest side and there will be offices for the agent, clerks, records and also laboratory accommodation. Underneath the express room the whole space will be utilized as a garage for delivery trucks and will be approached by a driveway from Mansfield St. Connecting both express room and garage to the railway tracks will be two freight elevators, run by electric power and capable of carrying 4,000 lb. each. Adjoining the entrance to the elevators on the track level will be a car siding.

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The boiler room is on the level of the tracks, where coal trucks can run right alongside the coal bunkers and unload directly into them, and cinders can be loaded from boiler direct to cars. The boiler room will not only supply steam for heating the express building, but also for the terminal station, 300 ft. away, and will supply steam to car points for heating.

ing cars which will be disconnected from the steam locomotive at Cartierville and brought to the terminal by electric locomotives. The building is being constructed of brick, with concrete foundations, reinforced concrete floor in express room and reinforced concrete ceiling of garage with flat timber roof. The exterior will be ce-

ment stucco plaster and have decorative flat pilasters and iron cornices. The shipping driveway will have an overhanging steel and corrugated iron roof. The completion of the work may be looked for early in the new year. It is being carried out under the supervision of Geo. C. Briggs, Supervisor of Buildings, C.M.R.

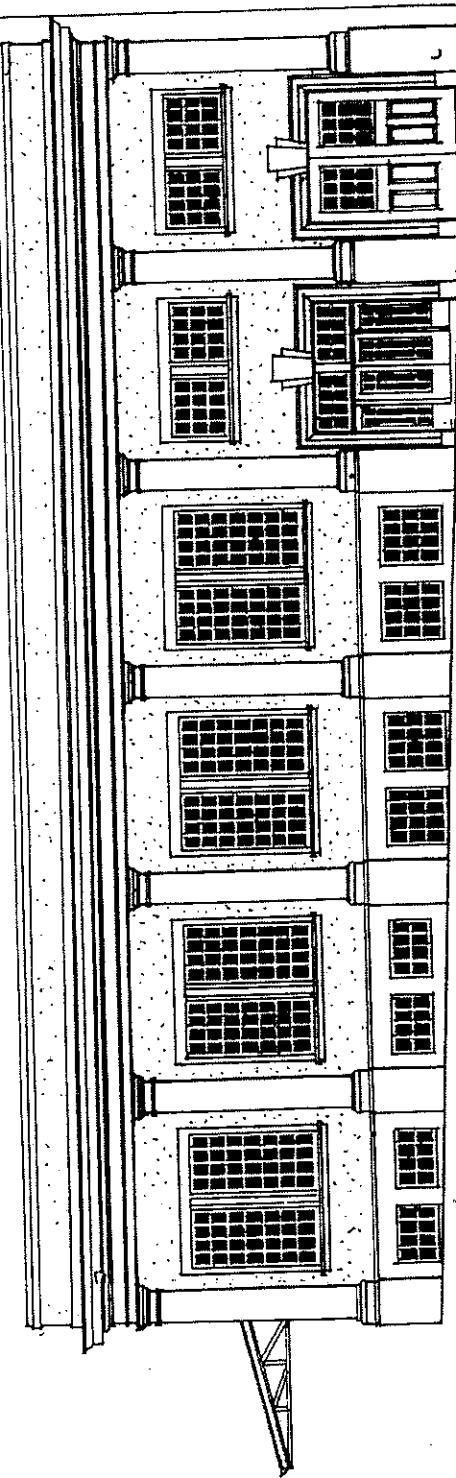
## Railways Authorized to Advance Freight and Passenger Rates.

Sir Henry Drayton, Chief Railway Commissioner, delivered judgment Dec. 26, on the application of Canadian railways for a recommendation to the Governor in council, under the War Measures Act, for a general advance in freight and passenger rates. The judgment, which was concurred in by D'Arcy Scott, Assistant Chief Commissioner, Hon. W. B. Nan-

maximum of 2c per 100 lb.

