alcohol, dipping slide 10 times in each solution.
5. Clear in xylol and mount in damar.

In preparing the smear, it is important not to allow the secretion to dry before fixation, as drying alters the morphology and the staining properties of the cells. Very thick smears are also undesirable, since it is difficult to remove the excess stain from the thick areas except by prolonged washing in the alcohols. A thick secretion should be spread out thinly with the edge of the pipette, taking care to avoid drying in so doing. Most reliance can be placed in the histological picture in the thinner areas.

When single slides are stained, it is most economical and convenient to deliver the stain from a dropping bottle. If the portion of the slide containing the smear is marked off with a china-marking pencil, one or two drops of stain generally suffice. It is economical to drain the slide thoroughly and wipe off the back with a cloth or paper towel after each solution, thereby prolonging the dehydrating properties of the alcoholic solutions. The absolute alcohol can be eliminated, by blotting the slide thoroughly after rinsing in 95 per cent. alcohol, and then going directly to xylol. All solutions should be well stoppered when not in use. The use of coverslips can be avoided by using isobutyl merthacrylate polymer P–5 (du Pont de Nemours and Co. Ammonia Dept., Wilmington, Del.) instead of damar. This is dissolved in xylol to yield a solution of proper consistency for mounting. After the slide is cleared in xylol, a few drops of the solution are placed on the slide to form a protective film over the smear. The slide can be examined at once, and then allowed to dry in air before filing.

While most investigators may prefer to use the complete trichrome stain previously described for research purposes, the present technic should fulfil most of the clinical requirements for a rapid simple differential stain for vaginal smears.

EPHRAIM SHORR

THE NEW YORK HOSPITAL AND
DEPARTMENT OF MEDICINE,
CORNELL UNIVERSITY MEDICAL COLLEGE

A DEVICE FOR THE PREPARATION OF HYDROSULFITE SOLUTIONS FOR GAS ANALYSIS

A DISADVANTAGE in the use of sodium hydrosulfite solutions for the rapid absorption of oxygen in gas analysis, as suggested by Van Slyke and co-workers,[1] is the need for frequent renewals of the solution. This drawback could be partially overcome if a method were used by which a considerable proportion of the hydrosulfite is not oxidized by the air during the preparation of the solution. This may be accomplished by a simple device which has been used in this laboratory for several years.

This consists of a glass tube 14 mm inside diameter and 195 mm long (volume, 30 cc), constricted at one end to a small glass stopcock. Below the stopcock, attached by means of a rubber connection and inserted into the stopcock tubing, is a 250 mm length of 3 mm outside diameter glass tubing. This tubing is to reach to the bottom of the gas apparatus container for the oxygen-absorbing solution. At the bottom of the larger tubing is a wad of fine, glass wool for filtering the solution. Twenty-five cc of 2 N KOH solution is poured into the tube, and somewhat more than ½ of the 15 gm of hydrosulfite is added. The tube is stoppered and shaken a few times. The solution is then run into the container, and a 2 cm layer of liquid petrolatum is simultaneously poured on to the surface. The second 25 cc of KOH solution and the remainder of the hydrosulfite are quickly added in a similar manner, and the absorbing solution is ready for use.

The useful oxygen-absorbing capacity of the hydrosulfite solution is greatly increased by this easy and rapid method of preparation.

LAURENCE G. WESSON

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[1] D. D. Van Slyke and J. M. Neill, *Jour. Biol. Chem.*, 61: 523–573, 1924; D. D. Van Slyke, *Jour. Biol. Chem.*, 73: 121–126, 1927; D. D. Van Slyke and J. Sendroy, Jr., *Jour. Biol. Chem.*, 95: 509–529, 1932.

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