

fic Car and Passenger Transfer Co., and President, Prescott and Ogdensburg Ferry Co., Ltd., Prescott, Ont., born at Spencer-ville, Ont., Nov. 14, 1872.

R. L. Fairbairn, General Passenger Agent, Canadian Northern Ry., Toronto, born at Stillwater, Minn., Nov. 24, 1880.

P. J. Flynn, Terminals Manager, Winnipeg Joint Terminals, C.N.R., G.T. Pacific Ry. and National Transcontinental Ry., born at Fishers, N.Y., Nov. 22, 1872.

Grant Hall, General Manager, Western Lines, C.P.R., Winnipeg, born at Montreal, Nov. 27, 1863.

John L. Hodgson, Master Car Builder, G.T. Pacific Ry., Transcona, Man., born at Simcoe, Ont., Nov. 15, 1858.

W. M. Hood, Travelling Passenger Agent, Canadian Northern Ry., and Canadian Northern Steamships, Ltd., Toronto, born at Harrow, Ont., Nov. 25, 1872.

N. B. Jones, Car Foreman, C.P.R., Kenora, Ont., born at St. John, N.B., Nov. 9, 1869.

W. E. Ladley, Superintendent of Motive Power, Reid Newfoundland Co., St. John's, Nfld., born at Leeds, Eng., Nov., 1875.

C. E. Legg, Trainmaster, Winnipeg Terminals, C.P.R., born in Illinois, Nov. 15, 1864.

J. McGillivray, General Manager, Inverness Ry. and Coal Co., Iverness, N.S., born at Nairn, Scotland, Nov. 13, 1867.

J. McMillan, General Superintendent of Telegraphs, Western Lines, C.P.R., Winnipeg, born at Liverpool, Eng., Nov. 2, 1866.

A. S. Munro, Commercial Agent, G.T.R., London, Ont., born at Hamilton, Ont., Nov. 10, 1880.

C. Murphy, General Superintendent, Manitoba Division, C.P.R., Winnipeg, born at Prescott, Ont., Nov. 20, 1865.

A. C. O'Neil, Travelling Freight Agent, G.T.R., London, Ont., born at Point Edward, Ont., Nov. 30, 1866.

W. J. Quinlan, District Passenger Agent, Grand Trunk Pacific Ry., Winnipeg, born at Montreal, Nov. 21, 1883.

F. E. Rutland, Agent, C.P.R. Stockyards, Winnipeg, born in Essex, England, Nov. 17, 1868.

H. P. Sharpe, General Agent, Dominion Express Co., Toronto, born at Brockville, Ont., Nov., 24, 1864.

G. H. Shaw, General Traffic Manager, Canadian Northern Ry., Toronto, born at Smiths Falls, Ont., Nov. 25, 1859.

F. M. Spaidal, General Superintendent, Quebec Grand Division, Canadian Northern Ry., Montreal, born at Gananoque, Ont., Nov. 13, 1858.

J. Sparks, Assistant General Baggage Agent, Western Lines, C.P.R., Winnipeg, born in London, Eng., Nov. 25, 1874.

J. G. Sutherland, Car Service Agent, Alberta Division, C.P.R., Calgary, born at Aulac, N.B., Nov. 24, 1882.

H. P. Timmerman, Industrial Commissioner, Eastern Lines, C.P.R., Montreal, born at Odessa, Ont., Nov. 6, 1856.

H. E. Whittenberger, General Superintendent, Ontario Lines, G.T.R., Toronto, born at Peru, Ind., Nov. 9, 1869.

C. G. Washbon, Trainmaster, C.P.R., Brandon, Man., born at Morris, N.Y., Nov. 27, 1887.

The 24 hour system of time, which has been used on the Western Lines, C.P.R., and on the Intercolonial Ry., for some years and was adopted by the French railways in 1912, is now said to have been adopted in Belgium, Italy and Uruguay.

An order to test all air compressors and other air brake equipment on passenger and freight locomotives before they leave the locomotive house, on one road, has cut the number of air pump failures in half in one year.

## Extensive Improvements on the Dominion Atlantic Railway.

The Dominion Atlantic Ry.'s main line extends from Yarmouth to Windsor, N.S., 170 miles, and it operates through to Halifax, having a lease of the Intercolonial Ry.'s Windsor Branch from Windsor to Windsor Jct., 31 miles; and from Windsor Jct. to Halifax, 14 miles, it has trackage rights over the I.R.C.'s main line. Its Cornwallis Valley Branch extends from Kentville to Kingsport, 14 miles, and its Midland Division from Windsor to Truro, 58 miles. In 1911 the D. A. R. was leased to the C. P. R. for 999 years. Since then a very large amount of work has been done to improve its physical condition and bring it up to C. P. R. standards. A large number of bridges and structures have been replaced, etc., as follows:

Bear River bridge, 1,530 ft. long, has been replaced with an entirely new structure. The substructure consists of 14 piers and 2 abutments, and the superstructure of four 156 ft. truss spans, six 100 ft. d.p.g.'s, one 85 ft. d.p.g., one 50 ft. d.p.g. and one 144 ft. swing span.

