

TEMPORARY PUMPING AT THE OUTFALL.

A difficulty will be encountered after these works are constructed at the outfall. In every year, for a period of 21 to 28 days during the months April to June, the river below the Locks rises from 7 to 8 feet the cause of which is well known to all the inhabitants.

This rise of water will close or "lock" the outfall sewer and render it necessary to pump the sewage during that period. This will require the construction of a penstock near the river and the erection of a small pumping plant, which could be worked by a wind-mill, or by a small engine temporarily employed, until the volume of sewage has reached such proportions as to necessitate larger pumping plant being introduced.

RIVER POLLUTION.

The question of pollution of the river need hardly be considered; an estimated population of 30,000 using 75 gallons per head per diem, is equal to a discharge of 1,560 gallons per minute. The discharge of the river at its lowest summer level has been ascertained by your Engineer Mr. Belcher, to be 45,000 cubic feet or 281,250 gallons per minute, or 180 times greater than the sewage received. This will be enormously increased as the river rises and its volume is increased. There are no towns or villages on the river below Peterborough, which can be affected by the discharge of the towns sewage into the river. There is a rapid flowing river having a large discharge, which will rapidly dilute the sewage, and afford it ready means for self purification by oxidation. There is a long stretch of river (over 20 miles) before the lake is reached, it can safely be affirmed that until the population reaches 30,000, no harm can be done to the river by the sewage. The discharge of the present population, if the whole town were connected to the system, would cause so slight a pollution to the water of the river it could not be called creating a nuisance.

FILTRATION OF SEWAGE.

Should it ever be required to consider some means of purification, your town is most fortunately situated for purification by filtration. Immediately to the south of the town there is a large tract of beautiful level gravelly land on which sewage can be easily purified by broad irrigation, and downward filtration. I know of no town in the Province which is so fortunately situated in this respect as Peterborough.