

CPR
MONTREAL
AND
OTTAWA

CONSTRUCTION & BETTERMENT.

Montreal & Ottawa Railway.

This line, which is leased to the C.P.R., leaves the Montreal & Toronto line at Vaudeville 23.7 miles west of Montreal. The first portion, from Vaudeville to Rigaud, 17 miles, was built about 4 years ago, with an extension to Point Fortune 7 miles. In 1886 the line was extended from Rigaud to Alfred 29 miles, & during last year this work has been going on on the extension to Ottawa. It is now nearly completed, & is expected to be opened for passenger traffic early in July, when express trains are expected to make the time between Montreal & Ottawa in 2 1/2 hours with the greatest security and comfort. The distance from Windsor Street Station, Montreal, to the Central Station, Ottawa, is 111 miles, being 5 miles shorter than any other route. We are indebted to the Manager of Construction, R. W. Leonard, for the following particulars:

The line passes along the south shore of the Ottawa River & Lake of Two Mountains from Vaudeville to Hudson, passing the summer resorts at Como & Hudson, thence somewhat inland through a beautiful agricultural county past Rigaud & Vanhook Hill to the celebrated mineral springs and summer resorts at Caledonia and Plantagenet, from which latter point the Nation River is navigable for small steamers up to Casselman on the C.A.Ry., a distance of about 20 miles. To the south of Navan & Blackburn is the enormous peat swamp known as the Mere Blew, extending southward to Eastman Springs on

Hammond 80 Miles. Crosses Rock-

land Branch C.A.Ry.
Leonard 95 " "
Navan 99 " "
Blackburn 105 " "
Ottawa 111 " Central Station.

The maximum grades are 0.80 per 100 or 4 1/2 feet per mile, & the curves are, with very few exceptions, not sharper than 1 degree. It is light throughout with 73 lb. rails with flat head (section similar to that adopted by Am. Soc. C. E.). Many of the sidings at flag stations are fitted with patent switches & frogs, leaving the main line absolutely unbroken at these points, & making it particularly safe for fast running.

The principal structures are, Nation River Bridge (6 Plantagenet Springs, 4 steel spans of 100 feet on masonry substructure, Green's Creek, 30 ft. masonry arch culvert, about 4 miles from Ottawa); Rideau River Bridge at Ottawa, 8 spans half-deck plate girders of 65 feet on masonry substructure. There are many other smaller steel or masonry structures, timber being used only in smaller culverts & temporary work.

The line is fenced throughout with Page wire fence, posts set 25 feet apart.

Grand Trunk Improvements.

Chief Engineer Hobson informs us that the erection of the superstructure of the Victoria Jubilee bridge is progressing very well. Five spans at the west end are practically completed, excepting the back stringers, & the last span at the east end is in progress. As previously mentioned, the pier masonry has

the next 2 or 3 months, some 80 miles of new 80-lbs. steel rail, on the southern division of the line, between St. Thomas, Niagara Falls & Fort Erie.

Bids have been taken & contract made for the construction of an office building for our Point St. Charles shops, Montreal, to be located on the present shop grounds at the Congregation Street entrance. This will be a commodious structure, & will provide office rooms for the Superintendent of Motive Power, the master mechanics, & their respective staff.

There is also under construction at Niagara Falls, on property leased from this Co., a Railway Y.M.C.A. building, to the cost of which this Co. has contributed, & which will be utilized primarily by G. T. employees. A similar building is also under construction at Elsdon Station, Chicago, Ill.

Superintendent Jones, St. Thomas, Ont., writes us: "We are now engaged in laying the first of the 80 miles of new steel it is the intention to put down this summer. Men are working westward from Niagara Falls toward Welland Jet. & St. Thomas. A ballast train has been employed & will continue throughout the season."

Chief Engineer Hobson informs us that the Belcell & Rouge River structures are ordinary deck truss bridges. The Belcell one consists of 6 fixed spans of 155 ft. each, with a draw span of 149 ft. the total length in all of the bridge being 1,107 ft. It is a single track structure. The River Rouge bridge, near Port Union, is a double track structure, consisting of one 135 ft. span.

Montreal & Ottawa Railway.

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The line passes along the south shore of the Ottawa River & Lake of Two Mountains from Vaudeville to Hudson, passing the summer resorts at Camo & Hudson, thence somewhat inland through a beautiful agricultural country past Rigaud & Vanhook Hill to the celebrated mineral springs and summer resorts at Cabedonia and Plantagenet, from which latter point the Nation River is navigable for small steamers up to Casselman on the C.A.R., a distance of about 20 miles. To the south of Navan & Blackburn is the enormous peat swamp known as the Mere Bleu, extending southward to Eastman Springs on the C.A.R.

