

The Canadian Engineer

A weekly paper for civil engineers and contractors

Sewage Disposal Works at London, Ontario

Two-Story, Non-Reversible Sedimentation Tanks and Enclosed Filters with Fixed Spraying Nozzles—History of London's Sewerage Problems Since 1891—Construction of Interceptors and Outfalls—Review of Work Done and Suggestions for Further Improvements

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IN 1891 the population of the city of London was about 31,240. The central business section of the city was then provided with combined sewers, and in London South, a recently annexed suburb, many streets had also been provided with pipe sewers. One brick trunk sewer had been laid on Wellington St. with a tributary population of 3,000, a second on Richmond St. serving 2,000 people, and a third on King St. serving about 6,000; all discharging directly into the south branch of the Thames River. Each of these sewers was 36 ins. x 54 ins. Branches were laid on many streets to the limits of the drainage areas. These sewers were built without regard to future extensions, and in fact could not be extended owing to their high elevations. The south branch of the river was grossly polluted, and this pollution extended into the main stream below the forks. Some of the pipe sewers in London South, originally laid for cellar drainage and the removal of street water, were tapped for house sewage, which caused nuisances in certain water courses

The outstanding recommendations of that report were as follows:—

- (1) That the separate system should be adopted for those sections of the city not yet sewered.
- (2) That a main intercepting sewer should be constructed in the valley of Carling Creek to serve those sections to the north and to the east of the business section.
- (3) That a second interceptor should be constructed for the southerly and south-easterly part of the city, its



FILTER IN OPERATION

course roughly to parallel the north side of the south branch of the river.

- (4) That a third interceptor should be constructed on Wharncliffe Road for London South.

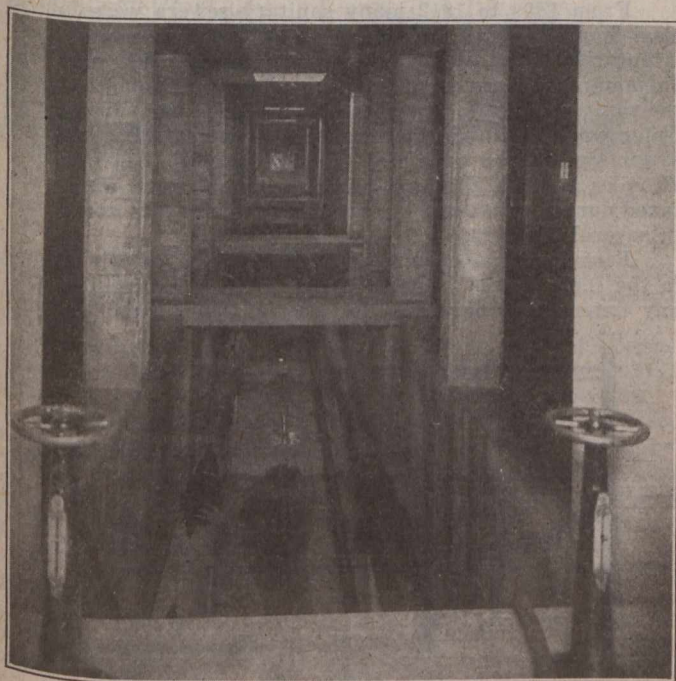
- (5) That a trunk sewer should be carried across the south branch of the river at King St., at grade, on a bridge to be constructed for the purpose, as an outlet for the two first mentioned interceptors, thence along Evergreen Avenue to a large chamber, the south London interceptor joining this trunk sewer at Wharncliffe Road.

- (6) That the entire dry weather flow from the old combined sewers be intercepted by the three proposed interceptors.

- (7) That an inverted syphon about 4,000 ft. in length be laid from the chamber on Evergreen Ave. westerly to lands purchased for sewage disposal works.

- (8) That the storm water be disposed of separately, the brick sewers to be retained as overflows in the business section.

After four years of discussion by the city authorities, the works as recommended, with a few minor alterations, were approved, and construction began under the writer's general supervision.



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on private properties. Sewers were demanded throughout the city, but it was obvious that the former policy of building each sewer without reference to a general scheme could be no longer followed, and that the pollution of the rivers within the city limits should not only not be increased, but also that the existing pollution should be removed.

The writer was engaged to report upon the problem of a general sewerage system for the entire city and a method of sewage disposal.