jected with an ordinary lantern. While quantitative results cannot, of course, be expected, this is a useful experiment to have thrown on the screen when the meaning of surface tension is being explained. The fact is often overlooked that the definition of surface tension as the force acting across a line 1 cc long, etc., presupposes that there is a movable edge of surface to which a weight or other dynamometer can be attached, and that consequently the idea of surface tension at the boundary of a solid is excluded by this definition whereas the definition in terms of work is applicable to every case in which the area of surface can be changed by any reversible process for which the work can be determined.

2. *Two Drops.*—This is analogous to the well known experiment with large and small soap bubbles on the ends of a U-tube.[1] It is the writer's experience that soap bubbles work very well in the preparation room but generally burst at the critical moment in the lecture. Drops of water have not this disadvantage, and are more closely analogous to the chemicals whose behavior this experiment is designed to illustrate. (S 3.) The diagram (Fig. 1 A) shows suffi-

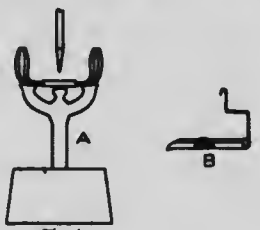

Fig. 1

ciently clearly the arrangement of the apparatus. The upper ends of the capillary tubes should be ground to flat discs about 1.7 mm in diameter and coated with paraffin wax. The two halves of the U-tube are connected by a piece of the fine rubber tubing (0.5 mm bore) used for covering spectacle frames. The U-tube is completely filled with water, and while the rubber connection is closed by pressure with a

[1] C. V. Boys: "Soap Bubbles," 1890, p. 55.