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## THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

### THE CLEVELAND MEETING

By DR. F. R. MOULTON

PERMANENT SECRETARY

In November, 1942, shortly after the Allied forces had landed in Africa, the association canceled the meeting that had been scheduled to be held in New York during the last days of December and the first days of January. At the time the New York meeting was canceled the program was being set in type and the association had spent more than \$3,000 in preparation for it.

The postponement of the New York meeting was made in compliance with a circular letter received from the Office of Defense Transportation and requests made at a conference with its representatives. Although the ODT had no power to compel the cancellation of the meeting, the officers of the association felt it to be their duty to comply with the request of

an agency of the Government under the conditions that then existed. In continuation of that policy no meeting was scheduled for 1943. In a second "release," dated July 15, 1943, the ODT stated: "Each organization must make its own independent decisions. The Office of Defense Transportation cannot pass upon the essentiality of any proposed meeting. It can only emphasize the serious burdens which convention and group-meeting travel imposes on transportation and request voluntary action by those who have it in their power to eliminate such travel." The association had long before decided to hold no meeting during 1943.

Although the association and the affiliated societies that usually meet with it uncomplainingly refrained

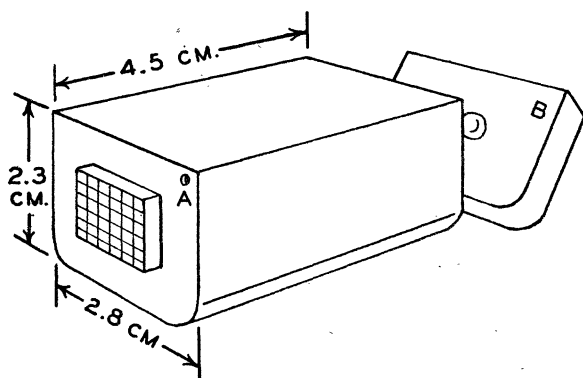


FIG. 1. Freezing unit without insulation. A = Hole for escape of CO<sub>2</sub>, B = Removable end.

In using this unit, the case is filled with dry ice (about 20 g) and a piece of tissue, either fresh or infiltrated with gum or gelatin, is placed on the object-holder, to which it adheres almost instantly. Freezing may be hastened by inverting the unit after the tissue is firmly attached or by placing small pieces of dry ice around the tissue. Pieces 10 mm or more in thickness may be frozen. When the tissue is completely frozen, the dry ice is replenished and the unit inserted in the microtome. The heat transfer within the container is so rapid that it is not necessary to keep the dry ice pressed against the freezing surface. The tissue will remain frozen until all the dry ice is gone, 15–20 min. If more time is required, the unit may be easily refilled before the block has thawed.

This unit provided excellent sections of large feather germs, which are difficult to section by any method, and of such soft tissues as liver, kidney and spleen. Soft tissues could be cut at 20–30 microns without fixing or embedding, and excellent sections as thin as 5 microns could be cut after infiltration with a gum arabic solution. This attachment is easily made from materials available anywhere (other metals might be substituted for copper, although it is important to keep the thermal conductivity as high as possible), it is simple and economical to operate, and it produces sections comparable to those obtained with other freezing devices. It should be adaptable to all work except where very large pieces of tissue must be cut.

MARK NICKERSON

DEPARTMENT OF BIOLOGY,  
JOHNS HOPKINS UNIVERSITY

#### A DROP METHOD OF PENICILLIN PRODUCTION<sup>1</sup>

A NEW method of producing good yield of peni-

<sup>1</sup> From the Department of Pathology and Bacteriology, City Hospital, Welfare Island, Department of Hospitals, New York, N. Y. Preliminary report.

cillin consists of culturing *Penicillium notatum* No. 5415 on a solid agar base containing constituents which favor a rapid production of penicillin in drops of sufficient size and quantity to be precipitated like rain upon the opposing side of the container, when inverted. The type of culture is what is sometimes called a still growth and 5 to 6 days are required for production of large drops of clear penicillin. This material is withdrawn by means of sterile pipettes and is preserved anaerobically at 5° C.

Two types of agar medium have been employed: (1) A modified Sabouraud's acid maltose described by Scudder<sup>2</sup> and by Risch<sup>3</sup>; and (2) special synthetic medium modified by Robinson, to which has been added 2 per cent. flaked agar. No adjustment of the media is necessary.

The penicillin thus produced has the same physical properties as were described by Fleming<sup>4</sup> for that which he discovered. It is lighter than chloroform, heavier than ether, soluble in water, transparent, clear and yellow. Penicillin isolated at this institution has been found bactericidal in 1–10 dilution and bacteriostatic in dilutions ranging from 1–200 through 1–600. Its unit value is greater than 6 units per cc.

Preparations of our penicillin have been used for topical application with very satisfactory results and dilutions range from 1–250 to 1–800 in sterile distilled water. The solution keeps satisfactorily in the wards if layered with solid paraffin and kept at ice-box temperature. Sterile oils lighter than the penicillin may also be used.

Acknowledgment is made for the helpful advice of Dr. Charles Thom, formerly mycologist for the U. S. Department of Agriculture, and to Dr. Y. Subba Row, biochemist for the Lederle Laboratories, Pearl River, N. Y. The special synthetic medium was obtained through the courtesy of the Eimer and Amend-Fisher Scientific Co., New York.

SARA A. SCUDDER

<sup>2</sup> SCIENCE, 79: 16, 1934.

<sup>3</sup> Arch. Otolaryng., 29: 235–251, 1939.

<sup>4</sup> Brit. Jour. Exp. Path., 10: 226–236, 1929.

#### BOOKS RECEIVED

- DAMPIER, WILLIAM CECIL. *A Shorter History of Science*. Illustrated. Pp. x+189. Macmillan. \$2.00.  
LUCKIESH, MATTHEW. *Light, Vision and Seeing*. Illustrated. Pp. xiv+323. D. Van Nostrand Co., Inc. \$4.50.  
PALACHE, CHARLES, HARRY BERMAN and CLIFFORD FRONDEL. *Dana's System of Mineralogy*. Volume I. *Elements, Sulfides, Sulfosalts, Oxides*. Illustrated. Pp. xiii+834. John Wiley and Sons. \$10.00.  
SMITH, PHILIP E. and WILFRED M. COPENHAVER. *Bailey's Text-Book of Histology*. Illustrated. Pp. xx+786. Williams and Wilkins Company. \$6.00.

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