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Algoma Central and Hudson Bay Ry.

This line, when completed, will connect Sault Ste. Marie, Ont., with the transcontinental line of the C.P.R. at White River, Ont., about 250 miles east of Port Arthur. Its length, exclusive of branches, will be 235 miles. The most important of the branch lines is the Michipicoten branch, which has been in operation for about three years. In the main the line traverses a rugged, broken country, full of lakes, swift flowing streams, and bold rock hills; a country well-timbered, and holding out promise of great mineral wealth. The lakes and streams are full of fish, game and wild fowl abound—in fact, the country is a regular sportsman's paradise. For the first nine miles after leaving Sault Ste. Marie the road goes through a fine and well-settled agricultural district. There is no heavy work on the first 19 miles going north, both curves and gradients are easy. A summit is reached at about the 18th mile, being 568 ft. above the initial point, or 1,176 ft. above sea level. With the exception of the Bellevue trestle at mileage 19 the bridging is light; this structure is one of the heaviest bridges on the line. It is a timber trestle 1,064 ft. long, and at the greatest depth from rail to ground is 98 ft. From here the line drops into the valley of the Goulais river. At mileage 30½ it crosses this river on a pin connected steel truss and a 50 ft. deck girder bridge on concrete abutments. The road after crossing Goulais river, ascends the valley of Spruce creek, crossing this fine trout stream four times on steel girders. The gradients and curvature are heavy in this valley, 1.5% and 10°. Spruce or Achigan creek is the outlet of Achigan lake, which in turn forms the outlet of Bass lake. The two lakes connect at the Narrows, which is crossed on a pile bridge of 36 bents. After overcoming the summit at mileage 47½ the line drops with easy gradients down into the valley of the south branch of the Chippewa river. From the 56-59th mile the road skirts around the shore of Trout lake, a most beautiful body of water, clear as crystal, alive with fish, and in a country teeming with large game. Then the road again begins to rise to overcome the summit between this lake and the north branch of the Chippewa river. In climbing from Trout lake the work is very heavy, as the line passes along steep side hills and precipitous bluffs; however, the gradients, curves and bridging are comparatively light. The grade ascends to mileage 63¾, then falls for six miles to the crossing of the north branch of the Chippewa river. From there the line runs northwesterly,

passing through a very rough, broken country; it follows with a great deal of curvature the course of Mongoose creek to the Batchewana river. This stream will be crossed by two 80 ft. deck girders. The next section embraces the divide between the Batchewana and Montreal rivers. The summit is reached by using curvature to develop distance, and using the maximum gradient of 1½%. The work here is very heavy, being nearly all rock. The Montreal river at mileage 92 necessitates a steel viaduct 1,520 ft. long and 135 ft. above

broken country which extends from east to west, which it was found impossible to get through and get down into the Agawa river, the only outlet to the country. At mileage 110 the line reaches the valley of the Agawa. This valley is a narrow gorge, from 300 to 400 ft. wide, with abrupt cliffs rising 300 to 400 ft. on either side. In many places streams come tumbling down over these cliffs, forming beautiful cascades. This valley is followed until the canyon of the Agawa is reached. This canyon is short, has vertical walls, and narrows up to 100 ft. After leaving it the line again traverses the Agawa valley; as it gradually widens the work becomes light, more earth, sand and hard pan being met with. The line crosses the river six times on pile bridges. The gradients are now all light. The road continues up the valley, making the last crossing at the 132nd mile. It then leaves this river, and for four miles crosses a fairly broken country to Sand lake; from here to the Michipicoten river the work is light. This river will be crossed on a bridge consisting of two 80' and one 40' deck girders on concrete piers. Then the road descends with easy gradients and curves to the valley of Hawk river. At mileage 165 it turns westward and connects at mileage 171 with the Josephine branch, which in turn connects with the Michipicoten branch. From mileage 173 the main line continues generally westerly through a very broken country, full of lakes and high rock bluffs; here the work will be heavy. At mileage 205 the line turns sharply to the north and follows the course of a series of connected lakes which are the source of White river. It then follows this stream, connecting with the C.P.R. at White River station. The road is graded from Sault Ste. Marie to its junction with the Josephine branch; 85 and 80 lb. rails are laid to the mileage 64, and it is the intention to lay track this season to mileage 92. As the road has received Government subsidies it conforms to the Government specification, which insures a stable, substantial and safe, permanent way.



T. H. WHITE, M. CAN. SOC. C. E.
Chief Engineer, Halifax and Southwestern Railway.

the level of the river, at its greatest height. The viaduct is located on a 8° and 9° compound curve on a level grade. It crosses the river where the channel is divided by a rocky island. As contemplated, it will consist of 15 steel towers, the highest being 111 ft., concrete abutments on each end, the superstructure being ten 60', five 75', and one 81' spans of deck girders. Boller and Hodge, of New York city, are the Consulting Engineers. After crossing the river the road runs westerly until it is within about three miles of Lake Superior. This is owing to a high ridge of

The Mica Boiler Covering Co., Ltd., reports that its business showed a great improvement in both Canada and England last year. Arrangements have been nearly completed for manufacturing mica pipe and boiler coverings at Widnes, Lancashire, Eng., and it is probable that the company will manufacture in France in the very near future.