THE NEWFOUNDLAND RAILWAY DIARY III

C. H. RIFF

pt nomination from any political y, Federal or provincial. This is the cy laid down by the directors in this ter, and our officers will be advised ordingly."

Employes' Representative Heard From.

[. E. Barker, Winnipeg, telegraphed Deputy Minister of Labor Feb. 12 as ows:—"Your wire date re C.N.R. dis- e. Owing to fact that employes rep- entatives scattered over such a wide ritory, considerable delay experienced ascertaining their attitude on findings board of conciliation, but, as the unani- us finding on questions 1, 2 and 3 commends reinstatement of the three n involved, without loss of seniority, d with pay for time lost by reason of eir dismissal, and as the majority re- rt recommends the acceptance of pro- sal made to board by the employes mmittee in connection with question 4. will take responsibility for stating that e unanimous findings on questions 1. and 3 and the majority finding on ques- on 4 are acceptable to the employes. his has the approval of such represen- tives as I have been able to get in touch with. We will be glad to receive advice as soon as possible concerning at- titude of C.N.R. management, so that arrangements can be made if necessary to get employes committee together for purpose of taking further definite ac- tion."

Sizes of Signaling Flags.—The Rail- way Association of Canada has issued the following circular:—Replies to the Association's letter of Dec. 18, 1920, be- ing favorable to the adoption of bunt- ing signalling flags 18 x 18 in. in size, it is recommended to member railways that flags of these dimensions be adopted as standard for use as combined white and green flags for flag stations, classi- fication, marker, caution, and hand-stop signals. Flags for car inspectors are required to be 22 x 28 in. in size, under Board of Railway Commissioners' gen- eral order 258. The advisability of seek- ing amendment of this order to permit use of flags 10 x 14 in., is under consid- eration.

Coal vs. Oil for Locomotives.—At the International Railway Fuel Association's last annual meeting at Chicago, figures were presented relating to comparisons made on the Santa Fé System where one [illegible]s have been con- to burn oil. It

Pacific Type Locomotives for Reid Newfoundland Co.

The Reid Newfoundland Co.'s main line extends from St. John's to Port aux Basques, 546 miles, and the various branches bring the company's total mile- age up to 903. The gauge is 3½ ft. and most of the track is laid with 50 lb. rails. The character of much of the country is extremely hilly and the motive power used in passenger and freight service is designed to operate on grades of 2% and curves of 14 degrees. Much of the passenger traffic is handled by Baldwin engines of the 10-wheel (4-6-0) type, the most recent of which were built in 1917. The company has had built recently by the Baldwin Locomotive Works 6 Pacific (4-6-2) type locomotives, which are de- signed to meet the requirements of heavier traffic. Following is a brief com- parison between the 10-wheels and the Pacifics:—

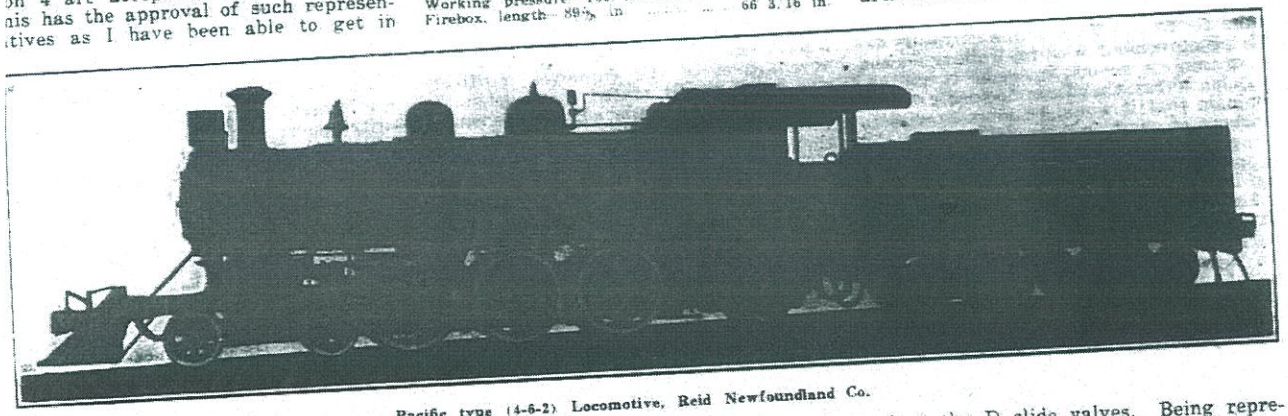
Ten-wheel type	Pacific type
Cylinders—17 x 22 in.	17 x 24 in.
Valves—balanced slide	Piston, 8 in. diam.
Boiler type—straight top	Straight top Belpaire
Diameter—56 in.	56 in.
Working pressure—160 lbs.	170 lbs.
Firebox, length—89⅝ in.	66 3/16 in.
Firebox, width—29 in.	60⅛ in.
Tubes, diameter—2 in.	5⅜ and 2 in.
Tubes, number—184	5⅜ in., 18; 2 in., 111
Tubes, length—12 ft.	16 ft.
Heating surface, firebox—106 sq. ft.	93 sq. ft.
Heating surface, tubes—1,148 sq. ft.	1,358 sq. ft.
Heating surface, firebrick tubes	12 sq. ft.
Heating surface, total—1,254 sq. ft.	1,463 sq. ft.
Heating surface, superheater	343 sq. ft.
Grate area—18 sq. ft.	27.6 sq. ft.
Driving wheels, diam.—50 in.	52 in.
Driving journals, main—7 x 8 in.	7½ x 8 in.
Driving journals, others—7 x 8 in.	7 x 8 in.
Engine truck front, diameter—26 in.	30 in.
Engine truck, back, diameter	30 in.
Wheel base, driving—11 ft. 0 in.	10 ft. 0 in.
Wheel base, total, engine—20 ft. 5 in.	27 ft. 3 in.
Wheel base, total, engine and tender—47 ft. 9 in.	50 ft. 8 in.
Weight, on driving wheels—72,700 lb.	78,000 lb.
Weight, total, engine—92,100 lb.	115,000 lb.
Weight, total, engine and tender—148,000 lb.	199,000 lb.
Tender, tank capacity—2,800 U.S. gall.	3,600 U.S. gall.
Tender, fuel capacity—5 tons	9 tons
Tractive force—17,300 lb.	19,250 lb.

The Pacific type locomotive boilers are of the straight top type, with Belpaire fireboxes, and are equipped with super- heaters. The boilers are designed to carry a pressure of 200 lb., although the working pressure used in service is 170 lb. The machinery is designed for a boiler pressure of 190 lb., should it be found desirable subsequently to raise the pressure. Brick arches are installed and are supported on tubes. The front of the firebox crown is supported on two rows of expansion stays and the tubes [illegible] into the back tube sheet. The cylinders are fitted with cast iron bush- ings.

The frame have single front rails, with extra heavy bumpers designed to resist snow bucking. The equipment in- cludes M.C.B. couplers, Westinghouse air brakes, electric headlights, air sanders and steam heat.

The extreme height of the locomotives is 12½ ft. and the width 9¼ ft. The tenders are of the 8-wheel type, having a capacity of 3,600 U.S. gall. of water and 9 tons of coal. The frames are made of steel channels, with steel plate bump- ers. The trucks are of the arch-bar type, with cast steel bumpers and chilled cast iron wheels.

The Pacific type locomotives embody many features which make for economy and efficiency in operation, and which were lacking in the 10-wheelers. High pressure replaces low pressure, the wide firebox replaces the narrow, superheated steam replaces saturated steam, the brick arch is introduced, and piston valves re- place the D slide valves. Being repre- sentative of the refinements which are recognized as indispensable in modern design, and which make for a degree of economy in operation otherwise unob- tainable, it is considered desirable to specially point out these features as demonstrating what the Reid Newfound- land Co. is doing in the way of having its power up to date.



Pacific type (4-6-2) Locomotive, Reid Newfoundland Co.

C.P.R. Toronto Freight Offices. — A press report stated recently that the C. P.R. had practically closed its Parkdale freight station and offices, and placed the same under the direction of Super- intendent W. Coulter, with headquarters at the C.P.R. freight offices at King and Simcoe Streets. We are officially advis- ed that the freight facilities at Park- dale have not been closed, and that, as far as the public is concerned, the busi- ness will be carried on there just the same as heretofore. A re-arrangement of the freight office work has been ef- fected temporarily whereby some of the clerical positions have been abolished, and the work is being taken care of at the main office at King and Simcoe Streets. A similar arrangement has been put into effect at the West Toronto freight station.

Freight Rates Investigation. — The Board of Railway Commissioners will, it is said, commence at Vancouver, about [illegible]

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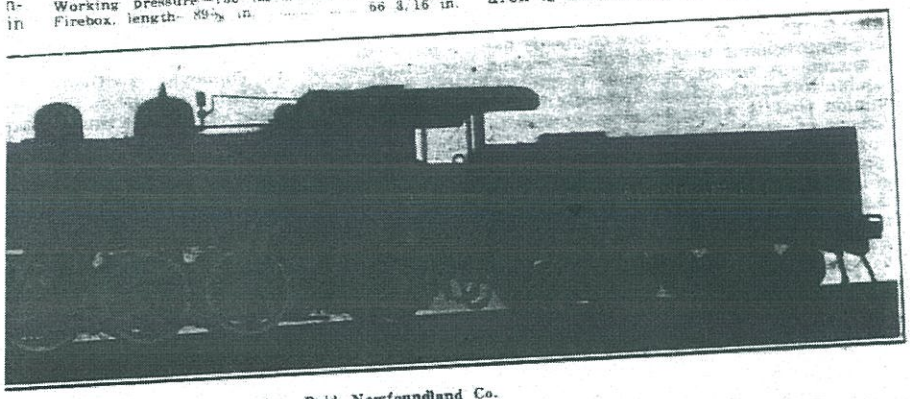

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Freight Rates Investigation. — The Board of Railway Commissioners will, it is said, commence at Vancouver, about April 1, the hearing of the case relating to the differentials in freight rates, as between the east and the west.

555.)

Quebec Central Ry.—We are officially advised that the company is building a line from Scotts, Beauce County, to Diamond Jct., near St. Jean Chrysostowe, Levis County, Que., 19.33 miles. The contractors are J. T. and J. F. Davis, Quebec. (June, 1920, pg. 297.)

Reid Newfoundland Co.—A press report states thta work on the improvements of the terminals for the railway and steamships at Port Aux Basques, Nfld., is practically completed, and that work will be started on repairs to the wharf at North Sydney, N.B., in January.

The Argentia terminal project is reported to be progressing towards completion, but it is not expected to have it ready for use during this winter. Track has been laid from Argentia Jct. to Argentia, 3½ miles.

The Reid Newfoundland Co.'s railway and steamships are now being operated by the Newfoundland Railway Commission. (Dec., 1920, pg. 645.)

Timiskaming & Northern Ontario Ry.

December 1920

Reid Newfoundland Co.'s Annual Meeting, Re-incorporation, Etc.

The Reid Newfoundland Co.'s annual meeting was held at St. John's, Oct. 28, at 3 p.m., President H. D. Reid in the chair. The directors' report contrasted the industrial depression prevailing almost all over the world with the unusual activity in the pulp and paper industry in Newfoundland, which gives hopes of a very large development of the water powers and timber areas of that Dominion. The company's railway and steamship operations showed an increased deficit, owing to the rising costs of coal and labor, but the Newfoundland Government has undertaken to improve the standard of the railway. Shortage of coal supplies retarded operation during the winter of 1919-1920, which was the most severe for 50 years. Extensive ballasting has been continued and the roadbed is in excellent condition. Locomotive power is in first class shape. The earnings from the electric and dock departments maintained steady progress, but extensions and improvements to these are necessary and will be undertaken during 1921. Group insurance on all employes has been effected and is expected to encourage co-operation and efficiency. The retiring directors were re-elected. At a special meeting later on the same day, held under the provisions of the Companies Act, it was decided to register the company under that act so as to get the benefit of the code of procedure which the act provides and which is not available to chartered companies.

On Nov. 4 Reid Newfoundland Co. Ltd. was incorporated under the Newfoundland Companies Act, with authorized capital of $15,000,000 in 150,000 shares. The objects of the newly incorporated company, as set forth in the memorandum of association, are, briefly, to operate and further develop the present railway system and its branch lines, to operate the present street railway, electrical plants, dry dock, etc., to operate the steamship services now under the company's control, to build, purchase or otherwise acquire ships for the purpose of maintaining or developing these services, to develop the natural resources of the country or that section thereof for which it has grants, such as mining, timber, etc., and in the operation of the railway and steamship services, the company is to have priority over all other railways operated in Newfoundland, whether run by steam, electricity or otherwise.

A protest against the incorporation was filed by Sir William D. Reid and by C. H. Cohen, attorney for Miss Harriet Reid.

The directors of the newly incorporated company are H. D. Reid, President; R. G. Reid, Vice President; C. O'N. Conroy, Treasurer; J. P. Powell, H. B. Thomson and J. M. Forbes.

December 1920

wards its construction. (Oct., pg. 550.)

Newfoundland Ry.—The St. John's City Council has been asked by the Newfoundland Railway Commission to reconsider its decision regarding the proposed temporary erection east of the St. John's railway station. The letter was referred to the city solicitor for consideration. The matter came before the Municipal Commission Nov. 11, when the application was refused on the grounds that the proposed building is not in accordance with the law, and that the site on which it was proposed to erect it is reserved for city purposes. (Nov., pg. 607.)

December 1920

as it had not been [illegible]

rate was contrary to the discrimination sections of the Railway Act.

A Newfoundland press report states that the cross-country train service on the Reid Newfoundland Ry. will be discontinued during the winter, and that trains will only run from St. John's to Millertown Jct., 310 miles. During the winter of 1919-20 the railway through cars-

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the old South Shore Ry. was authorized to construct.

Reid Newfoundland Ry.—Of the branch line construction authorized by the act of 1912, there are still uncompleted:—Baie de Verde Branch from Carbonear to Grates Cove, 45 miles; Fortune Bay Branch, from Goobies to Terranceville, 60 miles, and Bonne Bay Branch, from Deer Lake to Bonne Bay, 45 miles. Track has been laid on the first of these three branches, and a temporary train service is being operated, but the snow fences, sidings and station platforms are not completed. On the Fortune Bay Branch track has been laid for 43 miles, but no construction was done during 1915. Some grading has been done on the Bonne Bay Branch, but nothing was done during 1915. (Sept., 1915, pg. 341.)

St. John and Quebec Ry.—Tenders for the construction and equipment (without rolling

November 1917

lb. steel rails have been laid from the car ferry terminal at Cape Tormentine, along this line to within five miles of Sackville, N.B., the point at which the line connects with the Intercolonial Ry. The report adds that all the rails available have been utilized and that it will be possible to replace the present light rails now remaining this season. (See Intercolonial Ry. Betterments, etc., June, 1916, pg. 231.)

Pacific Great Eastern Ry.—The British Columbia Minister of Finance informed the Legislature recently that $1,085,290.35 had been paid by the government on account of its guarantee of the company's bonds, viz., on account of interest, Jan. 15, $422,443.08; July 15, 423,175.01; and on account of construction, Jan. 12, $67,116.57; Jan. 22, $74,145.34; Feb. 9, $64,558.14, and Mar. 7, $33,852.21. (Sept., pg. 351.)

[illegible]

in some revenue. No payments on capital cost would be made to the owners of the lines until the Exchequer Court had given final judgment. At the time of the vote in 1916, it was reported that about 80% of the grading had been completed on the Quebec and Saguenay Ry. The grading was completed practically through to Murray Bay about three months ago, but there were a few bridges to be completed. If it was possible to get rails the line would be completed this year. (June, pg. 225.)

St. John & Quebec Ry.—The Dominion Parliament has extended to Dec. 31, 1918, the time within which this company, which is owned by the New Brunswick Government, may complete the railway from Gagetown to the C.P.R., near Westfield, N.B. The subsidy agreement and the agreement for the operation of the line as a part of the Intercolonial Ry. are also similarly extended. The last men-

some service to be given during the winter.

The conference of C.P.R. Western Lines passenger officials, on winter train arrangements was held at Winnipeg, Sept. 5 to 8. Representatives of the Canadian Northern and the Grand Trunk Pacific Railways attended the meeting on the first day, to discuss matters of joint interest to the three railways.

F. W. Peters, General Superintendent, C.P.R., Vancouver, is reported to have said in an interview Sept. 15, that it was absurd to suppose that the company was opposed to the carrying of grain to Vancouver for shipment. The question of handling wheat through Vancouver was purely a matter of securing tonnage, and a reasonable ocean tariff.

Canadian Northern Railway Earn-

way is completed. (Aug., pg. 419.)

Reid Newfoundland Ry. — The Newfoundland Legislature has passed an act respecting the construction of the branch line from near Dunville on the St. John's-Placentia line, to Argentia. The act declares that the construction of the line and the payment for it out of the public funds, and everything done in connection with the taking of the right of way and payment for the same are ratified and confirmed. This piece of line, which is not yet completed, is intended to provide a more convenient winter port for trade with Canada, than Port aux Basques, to which point traffic is held up nearly every winter by snow blockades in the Topsails district.

Minto to Chipman.—The New Bruns-

October 1917

pg. 1,139.)

Newfoundland Ry. and Train Ferry Syndicate.—The Newfoundland Legislature last session passed an act providing that in computing the time for the commencement and completion of the works authorized by sec. 4 of the act of 1914, and the lines limited by sections 12, 16, 17 and 19 of the same act, with regard to importation of supplies, plant, exclusive franchise and determination of rights respectively, the period between Aug. 4, 1914, and the date of the

January 1915

issue of a proclamation that a state of war no longer exists between Great Britain and the countries with which hostilities are at present pending, shall not be counted or taken into consideration.

The original act provided that the syndicate, whose representative is H. C. Thompson, should have power to construct a railway across the isthmus of Avalton from Rantem or some other suitable point on Trimby Bay to Little Southern Harbor on Placentia Bay, and to operate a train ferry therefrom to Louisburg, N.S.; to construct a railway from Humbermouth, Bay of Islands, to South West Arm, Green Bay, with a branch to White Bay, and to operate a train ferry to Gaspe, Que. The act set out that this latter railway had been approximately located, and provided for the granting of a right of way 200 ft. wide for the same from unoccupied crown lands, a block of land five square miles in extent, with a sea frontage of one mile, if available, at each of the proposed terminal points, such lands not to be granted until the completion of the railway line or lines. The first line to be commenced within three years (sec. 4), and to be completed within four years from the date of the passing of the act; the second line to be commenced within five years from the completion of the first, and to be completed within three years from the date of its commencement. All construction plant and equipment necessary for the construction and establishment of the railways, train ferries, and train ferry slips is to be admitted free of duty, except in so far as they are to replace original stock. For 20 years (sec. 12) from the date of passing of the act the syndicate can import, free of duty, the plant necessary for the original construction of cold storage and other purposes in order to develop traffic for its line. The syndicate, by sec. 16, is to furnish plans for its projected lines within two years, and by sec. 17, the Government agrees not to grant franchises to any other company or companies for lines within these areas. The syndicate may assign its rights to any company necessary for the carrying out of the plans.

The effect of the act passed last session is to substitute for the date of the passing of the act of 1914, the date of the proclamation of the ending of the present war, as the initial date for the commencement of the franchise. (May, 1914, pg. 214.)

The Newfoundland Railway's Future.

The temporary arrangement for the operation of the Newfoundland Ry., and the allied steamships, made between the Newfoundland Government and the Reid Newfoundland Co., details of which were given in Canadian Railway and Marine World for July, pg. 348, will expire Nov. 15. Under this arrangement, R. C. Morgan was appointed General Manager, and the Government undertook the financing of the railway and steamships. It was stated that a new arrangement was to be discussed and that any agreement reached would be laid before the legislature, which is expected to meet about Nov. 1, so as to ratify the agreement before Nov. 15.

St. John's press reports state that during the recent visit of the Premier and some of the Reid Newfoundland Co's directors to London, Eng., the whole situation was discussed and an agreement arrived at. The arrangement, it is said provides for the taking over by the Government of the steam railway, the St. John's Electric Ry., the drydock at St. John's, and the steamships, and the closing out of all Reid Newfoundland Co's interests connected therewith. It is also said that the Government will abandon all its claims against the company, and pay it $2,000,000, and that the company, will abandon all claims against the Government.

1922

G.T.R. Strikers of 1910 Get Rights

Newfoundland Railway Affairs Settled to Nov. 15.

Owing to the fact that the Reid Newfoundland Co. had not funds to meet their April payroll, the Newfoundland Ry., with the associated steamship lines, ceased operating May 16. The company stated that the shortage of funds was due to the Government not having paid over an amount provided by the Legislature to reimburse it for the deficiency of the year's revenue to June 30, while the Government asserted that the company owed it $517,000, against which the company put forward a counterclaim. Owing to the disruption of business caused by the stoppage of traffic, an arrangement was made for its resumption, and trains and steamships were again put in operation May 23, the arrangement made being up to June 18, and subsequently continued. Negotiations followed as to the future, the company having offered to sell the whole of its interests in the railway and steamships to the Government for $2,500,000, a number of claims on either side to be abandoned. As a result of the negotiations, the Premier submitted to the House of Assembly, June 17, an agreement proposed to be executed between the Government and the Reid Newfoundland Co., respecting the operation of the railway, express, and steamship services.

The agreement, dated June 15, consists of 16 sections, the first three of which deal with the extraordinary situation created by the ceasing of operations in May, and the remainder with the operations of the three services from July 1 to Nov. 15, inclusive. These sections provide that the Government shall supply the funds necessary to meet the company's employes payrolls for May and June, and in addtion $70,000 to assist the company to meet present liabilities other than the Bank of Montreal, on account of railway, steamship and express business. The company assigns to the Government as security for any excess of the amounts paid by it over the $1,500,000 provided by the agreement of 1921, for losses in operation for the year ended June 15, all its book debts, etc., receivable on account of railway, express and steamship operations, and bank balances up to June 30. The sections also provide for the manner of paying the money over to the company, and for the keeping of special accounts with respect to the security. New accounts are to be opened in the company's books and at the Bank of Montreal, on July 1, to cover the operation of the railways, express and steamship service from that date to Nov. 15. The Government is to provide all funds necessary to operate the three services; is to keep in force all insurances at present maintained by the company, but shall not be responsible for losses not covered by insurance, except such loss or damage as is properly chargeable to ordinary maintenance. Any profits in the operation of the services during the period are to be applied towards meeting the losses in operation incurred between July 1, 1921, and June 14, 1922, both inclusive. Inventories of coal and other supplies, etc., are to be made at June 30, to be credited to the accounts under the 1921 agreement, and debited to accounts of the new period. The Government shall be entitled to all money received for the operation of the services during the currency of the agreement, and shall pay all debts contracted during the agreement and not discharged at Nov. 15.

Up to Nov. 15 the three services shall be operated under the management of R. C. Morgan, who shall have the title and powers of General Manager, and R. G. Reid, the company's Vice President, but no change in operating policy shall be made without the consent of both. No change is to be made by the Reid Newfoundland Co., by way of rent or otherwise in respect of property used by the three services, or for depreciation. No salary is to be paid to R. G. Reid, or any other director of the company, in respect of services rendered in connection with the railway, express or steamship services. The agreement is made without prejudice to the rights of either party, or to any other disputes or claims out of any other dealings between the parties, their respective positions in relation thereto to be the same as if the present agreement had not been made.

The House, in committee, passed a vote of $250,000 out of the last loan raised to finance railway operations from July 1 to Nov. 15.

On the House reassembling June 20, the Premier stated that the final draft had been drawn up and assented to, and the signatures would be affixed in due course. He then moved the adjournment until Oct. 31, to which an amendment was moved that the House do not adjourn until the agreement had been signed. Subsequently the Premier stated that the agreement would be signed within half an hour thereafter, and the amendment was withdrawn. The Legislature then adjourned to Oct. 31, when it is expected that an announcement will be made respecting the railway's future, and the plans decided on between now and then will be submitted for discussion.

Train Dispatching by Radiotelegraph.—A recent Winnipeg press dispatch said:—"Canadian National Rys. officials are considering the idea of dispatching trains by radio. This plan, if adopted, will be in operation more at night than by day. Those considering the plan point out that it will obviate the necessity of keeping night operators at many obscure stations, thereby reducing costs. They claim that with trains equipped with radio, running orders could be sent direct to the train crews, this they also claim would have a tendency to prevent head-on collisions, between stations." We are officially advised that there was absolutely no truth in the report, that the information was not given to the press by any responsible officer, and that the matter has not been considered at all.

The Terminal Warehousing Co. has been incorporated under the Dominion Companies Act with authorized capital of $1,000,000 and office at Montreal, to carry on the business of warehousing and cold and dry storage; to construct, hire or purchase any conveyance for cold storage by land or water; to act as customs brokers or agents, to carry on the business of general cartage, transfer and transport agents, expressmen, and other business incidental thereto.

Point Edward Grain Elevator.—We are officially advised that the G.T.R. is not contemplating the erection of a grain elevator at Point Edward, Ont., as stated in recent press reports. Certain private interests have been considering such a project, but no definite decision has been announced.

United States Railways' Financial Results.

In April, the U.S. Class 1 roads' total operating revenues were $416,868,620, and total operating expenses, $336,178,422, leaving a net railway operating revenue of $80,690,198. Deducting from this $24,604,143 for railway tax accruals, and $112,910 for uncollectible revenue, the railway operating income was $55,973,145. Deducting from this equipment rents debit balance of $4,344,331, and joint facility rents debit balance of $1,356,949, the net railway operating income for the month was $50,271,865. The operating ratio for the month was 80.64. For the first four months of 1922, the net railway operating income was $211,293,393, compared with $57,408,932 for the first four months of 1921, and the operating ratio for the first four months of 1922 was 80.50, compared with 90.56 for the first four months of 1921. A large improvement in the first four months of 1922 over the corresponding period of 1921 is therefore evident. The net operating income for April of $50,271,865 represents an annual return of 3.93% on the railways' tentative valuation.

Car loading in the U.S. during the past few weeks has been showing large increases over that for corresponding weeks in 1921, and it is stated that if it were not for the miners' strike, resulting in largely restricted movements of bituminous and anthracite coal, the increases in car loading would have been even more pronounced.

Transportation Contributions to Montreal Hospital Fund.—Among those associated with transportation interests who have contributed to the fund being raised in Montreal for its hospitals, are the following: R. B. Angus, director, C.P.R., and the C.P.R. Co., each $50,000; Jas. Carruthers, $25,000; Sir Herbert Holt and C. R. Hosmer, director, C.P.R., each, $15,000; Senator L. C. Webster, President, Webster Steamship Co., $10,000; E. W. Beatty, K.C., President, C.P.R., $5,000; Farquhar Robertson, a former Montreal Harbor commissioner, $3,000; Dominion Transport Co., $2,000; Lt. Col. G. S. Cantlie, formerly General Superintendent of Car Service, C.P.R., and Lt. Col. G. R. Starke, President, Dominion Transport Co., each, $1,000; A. D. MacTier, Vice President, Eastern Lines, C.P.R., and Mrs. MacTier, jointly, $1,000; White Star-Dominion Line, and W. G. Ross, ex President, Montreal Harbor commissioners, each, $200; and Fraser, Brace & Co., shipbuilders, $100.

Taxation of Grain Elevators.—The Alberta Corporations Taxation Act has been amended by providing that every company which stores or distributes grain shall pay $50 for each elevator used by it in its business. An elevator is described as an elevator or warehouse, or flat warehouse which receives grain for storage before the grain has been inspected under the Canada Grain Act, and which is situated on a railway right of way, siding or spur track connected therewith, or on station grounds, or on any lands acquired or reserved by any railway company to be used in connection with the railway at any station or siding.

Rails for Pere Marquette Ry.—The Algoma Steel Corporation, Sault Ste. Marie, Ont., is completing an old contract for 2,500 tons 85-lb., C.P.R. section, steel rails for the P.M.R.

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the river it is said has a total length of 640 ft., and the weight of the steel in the whole structure is estimated at 7,500 tons. (See Michigan Central Rd., May, pg. 237).

Newfoundland Ry.—A press report states that the new management has decided to take up the rails on the Fortune Bay branch and that the work will be put in hand at once. This branch line was one of those projected in 1910, and was to extend from Northern Bight to Fortune, 79 miles. About 30 miles of track has been laid, and R. C. Morgan, now General Manager, in his recent report to the Government, recommended that the rails be taken up, and used to replace worn track on the main line. The work was never completed on the mileage of track laid on the branch, and the rails and ties have been lying exposed to the weather since they were put in position in 1913-14.

Pacific Great Eastern Ry.—The Premier of British Columbia returned to Vancouver recently from Winnipeg, where he had a conference with J. G. Sullivan, consulting engineer, who recently made a trip of investigation over the P.G.E.R., with a view of advising the Government as to its present condition and future construction policy. In an interview, while admitting that Mr. Sullivan regarded the situation as serious, the Premier stated that until Mr. Sullivan's report was received by the Government, nothing could be said. He, however, stated that the press report that the Squamish-Clinton section of the railway was to be abandoned and a connection made with the Canadian National Ry., south of Clinton, was not in keeping with Mr. Sullivan's views.

Lt.-Col. J. S. Dennis, Chief Commissioner, Colonization and Development, C. P.R., was engaged recently by the B.C. Government to report on the resources of the country served by the railway, and its prospects. He started from Vancouver, and after spending nearly two weeks in the country, left the line at Clinton, proceeding to Ashcroft, where he took a C.P.R. train for Calgary. He will report in writing to the Government. (June, pg. 287.)

Pennfold to Blacks Harbor, N.B.—A press report states that A. E. Hanson, Fredericton, N.B., is making a survey for a line from Pennfold, on the C.P.R. Shore Line Division, to Blacks Harbor, Charlotte County, N.B.

Quebec & Chibougamou Ry.—H. L. R. Blake, mining engineer, is reported to

from Scotts Jct., and the Canadian National Rys., which was built in Oct., 1921, to enable the Q.C.R. to run its trains into Quebec. (Nov., 1921, pg. 583.)

Timiskaming & Northern Ontario Ry.—A recent press report stated that rails and other material were being delivered at Cochrane, Ont., for the extension to opposite New Post on the Abitibi River, and that it was expected to start track laying during July. (June, pg. 287.)

Vancouver Harbour Ry.—A press report states that work is expected to be started shortly on the section of the projected harbor terminal railway between the Great Northern Ry. interchange track near the Ballantyne pier, and the Government dock at Vancouver. Plans for the work have been sent to Ottawa for approval, and it is expected that when they are received the work will be put in hand. It will be a single track line.

Railway Earnings.

Canadian National Railways.

Following are total operating revenues, total operating expenses, and net operating revenues or deficits, for the Canadian Northern Ry. System, Grand Trunk Pacific Ry., and Canadian Government Rys., the last including the Intercolonial Ry., Prince Edward Island Ry. and various local lines in the Maritime Provinces and Quebec, which have been acquired by the Dominion Government:—

	Revenue	Expenses	Net deficits 1922	1921
Jan.	$8,210,401	$10,433,564	$2,223,163	$2,863,058
Feb.	7,650,743	10,026,572	2,375,829	2,986,998
March	9,418,100	10,397,547	979,447	2,532,959
April	7,804,222	9,153,738	1,349,516	2,636,639
May	9,678,965	9,726,020	47,055	2,554,540
	$42,762,431	$49,737,441	$6,975,010	$13,574,194
Decr.	$6,320,440	$12,919,624	$6,599,184	.....

Approximate gross earnings for June, $7,595,758, and for two weeks ended July 14, $4,171,815, against $8,452,054 and $4,213,968 for same period 1921.

Canadian Pacific Railway.

Following are monthly gross earnings, working expenses and net profits for 1922, compared with those for 1921. The discrepancies between these figures and those issued by the Dominion Bureau of Statistics are owing to the fact that the Bureau is, at its request, furnished with figures by the C.P.R., including the Esquimalt & Nanaimo Ry., and the Montreal & Atlantic Ry. earnings, as well as the C.P.R. ones. The figures supplied the Bureau are exclusive of certain income items which are included in figures supplied Canadian Railway and Marine World:—

	Gross	Expenses	Net	Decreases
Jan.	$11,337,975	$10,854,498	$488,477	$157,948
Feb.	11,303,693	10,649,205	654,488	158,904
March	13,847,627	11,427,120	2,420,507	80,402
April	12,331,371	10,782,598	1,548,773	1,097,359
May	13,664,246	11,319,732	2,344,514	949,038
	$62,484,911	$55,033,153	$7,451,758	$2,393,650
Decr.	$7,109,118	$4,715,468	$2,393,650	.....

Approximate gross earnings for June, $13,198,000, and for two weeks ended July 14, $6,353,000, against $13,859,000 and $6,337,000 for same periods 1921.

The Newfoundland Railway Situation.

