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The Canadian Northern Railway Montreal-Port Arthur Line.

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The Canadian Northern Ry. has been doing some rather remarkable work in filling in the last links of a transcontinental railway system. For over a year it has had under contract nearly 1,000 miles of main line between Montreal and Port Arthur, besides the completion of a branch of 250 miles between Toronto and Ottawa, and the construction of the Montreal tunnel and terminals, this last being the largest and boldest work of the kind which has ever been undertaken in Canada. These works are all on the east end of the railway system, between

Ry. (now nearing completion) approaching it in the matter of ruling grades. The standard in this particular has been 0.6% against the westbound traffic and 0.4% in the opposite direction. One grade of 10 miles in length is 0.5% (compensated for curvature) against eastbound traffic, but with this single exception the standard has never been exceeded in the whole distance of 1,000 miles, and not even reached except for very short distances.

Owing to the extremely rocky and broken character of much of the country

consideration (and at several points a governing one) in working out the location.

It will be of interest now to describe the line somewhat in detail.

Montreal to Lake Nipissing.

The Canadian Northern Quebec Ry., an allied corporation, has a terminal in the east end of Montreal and runs thence northeasterly parallel to the St. Lawrence to Quebec and a number of other important points in the province. About 1½ miles from this terminal, is located a sorting yard and a spur connecting

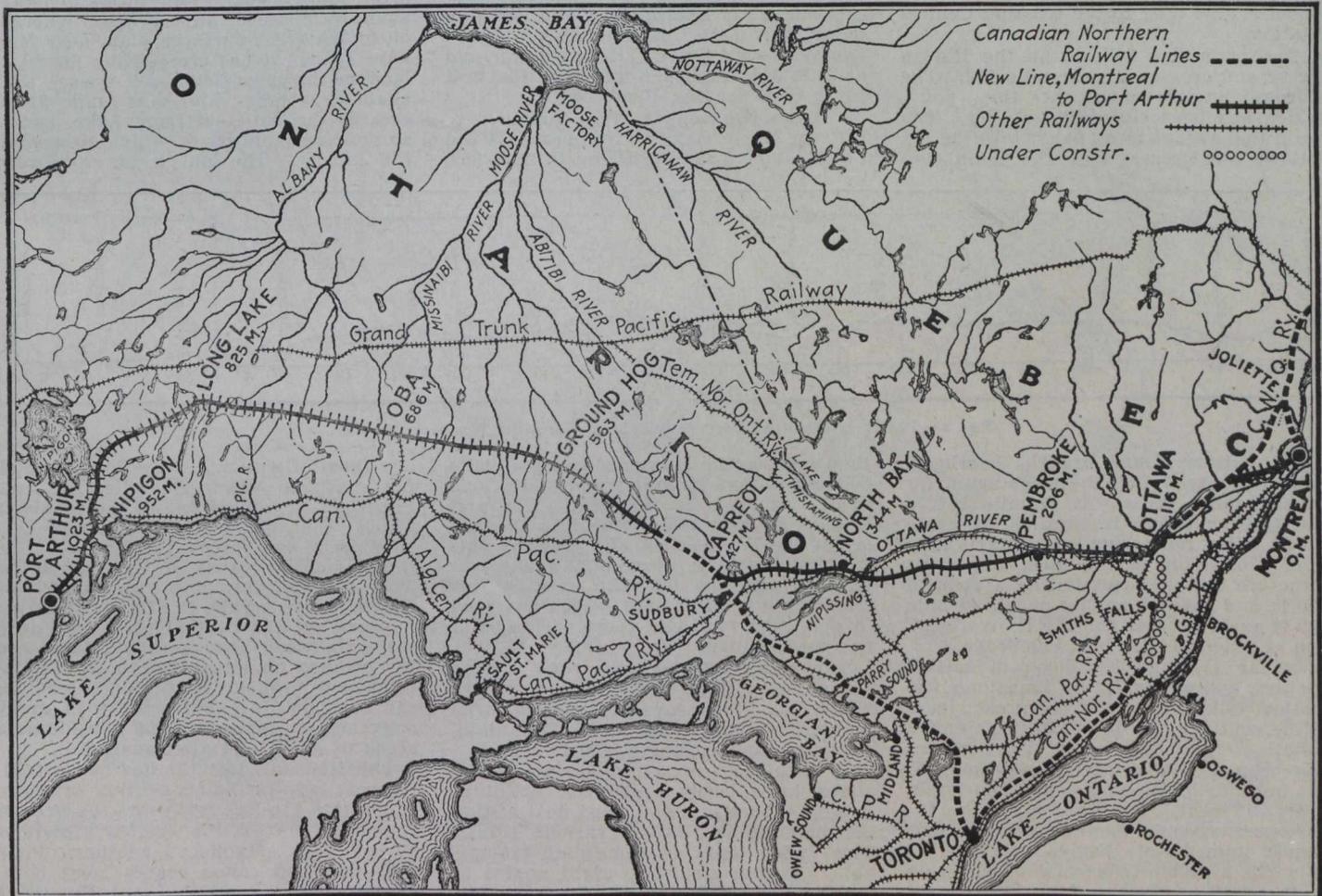


Fig. 1.—Montreal-Port Arthur Section of Canadian Northern Railway's Transcontinental Line.

Lake Superior and the Atlantic, and independent of the line through the Rockies and down the North Thompson and Fraser Rivers to the Pacific, which are not touched upon in this article.

This important link in the C.N.R. transcontinental system is shown in the map, fig. 1, while a condensed profile is given in fig. 2. This line (1,023 miles) is not only one of the longest stretches of line to be undertaken at one time, but it is also unique in the matter of location among Canadian railways, only the Government National Transcontinental

traversed, no attempt has been made to flatten the curvature in the same proportion as the grades. The standard of most Canadian roads is 6°, and this has not been exceeded except in a few isolated cases. The standard obtaining for many hundreds of miles is 4° and less. In another respect the C.N.R. is fully abreast (if not ahead) of the times; that is, the almost total abolition of grade crossings of other railways or of important highways. As a matter of fact, the securing of grade separation at reasonable cost has been a very important

with the Montreal Harbor Commissioners' tracks. For economic and topographic reasons this point was chosen as the starting point for the transcontinental line. It runs thence northwest and then west, skirting in a rough semi-circle the high plateau at the base of the mountain on which much of the city is built. At 10 miles it passes under the Canadian Pacific Ry.

Half a mile further is the point of connection with the local line which will tunnel directly through Mount Royal (at its highest point) to reach the extensive