The existing lumber rate basis in the west has been built up by agreement between the mills and the railways, the important matter being the extent of the rate differences between different groups of producers. A percentage arrangement would create disparities. From British Columbia mills to the different groups

the railway management. They are very largely represented in wage increases, which have had the approval of the public at large. Public bodies and public sympathy have been with the men in the increases which they have obtained. No objection whatever has been made by any contestant on the ground that the railways have improvidently increased



Mansfield St. Elevation, Canadian Northern Express Co.'s Building, Montreal.

tel, Deputy Chief Commissioner, and Commissioners McLean and Goodeve occupies 76 foolscap pages of typewritten matter. It is officially summarized as follows:

Subject to the limitations of the Crowsnest Pass agreement and to the specific limitations contained in the judgment, freight rates are permitted to be increased of from 3 to 5c, according to distance. From Port Arthur west 3 to 5c, according to distance.

From Northern Alberta and Saskatchewan districts 15%, with a maximum of 3 to 4c, according to distance. From British Columbia to Eastern Canada, 10%. From Lake-of-the-Woods and Rainy River, 3 to 4c, according to distance. From Port Arthur west 3 to 5c, according to distance.

The other items of cost increases are chiefly the result of today's prices of coal, steel material and railway supplies. The railways suffer in this regard in common with other users of these necessities. The increased cost can certainly not be said to be the railways' fault. While there was difference of opinion among trade organizations, a considerable number hold that reasonable increases

## Dominion Government Payments on Canadian Northern Railway Account.

Sir Thomas White, Minister of Finance, issued the following statement on Dec. 9:—"Upon my return to my office this morning after a week's absence in the election campaign in Ontario, my attention was drawn to certain grossly inaccurate and misleading statements attributed by the press to Hartley Dewart, K.C., of Toronto, with reference to payments under the act of last session of Parliament, authorizing financial aid by the government to the Canadian Northern Ry. upon the acquisition of its common stock, as by the said legislation provided. With reference to these alleged statements I have the following observations to make:

"The statement that payment of \$6,000,000 has been made to Mackenzie & Mann is wholly without foundation. There is no vote of parliament authorizing such payment, and no order in council has passed or been considered respecting any such payment.

"The advances which have been made under the Canadian Northern legislation of last session of parliament have been upon the certificate of the Financial Controller of the Railways Department under the authority of an order in council passed Nov. 1, 1917. They have been made in the manner in which payments to railways of subsidies, loans or the proceeds of guaranteed securities have been made in the past, and in strict accordance with the statute which authorized them.

"The certificate of the Financial Controller of the Railways Department, dated Nov. 16, 1917, authorized advances in payment of principal and interest indebtedness upon equipment account of \$5,998,752.50, and for interest upon underlying securities of \$7,155,111.29, making a total of \$13,153,863.79. Against this certificate \$12,500,000 was advanced. The Financial Controller's next certificates were dated Nov. 28, 1917, and covered the principal of a loan amounting to \$1,670,453.95 maturing, due in New York, which could not be renewed there, also interest upon underlying securities and principal of equipment securities aggregating \$869,958.

"The above are all the advances which have been made to date under the legislation in question. Demand notes of the Canadian Northern Ry. Co. and its subsidiary companies bearing interest at 6% have been received by this department in respect to these advances, and mortgages upon all their assets have been executed by the Canadian Northern and its subsidiary companies.

of capital stock of the C.N.R. formerly held by private owners, have, as required by the statute, been vested in the Minister of Finance in trust for His Majesty, so that the Dominion Government is, under the legislation of last session, the sole proprietor of the C.N.R. system. It follows that any advances made by the government for interest upon underlying securities or principal or interest upon equipment bonds, or for the purpose of paying maturing obligations of the system, enures to the benefit of the government as proprietor and owner of the system. It was for this purpose and object that the legislation of last session was passed by parliament, and provision made by parliament for assistance in paying the indebtedness of the system.

"The suggestion that any part of the proceeds of the Victory Loan was required or used to make the payments herein mentioned is wholly without foundation."

### Meritorious Services by Canadian Pacific Railway Employees.

The educational bulletins issued by the general superintendents of the company's various districts record the following meritorious services performed by employees recently:—

A conductor on work train discovered broken flange on C. P. 367661 thereby averting a derailment.