The problem of what is to be done with the Newfoundland Ry. has been under discussion for a considerable time between the Newfoundland Government, and the Reid Newfoundland Co. In July, 1921, the Newfoundland Legislature passed an act, confirming an agreement, based upon suggestions made by Sir George Bury, under which the Reid Newfoundland Co. undertook to operate the lines for 12 months from July 1, and to give certain specified services, the Government to pay any loss on operation up to $1,500,000. A General Manager, from Canada or the United States, was to be appointed by the company subject to the Government's approval. R. C. Morgan, Superintendent, Winnipeg Terminals, C.P.R., subsequently went to St. John's in connection with the appointment, having been granted leave of absence for that purpose, but he was reported in February to have finally resigned the position.

It was reported recently that an inventory of the railway property was being made at the Government's instance in connection with the making of a new arrangement with the company. That some new arrangement is to be made is evident from the fact that the Governor in his speech at the opening of the Legislature, on March 14, said that proposals for operating the railways would be presented for consideration. Mr. Morgan's report to the Government was submitted to the Legislature on March 20. One press report states that he has recommended that the Government take over the system and operate it by a commission, and another report states that the lines may be leased by the Government for an indefinite period.

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A Newfoundland Industrial Development Proposal.

An extensive plan for the development of the natural resources of the Humber River valley of Newfoundland has been arranged between the Reid Newfoundland Co. and Sir W. G. Armstrong, Whitworth & Co., of Newcastle-on-Tyne, Eng., by H. D. Reid, President, Reid Newfoundland Co., during his recent trip to England. He is reported to have stated on his return to St. John's, Nfld., on Dec. 14, that it is proposed to spend about $7,000,000 during the next two years. The plans include the development of a water power at Grand Lake, estimated to produce 235,000 h.p.; the erection of a pulp and paper mill with a capacity of 1,000 tons a day; an aluminum plant, and other industrial concerns. It is estimated that permanent employment will be found for about 1,500 men, with some 2,000 men in the bush during the lumbering season.

Two of the Armstrong-Whitworth Co.'s engineers are reported to be making surveys in connection with the proposed development operations. It is stated that the Newfoundland Government will be asked to guarantee the interest on the debenture bonds and sinking fund of the development corporation.

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capacity of 12,000 tons. The total cost of the wharf and warehouse is estimated at $750,000, and it is expected that the whole work will be completed during next summer.

Vancouver Island.—The present railhead on the line from Victoria, B.C., northwesterly is at 74.6. We are officially advised that it has been decided to extend it for about 10 miles to where the James Logging Co. is operating. (Jan., pg. 27.)

Humber River, Newfoundland, Development Proposals.

Sir W. G. Armstrong, Whitworth & Co., issued a statement relative to their connection with the Humber River valley, Nfld., development proposals, and the plans being made for carrying them out. This British company took up the matter upon the invitation of the directors of the Newfoundland Products Corporation, and Mines and Forests Limited, and is acting as the technical adviser of these companies in the development of the natural resources of the areas controlled by them. The engineers of the Reid Newfoundland Co., which is the controlling influence of the two companies named, prepared plans for the development of the Humber River valley areas, which have recently been examined, checked and proved by the British company's engineers and experts. The plans provide for the development of 150,000 h.p. from the Junction Brook flow, to which can be added from other streams 85,000 h.p., at a total cost of not exceeding $60 a horsepower. The first industrial plant to be started would be a pulp mill, utilizing about 80,000 h.p., and providing 400 tons of newsprint a day. The available supply of wood for the mill is estimated at 10,500,000 cords, which is sufficient to supply for 50 years without considering natural growth. The British company will take a contract to supply all the machinery and equipment for the whole power development and for the pulp and paper mill at a firm price, and will do all the construction work on a cost plus percentage basis. The estimated cost of the development, including the amount required for working capital, is approximately $4,000,000.

To finance this undertaking it is proposed to authorize the issue of $4,000,000 of bonds, of which $1,000,000 will be retained for issue as and when required. The Newfoundland Government has been asked to guarantee the interest and sinking fund of the bond issue, and to safeguard the Government it is proposed to set aside a special reserve fund of $250,000 a year for six years to be deposited with trustees. The earnings are estimated at more than double the amount required to meet the fixed charges.

The shareholders of the two companies first named put into the concern, without payment, their lands, waterpowers, etc., which will be mortgaged to secure the bonds. It is proposed that the existing Newfoundland Products Corporation be enlarged and altered to meet the requirements of the new conditions, and be renamd the Newfoundland Electric Power & Products Corporation, and that the British company be represented on the directorate.

Noehren and Mannix, Calgary, Alta.; for concrete work on the first 11 miles out of Cochrane, including the work at the first crossing of the Abitibi River, to C. D. French and Co., Montreal; for building all trestles from mile 12 to 47, to James Brennan, Arnprior, Ont. We are further advised that S. D. Hogan will be in charge of the grading work for Noehern and Mannix, who, it is reported, has purchased a number of dump cars from Foley Brothers, which had been stored in the vicinity of Sudbury, Ont. (Mar., pg. 124.)

Wabash Rd.—We are officially advised that the press report stating that it is proposed to erect locomotive repair shops at St. Thomas, Ont., at a cost of $500,000, is incorrect. The Wabash Rd., which operates over the old G.T.R. Air Line, has had the repair work on the locomotives used in Canada done for several years in the shops of the old Lake Erie and Detroit River Ry., in St. Thomas, owned by the Pere Marquette Rd. H. Eisele, Assistant Superintendent Locomotive Department, Decatur, Ill., visited the P.M.R. shops at St. Thomas recently, to see how the work on Wabash locomotives was progressing.

The Newfoundland Railway Situation.

The problem of what is to be done with the Newfoundland Ry. has been under discussion for a considerable time between the Newfoundland Government, and the Reid Newfoundland Co. In July, 1921, the Newfoundland Legislature passed an act, confirming an agreement, based upon suggestions made by Sir George Bury, under which the Reid Newfoundland Co. undertook to operate the lines for 12 months from July 1, and to give certain specified services, the Government to pay any loss on operation up to $1,500,000. A General Manager, from Canada or the United States, was to be appointed by the company subject to the Government's approval. R. C. Morgan, Superintendent, Winnipeg Terminals, C.P.R., subsequently went to St. John's in connection with the appointment, having been granted leave of absence for that purpose, but he was reported in February to have finally resigned the position.

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Traffic Orders by Board of Railway Commissioners.

Temporary Doors for Lime Shipments.

General order 360. March 6.—Re application of D. Robertson & Co., Milton, Ont., and Standard White Lime Co., Guelph, Ont., for an order requiring railway companies to supply temporary doors for shipments of lime, in carloads, or to make an allowance when the same are furnished by shippers. Upon hearing the matter at Toronto, Jan. 5, 1922, the applicants, the Christie, Henderson Co., and the Grand Trunk and Canadian Pacific Railways, being represented, and what was alleged; and upon reading the further submissions filed, the Board orders that railway companies be required, not later than March 16, 1922, to amend their tariffs so as to provide for the allowance, at points east of Fort William, of 50c. a car door of not less than 21 sq. ft. when furnished by shippers of lime, in bulk.

Milling in Transit Arrangements.

32,195. March 6.—Re application of Robin Hood Mills, Ltd., Moose Jaw, Sask., and Montreal, for a ruling whether secs. 1 and 2 of general order 234, May 22, 1918, are applicable to milled in transit arrangements to destinations east of Port Arthur, Fort William, and Armstrong, Ont. Upon hearing the application at Ottawa, Feb. 17 and June 15, 1920, the applicants, the Canadian Pacific, the Grand Trunk, and the Canadian National Railways being represented, and what was alleged. The Board declares that the words "to final destination," appearing in rule 6-A of the tariff which was operative when the shipments in question originated, read in connection with the provisions as to reshipment made to Westfort, Fort William, Port Arthur, and points east thereof, mean that the through rate, the inception of which in point of time is defined by general order 234, applies to the final destination, even if that destination be east of Fort William or Port Arthur.

Coal Switching Tariff A.C. & H.B. Ry.

32,196. March 8.—Re application of Century Coal Co. Montreal, for an order suspending Algoma Central & Hudson Bay Ry. tariff, C.R.C. 585, effective March 15, 1922, showing increases in switching rate on coal from New Ontario Coal Co.'s dock to the C.P.R. at Sault Ste. Marie, to 2c. per 100 lb. Upon reading the application and what is alleged in support thereof, the Board orders that, pending hearing and decision, the said tariff be suspended.

Pig Iron Rates from Collingwood to Black Rock.

32,217. March 14.—Re New York Car Wheel Co.'s complaint against the rates charged by G.T.R. on pig iron from Collingwood, Ont., to Black Rock, N.Y. Upon hearing the matter at Ottawa, Feb. 7, the applicant and the G.T.R. being represented at hearing, and what was alleged, the Board orders that the complaint be dismissed.

Export Rates on Grain Products.

32,227. March 13.—Re application of Jan. 26, 1922, the Canadian National Millers' Association, Dominion Millers' Association, Grand Trunk, Canadian Pacific and Canadian National Railways, Quaker Oats Co., Maple Leaf Milling Co., Western Canada Flour Mills, Dominion Flour Mills, St. Mary's Milling Co., and Montreal Board of Trade being represented, and what was alleged; and upon reading the further written submissions filed, and the report of the Board's Assistant Chief Traffic Officer, the Board orders that the applications be refused.

Canadian National Railways Construction, Betterments, Etc.

Meductic, N.B., to Bangor, Me.—The New Brunswick Minister of Lands and Mines, in speaking in the Legislature, recently, advocated the building of a line to 41 miles, from Meductic, on the St. John and Quebec Ry., to a junction with the Maine Central Rd. at Bangor, Me. During 1921 there was some discussion as to the construction of a connection between the St. J. and Q. Ry. and the Maine railway system, the suggested starting point being Pokiok, N.B., 12 miles nearer Fredericton than Meductic, the connecting point with the Maine railway system, was to be at Danforth, Me. A press report states that some progress has been made in the Maine Legislature with a bill for the building of a line to connect with Canadian lines as outlined above.

St. Boniface, Que.—The Board of Railway Commissioners has authorized the opening for traffic of a portion of the Canadian Northern Quebec Ry., near St. Boniface, Que., mile 87.5 to 91.5. This is a division between Glenaldon and St. Boniface, which includes the viaduct at East Burrill, a description of which was given in Canadian Railway and Marine World, May 1921, pg. 247.

Regina Improvements.—A press report states that a large strip of land has been bought in the northwest part Regina, Sask., for the purpose of effecting improvements and extensions of the C.P.R. facilities. It is stated that the curves in the line north of the city will be straightened out; additional yard space laid out, larger shops built, and increased facilities for handling grain provided.

Regina City Council has given an extension of time for the installation of automatic safety devices at the C.N.R. crossings at Smith St. and Dewdney Ave., and at Eighth Ave. and Smith St. The railway track at Regina is to be laid with 80 lb. rails in place of the 60 lb. rails now in use, the work to begin in May. The automatic devices were to have been installed within 90 days from Jan. 16; but in order that the whole work of track relaying and the installation of the devices could be done at the same time, the city consented to a three months postponement.

Vancouver Island Lines.—A press report of March 14, stated that track laying is being started from the end of

largest ships to be berthed alongside.

Newfoundland Loan for Railway Purposes, etc.—A new loan of $6,000,000 is to be raised by Newfoundland, of which $2,110,000 is for railway purposes. The following particulars are given: Railway Commission account, $3,260,000, less $2,500,000 provided for in 1921 loan, $760,000; railway capital account, spent $200,000, to be spent, $150,000, $350,000; required to meet deficits on railway operations for 1922-23, $1,000,000.

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coal ready for shipment upon
way is completed. (Aug., pg. 419.)

Reid Newfoundland Ry. — The Newfoundland Legislature has passed an act respecting the construction of the branch line from near Dunville on the St. John's-Placentia line, to Argentia. The act declares that the construction of the line and the payment for it out of the public funds, and everything done in connection with the taking of the right of way and payment for the same are ratified and confirmed. This piece of line, which is not yet completed, is intended to provide a more convenient winter port for trade with Canada, than Port aux Basques, to which point traffic is held up nearly every winter by snow blockades in the Topsails district.

Minto to Chipman.—The New Bruns-

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Canadian Railway and Marine World

May, 1922

The Newfoundland Railway's History, Position and Future.

The present position and the future of the railways and steamship lines owned and operated by the Reid Newfoundland Co., Ltd., under agreement with the Newfoundland Government, is again forming the chief subject for consideration at the Newfoundland Legislature's current session. The matter was briefly referred to by the Governor in his speech at the opening of the Legislature, March 15, and the basis for the discussion was given a few days later when the Premier submitted a report on the state of the railway prepared by R. C. Morgan, Superintendent, Winnipeg Terminal Division, who was granted leave of absence by the C.P.R., towards the end of 1921, to act as Chairman of the Management Committee, Reid Newfoundland Co., under an act passed in that year providing for the appointment as manager of a Canadian or United States railway man of experience by the Reid Newfoundland Co., subject to the Government's approval. Mr. Morgan resigned the position at the end of February, and has since been acting in an advisory capacity to the Government in connection with the transportation problem.

Mr. Morgan's report is a long one, and, it is apparent from the context, that one part of it was prepared for the Reid Co., and the other for the Government; the whole, however, being presented to the Legislature. In the letter covering the report, dated Jan. 30, Mr. Morgan said:—"I feel safe in assuming that the railway has been a losing venture from its inception. . . It, therefore, seems apparent that the existing contract for railway operation must be modified, and in the accompanying report I have included recommendations to try and meet a very difficult problem."

Development of the Railway and Steamship Lines.

In order that Mr. Morgan's report may be thoroughly understood it will be necessary to recount briefly the development of the railway and steamship lines operated by the Reid Co. The Reid contracts with the Newfoundland Government cover first the construction of the railway and secondly its operation and the provision and operation of steamships in connection therewith. Prior to the Reid connection with Newfoundland in 1890, two railway projects had been initiated, and about 90 miles of line had been completed, and some additional grading done. The first project initiated was in 1880, when the Legislature provided for raising a loan of £1,000,000 for the building of a railway from St. John's to Hall's Bay, a branch of Notre Dame Bay, on the north shore, to open up for agricultural settlement the Gander and Exploits Rivers' valleys, and to reach the mining areas round Hall's Bay; and for the construction of a branch line to Brigus, Harbour Grace and Carbonear; the total length of the projected lines being 340 miles. A contract was let and construction was started in the following year, the line being completed to Whitburn, 54.62 miles. In 1885 construction was started on a line from Whitburn to Placentia, 27 miles, the extension being completed in 1888, but construction on the line to Hall's Bay was abandoned owing to the contractor's failure. The second project was one of the numerous proposals put forward for shortening the trans-Atlantic passage by using the shortest ocean route between Newfoundland and Ireland, and consisted of the construction of a railway from St. John's along the south shore to Cape Ray, opposite the Cape Breton coast, to build which the Legislature in 1882 passed an act for the incorporation of the Great American and European Short Line Ry. Co. This project never materialized, but it had an effect in shaping the later railway construction policy on the island. In 1890 the Government decided to proceed with the construction of the line to Hall's Bay, and let a contract to the late Sir Robert G. Reid in Oct. 1890 to complete the line. Work under this contract had been in progress for some time when, as the result of surveys made, it was proposed to abandon the line to Hall's Bay, and divert it along the Exploits River valley across to the Humber River valley, and then on to Port Aux Basques, near Cape Ray. This route was finally adopted, and a new contract was signed May 16, 1893, under which the line was to be completed within three years for $15,600 a mile, payable in Newfoundland bonds. Under this contract the transinsular line, and some branch lines were completed, and opened for traffic in 1898, giving the island a total of 638 miles of railway. The second construction contract was entered into between the Newfoundland Government and the Reid Newfoundland Co., in 1909, and ratified by the Legislature in 1910, under which the Government undertook to provide $6,000,000 for the construction of about 400 miles of branch lines. In 1913, $2,000,000 additional was provided for the completion of these branches, and 263 miles of them had been placed in operation, and about 120 miles were partially completed when construction was abandoned at the outbreak of war in 1914. The mileages of the transinsular line, and of the branch lines completed and operated, are as follows:—

St. John's to Port aux Basques	545.65
Waterford Bridge to Trepassey	104.43
Brigus Jct. to Baie des Verdes and branch to Grates	90.56
Whitburn to Heart's Content	42.00
Placentia Jct. to Placentia	20.00
Shoal Harbour to Bona Vista and branch to Port Union	90.00
Notre Dame to Lewisport	9.34
Total operated	901.98
Partially constructed:—	
Northern Bight to Fortune	79.00
Deer Lake to Bonne Bay	42.00
	1022.98

The railways are operated under a separate contract. The first operating contract is dated Sept. 1, 1893, and under it Mr. Reid undertook to construct a telegraph system and to operate it, as well as the railway, for 10 years, at his own expense, in consideration of a grant in fee simple of 5,000 acres of land per mile of railway built. The financial disaster of 1894, brought about such a condition of affairs in the Island, that when the line was completed in 1898, a new operating contract was made, which was the subject of a lengthened and bitter controversy. Under this contract Mr. Reid undertook to operate the lines for 50 years without cost to the Government, on the expiration of which period the property of the railways was to become vested in him; to build seven steamships and operate them on specified routes, and to pay to the Government within a year $1,000,000; the Government to hand over the telegraph system; to sell the Government dry dock at a fixed price, and to grant an additional 2,500,000 acres of land in fee simple. Mr. Reid also undertook to build an electric railway, and do certain paving work in St. John's. Controversy over this contract continued to be waged, and in 1900 the Government, which had agreed to it, was defeated. The new Government was approached by Mr. Reid with a view to the creation of the Reid Newfoundland Co., to take over his interests, but consent was refused until modifications of the 1898 contract were made. An amending agreement was approved by the Legislature in 1901, and authority was given for the formation of the Reid Newfoundland Co. Under the new contract Mr. Reid made some concessions in regard to the lands granted; agreed that the railway should revert to the Government at the end of the 50-year contract, when the $1,000,000 paid in cash under the 1898 contract would be repaid with interest, the value of improvements made to the railway during the currency of the lease to be determined by arbitration. He also agreed to hand back the telegraph lines to the Government, and an arbitration court, of which the late Sir Donald MacMaster was a member, was formed to adjust a number of specific matters arising out of the amended contract. In 1910, the operating contract was supplemented by a contract for the operation of the 400 miles of branch lines to be built, bringing them under the same terms as the rest of the lines, the company to receive a grant of 4,000 acres a mile in respect thereof.

The steamship lines established and operated under the contract are:—Port aux Basques to North Sydney, N.S.; Trinity Bay; Placentia Bay; Green Bay; Notre Dame Bay; Bona Vista Bay; Placentia Bay along the south coast to Port aux Basques; Humbermouth and Battle Harbour; St. John's to Labrador Coast.

In 1920, owing to the condition of the lines, the Government voted $1,000,000 to buy additional locomotives and cars, for the betterment of the line, the provision of additional terminal accommodation at St. John's, and a new terminal at Argentia; and placed the operation of the line under a commission. The year's operation resulted in a loss of $1,650,000, and the commission was disbanded. Sir George Bury was called in early in 1921 to advise the Government, and upon his

recommendation an act was passed providing for the operation of the line for a year, under the charge of a Canadian or United States railway man; the non-operation of certain branch lines during the winter months; the provision of funds for betterments by means of loans, and the payment by the Government of loss on operation up to $1,500,000 for 1921-22.

R. C. Morgan's Report.

Mr. Morgan's report is based on the assumption that the railway has been a losing venture from its inception, which is borne out by the figures given in an appended table showing the earnings and expenses of the line for the 18 years from 1904 to 1921 inclusive. In each of these years there was a loss, ranging from $19,162.41 in 1910 to $1,681,261.23 in 1921. The increasing rates of expenses to earnings began to mount up with the bringing into operation of the new branch line construction after 1910, and to a still greater extent from 1918, when the increased cost of coal, etc., and higher wages due to the war took effect. In 1919 the earnings were 88% of the expenses; in 1918, 80%; in 1919, 69% in 1920, 52%, and in 1921, 45%. The totals for the whole period were:—Earnings, $14,317,343.40; expenses, $20,096,346.96; loss $5,779,003.56. Average of earnings to expenses, 70%. The report discusses the whole situation in considerable detail and assigns seven main reasons for the losses as follows:—

Insufficient Traffic.—Nearly 1,000 miles of line have been built to serve a population of 250,000, a large proportion of whom live beyond its reach, and the balance live at points directly accessible to water transportation. The main industry of the colony is fishing, and as practically the entire population lives at tidewater there is very little traffic which could not move by water, and a great proportion does so. There are, so far, no producing mines to furnish a large and continuous tonnage for the railway, and the existing pulp and paper mills are so located that they have direct access to ocean transportation. All centers of population are located on excellent natural harbors, and as was transportation is admittedly cheaper than rail transportation, it is not to be anticipated that rail traffic will greatly increase, unless new industries are developed in the interior, where they would be obliged to depend on using the railway facilities now provided. The volume of traffic is also adversely affected by unnecessary and unfair steamship competition fostered by government subsidies. In 1920-21, 20,850 passengers were carried; earning $737.85 a mile of road; and 27,006 tons of freight were carried, earning $681.68 a mile of road.

Excessive Gradients, etc.—Owing to the light construction of the line, the light rails, and bridges, and the heavy gradients, over the entire line, it has never been possible to get an average train-load much over one-tenth of that obtaining on Canadian lines. The railway has a larger amount of heavy gradients than most cases on the American continent, and, while no high elevations are crossed, the line is a succession of gradients, largely 2½%. A computation of the amount of elevation in feet overcome by a train making a trip from St. John's to Port aux Basques shows the total to be 8,000 ft., a greater climb than is necessary on any transcontinental line in crossing the Rocky Mountains. This handicap cannot be overcome, owing to the physical character of the island making it necessary to touch at water level points, and to cross high ridges of land between such tidewater points. The railway is laid with light rails, and the bridges are of light construction, which precludes the use of anything but light locomotives; the capacity of the cars is low to conform with the narrow gauge of the tracks (3½ ft.) and the light nature of the railway generally. Efficient handling of freight consists of getting a heavy carload and a heavy trainload, or in moving the greatest possible number of tons of freight with the fewest number of train miles. Train mileage cost does not vary greatly on different railways. For 1920-21 the Newfoundland Ry. handled its trains at a cost of $3.06 a train mile, a not unfavorable comparison with the C.P.R. and other lines, but when account is taken of the number of tons handled per mile run the comparison is most unfavorable, being 41, as against the C.P.R.'s 498. The Newfoundland Ry. in 1920-21 earned $1.46 a train mile run against the C.P.R.'s $4.64. The result shows that the Newfoundland Ry. carried on at a loss of $1.60 against a profit of 74c. a train mile on the C.P.R., or carrying the analysis still further, it cost the Newfoundland Ry. 7½c. to carry one ton of freight one mile, while it cost other companies less than 1c. The revenue per ton mile for 1920-21 was 2.55c., representing about one-third of the cost of operation.

Unremunerative Banches.—One of the most oppressive burdens which has been borne by the railway has been the operation of unremunerative branches, which appear to have been built without any reliable estimates as to their traffic possibilities or, if estimated, a gross error was made in assuming that they would produce sufficient revenue to make them self-sustaining. Such branches do, in a certain measure, provide business for the main line, but unfortunately the rates have been so low that the additional business produced has been handled at a loss. In general, it is a fact that the more business the railway handled the greater the loss involved; the years in which the earnings were highest, were those in which the largest deficits resulted. The actual operating losses for the various branches is hard to determine, as no division of earnings and expenses has been made in the accounts, but a close estimate has been made from which it appears that the following annual losses may be expected on the four main branches:—Trepassey, $113,000; Bona Vista, $74,000; Bay de Verde, $54,000; Heart's Content, $37,000. Total, $278,000.

Too Low Freight Rates.—The railway has been operating under too low freight rates since its inception. The basis of freight rates was adopted from a comparison with Canadian rates in force in 1898; but even the low rates authorized by the 1898 contract were not actually made effective until 1918. From 1898 to 1918 a basis of rates averaging 11% lower than Canadian rates was in effect. The maximum rates which became effective in 1918, while producing an increased revenue, did not bring in anything like sufficient to meet the increased and increasing operating costs. Between 1915 and 1921 the total expenses per train mile increased 227% and the transportation cost per train mile increased 170%, while the earnings per train mile only increased 102%. Canadian railways have from time to time been granted increases of rates, and while the present local mileage rates on the Canadian National Rys. are 48% higher than those on the Newfoundland Ry., the C. N. Rys. are not earning sufficient to pay operating costs.

Insufficient Mail Subsidies.—The Newfoundland Ry. was carrying mail for approximately $42,000 a year from 1904 to 1912, which was increased from time to time until in 1917 it was raised to $61,251.49, at which figure it has remained. In 1919 the Board of Railway Commissioners for Canada granted an increase in mail compensation to Canadian railways averaging 116%. The mail subsidy received by the Newfoundland Ry. is too low, and it should be greatly increased by the government.

Deferred Maintenance.—Expenditures for maintenance of road and structures averaged $184 a mile in 1904, and were maintained at a low level until 1918, when they amounted to $294 a mile. The result was that the roadbed reached a condition where large expenditures were necessary to enable trains to continue operating. The expenditures since, which ran from $415 a mile in 1919, to $575 in 1920, and to $900 in 1921, have resulted in a great improvement in the physical condition of the property, but this high expenditure must be continued if the ground gained is not to be lost. The question of rail renewal has also to be faced. Some of the rails have been over 20 years in service, and as no charge has been made against operating expenses for deterioration of rails new money must be provided for their renewal.

Rolling Stock.—Expenditures for locomotives and cars averaged $95 a mile of line in 1904 and were kept at a very low rate until 1918, when they were $267 a mile. Owing to the additional traffic diverted to the railway, owing to the withdrawal of ships during the war, the locomotives and cars were worn out in service with the result that large additional expenditures had to be made, amounting to $344 a mile in 1919; to $530 in 1920 and to $690 in 1921. The condition of rolling stock is now nearly up to the standard of other lines, and expenditure on this account is likely to decrease rather than to increase.

Unremunerative Agencies.—A large number of agencies are maintained at points where the amount of business does not warrant the expenditure. At 44 agencies regarding which figures are given, there are stated to have been no receipts; 10 are not doing sufficient business to pay expenses; 10 are making little more than expenses, and the remainder are doing better.

Cost of Labor and Material.—The 1921 wage bill increased by 248%, and the material bills by 283% over 1915, and while the peak has apparently been reached the downward trend has not yet afforded much relief.

Increased Revenues and Reduced Expenditures Required.—Mr. Morgan points out that relief of the present condition can only be brought about by increasing the revenues, and by reducing expenditures. The Government should authorize an increase in freight rates to a maximum at least as high as now authorized in Canada, allowing the management to meet traffic requirements, competition, etc., within the maximum; by reducing unnecessary steamship competition, thus diverting to the railway such traffic as naturally belongs to it; and by giving an increased compensation for carrying mails. The railway manage-

ment should inaugurate a more active and persistent campaign of traffic solicitation; should promote tourist traffic and the provision of accommodation therefor, and should secure the co-operation of business men to aid in bringing traffic to the railway.

Traffic should be restricted on the transinsular line during January, February and March and the traffic to and from Canada should be diverted to St. John's or to the partially completed new terminus at Argentia; only local trains should be operated between certain points, and a weekly mixed train between Millertown Jct. and Port aux Basques each way; closing the Trepassey, Baie des Verde and Bonavista branches. Locomotive and train mileage should be kept down to the lowest minimum; cars should be loaded fully and no freight train should be run without full tonnage; trains should be made up on a tonnage instead of a car basis; locomotives should be helped to ascertain hauling capacity, and if necessary two locomotives should be used on a train, this being the only method of securing fair tonnage per train apart from securing full car load and maximum train load; every train mile saved means a saving of approximately $1.25 a mile for actual train operation. Coal, oil and other costs should be investigated, and their consumption placed on a basis of 100 mile runs; the necessary inspectors and instructors and coal-loading appliances should be provided so that savings may be made; agency stations where traffic is insufficient to justify keeping agents or operators should be closed; train crews should be reduced as traffic declines; monthly estimates of pay rolls should be required and they should not be exceeded; and monthly reports for the guidance of the management should be made according to modern practice.

Remedies Proposed.—"As the experience of about 20 years," Mr. Morgan says, "operation of the railway has demonstrated that the contract made in 1898 cannot be carried through its 50-year term, as no private company could possibly absorb the losses involved; the facts should be faced and the old contract should be abrogated on terms fair to all concerned. All claims should be waived in settlement to be made. The ownership of all physical property should be vested in the Government, which now owns nearly all the right-of-way track, structures, and certain of the rolling stock. As the steamships now owned by the Reid Newfoundland Co. are a necessary adjunct to the colony's transportation system, these should be acquired by the Government, so that they may be managed in complete harmony with its rail system, and rates and routes adjusted so as to best serve the colony's interest. The present division of the ownership is confusing, uneconomical and unsatisfactory tending to creation of conflicting claims, which will undoubtedly lead to costly litigation in the future. With the ownership of the steamships and railway consolidated in the Government, they would be free to operate, or lease same to any contractor as would best serve the interest of the people; duplication of service should be eliminated; conflicting rates harmonized; competition of outside steamships met, to the end that traffic on which the people of the Island pay the freight charges shall be carried by the Government boats and railway, so that the money will go to the citizens of the colony instead of being paid to outsiders and spent in Canada or elsewhere. While it will soon be necessary to face the question of large expenditures for improvements, particularly the relaying of the line with heavier rails, it does not appear that this is the proper time to undertake such expenditures in a large way; interest rates are receding; material and labor rates are on the downward course, making it reasonable to expect that such improvements can be done more cheaply if postponed for a while. The operation of the railway is in course of readjustment and has not yet reached a settled basis; the trend of traffic following war conditions cannot be foretold with certainty, hence it appears wise to carry the railway along for a year or two with only moderate expenditure on capital account, taking care only of such items of improvement as are imperative."

Recommendations for 1922-23. — Mr. Morgan recommends that the Legislature appropriate $300,000 for recovering rails from the Fortune Bay branch, which is not yet completed, and using it to replace worn out rail on the main line; relocating the line in the vicinity of Killigrews and Holyrood so as to protect it from storm damage; rebuilding a number of structures urgently needed; and for providing additional 100 box cars. The purchase of the Reid Newfoundland Co.'s equipment and steamships, the abrogation of the 1898 contract; readjustment of subsidies in mail, branch lines, stations, etc., and leasing steamships. Mr. Morgan says that the above constitutes as large a plan as can reasonably be expected to be taken care of at one session of the Legislature.

Mr. Morgan anticipates that the operation of the line for 1922-23 under present conditions will result in a loss of approximately $1,000,000, which he proposes should be provided for as follows: Increased rates:—Authorize a maximum tariff equal to that in force on Canadian lines, permitting the management to make whatever rates it pleases within the limit allowed. It is estimated that $200,000 additional revenue will thereby be produced. Unremunerative branches: —The estimated loss on the four branches is $278,000, which should be met by a direct payment on account of each branch to cover the estimated loss, or by a subsidy of $2 a mile for each train mile run on each branch. He prefers the latter plan. Mr. Morgan proposes an additional subsidy of $190,000 for carrying mails. The above increases amount to $668,000, the difference between which and the estimated loss would have to be provided for by direct taxation.

Plan for Future Operation.—The concluding section of Mr. Morgan's report, outlines a plan for the future operation of the unused railway and steamship properties. It does not appear, he says, that the conditions which have prevailed will be materially changed in the next few years, and it is therefore evident that if the road is to be maintained at all, it can only be done by considering it as a public utility, as it appears hopeless to expect that it can be run as a commercial venture paying its way. He recommends that the property be operated as a public utility, the Government to assume the obligation of maintaining the roadway, buildings and structures, bridges, etc.; also the maintaining of its equipment, locomotives, cars, etc., and the lessee taking care of operation, the lessee to collect all the earnings of every description of operation and to pay all the expenses of operation. It appears to be the general belief that the Government has not been successful so far as economical operation is concerned, and Mr. Morgan suggests this plan in order to secure the benefits of private operation combined with a plan for the efficient maintenance of the property. He further said:—"I recommend that an agreement be entered into with some responsible contractor, possibly the present management, for the operation of the railway, on the basis that the contractor will operate the road, receive the earnings from traffic, and pay all operating expenses as specified under the head of conducting transportation, dining and sleeping car service and general expenses. The earnings of the property ought to be, with economical operation sufficient to meet these charges. If a surplus should result from the operation, some agreed proportion of the balance should be paid to the contractor as his remuneration, and the agreed difference or balance should go to the Government as an offset against advances paid for the maintenance of track and equipment."

Birthdays of Transportation Men in May.

Many happy returns of the day to:—

J. F. Aitchison, Auditor of Disbursements, G.T.R., Montreal, born at Edinburgh, Scotland, May 28, 1880.

Jas. Bain, Superintendent, Bridgewater Division, Maritime District, Canadian National Rys., Bridgewater, N.S., born at Pictou, N.S., May 24, 1860.

