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WINNIPEG-SHOAL LAKE AQUEDUCT CONSTRUCTION

PROGRESS ON THE \$13,500,000 UNDERTAKING OF THE GREATER WINNIPEG WATER DISTRICT—COMPLETION OF 102.4-MILE RAILWAY—FALCON RIVER DIVERSION DYKE AND CHANNEL—REVIEW OF 1914 WORK AND FORECAST OF 1915 ACTIVITIES.

IN 1913 the Greater Winnipeg Water District was formed to construct a waterworks system to bring a supply of water for domestic, commercial and sanitary purposes to Greater Winnipeg from Shoal Lake. The District comprises the city of Winnipeg and its more important suburbs. It has a population of 238,000 and an area of 91.67 square miles. It is governed by a body consisting of the mayor and board of control of the city of Winnipeg and two members appointed by each of the

on October 1st of that year, after which the above commission was appointed and work commenced. The reader is referred to a summary of the report of the board of consulting engineers, appearing in *The Canadian Engineer* for September 11th, 1913, and to an article descriptive of the design and engineering features of the proposed aqueduct in the issue for October 23rd, 1913.

In brief, the work may be said to include 104.2 miles of railway track for construction purposes; a diversion

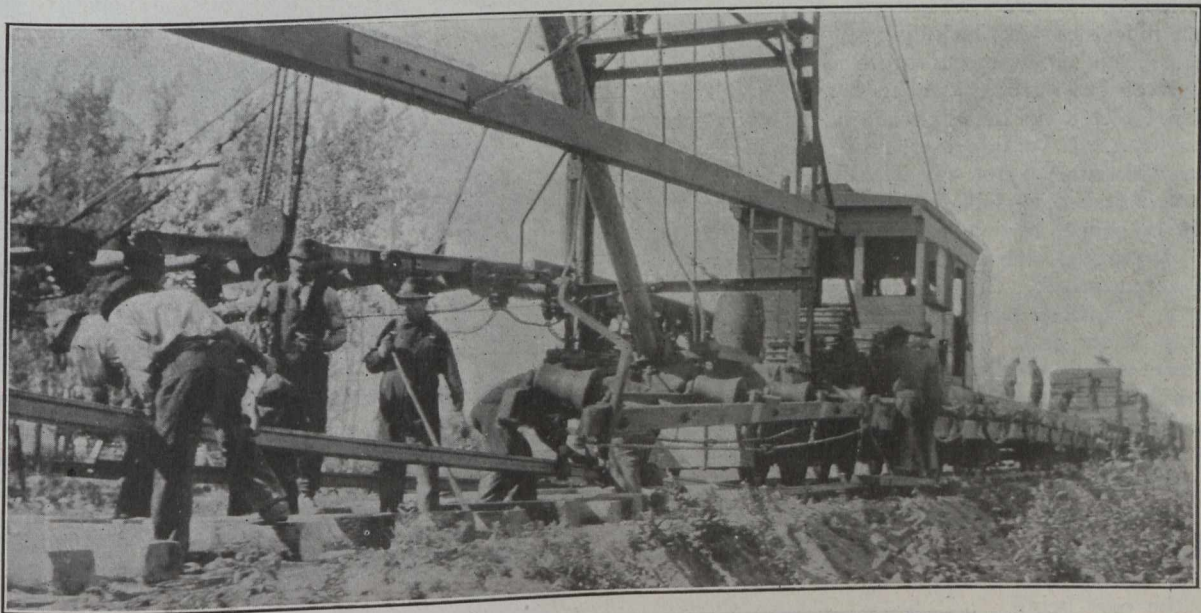


Fig. 1.—Track-laying on Aqueduct Railway, Greater Winnipeg Water District.

municipalities constituting the corporation. It is managed by three commissioners appointed by this body. Mr. S. H. Reynolds is chairman of the commission and Mayor Waugh of Winnipeg is chairman of the District. In 1913 Mr. James H. Fuertes, New York City, was appointed consulting engineer to the District, and Mr. W. G. Chace, chief engineer.

Mr. Thos. R. Deacon was at that time mayor of Winnipeg, and it was largely through his diligent and persistent efforts that the scheme was launched. Winnipeg's chief problem for many years had been that of water supply, and a number of investigations had been carried on to secure more desirable and adequate sources. The Shoal Lake supply was reported upon by Messrs. Rudolph Hering, Frederic P. Stearns and James H. Fuertes in 1913 and the project was approved by vote

dyke and channel, an intake, 35 miles of cut-and-cover aqueduct from the intake to the site of a future reservoir southeast of Transcona, 9.8 miles of 60-inch steel pipe from the reservoir site to the Red River, a tunnel beneath the river, and 2.3 miles of 48-inch cast-iron pipe from the river to the McPhillips St. reservoir. Advantage is taken of a gross fall of 294 ft. between Shoal Lake and Winnipeg to bring the water in by gravity. The estimated cost of the undertaking is \$13,500,000 and the daily supply to the District will amount to 85,000,000 Imperial gallons.

Activities in 1913 included the organization of the designing office and of field survey parties. Location work was completed in February, 1914. It included about 380 square miles of topography, 362 miles of transit lines, 1,317 miles of levels, 95 miles of precise levels, 11,544 ft. of soundings at Indian Bay and 3,897 ft. of test borings