

# GREAT NORTHERN RAILWAY

January 19/4

abstracted from the Railway News

## Great Northern Railway Lines in Canada.

**Projected Lines in Saskatchewan and Alberta.**—The extension of the line from Niobe, N.D., to Northgate, on the International Boundary, 21 miles, has been completed, and a connection established with the Grand Trunk Pacific Ry. branch from Regina, Sask.

An extension of the branch now terminating at Plentywood, Mont., westerly for 45 miles to Scobey, is reported to have been completed. This extension runs parallel with the International Boundary.

Another line is under construction under the charter of the Grand Falls and Felton County Ry., from Power to Bynum, Mont., on which 45 miles of track has been laid. This line runs northerly, and its present terminus is almost directly south of Cardston, Alta.

L. Hill, President, accompanied by several G.N.R. officials, recently completed a trip through Southern Saskatchewan and Alberta, stopping at Swift Current, Medicine Hat, Calgary, Lethbridge and Cardston. G.N.R. interests hold several charters covering the building of lines in these two provinces, and also own the Crows Nest Southern Ry. A large amount has recently been expended on developing coal mines in the Pincher Creek district, and recent local press reports state that it is expected that

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press reports state that it is expected  
a start will be made with railway construc-  
tion in that district in the spring.

**Kootenay Ry. and Navigation Co.**—The G.N.R. President reported at the annual meeting of shareholders that because of the liquidation of the K.R. and N. Co. the Bed-  
lington and Nelson line between Sirdar Jct.  
and Kuskanook, B.C., 3.26 miles became of  
no use and had been removed.

**Vancouver, Victoria and Eastern Ry. and Navigation Co.**—The G.N.R. President re-  
ported at the recent annual meeting that  
work was in progress on the line of the  
V., V. and E. Ry. and N. Co., from Kilgard  
to Sumas Landing, B.C., 10 miles, and on  
an extension from Coalmount to Otter Sum-  
mitt 35 miles. The Board of Railway Com-  
missioners has authorized the opening for  
traffic of a section of the line from mileage  
245.84 to 155.619, which is a double track  
section.

In connection with this line the G.N. Ry.  
is engaged in building a line in the U. S. to  
connect at Oroville. The section under  
construction during the current year ex-  
tends from Wenatchee to Pateros, Wash.  
Owing to landslides and other difficulties  
construction has been delayed, and it is not  
expected that the line will be ready for op-  
eration until June, 1914. The line is 133  
miles, and track laying will probably be  
completed by Mar. 31, 1914.

**Vancouver Terminals.**—The excavations  
on the Grandview cut in Vancouver, B.C.,  
are practically completed. The original  
width of the cutting was 38 ft., but in view  
of the False Creek reclamation and terminal  
project, it has been made 66 ft. The great-  
est depth is 65 ft. The cutting is spanned  
by seven bridges, and others will be added  
as street traffic necessitates. Four lines of  
track have been laid in the cut, and this  
line of approach into the city, which is 1.5  
miles long, has a gradient of 1%. The line  
originally crossed the streets on the level.

The erection of the warehouses on the  
new dock on Burrard Inlet is being pro-  
ceeded with. It is expected that the wharf

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and its equipment will be finally completed by the end of the year.

It is reported that 70% of the work on the reclamation of the False Creek flats, has been done. The area near Main St., which will be used as the site of the union station, has been entirely filled in, and the work is now in progress to the original shore line. L. Hill, President, and a number of C.N.R. officers were in Vancouver recently inspecting the progress of the work. The site upon which the station is to be built was selected, and it is said that tenders for the building will be called for at once. (Oct., pg. 479.)

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## Great Northern Railway Lines in Canada.

**Projected lines in Alberta.**—Engineers connected with the G.N.R., or some of its associated companies, are reported to be engaged in locating a route for a line from Sweet Grass, Mont., through Taber, and the surrounding coal mining district of Alberta.

G.N.R. interests are reported to have purchased 25 acres of land in the vicinity of Calgary, Alta., and press reports state that it is for terminal purposes.

**Vancouver, Victoria and Eastern Ry. and Navigation Co.**—Plans are being prepared for the reconstruction of the car ferry slip at New Westminster, B.C., from which the car ferries operate to Sidney, Vancouver Island. The new slip, it is stated, will be 400 ft. long, three tracks wide, with an overhead bridge to raise and lower the apron according to the state of the tide. A new car ferry will be put on as soon as the slip is built. (Jan., pg. 28.)

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## Great Northern Railway Lines in Canada.

**Midland Ry.—Midland Great Northern Ry.**—The Winnipeg Board of Control decided May 12 to apply to the Board of Railway Commissioners for an order directing the lines used by these companies on Portage Ave. to be elevated. This decision was arrived at upon a report of the City Engineer as to the cost of a subway.

**Vancouver, Victoria and Eastern Ry. and Navigation Co.**—J. H. Kennedy, Chief Engineer, returned to Vancouver, recently, from a trip of inspection over the section under construction. The section from Coalmount to the junction with the Kettle Valley Line, near Otter Creek Summit is well advanced. This section, together with the section from Princeton to Coalmount, is to be utilized jointly with the K. V. Lines, under the agreement ratified last session of the British Columbia Legislature. The section of the K. V. Lines in construction of the above, to Hope; under consideration by that company is to be used jointly with the V. V. and E. Ry.

**Vancouver Terminals.**—L. W. Hill, President, G. N. R., is reported to have stated recently that the company's appropriations for this year include over \$1,000,000 for the laying out of the terminals at False Creek, Vancouver, and for the building of the station there. If the city insisted on the immediate construction of the four east end viaducts, which would mean an expenditure by the company of \$450,000, it would cut heavily into the appropriation. He did not think that the viaducts were necessary, however desirable they might have been at the time the new docks were being built and the tracks were crowded with construction traffic. Apart from that traffic, which had ceased, the regular traffic was not so great as it was. Mr. Hill subsequently had a conference with the Mayor and the city officials on the matter. It is said that an understanding had been arrived at and that the Union Construction Co., to which the city had let the contract, will go on with the work at once.

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A recent press report stated that the estimated cost of the projected tunnel from Burrard Inlet to False Creek, which would have a length of 3,790 ft., would be \$628,970. We were officially advised, May 12, that the company has no intention to build any tunnel at that point. (April, pg. 174.)

**Telephone Train Dispatching in Canada.**—

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## Great Northern Railway Lines in Canada.

