Measurement may be analyzed into three primary procedures: (1) The conventional acceptance or determination of a standard object, the unit of measure. (2) The breaking up of the object to be measured into pieces each congruent to the standard object. (3) The counting of these pieces.

*A SIMPLE GAS GENERATOR FOR ANALYTICAL OPERATIONS.

JAMES McCONNELL SANDERS.

The simple appliance described below has been found to be a convenient and practical substitute for the so-called "constant supply" apparatus of the Kipp type. It consists of a glass tube open at one end, and having a fine, almost capillary, tube fused into the other end, as shown in the figure.

The apparatus is charged, for example, for the preparation of hydrogen sulphide by dropping one or two small fragments of ferrous sulphide into the tube so that they lodge in the annular space (A), a few drops of dilute sulphuric acid are then allowed to run into the tube, and the mouth (B) closed with the forefinger. The apparatus may then be introduced into a test tube or beaker and used as an agitator, the gas escaping by way of the fine interior tube and the orifice (C).

For quantitative work, larger apparatus is used, and the mouth closed with a cork. For the preparation of a gas which requires the application of a gentle heat, the apparatus is allowed to touch the bottom of the test tube while immersed in the liquid contents of the latter, and that is applied to the test tube itself.

After use, the generation of gas is instantly stopped by directing a stream of water from a wash bottle into the interior, the outside is washed in the same manner, and the apparatus is then ready for use in a subsequent operation.

The appliance has been in constant use in the Mexican customs laboratories for the last five months, and in no case has it been found that the small inner tube showed any tendency to become clogged with precipitation.

*Chemical News, Nov. 29, 1907.