

**MUNICIPAL
DEPARTMENT**

SEWER CONSTRUCTION.
(Continued from last week.)

As an observer, I would say that in the trade, the undertaking of contracts seems to be particularly avoided by almost all plumbers, and I am of the opinion that the principal reason is because of lack of knowledge as to how to figure cost of construction. Reliable data can be obtained through the different magazines on municipal engineering and construction as to exact cost in different kinds of soils, and these should be resorted to by those undertaking contracts without previous experience, to assist them in determining what they can bid.

The modern sewer is at wide variance and constructed on different plans from those constructed in the old times, the sizes of pipe not running as large, requiring less flushing, and performing better service. The time was when a city of any ordinary size, such as our county seats within this state, would never think of building anything smaller than a 36-inch sewer. These are now supplied with pipe outfall sewers in 13, 15, 18 and 24-inch at great saving to the taxpayer.

One of the principal features of sewer construction to which I would call your attention is the utilizing of all available fall, as the capacity is determined solely by the velocity, and the velocity depends entirely upon the fall. Most plans and specifications require the careful fitting of pipes upon the ditch before being let down into the trench. These specifications also cover the method of calking with oakum gaskets previous to cementing. The size of the thread of oakum is usually not specified in specifications, but is deter-

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mined solely by the space between the spigot end of the pipe and the socket into which it enters. The gaskets should be carefully tamped with a wooden tamper into place so as to absolutely prevent the entering of any of the cement, within the inner radius of the pipe. We find in looking over sewers where these provisions have been neglected, that dams are found frequently of from one to two and sometimes three inches, resulting from not having been properly calked. The introduction of anything fixed inside or pro-

truding into the pipe from between the joints, not only makes it impossible to have a perfect flow, but prevents proper flushing, and makes the danger of stoppages more frequent.

(To be Continued.)

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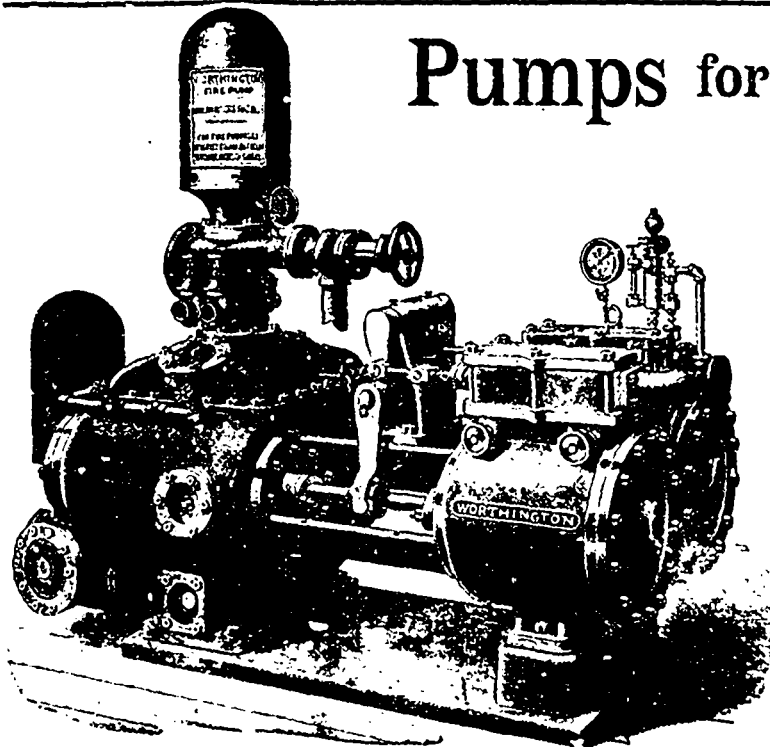
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