**Midland Ry. of Manitoba.**—An order has been made by the Manitoba Public Utilities Commission for the building of a spur track near Sherbrooke St., between Ross and Elgin Avenues, Winnipeg, at the company's cost. The building of this line was one of the conditions upon which the city agreed to permit the laying out of the company's terminals. Owing to its failure to do the work the city applied for an order to compel the company to carry out its agreement.

**Vancouver, Victoria and Eastern Ry.**—A. H. Hogeland, Chief Engineer, G.N. Ry., recently completed a visit of inspection over the sections of the line under construction. These include the sections to be jointly used with the Kettle Valley Lines, one of which is owned by this company, and the other by the K. V. L.

Arrangements are being made for the erection of the new station near the New Westminster end of the Fraser River bridge. A lease for the station site is being secured from the B. C. Government.

**Vancouver Terminals.**—The bridge at Broadway, Vancouver, has been opened for traffic. It is 288 ft. long and 70 ft. wide, and is fitted with car tracks, in anticipation of the extension across it of the British Columbia Electric Ry. lines. The erection of the bridge eliminates a level crossing.

Construction of the viaduct over the Grandview cut at Victoria Drive is also being proceeded with. These two bridges form part of the works undertaken by the company in rearranging and extending its lines in Vancouver, necessitated by the laying out of the new terminals at False Creek. J. M. Gruber, Vice President G. N. R., and other officers, paid a visit to Vancouver, July 10, and looked over the work in progress. He is reported to have said that the company's plans for the development

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N. Monsarrat, Chairman Quebec Bridge Commission, Montreal; C. M. Morrison, Consulting Engineer and President Atlas Construction Co., Montreal; P. B. Motley, Chief Bridge Engineer, C.P.R., Montreal, and H. Rolph, Secretary, John S. Metcalf Co., Montreal. While some have been unable to attend all the meetings for various good reasons, a number have not missed a single meeting during the two years the Committee has been in existence.

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## Great Northern Railway Lines in Canada.

Vancouver, Victoria and Eastern Ry. and Navigation Co.—The Board of Railway Commissioners has rescinded its order requiring the company to build overhead crossings at Pender, Keefer and Harris Streets, Vancouver, but reserving the rights of any person to apply to have the crossings suitably protected with signs, etc. This was the order against which the British Columbia Electric Ry. successfully appealed to the Imperial Privy Council, that company having been directed to pay a portion of the cost of the bridges named.

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Vancouver Terminals.—Plans have been filed with the Vancouver City Council for the bridges across the Grand View cut at Clarke Drive and Woodland Drive, and also for the approaches. According to the agreement with the city, the first bridge has to be completed by April 1, and the second by Sept. 1. (Jan., pg. 14.)

## Corrections for the Erring.

February 1915

Secretary.

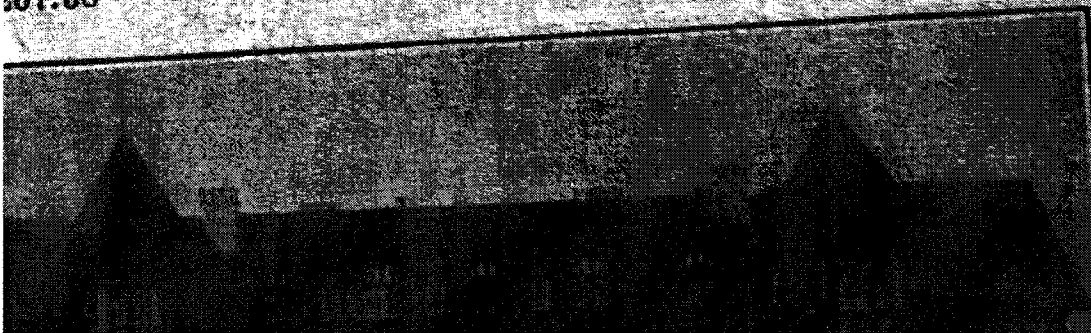
## Great Northern Railway Lines in Canada.

**Vancouver Terminals.**—The Vancouver City Council was informed, Feb. 25, that the G.N.R. engineers were completing certain statistical information for the B.C. Government in connection with the plans for the development of the False Creek terminals, and that full plans would be submitted with these. The agreement is one to which the Provincial Government is a party, and the company cannot do anything definite until the province is satisfied. The company, it was stated, means business, and will go ahead with the work as soon as possible. The building of the station will involve the expenditure of \$1,000,000 instead of the \$500,000 originally suggested.

The question of the building of the three east end viaducts, which formed the subject of litigation at the invitation of the British Columbia Electric Ry., has been revived, and it is said that a plan is being arranged for the work to be financed. If the arrangements carry, the G.N.R. will have to apply to the Board of Railway Commissioners for the necessary order. The viaducts, which were eliminated from the order as a result of the litigation, are projected at Pender, Keefer and Harris Sts., and are estimated to cost \$67,250, \$66,723 and \$70,413 respectively. The fourth viaduct is at Hastings St., and is estimated to cost \$95,444. The contract for the erection of the four via-

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York Central Rd., and extend to Sumner,  
Que. (Mar., pg. 94.)

Northern Pacific and British Columbia Ry.  
—The Dominion Parliament is being asked  
to incorporate a company with this title,  
having power with the Northern Pacific Ry.,  
to enter into agreements with the Great  
Northern Ry., and with the Vancouver,  
Victoria and Eastern Ry. and Navigation  
Co., for running rights over the latter com-  
pany's lines between Huntingdon and New  
Westminster and Vancouver; and to April  
acquire land, and lay out terminals for its  
own use along the V. V. and E. Ry. The  
provisional directors are: E. C. Blanchard,  
General Manager, Northern Pacific Ry.,  
Tacoma, Wash.; G. T. Reid, Assistant to  
the President, N. P. Ry., Tacoma; A. H.  
McNeill, Vancouver, B. C. (Feb., pg. 57.)

British Columbia Ry.—A train service

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cut stone, and will have a flat roof.

## Great Northern Railway Lines in Canada.

**Vancouver, Victoria and Eastern Ry. and Navigation Co.**—The Board of Railway Commissioners has authorized a connection with the C. P. R. near Granby Smelter, B. C.; and also with the Kettle Valley Ry., at Brookmere, B.C.

**Vancouver Terminals.**—The Board of Railway Commissioners, June 2, authorized a change in the location of the projected station building at False Creek, Vancouver, from the Prior St.-Park Lane section of the property, to next the property line of the Canadian Northern Pacific Ry., and directed that work is to be commenced at the expiration of six months from the date of the order, and completed by June 1, 1917.

Filling-in work on the False Creek flats is still being proceeded with, the City Engineer estimating that 800,000 cubic yards of material are still required on the company's property. The question whether the station to be built will be a union station with the Canadian Northern Pacific Ry., or an entirely separate building though adjacent thereto, is not yet decided. (June, pg. 225.)

