

its said capacity per hour for all meters of any greater measuring capacity per hour than one hundred cubic feet, and all meters found to work under such test, and none other, shall be deemed sound meters;

"(c) The meter to be tested for percentage of error shall be fixed on a horizontal base, and shall be tested at a pressure equal to a column of water one inch high, and also under a pressure equal to a column of water five-tenths of an inch high, and passing the quantity of gas or atmospheric air per hour, which shall be marked thereon as its measuring capacity per hour; and the water used in such testing, and the air of the room in which such testing is made, shall be as nearly as practicable of the same temperature as the gas or air passed through the meter."

This section (14) gives the definition of the cubic foot which is to be used as the unit of measurement. Section (26) gives the rules to be observed in making the tests and the conditions under which the latter are to be made. Section (19) gives the limits of error to be allowed in meters as tested; but, it is not clear whether the meters may be tried in any way whatever, or must be tried under the conditions named in section 26 (c). I shall refer to this matter again at the end of my report; but, in the meantime, I have interpreted it as meaning that the error is not to exceed that given in section (19), when the test is made according to the rules laid down in section (26).

The regulations permitted by section (25) of the Act are embodied in a printed circular sent to each of the inspectors of meters, and these regulations give the details of the method of carrying out and interpreting the Act.

APPARATUS.

In order to facilitate the work of the Inspector, the Act further provides that gasholders carefully compared with the standard cubic foot shall be used, so that the meters are not tested directly by the standard cubic foot measure, but by a gasometer or gasholder which is first graduated by means of a standard cubic foot "bottle." This "bottle" is kept in the possession of the Inland Revenue Department at Ottawa, and is sent around from time to time to the different inspectors, so that by comparison with this, their holders may be always maintained in good and accurate condition.

In the Gas Inspection Offices in Toronto, there are in all five gasholders, each having a capacity of about eleven cubic feet. One holder is located in the office at the rear of 10 Toronto Street, and the remaining four in a room controlled by the Gas Inspector, on the premises of the Consumers' Gas Company.

Each of these holders is provided with a scale divided into feet and fiftieths of a foot, so that the exact amount of air passing out of it during a given time may be read to fiftieths of a foot, and the nearest hundredth may be readily estimated.