

# The Canadian Engineer

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## KITCHENER SEWAGE DISPOSAL WORKS

City Will Have Two Complete Disposal Systems of Different Types—New Two-Story Type Sedimentation Tanks and Spraying Filters Now Being Constructed at Cost of Approximately \$75,000

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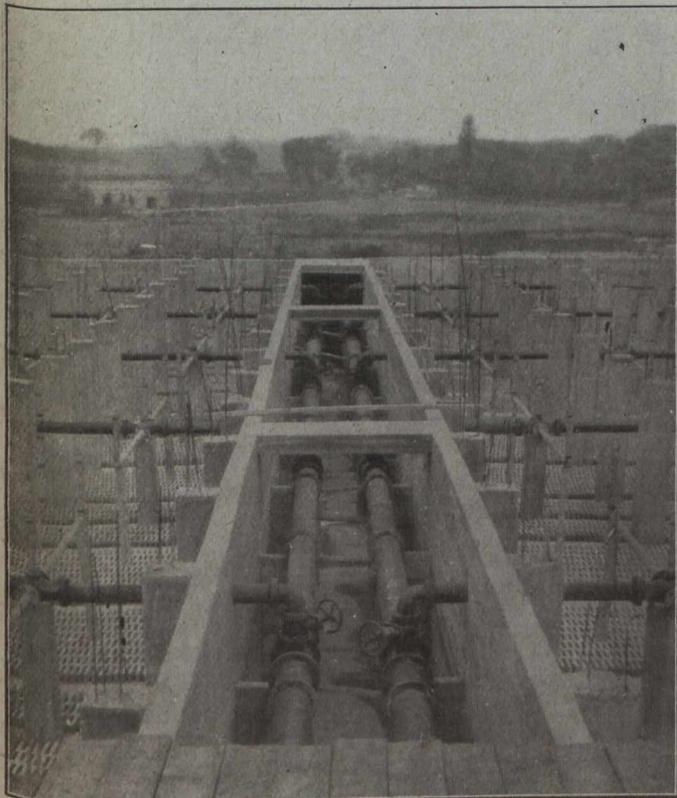
**K**ITCHENER'S sewerage system was commenced in the year 1891 by the town engineer, the late H. J. Bowman. The first sewage disposal works were constructed shortly afterwards. A means of disposal was necessary at once, as the only outlet for the sewage was into a small creek with a dry-weather flow of about 1,000,000 gallons per day.

Kitchener grew rapidly from a small town with a population of 7,500 in 1891 to a city of over 19,000 in 1915. It has become a factory centre with over one hundred and twenty factories, including two large tanneries, three felt factories and three large rubber factories. The effluents from the factories make the sewage much more difficult to treat than ordinary domestic sewage.

The following table gives an idea of the increase in the amount of sewage in comparison with the increase in

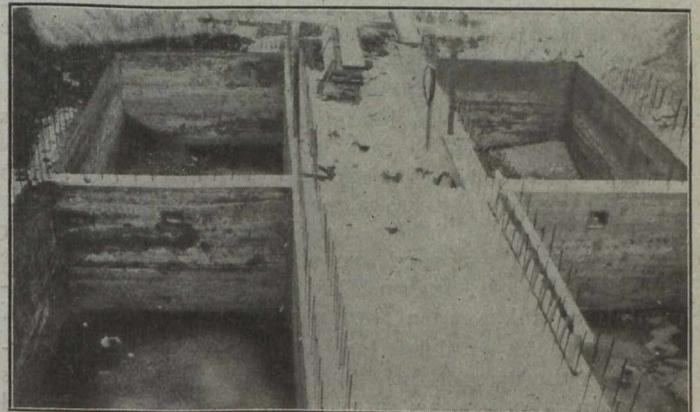
Year.	Population.	Gals. of sewage.
1891 .....	7,500	.....
1899 .....	9,360	225,000
1901 .....	9,900	327,000
1903 .....	10,400	414,000
1906 .....	12,150	668,000
1915 .....	19,300	1,300,000

Kitchener has adopted the separate system, and storm water is kept out of the sewers so far as possible,



Filters, Showing Pipe Gallery.

population. The extensions in the sewer system has been much more rapid during the last few years, and the number and size of the factories have also grown rapidly.



Sedimentation Tanks, Showing Lower Sections.

in order to keep at a minimum the amount of sewage to be treated.

In the year 1896 the town had outgrown its first disposal works, as complaints were made by the farmers along the creek. These complaints were investigated by the provincial board of health and the creek found to be badly contaminated. As the town did not improve its disposal works these same farmers sued the town for damages, about 1900 and 1901, and they received large amounts as compensation.

In 1902 the provincial government was asked to help the town solve its sewage problem, and the government sent Dr. J. A. Amyot to investigate. The result of Dr. Amyot's report was that a new sewage plant was installed in 1904-1905 under the supervision of Wm. Mahlon Davis, who was then town engineer and the writer's partner.

This consisted of:—

- 1.—Two septic tanks with a capacity of 450,000 gallons.
- 2.—Two storage tanks with a capacity of 450,000 gallons.
- 3.—Pumping station and pumping machinery, consisting of two turbine pumps with a capacity of 1,000