

MUNICIPAL DEPARTMENT

A RECENT INSTALLATION OF A LIERNUR SEWERAGE SYSTEM.

The pneumatic sewerage system invented some years ago by a former officer in the American volunteer army, Captain Liernur, has recently been introduced at Stansted, England. As this is the first application of the system in England, the following statements concerning it are of interest. They are taken from a summary of reports by medical officers of health in Essex:

"The village is a large one, having a population of about 2,000; the higher portion has for some considerable time possessed a system of sewerage by water carriage, but to similarly sewer the lower portion was found to be impossible, having regard to the large expenditure of water which would be found necessary for the copious flushing required owing to the peculiar basin-like formation of the district.

"After considerable inquiry the council decided to adopt the Liernur system, which may be described as a vacuum system of collection. As far as possible the sewage is conveyed to the works by gravitation, and a considerable portion of the liquid part of the sewage flows to the works by this means. For the carriage of the remaining portion, including that from the lower part of the village, vacuum suction is employed. At Stansted from the central pumping station a tubular sewage network of 4-in. cast-iron pipes leads to the streets. A vacuum is created in the cylinder at the station by means of a vacuum pump, and the whole bulk of the sewage is brought to the station without the addition of flushing water, so that the bulk of the sewage is not increased by extra water. By means of the suction a great velocity is attained in the sewers, from 10 ft. to 15 ft. per second.

"This air velocity, it is claimed, gives absolute security against stoppages, and in this way manholes, inspection chambers and overflow arrangements are done away with, besides which there is economy in construction of the works. At Stansted the quantity of sewage dealt with is about 10,000 gallons per day, and the whole system of the conveyance of the sewage lasts only ten minutes. There has to be no special provision for storm waters, as there is a separate system of drains for surface water.

"The discharge syphon is moved periodically, so that there can be no stagnation in the sewer. It could be emptied twenty times a day, if required, as it is done automatically. The cost comes to under 1s. per head of the population per annum. By this vacuum suction system the whole of the sewers are also cleaned and filled with pure air every day, or as often as desirable, and from the starting of the gas engine the complete service of system over the whole network of street



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