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## Cars Great Northern Railway Lines in Canada.

N. B. Vancouver Terminals.—Under the original order the company was to complete the extension of its station on the False Creek property, Vancouver, at the corner of Prior St. and Park Lane by March, 1916. The company failed to file plans for the building and there were negotiations for a two years' extension on the part of the company, while the city proposed appealing to the Board of Railway Commissioners for an order compelling the immediate filing of plans. Ultimately the matter came before the Board upon an application of the company for a change of location of the station. The city did not offer any serious objection to the change, which would bring it alongside the proposed Canadian Northern Ry. station, so long as steps were being taken to go ahead with the building. In the evidence given it was stated that the company had about 800,000 cubic yards of filling yet to do on its portion of the flats which were being reclaimed. The order of the Board approves of the new location; directs the submission of preliminary sketches of the layout of the station and tracks at once; the filing of complete plans to follow in order; the letting of contracts for the building within six months from the date of order, and the completion of the whole work by June 1, 1917. The filling

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agreed to by Mr. Kelley in his telegram.

## Suits Respecting the Building of the Great Northern Railway of Canada.

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Judgment has been reserved by the Quebec Appeal Court in the action of Smith, Barry and McRae against John Hyde, liquidator of the Great Northern Construction Co. The plaintiffs built 88 miles of this line easterly from Hawkesbury, Ont., towards Joliette, Que., on which they claimed there was a balance of about \$200,000 due. In Nov., 1914, the courts awarded them \$63,886. Against this decision both parties appealed, and the Appeal Court after hearing arguments reserved judgment.

An action is before the Quebec Supreme Court, in which John Hyde, liquidator of the Great Northern Construction Co., is the plaintiff, and J.G.Scott is the defendant. This is a test case, several other actions of a similar character having been entered. The plaintiff company was formed in West Virginia, for the purpose of constructing a railway in extension of the old Laurentian Ry. from near Joliette, Que., to Hawkesbury, Ont. The contract was entered into with the Great Northern Ry. in May, 1899, and subsequently a contract was entered into by the construction company, by which Smith, Barry and McRae were to build the line. The construction company received cash, bonds and stock from the railway company, and after having paid considerable sums to the actual builders of the line, distributed the balance among its shareholders. The actual builders claimed further sums, and the construction company having no funds, went into liquidation. The liquidator claims that the shareholders of the construction company wrongfully received the railway company's bonds, and now seeks to recover them. The face value of the bonds in the case against J.G.Scott, is \$6,000.

The line in question now forms part of the Canadian Northern Ry. System.

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# Construction, Betterments, Etc.

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**Great Northern Ry. (U.S.A.)**—During the year ended June 30, there has been constructed at the Winnipeg terminal of the Midland Ry. of Manitoba (one of the G.N.R. controlled lines in Canada), a five unit fruit warehouse, each unit being 67 x 80 ft.; a loading platform 10 x 40 ft., and there have been laid various additional industrial tracks with a total length of 1.13 miles.

Alderman Gale was informed at the Vancouver City Council Railways Committee meeting, Nov. 4, that nothing had been done in the way of preparing plans for the station, as directed by the Board of Railway Commissioners, except so far as preliminary strides were concerned. The committee decided to wait until Dec. 1 before taking any further action. (Oct., pg. 392.)

The designs for the new passenger station for the G.N.R. and the Northern Pacific Ry., were submitted to the Vancouver city council, Nov. 7, and approved. The plans were prepared by F. L. Townley, and show an L shaped building, having a frontage of 228 ft. on Park Lane, with a depth of 60 ft., while the L will be 40 x 130 ft. The building will be of reinforced concrete on pile foundations, faced with a granite base and terracotta brick. The front portion of the building will consist of a main waiting room 60 x 100 ft., flanked by two wings two storeys high. In the lower portion of these wings will be waiting, immigration, telegraph, telephone and stationmaster's offices, and a large exhibition room. The operating and traffic staffs will be accommodated in the upper storeys, the G.N.R. occupying one

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The detail plans are in course of preparation, and it is reported that contracts for the erection of the building will be placed at an early date.

The plans were given consideration by the Vancouver City Council's bridges and railway committee, Nov. 11, and approved, the committee asking the company to let the contracts at once, and to set back the main front 100 ft. back from the Park Lane street line. The city council had the plans before it, Nov. 15, but declined to take any action beyond deciding to forward copies of the plans to the Board of Railway Commissioners and to the Provincial Government, and concurring in the resolution of the bridges and railway committee to have the building set back 100 ft. from the Park

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The detail plans are in course of preparation, and it is reported that contracts for the erection of the building will be placed at an early date.

The plans were given consideration by the Vancouver City Council's bridges and railway committee, Nov. 11, and approved, the committee asking the company to let the contracts at once, and to set back the main front 100 ft. back from the Park Lane street line. The city council had the plans before it, Nov. 15, but declined to take any action beyond deciding to forward copies of the plans to the Board of Railway Commissioners and to the Provincial Government, and concurring in the resolution of the bridges and railway committee to have the building set back 100 ft. from the Park Street line, so as to make it conform with the Canadian Northern Pacific Ry. proposals.

A. H. McNeill, K.C., counsel for the company, submitted the following statement regarding the sums the company proposed to expend as estimated by F. L. Townley, the architect: Foundations, pile and concrete, \$30,000; station building, \$268,699; heating, \$25,000; boiler house, \$10,000; pipe tunnel, \$5,000; marquise and concourse, \$15,000; umbrella shed and platforms, \$42,000, architect's fees, superintendence and incidentals, \$25,000; making a total of \$421,000. To this must be added the cost of paving the driveways, \$12,000; tracks, including switches,

December  
1915

December 1915

## CANADIA

\$44,000; commissary and car supply building, \$15,000; filling, \$175,000; engine house, \$25,000; engineering, superintendence, administration, etc., \$24,000; a grand total of \$716,000. Freight sheds would cost an additional \$100,000; team tracks, another \$100,000; and additional tracks and switches, to make up eleven in all, \$105,000. These sums total \$1,021,200.

We were officially advised, Nov. 18, that the plans have to be approved by the Board of Railway Commissioners before anything further can be done. (Oct., pg. 392.)

