

this is derived, with modifications, the "Reid and Bailey" machine in use in England, and the "Fairbanks" previously described.

[TO BE CONTINUED.]

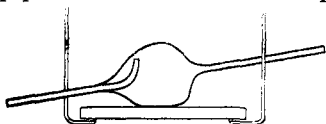
A NEW WEIGHING APPARATUS.

BY DR. H. SCHWEITZER.

Read before the New York Section May 29, 1893.

THE weighing of liquids for analytical purposes has always been very tedious, and many forms of apparatus have been devised for facilitating this operation. But all of them had disadvantages. The distinguishing feature of our "Weighing Pipette," which was constructed with the help of our assistant, Mr. E. Lungwitz, is that it consists of a single piece without any cork or other complicated parts.

The weighing pipette presents the general appearance of a bulb pipette. Where the suction tube joins the bulb there is a short capillary tube which projects towards the wall of the bulb, the opposite wall being flattened to furnish a firm rest for the pipette on the scale. Our pipettes are constructed with either



large or small apertures of the delivery tube, according to the physical properties of the substance to be weighed. For light liquids, acids, and oils we use small apertures; for milk, syrups, heavy oils, and fats we take pipettes with large apertures.

By capillarity and suction the liquid runs back into the delivery tube without any losses. For example, we weighed a quantity of fuming sulphuric acid in a pipette with small aperture, and after half an hour no change in the weight of the pipette was perceptible. A short delivery tube cannot be used as there is danger of the liquids running back on the outside of the tube, thereby dripping on the scales.

The pipettes can be warmed directly in the flame without danger of breaking them, in case the weighed substance solidifies in the bulb (lard, etc).

On account of the small surface of the bulb in the little pipettes, the error in weighing slightly warmed liquids can be neglected for all practical purposes.

The inside capillary tube must be turned up as much as possible to gain space. The capillary must have a very small aperture to allow dropping and prevent liquid from entering the suction tube. The apparatus can be easily cleaned by drawing benzene or hot soda solution, etc., through it, then alcohol and ether, and drying it in a current of air.

The weighing pipette is made in different sizes with bulbs from five cc. to 100 cc., etc., etc., and is sold by E. Greiner, 146 and 148 William street, New York City.

LABORATORY OF BREYER & SCHWEITZER,
159 FRONT ST., NEW YORK CITY.

[CONTRIBUTIONS FROM THE CHEMICAL LABORATORY OF THE U. S.
DEPARTMENT OF AGRICULTURE, SENT BY H. W. WILEY.—No. 7.]

NOTE ON THE USE OF EOSIN FOR COLORING TOMATOES.

BY K. P. McELROY AND W. D. BIGELOW.

Received June 22.

SOME time since, in accordance with the instructions of Dr. Wiley, a qualitative examination was made of a sample of tomato color made by a Cincinnati firm and sent to the Department of Agriculture by Mr. H. E. Taylor, of Brooklyn.

The sample was in a small bottle bearing the label, "tomato color." It consisted of a thin red liquid, showing a strong fluorescence when diluted. Treated with hydrochloric acid a flocky orange precipitate was obtained and the liquid after filtration showed no color, even when made alkaline. The precipitate was freely soluble in alkalies with which it reproduced a red liquid resembling the original. It was also freely soluble in ether, giving a pale yellow solution. A portion of the sample was mixed with lime, evaporated to dryness, and burnt till white. A water solution of the resulting mixture of ash and