

The Canadian Engineer

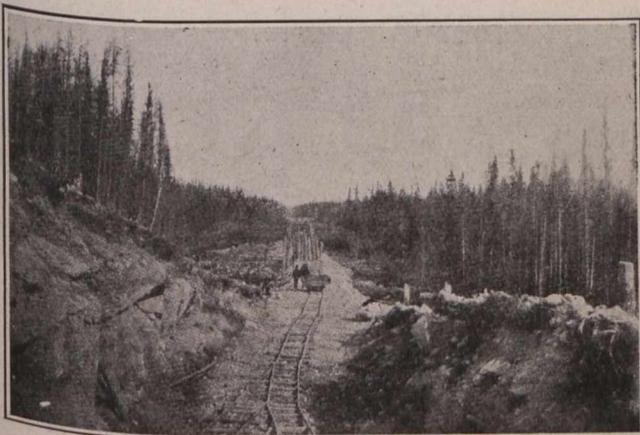
An Engineering Weekly

THE GRAND TRUNK PACIFIC RAILWAY.

The Grand Trunk Pacific Railway Company, which was incorporated by Act of Parliament, 1903, is under agreements with the Canadian Government for the construction and operation of a line of railway across Canada, from the Atlantic to the Pacific Ocean, wholly within Canadian territory, of an estimated mileage of main line of 3,600 miles; in addition to which there will be constructed several branch lines of considerable length and importance, including a branch from the main line southerly 188 miles to Fort William and Port Arthur, on Lake Superior, for the purpose of reaching navigation on the Great Lakes; also from the main line southerly about 220 miles to North Bay or Gravenhurst, in the Province of Ontario, to make connection with the lines of the Grand Trunk Railway Company of Canada, and another from the main line southerly to Montreal.

This great undertaking has been projected to meet the pressing demand for transportation facilities in British North America, caused by the large tide of immigration which is now flowing into the country from Great Britain, Northern Europe, and still more extensively from the Western States of the United States of America.

The authorized capital stock of the company is \$45,000,000, of which \$20,000,000 may be issued as preferred. The Grand Trunk Railway Company of Canada is to acquire all of the common stock (except shares held by directors) in consideration of guarantees, etc., and must retain a majority holding during the term of the agreements with the government.

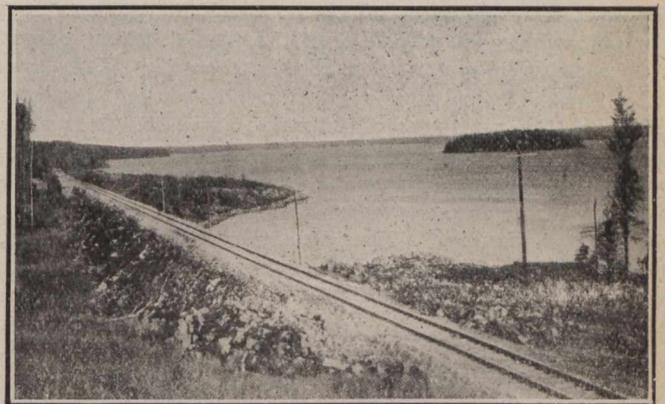


Constructing Line North of Lake Superior.

Mr. Charles Melville Hays was the originator of this project, and, according to Mr. Frederick A. Talbot, of London, England, who has made a considerable study of this railway and its history, Sir Wilfrid Laurier and his government must be credited with their great share of the work by securing the consent of the people of Canada to participate in such a project as a government transcontinental railway. The whole of the western country was canvassed

religiously. No one knew for whom these parties were working, or just what the scheme in hand comprised, as it was revealed in a somewhat hazy manner. Secret meetings were held in the cities, large towns, villages, and even in remote settlements. Extreme caution had to be taken to prevent any tangible particulars of the undertaking reaching the management of the C.P.R., insomuch as the Canadian Pacific regarded the West as its own territory.

Investigation of the dormant wealth of the land through which it was to pass caused the promoters of the enterprise



On North Shore of Lake Superior.

to keep the line well to the north, so as to open a new country in the widest sense of the word. President Hays adopted a sound policy when he decided on following more the methods of the English railways, and that the first cost was to be the last. Any one connected with English railways knows how solidly this construction work is carried out, and that there are absolutely no permanent ways in the whole world better constructed.

The Grand Trunk Pacific called for the irreducible minimum in curvature and grades—the former were to be no sharper than four degrees and the latter not to exceed four tenths. The railway threads the mountains with a "ruling" grade of four-tenths, or 21.12 feet to the mile, against both east and westbound traffic. Rises not exceeding 52.8 feet to the mile have been sought diligently by railroad builders in North America.

The Dominion Government undertook to build one-half of the line from the Atlantic seaboard to Winnipeg, and to control it as a national undertaking, while the Grand Trunk Pacific was to construct the second half, stretching from Winnipeg to the Pacific Coast, and the government would assist in the construction of this latter section, inasmuch as it involved the crossing of the Rocky and Cascade Mountains, by guaranteeing the first mortgage bonds.

By deciding upon Winnipeg as the dividing point between the two parts the undertaking was split into sections of almost equal length, the eastern division measuring 1,801