**Greater Winnipeg Water District Ry.—A**  
*station in Winnipeg*

# GREAT NORTHERN RAILWAY

C. RIFF



March 1919

Railway Engineer for Montreal  
 1918, pg. 186.)  
 Magdalen River Valley Ry.—In order  
 to allow of the reduction of the gradient  
 on the location of the present projected  
 line of this railway on lot 37 of St. Max-  
 ime du Mont Louis, the Quebec Legisla-  
 ture is being asked to authorize a change  
 of location on about 4,500 ft., of which  
 2,500 ft. are in the Magdalen River  
 Selignory, north to a location at least  
 350 ft. from the east bank of the Mag-  
 dalene River. (Feb., pg. 79.)

ing out. (Oct., 1912, pg. 502.)

**Northern Pacific Ry.**—J. M. Hannaford, Second Vice President, accompanied by a number of officials paid a visit to Vancouver recently. In an interview he is reported to have stated that the company will be running its trains into the city within a year, over the Great Northern Ry. tracks from Cloverdale. The section of the old New Westminster Southern Ry. from Sumas to Cloverdale will be rebuilt to make this connection, and the Great Northern Ry. passenger station will be used, but the N.P. Ry. will provide its own freight terminals.

It was reported recently that the company was negotiating for the purchase of the Kitsilano Indian Reserve, which adjoins the False Creek area, which is being laid out by the Great Northern Ry. and the Canadian Northern Ry. for their terminals. (April, pg. 169.)

**Peace River Ry.**—The Domin-

July  
April  
1913

Ry. has been built and is being operated.  
(Aug. pg. 412.)

**Northern Pacific Ry.**—President Elliott is reported as stating, Sept. 5, that the line from Seattle, Wash., to Sumas, on the International boundary, 120 miles, will be rebuilt next year, with reduced gradients and easier curves, and that it will be relaid with heavier steel.

**Pacific Great Eastern Ry.**—A commission has been appointed to settle the question of the route of the line in West Vancouver, B.C. The company has located its line along the waterfront for 2.5 miles, and the municipality desires that it be set back for from 100 to 250 ft. Application has been made to the Provincial Minister of Railways for the approval of the route of the line from Howe sound to Pemberton Meadow, 10 miles, but objection is made by the Howe Sound and Northern Ry., which has a line between the same points. Consideration of the matter was adjourned.

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Burwell will be extended from Ayimer to  
St. Thomas and connected there with the  
L. and P. S. Ry. (Aug. pg. 415. See Erie,  
London and Tillsonburg Ry.)

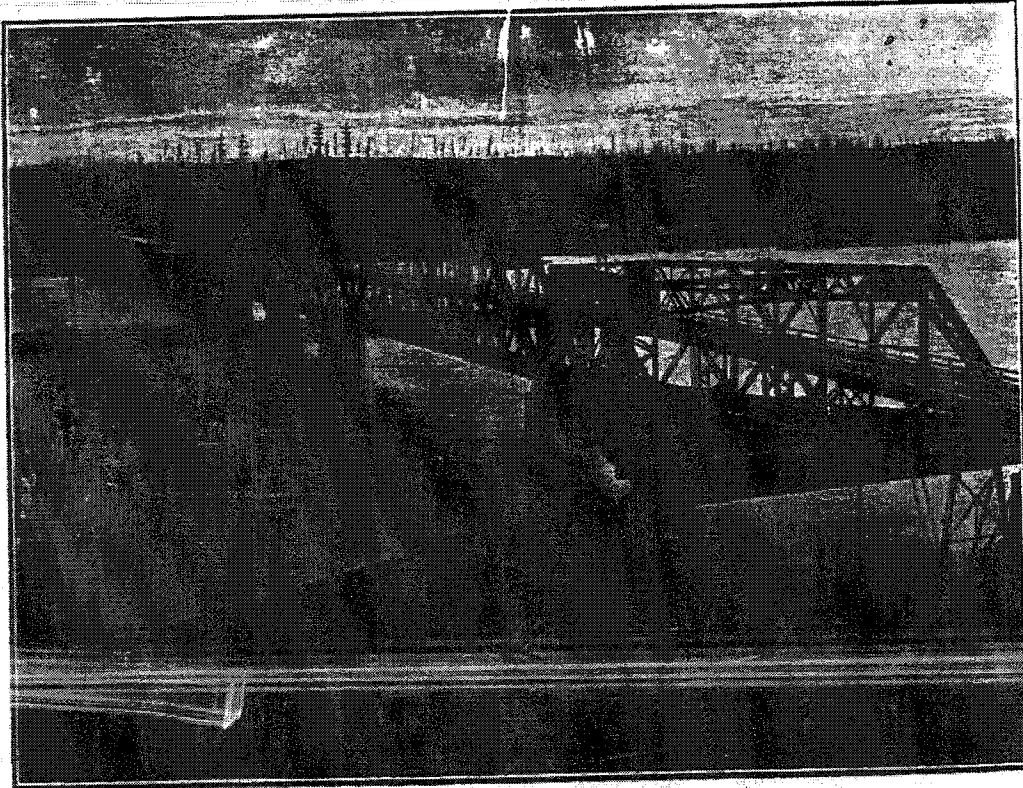
### The Fraser River Bridge.

The British Columbia Government's  
bridge over the Fraser River at New  
Westminster, an illustration of which is  
given on this page, and which cost about  
\$1,000,000, is a very interesting structure.  
It is 11,985 ft. long including approach-  
es, and is double decked, the lower road  
being utilized for railways, and the up-  
per for pedestrian and vehicular traffic.  
It is built on 17 piers, 11 pedestals and  
3 abutments, with a centre span opening  
for the passage of vessels; the pivot pier  
of the swing span is carried 90 ft. into  
the river bed; the deepest pier is 141 ft.  
below high water mark—made up of 69  
ft. below the bed of the Fraser and a vol-  
ume of water 72 ft. in depth. The pow-  
er for opening the swing bridge is sup-  
plied by the B.C. Electric Ry. Co. The  
lower part of the bridge is being used by  
the Great Northern Ry. and by the B.C.

a good thing for the railway at the  
same time it is not economical unless the  
work is sufficient to justify its being  
occupied.

The tools used in locomotive building  
can, no doubt, be advantageously em-  
ployed in repair work, except in the case  
of special tools which cannot be suffi-  
ciently employed in repair work to justify  
their installation, but could be used to a  
sufficient extent in building locomotives  
to expect them to assist in reducing the  
cost of the locomotive repair output. All  
the machine tools employed in locomotive  
building are in addition to those used for  
turning out a given number of repairs  
and must be regarded as an additional  
investment.