A trainman, while examining his train at a station, discovered a piece broken out of a flange of wheel, and had the car set off.

While one of the transfers was passing an interlocking plant, the towerman noticed the brake rigging dragging. He immediately signalled the train crew, who stopped the train.

Trainman C. E. Towle when travelling as a passenger rendered commendable service in assisting to repair a broken drawbar on the mail car during a heavy downpour of rain.

Agent A. E. Hancox of Ste. Agathe, Que., while walking through yard noticed bolts on switch stand broken off. He immediately notified the sectionman who made necessary repairs. The close observation and promptness on the part of the agent prevented a possible accident.

Valuable service was recently rendered by conductor J. J. Maher and trainmen J. W. and M. D. Hogan, who, while run-

tributed by the press to Hartley Dewart, K.C., of Toronto, with reference to payments under the act of last session of Parliament, authorizing financial aid by the government to the Canadian Northern Ry. upon the acquisition of its common stock, as by the said legislation provided. With reference to these alleged statements I have the following observations to make:

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"The five-sixths of the 600,000 shares

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Valuable service was recently rendered by conductor J. J. Maher and trainmen J. W. and M. D. Hogan, who, while running a mixed train, observed a tree which had blown down and lodged on the telegraph wires. Conductor Maher, with his two trainmen, held the train and with an

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vancouver, B.C., is acting Secretary of the company. (Dec. 1917, pg. 470.)

**Canadian Northern Ry.**—The James Bay & Eastern Ry. is a C.N.R. subsidiary and was originally projected to have its easterly terminus at Roberval, Que., one of the Quebec & Lake St. John Ry. Termini on Lake St. John. A contract was let to J. P. Mullarkey three or four years ago to grade 30 miles from Roberval westerly, which grading has been completed for some time. Track was laid to St. Felicien during 1917, and the line was passed for operation by the Board of Railway Commissioners at the end of November. A train service was placed in operation Dec. 3. The length of line authorized for traffic is 16.31 miles, to St. Felicien, on the Chamouchoun River. An order has also been made by the Board of Railway Commissioners for the installation of a Y at St. Felicien. The final objective of the railway is to reach James Bay, part of Hudson Bay, at the mouth of the Nottaway River.

Damage was done to the C.N.R. station at Port Arthur, Ont., Dec. 12, by fire to the extent of \$15,000, and records of considerable value were destroyed in the basement.

Track has been laid on the Elrose-Eston branch for a further distance of 16.28 miles to Glidden, Sask.

In Alberta, the company has completed tracklaying on the Oliver-St. Paul de Metis branch for 44.51 miles.

On the Canadian Northern Pacific Ry. the only new work done during 1917 was on Vancouver Island, where track has been laid for eight-tenths of a mile, from Victoria Harbor to Alpha St. station, Victoria, and 7.85 miles of track have been laid on the Victoria-Alberni line, from the junction to Glen Lake. (Dec., 1917, pg. 470.)

**Cariboo County Ry.**—Under the Board

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## 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 would be glad to be favored in this respect.

The Timiskaming & Northern Ontario Railwaysmen's Patriotic Association, up to Sept. 30, 1917, had contributed \$64,616.96 to the Canadian Patriotic and Red Cross funds.

The Grand Trunk Railwaymen's Patriotic Association, Toronto, has contributed \$5,000 to the Canadian Patriotic and Red Cross Funds, making a contribution to date, of about \$30,000.

**Canadian Officers Honored.** The following were included in the honors announced in England on New Year's Day. Companions of St. Michael and St.

commanding the 2nd Signal Co. at the front.

Lieut. W. W. Cranston, Royal Engineers, who is reported as killed in action, was in the Canadian Northern Ry.'s engineering department, on the Boston Bar subdivision in British Columbia, under Division Engineer J. D. Black, as follows:

From Sept. 24, 1913, until May 17, 1914, as draftsman; from May 18, 1914, until Oct. 20, 1914, as Resident Engineer.

