

# TORONTO FILTRATION PLANT CONSTRUCTION

PROGRESS ON THE NEW SIXTY-MILLION-GALLON DRIFTING SAND FILTER PLANT ON TORONTO ISLAND—A NEW TYPE OF FILTER IN CANADA—TO BE IN OPERATION NEXT SPRING.

A FILTRATION plant involving some very unusual and exceedingly interesting features is at present under construction on Toronto Island alongside of the existing slow sand filtration plant which has been for a number of years of insufficient capacity to supply the demands of the rapidly growing city. This new plant is of a type known as the Ransome drifting sand system, and will provide a supply of 60,000,000 gallons per 24 hours, with provision for a 20 per cent.

Toronto Department of Health in 1913, which test resulted in the consideration of this new type among others and figured extensively in its final adoption.

In addition to boiler house, pumping station, chemical building, suction well and storages for coal and chemicals, the plant comprises a filter house containing ten steel cylindrical units each of 50 ft. outside diameter and each including a circular compartment 16 ft. 8 in. in diameter, which accommodates supply piping, etc. As illustrated

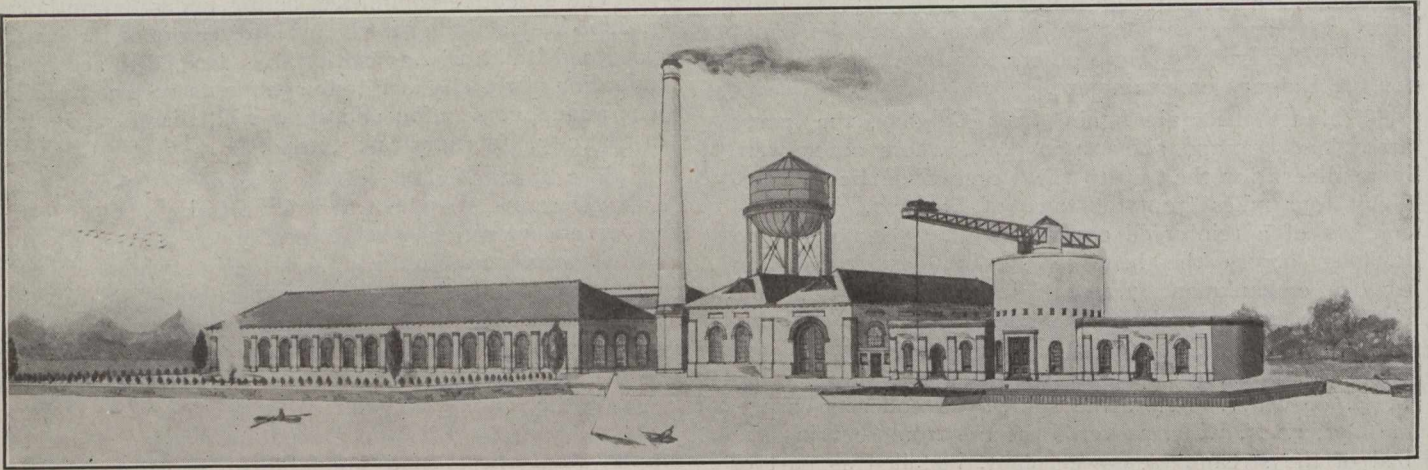


Fig. 1.—General View of Plant as It Will Appear When Completed.

overload for any period of ten hours. The contract for its construction was awarded in 1914 to the John verMehr Engineering Company, Limited, Toronto, engineers, and William Cowlin & Son (Canada), Limited, Toronto, contractors, the price being \$1,066,282. The type may be briefly described as a combination of the mechanical and slow sand methods of filtration. The reader is referred to

in Fig. 2, the supply is drawn from two existing 72-inch water mains by steel connecting pipes of like diameter embedded in 12 inches of concrete, into a suction well

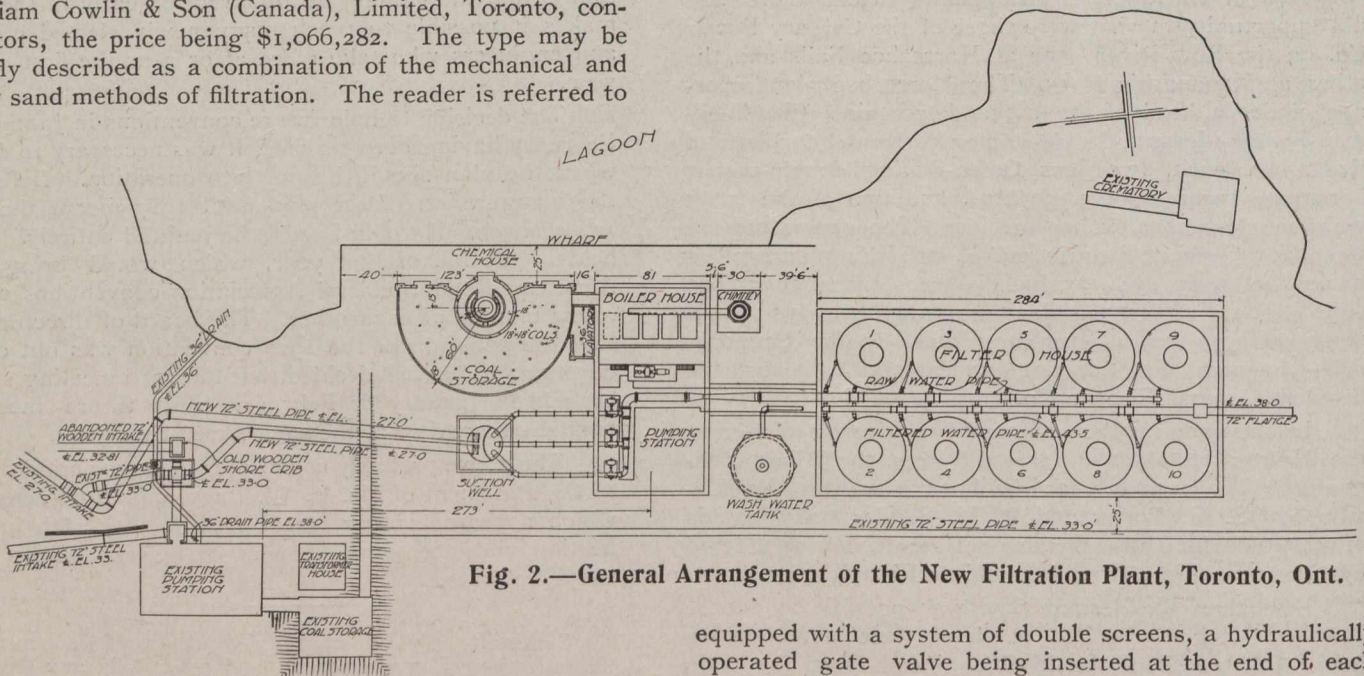


Fig. 2.—General Arrangement of the New Filtration Plant, Toronto, Ont.

The Canadian Engineer for April 23rd, 1914, for a description of its operation, and to our issue of April 8th, 1915, for a report of a 30-day test, carried out by the

equipped with a system of double screens, a hydraulically operated gate valve being inserted at the end of each intake. Three 36-inch electrically driven centrifugal pumps convey the supply to the filters through a 72-inch venturi meter which automatically indicates, registers and records the supply. The water leaving the filters dis-