

diameter, and has milk bottle type opening so that paper caps may be used if desired. The writer handled three gross of them this summer with an average of about 35 offspring per bottle and had only four cases where the food cake shook completely loose, daily removals were made so that the danger of loose food cakes was much greater than in routine stock work. (Copied from DIS-3: 54).

Spencer, W. P.      Culture bottles.

For some months I have been using small green

and white glass salt and pepper shakers, with aluminum screw caps in place of glass vials for culturing flies. These shakers can be purchased for two for five cents in any 5 and 10 store in the U. S. They have a total capacity of 60 cc.; we use 15 cc. food medium in them as compared to 30 cc food medium in a quarter pint milk bottle and 50 cc. in a half pint bottle. As the holes in the screw caps are large enough to let small *Drosophila* through, circular disks are cut from library cards and fitted inside the caps, and then punched with needle holes. When once a cap is fitted with a card-board disk it can be sterilized and used many times before a new card-board disk is needed. An ordinary library card is cut in four pieces, 2-1/2" by 1-1/2", each piece is folded once and these are stuck, one into each culture bottle. The card serves a double purpose; it is sufficiently rigid to hold the food plug in place in case of CO<sub>2</sub> formation, as it pushes against the screw cap; then it furnishes pupation surface. A larger square bottle, with aluminum screw cap can be purchased for five cents each. This bottle occupies the same shelf space as a half pint milk bottle but has considerably more food surface. I am using the small shakers for rearing stock cultures of a number of the smaller *Drosophila* species as *montium*, *bipunctinata*, and *affinis*, and for maturing flies of slow breeding species. Small tags made of strips of library card are used for numbering, and these tags are fitted under the edge of the screw cap. It is to be hoped that eventually square culture bottles, with aluminum screw caps punched with very fine holes may be placed on the market. Such bottles made of clear glass ought to sell for not more than five cents a piece for larger sizes and correspondingly less for small sizes. However, it is not likely that these prices can be secured without the cooperation of a number of the larger laboratories.

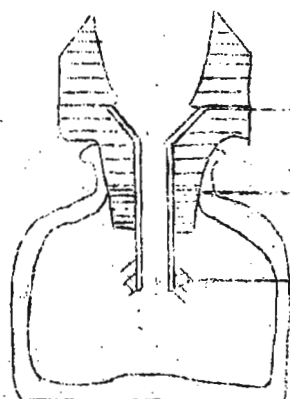
Amherst Laboratory      Etherizing  
bottle.

It has been found that a rubber Walter's Crucible Holder furnished by any

laboratory supply house at thirty-five cents is an excellent stopper for the etherizing bottle (of sketch) and makes the use of more expensive and more complex bottles unnecessary. The rubber stopper fits around the lip of any bottle or vial, and flies shaken out fall through the glass funnel into the bottle. A few drops of ether from a dropping bottle on the gauze around the stem of the funnel is sufficient for several samples of flies. The outer lip of the rubber stopper should be ground

down to form a narrow upper lip all around. The stem of the glass funnel is cut to a suitable length and fire polished.

Walter's Crucible Holder as stopper for etherizing bottle

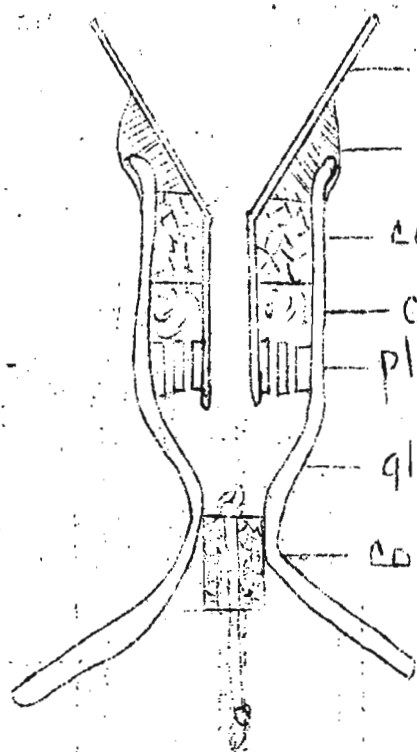


rubber stopper

glass funnel

gauze

Demerec, M. Etherizing bottle.



white enamelled funnel

metallic solder

cork

cotton

plaster of Paris (perforated)

glass vessel

cork stopper

The following drawing represents an actual size cross section of the etherizing bottle used in our laboratory. The design is a slight modification of an early Bridge's design. Ether is poured in through the bottom hole. A few drops suffice for one hour's work.

Specifications:

Funnel: White enamelled 1/8 quart improved funnel manufactured by the Vollrath Co., Sheboygan, Wis., obtainable in hardware stores or could be ordered through a hardware store. Top is cut off to fit the culture bottle and bottom cut off to fit the glass vessel. Cost 30-40 cents.

Glass vessel: Can be made by any glass-blower.

We ordered it from Eck & Krebs, 131 West 24th Street, New York, at 50 cents a piece. (Copied from DIS-2: 62)

Miokey, George H. Etherizer.

A very simple type of etherizer may be constructed from a pure aluminum, seamless funnel, 2 in. across top, (may be purchased for about 75 cents per dozen at any hardware store) and a A.C. glass carburetor bowl (genuine A.C.