## RATES FOR WATER SERVICE. (Continued from last week.)

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The fixing of rates for private fire protection is so intricate a problem, and involves consideration of so many points, that no fixed rule can be laid down that will fit all cases. It is believed that a reasonable sliding scale of rates for such service might be arrived at as follows: A minimum rate for the smallest size of fire service pipe, and larger rates for larger service pipes, the rates for each size of fire service pipe to bear some approximately uniform relation to the special benefits derived by the private interests protected.

Rates for water for purposes other than fire protection are of two general classes: fixture rates and meter rates. Originally all water was sold at fixture rates; but the necessity for checking waste, and the recognized inequity of fixture rates, as applied to individual cases, have brought about the introduction of meters, which is now going on at a constantly increasing speed. The earliest fixture rates were necessarily established largely by guess; and later ones have been fixed, sometimes by taking the average and sometimes by picking out the lowest of all the guesses made by previous guessers. Little or no account was usually taken of the difference in cost of furnishing

water in different locations and under varying conditions.

That fixture rates are not now, as a rule, excessive is indicated by the fact that when all legitimate expenses are charged up, few municipally-owned plants earn large profits; and that the securities of private water companies are no longer so eagerly sought by investors as they were some years ago. The objection to fixture rates as a basis of the value of water service does not lie in the fact that they cannot be made, in the aggregate and for any one city as a whole, as equitable as any other rates; for this is not only possible, but is a condition which actually obtains within reasonable limits in many cities. But with fixture rates no close discrimination can Le made between individual cases; and they therefore fail to fulfil the second essential condi-tion of a fair rate. Furthermore, they fail to check waste and leakage.

These considerations naturally lead to the adoption of meter rates. In almost every city the introduction of meters, if accompanied by the establishment of proper rates, can be made to result in benefit to the water department as well as to the consumer.

The cost of the introduction of meters and of their subsequent maintenance and operation will, with proper rates, be more than offset, and without hardship to the consumer, by the savings in pumping expenses and in the costs resulting from extensions to plant which would otherwise have to be made.

The function of the meter is twofold: (1) To check waste, and (2) to measure the water used by each consumer, with a view to making his annual payments bear a just proportion to the total fair annual receipts from the works. To treat the meter simply as a device by means of which certain individual consumers may reduce their rates below the fair amount, leaving other consumers to make up the loss, is to deleat its honest purposes.

In order that the meter may properly perform its two-fold function, it is absolutely essential that the meter rates be established on a proper basis. In view of the everincreasing use of meters, no more vital problem to-day confronts the manager of a water department than the determination of what these rates should be in his city; and it is a problem the solution of which demands the highest degree of skill, careful study of all the conditions, and a wide experience in the financial management of water-works.

Nothing is more fallacious than the oft-repeated argument of some unthinking advocates of the universal introduction of meters, that when a man buys water by the gallon he pays for what he gets. Each consumer, whether he uses little or much water, enjoys the benefit of a (Continued on page 14)

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