The stations on the line, with distances from Montreal, are as follows:

Vaudeville	23.8 Miles.
Little River	26 "
Isle Cadieux	28 "
Camo	31 "
Hudson	33 "
Hudson Heights	33 "
Lavigne	37 "
Rigaud	41 "
St. Eugene	49 "
Stardale	51 "
Vanhook Hill	58 "
Vanhook Branch C.A.R.	58 "
McAlpins	61 "
Cabedonia Springs	66 "
Alfred	70 "
Plantagenet	75 "
Pendleton	80 "
The Brook	86 "

.. Crosses Hawkes-

Leonard	95 "
Navan	99 "
Blackburn	105 "
Ottawa	111 "

Central Station. The maximum grades are 0.80 per 100 or 42 feet per mile, & the curves are, with very few exceptions, not sharper than 1 degree. It is laid throughout with 73 lb. rails with flat head section similar to that adopted by Am. Socy. C. E.). Many of the sidings at flag stations are fitted with patent switches & frogs, leaving the main line absolutely unbroken at these points, & making it particularly safe for fast running.

The principal structures are, Nation River Bridge—61 Plantagenet Springs, 4 steel spans of 100 feet on masonry substructure, Green's Creek, 36 ft. masonry arch culvert, about 4 miles from Ottawa; Rideau River Bridge at Ottawa, 8 spans half-deck plate girders of 65 feet on masonry substructure. There are many other smaller steel or masonry structures, timber being used only in smaller culverts & temporary work.

The line is fenced throughout with Page wire fence, posts set 25 feet apart.

Grand Trunk Improvements.

Chief Engineer-Hobson informs us that the erection of the superstructure of the Victoria Jubilee bridge is progressing very well. Five spans at the west end are practically completed, excepting the back stringers, & the first span at the east end is in progress. As previously mentioned, the pier masonry has been finished.

General Manager Hays writes us:—"In addition to the reconstruction of the Victoria bridge, we have in progress & about completed the work on the Richelieu River bridge at Becheil, P. Q., a structure of 7 spans. We are also renewing the bridge over the River Rouge, near Coteau Junction, as well as preparing foundations for replacing the bridge across the Grand River (4 spans) east of Paris, Ont. All of these bridges are new & modern structures.

Preparations are being made for putting in the foundation for an elevator at Midland, which will be erected under the auspices of this Co. Similar arrangements are being made at Goderich for the erection of an elevator there by the people of Goderich in connection with this Co.'s facilities.

We propose to lay, during the course of

the line, between St. Andrew's, Cambridge & Fort Erie.

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Superintendent Jones, St. Thomas, Ont., writes us:—"We are now engaged in laying the first of the 86 miles of new steel it is the intention to put down this summer. Men are working westward from Niagara Falls toward Welland Jet. & St. Thomas. A ballast train has been employed & will continue throughout the season.

Chief Engineer-Hobson informs us that the Becheil & Rouge River structures are ordinary deck-truss bridges. The Becheil one consists of 6 fixed spans of 135 ft. each, with a draw span of 149 ft. the total length in all of the bridge being 1,107 ft. It is a single track structure. The River Rouge bridge, near Port Union, is a double track structure, consisting of one 135 ft. span.

Stone Arches on the C.P.R.

The view on page 63 shows the stone arch across the Vermillion River on the C.P.R. Sault Ste. Marie Branch. This structure has a span of 50 ft. & 4 of 20 ft., having a height of 36 ft. Chief Engineer Peterson, to whom we are indebted for the photograph, writes: "We have adopted stone structures at a good many of our crossings, instead of iron, as we find that by building these structures under a rubble masonry specification they can be built as cheaply as iron, besides being much more substantial, & while being as cheap, & in some cases cheaper, are much more economical, as they do not require painting, special floors or any repairs. A structure on the same general lines, but very much larger, is being built this year across the Kamistiquia River, west of Fort William."

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The Montreal & Ottawa Ry., extending from Ottawa to Vaudreuil, which is expected to be opened for traffic some time in July, will become part of the C.P.R.'s Eastern Division, under the immediate jurisdiction of Superintendent H. B. Spencer, at Ottawa. At present the completed portion of the line between Vaudreuil & Plantagenet is attached

Diameter of wheel 31 in.
 Road of wheel Cast iron double plate
 Diameter and length of journal 5 in. dia., 30 in. long, M.C.B.

