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Special Articles

HYGIENIC STORAGE AND DISTRIBUTION OF WATER—AND FIRE PROTECTION

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An efficient gravity supply and distribution when available fills the bill, but, unhappily, unless in large cities or towns or exceptional conditions but few houses have these needed conveniences. Even in large cities from many causes the water supply may fail at an unexpected moment and dire loss result.

So much is this the case that in towns with good water supply the sky line is variegated by unsightly tanks posted in odd situations and announcing where *cure alls*, *liquid refreshment* and *nicotine solatia* are obtainable.

GRAVITY SUPPLY FROM ELEVATED TANK.

Common sense dictates that if you have a supply of water always available and from a sufficient height you have all that is needed, hence the *tank gravity* system, and were it not for inherent defects it would fill the bill. The *standpipe* is more depended on for regulating and equalizing pump and pipe pressure than as a source of supply.

How to offset the defects of the tank sys-

tem is the object of this paper, and this the more as the expense for installation and maintenance of the better method can be very much less than what it now is for inefficient service. To fittingly discuss the subject we should know the defects of the tank gravity system:

1. Since the water tank must be for structural reasons but little above the roof—in case of fire there is but little available pressure, and that is limited, and the roof and upper part of the house is generally where pressure is most required.

2. It is costly to erect, owing to its situation.

3. A secure foundation is not easily obtainable, and this the more if it is to be adapted to a building already erected.

4. It must be outside to give height needed, and hence must run the risk of hurricane and frost.

5. Its foundations and support should be altogether independent of the building—hence the difficulty of adapting to old buildings. This was emphasized by the