B. A. Bourgeois, Assistant to Comptroller and Treasurer, Canadian Government Railways, Moncton, N.B., born there May 24, 1869.

B. T. Chappell, General Superintendent, Prairie District, Western Lines, Canadian National Rys. and Grand Trunk Pacific Ry., Saskatoon, Sask., born at Charlottetown, P.E.I., May 1, 1878.

N. R. DesBrisay, District Passenger Agent, C.P.R., St. John, N.B., born at Minneapolis, Minn., May 18, 1888.

A. E. Duff, ex-District Passenger Agent, G.T.R., Toronto, now of Winnipeg, born at Sherbrooke, Que., May 1, 1872.

G. C. Dunn, Assistant to Chief Engineer, Eastern Lines, Canadian Northern Ry., Toronto, born at Quebec, May 13, 1862.

C. S. Gzowski, Jr., Assistant to Vice President, Construction, Canadian National Rys. and Grand Trunk Pacific Ry., Toronto, born there, May 1, 1876.

W. S. Hall, Superintendent, Portage Division, Manitoba District, C.P.R., Winnipeg, born at Montreal, May 23, 1884.

G. H. Hedge, Works Manager, Canadian National Rys., Winnipeg, born at Neath, Wales, May 26, 1865.

G. A. Hoag, Superintendent of Transportation, Ontario District, Canadian National Rys., Toronto, born at Walters Falls, Ont., May 31, 1866.

J. Irwin, Superintendent, Edmonton Division, Western District, Canadian National Rys., Edmonton, Alta., born at Clinton, Ont., May 28, 1866.

H. E. Kane, Port Agent, Canadian Government Merchant Marine, St. John, N.B., born there, May 20, 1895.

J. N. Murphy, Roadmaster, C.P.R., Brandon, Man., born at Mooretown, Ont., May 10, 1879.

pg. 236.)

The Newfoundland Government Ry. Commission is reported to have decided to relay the track from St. John's to Clarenville, 132 miles, using 70 lb. rails in place of the present 50 lb. ones, and negotiations for the purchase of 10,000 tons of rails are said to be in progress. It is stated that the work will be started in the spring. A St. John's press dispatch of Feb. 15 says that the Newfoundland Government has awarded an issue of $4,000,000 securities to English financial interests, and that an agreement has been made with the Trade Facilities Board, whereby a portion of the money will be utilized in the purchase in England of 10,000 tons of steel rails, resulting in the undercutting of Belgian and German bidders. (Dec. 1924, pg. 617.)

Quebec Extension Ry. Co. is reported

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requiring a stop. (March, pg. 117.)

Newfoundland Government Ry. — The Colonial Secretary, answering a question in the Legislative Assembly recently, stated that a contract for the supply of 15,000 tons of rails, angle bars, spikes, etc., had been given the Barrow Hematite Co., London, Eng., at a total cost of $670,000. The price of rails and angle bars was £5 a ton; nuts and bolts, £20 11s 6d a ton, and track spikes, £20 16s 0d a ton. We are advised officially that the new rails will be 70 lb. to the yard, and will be laid between St. John's and Clarenville, 132 miles. The bolts to be used will be 6 in., and 34 in. angle bars will be used instead of fishplates. (March, pg. 118.)

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between Brockville and Westport, Ont., while battery car 15,803 was being overhauled at Leaside shops, Toronto, has been returned. Car 15,803 has been repaired and returned to Brockville, but is being held there as a spare car, the run now being taken by battery car 15,799, taken off the Montreal-Waterloo, Que., run.

Fire broke out in the battery container of battery car 15,794, operating between Toronto and Oakville, Ont., when it was aproaching Toronto, on March 12. The container was not opened until the car reached Toronto, and the fire was put out by chemical extinguishers, with negligible damage.

Newfoundland Government Ry.—A St. John's, Nfld., dispatch states that the management is about to order 3 or 4 self-propelled steam cars, to be operated on the suburban service to Killigrews and Bowring Park, around Humbermouth, Curling, and vicinity, and on branch lines, each to have capacity for 50 passengers.

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withdrawn. (March, pg. [illegible])

Newfoundland Government Ry.—The Finance Minister, in his budget speech in the Legislative Asesmbly on April 8, in referring to the railway, said that the General Manager had reported that 212 broken rails had been discovered between St. John's and Clarenville, 132 miles, within the last 6 months, and that the relaying of this mileage is extremely urgent. It is for this section now laid with 50 lb. rails that the 70 lb. rails were bought in England recently. The increased freight traffic demands more cars; some new sleeping and first-class cars are being built, and some first class cars are being converted into second class ones. It is also proposed to provide self contained steam cars for suburban traffic and the Corner Brook area, and to try them on some of the branch lines. It is proposed druing the coming year to improve and recondition the roadbed in addition to relaying the mileage already mentioned. (April, pg. 177.)

Nipissing Ry. Co.—A bill was [illegible]

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Niagara River at Niagara Falls, for which a contract was given to the American Bridge Co., is being proceeded with. The suspended span between the two cantilevers was cut in half on April 30. (March, pg. 117.)

Nepisiquit Ry. Co. has been incorporated by the New Brunswick Legislature to build a railway from Bathurst, across the province to a junction with the Canadian Pacific Ry. branch line terminating at Plaster Rock. It is proposed to rehabilitate the Northern New Brunswick and Seaboard Ry., from near Nepisiquit Jct., on the Canadian National Ry., to Gloucester Iron Mines, 16.9 miles, and to extend it to Plaster Rock. The Bathurst Co. interests are the promoters. (May, pg. 222.)

Newfoundland Government Ry.—The first cargo of rails for relaying work has arrived from Barrow-in-Furness, England. (May, pg. 222.)

Pacific Great Eastern Ry.—The British Columbia Minister of Railways, Mr. Sutherland, left Vancouver, May 8, accompanied by the Department's Chief Engineer, P. Philip, for an inspection trip over the line. Coal mining is reported to be in progress in the Hat Creek district, in the Cariboo country, and not far off the line. It is said that the minister will look into the matter with a view of building a spur to the mines if the development of the properties warrants it. (April, pg. 177.)

principal track work to be done during the year will consist of relaying 20 miles on the Englehart Subdivision, between miles 29.5 and 39.5, and between miles 42.5 and 52.5. These mileages are at present laid with 80 lb. rails, and the new rails will be 90 lb. A.R.A. type A rail. The estimated cost of the work is about $150,000.

We are advised officially that a contract for the construction of an addition to the locomotive house at Englehart, described in Canadian Railway and Marine World, May, pg. 222, has been let to Britnell Construction Co., Toronto. We are also advised that in addition to the extension of the locomotive house, there will be installed a new 90 ft. half-deck balanced type turntable, which will greatly facilitate the handling of locomotives at the terminal.

It is intended to build a larger and more up-to-date boiler house at North Bay.

There will be considerable track work along the newly constructed branches and a number of small sectionmen's houses will be built.

The question of the construction of a railway from Swastika through Ely and Burt Tps., and round the south side of Kenogami Lake, is reported to be under discussion. Such a line would, it is stated, give access to the Matachewan-Gowganda mining districts, and also open up a large timber area. (May, pg. 222.)

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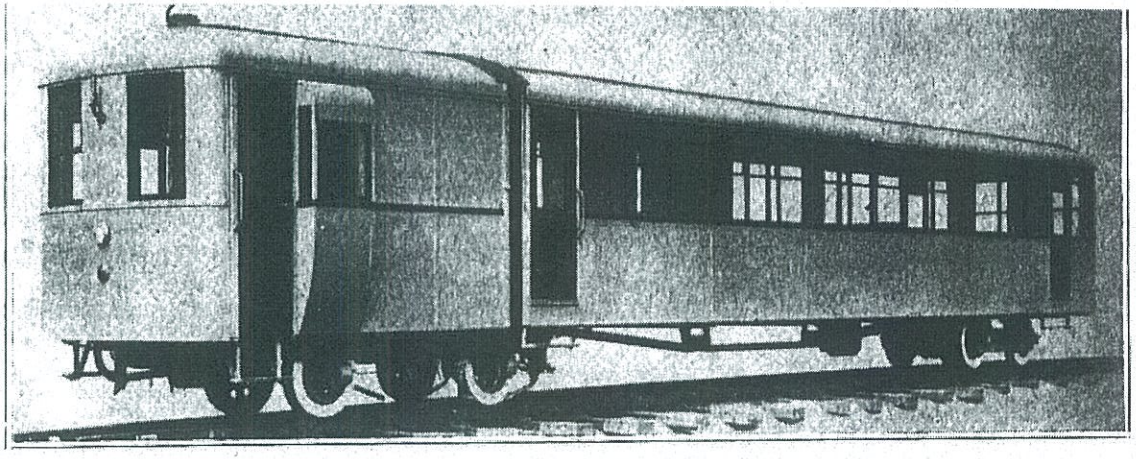
about 11 a.m. and leaving there about 5 p.m., but we were advised on June 20 that a decision had not been reached as to when this service would be started. We were also advised on the same date that the Diesel electric cars, referred to in previous issues, had not been delivered, delivery having been seriously delayed. The two Brill no. 55 gasoline cars mentioned in our June issue as having been ordered, have been received, one going to the Central Region and the other to the Atlantic Region. This makes 3 cars of this type acquired by the Canadian National, the first going to the Central Region. They are numbered 15,826, 15,827 and 15,828.

Newfoundland Government Ry.—Canadian Railway and Marine World for June gave, on pg. 280b, a preliminary description of 2 Sentinel-Cammell steam operated self propelled cars bought by this road in England, the power plant and control apparatus being supplied by Sentinel Wagon Works, London, and the car body and running gear by Cammell, Laird and Co., Nottingham. In these cars, the dimensions of which were given in our June issue, the tractor is a self contained driving unit mounted on 4 wheels, and consisting of engine, boiler, water tank, coal bunker, etc., both axles being chain driven from the engine. The end of the car body is not supported on this engine truck centrally, but the bearing is near the rear axle. The truck frame is supported on 4 laminated springs bolted to the axle boxes. In order to permit the adjustment of the driving chains, the axles are arranged so that their position may be varied relative to the truck frame and to each other, this condition being obtained by suspending the truck from the springs by links permitting the whole of the running gear to move longitudinally when adjusted. The axles are maintained in their correct longitudinal position by an adjustable radius rod, pin jointed to the spring hanger and to the axle box.

The engine is of the 2-cylinder type, with cylinders 6¾ in. bore and 9 in. stroke. Working parts are self lubricating and entirely protected from dust



Self Propelled Steam Car, Newfoundland Government Railway.

shocks and eliminate vibrations. This method of attachment allows the tire to be renewed without shrinkage. The trailer truck is of the 4-wheel type, of light but strong construction, consisting of side frames with crossbars of steel sections and plates securely riveted and gusseted together. The axle boxes are housed between the upper and lower members of the side frame, being secured by vertical bolts. The bolster is of pressed steel, of trough section.

The underframe, of light but strong construction, and of cantilever type, consists of 2 channel steel center sills, with braced crossbars carrying the car sides and the floor. Each crossbar has attachments at its extremities for receiving the car body pillars. The center sills are reinforced by angle steel trussing. The forward end of the frame is provided with the pivot resting on the engine truck. The top half of the pivot is of cast steel, and rests on a rubber spring to obviate vibration, and is maintained in position by a steel seating anchoring the pivot in its correct relation to the underframe, but permitting it to adapt itself to the rubber cushion and to the oscillation of the car body. The trailing end of the underframe is provided with a bolster, fitted with cast steel center pivots and cast steel side bearers.

The car sides consist of light steel

will be driven from the engine cab, but it can also be operated from the rear end if required. Two men will be used in operation, an engineman and a conductor. The fuel will be coal.

A St. John's, Nfld., press dispatch of May 29 stated that the cars would leave Liverpool on June 5, on the s.s. Digby, and we were advised officially, on June 10, that they were expected to reach St. John's about the end of June. As stated in our June issue, one will be operated in the Corner Brook area, and the other between St. John's and Kelligrews, 19.26 miles.

Michigan Central Rd. Fast Runs. — The M.C.R. is continuing to live up to its reputation for the operation of fast passenger trains. We are advised officially that on June 7 three special trains, carrying Brotherhood of Locomotive Firemen and Enginemen representatives, attending its meeting in Detroit, Mich., were operated without a stop from Windsor, Ont., to Niagara Falls, 224.24 miles, in 198, 200 and 203 minutes respectively, the average speed being 67 miles an hour. The train which made the run in 198 minutes made an average speed of 67.9 miles an hour. About the same speed was maintained on all parts of the run.

Canadian Ticket Agents' Association will hold its 39th annual meeting at

July 1925

Self Propelled Cars on Steam Railways.

Canadian National Ry.—Gasoline motor car 15,816, which had been operating between Montreal and Rawdon, Que., making 2 round trips daily except Sunday, and one on Sunday, was withdrawn June 14. The storage battery car operating between Brockville and Westport, Ont., was replaced on June 28 by a gasoline car, and transferred to the run between Fredericton and Centerville, N.B., to resume the service which was discontinued in Dec. 1924 on account of heavy snow, steam trains only being operated between Fredericton and Centerville during the winter. The storage battery car operating between Montreal and St. Eustache, Que., has been replaced by multiple unit electric cars, consequent on the completion of the electrification between Lazard and St. Eustache, as described elsewhere in this issue. There has been some consideration given to establishing a self propelled car service between Cochrane, Ont., and Senneterre, Que., on the Amos and Makamik Subdivisions, Cochrane Division, Quebec District, 189 miles. We were advised June 20 that this was being held in abeyance. There has also been some discussion as to the operation of a self propelled car between Ottawa and Rideau Lakes, one round trip a day only, arriving at Ottawa about 11 a.m. and leaving there about 5 p.m., but we were advised on June 20 that a decision had not been reached as to when this service would be started. We were also advised on the same date that the Diesel electric cars, referred to in previous issues, had not been delivered, delivery having been seriously delayed. The two Brill no. 55 gasoline cars mentioned in our June issue as having been ordered, have been received, one going to the Central Region and the other to the Atlantic Region. This makes 3 cars of this type acquired by the Canadian National, the first going to the Central Region. They are numbered 15,826, 15,827 and 15,828.

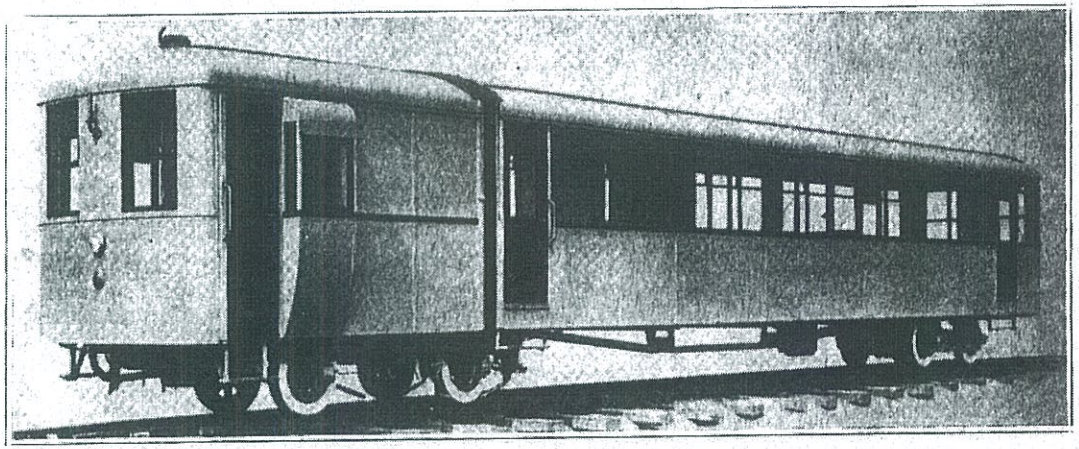
Newfoundland Government Ry.—Can-

by a mechanical oil pump driven from the engine. The valves are specially designed for superheated steam. The vertical boiler is cylindrical, with short straight water tubes, and is centrally fired from the top. For annual inspection and thorough cleaning the internal firebox can readily be removed without disturbing the outside connections, leaving all water and other surfaces accessible. Working pressure is 275 lb. per sq. in. The superheater consists of a solid drawn steel coil placed in the smoke box, and has sufficient surface to superheat the steam 100 degrees F. A feed water heater is also fitted, which utilizes the exhaust steam from the engine to heat the feed water almost to boiling point before entering the boiler.

The wheels and axles are of a special patented design, and comprise a cast steel wheel center, to which are secured by special steel bolts the journals and the body of the axle, which are independent of each other. The wheel is by this means capable of being assembled on its axle without the use of a wheel press. The wheel is insulated by a series of rubber segments inserted between the tire and the outer rim of the wheel center, and designed to cushion lateral

side posts, of T section, are attached at the lower end to the underframe crossbars with which they coincide. The waist panel, of 14 s.w.g. steel, is riveted to the side posts, and is flanged at its upper and lower edges to provide the necessary stiffness longitudinally. The cantrail of the body side consists of a steel angle riveted to the upper ends of the body side posts. The car ends are built up of steel posts of T and angle sections with steel waist panels. Each end is provided with openings for 3 windows. The roof ribs are of steel angles, on which the roof sheets, of steel, are lapped and riveted to provide a watertight joint. Longitudinal angles on the roof provide the necessary purlins and also form gutters. The end of the car next to the cab is flat, and is built up of steel sheets and angles. The lower edge is attached to an angle crossbar passing over the underframe center sills, to provide clearance for the engine truck underneath. The construction of the engine cab is identical with that of the car body. A doorway giving a clear opening of 2½ ft. is provided on each side.

The seating capacity of the cars is 45 passengers. Dual control is provided; under ordinary circumstances the car



Self Propelled Steam Car, Newfoundland Government Railway.

July 1925

jected Lines, Surveys, Construction, Betterments, Etc.

Niagara River at Niagara Falls, for which a contract was given to the American Bridge Co., is being proceeded with. The suspended span between the two cantilevers was cut in half on April 30. (March, pg. 117.)

Nepisiquit Ry. Co. has been incorporated by the New Brunswick Legislature to build a railway from Bathurst, across the province to a junction with the Canadian Pacific Ry. branch line terminating at Plaster Rock. It is proposed to rehabilitate the Northern New Brunswick and Seaboard Ry., from near Nepisiquit Jct., on the Canadian National Ry., to Gloucester Iron Mines, 16.9 miles, and to extend it to Plaster Rock. The Bathurst Co. interests are the promoters. (May, pg. 222.)

Newfoundland Government Ry.—The first cargo of rails for relaying work has arrived from Barrow-in-Furness, England. (May, pg. 222.)

principal track work to be done during the year will consist of relaying 20 miles on the Englehart Subdivision, between miles 29.5 and 39.5, and between miles 42.5 and 52.5. These mileages are at present laid with 80 lb. rails, and the new rails will be 90 lb. A.R.A. type A rail. The estimated cost of the work is about $150,000.

We are advised officially that a contract for the construction of an addition to the locomotive house at Englehart, described in Canadian Railway and Marine World, May, pg. 222, has been let to Britnell Construction Co., Toronto. We are also advised that in addition to the extension of the locomotive house, there will be installed a new 90 ft. half-deck balanced type turntable, which will greatly facilitate the handling of locomotives at the terminal.

It is intended to build a larger and more up-to-date boiler house at North Bay.

of the [illegible]
pg. 285.)

Newfoundland Government Ry.—The relaying of track between St. John's and Clarensville, 131.6 miles, with 70 lb. rail in place of the old 50 lb. rail, was started May 29, and it was reported, June 11, that 25 miles had been done. The work was started at Brigus Jct., mile 41.75, and was proceeded with towards St. John's. Extra gangs are assisting the regular section gangs with the track relaying and ballasting, so that they can be done without any interruption of traffic. Other betterments are being done along the main line and at other points.

Ballasting the South Shore Branch is

1925

son Division.

Newfoundland Government Ry.—H. J. Russell, General Manager, has returned to St. John's from England, where he arranged for the delivery, in June, of 2 Sentinel-Cammell steam operated self-propelled cars, one to be used in the Corner Brook area and the other between St. John's and Kelligrews, 19.26 miles, particularly for summer traffic. The power unit and control is being supplied by Sentinel Wagon Works (1920) Ltd., London, and the car body and running gear by Cammell, Laird & Co., Nottingham. Their general dimensions are as follows:—

Length of body	56 ft. 5 in.
" over fenders	57 ft. 5 in.
Height, rail to top of roof	11 ft.
Width over waist mouldings	8 ft.
Wheel base, engine truck	7 ft.
" " trailing truck	5 ft. 6 in.
Diam. of wheels	2 ft. 6 in.

The power plant is a self contained driving unit, mounted on a 4-wheel truck, consisting of boiler, engine, water tank, coal bunkers, controls, etc., with chain drive to both axles of the truck. In order to permit the adjustment of the driving chains, the axles are arranged so that their position may be varied relative to the truck frame and to each other. The engine, of Sentinel type, has 2 double acting high pressure cylinders, 6¾ in. diam. and 9 in. stroke, with cylinders lubricated by a mechanical oil pump driven from the engine. The valves are specially designed for superheated steam. The boiler is cylindrical, with short, straight water tubes, and carries a working pressure of 275 lb. per sq. in.

August 1925

thators with registers, fire extinguishe
drinking water container and cup vendc
sanders, and 14 dome lights.

Newfoundland Government Ry.—One of the self propelled steam cars ordered in England, and which were described in Canadian Railway and Marine World for July, pg. 335, arrived in St. John's on June 26, to be run between there and Kelligrews, 19.26 miles. The other car was shipped from England by the s.s. Geraldine Mary, to be landed at Botwood for operation in the Corner Brook area.

Grand Trunk Pacific Ry. Debentures. — A London, Eng., cablegram of July 17 stated that Sir Henry Thornton Chairman and President Canadian N

August 1925

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gineer, M.C.R. (June, pg. 285.)

Newfoundland Government Ry.—The first section of the relaying of the main line to Brigus Jct., with 70 lb. rail, is reported to have been completed early in July. A cargo of rails landed at Heart's Content was distributed from Brigus Jct. to LaManche siding, about 50 miles, and relaying work from there towards Whitbourne was going on at the end of June. The rails for the remaining section from LaManche siding to Clarensville, about 40 miles, are reported to have been delivered. These three sections between St. John's and Clarensville make a total of 131.6 miles, on which the 50 lb. rails are being replaced by 70 lb. rails. A press report states that the Newfoundland Ry. Commission has sold the old rails to the Garson Co., St. John, N.B., for approximately $100,000. (July, pg. 345.)

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

Burrard Inlet Tunnel and Bridge Co.— A press report states that construction of the bridge across the second narrows of Burrard Inlet at North Vancouver is well ahead of the schedule, and that there should be no difficulty in having it opened for traffic in October. The bascule span, 185 ft. long, was reported to be complete, with the exception of some fittings, on Aug. 9, at which time the two remaining spans were ready to be floated into position. The trestle work at the south approach was also practically completed. Contracts are reported to have been let for the lighting and signalling systems, and the municipal authorities at each end of the bridge are doing paving and other work to connect the bridge with the public highways.

Newfoundland Government Ry. — A press report states that the relaying of the track with 70 lb. rails has been completed between St. John's, and Rantein, 87 miles, and considerable progress made with the relaying from Clarenville, at mile 131.6, towards Rantein. Ballasting is reported to be in progress, and some 2,400 cars of ballast are reported to have been distributed between Whidburn and Clarenville. On the western portion of the main line 3,000 cars of ballast have been distributed between Humbermouth and Port Aux Basques. It is stated that new station buildings will be built at Corner Brook and Grand Falls. On the Trepassy branch about 1,200 loads of ballast have been distributed. (Aug., pg. 395.)

September 1925

would not be proceeded with, pending further investigation. (Sept., pg. 467.)

Newfoundland Government Ry. — A press report states that 475,000 new ties have been put in and a large mileage of ballasting done this year on the southern shore, Western Division and Clarenville sections. Work was reported to be still in progress on Sept. 11 on the Bonavista line, and also between St. John's and Seal Cove. The work on the Western Division is expected to be completed early in October. In addition to this general work the line has been relaid with 70 lb. rail between St. John's and Clarenville, 131.6 miles. (Sept., pg. 447.)

Timiskaming and Northern Ontario Ry.—The Board of Railway Commis-

January
1926

Railway Rolling Stock Orders and Deliveries.

Dominion Coal Co. has ordered 100 50-ton all steel hopper cars from Eastern Car Co., New Glasgow, N.S.

Newfoundland Government Ry. has ordered material for 3 locomotive boilers and 2 fireboxes, to be built at its St. John's shops.

Newfoundland Government Ry. has completed at its shops at St. John's a railway mail car, the first to be used on the railway. Heretofore the mails have been handled in the baggage and express cars.

Newfoundland Government Ry. has added to its rolling stock a dining car no. 7, which has been completed at the St. John's shops. It is of the vestibule end type, and seats 18.

[illegible] has ordered 5 sheets, and the belt rail of special section. The wooden flooring will be in 2 courses, the lower of 13/16 in. and the upper of 1¼ in. material. Steel roofs will be applied. The trucks will be of the Commonwealth 6-wheel type, with 11 ft. wheelbase, and wheels will be of the rolled steel center, steel tired, type, of 37 in. diam. Journals will be 5 x 9 in. Special equipment will include: Westinghouse U.C. 1-18 air brake system; schedule K air signal system; O.H.S. axles, A.R.A. type; clasp brakes; Hall friction buffers, class M-2; National centering device; A. R. A. type D head couplers, bottom operated; Holco P.C. 311 diaphragms; Hall friction draft gear, class K-8; Miner Ideal hand brakes; Vapor heating system; malleable iron journal boxes; electric lighting system; diam. x 8 in. stroke, developing 175 h.p. at 1,000 r.p.m.; 110 k.w. 700 v. 1,000 r.p.m. generator; G.E. 240-A 600 v. motors; 150 gall. gasoline tank; 2 high tension magnetos for ignition, and 32 v. 120 amp. hr. storage battery. Gear ratio is 16:59. This car operates from Marcus to Nelson, 99.04 miles, as train 260, leaving Marcus at 1.25 p.m. and arriving at Nelson at 6.30 p.m.; and from Nelson to Marcus as train 259, leaving Nelson at 7.25 a.m., and arriving at Marcus at 12.25 p.m.

Among the Express Companies.

Dominion Express Co. has opened an office at Whitworth, Que.

A. M. Zoller, motorman, Dominion Express Co., Kitchener, Ont., who entered the service Aug. 4, 1916, died Nov. 7, 1925.

I. St. Aubin, stableman, Dominion Ex-

January 1926

Railway Rolling Stock Orders

Newfoundland Government Ry. has built an express car, of Canadian Pacific Ry. type, for its trans-insular service.

Canadian National Ry. has received 5 snow plows from Eastern Car Co., New Glasgow, N.S., of the same type as those delivered in Dec. 1925.

Canadian National Ry. has ordered 2 gas electric power plant equipments from

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MARCH 1926

June, 1926

Railway Rol

Canadian Pacific Ry. has received 66 40-ton freight cars from Eastern Car Co.

Newfoundland Government Ry. has converted its dining car no. 3 into a day passenger coach.

Canadian Pacific Ry. has received 55

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June 1926

the similarity of names.

Newfoundland Government Ry. Bulletin gives the approximate replacement cost of its car equipment as follows: sleeping cars, $30,000; dining cars, $15,000; first class cars, $12,000; second class cars, $10,000; baggage cars, $6,000; ballast dump cars, $2,200; box cars, $2,200; flat cars, $1,800; push plows, $3,800. The railway's gauge is 3½ ft.

Canadian National Tank Cars.—The 40

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Self-Propelled Cars on Steam Railways.

Newfoundland Government Ry.—The two steam self-propelled cars acquired in England last year, and described and illustrated in Canadian Railway and Marine World for July, 1925, pg. 335, have been placed on the same runs as last year, viz., between St. John's and Kelligrews and Bowring Park, and between Humbermouth and Soper's Crossing. Last year, the car in the latter service ran up to Dec. 15, when operation had to be discontinued owing to unfavorable weather conditions. It was placed back in this service early in April this year, and is used chiefly for the accommodation of workmen in the Humber area. The other car, operating between St. John's and Bowring Park, makes half-hourly trips in the afternoon, and it is expected at the time of writing, that after July 1 it will, as last year, make trips from St. John's to Kelligrews, 19.26 miles, leaving St. John's at 6.30 p.m. and leaving Kelligrews on the return trip at 7.20 the next morning. This car was used, earlier this season, for an excursion from St. John's to Placentia, 67 miles.

Canada and Gulf Terminal Ry.—The

JULY 1926

Division, Manitoba District, and it is expected to be ready for operation during July. A press report says that bunk houses, kitchen and dining room have been built to accommodate the employes who will operate the plant.

Western Branch Lines.—The Senate, on June 7, passed without amendment the bill passed by the House of Commons April 23, authorizing the starting within 2 years of construction of a line from the C.P.R.'s Moose Jaw Northwesterly Branch, in Tp. 30, Range 15, west of 3rd Meridian, near Rosetown, Sask., generally northerly and northeasterly to the Pheasant Hills Branch, in Tps. 35 or 36, Ranges 11, 12 or 13, west of 3rd Meridian, near Keppel or Perdue; and of a line from the Bassano Easterly Branch in Tps. 20 or 21, Ranges 14, 15 or 16 west of 4th Meridian, near Duchess or Rosemary, Alta., generally northerly to Tp. 25, Ranges 14, 15 or 16, west of 4th Meridian; and to complete the same within 5 years. The act also authorizes an extension of time of 2 years for starting and of 5 years for the completion of construction of a branch line, originally authorized in 1920 from the Pheasant Hills Branch, in Tp. 36, Ranges 9 or 10, west of 3rd Meridian, near Asquith, Sask., generally northwesterly to

music room with private dining rooms off the ball room. The decorations on this floor will all be of the Georgian style, more or less simple. The remaining floors will be for bed rooms, and on the roof there will be a roof garden. The basement will be entered down 4 steps from Scarth St., and in it will be a coffee shop, 29 x 41 ft.; a billiard room, 37 x 28 ft.; barber shop; ladies' hairdressing salon, etc., and a large and spacious room which has not yet been assigned for any special purpose. The plans were prepared by Ross and Macdonald, Architects, Montreal and Toronto, under the direction of C. E. E. Ussher, General Passenger Traffic Manager, and J. M. R. Fairbairn, D.Sc., Chief Engineer.

Bromhead Westerly Branch.—Construction on the branch line from Bromhead, Sask., mile 31.9 on the branch from Estevan to Neptune, is reported to have made considerable progress, extra gangs having been put on June 8. Stewart and Cameron, Winnipeg, are the contractors. (June, pg. 298.)

Moose Jaw Spur Line.—Moose Jaw, Sask., City Council has given the C.P.R. permission to build a spur track to serve block 181, old 96, just west of the South Saskatchewan Co-operative Stockyards,

Self-Propelled Cars on Steam Railways.

Newfoundland Government Ry.—The two steam self-propelled cars acquired in England last year, and described and illustrated in Canadian Railway and Marine World for July, 1925, pg. 335, have been placed on the same runs as last year, viz., between St. John's and Kelligrews and Bowring Park, and between Humbermouth and Soper's Crossing. Last year, the car in the latter service ran up to Dec. 15, when operation had to be discontinued owing to unfavorable weather conditions. It was placed back in this service early in April this year, and is used chiefly for the accommodation of workmen in the Humber area. The other car, operating between St. John's and Bowring Park, makes half-hourly trips in the afternoon, and it is expected at the time of writing, that after July 1 it will, as last year, make trips from St. John's to Kelligrews, 19.26 miles, leaving St. John's at 6.30 p.m. and leaving Kelligrews on the return trip at 7.20 the next morning. This car was used, earlier this season, for an excursion from St. John's to Placentia, 67 miles.

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gas-electric cars. The original

retained.

Newfoundland Government Ry.—The steam self-propelled car, one of those described and illustrated in Canadian Railway and Marine World for July, 1925, pg. 335, which, as stated in our July issue, pg. 363, has been operating between St. John's and Bowring Park, began giving, in addition, a service between St. John's and

August 1926

Self-Propelled Cars on Steam Railways.

The Canada and Gulf Terminal Ry's model 75, gasoline self-propelled car, built by Ottawa Car Manufacturing Co., delivery of which was mentioned in Canadian Railway and Marine World for July, and an illustration of which is given herewith, has the following chief dimensions: length

Joli at 6.30 a.m. Train 5 connects at Mont Joli with the Ocean Limited for Montreal, leaving there at 10.05 p.m. Connections are made at Matane with Heppell Navigation Co. boats for all points on the north shore, and connections are also made at Matane with the bus service to Ste. Anne des Monts and intermediate

Kelligrews, on July 5. It leaves St. John's at 6.30 p.m. Tuesdays, Thursdays and Fridays, and at 10.15 p.m. Wednesdays, Saturdays and Sundays. Returning, it leaves Kelligrews at 7.10 a.m. daily except Sunday, when it leaves at 9 a.m. This car gave a similar service last year.

