

Col. 5, the date of the Government inspection is shown on wax seal placed on the top of the meter, and generally corresponds with the date label attached by the Gas Company.

The remaining columns give data placed upon the case of the meter by the maker as required by the Gas Inspection Act. With reference to this, it may be said that in practically all cases the number of feet of gas per light was reckoned as six by the makers, while the Act states that "each light" shall be "computed to consume five cubic feet of gas per hour under a pressure equal to a column of water five-tenths of an inch high." It may also be stated that many of these meters have been repaired and, in some cases, almost re-made by the Gas Company, so that the maker's date may, in these cases, mean little more than the date on which the case was made.

The results of the tests are given in Table II. The leakage in five minutes is the quantity which leaked out of the case when the meter was subjected to a pressure equal to a column of water three inches high with the outlet pipe closed. It is an indication as to the quantity of gas that would leak into a cellar through the meter case, and, as is evident from the table, was in all cases very small.

The remaining columns give the exact pressure in inches of water during the test, the number of cubic feet per hour passing through the meter, and the percentage of error fast or slow, all quantities being given for the two pressures specified in the Act.

In computing the percentage of error, a correction was made for temperature in all cases where the temperature of the air passing through the meter differed by one degree or more from the temperature of air in the holder. In making such correction, the temperature of the air in the holder was taken as the mean of the room and of the air leaving the holder, and the temperature of the air at the meter as the mean of the inlet and outlet temperatures, or if these were not known, the temperature at the outlet of the meter was taken. This differed very little from the temperature of the room.

For convenience, I have placed in Table III, a list of the meters included in Table II, which should be rejected by an inspector as being outside the limits of error allowed by law.

Of the total number of meters tested 14 were rejected, 24 were fast and 19 were slow. One meter of the ordinary three-light size had been reconstructed by the Gas Company, and a dial for a five-light meter had been put in. The dial registered correctly however.

S. Eagen's meter, No. 18183, was further examined to find out, if possible, the cause of such a large error. First, 100 cu. ft. of air was passed through it at 1 in. pressure, and at the rate of 75 cu. ft. per hour (a much