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SOME DIFFICULT SEWER CONSTRUCTION, TORONTO

A DESCRIPTION OF CONSTRUCTION DIFFICULTIES AND METHODS EMPLOYED ON THE WEST TORONTO STORM-WATER OUTLET.

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IN *The Canadian Engineer* for November 18th, 1915, a summary account was published of the extent of the sewer system recently constructed by the sewer section of the Department of Works, City of Toronto, for that portion of the city generally known as West Toronto. In our issue of December 2nd a description

different materials and by different methods of construction, these parts were all circular in shape, of the same size and all let in one contract. The route was north through High Park, parallel to Keele Street and nowhere more than 50 feet from it. Beginning at the lower end, the sewer was not very deep and was built in open cut

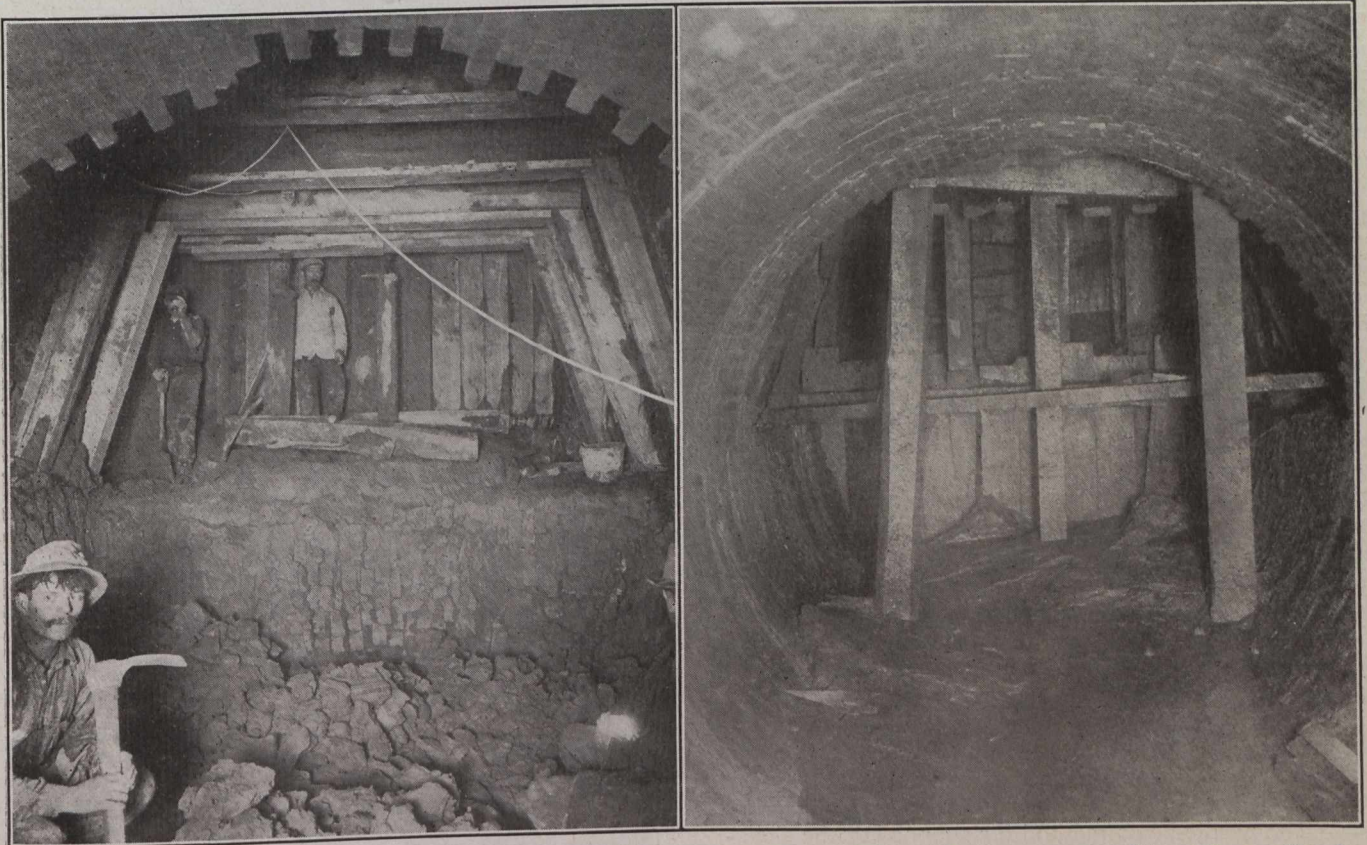


Fig. 1.—Tunnel Headings 80 Feet Apart in the Keele Street Sewer Work, Toronto. One View Shows Good Working Clay and the Other a Heavy Water Seepage Requiring 12 to 18 lbs. of Compressed Air.

appeared of the first section of this system, *viz.*, the outlet at Lake Ontario and for a distance of 450 feet along Keele Street. It was shown to be of the culvert type and heavily reinforced under the Lake Shore Road and under Grand Trunk subway just north of this thoroughfare. The following relates to the section between this outlet section and the stand-by tanks at Bloor Street, a distance of 5,211 feet. Though different parts of it were built of

for 800 feet. From here to the tanks, with the exception of 100 feet where it crosses the head of a ravine, the sewer was to have been built in tunnel of 18-inch brickwork, as shown in cross-section in Fig. 3.

In the first 800-foot section, of which Fig. 2 is a cross-section, the ground rises more quickly than in the part described in the last article. Therefore, a better grade (1 in 136) was given and consequently a smaller