pumping station owing to the damage which would be occasioned to private property along the banks between the Aylmer Road Bridge and the power house. Otherwise a head of twenty-two feet could be maintained at the latter point.

The pumping plant is located upon the lower or basement floor of the power house, and in rear of the lighting It consists of two sets of triplex, double acting station. pumps, 15-inch cylinder, 18-inch stroke, having a daily cap-acity of 3,000,000 U.S. gallons per set. These pumps are of the Worthington pattern and were built by the John McDougall Company, Montreal. These pumps are driven by two 45-inch McCormack turbines, set in steel penstocks and located at either end of the pump house. The wheels are

water. This inlet crib is so arranged that the water is drawn from the down stream end thereof and passes through double screens before entering the clear water pipe. This clear water pipe is laid on a grade of I in 1,000 and delivers water to the pumps under a head of six to twelve feet.

Owing to the rapid growth of the city, the Council has decided to increase the pumping capacity and a contract has recently been let to the William Hamilton Company for a triplex double acting piston pump, 21-inch cylinder, 30-inch stroke, and having a capacity of 6,000,000 U.S. gallons per day. This pump is now being constructed at Peterborough, and will be in operation early next summer. The new pump will be housed in an addition to the present power-house, which is being enlarged for this purpose, and will be oper-



Power House, Hull City .-- R. W. Farley, City Enigneer.

connected to pumps by jack shaft and pinion gear and so jated by 56-inch Sampson wheel. arranged that one or both wheels can be coupled to the pumps, as found necessary or desirable. The building is steam heated and the wheels are piped so as to permit of steam being used to thaw out any ice which may form therein. But very little trouble is encountered with frazil owing to the length of slowly moving water in the creek being covered with ice throughout the whole winter season.

The water pumped is taken from the river immediately above the falls and is brought to the pump-house by a clear water pipe of cast iron, 30 inches in diameter, laid in a trench cut in the rock which forms the bed of the creek. It extends from the pump-house to the river a distance of 2,800 and thence out into the river some 450 feet to a point 150 feet above the new power dam, recently erected at the head of the Chaudiere Falls. At this latter point a wooden inlet crib, 26 feet by 32 feet, has been sunk in fifteen feet of

This latter will sit in open flume, at present being excavated along the front and east side of pump-house, the tail race being carried under the enlarged building to creek in rear. This fiume and tail race will be of sufficient capacity to permit of the operation of an additional wheel and pumping unit when found desirable.

The lighting plant consists of brush arc dynamo-6.6 amperes, 11,000 volts-belt connected to 36-inch Trump wheel. Three circuit marble switchboard, together with the dynamo, are situated upon an upper floor in front of building, and all machinery in the power station is in full view of the men in charge from any portion of the building. One hundred and ten Adams Bagnel direct current enclosed arc lamps are at present in use in the city streets and, as they are constantly being added to, the present dynamo will, doubtless, be taxed to its full capacity of 150 lamps before many months.