G. W. Curtis, formerly Industrial Agent, C. P. R., Montreal, who joined the Royal Flying Corps, Nov. 15, 1916, is now an acting flight commander in England. His commanding officer is reported to have recommended him for a first lieutenancy, and he expects to be sent to France at any time.

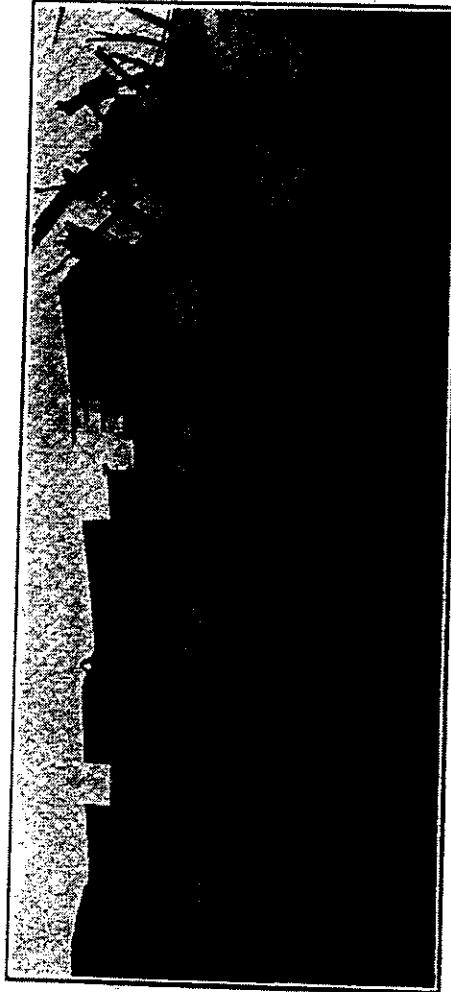
Capt. F. H. Moody, B.A.Sc., Jr. M.C. Soc. C.E., formerly Mechanical Editor, Canadian Railway and Marine World, has been seconded for duty under the Ministry of Munitions (Air Board). He went overseas as a major with the 116th Battalion, C.E.F., but reverted to a captaincy

Hospital at Bromley, Kent. He is a brother of Allan Royce, Vice President, and Lt. Col. Geo. C. Royce, Secretary-Treasurer and General Manager, Toronto Suburban Ry.

Captain Robert Shore, and Lieutenants Duncan, McCaimon and Alfred White, of the Canadian Railway Troops, have been awarded the Military Cross.

**Canadian Railway Troops in the Cambrai Fighting.**

Roland Hill, writing from the war correspondent's headquarters in France recently, said: "Against the furious counter-attacks which the Huns have made in the Cambrai sector, some Canadian railwaymen have played a minor, but very heroic part. In the scramble at Gouzeaucourt, when Germans actually occupied the village for a few hours, there were hand-to-hand combats with picks and shovels against rifles and machine guns, and for a time the Canadian shovel brigade held its own. One of the railwaymen, grading a level crossing of a line on the morning of the attack, casually looked up from his work to find four Germans with rifles bearing down on his party. He gave one yell to his comrades, and, dashing for the Huns armed only with his pick, killed the first man after parrying a bayonet thrust, and was belaboring the others when his friends came up and wiped out the party. Furthermore up the road the Canadians espied the Germans coming on in force, so the railway builders fell back in good order, the Huns hesitating, thinking they had a fighting unit to deal with—which was literally true. Most of the Canadians got safely away, although the shelling was extremely heavy. A few, who took shelter in an old German dugout, fell into the enemy's hands. But for the fine stand of the practically unarmed railway troops and a famous British fighting battalion—who were working with them, but whose rifles were stacked some distance away—the whole group would have fallen into



On the Railway in No Man's Land.  
Crown copyright reserved. Photograph loaned by C.P.R.  
George: Col. G. S. Rennie, C.A.M.C., formerly Chief Surgeon, on going to France and was wounded May

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## Freight and Passenger Traffic Notes.