At Clementsport the wooden bridge has been replaced with a steel bridge 930 ft. long. It was necessary to build up on top of the existing piers with concrete, to build one new concrete pier and two concrete abutments. The bridge now consists of 8 piers and two abutments. The superstructure consists of three 148 ft. d.t. spans, one 65 ft. d.p.g., three 74 ft. d.p.g.'s, and one 156 ft. swing span.

At Bridgetown the existing light span has been replaced with a standard 150 ft. through span.

At Gaspereau the present bridge is being replaced by a new one 460 ft. long. The substructure consists of three piers and two abutments, and the superstructure of two 170 ft. through spans and two 83 ft. h.t.g.'s.

At Windsor the present light bridge is being replaced by a new structure 1,080 ft. long. The substructure consists of 9 piers and 2 abutments, all of concrete. The superstructure consists of four 150 ft. t.t. spans and six 85 ft. h.d.p.g.'s. This bridge is not entirely completed, three piers remaining to be finished. The steel is being erected.

At Shubenacadie the small lift span has been replaced with a 130 ft. d.p.s. span. It was necessary to build 1 new pier and 1 new concrete abutment.

At Big Joggins the wooden trestle and wooden swing span have been replaced by a 120 ft. d.s. span; filled 785 ft. of the trestle approaches, renewing entirely the remaining 180 ft. of trestling.

At Little Joggins the wooden bridge has been replaced by a 40 ft. d.p.g., and 545 ft. of the bridge has been filled.

At Allen's Creek the wooden bridge, 325 ft. long exclusive of the wooden approaches, has been replaced by a new bridge. The substructure consists of 2 piers and two abutments, all of concrete, and the superstructure of one 150 ft. t.t. span and two 85 ft. t.p.g.'s, with standard trestle approaches at both ends.

At Weymouth the wooden bridge, 1,280 ft. long, is being replaced by a steel bridge. The substructure will consist of 13 piers and 2 abutments, all of concrete. The superstructure will consist of three 156 ft. deck trusses, two 100 ft. lattice girders, two 85 ft. d.p.g.'s, one 136 ft. p.g.d.s., and the remainder will be 50 ft. d.p.g.'s. The substructure of this bridge is nearly completed and the superstructure will be placed during the winter.

At Cambridge bridge and Jordantown sub-way two 30 ft. girders have been placed.

The old Hantsport aboiteau is to be replaced with a new structure.

In addition to replacing these large wooden bridges by steel ones a number of trestles have been replaced by concrete arches and fills, and a number of the smaller wooden bridges by concrete rail top culverts. Numerous wooden culverts have also been replaced by concrete pipe, small arches and cast iron pipe. One 10 ft. concrete arch, six 8 ft. concrete arches, six 6 ft. concrete arches, and four 4 ft. concrete arches have been built. Seven 36 in. concrete pipe culverts, ten 30 in. concrete pipe culverts, seven 24 in. concrete pipe culverts, 24 cast iron pipe culverts, four 14 ft. rail top culverts, one triple 10 ft. rail top, one double 10 ft. rail top, one single 10 ft. rail top culvert, two 8 ft. rail top concrete culverts, and eight 6 ft. rail top concrete culverts have been put in, and concrete rail tops have been placed on eight culverts that previously had wooden decks and stone abutments.

In round figures, 6,000 lin. ft. of wooden bridges have been replaced or will be replaced very shortly by steel bridges, concrete arches and fills and rail top culverts. The quantity of material required in making these fills amounts to over 425,000 cu. yds.

About 45 miles of track have been rebalanced, 30 miles of new 85 lb. rails have been laid and 120 pit cattle guards have been filled and replaced by surface guards.

The water tank at McDonald's, on the Midland Branch, is being replaced by a 10 in. C.P.R. standard stand pipe, and an earth dam some 25 ft. high at the deepest, and 100 ft. long, is being built to form a storage reservoir. At South Maitland, also on the Midland Division, a 10 in. C.P.R. standard stand pipe is being installed, and the pipe line is being carried to a lake about a quarter of a mile from the track and 140 ft. in elevation above it; 25,000 or 40,000 gallon water tanks have been built at Windsor, Middleton, and Hectanooga, all on the main line. 100-ton track scales have been installed at Yarmouth and Annapolis Royal, built in the most substantial manner with concrete scale pits.

New brick stations have been built at Wolfville, and Annapolis Royal, and new stations at Mosherville, Patterson's and Imbertville. During the past two years 35 stations have been repaired and painted, and platforms have been repaired.

A new wharf has been built at Yarmouth, with a new trestle approach from the main line, to enable the trains to be more conveniently located on the wharf for taking and putting off passengers for the Boston steamboats, and a new and larger freight shed has also been built on this wharf.

A new line, the North Mountain Branch, is being built from Centreville to Weston, 14 miles, in the most substantial manner, all the culverts being concrete arches, concrete pipes or cast iron pipes, and the stations are to be set on concrete or masonry foundations. It is expected that this line will be completed and open for service by Jan. 1.

The above, with the exception of the station repairs, has reference only to the permanent work done. In addition the majority of the existing trestles have been greatly repaired and strengthened to bring them up to standard. Many of them have been entirely renewed.

With fuel oil, it is claimed that it is possible to greatly increase the capacity of a boiler without a marked decrease in the boiler efficiency.