The size of shop necessary to accommo-  
date these tools, blacksmith shop, found-  
ry, and other equipment required to  
construct new locomotives is all, practi-  
cally speaking, in addition to that re-  
quired for a repair output. It is there-  
fore entirely unreasonable for a road to  
consider that because it can turn out  
locomotives at a cost less than it can ob-  
tain them from the builders that it can  
neglect the additional investment. There  
are many cases where locomotives have



The British Columbia Government Bridge over the Fraser River.

Electric Ry. Co. on an annual rental  
basis. The transmission lines for sup-  
plying power for the operation of the  
B.C. Electric Ry.'s Fraser Valley branch  
are carried over the bridge on towers at  
a height of 165 ft. above high water.

The Consolidated Engineering Co., Ltd.,  
has been incorporated under the Do-  
minion Companies Act, with \$100,000  
capital, and office at Montreal, to carry  
on a general railway and other construc-  
tion business. The incorporators are:  
S. G. Dixon, J. M. Montle, R. E. Allan,  
V. and C. T. Jette, Montreal.

been turned out without adding anything  
like a sufficient amount to the actual  
cost of material and applied labor to  
cover the necessary expenses in connec-  
tion with the operation of the plant, to  
say nothing of the interest and deprecia-  
tion on the investment involved. Such  
items as repairs to tools and machinery,  
maintenance of buildings, supervision,  
drawing office expenses and a number of  
charges which have to be taken care of  
by every concern, are ignored in the case  
of railways building their own locomotives.

I do not believe there is a railway shop

December  
1912

the company respecting the use of a spur line to convey sand and gravel under the Highways Improvement Act; and to permit the council to enter into similar agreements with other railways under the same act. (April, pg. 136.)

The Northern Pacific Ry. is about to erect a freight house on its wharf on the Fraser River, opposite the city market, near the intersection of Front and 6th St., New Westminster, B.C. The building will be reached by a new spur track, starting from opposite 6th St. The top of the present wharf will be cut down about 2 ft, for a considerable area and new timbers will be put in to carry the foundation members of the new structure. The building will be a one story lumber structure, 50 x 200 ft., the exterior walls of which will be covered with corrugated iron, and the roof with pitch and gravel. The rolling doors will be of corrugated steel. A space 20 ft. deep, the whole width of the building, 50 ft., will be partitioned off at one end, for an office. This space will be ceiled throughout with fir ceiling, and will be lighted by 10 windows. One half of the area will be reserved for the public offices and the other for the inside staff. Two lavatories will be provided, one for office staff and the other for freight house employees. The building will be lighted by electricity and heated by stoves. The estimated cost is \$11,500. (Mar., pg. 101.)

Pacific Great Eastern Ry. — At the British Columbia Legislature's 1916 session provision was made for the raising

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## Projected Lines, Surveys, Construction

**Great Northern Ry.**—The new union station on the False Creek flats, Vancouver, erected by the G.N.R. for use jointly with the Northern Pacific Ry., was opened for public use, June 1. The first train into the station carried officials of the companies and other railway visitors. During the afternoon the general public were admitted to inspect the building. The first train out, which carried the railway officials, left at 4 p.m., and was followed by the first G.N.R. train at 7.30 p.m. The Northern Pacific Ry. instituted its service a few days later. The station is at present being used also by the Canadian Northern Ry., which obtains its entrance into Vancouver over the G.N.R. line, but which is building its own station.

Vancouver City Council has issued permits for the erection of the following additional terminal buildings on the False Creek site: Car repair shop, 20 x 60 ft.; coal house, 20 x 40 ft.; car carpet cleaning house, 16 x 60 ft. Grant, Smith & MacDonnell have the contract. (June, pg. 224.)

July 1917



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at the next sitting in MOOSE JAW. (pg. 106.)

Great Northern Ry.—A press report states that it is proposed to start construction at an early date on a line 14 miles long to connect the present Cloverdale-Abbotsford line with the Canadian Northern Pacific Ry. at Sam's Landing, B.C.

The building line for the station building on the False Creek site, 375 ft. east of Main St., has been finally approved by the Vancouver City Council. The question of the cost of the station building, which has been raised by the B.C. Government, the Council decided, was not one with which it had to do. A contract for the erection of the station is reported to have been let to Grant, Smith & McDonnell, who will start work at once. F. L. Townley, Vancouver, is the architect in charge. The plans provide for a structure of two units, a main building with terminal facilities on the main floor, and office accommodation above, and an L wing containing the baggage, mail and express offices and rooms. The building will be of brick with terra cotta trimmings. The main structure will be 235 x 60 ft., and the L will be 130 x 42½ ft. There will be a glass covered concourse leading to 11 sets of tracks, and in the centre of the main building will be a domed waiting room which will reach up above the roof of the two storied wings. The open space to Main St., 375 ft., will be laid out in grass and shrubberies.

Application is being made to the Board of Railway Commissioners for approval of an agreement dated Nov. 6, 1915, whereby the Victoria, Vancouver & Eastern Ry. & Navigation Co. grants the Canadian Northern Pacific Ry. joint and equal use in common, of the main and passenger tracks (subject to certain reservations), and the train, standing and industrial spurs, from the north approach of the Fraser River bridge at New Westminster, to the junction of the two companies' tracks at the east boundary of the

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Ave., across its Weyburn Branch. (Feb., pg. 49.)

**Great Northern Ry. Lines in Canada.**—The Minister of Railways for British Columbia informed the G.N.R., Feb. 2, that the plans submitted for the new station on the False Creek flats, Vancouver, do not fulfil the requirements of the agreement. In an interview the Minister of Public Works is reported to have said: "No detailed plans have been submitted, but in the preliminary drawings our engineer has seen, it appears, that the value guaranteed by the G.N.R. is not there, and we are not going to pass the plans until the value mentioned in the agreement signed by the G.N.R. is shown. We certainly expect the G.N.R. to live up to its agreement and spend the \$500,000 agreed upon."

O. S. Bowen, of the G.N.R. engineering staff, was in Vancouver Feb. 1, and is reported to have said the contractors had been given plans for the foundation work of the new station, and were preparing to start work. The question of the new frontage was being considered, but no decision had yet been reached. The proposal is that the frontage be set 75 ft. further back from Main St. than the plans showed. (Feb., pg. 49.)