Timiskaming and Northern Ontario Ry.

August 1926

in the province.

Newfoundland Ry.—The Newfoundland Finance Minister, in his recent budget speech in the House of Assembly, gave details of the finances of the Newfoundland Ry., the steamships operated in conjunction, also the dry dock at St. Johns, for the year ended June 30, 1925. The total earnings were $3,371,200.38, and the expenses $3,729,710.22, a net loss of $358,509.84, compared with earnings of $3,231,852.58, expenditues of $3,238,371.92, and a net loss of $6,519.34 for the year ended June 30, 1924. The railway had a loss of $528,050.40, the steamships had a profit of $144,549.03, and the dockyard a profit of $24,991.53, compared with a loss on the railway of $217,492.31, and profits on the steamships of $169,767.77, and on the dockyard of $41,205.20 for 1923-24. The increased loss on railway operation was accounted for largely by increases in expenditures on maintenance of way and structures from $555,057.40 to $708,679.86, and on equipment from $347,354.11 to $480,953.16.

Niagara River Bridge Co.—The follow-

1925 p 222

the line.

The Newfoundland Government Railway's name has been changed to Newfoundland Railway.

Welland Ship Canal.—The Railways

August 1926
p 418

General Manager. (May, pg. 233.)

Newfoundland Government Ry.—Estimates passed by the House of Assembly provide for the raising of a loan of $5,000,000 at 5%, for the following among other purposes:—For rolling stock, rerailing, improvements to roadbed, and in aid of operation of the Government railway, $1,945,000. The Finance Minister in explaining the purposes for which the loan is required stated that it is proposed to relay a further section of the line from Clarenville, mile 131, to which point the work was completed in 1925, to Bishop's Falls, mile 267. (Dec. 1925, pg. 594.)

Nipissing Central Ry.—A Quebec press dispatch of July 5 stated that some

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September, 1926

Railway R

Canadian Pacific Ry. has received 17 75-ton steel flat cars from Eastern Car Co.

Canadian Pacific Ry. has received 304 75-ton coal cars from Canadian Car & Foundry Co.

Canadian Pacific Ry. has received 4 steel baggage cars from National Steel Car Corporation.

Canadian Pacific Ry. has received 112 freight refrigerator cars from National Steel Car Corporation.

Newfoundland Ry. has ordered 2 Pacific type locomotives, one from Montreal Locomotive Works and one from Baldwin Locomotive Works.

September 1926

current from a storage battery.

Newfoundland Government Ry.—The self propelled steam car in service between St. John's and Bowring Park, has been so well patronized that it has been taxed to capacity to handle the traffic offering. This car, described and illustrated in Canadian Railway and Marine World for July, 1925, pg. 335, also runs between St. John's and Kelligrews, 19.26 miles, on the schedule mentioned in our August issue, pg. 423. A covered platform has been built in Bowring Park recently, for the convenience of passengers using the car operating between St. John's and the park. The railway has another of these cars in service, between Humbermouth and Soper's Crossing, 6.78 miles, used chiefly by workmen in the Humber area.

Distillate for Fuel.—What is said to be

September 1926

p482

will be painted [illegible] passenger car color, to match the 60-ft. oil-electric car exteriors.

Newfoundland Ry.—A St. John's, Nfld., press dispatch of Oct. 7 stated that the steam self-propelled car operated in the Humber area had had a most successful season, and would remain in service until about the end of the year. The railway has 2 of these cars, which were built in England and described in Canadian Railway and Marine World for July, 1925, pg. 335, when an illustration of one of them was given. The one referred to above operates between Humbermouth and Soper's Crossing, 6.78 miles, being used chiefly by workmen in the Humber area; the other one has been in operation between St. John's and Bowring Park, and also between St. John's and Kelligrews, 19.26 miles.

[illegible]

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new work will consist of flanking spans on each end of the present steel span, using existing piers, with a 40-ft. deck plate girder on east end, with new concrete abutment, and a 50-ft. deck plate girder on west end with, for the present, a pile abutment. The balance of the trestle work on the west end has already been filled. The new concrete work, etc., has been done by the company's own forces, and the new spans have been erected by Canadian Bridge Co. Board of Railway Commissioners' order 38,162, Sept. 25, refers to bridge 23.11, Princeton Subdivision. The original structure, 369 ft. long, consisted of 2 frame trestles, 45 ft. high at deepest point, on pile and mud sill foundations, with a 50-ft. deck plate girder on concrete piers between trestles. The new work consists of a 50-ft. deck plate girder as

Newfoundland Ry. H. J. Russell, General Manager, has, a press report states, said that the diversion of the trans-insular railway to the south of the Topsails, which has been mentioned in the past and has received some consideration, is not contemplated either now or in the near future. The most recent report as to this suggested work was that the line would be diverted to the south of the Topsails, about mile 333 from St. John's, and connected with the Red Indian Lake mining area, and diverted near Notre Dame Jct., mile 244.62 from St. John's, to eliminate the Lewisport branch.

Newfoundland Ry. distributed 400,000 ties last year and 477 cars of ballast.

Nipissing Central Ry.— Hon. Chas. McCrea, Ontario Minister of Mines, is reported to have said, while speaking at

January 1927

new work will consist of flanking spans on each end of the present steel span, using existing piers, with a 40-ft. deck plate girder on east end, with new concrete abutment, and a 50-ft. deck plate girder on west end with, for the present, a pile abutment. The balance of the trestle work on the west end has already been filled. The new concrete work, etc., has been done by the company's own forces, and the new spans have been erected by Canadian Bridge Co. Board of Railway Commissioners' order 38,162, Sept. 25, refers to bridge 23.11, Princeton Subdivision. The original structure, 369 ft. long, consisted of 2 frame trestles, 45 ft. high at deepest point, on pile and mud sill foundations, with a 50-ft. deck plate girder on concrete piers between trestles. The new work consists of a 50-ft. deck plate girder as a flanking span on each end of existing steel span, supported on one end by the existing concrete piers, and, for the present, the other end of each new span will be carried on pile abutments; the balance of the trestles being filled. The pile driving and the filling have been done by the company's forces, and the new spans are being erected by Canadian Bridge Co. Board of Railway Commissioners' order 38,194, Oct. 1, refers to bridge 29.2, Carmi Subdivision. The work consists of replacing the existing Howe truss span by an 80-ft. deck plate girder span. Board of Railway Commissioners' order 38,196, Oct. 1, refers to bridge 49.9, Carmi Subdivision. The work consists of replacing the existing span with a new 80-ft. through plate girder span. The steel for these two bridges is being fabricated by J. Coughlin and Sons, Vancouver, and the Canadian Bridge Co. will do the erection. (Nov., pg. 579.)

Lacombe and Northwestern Ry. A press report of Dec. 6, 1926, stated that

Newfoundland Ry.—H. J. Russell, General Manager, has, a press report states, said that the diversion of the trans-insular railway to the south of the Topsails, which has been mentioned in the past and has received some consideration, is not contemplated either now or in the near future. The most recent report as to this suggested work was that the line would be diverted to the south of the Topsails, about mile 333 from St. John's, and connected with the Red Indian Lake mining area, and diverted near Notre Dame Jct., mile 244.62 from St. John's, to eliminate the Lewisport branch.

Newfoundland Ry. distributed 400,000 ties last year and 477 cars of ballast.

Nipissing Central Ry.—Hon. Chas. McCrea, Ontario Minister of Mines, is reported to have said, while speaking at Cobalt during the recent general election, that the N.C.R. Swastika-Cheminis branch would be extended to Rouyn, Que., as soon as permission to obtain the right-of-way could be secured from the Dominion Government.

The Pacific Great Eastern Ry. management is reported to have prepared plans and estimates for a 3-year programme of replacement and betterment work for presentation to the British Columbia Legislature. The estimated cost of the various works proposed is put at approximately $3,000,000. The work proposed for 1926 is estimated to cost $1,000,000 and will consist entirely of the renewal or replacement of wooden bridges which have reached their age limit; gravel fills will be used where possible, and permanent steel bridges will be installed. The track revision and bridge replacement work put in hand at Lillooet, and described in Canadian Railway and Marine World for Aug. 1926, pg. 413, will be completed during next summer.

Pembina Valley Ry. The Alberta Legis-

January 1927

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Newfound

dian Railway [illegible] October, ordered [illegible] passenger locomotives, one from Montreal Locomotive Works, and the other from Baldwin Locomotive Works. The one being built by Montreal Locomotive Works will have the following general dimensions, etc.:—

Gauge	3½ ft.
Wheelbase, rigid	10 ft.
" engine	27¼ ft.
Diameter of driving wheels	52 in
Material of driving wheel centers	Cast steel.
Diameter leading truck wheels	30 in.
" trailing " "	30 in.
Diam. and length main driving journals.	8 x 8 in.
" " other driving journals.	7½ x 8 in.
" " engine truck journals	4¼ x 7½ in.
" " trailing truck journals	5 x 9 in
Boiler, type	Belpaire.
" outside diam., first ring	60 in.
" working pressure	170 lb.
Tubes, no. and diam	125—2 in.
Flues, no. and diam	21—5 3/8 in
Length of tubes	16 ft.
Heating surface, firebox and syphons	122 sq. ft.
" " tubes and flues	1,510 sq. ft.
" " total	1,632 sq. ft.
Superheating surface	380 sq. ft.
Firebox, length and width	72 3/16 x 60 1/8 in.
Grate area	30.1 sq. ft.
Valves, type	Piston.
" diam	8 in.
Cylinders, stroke	24 in.
" diam	18 in
Tractive effort	21,600 lb.
Factor of adhesion	4.03

Equipment will include Walschaert valve gear; Locomotive Superheater Co. type A superheater; hand reverse gear; Sellers class N injectors; Pyle National electric headlight equipment; pedestal type engine truck; Hodges trailing truck; 2 3-in. Crosby safety valves; Westinghouse

November 1926

other business was in sight for the company to tender on.

Newfoundland Ry. has in addition to the Pacific type locomotive, from Montreal

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Car

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February 1927

Railway Rolling Stock Orders and Deliveries.

Central Vermont Ry. has ordered equipment for converting a storage battery car to gas-electric.

Minneapolis, St. Paul & Sault Ste. Marie Ry. is reported to have put 10 new mountain locomotives in service.

Pacific Great Eastern Ry. is reported to be enquiring for 10 steel frame stock cars, 40-ton capacity.

Sydney & Louisburg Ry. has ordered 100 50-ton steel coal hopper cars, from Eastern Car Co., to be delivered in March.

Canadian Pacific Ry. has had a connecting door made between drawing room A and compartment B, in the 11 mount class compartment cars added to its rolling stock recently, which now correspond in layout with the older mount class cars.

Canadian National Ry. has invited locomotive and car builders to tender for rolling stock as follows:—For Canadian lines, 20 to 40 type 4-8-4 locomotives; 20 type 2-8-4 locomotives; 30 sleeping cars; 5 compartment observation cars; 13 dining cars; 25 first class cars; 4 combination baggage and smoking cars; 12 baggage cars; 200 freight refrigerator cars; 800 40-ton automobile cars; 1,000 60-ton box cars; 20 steel snow plows. For United States lines, 12 mountain type 4-8-4 locomotives; 10 switching 0-8-0 locomotives; 4 type 4-8-2 locomotives; 2 mail and express cars; 6 baggage cars; 1,000 automobile cars; 100 ballast cars 50 tons capacity; and 10 air dump cars.

Outlook for Orders.—A Montreal press dispatch of Jan. 14, respecting the Canadian Car and Foundry Co.'s annual meeting, credited President W. W. Butler with saying that the railways are in the buying field with large equipment programmes, that tenders had been invited in connection with which announcements were expected in the course of the next 2 or 3 weeks; that the present Canadian National Ry.'s programmes for equipment totalled $20,000,000, which, however, is not all to be placed in Canada, that out of

Locomotive Works, described in Canadian Railway and Marine World for Nov. 1926, pg. 586, received one from Baldwin Locomotive Works. It is being operated between St. John's and Clarenville, 131.06 miles, and has the following dimensions, etc.:

Gauge	3½ ft.
Wheelbase, rigid	10 ft
" engine	24 ft. 3 in.
Diameter of driving wheels	52 in.
Material of driving wheel centers	Cast steel.
Diameter leading truck wheels	30 in.
" trailing " "	30 in.
Diam. and length main driv journals	8 x 8 in.
" " other " "	7½ x 8 in.
" " engine truck "	4¼ x 7½ in.
" " trailing " "	5 x 9 in.
Boiler, type	Belpaire.
" outside diam., first ring	60 in.
" working pressure	180 lb.
Flues, no. and diam	21-5 3/8 in.
Tubes, no. and diam.	125-2 in.
Length of tubes	16 ft.
Heating surface, firebox and syphons	122 sq. ft.
" " tubes and flues	1,510 sq. ft.
" " total	1,632 sq. ft.
Superheating surface	380 sq. ft.
Firebox, length and width	72 3 16 x 60 1/8 in.
Grate area	30 1 sq. ft.
Valves, type	Piston.
" diam	8 in.
Cylinders, stroke	24 in.
" diam.	18 in.
Factor of adhesion	4 03

Equipment includes thermic syphons; Walschaert valve gear; type A superheater; hand reverse gear; Sellers class N injectors; Pyle National electric headlight equipment; pedestal type engine truck; Hodges trailing truck; two 3-in. Crosby safety valves; Westinghouse E.T.-6 brake equipment; cast steel frames; cast steel driving boxes and cast iron wedges; Leach A-10 sanders; Gold steam heat reducing valves and steam heat connections; U.S. King type packing; Golmar air bell ringer, and Homestead blow-off cocks. The tender has a U-shaped tank, of 4,000 gall. capacity, the coal capacity is 9 tons. The tender frame is of steel channels; the trucks are of archbar type, with cast iron wheels, 30 in. diam., and 4¼ x 8 in. journals.

Grant Hall, Vice President, Canadian

Freight Car Condition and Supply.—The Railway Association of Canada reports that on Jan. 1 there were 201,960 freight cars on Canadian lines, compared with 202,086 on Dec. 1, 1926, of which 10,814, or 5.3%, were in bad order, compared with 11,238, or 5.6%, on Dec. 1, and that there were 14,872 surplus cars on hand, compared with 6,081. The American Railway Association's Car Service Division reports that on Dec. 15, 1926, there were 2,296,398 freight cars on U.S.A. class 1 lines, of which 131,765, or 5.7%, were awaiting or undergoing repairs. Out of 1,059,126 box, automobile and furniture cars, 60,491, or 5.7%; out of 41,514 refrigerator cars, 3,061, or 7.4%; out of 970,697 gondola, coal and coke cars, 57,263, or 5.9%; out of 84,822 stock cars, 3,886, or 4.6%; and out of 94,471 flat cars, 4,929, or 5.2%, were awaiting or undergoing repairs. On Dec. 31, 1926, there were 275,260 surplus freight cars on U.S.A. class 1 lines, of which 166,532 were box and 61,181 coal.

Railway Calendar.—The committee on public relations of the United States eastern railways has issued a calendar for 1927, similar in design to the 1926 one. The months are all given on the one sheet, with different colors, showing the distribution of gross income for all U.S.A. class 1 roads, based on the results for 1925, the latest year for which complete statistics are available. The 1926 calendar was based on the 1924 results. On the 1927 calendar, wages are shown as taking the gross receipts for 153 days, compared with 157 days on the 1926 calendar; locomotive fuel, 24 days compared with 27; materials and supplies, 69 days, compared with 70; all other operating expenses, 25 days, compared with 24; taxes, 21 days on each; fixed charges, 41 days on each; dividends, 20 days, compared with 19; surplus, available for improvements or reserves, 12 days, compared with 6. The 1925 results for the U.S.A. class 1 roads were as follows:—gross earnings, $6,122,509,856; operating

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" " other " "	7½ x 8 in.
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" " trailing " "	5 x 9 in.
Boiler, type	Belpaire.
" outside diam., first ring	60 in.
" working pressure	180 lb.
Flues, no. and diam	21-5 3/8 in.
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Grate area	30 1 sq. ft.
Valves, type	Piston.
" diam	8 in.
Cylinders, stroke	24 in.
" diam.	18 in.
Factor of adhesion	4 03

Equipment includes thermic syphons; Walschaert valve gear; type A superheater; hand reverse gear; Sellers class N injectors; Pyle National electric headlight equipment; pedestal type engine truck; Hodges trailing truck; two 3-in. Crosby safety valves; Westinghouse E.T.-6 brake equipment; cast steel frames; cast steel driving boxes and cast iron wedges; Leach A-10 sanders; Gold steam heat reducing valves and steam heat connections; U.S. King type packing; Golmar air bell ringer, and Homestead blow-off cocks. The tender has a U-shaped tank, of 4,000 gall. capacity, the coal capacity is 9 tons. The tender frame is of steel channels; the trucks are of archbar type, with cast iron wheels, 30 in. diam., and 4¼ x 8 in. journals.

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under the St. Lawrence River, in order to centralize all traffic in a tunnel.

Newfoundland Ry.—The 15,000 tons of 70-lb. steel rails, British standard section, which have been ordered from Dominion Iron & Steel Co., as stated in Canadian Railway and Marine World for January, are, we are advised officially, to be delivered at Clarenville and Lewisporte, Nfld., by May 1. They will be used to relay the line from 2 miles west of Shoal Harbor, i.e., 134.77 miles from St. John's, to Bishops Falls, 132.57 miles, which will give a continuous line of 70-lb. rails from St. John's to Bishops Falls, 267.34 miles.

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New Westminster Bridge.—A proposal

Lacombe and Hoadley. (June, pg. 329.)

Newfoundland Ry.—The report of the Newfoundland Railway Commission for the year ended June 30, 1926, which was laid before the House of Assembly recently, by the Premier, gave details of the betterments done on the line during the year. These included 4 concrete culverts put in; new abutments to 4 bridges built; one steel span erected; 3 steel bridges erected, one with pier and abutments, one with masonry substructure, and one with concrete abutments. The report went on to say that during the past four years the railway has expended $124,000.00 for repairs to bridges and culverts. It was found that a number of wooden trestles were still doing service on the main line and were too dangerou to remain. Bridges needed repairs, also a large number of culverts. Repairs to buildings cost $101,000.00; renewal of worn and broken rails $126,000.00, and renewal of ties $285,000.00. During the last 4 years the expenditure on roadbed, exclusive of the amounts already mentioned, was $1,463,000, this compares with $635,000 for the 4-year period, 1915 to 1918, During 1926, 102,912 cu. yd. of ballast were distributed, compared with 122,840 in 1923-24.

July 1927

Nipissing Central Ry.—Final arrange-

scale. (Aug., pg. 460.)

Newfoundland Ry.—We are advised officially that under the Loan Act passed recently by the Newfoundland Legislature, $900,000 was earmarked for the construction of a branch line from Glenwood, mile 230.34, from St. John's northerly and easterly to Gander Bay tidal water, about 30 miles. No surveys have been made for this line. Its construction is dependent upon the erection of a pulp and paper mill by the Gander Valley Power and Paper Co., which controls timber limits along the Gander River valley. The control of this company has been acquired recently by the International Paper Co. of Newfoundland, which was incorporated at the Legislature's recent session, to take over the property and rights of the Newfoundland Power and Paper Co. at Corner Brook and in the Humber River valley. This company is a subsidiary of the International Power and Paper Co. (Sept., pp. 516 and 534.)

Nipissing Central Ry.—A press report of

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of way, and snowfencing, also various repairs to station buildings, water stations, shops and locomotive houses, section houses, loading platforms, and reconditioning of telephone line.

Great Central Sawmills Ltd. operates a large mill on Great Central Lake, Vancouver Island, B.C., and a logging railway radiating in different directions from the mill. The Board of Railway Commissioners passed order 38,949, April 25, granting permission for one of these lines to cross under the Esquimalt and Nanaimo Ry., at Great Central Lake. This branch will doubtless be extended to the end of the company's limits. (June, pg. 329.)

Lacombe and Northwestern Ry.—We are advised officially that the appropriations voted by the Alberta Legislature provide for the completion of the 22-mile extension from Hoadley to Breton, on which about 11 miles of ballasting, and 4 miles of right of way fencing remained to be completed at the beginning of the season. Other work provided for includes some additional ballasting, surfacing, and other improvements on the line between Lacombe and Hoadley. (June, pg. 329.)

Newfoundland Ry.—The report of the Newfoundland Railway Commission for the year ended June 30, 1926, which was laid before the House of Assembly recently, by the Premier, gave details of the betterments done on the line during the year. These included 4 concrete culverts put in; new abutments to 4 bridges built; one steel span erected; 3 steel bridges erected, one with pier and abutments, one with masonry substructure, and one with concrete abutments. The report went on to say that during the past four years the railway has expended $124,000.00 for repairs to bridges and culverts. It was found that a number of wooden trestles were still doing service on the main line and were too dangerou to remain. Bridges needed repairs, also a large number of culverts. Repairs to buildings cost $101,000.00; renewal of worn and broken rails $126,000.00, and renewal of ties $285,000.00. During the last 4 years the expenditure on roadbed, exclusive of the amounts already mentioned, was $1,463,000, this compares with $635,000 for the 4-year period, 1915 to 1918. During 1926, 102,912 cu. yd. of ballast were distributed, compared with 122,840 in

bia Ry., of which it is really a branch, although being built under a separate charter. It will be of 27 miles in length, the terminus to be at Barrhead. It was reported recently that the right of way had been cleared to within 2 miles of the intended terminus, and that grading had been completed to within 7 miles of the same point. The original settlement of Barrhead is being moved about 2 miles south so as to be at the end of track. The line is expected to be completed in August. (June, pg. 329.)

Timiskaming and Northern Ontario Ry.—In connection with the extension of the line from the present end of track at mile 296.6 north of North Bay, or 68 miles north of Cochrane, Ont., to Coral Falls, 31 miles, a contract for grading, track-laying and ballasting of which was let recently to H. F. McLean Ltd., Montreal, we are advised officially that the extension will have a maximum gradient of 0.4%, and a maximum curvature of 4 degrees. There will be no important structures on the extension. It was reported May 30 that over 500 men were engaged on construction. Track is expected to be laid by Dec. 1, the ballasting and completion work to be done by July 1, 1928. (June, pg. 329.)

Vancouver Harbor Commission.—There have been several consultations recently between Vancouver Harbor Commissioners, Pacific Great Eastern Ry. directors, and North Vancouver City Council, with respect to a connection between the P.G.E.Ry. at North Vancouver and the Vancouver harbor railway, over the bridge across the second narrows of Burrard Inlet. It was arranged June 3 that North Vancouver's City Engineer co-operate with the Harbor Commission's Chief Engineer in preparing data on the probable cost of a railway tunnel under Lonsdale Ave., which it is believed would be the cheapest of any of the plans already considered. Representatives of the P.G.E.Ry. and the Harbor Commission met June 6 and considered the matter further. The proposed tunnel is planned to start between St. Andrews and St. George Streets, and to run under the Esplanade and Lonsdale Ave. (March, pg. 125.)

Orders for Machinery, Etc.—Canadian National Ry. has ordered recently a stencil cutting machine, 2 Ingersoll-Rand port-

JULY 1927

freight refrigerator cars, from Eastern Car Co.

Newfoundland Ry. has an appropriation of $250,000 for rolling stock, and will probably order one or 2 locomotives, 2 sleeping cars, and 3 self propelled cars. It will also probably build 6 or 8 passenger cars.

Canadian Pacific Ry. built 2 double track steel snow ploughs, and one single track one, at Angus Shops, Montreal, recently, and bought a 200-ton wrecking crane.

Roberval-Saguenay Ry. has received a type 260 locomotive, with cylinders 20 x 26 in., from Montreal Locomotive Works.

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Newfoundland Railway Construction.—The Newfoundland Legislature has passed an act adding a subsection to the Consolidated Statutes, 3rd series, chap. 206, sec. 3, declaring that no railway shall be built in the colony by any person or company whatsoever, whether a company as defined in the chapter, or not, without the consent of the Governor-in-council, which may be given in writing under such conditions as to the Governor-in-council may seem proper.

1927

Midland Great Northern Ry.'s Right of Way.—Portage Man., rural municipal

from railway connection. (July, pg. 410.)

Newfoundland Ry.—An act passed by the Legislature recently, authorizing the Government to raise a loan of $5,000,000, provides that $300,000 is to be used as capital expenditure on railway account, and $760,000 to pay the deficit on the operation of the railway for 1926-27. (See also International Paper Co. of Newfoundland—Gander Valley Power and Paper Co.)

New Westminster Bridge.—The British

1927

Railway Rolling Stock Orders and Deliveries.

Horne Copper Corporation, Noranda, Que., has received from Atlas Car and Manufacturing Co., Cleveland, Ohio, a

St. Maurice Valley Corporation has had a 0-4-0 locomotive repaired by Montreal Locomotive Works.

Newfoundland Ry. is building a combination baggage and mail car at St. John's.

Self-Propelled Cars on Steam

Railway Rolling Stock Orders and Deliveries.

ars for the Governor-General.—An awa press dispatch of Dec. 3, 1927, ed that an announcement had been le by the Railways and Canals Depart- nt respecting the purchase by the Cana- n National Ry. of two new railway cars the Governor-General's use. The tement, which was credited to the puty Minister, Graham A. Bell, was as ows:—"The two old cars, Cornwall and rk, used by previous Governors-Gen- l were of wooden construction. They

As shown by the accompanying floor plans, the sleeping car contains an observation sitting room, 2 bedrooms and 2 bathrooms for the Governor-General and Viscountess Willingdon, 2 other bedrooms, a combined lavatory and bathroom and baggage room. The dining car contains a lounge-observation room, dining room, kitchen, pantry, etc., a steward's room with upper and lower berths, a secretary's bedroom, combined lavatory and bathroom, and an office equipped with 2 desks. [illegible] Ottawa press dispatch of Dec. 3

evidence of careful planning and are complete with refrigerators, toasters, broilers, bakers and all the modern kitchen equipment. These are all made so that they may be compactly stowed away in two small extra rooms.

Newfoundland Ry. has ordered 3 steam self-propelled passenger cars for the Bay-de-Verde, Heart's Content and Trepassey branches. See under "Self Propelled Cars for Steam Railways" on another page of this issue.

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Self-Propelled Cars on Steam Railways.

Newfoundland Ry.—Canadian Railway and Marine World for July 1925, contained on pg. 335 an illustrated description of two Sentinel-Cammell steam driven self-propelled cars obtained in England for the Newfoundland Government Ry., now the Newfoundland Ry., the car body and running gear being built by Cammell, Laird and Co., Nottingham, and the power plant and control apparatus by Sentinel Wagon Works, London. The railway has, we are advised officially, placed an order recently with the Sentinel Wagon Works for 3 Sentinel-Cammell passenger cars to be used in branch line service. There will be numerous improvements in the new cars, and many features not included in those got in 1925. The new cars will be of the geared type, which includes a main frame with bu ers mounted on two standard railway trucks, one of which is driven through a bevel gearing and flexible shaft by a 6-cylinder, single acting, horizontal engine. This engine consumes 18 lb. of steam per b.h.p. hr., and the boiler to supply the engine has 40% more capacity than that installed in the 1925 cars. The Two sets of firebars will be furnished with each car, one with ¾ in. and the other with 7/8 in. spacing. Coal and water capacity of the engine unit will be made as large as possible. Compared with the cars now in operation, the axle bearing size will be increased, and the spring buckles will be changed to make them more rigid. Edison batteries will be used on the new cars, reinforcing plates will be attached to the frames for use in jacking up the car bodies when necessary, and the equipment will probably include pop type safety valve and steam operated sanding apparatus. The cars will, in all probability, be given test runs on the London and North Eastern Ry., as soon as completed. While the builders think that delivery will not be possible before June, the railway management is endeavoring to have the cars delivered and in operation in the early spring.

Roberval and Saguenay Ry.—We are advised officially that the management has under consideration the acquirement of a 250 h.p. gas-electric self-propelled car, capable of hauling 2 trailers, to replace

engine is supported in the underframe, and is much more accessible than those in the cars now in operation. As there will be no articulated joint between the power unit and the passenger unit of the car, all controls will be straight. Superior riding qualities are claimed for the new type of car.

The new cars will have the following dimensions:—length over all, 64 ft. 7 in.; wheelbase, 54 ft.; clear space between seats, 1 ft. 2 in.; width of baggage compartment doors, 4 ft. There will be a door at each side of the baggage compartment, and also a door at each side for passengers. The baggage compartment will be fitted for the carriage of both mails and baggage. The passenger space will be entirely cut off from the engine unit, but there will be complete access from the passenger space to the mail and baggage space, through doors in the centers of the partitions. The cars will be lighted by a 32-volt system, and will be fitted with screw base lamps, axle driven generator and storage batteries. A headlight will be mounted on the front end of the engine unit, and 2 tail lights on the rear of the passenger compartment, one on each side. A pilot, somewhat similar to those on the cars now in operation, will be fitted on the engine unit, and the vacuum brake system will be applied, with a type of drop brake in which cast iron brake shoes act on all wheels of the car.

The engine will be of the vertical type,

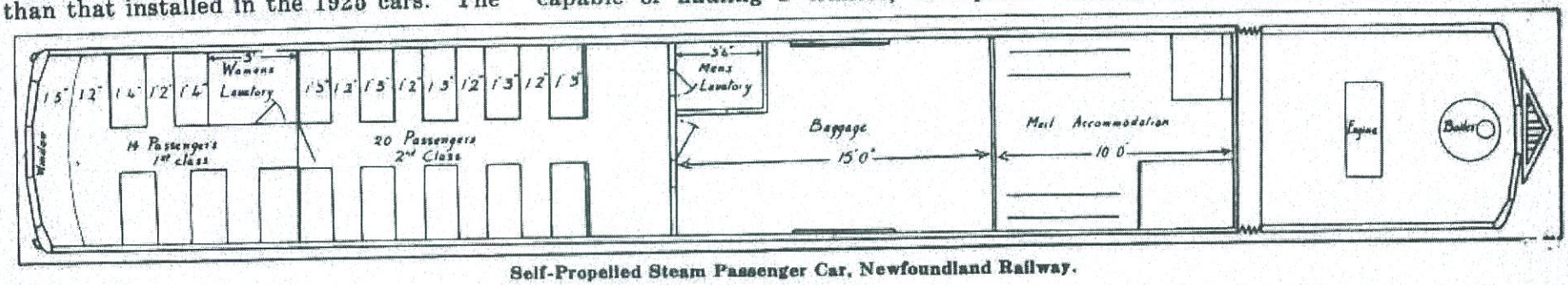
January 1928

ment doors, 4 ft. There will be a door at each side of the baggage compartment, and also a door at each side for passengers. The baggage compartment will be fitted for the carriage of both mails and baggage. The passenger space will be entirely cut off from the engine unit, but there will be complete access from the passenger space to the mail and baggage space, through doors in the centers of the partitions. The cars will be lighted by a 32-volt system, and will be fitted with screw base lamps, axle driven generator and storage batteries. A headlight will be mounted on the front end of the engine unit, and 2 tail lights on the rear of the passenger compartment, one on each side. A pilot, somewhat similar to those on the cars now in operation, will be fitted on the engine unit, and the vacuum brake system will be applied, with a type of drop brake in which cast iron brake shoes act on all wheels of the car.

The engine will be of the vertical type, and of 100 h.p., and the boiler will be capable of evaporating 2,300 lb. of steam per hour. The boiler will have an extended stack, with latest type spark arrester, and will be complete with engine driven pump for supplying feed water when running, an injector for use while standing or running at slow speeds, and a Weir type auxiliary pump as extra equipment. There will be one rocking type and 2 crowned type grates supplied, this being in the nature of an experiment to see whether any better results can be obtained with the rocking type grates than with the crowned type.

January 1928

supply the engine has 40% more capacity than that installed in the 1925 cars. The 200 h.p. gas electric [illegible] capable of hauling 2 trailers, to replace closing of Stuart St. at James St., but the



Self-Propelled Steam Passenger Car, Newfoundland Railway.

January 1928

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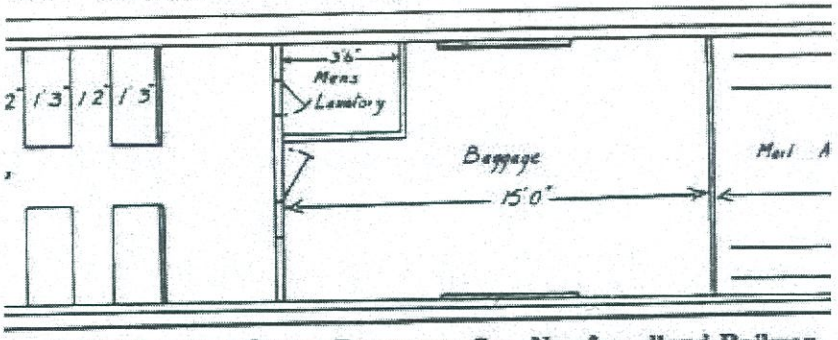

Self-Propelled Steam Passenger Car, Newfoundland Railway.

steam trains, with the object of improving service by providing more frequent trips between Arvida and Port Alfred, Que., 19 miles, making connection with all Canadian National Ry. (Jonquiere Subdivision, Saguenay Division, Quebec District) trains, and also for the convenience of persons travelling locally. The Roberval and Saguenay connects with the Canadian National at Arvida and Chicoutimi, which places are 6.4 miles apart on the Canadian National line.

