

sewer the domestic sewage enters a cast-iron suction pipe which leads to the new pumps in the pumping station.

Pumping Station.

The old pumping station was built of concrete. A concrete addition has been added in which is placed the pumping machinery for the new plant.

Pumping Machinery.

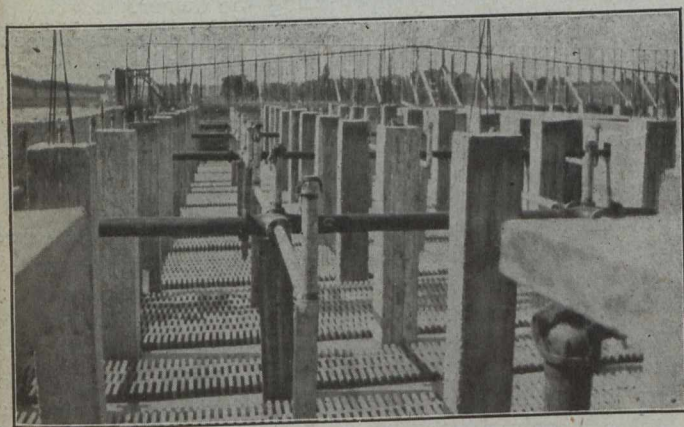
The pumping machinery consists of the following:—

1.—Two turbine pumps, each having a capacity of 500 Imperial gallons of sewage per minute against a head of 33 feet.

2.—Two electric motors with a capacity of 25 h.p. each.

3.—One Venturi meter tube with 4-inch throat designed to measure from 300 gallons to 1,200 gallons per minute. It is furnished with a register, indicator-recorder. The chart recorder dial shows the rate of flow in millions of gallons per day. The register shows the total Imperial gallons pumped and the indicator dial shows the rate of flow in gallons per minute.

4.—The switchboard consists of three panels, 65 ins. x 25 ins. x 2 ins., of black marine slate. It is fur-



Interior of Filters, Showing Brick, Piers, Piping and Forms for Siphon and Dosing Chambers.

nished with two ammeters, one volt meter, one Westinghouse integrating wattmeter and a recording meter.

Sedimentation Tanks.

There are two sedimentation tanks of the two-story type, 55 ft. by 21 ft. x 26 ft. deep. They are placed side by side. The distributing channels and valves are so arranged that the sewage may be made to pass through only one or through both tanks at once.

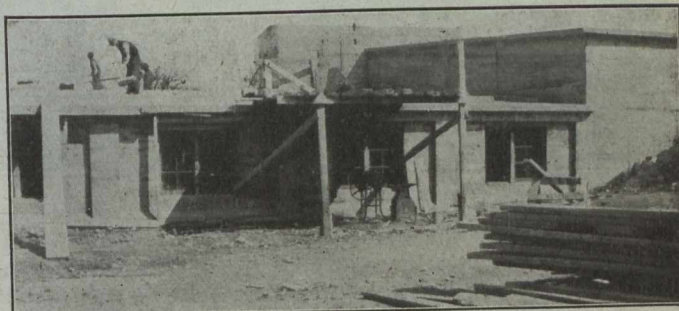
The piping is arranged so that the sludge may be drawn off by gravity. A passage is provided for raking the scum off the top. The tanks are covered with removable planks. These tanks have been completed and are now in operation.

Spraying Filters.

The spraying filters are built in two sections, each 180 ft. by 40 ft. Between the sections is a gallery 7 ft. wide, in which the supply pipes and valves are placed. Each section is fed by a syphon chamber and a dosing chamber.

A reversible screen chamber is placed between the syphon chamber and the sedimentation tanks. This is furnished with fine screens to remove any solids that may pass through the tanks.

The effluent from the filters is carried away by channels made in the concrete floor to each side and then along the outside walls to pipes leading to the humus tanks. These channels are covered with concrete bricks laid with open spaces so as to allow the effluent to pass through. These bricks support seven feet of broken stone which make up the filtering media. The lower course consists of 3-inch and 4-inch stones, one foot in depth; the next course, 2-inch and 3-inch stone, five feet in depth;



Filters After Construction of Roof.

and the upper course, 1-inch and 2-inch stones, one foot in depth.

The filters will be enclosed with concrete walls with a concrete roof.

Humus Tanks.

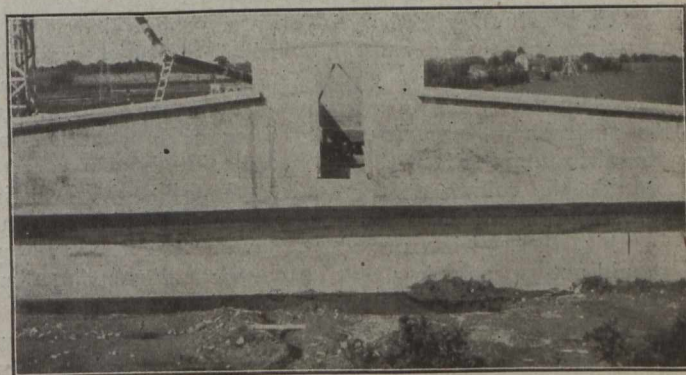
The humus tanks will be 19 ft. in diameter and 16 ft. deep. The effluent will enter through a pipe in the centre and pass out over a weir running all around the outside. From the humus tanks the effluent will pass to the creek.

Sludge Beds.

There are two sludge beds, 100 ft. by 70 ft. The natural sandy soil was graded and banks constructed. Four-inch field tile were placed under the beds 4 ft. apart, with 6-inch cross tiles 20 ft. apart. The sludge from the sedimentation tanks will be conveyed to these beds by gravity through a 12-inch cast-iron pipe.

There is also a small sludge bed, 50 ft. square, to dry the sludge from the humus tanks. This sludge will be conveyed to the bed by gravity.

The cost of the whole work will amount to about



End View of Filters, Covered.

\$75,000, which includes about \$7,000 for diverting the factory sewage to the 48-inch sewer and laying a water main to the spraying filters for flushing purposes.

G. B. Moogk, of Weston, is the contractor; Marcel Pequegnat, the resident engineer. The pumping machinery was installed by the Canadian Allis-Chalmers Co., Ltd.,