

of roof and cellar water into the sewers as well as the household wastes which constitutes the "sewage" proper. The system has been introduced with success into many English and Colonial towns, and numerous examples of it can be found in the United States.

The actual quantity of sewage from any given area is comparatively small, the capacity of the smallest sized sewer which experience dictates, is greatly in excess of the volume of sewage ordinarily flowing into it, the introduction of a moderate amount of rain fall does not call for increased size, consequently no increased cost is caused by introducing roof water. In the main sewers which act as interceptors and trunk lines, the volume is increased when cellar and roof water is introduced with the sewage; the increase in size of the sewer will depend on the area drained and the possibilities of obtaining discharge points for the roof water. The more frequently roof water can be discharged at an overflow the more nearly will this system, generally known as the Rawlinson System, approach to the system known in America as the Waring system, called after Colonel George E. Waring, Jr, who introduced it. When the Waring system is introduced, it is customary to use a special drain to carry off the cellar water, this drain is either connected to the sewer at given intervals, or provided with a separate outfall. The "sewage" comes from the house to the sewer by one "connection" as it is technically called, and the cellar water is connected to its special drain by its own "connection." The householder thereby has two connections and two sets of drains, one for sewage, the other for ground water. Under the Rawlinson System one drain does for both, no increased size of sewer is required, nor is any increased outlay incurred, except in the intercepting sewers, which may have to convey an extra quantity of water till an overflow discharge is reached. To put it to a practical proof in the case of your town, the only sewer which is increased in size to accommodate rain water is the Aylmer street sewer, between Hunter and Townsend streets. The chief difference arises between King and Townsend, where a material increase is made for roof water. A comparison of cost of this portion of the sewer, against the smaller pipe sewer, with a special drain for cellar water, and a second house connection for cellar water, leaves the balance in favor of the system adopted.

FLUSHING APPLIANCES.

An important necessity of the small sewer system is the flushing appliance; the sewage of itself will not keep the sewer clean for a considerable distance from its upper end; to help it to do so, self acting or automatic flush tanks are used which discharge a given quantity of water, usually 150 gallons, at regular intervals of time. A sufficient