Toronto, Hamilton and Buffalo Ry.

January 1928

for applicants.

Newfoundland Ry.—We are advised officially that during 1927 the track from near Shoal Harbor, mile 132.07 from St. John's, to the diamond crossing at Bishops Falls, mile 267.34, was relaid with 70-lb. rails. (Nov. 1927, pg. 641.)

Quebec and Northern Ry.—Notice has

January 1928

drivers, 3 Jordan ballast spreaders, and two 200-ton wrecking cranes.

Newfoundland Ry. has ordered 2 all-steel, 8-section, 1-compartment sleeping cars from National Steel Car Corporation, Hamilton, Ont. They will be 49 ft. long over end sills, and 55 ft. long over platforms.

Canadian National Ry. invited tenders

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crete structure, costing approximately $300,000.

Newfoundland Ry.—The report of Allan Vatcher, on his preliminary surveys for the diversion of the main line from Millertown Jct., via Buchans, to a junction with the main line at Howley, has been under consideration by the Railway Commission, but no decision on the matter has been announced at the time of writing. The proposal is to re-route the line on a lower level than the present route through the Topsails district.

Several cargoes of steel rails for relaying the track between Humbermouth and Port aux Basques have been delivered at those ports, and have been distributed along the route. The work of relaying is in progress. (Aug., pg. 462.)

Quebec and Chibougamau Ry.—Con-

September 1928
p 522

under construction. (Press report.)

Newfoundland Ry.—The Newfoundland Government recently sold $10,003,400 of 25 year 5% bonds authorized at the Legislature's recent session, to a syndicate composed of Wood, Gundy and Co., Dominion Securities Corporation and the Bank of Montreal, on the London, England, market. The proceeds of the loan, which was issued to the public at 100 and accrued interest, will be used to retire $7,543,400 of bonds issued in 1916, and in addition to providing funds for certain public works, and deficit on current account for 1927-28, provides the following amounts for the Newfoundland Ry.:—Deficit on railway account for 1927-28, $360,000; towards cost of building diversion from Millertown Jct. via Buchan's River to Howley, including any necessary re-railing, $500,000; re-railing main line from Humbermouth to Port Aux Basques, $800,000. The trial line for the proposed diversion of the main line from Millertown Jct., via Buchans to Howley, which is being run by Allan Vatcher, was reported to have been staked to Buchans by the end of June. (July, pg. 401.)

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from Princeton. (Press report.)

Newfoundland Ry.—The last cargo of 70 lb. rails for the relaying of the track from Humbermouth, mile 403.92 from St. John's, to Port aux Basques, mile 547.22, was delivered at Humbermouth, Sept. 14, when it was reported that new 70 lb. rails had been laid for about 55 miles to near St. Georges, mile 459.65.

We were advised officially Oct. 4, that 28 miles of the right of way has been

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ects, Surveys, Construction, Betterments, Etc.

cleared between Hind's Lake, on the diversion of the main line and the junction with the present main line near Howley, that about 8 miles of grading has been completed and 5 miles of track had been laid. Construction of the line from mile 19 on the Buchan's Ry. was started Sept. 24, towards Hinds Jct., and the grading is being pushed from both ends. Over 1,500 men are employed. (Oct., pg. 580.)

Nipissing Central Ry.—The Board of Railway Commissioners passed order 41,467, Sept. 26, authorizing the opening for traffic of the extension of the railway from Rouyn, Que., mile 58.70, to Noranda, mile 59.87. Freight traffic was being [illegible] the extension Sept. 22, prior

of Trade passed a resolution some time ago, asking that a branch line be built from Timmins through Kamiskotia to Kapuskasing, about 8 miles. (Oct., pg. 580.)

Toronto, Hamilton and Buffalo Ry.—In connection with the work of establishing the present line on a solid roadbed, as far as possible improving the alignment and at the same time providing a grade for laying a second track, west of Hamilton, Ont., which was started in 1927, and on which to Dec. 31, 1927, the total quantity of material excavated was approximately 381,000 cubic yards, or about 84% of the total material to be excavated under the general plan of improvement, we are advised officially that the work has been continued during this

November 1928

committee consists of [illegible]
and Brown. (Oct., pg. 580.)

Newfoundland Ry.—A recent report stated that 1,525 men were engaged on construction work on the diversion of the railway between Buchan's Jct. and Howley, Nfld., construction of which has been undertaken to remove the railway from the exposed Topsail Mountains to a route about 500 ft. lower. The men employed were distributed as follows:—Right of way, 40; portage cutting, 10; culverts, 34; brushing, 30; blacksmiths and helpers, 10; teamsters, 10; tracklaying, 90; lifting, 52; shovelling and ballasting, 17; grading, 1,155; foremen, 77. We were advised officially, Nov. 3, that work on the diversion of the main line between Buchans and Howley was suspended Oct. 18, up to which date the amount of work done was: —clearing right of way from Hind's Jct. towards Howley, 17 miles; grading completed, 10 miles; culverts put in, 6 miles; track laid, 6 miles; ballasting done, 6 miles. On the Buchan's side, 5 miles of right of way had been cleared and 3 miles of grading done.

A St. John's press report of Nov. 7 stated that the re-railing of the Western Division from Humbermouth to Port aux Basques was expected to be completed in about a week. (Nov., pg. 660.)

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57 electric for domestic service, and 24 steam and 19 electric for foreign service.

Canadian National Ry. has received deliveries of this year's rolling stock orders as follows:—30 colonist cars, Canadian Car & Foundry Co. completed; 20 colonist cars, National Steel Car Corporation, 1 delivered; 12 box baggage cars, National Steel Car Corporation, completed; 100 ballast cars, Canadian Car & Foundry Co. and 200, Eastern Car Co., completed; 30 ballast cars, National Steel Car Corporation, 25 delivered.

Newfoundland Ry. has received one of the three geared type steam, self-propelled cars ordered in England and which were described and illustrated in Canadian Railway and Marine World for August, on pg. 477. It has been placed in service on the Trespassey Branch.

A small passenger car has been re-

golf course for the use of the guests on pay as you play terms. Visits were made to the Canadian National Exhibition, on Aug. 25, and the party left North Toronto station, Aug. 26, at 7.15 a.m. The itinerary of the trip is as follows:—Reach Winnipeg, Aug. 28, leaving there Aug. 29 and travelling through the southern part of the prairie provinces to Lethbridge, and on over the Kettle Valley Ry. to Vancouver, arriving there Sept. 4. Both on the way west and on the return journey the directors will pass over parts of the line not usually visited on the annual tour of inspection, and every opportunity will be taken of seeing the country and gaining a first-hand acquaintance of its economic conditions. After visiting Victoria, the party will leave Vancouver for the east, Sept. 9, and visit Lake Louise and Banff, arriving at Calgary, Sept. 12.

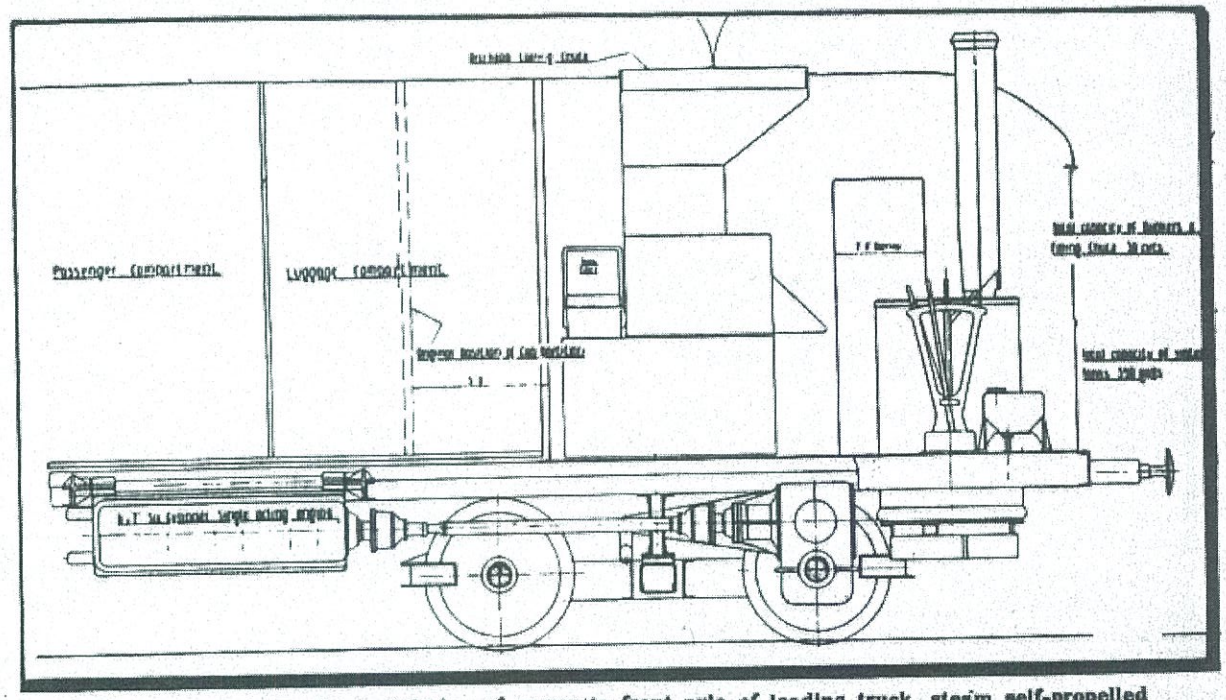
September 1928

Geared Type Steam Self-propelled Cars, Newfoundland Railway.

Canadian Railway and Marine World for January stated, on pg. 19, that the Newfoundland Ry. had ordered three steam self-propelled passenger cars for the Bay-de-Verde, Heart's Content and Trepassey branches, and on page 21 gave a preliminary description of these cars, witb a floor plan. The railway already has had two steam self-propelled cars in service since 1925, the bodies and running gear having been built by Cammell, Laird & Co., Nottingham, England, and the power plant and control apparatus by Sentinel Wagon Works, London, the cars having been described and illustrated in Canadian Railway and Marine World for July, 1925, pg. 335. The cars now on order from the same builders will have improvements over the two now in service, the chief of which were mentioned in the article in our January issue. They will be of the gear driven type, the leading truck being the power truck and the rear truck an idler. Six-cylinder steam engines are being installed which will give the cars 40% more power than those delivered in 1925. The chief dimensions of the new cars will be as follows:—

Length over body	63 ft. 6 in.
Distance between truck centers	45 ft. 7 in.
Length o engine compartment	11 ft. 4 5/8 in.
" mail compartment	10 ft. 4 1/8 in.
" baggage compartment	15 ft. 1 1/2 in.
" main passenger compartment	26 ft. 7 5/8 in.
Width over all	7 ft. 11 3/4 in.

tubes, can be lowered right out, exposing every water surface for cleaning and repair. It is said that the whole operation of taking out, cleaning and replacing can be done easily in one day's work. The inner shell tion which might cause leaky tubes. Steam raising normally takes about 45 minutes, but in emergency it can be raised in considerably less time. Compared with the boilers in the previous cars,



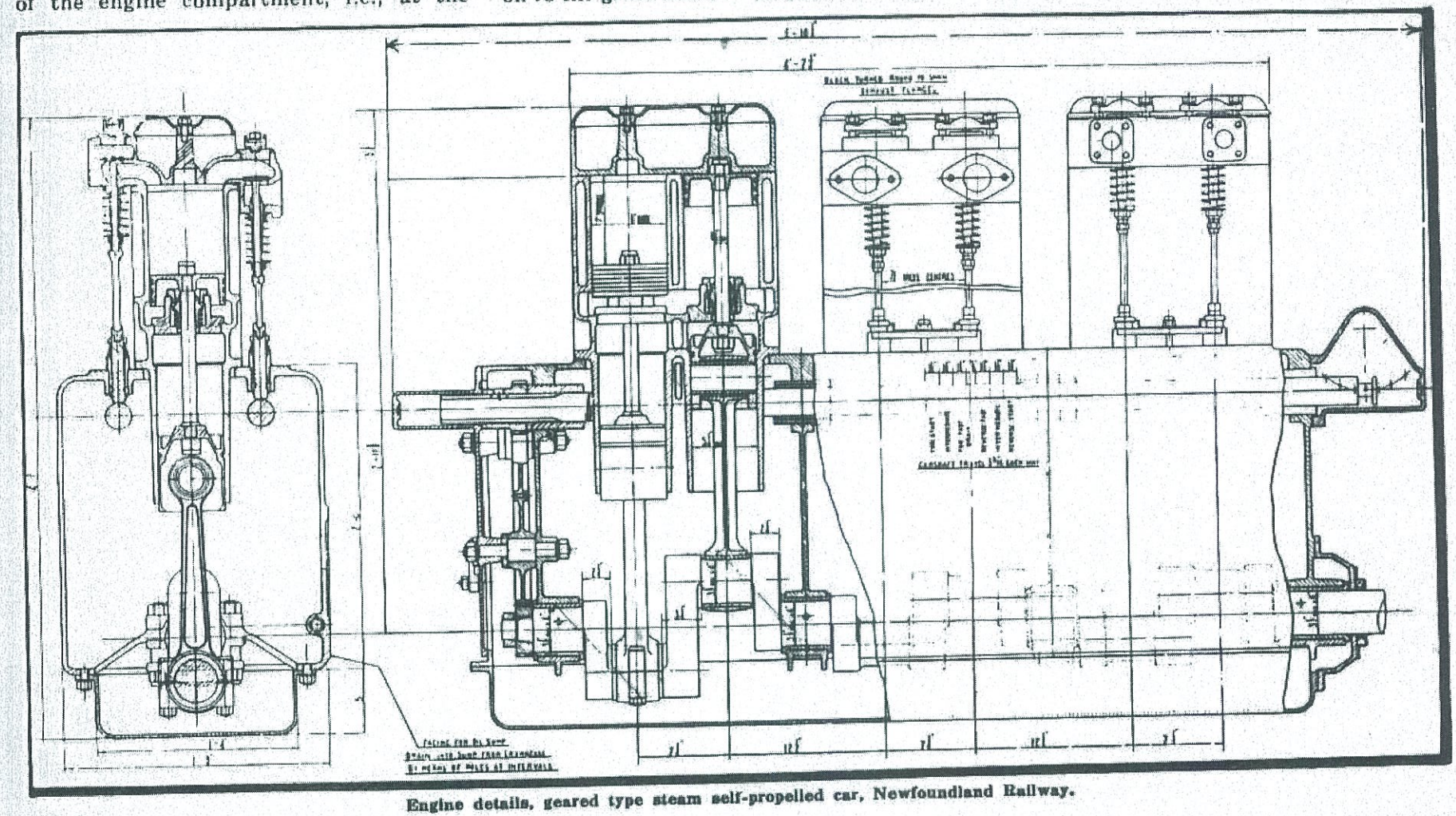
Engine mounting and transmission of power to front axle of leading truck, steam self-propelled car, Newfoundland Railway.

the lagging of both shell and mountings

Length of engine compartment	[illegible]
" mail compartment	10 ft. 4½ in.
" baggage compartment	15 ft. 1½ in.
" main passenger compartment	26 ft. 7⅝ in.
Width over all	7 ft. 11⅝ in.
Height, to top of roof	11 ft. 6¾ in.
Leading truck wheelbase	6 ft. 6 in.
Trailing " "	5 ft. 6 in.
Gauge	3 ft. 6 in.

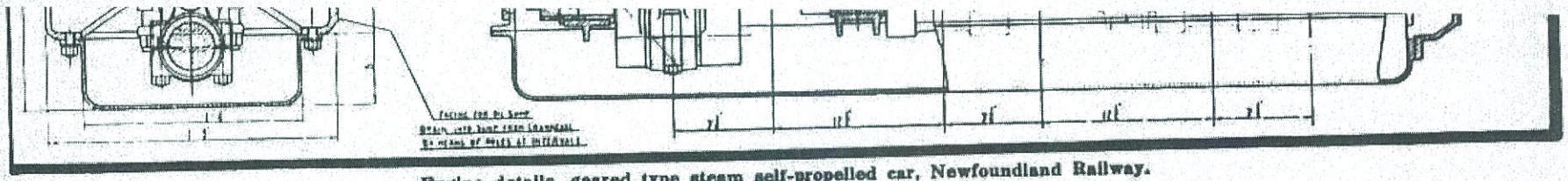
The boiler, of the Sentinel-Cammell latest pattern, will be mounted in the front end of the engine compartment, i.e., at the [illegible] front of the car. It is designed is provided with a series of diagonal corrugations, into which a set of straight steel tubes is fitted so that they are grouped spirally around a central space containing a steel chute through which the fuel is fed on to the grate below. Above is the superheater coil, in which the steam is raised to [illegible] the lagging of both shell and mountings has been increased, a new design of safety valve and boiler top has been fitted, the position of the mountings altered so as to make them more accessible, and a new arrangement of variable blast incorporated.

Engine mounting and transmission of power to front axle of leading truck, steam self-propelled car, Newfoundland Railway.



Engine details, geared type steam self-propelled car, Newfoundland Railway.

The 6-cylinder engine is suspended from the car just back of the power truck.



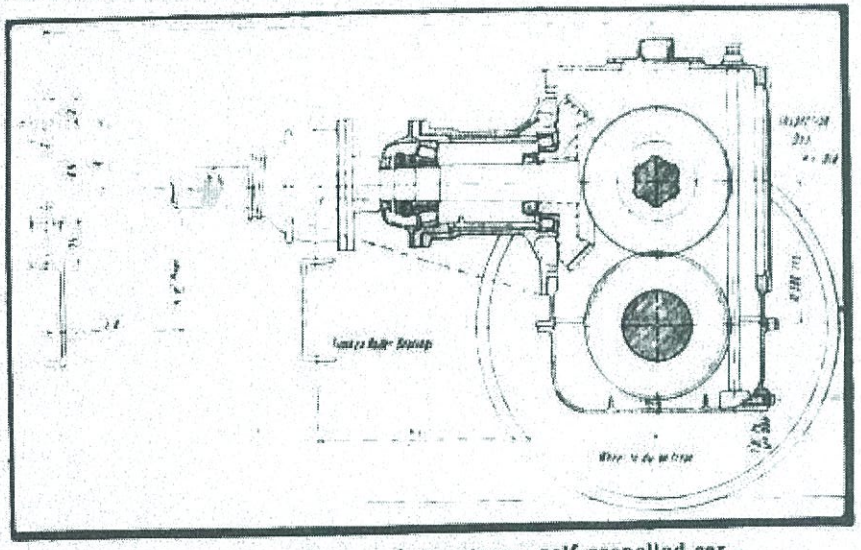
Engine details, geared type steam self-propelled car, Newfoundland Railway.

extreme front of the car. It is designed to give an output of about 2,350 lb. of steam per hour from Welsh coal. It consists of an outer and an inner cylindrical shell, flanged inwards and outwards respectively, both top and bottom. A steam tight joint is made between these flanges by packing rings, and they are secured together by a series of studs and nuts. The inner shell is tapered so that, when the nuts are removed, the whole, including the heater coil, in which the steam is raised to 650 degrees F., while at the bottom is the grate, one-half hinged so that it can be dropped down; the ash pan is also hinged so that the fire can be cleaned or dropped out in a few minutes. This arrangement of spirally grouped and steeply inclined tubes is designed to promote free and rapid circulation, tending to keep the tubes free of scale, while the cylindrical shape of the firebox renders it less liable to any distor-

The 6-cylinder engine is suspended from the car, just back of the power truck. The cylinders are 6 in. diam. by 7 in. stroke, and the design precludes the possibility of any water reaching the crank case. The output is 120 b.h.p. at 450 r.p.m., and, with 6 cylinders, the engine is said to be in as good balance as an automobile engine, the slow speed and solidity of construction providing a minimum of vibration. Suspension is in rubber bushings, to

August 1928

prevent vibration reaching the passenger space. In engines used in rail cars previously, it has often happened that bearings have had to be pinched for lack of room, but in this case there is ample space and the bearings are of extensive proportions, the loadings at full boiler pressure being only 400, 600 and 1,000 lb. per sq. in. for the main, crankpin and crosshead bushes respectively. Being so lightly loaded, and thoroughly lubricated under pressure, it is expected that wear will be kept to a minimum. The builders state that they have similarly proportioned engines in their plant which have run for 10 years without requiring adjustment. The mounting of the engine is such that all bearings, cylinders, valve gear, etc., can be got at readily and, in the event of the engine having to be removed, it can be lowered away in an hour.



Section through gear box, steam self-propelled car, Newfoundland Railway.

The universal joints are of forged steel, the parts being enclosed in an oil bath. They are designed to work through a maximum angle of 18 degrees, each way, but with the car running around a 9 degree

to 150 lb. per sq. in., and flooded continuously with oil thrown into them by the gears. The final gear, pressed on the axle, is of chrome nickel steel, loaded to 630 lb. per sq. in. of width, compared with 1,200 lb. per inch width usual on electric traction gears. The bevel gears are equally lightly loaded, and are carried on large tapered roller bearings which also take up side thrust. The torque reaction of the gear box is taken by a spring plate, allowing for axle play, and the upward movement of the axles is taken care of by a link at the forward end. With the large proportions of the gearbox parts, and thorough lubrication, it is felt that wear will be kept to a minimum.

The car body's interior divisions were specified above. In the operating compartment, at the front, the operator's position and controls are to the right of the boiler, with the coal bunker and water tanks at the rear of the compartment. The mail and baggage compartments are connected by a swinging door, and the baggage compartment side doors have 3 ft. 10½ in. clear opening. The men's lavatory is at the rear of the baggage compartment, at the left side, looking forward. A swinging door connects the baggage and passenger compartments, and the passenger compartment is again divided, by partition with swinging door, into first and second class sections, the first class section being at the extreme rear of the car. Seats are arranged transversely at each side of a central aisle. Seating accommodation is provided for 20 in the second class section and 15 in the first class. The women's lavatory is in the first class section.

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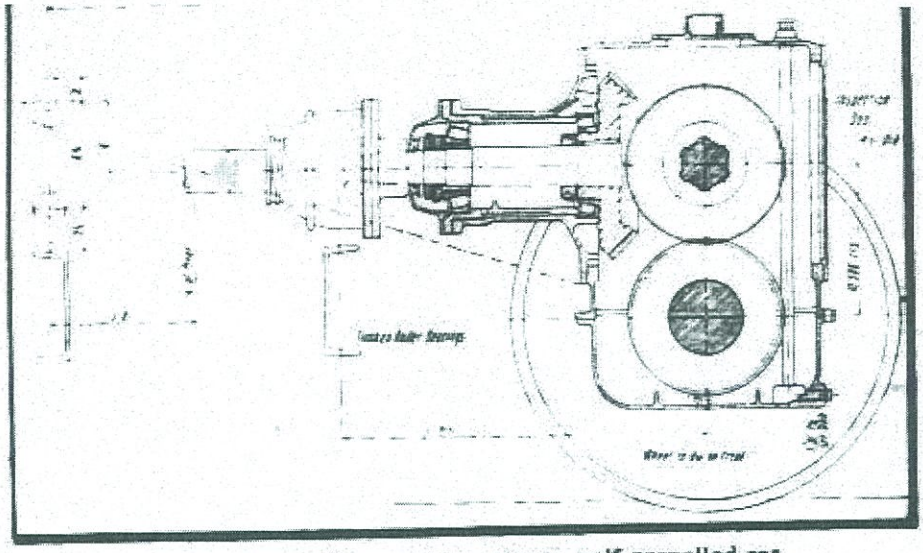

Section through gear box, steam self-propelled car, Newfoundland Railway.

and, in the event of the engine having to be removed, it can be lowered away in an hour.

The universal joints are of forged steel, the parts being enclosed in an oil bath. They are designed to work through a maximum angle of 18 degrees, each way, but with the car running around a 9 degree curve the angle of the joint next the gear box is only 8 degrees and the angle of the front joint only a little over one degree.

The gear box is of cast steel, carried on the driving axle by 2 bearings loaded only at the front, the operator's position and controls are to the right of the boiler, with the coal bunker and water tanks at the rear of the compartment. The mail and baggage compartments are connected by a swinging door, and the baggage compartment side doors have 3 ft. 10½ in. clear opening. The men's lavatory is at the rear of the baggage compartment, at the left side, looking forward. A swinging door connects the baggage and passenger compartments, and the passenger compartment is again divided, by partition with swinging door, into first and second class sections, the first class section being at the extreme rear of the car. Seats are arranged transversely at each side of a central aisle. Seating accommodation is provided for 20 in the second class section and 15 in the first class. The women's lavatory is in the first class section. Parcel racks are provided on both sides of the car in both passenger sections.

We were advised by the builders recently that 20 similar cars had been ordered by

August 1928

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London and Northeastern Ry., and that a total of nearly 40 cars of the same type were on order. Delivery of the three cars to the Newfoundland Ry. will, it is expected, be made at an early date.

Welded Bridge in Service.—The arc-welded railway bridge at Chicopee Falls, Mass., on the Boston and Maine Rd., described in Canadian Railway and Marine world for Nov., 1927, on pg. 646, has been

sary traffic to a terminal.

Newfoundland Ry.—H. J. Russell, General Manager, in a review of work done during 1928, stated recently that commencing in June ballasting was done on the main line between Clarenville and Bishops Falls, 136 miles, and on the Brigus Branch from Brigus Jct. to Carbonear, 39 miles. The Western Division, from Humbermouth to Port Aux Basques, 144 miles, was relaid with 70 lb. rails, leaving only one section of the line to be so relaid, viz.: from Bishops Falls to Humbermouth, 135 miles. Work was started on the diversion of the line to a lower altitude to give a better route in the Topsails area, and to carry the main line through Millertown and the Buchan's Mines area, where large industries are being developed.

Parkgate to Grande Prairie.—A western

P73 February 1929

Canadian Pacific Ry. has received 29 sleeping car frames, 10 baggage car frames and 325 Hart convertible ballast cars from Canadian Car & Foundry Co.; 5 observation car frames, and 7 first class passenger car frames, from National Steel Car Corporation; 279 flat cars from Eastern Car Co.; 9 cabooses built at its Angus shops; also 2 200-ton wrecking cranes and 2 self propelling pile drivers purchased.

Central Vermont Ry. has commenced receiving delivery of the 500 end door automobile cars which it ordered from Pressed Steel Car Co., and which it will use in automobile traffic from the western manufacturing centers via Canadian National and Central Vermont routes to New England.

Imperial Oil Co. has received 50 tank cars from Canadian Car & Foundry Co.

Johnson's Company. Thetford Mine, Que., has ordered a 040-T-82 saddle tank locomotive from Montreal Locomotive Works.

Newfoundland Ry.—The two Pacific type locomotives which this road has ordered from American Locomotive Co., to be built at Schenectady, N.Y., will have the following chief dimensions, etc.:—

Type	4-6-2
Gauge	3 ft. 6 in.

April 1929

Works.

Newfoundland Ry.—The two Pacific type locomotives which this road has ordered from American Locomotive Co., to be built at Schenectady, N.Y., will have the following chief dimensions, etc.:—

Type	4-6-2
Gauge	3 ft. 6 in.
Cab	Steel plate construc.
Fuel	Soft coal
Wgt. in working order on drivers	87,000 lb.
" " " " " eng. truck	22,700 lb.
" " " " " trailing "	18,700 lb.
" " " " total eng.	128,400 lb.
" " " " eng. and tender	217,400 lb.
Wheelbase, rigid	10 ft.
" engine	27 ft. 3 in.
" engine and tender	50 ft. 11¼ in.
Diameter of driving wheels	52 in.
Material of driving wheel centers	Cast steel
Leading truck wheels, diam.	30 in.
Trailing " " diam	30 in.
Diam. and length main driving journals	8 x 8 in.
Diam. and length other driving journals	7½ x 8 in.
Diam. and length engine truck journals	4¼ x 7½ in.
Diam. and length trailing truck journals	5 x 9 in.
Boiler, type	Belpaire, straight top
" inside diam. first ring	58 5/8 in.
" working pressure	170 lb.
Tubes, no. and diam	125-2 in.
Flues, " " "	21-5 3/8 in.
Length of tubes	16 ft.
Heating surface, firebox and syphons	125 sq. ft.
" " tubes and flues	1,512 sq. ft.
" " total	1,637 sq. ft.
Superheating surface	380 sq. ft.
Firebox length and width	72 3/16 x 60 1/8 in.
Grate area	30.1 sq. ft.
Valves, type and diam	Piston, 8 in.
Cylinders, diam. and stroke	18 x 24 in.
Tractive effort	21,600 lb.
Factor of adhesion	4.03

Equipment will include Walschaert valve gear; Superheater Co.'s type A superheater; hand lever reverse gear; two Sellers class N no. 8½ injectors; two Nicholson Thermic Syphons in firebox; Pyle National K2 headlight equipment; two Crosby 3 in. safety valves; Westinghouse E.T.-6 air brake equipment; cast steel frames; cast iron fire door; Detroit no. 42 5-feed lubricator; Leach A-10 double sanders; Barco steam heat connections between engine and tender and Gold coupling at rear of tender; Hodges trailing truck; Gollmar air bell ringer, and Homestead blow-off cocks. The tender will weigh 89,000 lb. in working order, and the tank will be U shaped, with level top. Coal capacity will be 9 tons and water capacity 4,000 gall. The tender frame will be built up of steel channels, and trucks will be of the arch bar type. Wheels will be cast iron with chilled tread, and 30 in. diam., and journals will be 4¼ x 8 in.

Railway Lands Patented.—Letters patent were issued in February for Dominion

Alco
4-6-2

April
1929

Length of tubes	13 ft. 6 in.
Heating surface, firebox	132.5 sq. ft.
" " tubes and flues	1,642 sq. ft.
" " total	1,774.5 sq. ft.
Superheating surface	390 sq. ft.
Grate area	33.8 sq. ft.
Valves, type	Piston
" travel	5 1/2 in.
" diam	10 in.
" lap and lead	15/16 and 3/16 in.
Cylinders, diam. and stroke	19 x 26 in.
Tractive effort	32,870 lb.
Factor of adhesion	3.68
Weight per cylinder h.p.	122.2 lb.
" " boiler h.p.	123.1 lb.
Boiler h.p. in % cyl. h.p.	99.2

The equipment will include Walschaert valve gear; Elesco type A superheater; hand lever reverse gear; Sellers class M-9 1/2 injectors; Pyle National headlight equipment; swing bolster type leading truck; two 3-in. World Consolidated safety valves; Westinghouse E.T.-6 air brake equipment; carbon cast steel frames; hand operated fire door; cast iron driving box wedges; hand operated grate shakers; cast steel driving boxes; mechanical lubricator, Leach triplex sanders, King metallic packing, and C.L. Co. blowoff cocks. The tender will weigh 94,100 lb. in working order, and capacity will be 3,500 imperial gall. water and 7 tons coal. Tank will be U shape. The tender frame will be of steel channels, and trucks will be of the arch bar type. Wheels will be c.i. center steel tired type, 33 in. diam., and journals will be 4 1/4 x 8 in.

Newfoundland Ry. The two Pacific type locomotives which were ordered from American Locomotive Co. to be built at Schenectady, N.Y., the dimensions, etc., of which were published in Canadian Railway and Marine World for April, pg. 215, arrived at St. John's, Nfld., on June 13, by the s.s. Nerissa, and were taken to the railway's shops for erection.

Freight Car Condition and Supply. The

Alco 4-6-2

April 1929

weed-killing composition. (June, pg. [illegible])

Newfoundland Ry.—Construction of a diversion of the railway through Millertown and Buchans to Howley, mile 357 from St. John's, was started in 1928, but was stopped in the autumn when there was change of government. It is reported that something in regard to a continuation of the work will be decided very shortly. The project involved an arrangement respecting the branch line from Millertown Jct. to Millertown, its extension thence to the Buchans mine area, and the construction of a new line to Howley. This route is at a lower level than the present line via Gaff Topsails, and would effect economies in operation and a greater regularity of service, which is often blocked by snow during the winter owing to the exposed situation.

An engineer is making a survey for a diversion of the Bonavista Branch in the vicinity of Catalina, at mile 77, about 12 miles from the terminus of the branch. Some years after the branch was built a dam was placed on Diamond Long Pond by Union Electric Co., and it is stated that the spring freshets flood the railway right of way. The proposed diversion would be about a mile long. (Press report.)

