

ultramicroscopic particles, free Brownian movement in a liquid as fluid as water is far too large and rapid to permit of photographic recording.

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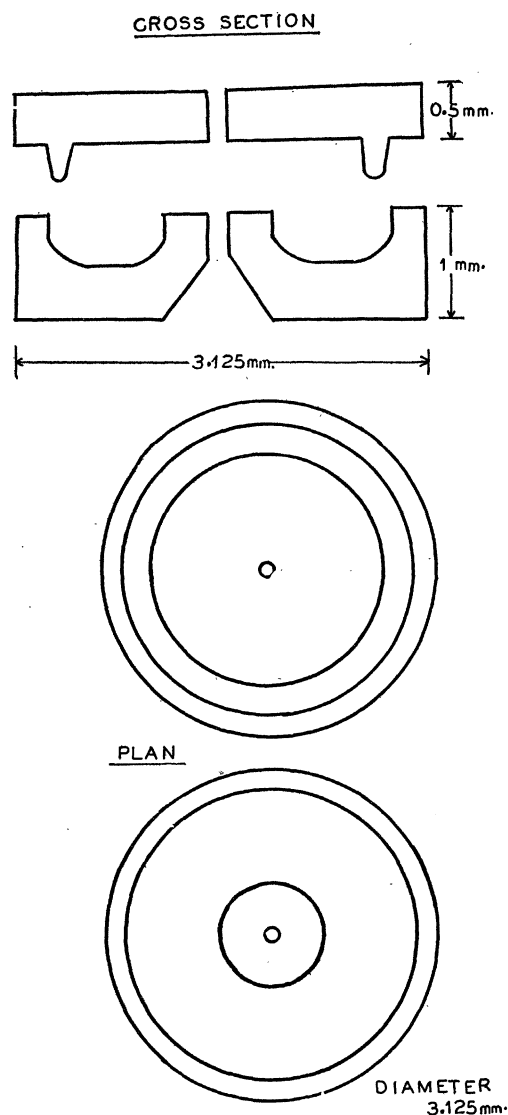


FIG. 1. Perforated platinum discs used to form enclosed electron microscope cell; cell and cover shown in cross section and in plan.

the shell Development Company, Emeryville, for their very generous cooperation in operating the Stanford microscope and the Berkeley R.C.A. microscope, respectively. Without this, our work could not have been carried out.

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## A METHOD FOR CENTRIFUGING AT LOW TEMPERATURE

THE laboratory centrifuge is often employed in the preparation of many biological materials. In a good many cases, especially in enzyme work, it is desirable or necessary to centrifuge at a low temperature. We have adapted a Type 1-SB International Centrifuge to run at a low temperature as described below. The centrifuge is in no way impaired for other regular uses.

The drain in the bottom of the centrifuge case is plugged with a rubber stopper, and small pieces of dry ice are placed on the bottom of the case. The amount of dry ice is determined by the length of time of centrifuging. A 17-inch circle of sheet metal with a 5-inch center hole is inserted in the case and is lodged tightly on the bottom of the case over the dry ice by tamping the metal circle along the outer edge. The centrifuge head is placed in position and the centrifuge is ready for use. It is desirable but not necessary to obtain partial insulation of the centrifuge by covering with several layers of cloth.

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## BOOKS RECEIVED

- BISPHAM, WILLIAM NEWBOLD. *Malaria, Its Diagnosis, Treatment and Prophylaxis*. Illustrated. Pp. viii + 197. Williams and Wilkins Company. \$3.50. 1944.
- BLAIR, MORRIS MYERS. *Elementary Statistics*. Illustrated. Pp. xiv + 690. Henry Holt and Company. \$3.50. 1944.
- BRILL, A. A. *Freud's Contribution to Psychiatry*. Pp. 244. W. W. Norton and Company. \$2.75. 1944.
- CASWELL, HOLLIS L. *Science in Childhood Education. Practical Suggestions for Teaching*. Pp. vii + 86. Bureau of Publications, Columbia University. \$.60. 1944.
- CHANEY, RALPH W., CARLTON CONDIT and DANIEL I. AXELROD. *Pliocene Floras of California and Oregon*. Illustrated. Pp. vii + 407. Carnegie Institution of Washington. \$4.50, paper cover—\$5.00, cloth cover. 1944.
- DANNE, HAROLD A. *The Life Energy of Species*. Illustrated. Pp. 27. Harold A. Danne, Engineering Laboratories, 131 West 98th Street, New York, N. Y. 1944.
- EMERY, W. L. *Ultra-High-Frequency Radio Engineering*. Illustrated. Pp. x + 295. The Macmillan Company. \$3.25. 1944.
- FRANKLIN, PHILIP. *Methods of Advanced Calculus*. Illustrated. Pp. xii + 486. McGraw-Hill Book Company. \$4.50. 1944.
- ROSS, HERBERT H. *The Caddis Flies, or Trichoptera of Illinois*. Illustrated. Pp. 326. Illinois Natural History Survey, Natural Resources Building, Urbana, Illinois. \$1.00. 1944.
- THORNE, P. C. L. and E. R. ROBERTS. *Inorganic Chemistry (Fritz Ephraim)*. Fourth edition. Illustrated. Pp. xii + 921. Nordeman Publishing Company. \$8.75. 1944.