

Fig. 6.—Filter Column and Roof Forms in Place. The Small Building at Right is Low-lift Pumping Station

uses .45 parts in a million of chlorine to disinfect its supply. When the filter is in operation, the town expects to use no chlorine except for the few days follow-

ing each cleaning, when about .15 parts to the million will likely be used.

The water flows by gravity from the lake to the filters. The surface of the sand in the filters is 242.5 ft. above the sea level. The average lake level from 1871 to 1900 was 245.0, with extreme low water record of 241.36, so that the pumps at the low-lift pumping station will have to be operated only during low water. When the water is dirty, however, causing considerable loss of head in the filters, the low-lift pumps may be operated so that the elevation of the water will be higher in the pure water reservoir, and therefore higher in the pump well of the main pumping station, thus reducing the suction lift of the pumps in the main pumping station. The pump at the low-lift pumping station is motor-driven, and there is an auxiliary pump driven by oil engine.

Equipment.—The pumps, motor, engine and piping were supplied by Canadian Fairbanks-Morse Co. The Venturi meters were supplied by Francis Hankin & Co.; loss-of-head and elevation gauges by H. W. Cowan; cast iron pipe by National Iron Works; valves by Drummond, McCall & Co.; sluice gates by Kerr

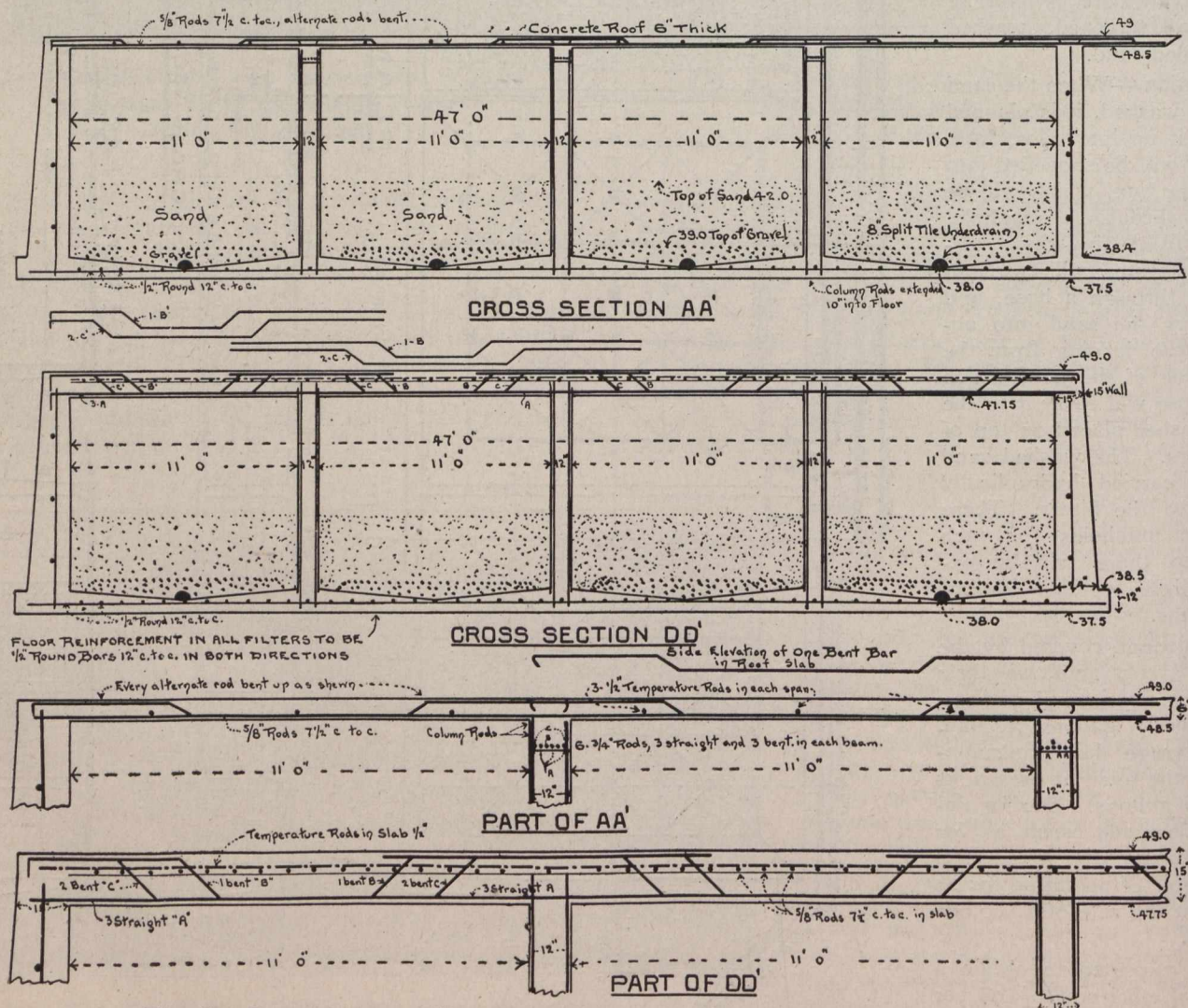


Fig. 7.—Cross-sections of Port Hope Slow Sand Filter Beds. (Refer to Fig. 5.)