Ottawa and New York Ry.—National

1929

July, 1929

Railway Projects, Surveys, Construction, Be

Algoma Eastern Ry. is building an extension to its coal dock and storage facilities at Turner, Ont., opposite Little Current. It will have a length of 40 ft. of timber crib, rock filled, with a concrete top above water level, carrying the front portal rail, and the back portal rail will be carried on concrete wall supported by the rock fill in rear of the dock. The rear or shear leg rail will be carried on a concrete wall on the limestone, which lies close to the surface. Part of the storage bottom is bare limestone rock and part on rock fill which will be paved with concrete. The Randolph Macdonald Co. has the contract for the dock structure. The timber cribs are placed and filled and the balance of the work is to be complete by June 30. This extension will give the Algoma Eastern Ry. much needed facilities for increasing coal business in the Sudbury district. The cost is expected to be in excess of $150,000. Canadian Railway and Marine World is indebted to Wm. Seath Wilson, B.Sc., Sault Ste. Marie, Ont., for the foregoing information.

Central Vermont Ry.—Thirty miles of track will be relaid this year with 100-lb. rails; 8½ miles between Northfield, Vt., and Roxbury, Vt., replacing 90-lb. rails; 12½ miles between Bethel, Vt., and Sharon, Vt., and 9 miles between Brattleboro, Vt., and East Northfield, Mass.

The Williamstown branch, 7 miles long, which was practically completely destroyed in the floods of Nov. 1927, was re-opened on May 28, after reconstruction. The re-

pleted for an additional siding 1,500 ft., at Hayward, Victoria Subdivision; an additional 1,200 ft. siding will be built at Nanoose transfer siding, mile 84.5; and sand towers with storage sheds will be built at Duncan and Parksville. It is expected that 140 miles of track, from Victoria to Courtenay, will be treated with weed-killing composition. (June, pg. 353.)

Newfoundland Ry.—Construction of a diversion of the railway through Millertown and Buchans to Howley, mile 357 from St. John's, was started in 1928, but was stopped in the autumn when there was change of government. It is reported that something in regard to a continuation of the work will be decided very shortly. The project involved an arrangement respecting the branch line from Millertown Jct. to Millertown, its extension thence to the Buchans mine area, and the construction of a new line to Howley. This route is at a lower level than the present line via Gaff Topsails, and would effect economies in operation and a greater regularity of service, which is often blocked by snow during the winter owing to the exposed situation.

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July 1929

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it. (Press report.)

Newfoundland Ry.—The Newfoundland Legislature at its recent session authorized the raising of a loan of $6,000,000 bearing interest at not exceeding 5%, repayable on or before Dec. 1, 1954, the proceeds to be applied to various purposes, among them being additional re-railing on the Newfoundland Ry., on construction of the Topsails diversion of the line, and to provide additional rolling stock and machinery.

In connection with the projected Millertown-Buchans-Howley diversion of the line to avoid the heavy gradients and the exposed situation of the Topsails district, which involved the construction of about 29 miles of line from near the terminus of the Buchan's extension of the Millertown branch, to Howley, where the diversion ties up with the main line, we are advised officially that when construction was sus-

1929

British Columbia respectively for the general superintendents of those districts.

Canadian Pacific Ry. has received 3 depressed center flat cars built at its Angus shops, Montreal.

Canadian Pacific Ry. has received 300 75-ton Hart-Otis coal cars from Eastern Car Co.

Canadian Pacific Ry. has ordered 100 80-ton ore cars from Canadian Car & Foundry Co.

Newfoundland Railway.—It was reported from St. John's, Nfld., at the end of June, that the first of the two locomotives procured recently from American Locomotive Co. had been erected at St. John's and made a trial run on June 25 to Kelligrews, 19.26 miles, and return, and that after one or two more trial runs it would be placed in regular service. The second locomotive had been received at St. John's and was being erected. These locomotives, built at Schenectady, are of Pacific type, superheated, with cylinders 18 in. diam. and 24 in. stroke and maximum tractive effort 21,600 lb., weight on drivers being 87,000 lb. and factor of adhesion 4.03. The gauge of the railway is 3½ ft. A complete description of the locomotives was given in Canadian Railway and Marine World for April, pg. 215. The first one erected has been given road number 198, and the other 199.

August 1929

Freight and Passenger Traffic Notes

September 1929

lines where employed as of May 1, 1928, in the Western Region and Dec. 15, 1926, in the Central or Atlantic Regions. This same principle shall apply as between men on separate seniority districts of the same line where such seniority districts have been combined.

(15) New runs, jobs or permanent vacancies created after the date of the application of this amendment, will be filled by the senior engineer making application therefore, in accordance with his rank on the consolidated seniority list; it being understood that when assignments are advertised they will be bulletined in accordance with scheduled rules, or such rules as may be agreed upon between the general committee of adjustment and management.

(16) Passenger and mixed runs which have been filled by engineers not holding priority rights under this agreement will be bulletined in accordance with schedule rules within thirty days subsequent to the effective date of this agreement. Engineers unable to hold such assignments will be returned to their former corporate lines within their respective seniority districts, unless they can exercise their seniority on runs or service to which priority rights do not obtain without violating the provisions of section 14 of this amendment.

(17) Sections (2) to (16) inclusive of this amendment are subject to the provisions of section (1) hereof.

(18) It is understood that the Montreal agreement and this amendment supersede the Johnston Hopkins agreement of 1920. Therefore former Canadian Northern engineers who were placed at Biggar under the terms of the Johnston Hopkins agreement will no longer have the right to remain at Biggar, but may exercise their seniority under the terms of the Montreal agreement as herein amended.

(19) All provisions of said agreement of May 1, 1926, as applicable to engineers, not inconsistent with the provisions of this amendment, are hereby renewed and confirmed.

(20) This agreement shall become effective as soon as possible, as between the representatives of the Brotherhood of Locomotive Engineers representing the Engineers and the Canadian National Rys. and shall continue in effect until 30 days' notice of a desire to amend or rescind same is given by either party thereto to the other.

The foregoing amendments were signed on July 27 by S. J. Hungerford, Vice President, Operation and Construction Departments, Canadian National Rys., A. Johnston, G.C.E.; T. J. Bissett, F.A.G.C.E., and R. H. Cobb for the Brotherhood of Locomotive Engineers, the signatures being witnessed by the members of the board of conciliation and investigation.

Railway Projects, Surveys, Construction, Betterments, Etc.

Canadian Northeastern Ry.—A press dispatch of Aug. 2 from Stewart, B.C., stated that a survey party of 13 under A. McCullough, Chief Engineer, Kettle Valley Ry., a Canadian Pacific Ry. subsidiary, had left Stewart and had established a camp at American Creek, the object being to make a survey for a line from the summit of Bear River Pass, back to the mouth of Bitter Creek as the first step toward exercising the rights of the charter recently secured by Consolidated Mining and Smelting Co. from Vancouver Holdings, Ltd., for the construction of the Canadian Northeastern Ry. from Stewart to Fort Graham, and a branch northward up the Finlay River to the Ferguson mine in the Ingenika section. At the same time a gang of men employed by Power Corporation of Canada also arrived at Stewart and went out to American Creek where they began to cut out a road from the creek to the site where the corporation proposes to erect a dam in connection with a hydro-electric plant for the supply of 1,500 horse power for mining operations along the Bear River Valley. (See "Canadian Northeastern Ry. Changes Hands," on another page.)

Emerson-Churchill Promotion and Development Co., Ltd., has been incorporated under the Manitoba Companies Act with authorized capital of $250,000 and office at Winnipeg, to acquire lands, rights and privileges necessary to carry out any of its purposes as a land, exploration, development and colonization company; to acquire and operate ships, airplanes; to promote the formation of

civil engineer; John H. Sutherland, contractor; A. D. Sutherland, salesman; and W. R. Roblin, manager, all of Winnipeg.

Newfoundland Ry. ordered recently 11,000 tons of 70-lb. steel rails from Dominion Iron & Steel Co., to be 33 ft. long, and as usual the makers were permitted to supply up to 10% in short lengths of 30, 27 and 24 ft. Delivery was to be made by the middle of August, 6,000 tons to Humbermouth and 5,000 tons to Lewisporte. They will be used for rerailing from Diamond Crossing, mile 268.50 from St. John's, to Millertown Jct., 309.97 miles, also from mile 354.49, which is between Goose Brook and Howley, to Humbermouth, mile 403.82. The line between miles 309.97 and 354.49 is to be left with 50-lb. rails pending the completion of the proposed Topsails diversion. About $600,000 from the $6,000,000 loan issued by the government recently has been allocated for the rerailing work. The accessories, such as angle bars, bolts, nuts, spikes, etc., to be used with the rails have been ordered from England. Dominion Iron & Steel Co. supplied the Newfoundland Ry. with 15,000 tons of similar rails in 1927.

Pacific Great Eastern Ry.—The filling for the new dock and approach at Squamish, B.C., was reported to have been completed at the end of July, ready for the piling to be gone on with. A description of the wharf and approach trestle was given in Canadian Railway and Marine World for August, pg. 483.

Timiskaming and Northern Ontario Ry.—Following a conference between the

settler where they will be p
a tie collection train. Durin
of 1928-29 the railway exper
on ties bought from settl
report.)

Toronto, Hamilton and B
The Board of Railway Comm
Aug. 10 authorized the comp
a drain and to lay water
property owners made ob
after an examination of the
Board's engineers the plan
proved. (Press report.)

United States Railways' Results.

U.S.A. class 1 railways' gr
revenues in May were
compared with $511,511,96
1928, an increase of 5.1%;
penses were $390,977,050, co
$382,369,709, an increase o
net operating income, which i
after the payment of operati
taxes and equipment rentals
interest and other fixed char
was $103,616,046, represent
annual return of 5.81%
investment, compared with $
May 1928, equivalent to ann
5.02% on property investm
first 5 months of 1929, net
come was $457,362,036, e
annual return of 5.6% on pro
ment, compared with $376,2
same part of 1928, equivale
return of 4.68% on property
The Eastern U.S.A. railways
5 months of this year, earned
rate of 6.16% on property
compared with 4.93% in the
1928; the Southern U.S.A. rai
first 5 months of this year, e
annual rate of 4.33% on pro
ment, compared with 4.12%
part of 1928, and the Western
ways, in the first 5 months
earned at the annual rate of
pared with 4.59%.

U.S.A. class 1 railways' gr
revenues in June were $531,7
pared with $503,156,937 in J
increase of 5.7%; operating e
$381,596,414, compared with
an increase of 1.6%, and n
income was $105,946,086, rep
an annual return of 5.3%
investment, compared with
representative of an annu
4.36%, in June 1928. In the
of this year, net operating
$563,347,135, equivalent to
return of 5.54% on property
compared with $462,227,525
half of 1928, equivalent t
return of 4.62% on property
Eastern U.S.A. class 1 rail
first half of this year, earned
rate of 6.05% on property
compared with 4.91% in the
1928; the southern railways
half of this year, earned at th
of 4.39%, compared with 4.05
half of 1928, and the west
earned at the annual rat

peg.

Newfoundland Ry. ordered recently 11,000 tons of 70-lb. steel rails from Dominion Iron & Steel Co., to be 33 ft. long, and as usual the makers were permitted to supply up to 10% in short lengths of 30, 27 and 24 ft. Delivery was to be made by the middle of August, 6,000 tons to Humbermouth and 5,000 tons to Lewisporte. They will be used for rerailing from Diamond Crossing, mile 268.50 from St. John's, to Millertown Jct., 309.97 miles, also from mile 354.49, which is between Goose Brook and Howley, to Humbermouth, mile 403.82. The line between miles 309.97 and 354.49 is to be left with 50-lb. rails pending the completion of the proposed Topsails diversion. About $600,000 from the $6,000,000 loan issued by the government recently has been allocated for the rerailing work. The accessories, such as angle bars, bolts, nuts, spikes, etc., to be used with the rails have been ordered from England. Dominion Iron & Steel Co. supplied the Newfoundland Ry. with 15,000 tons of similar rails in 1927.

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Pacific Great Eastern Ry.—The filling

Thomas, Ont., was, on Oct. 1, given jurisdiction over all traffic matters pertaining to Canada, reporting direct to L. J. Brinkman, General Freight Agent, Detroit, Mich.

J. J. NICOL, previously General Car Foreman, Niles, Mich., was appointed Division General Car Foreman, St. Thomas, Ont., on Oct. 16, vice A. J. Mitchener, deceased.

MAX REUM was appointed General Car Foreman, Niles, Mich., on Oct. 16, vice J. J. Nicol, appointed Division General Car Foreman, St. Thomas, Ont.

Newfoundland Ry.—W. J. CHAFE, formerly Chief Train Dispatcher, Western Division, Bishops Falls, was appointed acting Chief Train Dispatcher, Eastern Division, St. John's, Nfld., on Sept. 24, vice W. Fitzpatrick, appointed acting Superintendent of that division.

W. FITZPATRICK, previously Chief Train Dispatcher, Eastern Division, St. John's, Nfld., was appointed acting Superintendent of that division on Sept. 24, vice M. A. White, assigned to other duties.

R. MOSDELL was appointed General Traffic Agent, on Sept. 24, to solicit freight and passenger traffic and supervise car record service. This was merely a confirmation of the position he has filled since Nov. 1925 but without title.

Northern Alberta Rys.—P. S. CHALMERS, previously chief clerk to Vice President of Finance & Accounting, Canadian National Rys., Montreal, was appointed Treasurer, N.A.R., on Sept. 16, vice C. H. Hickie. Office, Edmonton, Alta.

Pere Marquette Ry.—F. R. YEALLAND, previously Commercial Agent, P.M.R., Philadelphia, Pa., was appointed General Agent, Chesapeake & Ohio Ry., Hocking Valley Ry. and Pere Marquette Ry., at Toronto, on Oct. 1. O. P. Van Sweringen, of Cleveland, Ohio, is Chairman of the Board, and W. J. Harahan, of Richmond, Va., is Senior Vice President of the three companies.

White Pass & Yukon Route.—A. C. BLANCHARD, previously chief clerk to General Agent, has been appointed General Auditor as well as Treasurer. Office, Skagway, Alaska.

C. J. ROGERS, previously Purchasing Agent, has been appointed Comptroller, and also continues in charge of Purchasing Department. Office, Seattle, Wash.

Railway Projects, Surveys, Construction, Betterments, Etc.

Canadian Northeastern Ry.—H. W. M. Rolston, of Stewart, B.C., stated, in Vancouver, recently, that the survey parties had completed their work in Bear River Pass district and were working eastward. They state that perhaps the easiest and cheapest railway route through the coast range would be by the Bear River Pass; that there is no other passage through the range in British Columbia that can equal it, and that it would give the Peace River district a 300 miles shorter rail haul to tidewater than any other outlet to the coast. (Press report). (Sept., pg. 570).

Esquimalt & Nanaimo Ry.—The Board of Railway Commissioners has authorized the rebuilding of bridge 122, Victoria Subdivision, over Waterloo Creek, B.C.

Great Northern Ry.—Negotiations between Vancouver City Council and the company for a lease of the railway's property on the south side of Pender St., between Columbia and Carrall Streets, for market purposes, have fallen through, the city objecting to taking a lease terminable on 90 days' notice. (Press report).

Kettle Valley Ry.—The Board of Railway Commissioners has passed orders authorizing the rebuilding of bridges 21.7, 23.8 and 24.6, Merritt Subdivision, B.C., over Coldwater River. They are situated between Dot and Canford, easterly from Spence's Bridge, the junction with the Canadian Pacific Ry.

Newfoundland Ry.—We are advised officially that the Newfoundland Government has, for the present at any rate, definitely abandoned the project for the construction of a diversion to carry the main line via the Millertown Ry. and the Buchans Mine Ry., and several miles of new construction to Howley at mile 356.60 from St. John's. As stated in Canadian Railway and Marine World for Oct., pg. 616, track was laid with 70-lb. rails on 6 miles of the new construction done in connection with the diversion. This track, we are advised, is being taken up, and the rails are being used on the main line between Bishops Falls, mile 267.34, and Humbermouth, mile 403.82, on which the track is being relaid with 70-lb. rail. This work is expected to be completed by the end of November. It is intended during 1930 to raise the main line from 2 to 5 ft. between mile 315, six miles westerly from Millertown Jct., and mile 340, just east of Forks siding, covering the Topsails area, in order to overcome some of the present difficulties from snow.

The relaying of the track between Bishops Falls and Humbermouth was started, Sept. 23, by 5 gangs of 40 men each at the following points:—2 miles west of Bishops Falls working west; Millertown Jct. working west; Gaff Topsails working west; Howley working east, and Humbermouth working east. (Press report).

Pacific Great Eastern Ry.—The British Columbia Prime Minister, Mr. Tolmie, advised North Vancouver City Council, Oct. 7, that the surveys of the Peace River district which are being carried on jointly by the B.C. Government and the Canadian National and Canadian Pacific Rys., were progressing favorably and that definite information in connection with their results will be available about Jan. 1, 1930. Mr. Tolmie added:—"It has been stated by the Government on more than one occasion that it will await the results of this survey before taking any definite action in connection with the P.G.E. R. The Government feels it should have full knowledge of the assets in connection with the road before it attempts to dispose of them." (Press report).

Quebec, Saguenay and Chibougamau Ry.—We are advised officially that work is proceeding on the section under construction from Riverbend, Ile Maligne, to the Grande Peribonka River, 25 miles. The line has been ballasted as far as the Peribonka River. At River Bend a bridge has been practically completed by the Dominion Bridge Co. This bridge, over the Saguenay River, has a total length of 1,036¼ ft. from back wall to back wall, 658 ft. of which consists of 3 truss spans, and crossing the river proper the spans from the Riverbend end are 190¾ ft., 276½ ft. and 190¾ ft. respectively. The approach at the Riverbend end consists of 2 deckplate spans of 40 ft. each, and that from the other end consists of 260 ft. of deckplate girder spans. The substructure consists of concrete abutments and 2 concrete piers to carry the 3 central spans, with concrete pedestals carrying steel work for the support of the spans at the approaches to the central spans. The contract for the superstructure was carried out by A. Deslauriers, Ltd., Quebec. When the bridge is completed it is intended to proceed with the laying of ties and rails across it. The spring was rather late in

Newfoundland Ry. Shops. — Tenders have been asked by Newfoundland Railway Commission for the erection of locomotive and tender shops at St. John's, to replace the original shops which were burned in 1913, since when temporary shops have been used, but they are antiquated both in layout and equipment. The site of the new structure will be on the approach to the Long Bridge, and the building will have a frontage of 98 1/3 ft., with a depth of 379 1/3 ft. running back to the blacksmith's and boilermaker's shop. Its height from floor to roof truss will be 30 ft. Two 40-ton electric travelling cranes will be provided in the locomotive shop, one of which will travel the whole length of the shop, and other new equipment will be obtained. In the tender shop provision will be made for the location of the brass foundry, acetylene welding apparatus, compressor and tool room. (Press report).

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British Columbia and Peace River

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found that the Board had jurisdiction, whether the legislation giving it that jurisdiction was intra vires of the Dominion Parliament. The T.T.C.'s success in its appeals was divided, that as to the Royce Ave. subway being allowed, and that as to the Bloor St. subways being dismissed. Chief Justice Anglin and Mr. Justice Smith favored dismissing both appeals, but Justices Mignault, Lamont and Newcombe favored allowing the appeal as to Royce Ave. subway.

Prior to the subways being built, the T.T.C. had no street railway track on Bloor St. between Lansdowne Ave. and Dundas St., where the subways are located, but built tracks through them later, authority having been given by the Board of Railway Commissioners' order 36,693, Aug. 30, 1925. The T.T.C. has no track through the Royce Ave. subway, and possibly never will have. The appeal as to the Bloor St. subways was dismissed because the court found that the T.T.C. was interested in and affected by the building of the subways, that it benefits directly because it has been enabled to substitute a continuous line of street railway on Bloor St. for the disconnected lines existing before the subways were built, and that the Board had jurisdiction under the Railway Act, secs. 39 and 259, to pass the order appealed from. The Chief Justice and Mr. Justice Smith held that the Board had jurisdiction as to the Royce Ave. subways, even though the T.T.C. built no line through it, on the ground that an improved connection between the Dundas St. line and a possible line on Royce Ave. had been provided, but Justices Mignault, Lamont and Newcombe, reasoning that "it cannot be said that a person is interested merely because in the future he may become so," held that the T.T.C. had no interest in the Royce Ave. subway, and that, therefore, the Board of Railway Commissioners had no jurisdiction to order the T.T.C. to contribute to that subway's cost.

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Construction, Betterments, Etc.

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Quebec, Saguenay and Chibougamau

World for July, pg. 418.

Newfoundland Ry.—In addition to the $600,000 allocated from the $6,000,000 loan issued by the Government recently to be used for rerailing the main line between miles 268.50 from St. John's and 309.97, also from mile 354.49 to mile 403.82, as mentioned in Canadian Railway and Marine World for August, $300,000 have been allocated for equipment and improvements on the railway.

A short diversion of the line near an old gravel pit at Crow Gulch, Bay of Islands district, mile 405.91 from St. John's, has been completed. The track has been moved about 4 ft. for some distance, to secure a better alignment and to clear a bad spot on the right of way.

It was reported, Oct. 31, that the relaying of the track with 70 lb. rails between Bishops Falls, mile 267.34 from St. John's, to Humbermouth, mile 403.62, was practically completed to Howley, mile 356.6. A cargo of rails and accessories for relaying the track between Humbermouth and Howley was received at Humbermouth early in November.

Pacific Great Eastern Ry.—C. R. Crysdale, engineer in charge of the special survey of the Pacific Great Eastern Ry. and of routes for its possible extension into the Peace River Valley, opened an office at Victoria, B.C., late in October, and is compiling his report, which is to be made to the British Columbia Government, the Cana-

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structures are condemned. Residents of Ward 7 have been asking for a new bridge at Nanaimo St., and they now propose to ask the city council to take steps to have the present bridge condemned. (Press report).

Newfoundland Railway.—A Newfoundland paper, the Fishermen's Advocate, said in a recent issue:—"The Government has decided to abandon the building of the railway diversion from Millertown to Howley, started last autumn just before the elections by the late administration. One of the objections to the diversion is the demand of the Anglo-Newfoundland Development Co. for $400,000 as the price of the old Millertown-Buchans branch line. The decision of the Government is to rerail the Topsails section, and raise the roadbed above the level of the ground, so as to prevent snow blocking it in winter. It is the opinion of the railway staff and competent engineers, that all that is necessary to ensure satisfactory service in winter over the Topsails, is to raise the track from 2 to 5 ft. over the whole Topsails section. The work of rerailing this section will start at Millertown Jct. immediately."

The Bishops Falls Section, Western Division, Newfoundland Ry., extends from Bishops Falls, mile 267.34 from St. John's, to Humbermouth, mile 403.62 from St. John's, and includes the Topsails area. To avoid this area it was proposed to utilize the Millertown Branch starting from the main line at mile 309.97, with its extension to the Buchans mine, and to build an extension therefrom to Howley, at mile 356.60. This 46.63 miles covers the Topsails area, the principal points where traffic difficulties are met with in winter being Summit, mile 328.31; and Gaff Topsail, mile 332.79.

The proposed diversion of route involved the construction of a new road bed extending from a junction with the railway to Buchans Mine at mile 19, to Howley, mile 356.6 from St. John's on the existing main line. Work was started at Hind's Jct., some distance from the Buchans Mine Ry. on Aug. 6, and on Sept. 24, from mile 19 on the Buchans Mine Ry. to Hind's Jct. When work was stopped on Oct. 18 the amount done was:—clearing right of way from Hind's Jct. towards Howley, 17 miles; grading done, 10 miles; culverts put in on 6 miles; track laid, 6 miles; ballasting done, 6 miles; and from mile 19, Buchans Mine Ry. towards Hind's Jct., 5 miles of the right of way had been cleared and 3 miles of grading done.

Pacific Great Eastern Ry.—The North Vancouver District Council, on Aug. 29 instructed its clerk to protest to the Minister of Railways against delay in providing railway facilities for north shore waterfront industries, owing to the

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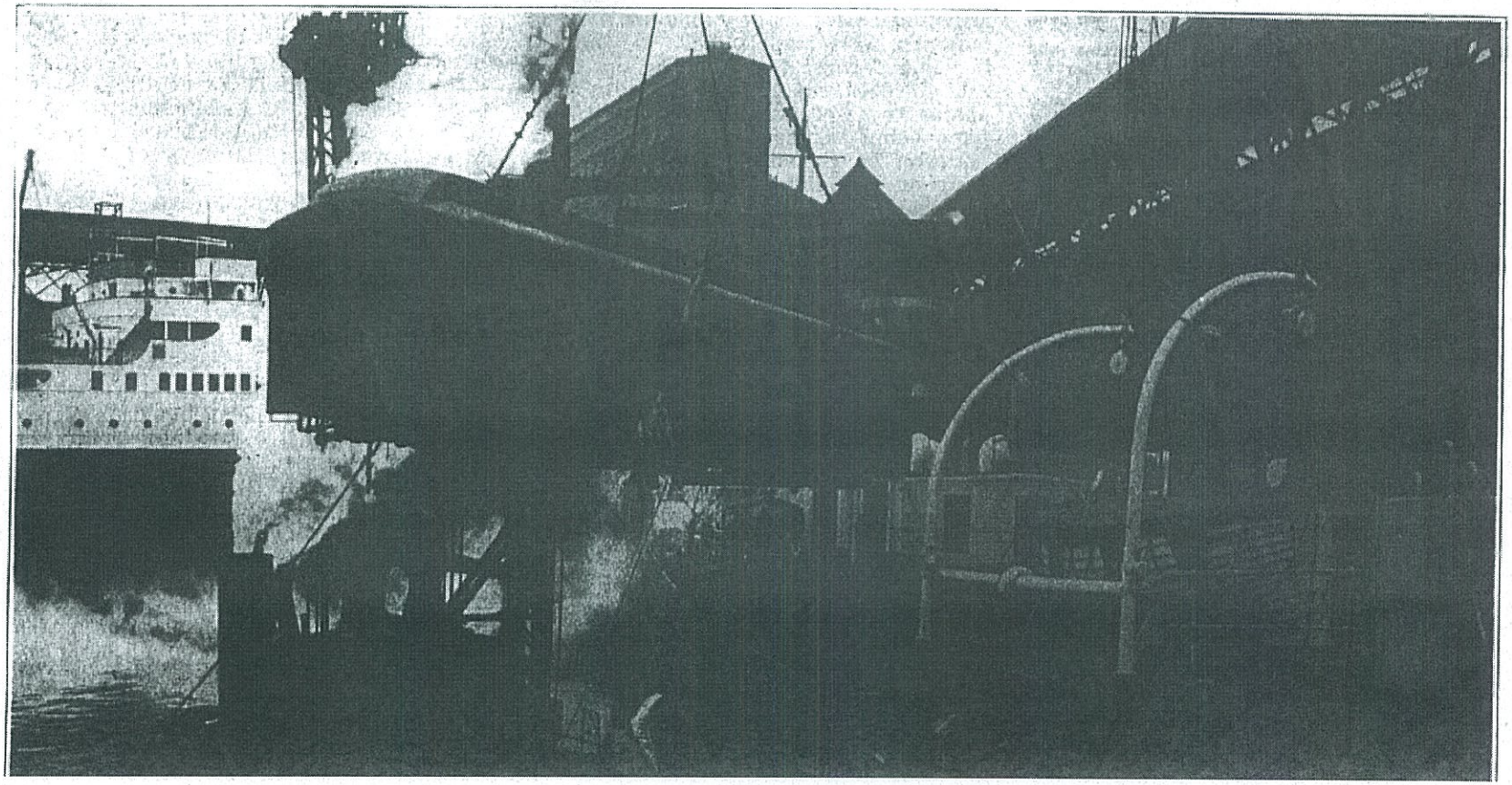
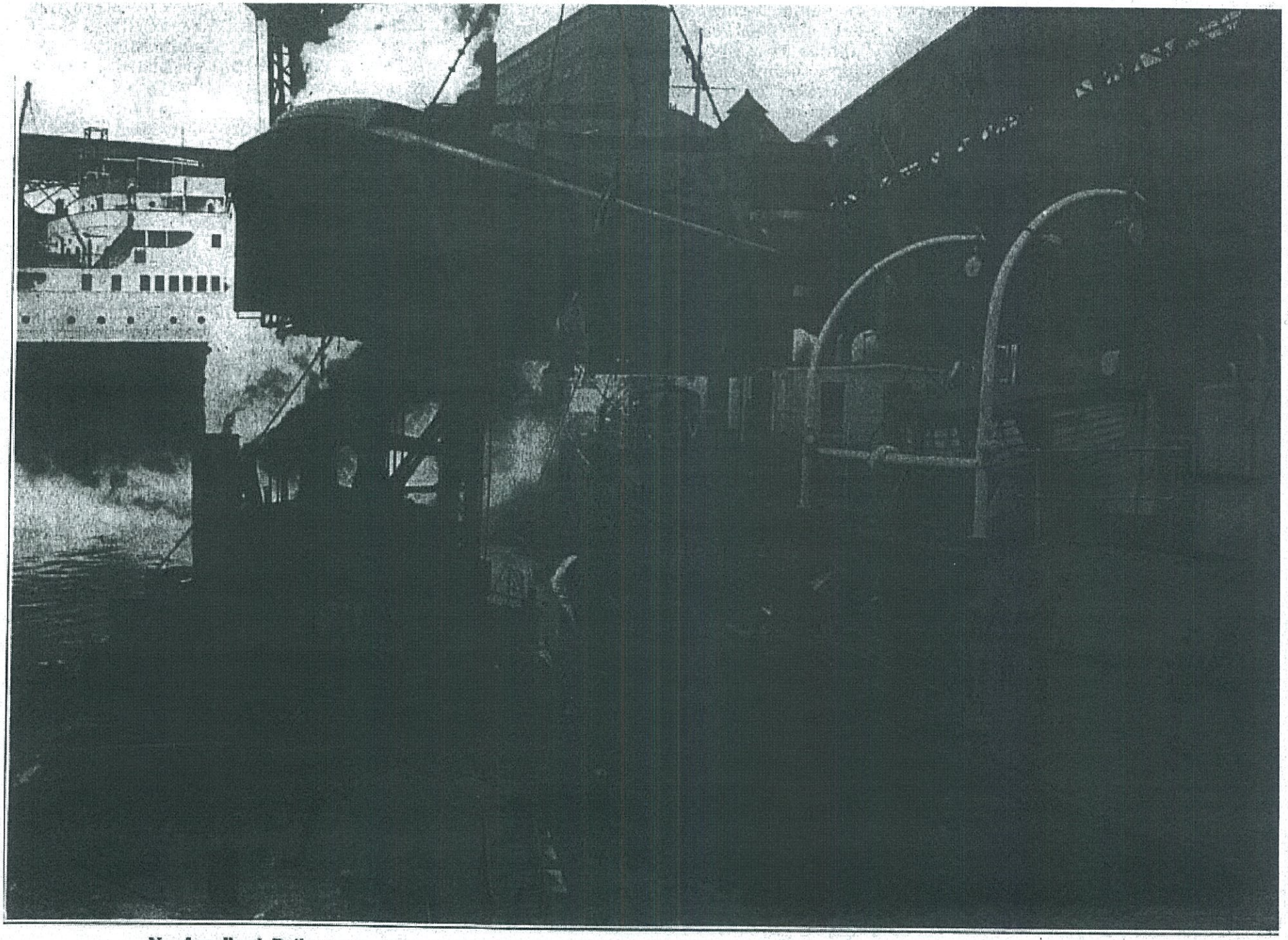
Railway Rolling Stock Orders and Deliveries.

Canadian National Railways will start work shortly, in the Winnipeg shops, on building 250 forty-ton refrigerator cars. Their dimensions will be:—length inside 40 ft. 9¾ in., length outside 42 ft. 5½ in., width inside 8 ft. 7½ in., outside 9 ft. 7 in., height floor to ceiling 7¾ ft., top of rail to top of car 13 ft. 1 in. The trucks, axles, journal boxes, brake beams, couplers and ice baskets will be of the latest types. The doors will have Miner fastenings; the roof will be Hutchins Dry Lading all steel. A Montreal press report 4 oil electric car frames and 4 sets of trucks from National Steel Car Corporation.

Canadian National Rys. has completed the construction of 100 refrigerator cars at its Transcona, Man., shops.

Canadian Pacific Ry. has received the first of its second order for 10 Hudson type locomotives from Montreal Locomotive Works. The new locomotive will be placed in operation between Montreal and Toronto early in December. These locomotives are designed for fast passenger schedules, and represent the cylinders, air reservoirs, all tie castings, and many of the brackets for supporting guide-yokes, airbrake cylinders, brake hangers and various other parts. The elimination of the large number of separate parts by this means reduces work of maintenance, and gives greater strength while effecting some saving in weight. Roller bearings have been fitted to both leading and tender trucks. Equipped in this way the trucks are able to run continuously, with examination necessary only at stated intervals and without any danger from overheating,





Newfoundland Railway car being transferred, in Montreal harbor, from barge to steamship Cairnross, for St. John's, Nfld.