**High River, Saskatchewan & Hudson**  
The Dominion Parliament is

MARCH  
1916

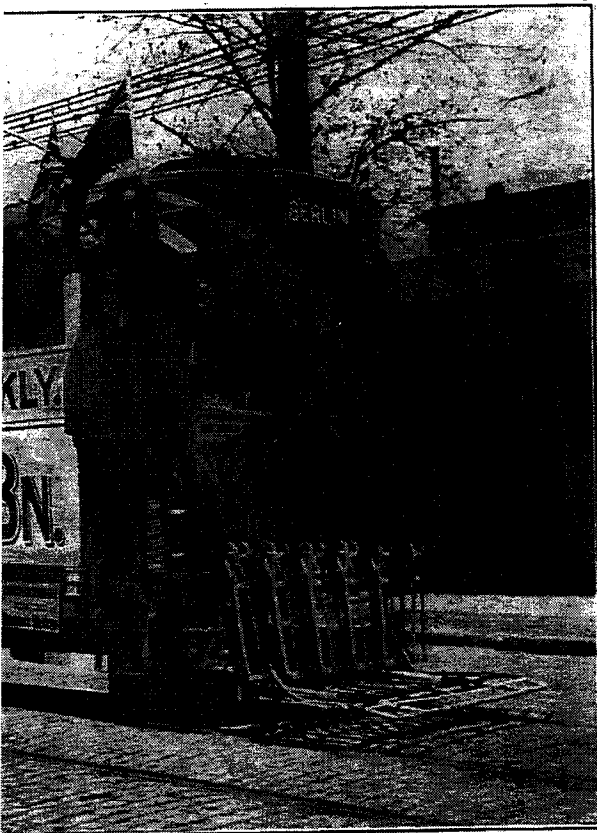
JAMES HILL-  
GREAT NORTHERN  
RAILWAY.

## or The Late James Jerome Hill.

No. The death of J. J. Hill, at one time  
eing President, and later Chairman, Great  
Can. Northern Ry., took place at St. Paul,  
Minn., May 29, too late for an announce-  
rade ment to be made in our June issue. He  
n in had been in indifferent health for some  
for little time, but his death was not antici-  
pated until within the last few days of  
the month.

He was born at Rockwood, near Guelph,  
Ont., Sept. 16, 1838, and attended school  
there until he was 14 years old, when his  
father died, and he worked at the village  
store. In 1856 he obtained work at St. Paul,  
Minn., as a shipping clerk, and in 1865  
was appointed agent for the Northwest-  
ern Packet Co., at St. Paul, and two years  
later, local agent for the St. Paul & Paci-  
fic Ry., running a short line between St.  
Paul wharf and St. Anthony's Falls.  
During this period he began a friendship

considerable knowledge of the mineral  
resources of those regions. In the mean-  
time some extensions had been made to  
the St. Paul & Pacific Ry., as far as the  
Red River, but owing to bad manage-  
ment, it deteriorated until in 1873 it be-  
came bankrupt. Again in conjunction  
with N. Kitson, he organized a syndicate  
to acquire the property, and through  
Donald A. Smith, then chief representa-  
tive of the Hudson's Bay Co. at Winnipeg,  
later Lord Strathcona, enlisted the sup-  
port of George Stephen, then President,  
Bank of Montreal, later Lord Mount  
Stephen, and purchased the property for  
about 40% of the par value of the out-  
standing securities. The company was  
reorganized in 1879 as the St. Paul,  
Minneapolis & Manitoba Ry. with George  
Stephen as President, and J. J. Hill as  
General Manager. In the late seventies  
the line was extended to the International  
Boundary at St. Vincent, Minn., where it  
connected with the line built from the  
other side of the boundary at Emerson  
Minn., to St. Boniface, opposite Winnipeg,  
by the Dominion Government and which  
was known as the Canadian Pacific Rail-  
way, Pembina Branch. In 1881 he became  
one of the members of the syndicate  
formed to take over from the Dominion  
Government the portions of the C.P.R.  
which were completed and under con-  
struction, and he was one of the first  
directors of the C.P.R. Co. Wm. C. Van  
Horne, afterwards Sir Wm. C. Van Horne,  
being selected as the first General Man-  
ager on his recommendation at the end  
of 1881. He only remained on the C.P.R.  
board for a comparatively short time, de-  
voting his energies to the St. P.M. & M.R.,  
and in 1882 he was elected its Vice Presi-  
dent, and in 1883, President, when he  
relinquished his holdings in the C.P.R.,  
and confined himself exclusively to the  
upbuilding of the system of railways now  
known as the Great Northern, and also  
becoming largely interested in the North-  
ern Pacific, and the Chicago, Burlington  
& Quincy. This, it is claimed, was accom-  
plished without any Government aid in  
cash, and with only 3,675,000 acres of  
land as a grant. He retired as President,  
G.N.R. in 1907, and was for a short while  
Chairman of the Board.



tion Battalion, Canadian Expeditionary Forces.

toronto for recruiting for No. 1 Construction Battalion, which  
Can. Soc. C.E., until recently Engineer of Grade Superation,  
ich were given in Canadian Railway and Marine World for  
nto Ry., and was decorated by men of the battalion. Lieut. G.,  
ger, Toronto Ry., is in charge of recruiting for the battalion.

of the and later entered into partnership with  
who Norman Kitson, who ran an ox wagon  
ience and sledge service to Winnipeg, and ob-  
tained practical knowledge of the condi-  
arines, tions of the northwest on trips to and  
and a from Winnipeg. He also built up a busi-  
ness at St. Paul, supplying fuel to steam-  
boats, and this developed into the firm of  
been Hill, Quinn & Co. and later the North-

**Pullman Co.'s Profit Sharing Plan.**—  
The directors have set aside 5,000 shares  
of stock, which will be sold to employees  
at \$155, which is about \$10 below current  
market price. The employees will make  
deferred payments, and only those who  
have been in the company's service over  
one year will be allowed to purchase. An  
employee will be allowed to purchase one  
share for each \$500 of his annual pay, or  
portion thereof, up to 25 shares for those  
having a salary of \$12,000. Payments  
will be at the rate of \$4 a month per  
share. Interest will also be paid on the  
deferred payments, at not more than 4%,  
and the purchaser will receive dividends  
from the date of his purchase.

**Too Forceful Ejection From Train.**—

JULY  
1916

were given in Canadian Railway and Marine World  
Ly., and was decorated by men of the battalion. Lieut. G.,  
Toronto Ry., is in charge of recruiting for the battalion.

he and later entered into partnership with  
ho Norman Kitson, who ran an ox wagon  
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tained practical knowledge of the condi-  
es, tions of the northwest on trips to and  
from Winnipeg. He also built up a busi-  
ness at St. Paul, supplying fuel to steam-  
boats, and this developed into the firm of  
ain Hill, Griggs & Co., and later, the North-  
west Fuel Co., and in connection with  
ig- this business, he brought the first boat  
load of eastern coal to St. Paul from  
led Peoria, Ill., by way of the Illinois &  
hat Mississippi Rivers. In 1870, in partner-  
ship with N. Kitson, he organized the  
any Red River Transportation Co., and built  
gth two vessels, which, in connection with the  
ons stage route, established the first through  
ete service between St. Paul and Winnipeg.  
will While he was acting as railway agent,  
it was part of his duty to pilot the scien-  
tists Louis and Alexander Agassiz  
ach through the Red River and Lake Superior  
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CANADIAN  
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1917 5750 CLASS  
DECAPOD ENGINES.



possible use, sketches were compared with the order was given, sketches were completed and work was under way in the due to flanges cutting.

