



Fig. 1—The Oba subdivision, equipped with CTC, is about halfway between Montreal and Winnipeg

# Canadian National Adapts C. T. C. to Traffic of 12 Trains Daily

**Important objective of train operation by signal indication is accomplished by simplified system based on siding-to-siding block and with power switch at one end of sidings and spring switch at the other, thus reducing costs in proportion to volume of traffic on a 148-mile subdivision**

ON A SINGLE-TRACK, 148-mi. subdivision, that has 10 to 12 scheduled trains daily, the Canadian National installed a centralized traffic control system, in which the costs of the project were reduced in proportion to the traffic. This installation has a power switch at one end of each siding and a spring switch at the other. Overall blocks extend from siding to siding, with no provision for following moves in such a block. This saved on intermediate signals. Thus, for a cost not too much more than for complete conventional automatic block, the Canadian National attained the important objective of train operation by signal indication, as well as avoiding a very

high percentage of train stops when entering and leaving sidings.

This new signaling is between Foleyet, Ont., and Hornepayne, Ont., 148 mi. of single track, known as the Oba subdivision which is part of the Canadian National transcontinental route from Halifax on the Atlantic to Vancouver on the Pacific. Lines from Montreal and Toronto join at Capreol, as shown on the map. From Capreol, the line extends west, and slightly north, through the territory north of Lake Superior, Oba being about 200 mi. directly north of the Sault. In general, the railroad is located on the divide of land between the Great Lakes and Hudson Bay. Between Foleyet and Agate, 38 mi.,

there are numerous curves ranging up to 6 deg. The ruling grade east-bound varies from .2 to .4 per cent for about 9.5 mi. between Elsas and MP 22.5, east of Oatland. Between Agate and Hornepayne, 10 mi., the grades and curvature are light. Maximum permissible speeds are 60 m.p.h. for passenger trains and 50 m.p.h. for freight trains. Speed reductions to 40 m.p.h. are in effect at six locations, to 45 m.p.h. at one, and to 50 m.p.h. at six locations.

This Oba subdivision lies in typical north woods country, mostly wooded with spruce, pine, poplar and cedars, crossed by many rivers, heavily dotted with muskeg, and thousands of lakes some of which are several square miles in area, and can be termed a fisherman's paradise. There is no farming or industry in this territory except for a limited amount of lumbering and pulp wood cutting. No highways run through this area; therefore, except at Hornepayne, there are no highway crossings for practically 148 mi. Oba is a village of about 50 inhabitants and has the only grocery stores and hotels in the entire distance be-