The C.P.R. has recently added to its passenger rolling stock two parlor cars, the Richelieu and St. Maurice, which have been placed on the Montreal-Ottawa short line. The exterior finish and decorations are in line with C.P.R. standard, and in construction they have all the up-to-date improvements in car construction, especial attention having been paid to take every advantage to add to strength, where experience has shown the need. The length of the cars is 72 ft. over body sills, the extreme length over buffer plates being 79 ft. 10 3/4 ins. The exterior finish is Mexican mahogany and is tastefully decorated in gold. In designing these cars the officials aimed at smooth surfaces and light profiles and have eliminated all carving. A very rich appearance has been obtained by using mahogany veneers and neat marqueterie borders and lines decorated in light shades of green. The chairs are upholstered in pale green plush and designed with a view to comfort. The smoking-room is supplied with eight chairs of same design as in the main room, but they are upholstered in by-room-colored leather. The walls of the smoking-room are divided off, by means of marqueterie lines, into large panels which extend from a few inches from the floor up to the base line of the monitor deck. The veneer used in this room is African mahogany. Each car has two women's toilets, a men's toilet and a men's saloon, all being fitted with the latest improved flushing closets and nickel-plated washstand tops. The main room has four double acme lamps. On each side of the main room or parlor are eight large plate glass windows, the glass being 26 x 48 ins. Each window is fitted up with double top and bottom sashes, the inside bottom being set in a hinged brass frame; this is to enable the glass to be cleaned. Between each window space is a richly veneered and inlaid pilastre, extending from the top of the truss plank to the base of the side cove, while along the base of the side cove runs a neatly inlaid moulding. The bulkheads are in keeping with the side elevation, veneered with the same quality of mahogany, divided off by pilastres, which extend from the floor to the same elevation as the side pilastres. The bulkheads are recessed in elliptic lines, which gives the end views a very novel appearance, advantage being taken with this to form an overhead cove of art glass in colors to match the deck lights. The ceilings are of the Empire style, and neatly attached to the lower end of each centre lamp is an ornamented brass bell cord eye, through which passes the signal cord. This does away with the objectionable swinging bell cord-hanger. These cars represent all that is new and up-to-date in the way of beauty and luxury. The chairs in their comfort and elegance invite an unlimited trip, while the eye is never tired taking in the quiet richness of the decorations of the car. A floor plan and exterior elevation are given on page 187.

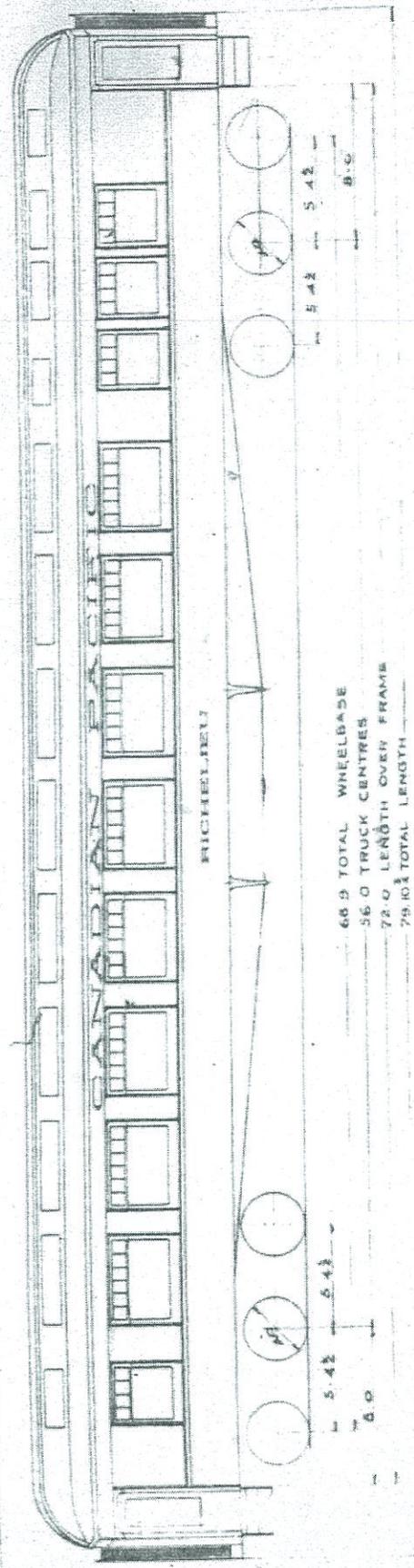
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MAY 1903



THE RAILWAY AND SHIPPING WORLD.

JUNE, 1903.]



OUTSIDE ELEVATION C.P.R. PARLOR CARS, RICHELIEU AND ST. MAURICE.

The Central R.R. of New Brunswick is re

MAY 1903

...will remove all cause for complaint.

The Montreal & Ottawa Ry., Vaudreuil to Ottawa, was transferred to the Operating Department of the Eastern Division July 20 & placed under the jurisdiction of Superintendent H. B. Spencer, at Ottawa. It is expected to commence through train service between Montreal & Ottawa on Aug. 15 & to make the trip of 111½ miles in 3 hours, with only 3 stops on the way, Vaudreuil, Vankleek Hill & Caledonia. There will likely be one fast train each way daily, & a local each way for general business.