

WATER WASTE BY AUTOMATIC SEWER-FLUSHING TANKS.

At the Cincinnati meeting of the Central States Water-Works Association, Mr. George Hornung, M. Am. Soc. M. E., and Superintendent of the Newport, Ky., water-works, called attention to the unnecessary and extravagant waste of water that may follow the improper use of automatic flush-tanks for sewers. We abstract his paper as follows:

This waste may result from two causes; first, lack of knowledge of the principle of the use of flush-tanks on the part of the person in charge, or, second, indifference to the interests of the city, even when the working of the system is understood. Mr. Hornung believed that if the operation of the tanks were not in charge of the water department, that department should closely watch the methods pursued, the tightness of the tanks and their general condition, and stop the waste of water. The difficulties in the way of so doing, would be the friction likely to result from one department interfering with the business of another, under our present municipal organization. But by firmly standing out for his rights as the custodian of the water supply, the Superintendent of the Water Department can do much in the way of stopping abuses.

In the case of Newport, Ky., the sewerage system was put in operation in 1894-5, with 65 flush-tanks connected, having a capacity of 250 gallons each. Water is furnished free by the Water Department to all the city buildings, the park and school houses, and for flushing sewers and street gutters and for cleaning streets, etc. Mr. Hornung was made Superintendent of the

water-works in 1897, and was charged with the duty of stopping leaks and waste of water by virtue of his office. He early turned his attention to the flush-tanks and his inspector reported as follows:

Every tank was turned "full on," and the tight tanks, of which there were only 13, were dumped every 30 minutes; some of the leaky ones were not dumped at all, and the rest dumped at intervals of from one to six hours. Mr. Hornung ordered his inspector to shut off all leaky tanks, and to regulate the tight ones so that they should dump twice in 24 hours. This order brought about a sharp controversy with the official in charge of sewers, who resented interference with his duties, as he recognized them. But by interviewing this official and laying before him the views of acknowledged experts on this subject, regulations were finally adopted that checked the abuse. These regulations chiefly related to the care and tightness of the tanks, and the proper amount of water to be used in flushing.

Mr. Hornung estimated that under the old lack of system the waste of water amounted to 748,500 gallons per day for the 65 flush-tanks. In 24 hours these tanks had used 780,000 gallons when their proper use would have required only 32,500 gallons. The actual daily loss to the Water Department, in fuel, engine supplies, extra labor and repairs, was \$6.75 per day, or \$2,463.75 for the year. If the water wasted had been paid for at 10 cts. per 1,000 gallons—the current charge to city consumers, the daily receipts of the Water Department would have been increased \$74.85.