The bodies of two sleeping cars and a dining car, built for Newfoundland Ry. by National Steel Car Corporation, were shipped from Hamilt

ings; the roof will be Hutchins Dry Lading all steel. A Montreal press report

These locomotives are designed for fast passenger schedules, and represent the

necessary only at stated intervals and without any danger from overheating,

Newfoundland Railway car being transferred, in Montreal harbor, from barge to steamship Cairnross, for St. John's, Nfld.

The bodies of two sleeping cars and a dining car, built for Newfoundland Ry. by National Steel Car Corporation, were shipped from Hamilton to Montreal by rail on flat cars, the trucks being shipped separately. The bodies were transferred at Montreal, by Harbor Commission crane, from the flat cars to a barge, and lifted from the barge to the s.s. Cairnross, which sailed from Montreal for St. John's, Sept. 30.

says that 250 will also be built at the

Cars received from connections ..... 29,762 2,824 [illegible]

Railway Rolling Stock Orders and Deliveries.

Canadian National Rys. has received five 4-6-4 Hudson type locomotives from Montreal Locomotive Works.

Canadian National Rys. has received two 2-10-2 class T-4-b locomotives from Canadian Locomotive Co.

Canadian Pacific Ry. has received frames for 13 first class passenger cars from National Steel Car Corp., to be completed at Angus shops, Montreal.

Canadian Pacific Ry. has received frames for 5 parlor cars from Canadian Car & Foundry Co., to be completed at Angus shops, Montreal.

Canadian Pacific Ry. has received 4 baggage cars from National Steel Car Corporation.

Canadian Pacific Ry. has received 4 depressed flat cars built at its Angus shops, Montreal.

Newfoundland Ry. has had 2 sleeping cars and 1 dining car shipped by National Steel Car Corporation.

Nichols Copper Co. is having 74-8 wheel anode cars and 150-4 wheel cathode cars repaired by National Steel Car Corporation.

Steel Company of Canada is having 75 hopper cars repaired by National Steel Car Corporation.

Timiskaming & Northern Ontario Ry. has received 2 consolidation locomotives from Canadian Locomotive Co.

Timiskaming & Northern Ontario Ry. has ordered 2 all steel snow ploughs from Canadian Car & Foundry Co.

Toronto-Montreal Passenger Excursion.—The Canadian National and Canadian Pacific Rys. operated from Toronto, on the evening of Friday, Sept. 19, what were advertised as "coach excursions", in which passengers were carried in day passenger cars to Montreal, on train 20 on the Canadian National and 42 on the Canadian Pacific. Returning, the excursionists left Montreal on the evening of Sunday, Sept. 21. The round trip fare was $10, with half fare for children 5 years old and under 12 years old. The regular round trip fare is $20.-70. The railway managements, while declining to make public figures as to the number of people carried, stated that the results of the excursion were satisfactory. An unconfirmed report in a Toronto newspaper stated that 162 passengers took advantage of the low-fare trip, of which 109 travelled by Canadian Pacific Ry.

Grand Trunk Ry. preference stockholders are reported in a London, England, press dispatch of Oct. 15 as having met to receive the report of their representative, R. C. Hawkin, on his return from a visit in their interests to Canada and the United States, and as having chosen a committee of seven to interview the Dominion Prime Minister, Mr. Bennett, while he is in London, to ascertain if there is any possibility of obtaining some remuneration for their stock holdings, which were adjudged valueless in the arbitration proceedings relating to the transfer of the Grand Trunk Ry. to the Dominion. The dispatch stated that the stockholders were in an angry mood, and that they referred to Canadian politicians in terms which were far from complimentary.

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that surveys are being made.

Newfoundland Ry. has given a contract to Horwood Lumber Co. for the construction of locomotive and machine shops, on the site of the present shops, at St. John's, Nfld. The new building, to be of steel frame construction with reinforced concrete walls, will comprise a transverse locomotive shop 140 x 60 ft., a machine shop 320 ft. x 62 ft. 5 in., and a tender shop 270 ft. x 38¾ ft. The present boiler shop, between the drydock and the municipal basin, will remain, and will adjoin the new structure. The locomotive shop will have 6 locomotive pits, each 40 ft. long, and will be framed

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with steel columns and trusses at 20 ft. centers, with 39 ft. 8 in. clearance between floor and truss bottom chords. It will be equipped with an electric travelling crane of 80 tons capacity, with clearance of 30 ft. between floor and crane rails.

The machine shop, adjacent to the locomotive shop, will also be framed with steel columns and trusses at 20 ft. centers, but clearance will be 25½ ft. from floor to truss bottom chords. A monitor, 21 ft. wide and 6 ft. high, will extend the full length of the roof. The shop will be equipped with two 5-ton electric travelling cranes, with clearance of 18 ft. 4 in. from floor to crane rails. One of the pit tracks from the locomotive shop will extend through the machine shop, and will continue on through the present boiler shop building. At the side of the machine shop nearest the municipal basin, will be a flue rattler, with a short track extending from it into the locomotive shop; an emergency store room; manufacturing tool room; locomotive pipefitters' and tinsmiths' shops; washroom enclosed by brick partition; air brake shop; general tin shop, and general brass foundry. At about the middle of the machine shop will be the general foreman's office, the shop foreman's office, and the distributing tool room. At the side of the shop nearest the drydock will be arranged the heavier machines, including the wheelpress, together with wheel storage space and tracks. An open shed, with concrete floor, will adjoin the shop, adjacent to the wheel storage space. In the working spaces throughout the shop, the floor will be of concrete; in the offices it will be of wood. An extension of the machine shop will house a marine shop and blacksmith shop, equipped with machines, steam hammers, etc., fitted to marine work.

The tender shop, 270 x 38¾ ft., will be located on the municipal basin side of the machine shop. It will be a low structure, built as a lean-to, with a center line of columns, all at 20 ft. centers, running longitudinally. Clearance at the outside wall will be 14 ft., and, at the machine shop side, 16 ft. 4 in.

The walls of the building will be reinforced concrete. There will be a pilaster at each wall column. The roof will be of 2¾ in. matched spruce laid on 6 x 14 in. purlins, and covered according to Barrett standard specifications for 5-ply roofing. The concrete flooring, which will be 5½ in. thick, will be surfaced with Flintkote asphalt emulsion heavy duty flooring. Work on the construction of the shops began early in October.

November 1930

of traffic conditions at the crossing is being made.

Newfoundland Ry.—In connection with the construction of locomotive and machine shops to replace present facilities at St. John's, satisfactory progress with the work was reported in a St. John's press report at the end of October, it being stated that about a third of the piles necessary for the new building had been driven, and that re-arrangement of trackage to accommodate the new layout had been completed. (Nov., pg. 703).

An account of the carrying away by ice of the superstructure of the bridge over Crabbe's River, 487 miles west of St. John's and 60 miles from the western terminus of the line at Port-aux-Basques, during the spring break-up, was given in our July issue, pg. 419. Construction of the substructure for the new bridge proceeded during the summer, and by the middle of October the easterly span was in position, it then being expected that the bridge would be completed and in operation early in November.

Northern Alberta Rys.—It was reported from Grande Prairie, Alta., Oct. 25,

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placed. (Press report.)

Newfoundland Ry.—In regard to the replacement of the bridge over Crabbe's Creek, an article on which is published in this issue on pg. 419, we are advised officially that the pier being built in the river will be of reinforced concrete on pile foundations. It will be 27 ft. high over the footings, and will be 24 ft. long and 8 ft. wide at the top. The abutments will be the same height as the pier above the footings and will also be 24 ft. wide. The pier and abutments will be built by the railway's forces. The Dominion Bridge Co. has been given a contract for the erection of the through truss span.

July 1930

Locomotive Works.

Newfoundland Ry. has obtained two mikado (2-8-2) locomotives from American Locomotive Co., the principal dimensions being as follows:—weight in working order, locomotive, 146,000 lb., tender, 104,000 lb.; cylinder diam. and stroke, 18 x 24 in.; diam. of driving wheels, 48 in.; boiler inside diam., 58⅝ in.; boiler pressure, 200 lb.; firebox length and width, 60¼ x 84⅛ in.; no. of tubes, 125; driving wheelbase, 13¼ ft.; loco. wheelbase, 29¼ ft; total wheelbase, loco. and tender, 56 ft.; heating surface, 1,754 sq. ft.; max. tractive effort, 27,600 lb.; factor of adhesion, 4.06; capacity of tender, 5,000 gall. water and 9 tons fuel. The firebox, frames and cylinders are made from a nickel alloy cast iron, described as close grained and of much greater strength and much more readily machinable than the grey iron formerly used. The

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equipment includes front end throttle; Franklin radial buffer between locomotive and tender; Alco lateral motion device; Detroit Mechanical Lubricator; Andrews tender trucks; 11 in. air compressor; Barco flexible joints between locomotive and tender; Alco flexible staybolts; Walschaert valve gear; air bell ringer; Nicholson thermic syphons, and Graham-White sanders. The locomotives are superheated. Tender water capacity has been increased by 1,000 gall., or 25%, over previous designs, which will permit longer runs without taking water, a feature of special value in winter operation. The boiler is of the extended wagon top type. The cab has been arranged to secure comfort for the crew in winter, being well lighted and equipped with foot warmers and storm windows.

Northern Alberta Rys. Co. has received, from Canadian Pacific Ry., 3 sleeping cars, Caledon, Caradoc, and Carberry, which have been relettered Northern Alberta Railways and named Cariboo, Cassiar, and Pouce Coupe; a dining car Hazelwood, which has been relettered and numbered 502; and a combination mail and express car, which was numbered 3504, and has been relettered and numbered 1452. It has also received three first class cars, nos. 3746, 3748, and 3749, from Canadian National Rys., but at the time of our advice they had not been renumbered.

August 1930

Sleeping and Dining Cars, Newfoundland Railway.

The ordering by Newfoundland Ry. of two steel sleeping cars and one steel dining car from National Steel Car Corporation, Hamilton, Ont., was announced in Canadian Railway and Marine World for May, pg. 285. This equipment will, we are advised officially, be ready for shipment early in September; the trucks will be shipped separately from the car bodies, which will be shipped on flat cars, and both trucks and bodies will proceed to Newfoundland from Montreal by ship. The cars are of 3½ ft. gauge.

The sleepings cars, one of which will have a vestibule at each end, and the other one vestibule with an observation platform with illuminated sign at the other end, will have general dimensions, etc., as follows:—length over end sills, 53½ ft.; length over buffers, 61 ft. 10 in.; distance between truck centers, 43½ ft.; length inside, 52 ft. 8⅛ in.; width over side sills, 7 ft. 10 in.; width over all at eaves, 8 ft. 9½ in.; width of clerestory, 4 ft. 2½ in.; width inside, 7 ft. 7 11/16 in.; height, track to roof at center, 12 ft. 9⅛ in.; height, rail to eave moulding, 9 ft. 10⅛ in.; height, track to sill at end, 3 ft. 1¾ in.; height, inside, 8 ft. 9¾ in.

The underframe will include continuous rolled steel channel center sills and angle side sills, built up bolsters, crossbearers and end sills, and cast steel center plates and bolster center filler. The side framing will include angle side posts with Z corner and end posts; the pier plates and letter plates will be of ⅛ in. material, and the girder plate of 3/16 in. material; the belt rail will be of continuous rolled steel, standard section. The flooring will be built up with 1/16 in. steel floor sheets, tar paper, 2 layers of 3-ply Salamander, another layer of tar paper, 13/16 in. intermediate floor, waterproof paper, and 1 in. top floor. The roof will be of 13/16 in. t. and g. wood, canvas covered. The trucks will be of the 4-wheel built up side frame type, with 5¾ ft. wheelbase; the wheels, 30 in. diam., will be solid rolled steel, with A.R.A. standard tread; journals will be 4¼ x 8 in. The light weight of car will be 80,000 lb.

The car interiors will be finished in figured mahogany, and will be arranged to provide 16 berths and a stateroom with upper and lower berths. At the A end will be the women's lavatory, with the stateroom adjoining, the aisle passing along one side of the car. The stateroom will have, in addition to the [illegible] will be the heater cabinet, coal box, and switch locker.

Equipment will include Westinghouse LN-1412 air brakes; special trussed brake beams; Miner B-10 buffers; Miner centering device; Tower couplers with 5 x 5 in. shank, operating from both sides of car; Holco diaphragms; Miner friction draft gear, type A-3-P; Miner ideal hand brakes; Gold hot water heating system; Robert Mitchell Co. statuary bronze finish interior hardware; McCord journal boxes; Safety Car Heating and Lighting Co. 3 kw. 40 volt 75 amp. lighting system, with Edison A-8-H batteries; Miner roller side bearings; American slack adjuster, form J; truck cross bolsters of steel castings to National Steel Car Corporation design, and Mudge peerless ventilators.

The dining car will have the following chief dimensions:—length over end sills, 55 ft. 2 in.; length over buffers, 57¼ ft.; distance between truck centers, 39 ft.; length inside, 53 ft. 9⅞ in.; width over side sills, 7 ft. 10 in.; width over all at eaves, 8 ft. 9½ in.; width of clerestory, 4 ft. 2½ in.; width inside, 7 ft. 7 7/16 in.; height, track to roof, at center, 12 ft. 9⅛ in.; height, rail to eave moulding, 9 ft. 10⅛ in.; height, track to sill, 3 ft. 1¾ in.; height, inside, 8 ft. 9¾ in.

Underframe, side framing, floor, roof and truck details are to be the same as for the sleeping cars, as described above; the special equipment will be the same as that for the sleeping cars, throughout. The car interior finish will be in mahogany. The car will have no end platforms. At one end, there will be a cupboard and refrigerators at the entrance; an aisle will run along one side of the car, past the kitchen and pantry, and open into the dining room, which will be 23 ft. 1 in. long, and fitted with 3 small tables with seats for 2 and one table with one seat, on one side, and 3 large tables, with seats for 4, and one table with seats for 2 on the other, thus providing accommodation for 21 diners at one sitting. The central aisle will be of 20 in. clear width. A sideboard, linen cupboard and refrigerator will be provided at the end of the dining room nearest the kitchen; a heater and a closet for bedding will be provided at the other end of the car. The dining room will be fitted with electric fans and wall lighting fixtures.

Effect of 1929 Export Wheat

[illegible] economic effect of reductions in freight rates on export wheat, with the results commented upon by the Eastern U.S.A. railways' committee on public relations, which are summarized as follows:—Designed as an emergency measure, the railways' action in reducing export rates on wheat was an unsuccessful experiment. It did not lead to the hoped-for increase in export trade; it did not stimulate foreign buying of United States wheat, nor did it avert a decline in wheat prices. It did induce foreign countries to take steps to meet the rate reductions in the United States. This was done by corresponding rate reductions in Canada, by increased import duties in France, Germany, Italy and Roumania, and by counteracting measures in certain other countries. Actual exports of United States wheat in 1929 declined, both as compared with 1928, a poor export year, and also as compared with the previous five years. The decline was specially marked during the months from June to November inclusive, when the export freight rate reductions were in effect. The effort to dispose of the large surplus of wheat on hand in the United States was unsuccessful. The increase in the visible supply of wheat in the U.S. between June 1, 1929, and Dec. 1, 1929, was 66% greater than normal. This increase occurred despite a decline of 108,000,000 bush. in the U.S. wheat crop of 1929 and an even greater actual and relative decline of 273,000,000 bush. in Canada, and in the face of reductions in export wheat rates made for the express purpose of reducing the wheat surplus. Congestion in the wheat markets in the U.S. during the winter of 1928-29 caused apprehension in many quarters, and the proponents of the rate reductions hoped that they would relieve the congestion before the 1929 crop was harvested, stimulate exports and avert a decline in wheat prices. But the reductions in freight rates did not stimulate exports, since exports as a whole declined in those six months of 1929; did not relieve the congestion, since the visible supply on Dec. 1, 1929, was greater than on Dec. 1, 1928, this increase in visible supply occurring in the face of a great decline in wheat production in 1929 in both the United States and Canada, and did not avert an immediate decline in wheat prices.

Editor's note:—Without going into the matter in detail, one would be justified in expressing the opinion, with regard to the corresponding rate reductions made by Canadian railways, that their principal effect was a large and unde- [illegible]

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10 in.; distance between truck centers, 43½ ft.; length inside, 52 ft. 8⅛ in.; width over side sills, 7 ft. 10 in.; width over all at eaves, 8 ft. 9½ in.; width of clerestory, 4 ft. 2½ in.; width inside, 7 ft. 7 11/16 in.; height, track to roof at center, 12 ft. 9⅛ in.; height, rail to eave moulding, 9 ft. 10⅛ in.; height, track to sill at end, 3 ft. 1¾ in.; height, inside, 8 ft. 9¾ in.

The underframe will include continuous rolled steel channel center sills and angle side sills, built up bolsters, crossbearers and end sills, and cast steel center plates and bolster center filler. The side framing will include angle side posts with Z corner and end posts; the pier plates and letter plates will be of ⅛ in. material, and the girder plate of 3/16 in. material; the belt rail will be of continuous rolled steel, standard section. The flooring will be built up with 1/16 in. steel floor sheets, tar paper, 2 layers of 3-ply Salamander, another layer of tar paper, 13/16 in. intermediate floor, waterproof paper, and 1 in. top floor. The roof will be of 13/16 in. t. and g. wood, canvas covered. The trucks will be of the 4-wheel built up side frame type, with 5¾ ft. wheelbase; the wheels, 30 in. diam., will be solid rolled steel, with A.R.A. standard tread; journals will be 4¼ x 8 in. The light weight of car will be 80,000 lb.

The car interiors will be finished in figured mahogany, and will be arranged to provide 16 berths and a stateroom with upper and lower berths. At the A end will be the women's lavatory, with the stateroom adjoining, the aisle passing along one side of the car. The stateroom will have, in addition to the berths, a sofa to pull out, a full length mirror and smaller mirrors, basket rack, and complete lavatory facilities. On passing the stateroom, the aisle will swing to the center of the car, and open into the main room, which will be 24 ft. 8¾ in. long, with aisle of 20 15/16 in. clear width. The seats will be 2 ft. 11⅜ in. wide. At the end of the room nearest the B end of the car will be a partition with swinging door opening on to an aisle which will pass the men's lavatory and smoking room on the side of the car opposite to that occupied by the aisle at the A end. Entrance to the men's lavatory will be from the aisle, and not from the smoking room. The smoking room will be 7 ft. 5¾ in. x 5 ft. 8¼ in., and will be equipped with sofa and chair, wash basins, towel racks, etc. Adjoining it, at the B end of the car,

The dining car [illegible] chief dimensions:—length over end sills, 55 ft. 2 in.; length over buffers, 57¼ ft.; distance between truck centers, 39 ft.; length inside, 53 ft. 9⅞ in.; width over side sills, 7 ft. 10 in.; width over all at eaves, 8 ft. 9½ in.; width of clerestory, 4 ft. 2½ in.; width inside, 7 ft. 7 7/16 in.; height, track to roof, at center, 12 ft. 9⅛ in.; height, rail to eave moulding, 9 ft. 10⅛ in.; height, track to sill, 3 ft. 1¾ in.; height, inside, 8 ft. 9¾ in.

Underframe, side framing, floor, roof and truck details are to be the same as for the sleeping cars, as described above; the special equipment will be the same as that for the sleeping cars, throughout. The car interior finish will be in mahogany. The car will have no end platforms. At one end, there will be a cupboard and refrigerators at the entrance; an aisle will run along one side of the car, past the kitchen and pantry, and open into the dining room, which will be 23 ft. 1 in. long, and fitted with 3 small tables with seats for 2 and one table with one seat, on one side, and 3 large tables, with seats for 4, and one table with seats for 2 on the other, thus providing accommodation for 21 diners at one sitting. The central aisle will be of 20 in. clear width. A sideboard, linen cupboard and refrigerator will be provided at the end of the dining room nearest the kitchen; a heater and a closet for bedding will be provided at the other end of the car. The dining room will be fitted with electric fans and wall lighting fixtures.

Effect of 1929 Export Wheat Rate Reductions.

The reductions made by United States railways in May, 1929, effective to the end of September in that year, in c.l. rates on export wheat and flour, and similar reductions made by Canadian railways to preserve the rate relationships, were dealt with in Canadian Railway and Marine World for June, 1929, pg. 365, and in subsequent issues. The reductions in the wheat rates were made effective first, followed by those in the flour rates, the Canadian railways proceeding under authority of the Board of Railway Commissioners' order 42,594, May 13, 1929, as regards wheat rates, and order 42,680, May 27, 1929, as regards flour rates.

The U.S.A. Bureau of Railway Economics completed a study recently on the

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ton and Grand Lake Coal and Ry. Co.'s main railway line.

Newfoundland Ry.—Tenders for erection of new shops at St. John's were received to July 31.

Northern Alberta Rys.—The announce-

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ng present route. It is stated that it will be
9:- completed by 1931. (Geneva press cable-
ng gram).
at

Newfoundland Ry. is reported to have
given a contract to Acme Construction
en Co. for the erection of a freight office,
ce and an addition to the freight sheds on
st Pond Street, St. John's, the work to be
as completed by May 1.

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dent. (Press report.)

Newfoundland Ry.—At the St. John's

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Board of Trade annual meeting, Jan. 27, one of the members deprecated the scrapping of the work done in connection with the proposal to divert the line from Millertown Jct. to Howley, to avoid the 1,500 ft. climb over the Topsails area. Ever since the line was built its operation through that area has been a constant source of worry, expense and delay every winter and spring. The line through the area has now been rerailed with heavier rails. An explanation of the matter is expected during the Legislature's session. (Press report.)

The Premier and the Finance Minister of Newfoundland have been in New York in connection with negotiations between the Reid Newfoundland Co. and certain pulp and paper interests respecting the development of the Gander River area. A 1000-ton per day paper mill is planned with a hydro-electric power plant. A 75-ft. dam is proposed to be built at the source of the Gander River, which would have the effect of diverting its flow, by a 3-mile canal, into the bed of the Indian Bay River, 25 miles easterly. The power dam would be erected at Indian Bay, where the works referred to would give a 150 ft. head, while another dam at the mouth of the existing Gander River would be necessary as a stopwater. The dam at the headwaters of the Gander River would provide a route for the diversion of the railway and reduce considerable curvature. The Legislature passed an act in 1928 authorizing the construction of a branch line to Gander Bay, and it is stated that legislation will be asked to authorize the changing of the terminus to Indian Bay. (Press report.)

present act. (Feb., pg. 78.)

Newfoundland Ry.—The 350 ft. steel bridge on the trans-insular railway across Crabbe's River, 487.69 miles west of St. John's and 59.53 miles northeast of Port aux Basques, was carried away by floods and ice on March 14. Reconstruction was started March 17, and a temporary trestle was got into position in nine days, enabling through traffic between St. John's and Port aux Basques to be resumed March 27.

Northern Mines Ry. and Develop-

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Newfoundland Railway Improvements.

The Newfoundland Ry. Monthly Bulletin, issued from the General Manager's office, states that since its first issue in Nov., 1925, the following transformation of the railway system has taken place.—Fifty lb. rails have been replaced by 70 lb.; motive power has been increased 35%; rolling stock has been brought to a standard in application of parts and excellence in condition; passenger and buffet service has been brought to a point of attractiveness and service far beyond expectations; freight service performance has been increased from an average of 9 miles an hour to 12 miles; fuel consumption has been decreased from 70 lb. a mile to an average of 53 lb.; station costs have been reduced 25%; maintenance of way has been raised to a standard in condition preservative for rolling stock and eliminating derailment hazards; personal accidents have been reduced to insignificance; improved loading facilities have been provided, reducing loading costs, claims in freight damages and pilfering; cattle claims have been reduced; the coastal steamship service has been improved with steadily reducing costs.

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Newfoundland Ry. Box Cars.—Newfoundland Ry. received, near the end of 1934, from Magor Car Corporation, New York, 25 steel frame, single sheathed box cars. We are advised officially that these cars have a four-sill underframe, wood floor, and metal outside roof; that they are fitted with automatic couplers; that the trucks are of the side frame type, and that the air and hand brakes apply to all wheels of both trucks. Capacity is 60,000 lb.

Canadian National Rys.' Summer Re-

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Newfoundland Railway Paper Shipping Facilities at Port aux Basques

In August, 1927, the International Power and Paper Co. acquired from the Newfoundland Power and Paper Co. all the latter's property and assets, consisting of newsprint mill and other buildings at Corner Brook, Nfld., the hydro-electric development at Junction Brook, power transmission lines and timber limits. The International Power and Paper Co. experience having been that during about four months of the year Humber Arm is frozen, making it practically impossible to ship newsprint through Corner Brook, it undertook negotiations with the Newfoundland Ry. early in 1928 in regard to the possibility of making Port aux Basques, the western terminus of the railway, at the extreme southwest corner of Newfoundland, the winter shipping port for newsprint from Corner Brook. The negotiations were continued until the last week of June, 1934, when an agreement was entered into between the company and railway, providing for the handling of a minimum of 80,000 tons of newsprint a year from Corner Brook to Port aux Basques, this agreement being for ten years with option of renewal for a further 10-year term. The agreement provided for the construction at Port aux Basques of a complete newsprint handling terminal, consisting of train unloading shed, paper storage shed, carrier shed and loading pier. The agreement was ratified at a meeting of Newfoundland Commission of Government on Aug. 8, 1934.

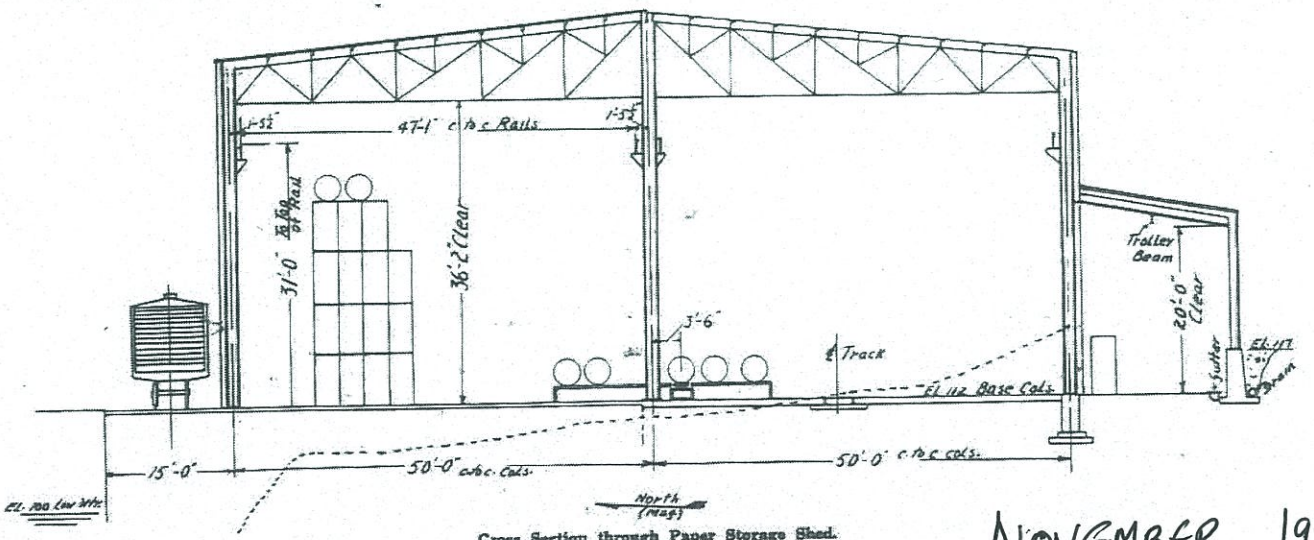
The difficulties of shipping by water from Corner Brook are well illustrated by the experiences of the 1929-30 winter. The ss. Corner Brook, bound to Corner Brook to load newsprint, was jammed in the ice off South Head, Bay of Islands. The Newfoundland Ry. ss. Kyle was chartered to proceed to Humber Arm to cut out the imprisoned steamer, but the Kyle became jammed in the ice near the Corner Brook. The ss. Humber Arm was bound to Corner Brook with freight at the time, and it was necessary to divert her to Sydney, where her freight was landed, brought to Port aux Basques, and then forwarded to Corner Brook by rail.

The construction of terminal facilities at Port aux Basques was delayed during the period 1929-1934 by unfavorable financial conditions. The financial crisis was felt to a greater extent in Newfoundland than in Canada. Last year, however, with financial assistance offered by the British Government, it was found possible to proceed with the work, actual construction having been begun in July, 1934. The whole scheme was based upon the idea of the Port aux Basques terminal being employed only during the first three or four months of each year. During the balance of the year, previously existing facilities at Corner Brook are utilized.

The first work in connection with the new terminal was the demolition of an old freight shed, 375 ft. long and 40 ft. wide, which also contained customs offices. This shed was of frame construction. Its site has been utilized for the new paper storage shed. The previously existing railway station, coal dock and standpipe were removed and up-to-date structures were erected. The plans provided for new customs facilities as part of the new storage shed; this shed is also being utilized for freight handling, and freight shed doors have been provided on the east and south sides for this purpose, a railway track also having been laid, to facilitate freight handling. The previously existing dock foundation was reinforced by additional piling, and the new paper storage shed was built partly on this foundation and partly on the solid ground behind. Reference to the cross section shows the ground sloping steeply upwards on the west side, and part of the new shed floor was formed of planking on top of the piling and part was laid in concrete.

The managements of paper mills, the product of which is shipped chiefly by water, find large storage sheds a necessity to take care of output between calls by cargo ships. Up-to-date sheds with high speed cranes and carriers enable ships to load with a minimum of time in port. Such sheds also act as stock rooms, and different sizes of newsprint can be stocked and a mixed cargo loaded without delay. The storage shed at Port aux Basques is divided into 18 ft. bays by a row of center columns along which the paper carrier runs. The shed is 378 ft. long by 100 ft. to bottom chord of truss. For its support, 892 creosoted piles were driven. From the waterfront, 50 ft. of the shed is piled over water and the inside 50 ft. is of reinforced concrete; on land, it was necessary to excavate and blast out the side of the hill, and about 4,000 cu. yd. of earth and stone was removed. The inside portion of the building has about 250 ft. piled, with 6 in. concrete piers and beams, and a 6 in. slab over piers. The east or the water side has the piles capped with 10 in. x 10 in. British Columbia fir, the floor being double, of 2 in. tongued and grooved material on 3 in. plank. The last pile for the paper storage shed was driven on Oct. 8, 1934, and the floor slab was finished Oct. 31. The shed is of structural steel construction throughout, with corrugated iron siding attached to channel girts. Height to crane rail is 31 ft., with sufficient clearance to the bottom chord of the trusses for the electric cranes. The roof is of heavy plank on steel purlins, with tar and gravel protection. The fabricated steel for the construction arrived at Port aux Basques aboard the ss. Philip T. Dodge on Dec. 22, 1934, there having been 370 tons in the shipment. On Jan. 21 last, the steel was all erected, seven days having been lost on account of weather conditions. On completion of the steel erection, placing of the corrugated iron siding commenced, and was completed by the middle of February, despite the sub-zero weather prevailing. Due to the severe winter conditions, and to the fact that part of the structural steel is supported on piles, and part on concrete foundations, special attention was paid to the structural steel design, low unit stresses having been employed throughout. Four overhead electric cranes manufactured by Herbert Morris, Ltd., Southborough, England, and each of 1½ long tons hoisting capacity, are installed in the paper storage shed, two in each section, these taking care of the capacity of the newsprint carrier. All the movements of the cranes (hoisting, bridge travel, grab travel) are power-operated. The cranes are of the latest light type, with compound girder construction for the frames, and are equipped with solenoid brakes on all motions. Due to the isolated location, these cranes have sleeve bearings throughout, with the exception of the motors and lifting hook, where ball bearings are employed.

The train unloading shed, the north building of the layout, is 176 ft. long and 45 ft. wide and 15 ft. 6 in. high to bottom chord of truss. This building also is of structural steel with corrugated iron siding, and has a light truss spanning the center width of two tracks, and a central unloading platform. It is designed for a capacity of 8 cars, four on each side of the unloading platform.



Cross Section through Paper Storage Shed.

