

NOTES

A Method of Sealing Substances in Ampullae with Inert Gases.—Usually substances susceptible to oxidation can be sealed in the vacuum of the mercury pump. However, some substances (*e. g.*, samples of vitamin-bearing extracts and the like) cannot thus be sealed, due to voluminous foaming, sputtering, etc. In such cases, the substances must be sealed in with an inert gas. There are several methods (and ampullae with two tubulures) which permit of this. The author uses a method which is almost self-explanatory from the accompanying figure, and among several other advantages permits the use of the ordinary routine ampullae with a single tubulure.

A short piece of rubber tubing is attached to the tubulure. The other end of this tubing is stoppered with a piece of glass rod, and (at A) is provided with a 1-cm. lengthwise slit, *i. e.*, a Bunsen valve. In the figure, B represents a hollow pointed surgical needle, of adequate length and lumen. The needle is passed through one wall of the tubing, and is pushed down into the ampulla almost to the surface of the substance. An inert gas (carbon dioxide or nitrogen) is conducted into the needle through tubing C, until all the air in the ampulla has been displaced and driven out through slit A. At this point the source of the inert gas is shut off, and the needle is then drawn up until its point is on a level with D. The ampulla is thereupon sealed by fusing off at E. The arrangement of Bunsen valve and needle can be used repeatedly. Due to the fact that the point of the needle can be raised or lowered, it can be adjusted to approach the surface of the substance, no matter whether large or small amounts are being sealed up. This will frequently be found to be advantageous.

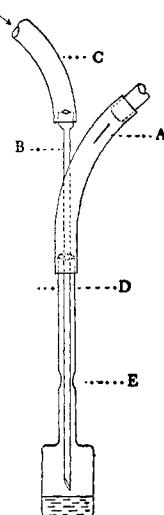


Fig. 1.

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Preparation of Starch Solution for Use in Iodimetric Titrations.—Some years ago the writers and John Field, 2d [THIS JOURNAL 48, 1299 (1926)] pointed out that clear starch solutions showing little or no Tyndall effect could be obtained for iodimetric titrations by leaching dry starch that had been ground for a long time in a pebble mill. The writers have found that equally satisfactory solutions may be obtained by leaching the