The Canadian Northern Ry. opened its extension from Roberval to St. Felicien, Que., 17.8 miles, for freight and passenger traffic, on Dec. 8.

The Dominion Government will, it is reported, operate a train service from Pas to Kettle Rapids, Man., on the Hudson Bay Ry., until the end of February for the accommodation of fishermen, miners and others. What will be done after that date has not been announced.

The Canadian Northern Ry., which was ordered, in Sept. 1916, to maintain its existing schedule with trains 9 and 10 between Deseronto and Toronto, pending enquiry, has now been ordered by the Board of Railway Commissioners to continue the schedule.

The City of Hamilton's application to the Board of Railway Commissioners for an order directing the G.T.R. to restore passenger train service on the Northern and Northwestern Branch, between Hamilton, Burlington Beach and Burlington has been refused.

The steamship service between Prince Edward Island and New Brunswick and Nova Scotia was discontinued Dec. 11, and beginning Dec. 12 all traffic was routed by the carferry steamship between Cape Torincutre, N.B., and Port Borden, P.E.I.

By the British Government's order all passenger traffic from Australia to European ports has been discontinued in order to permit all vessel space to be used for war purposes. This will direct travel to the Pacific coast, and will benefit Vancouver and the Canadian transcontinental railways.

The Northern Pacific Ry. announces that it will start operating a direct freight and passenger service into the Great Northern Ry. terminals at False Creek, Vancouver, on Jan. 1. The service will be operated via Sumas, B.C., and will consist of one passenger train each way daily, with such freight trains as are necessary. Heretofore the N. P. R. has handed over its Vancouver traffic to the C.P.R.

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**Transportation Men in Parliament.—**

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## Steam Railway Track Laid in 1917.

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A preliminary table of new track laid in 1917 by the steam railways throughout Canada, made up from official replies to Canadian Railway and Marine World's annual circular is given below. Included in the mileage given are 11 miles of track laid during 1916 on the Alberta & Great Waterway Ry.'s Egg Lake branch, of which we were not advised sufficiently early to include it in our revised table in the Feb., 1917, issue.

The total miles of new track laid is 242.16, compared with 285.94 miles laid during 1916. This mileage was laid on 8 railways, while track was laid on 15 railways during 1916. Of the mileage reported, the Canadian Northern Ry. laid 91.44 miles; the Alberta & Great Waterways Ry. 84.30 miles; and the Grand Trunk Pacific Ry. 24.86 miles. By provinces, track was laid as follows:—Alberta, 128.81 miles; Saskatchewan, 48.14; Quebec, 36.00; Manitoba, 9.80;; British Columbia, 9.41; New Brunswick, 8.50; Ontario, 1.50.

	Miles	Miles
Alberta and Great Waterways Ry.—		
Mileage 202.10 to 275.40 .....	72.30	
*Egg Lake Branch, mileage 1 to 11. ....	11.00	
		84.30

Canadian Northern Railway—

James Bay and Eastern Ry.	
Roberval to St. Felicien .....	18.00
Montreal Tunnel line .....	3.00
Duncan to junction with C.P.R. at	
Donlands, Toronto .....	1.50
Elrose, Eston, to Glidden, Sask. ....	16.28
Oliver towards St. Paul de Metis,	
Alta .....	44.51
Victoria, B.C., Harbor to Alpha St.	
Station .....	0.80
Victoria Jet. to Glen Lake, B.C. ....	7.35
	91.44

Canadian Pacific Railway—

Vantage to Congress, Sask. ....	7.00
Grand Trunk Pacific Railway—	
St. Louis to Prince Albert, Sask... ....	24.86
Greater Winnipeg Water District Ry.—	
Deacon to St. Boniface, Man. ....	8.30
From point on this line to Transcona .....	1.50
	9.80

Quebec and Saguenay Railway—

Cap. Tourmente to Mileage 15 ....	15.00
St. John and Quebec Railway—	
Gagetown to Queenstown, N.B. ....	8.50
Vancouver, Victoria and Eastern Ry.—	
Extension to passenger station at	
False Creek, Vancouver .....	1.26

Total .....	242.16
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