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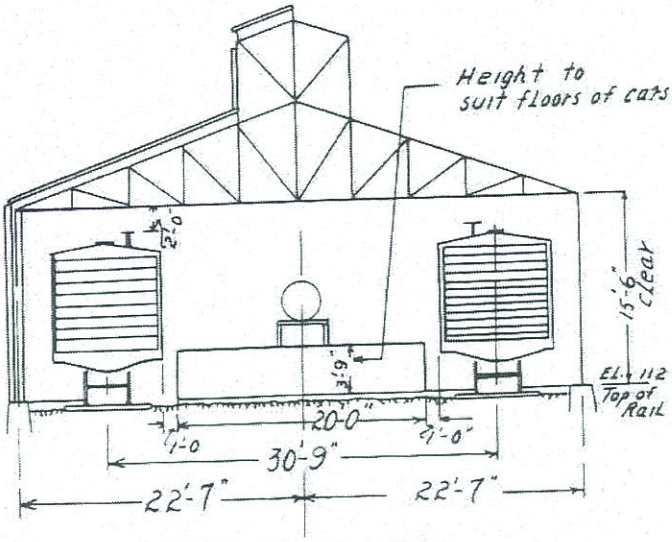
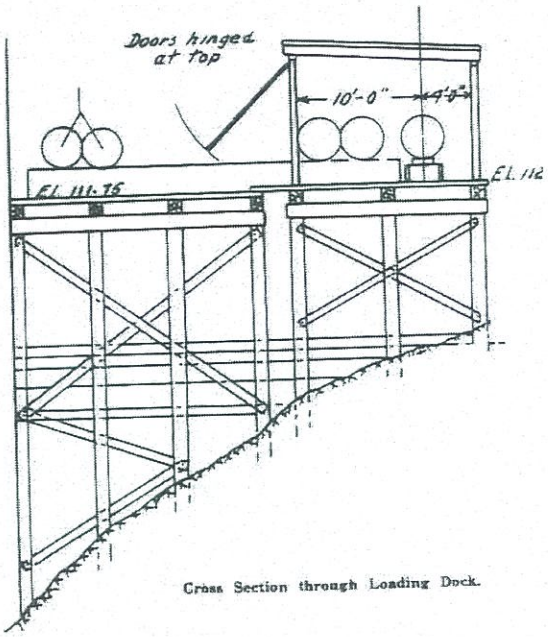


Cross Section through Train Shed.



Cross Section through Loading Dock.

Newsprint is unloaded from the cars by Silvus trucks and unloaded directly on the paper carrier, which runs down the center of the platform and is set at the same elevation as the Silvus trucks when they are in a horizontal position.

The Power House

The power house building is 90 x 20 ft., and is located at the southwest corner of the paper storage shed. It is a structural steel building, with 8 in. interlocking tile walls, and provides accommodation for two semi-Diesel engine-generator sets of 165 h.p. and 110 h.p. respectively, generating 3-phase, 550 volt, 60 cycle current for the cranes and carriers, this current being transformed down to 110 volts for lighting purposes. The 165 h.p. engine is designed to take care of the load, with the 110 h.p. one as a standby.

The switchboard, and the panel boards controlling the power and lighting, are located in the power house. Other equipment in the building includes fire pump of 1,000 gall. capacity, the circulating pump for cooling the engines, and various tanks for oil and cooling water.

The power house contains the office accommodation, the office space being 30 x 20 ft.

Carrier Shed and Loading Pier

To the south, and attached to the paper shed, are a carrier shed and loading pier, the former being 415 ft. long and 15 ft. wide, and the pier 370 ft. long and 21 ft. wide. The carrier shed and loading pier floors overlap. The foundations for both pier and shed are piled and braced; for the two units 480 piles were driven. On top of the piles are 10 in. x 10 in. stringers covered with 3 in. plank.

Carrier System

A system of standard newsprint carriers has been provided, divided into carrier 1 and carrier 2, with a junction between to take care of the angle between the previously existing and new wharves. The carrier system is about 950 ft. long over all, and runs from the train unloading shed through the paper storage shed and carrier shed to the end of the pier. The carriers are endless conveyors consisting of hardwood bunks, each 21 in. long by 11½ in. wide, supported by chains on cast iron wheels, and travelling on steel rails, the conveyor speed being 60 ft. per minute. The cars of paper arriving from Corner Brook are placed in the railway yard at Port aux Basques and moved thence to the unloading shed, in the center of which is the platform 20 ft. wide referred to above, which is of box car floor height. As stated, a track runs at each side of the platform, and on each track four loaded cars are placed. The newsprint is removed from the cars on Silvus trucks, and rolled off on to the conveyor, which takes it to the storage building or loading pier. The two carriers are such that one is really a continuation of the other, but, as explained, there is an angle at the junction, with a roller arrangement, which was made necessary by the swinging in of the loading pier toward the shore to facilitate the berthing of ships at the north end of the pier. The angle between the two carriers is 8 degrees 15 minutes; no. 1 carrier is driven by 30 h.p. motor, and no. 2 by 15 h.p. motor. The carrier drives are electrically interlocked, so that should the loading of the ship not be fast enough to clear carrier no. 2, necessitating its stopping, carrier no. 1 will also stop. If desired, the carriers can be operated independently. A limit switch is provided at the end of the carrier no. 2, and comes into operation in the event of a newsprint roll travelling too far on that carrier. The controls are located in the junction house, between the two carriers. When newsprint is designed for the storage shed, and when brought there by the carriers, it is pushed off on to roll ways, then picked up by electric cranes and stored vertically. The shed is designed to accommodate four 72 in. rolls of newsprint stored vertically, and, if necessary, an additional layer of rolls on top, stored horizontally. A ship may be loaded with paper unloaded from freight cars and handled to it direct, and also with paper taken from the paper storage shed, and loading from both sources may proceed simultaneously. The speed of the carriers is arranged so that there will be no crowding during the operation. The plan in mind in the design was for usual operation to consist of taking the rolls of paper from the cars and storing them, and then taking them from storage and loading them in the ship.

Lighting

Ample natural light is furnished in the train shed and paper storage shed by continuous steel sash with wire glazing. Artificial lighting is provided by drop lights down the center of the train shed, paper storage shed and loading dock, the latter having in addition a system of outside lighting on poles for night operation. Floodlights are provided on each crane for handling newsprint in the storage shed. Ample plug-in sockets are provided both for power tools and emergency lighting.

Fire Protection System

An adequate fire protection system has been installed. It consists of piping, hydrants, hose and fire extinguishers. A fire protection pump is installed in the power house, with 10 in. suction pipe from the sea to the power house, and the pump discharges into an 8 in. pipe running to the center of the paper storage shed and thence through all other buildings, reducing in diameter towards the extremities. The fire pump is a 1,000 gall. one, and a separate switch is provided on the panel board for it. There are hose connections at convenient points, and three hydrants are provided outside the buildings. The water situation presented a difficult problem. As there is no quantity of fresh water available, the fire protection system utilizes sea water, as indicated above; in addition, the Diesel engines are cooled by sea water. All piping is cast iron, and flexible joints are used on the loading wharf to guard against settlement or accident to the 10 in. suction line running into the sea, which extends under the paper storage shed. As the plant is in operation only during three or four months of the winter season, the piping is kept empty at all times to avoid freezing; all piping with the exception of the suction line is exposed.

Heating—As there are times when power is not available from the Diesel engines, and as no small auxiliary power has been provided, it was decided to heat the power house and office by means of a hot water installation with the usual radiation and connections, provision having been made for a temperature of around 55 degrees Fahrenheit in the power house and 70 degrees Fahrenheit

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in the office. The paper storage shed and train shed are not heated.

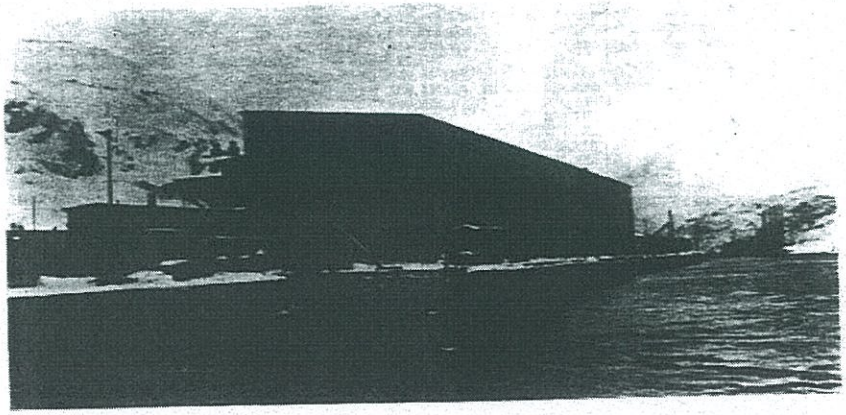
First Cargo through New Facilities

The first ship to take on a paper cargo from the new facilities at Port aux Basques was the ss. Corner Brook, which arrived Feb. 22, and began loading a cargo consigned to the Richmond Times-Leader, Richmond, Va. The beginning of loading operations initiated the formal entry into service of the facilities, in the presence of a number of Newfoundland Railway and International Power and Paper Co. officers. Those present included H. J. Russell, General Manager, W. F. Joyce, Chief Engineer, T. J. Rolls, General Freight Agent, Capt. M. G. Dalton, Ship's Husband, G. Cobb, Superintendent, Western Division, and R. Mosdell, Traffic Agent, Newfoundland Ry.; G. H. Carson, plant engineer at the International Power and Paper Co. plant at Corner Brook, and L. Davis, J. A. Wilkinson and C. Ballam, also representing I. P. & P. Co.; W. C. Richardson, representing Williams and Wilson, Montreal.

Mr. Russell, who was the chief speaker, expressed regret at the unavoidable absence of the Newfoundland Commissioner for Public Utilities, Hon. T. Lodge, who had been keenly interested in the construction work, and also the absence, through illness, of the I. P. & P. Co. Manager at Corner Brook, K. O. Elderkin. He congratulated the I. P. & P. Co. on its progressiveness and in this connection paid tribute to E. A. Charlton, the company's Vice President. He said in part:—"It is very interesting to note that the railroader who brought the rails to Port aux Basques in 1897 was the one responsible for the general layout of this job, and has worked most faithfully on it. I refer to our Chief Engineer, Mr. W. F. Joyce. The engineering details of the structure were in the hands of the well-known firm of Williams and Wilson at Montreal, represented by Mr. Richardson and Mr. White."

The new terminal operation was well established in late February and early March, the ss. Corner Brook, which loaded about 2,200 tons of paper, having been followed by ss. Humber Arm, which loaded about 5,500 tons, and the ss. Philip T. Dodge, which loaded about 2,500 tons; other ships followed, and many thousands of tons of paper were handled from Port aux Basques before the terminal operation was discontinued for the season upon reopening of unobstructed navigation at Corner Brook.

Indicative of the efficiency with which the equipment operates is the fact that on one day early in April the carrier system delivered 1,635 tons of newsprint from the storage shed to the loading pier between 9 a.m. and 4 p.m. and between 7 p.m. and 11 p.m. Incidentally, at about the same date, the railway established a record by moving 106 carloads of newsprint from Corner Brook, consigned to Port aux Basques, in 23 hours.



View from Waterfront.
Note steep slope in background, and manner in which carrier system extends back outside of shed.

Re-arrangement of Passenger Train Service on Temiskaming and Northern Ontario Railway

Pullman Sleeping Car Service now provided between North Bay and Timmins and between North Bay and Noranda

On Oct. 20, the Temiskaming and Northern Ontario Ry. began operation of a re-arranged passenger train service, the chief feature of which is the provision of night trains hauling Pullman sleeping car equipment northbound and southbound. These are trains 3 and 4; train 3, which makes connections at North Bay with Canadian Pacific passenger train 2 and Canadian National passenger train 2, leaves North Bay 12.01 a.m., daily except Saturday, arriving Timmins, 9 a.m., with connection at Swastika for Rouyn and Noranda, arriving Noranda 8.45 a.m. Train 4 leaves Timmins 7 p.m. daily except Saturday, arriving North Bay 3.45 a.m., making connections at North Bay with Canadian Pacific train 7 and Canadian National train 1. Train 77, handling Pullman sleeper, leaves Noranda 8 p.m. daily except Saturday, connecting with train 4 at Swastika.

Trains 1 and 2, which operated formerly between North Bay and Timmins, three times weekly, have been cancelled between North Bay and New Liskeard, and local trains 1 and 2 now operate between New Liskeard and Timmins, Mondays, Wednesdays and Fridays. Train 1 leaves New Liskeard 4.15 p.m., arriving Timmins 10 p.m., and train 2 leaves Timmins 7.15 a.m., arriving New Liskeard 1.05 p.m. Trains 46 and 47, daily between North Bay and Cochrane, continue to operate, with slight schedule change, train 47 leaving North Bay 30 minutes later than before, and arriving Timmins 15 minutes later than before.

Mixed trains 301 and 302 operate daily except Sunday between North Bay and Englehart. Train 301 leaves North Bay 7.45 a.m. and arrives Englehart 4.50 p.m., and train 302 leaves Englehart 5.10 a.m. and arrives North Bay 2.10 p.m.

United States Railways' Financial Results

In August, U.S.A. class 1 railways' gross operating revenues were $294,017,777, compared with $282,726,349 in Aug., 1934, an increase of 4%; operating expenses were $221,237,698, compared with $211,085,589 in Aug., 1934, an increase of 4.8%, and net railway operating income, which is what is left after the payment of operating expenses, taxes and equipment rentals, but before interest and other fixed charges are paid, was $42,073,256, equivalent to annual return of 1.48% on property investment, compared with $40,564,071, equivalent to annual return of 1.42% on property investment, in Aug., 1934.

In the eight months ended Aug. 31, 1935, the net railway operating income was $263,738,184, equivalent to annual return of 1.66% on property investment, compared with $302,872,358, equivalent to annual return of 1.89% on property investment, in the corresponding period in 1934.

In the period Jan. 1 to Aug. 31, 1935, the eastern railways had an annual return of 2.31% on property investment, compared with 2.37% in the same period in 1934; the southern railways, one of 1.45%, compared with 1.76%, and the western railways, one of 0.87%, compared with 1.32%.

Pacific Great Eastern Ry. time table 49, receipt of which was mentioned in the October issue, pg. 456, shows that northbound train 1, mixed, leaves Squamish Dock 13.55 o'clock, Mondays and Thursdays, and arrives Lillooet, the north terminus of the Squamish Subdivision, 22.05 o'clock; it leaves Lillooet 22.50 o'clock, and arrives at Williams Lake, the north terminus of the Lillooet Subdivision, 8.35 o'clock Tuesdays and Fridays. It leaves Williams Lake, 9.15 a.m., Tuesdays and Fridays, and arrives Quesnel, the north terminus of the Prince George Subdivision and of the line, 13 o'clock. Southbound train 2, mixed, leaves Quesnel 17 o'clock Tuesdays, and arrives Williams Lake 20.30 o'clock Tuesday; leaves there 21.10 o'clock Tuesday, arrives Lillooet 5.35 Wednesday, leaves there 6.25, and arrives Squamish Dock 14.30 Wednesday. Train 4, mixed, leaves Quesnel 18 o'clock Friday, arrives Williams Lake 21.30; leaves there 22.10, arrives Lillooet 6.35 Saturday; leaves there 7.25 and arrives Squamish Dock 15.45 Saturday. From Squamish Dock to Lillooet is 120.4 miles; from Lillooet to Williams Lake, 156.3 miles, and from Williams Lake to Quesnel, 70.3 miles, making total length of line 347 miles.

Reduced Fares for Remembrance Day.—In connection with the celebration of Remembrance Day, on Monday, Nov. 11 the Canadian railways are offering one way first class fare and one quarter, with minimum charge of 50c, for the round trip, for persons travelling between all stations. Fort William and Armstrong and east, in Canada; from stations in that territory to stations in Canada west thereof; from all points in Canadian Passenger Association Eastern Lines territory to Detroit, Port Huron, Sault Ste. Marie, Mich., Buffalo Suspension Bridge Black Rock, Fort Covington, Helena Bombay, Massena, Rouses Point, N.Y., Norton Mills, Island Pond, Highgate Springs and Newport, Vt.; also to specified Maine points from points in New Brunswick. Tickets will be valid on the going journey from noon, Nov. 8, until 2 p.m. Nov. 11, with return limit to leave destination not later than 12 midnight Nov. 12. These tickets are limited to continuous passage in each direction.

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Dr. Debit (1) Excluding 1,620 Commission [illegible]

"Steel of Empire" Favorably Commented Upon

The book, "Steel of Empire", by John Murray Gibbon, General Publicity Agent, Canadian Pacific Ry., which was reviewed in our October issue, pg. 459, has been reviewed in Herald Tribune Books, by Constance Lindsay Skinner, one of the editors of "Yale Chronicle of America"; excerpts from that review follow:—"The steel of empire creeps slowly out from the fantasy compounded of golden Cathay and a sea of darkness and the wishful thinking of several centuries, to cross the reality of a physical continent as rails, and, as ocean liners, to complete the no-longer fabled 'short route to the Orient'".—"So, perhaps influenced to a degree at least by this fascinating book, historians will lift the Chinese explorers and colonizers out of myth and place them in fact, as they have had to do with the Norsemen. Fourteen hundred and ninety-two A.D. may be less important when all the testimony of the tides is in."—"The true bond of Canadian union was the Canadian Pacific Railway. . . ."—"The actual builders of the road are live characters in the tale Mr. Gibbon tells."—"The book itself, not reviews of it, should be read."

Elsewhere it is said:—"John Murray Gibbon, poet, novelist, librettist, musician and railroad man, a Fellow of the Royal Society of Canada, and President of the Canadian Authors' Association, becomes a historian of first rank with his new book."

Newfoundland Railway Secures Improved Results in 1934

The Newfoundland Ry. General Manager's bulletin of Nov. 1, in dealing with the results for the fiscal year ended June 30 last, states that the deficit for the year was $28,929.99, a decrease of $108,688.74 from that for the preceding fiscal year. The operating revenue increased over that of the 1933-1934 fiscal year by $166,270.80, despite a decrease of $42,173.89 in freight revenue. Increases were secured in all other chief revenue accounts, as follows:—passenger, $47,740.54; dining and sleeping car, $10,883.95; express, $7,698.06; steamship, $87,135.94; dry dock, $7,211.20; miscellaneous, $5,601.11.

The total expenses for the 1934-35 fiscal year, $2,724,033.27, were $88,012.76 greater than those of the 1933-34 fiscal year.

Total revenue for the 1934-35 fiscal year was $2,695,103.28, made up as follows:—

Revenue	
Passenger	$334,934.66
Freight	900,855.22
Mail	48,150.72
Dining and sleeping car	58,203.50
Miscellaneous	47,134.96
Express	107,401.01
Steamships	804,585.61
Dock shops	358,336.46
Dry dock	35,501.14
Total	$2,695,103.28

Great Northern seeks to abandon Canadian lines—We were advised, officially, Nov. 9, that the Board of Railway Commissioners for Canada is in receipt of an application from the Vancouver, Victoria and Eastern Railway and Navigation Co., Great Northern Ry. (U.S.A.) subsidiary, for authority to abandon its line between Princeton, B.C., and the international boundary, 58.4 miles, and that the Board is also in receipt of applications for authority to abandon the Brandon, Saskatchewan and Hudson Bay Ry. lines in Manitoba, between Brandon and the international boundary and between Morden and the international boundary. The Brandon, Saskatchewan and Hudson Bay Ry. is a Great Northern Ry. subsidiary. To Nov. 9, our advice stated, none of the applications had been heard; it is possible that they will be dealt with on the next trip to Western Canada made by members of the Board, but at the date mentioned no definite date for the commencement of a western trip had been set.

U.S.A. Railway Car Loadings—A report submitted by the Car Service Division of the Association of American Railroads, at the first annual meeting of the Association, at Stevens Hotel, Chicago, Nov. 7, showed that freight traffic on U.S.A. railways from Jan. 1 this year has been greater than that of any corresponding period since 1931. In the first 43 weeks of 1935 (the period which terminated Oct. 26), the loading of revenue freight on U.S.A. railways was 26,020,342 cars, an increase of 122,950 cars, or 0.5%, compared with the corresponding period in 1934, and one of 1,773,181 cars, or 7.3%, over the corresponding period in 1933. It was also an increase of 2,513,602 cars, or 10.7%, over the loading of the corresponding 1932 period, but a reduction of 5,736,815 cars, or 18.1%, from the loadings for the corresponding 1931 period.

The Bessborough Hotel, at Saskatoon, Sask., the construction of which was started by the Canadian National Rys. several years ago, and which has some 250 rooms, will be opened Dec. 10.

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the rate of ten a day.

Newfoundland Railway Locomotives—North British Locomotive Co., Ltd., completed construction, recently, of two 2-8-2 locomotives for Newfoundland Ry., to the requirements of J. F. Pike, Superintendent of Motive Power, and under the supervision of the Crown Agents for the Colonies in London. Cylinders are 18 in. diameter and 24 in. stroke and driving wheels are 48 in. diameter. Boiler working pressure is 210 lb. Tractive effort at 85% b.p. is 28,920 lb., and factor of adhesion is 4.07.

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Mikado Locomotives for Newfoundland Railway

Brief mention was made in a recent issue of Canadian Railway and Marine World of delivery to Newfoundland Railway, by the builder, North British Locomotive Co., Ltd., of two 2-8-2 locomotives of 3 ft. 6 in. gauge, constructed to the requirements of the Superintendent of Motive Power, Newfoundland Ry., J. F. Pike, and under the supervision of the Crown Agents for the Colonies, London, England. These locomotives were shipped from Liverpool on the ss. Incemore of the Furness Line. Upon the ship docking at St. John's, the boilers, frames, tanks, etc., were transferred to lighters and transported to the railway machine shops at the west end of St. John's harbor, near the railway terminus. These shops, at which the locomotives were re-erected, are located between the railway drydock and the Newfoundland Coastal Steamships docks. The locomotives are the first of modern type shipped from Great Britain to Newfoundland, the oldest colony of the British Empire. The chief dimensions, etc., are given in the following table.

Cylinders:—

of steel. The superheater is of the Superheater company's multi-valve header type, with 21 elements. The firegrate is of the rocking type with a drop plate at the front end.

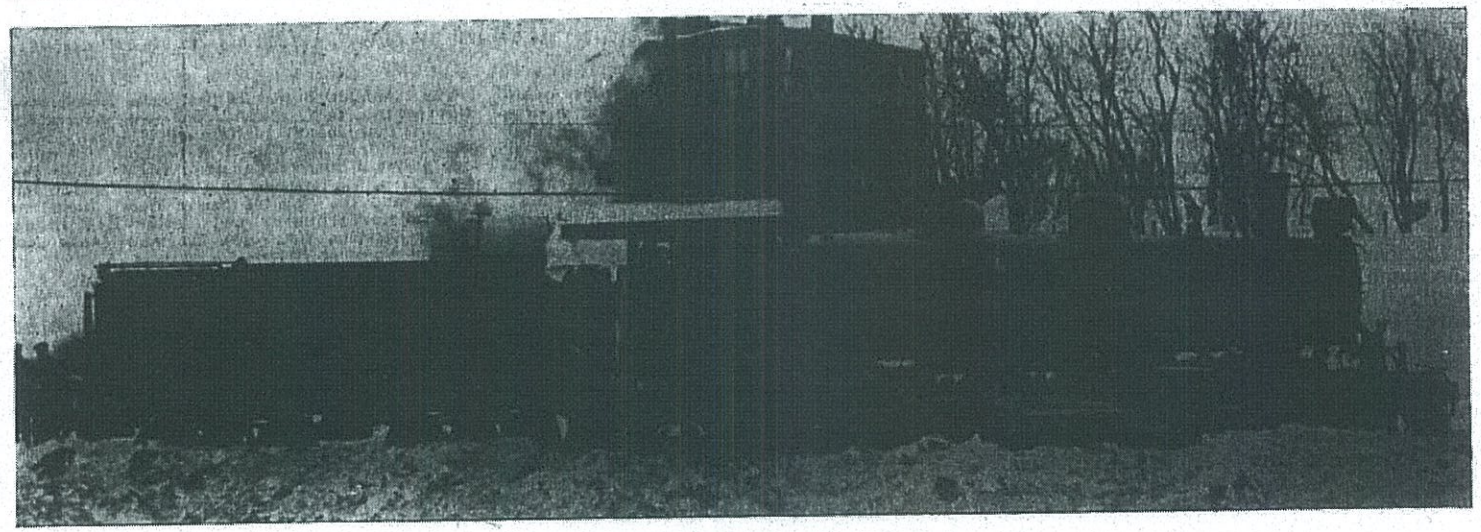
The frames are of bar type, well stayed by stretchers of cast steel. The bearing springs for the coupled wheels are overhung with compensating beams between front truck, leading and intermediate coupled wheels, and between driving and trailing coupled wheels and rear truck.

The front truck is of the swing bolster type, with 3 pin links, coiled bearing springs, and axle bearings inside the wheels. The rear truck is of radial type with side check spring gear, the axle bearings and overhead bearing springs being arranged outside the wheels. The leading coupled wheels have lateral movement, spring controlled, to provide flexibility on curves. The cylinders, cast with the smokebox saddle and jointed at centre line, are provided with piston valves 8 in. diameter. The valve gear is of the Walschaert type.

The tenders are of the double-truck type, with channel bar framing. The tanks are of fabricated construction, with a capacity of 4,200 Imperial gallons. The bunker is of the horse-shoe form, with space for eight tons of coal. The truck frames are of cast steel. The bearing springs, four per group, are interposed between cross bolsters and the bogie framing.

The following equipment is incorporated:—Westinghouse brake on engine and tender, centre couplers, electric lighting equipment, two injectors and stop valves, ejector and syphon for filling the tender tanks from lakes or streams, steam heating apparatus, compressed air sanding apparatus, pop safety valves, chime whistle, bell, mechanical lubricator for cylinders and grease lubricators to the coupled axleboxes, and connecting, coupled and eccentric rods. Magnesia blocks are used for boiler and cylinder insulation.

These locomotives are used to a large extent in hauling newsprint paper from interior mills to export ports.



Mikado Locomotive, Newfoundland Railway.
Built by North British Locomotive Co., Ltd.

July 1936

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Cylinders:—
Diameter ..... 18 in.
Stroke ..... 24 in.

of steel. The superheater is of the Superheater company's multi-valve header type, with 21 elements. The firegrate is of the rocking type with a drop plate at the front end.

The frames are of bar type, well stayed by stretchers of cast steel. The bearing springs for the coupled wheels are overhung with compensating beams between front truck, leading and intermediate coupled wheels, and between driving and trailing coupled wheels and rear truck.

The front truck is of the swing bolster type, with 3 pin links, coiled bearing springs, and axle bearings inside the wheels. The rear truck is of radial type with side check spring gear, the axle bearings and overhead bearing springs being arranged outside the wheels. The leading coupled wheels have lateral movement, spring controlled, to provide flexibility on curves. The cylinders, cast with the smokebox saddle and jointed at centre line, are provided with piston valves 8 in. diameter. The valve gear is of the Walschaert type.

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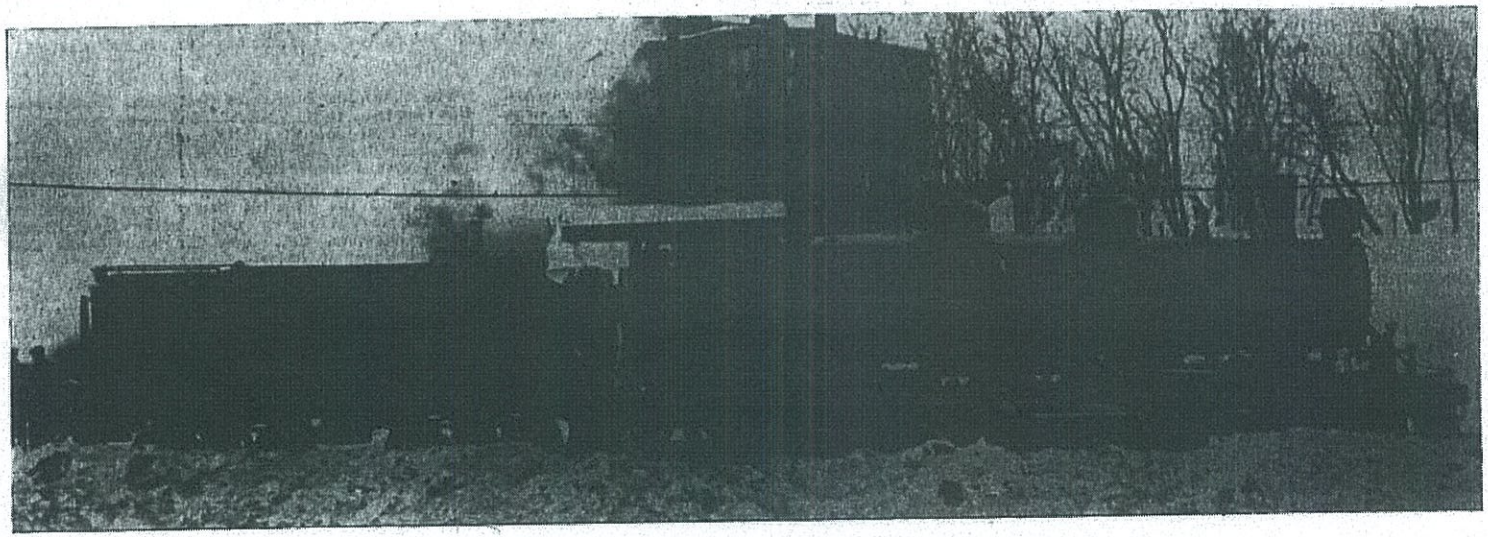

Mikado Locomotive, Newfoundland Railway.
Built by North British Locomotive Co., Ltd.

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Cylinders:—	
Diameter	18 in.
Stroke	24 in.
Wheels:—	
Coupled, diameter	4 ft. 0 in.
Trucks, front and rear	2 ft. 6 in.
Wheelbase:—	
Coupled	13 ft. 3 in.
Total, Loco.	29 ft. 3 in.
Total, Loco and tender	55 ft. 9 in.
Heating surface:—	
Small tubes	1,110 sq. ft.
Large tubes	500 sq. ft.
Syphons	27 sq. ft.
Firebox	117 sq. ft.
Total	1,754 sq. ft.
Superheater surface	340 sq. ft.
Combined total	2,094 sq. ft.
Grate area	35.2 sq. ft.
Boiler pressure	210 lb. per sq. in.
Weight in working order	
Loco	68 tons
Tender	45 tons
Total	113 tons
Adhesive weight	52.5 tons
Tractive force at 85 per cent. boiler pressure	28,920 lb.
Factor of adhesion	4.07

The boiler barrel is 4 ft. 11⅞ in. external diameter at front end and 5 ft. 5 in. at throat plate, the front barrel plate being coned. The distance between tube plates is 16 ft. 10⅞ in. The firebox is of the round-top type, 7 ft. 9 11-16 in. long outside by 5 ft. 9 in. wide at foundation ring. The inner firebox is of steel and fitted with two thermic syphons. The large and small flue tubes are bearings and overhead bearing springs being arranged outside the wheels. The leading coupled wheels have lateral movement, spring controlled, to provide flexibility on curves. The cylinders, cast with the smokebox saddle and jointed at centre line, are provided with piston valves 8 in. diameter. The valve gear is of the Walschaert type.

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Gratifying Export Grain Movement in May

Information from E. A. Ursell, Statistician, Board of Grain Commissioners, Fort William, is that the export clearances of Canadian wheat in May last were the highest for any month since Nov., 1932, no less than 26,554,311 bush. having been shipped via all routes, compared with 14,759,787 bush. in April, and with 15,256,590 bush. in May, 1935. The May shipments this year brought the exports for the first ten months of the current crop year to 174,167,050 bush., compared with 127,401,343 bush. in the first ten months of the 1934-35 crop year. Figures showing the grain export movement, by designated routes, for the first eight months of the current crop year, for April, for May, and for the first ten months of the current crop year, are given in the following table, together with comparative figures for the same periods in the 1934-35 crop year.

1935-36	August to March Bush.	April Bush.	May Bush.	Total 10 Months Bush.
Via Canadian Pacific Seaboard Ports	37,251,917	5,107,297	5,229,185	47,588,399
Canadian Atlantic Seaboard Ports	39,757,436	4,528,490	17,693,087	61,979,013
Fort William-Port Arthur	.....	.....	114,039	114,039
Port Churchill	2,407,000	.....	.....	2,407,000
U.S.A. Atlantic Seaboard Ports	*18,000,000	2,535,000	†1,244,000	21,779,000
U.S.A. Imports for consumption	27,509,572	1,535,000	†1,148,000	30,192,572
U.S.A. Imports for milling in bond	7,927,027	1,054,000	†1,126,000	10,107,027
Total	132,852,952	14,759,787	26,554,311	174,167,050
1934-35				
Via Canadian Pacific Seaboard Ports	32,746,438	5,646,034	6,489,765	44,882,237
Canadian Atlantic Seaboard Ports	29,398,010	1,783,726	5,000,355	36,182,091
Port Churchill	4,049,877	.....	.....	4,049,877
U.S.A. Atlantic Seaboard Ports	*15,692,000	1,798,000	1,928,000	19,418,000
U.S.A. Imports for consumption	10,958,109	1,610,783	846,796	13,415,688
U.S.A. Imports for milling in bond	7,366,978	1,094,798	991,674	9,453,450
Total	100,211,412	11,933,341	15,256,590	127,401,343

*Unrevised figures. †4 weeks ended 30th May.

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