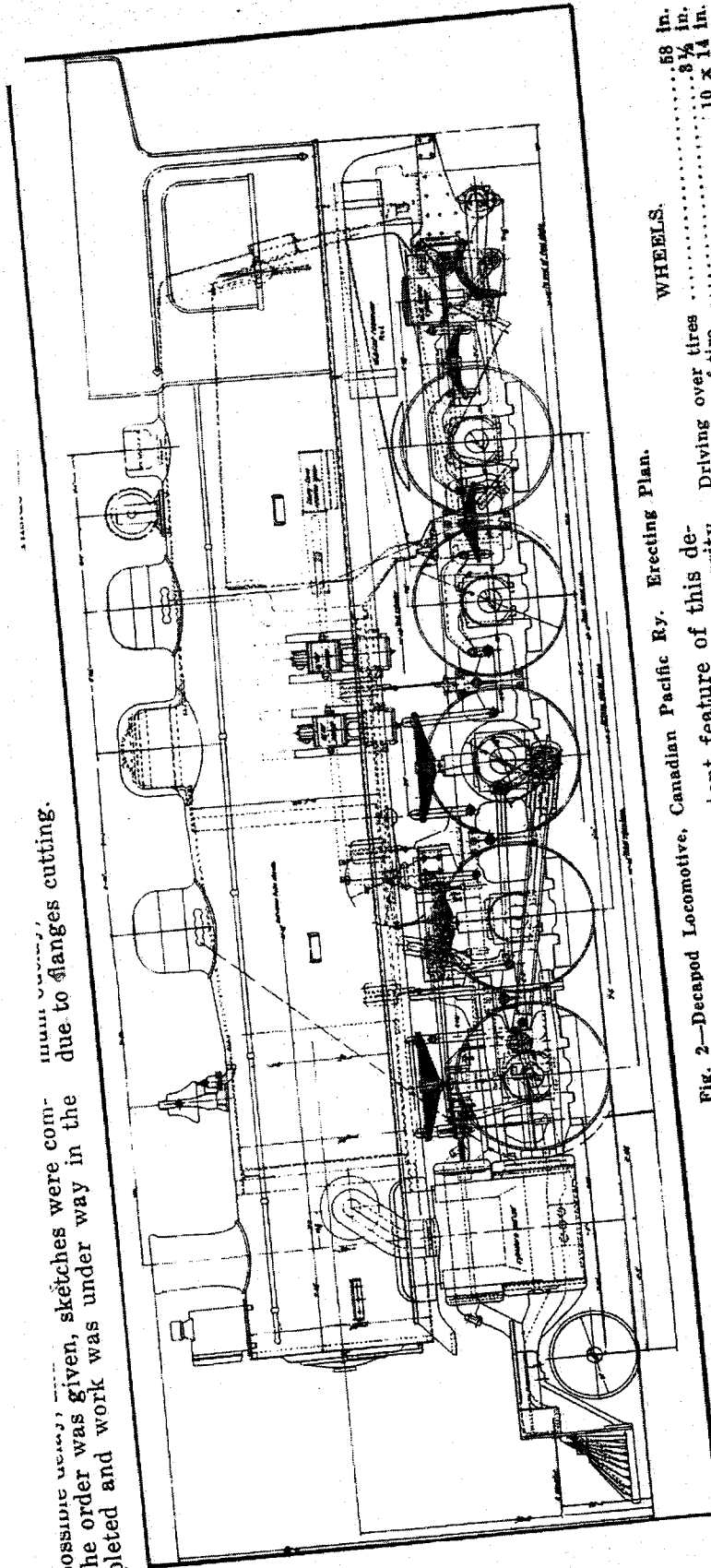


Fig. 2—Decapod Locomotive, Canadian Pacific Ry. Erecting Plan.

Another important feature of this design was turned

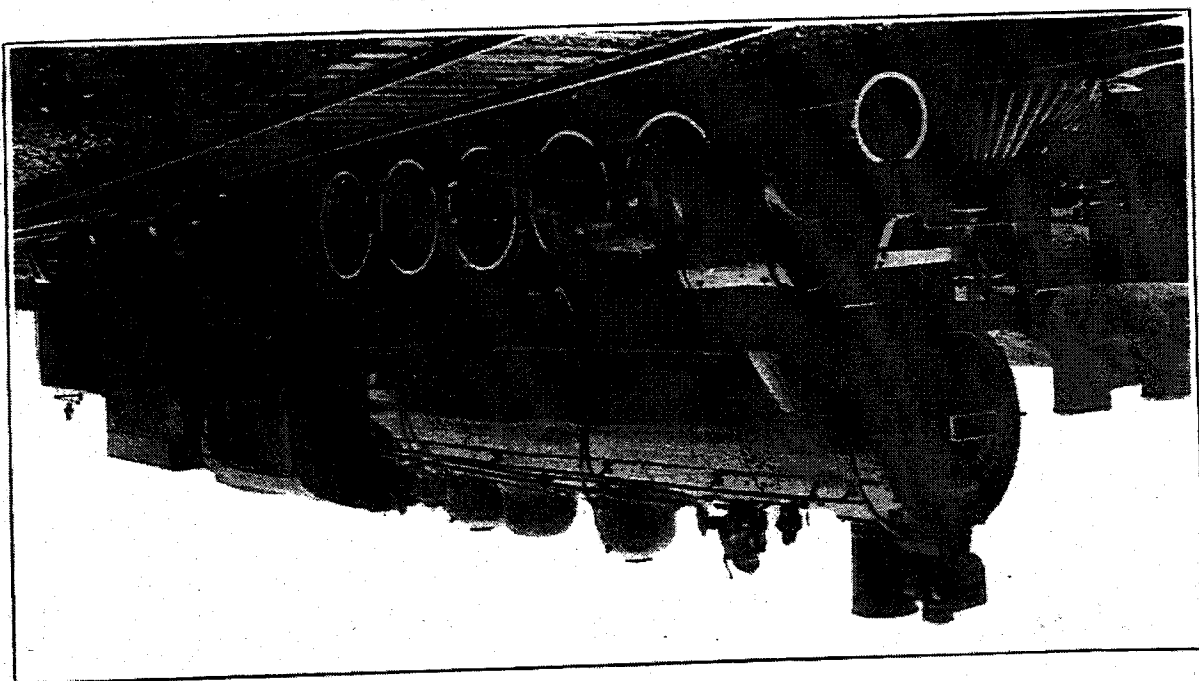
March 1917

## Decapod Locomotives for Canadian Pacific Railway.

The C.P.R., as previously announced in Canadian Railway and Marine World, is building 25 decapod locomotives at its Angus shops, Montreal, for mountain service. The principal general dimensions are as follows:

Capacity	2,750
Boiler pressure	200 lb.
Cylinders	24 x 32 in.
Pulling face, rear tender coupler over pilot	16 ft. 10-3/8 in.

The wind-peg for the surplus clothing. The wind-dows are double sashed and a wind deflector is provided for the locomotive man while the fireman's eyes are protected by a deflector on the firedoor which eliminates the glare. A deflector is also located on the cab roof, which stops the back dust draught and keeps the cab free from dust. A safety clamp is carried to prevent the tender from sliding forward on



Decapod Locomotive, Canadian Pacific Railway.

Total wheel base	65 ft. 11 1/2 in.
Driving wheel base	22 ft.
Rigid driving wheel base	16 ft. 6 in.
Diameter of drivers	58 in.
Weight on drivers	112.5 tons
Weight on rigid drivers	90 tons
Total weight, engine and tender	210 tons
Tender water capacity	1,000 imp. gal.
Superheater	3,200 imp. gal.

Locomotive Superheater Co.

to cab in case of a collision. The Laird crosshead, an old type revived, has been used because it ensures excellent lubrication and is easy to maintain. The leading driving wheels are provided with a flexible arrangement so that a lateral displacement may take place on curves. This reduces the wheel space on the engine to 16 1/2 ft., which is practically the same as used on locomotives with only one leading pair of driving wheels.

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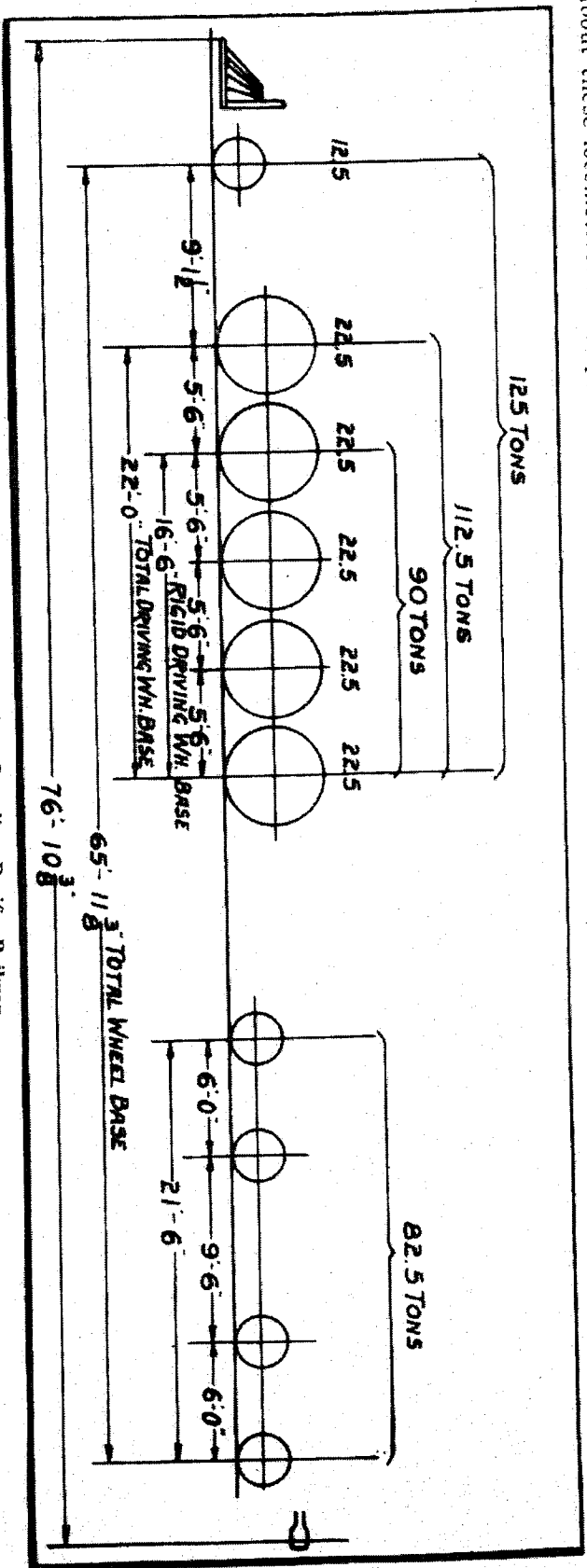
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E. J. Grand follows circular attention cost of piles us with the outbrez statem valling be not shown with n reache again you ma increa is put your plies during ditions late facilit and in of ne dition does which safety The in co July.

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Superheater.....Locomotive Superheater 100.  
 One of the most noticeable features the engine to 1072 l.v. which is the same as used on locomotives with about these locomotives is the provisions only one leading pair of driving wheels.

Castings, malleable	119
Castings, steel	119
Cement	40



Decapod Locomotive, Canadian Pacific Railway.

which are made in the cab for the comfort and safety of the locomotive man and fireman. This is especially required on a mountain division on account of the severe climatic conditions which sometimes prevail. The cab is roomy and well ventilated and is heated in winter by having part of the insulation which covers the boiler in the cab made in sections which can be easily removed. The seats are exceptionally well cushioned and a coat cupboard is provided with swinging

To accomplish this the leading side rods are articulated by means of a ball joint. A power reverse gear operated by air is also an improvement. The main object achieved in the construction of these locomotives, is maximum power for minimum weight.

The Colchester Coal and Ry. Co. has leased its Debert coal areas to another Nova Scotia concern for three years, on a royalty basis.

Chain	83	122
Copper, rod	147	154 1/2
Copper, sheet	147	154 1/2
Copper, ingot	107	114 1/2
Couplers, car and locomotive	126	184
Draft gear	85	85
Drills, carbon	80	89
Drills, high speed	160	167 1/2
Duck cotton	71	82
Fence wire	80	117
Ferrules, copper	107	114 1/2
Fuses	89	80
Fuses and switches	140	96 1/2
Gasoline	58	137
Glass	50	58

117