(2) Its purposes do not conflict with any of the existing societies.

(3) It is so organized that it can readily cooperate with the existing societies to the benefit of all, and all branches of the biological sciences, *pure* and *applied,* are of equal importance.

(4) Once established, it presents a common meeting ground and clearing house for all qualified biologists through which the development of the science and the welfare of the individual may be advanced.—*Norman C. Laffer,* temporary chairman (University of Maryland).

In the Laboratory

A Collapsible Metal Stirrer

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A collapsible stainless steel stirrer, designed in this Laboratory, has been found satisfactory for vigorous and turbulent stirring in narrow-necked flasks. It may be used with either a mercury seal, a stuffing box, or a pressure-tight bearing which can be made conveniently by reaming a hole slightly larger than the shaft in a 2-inch length of stainless steel rod and lubricating well during use.

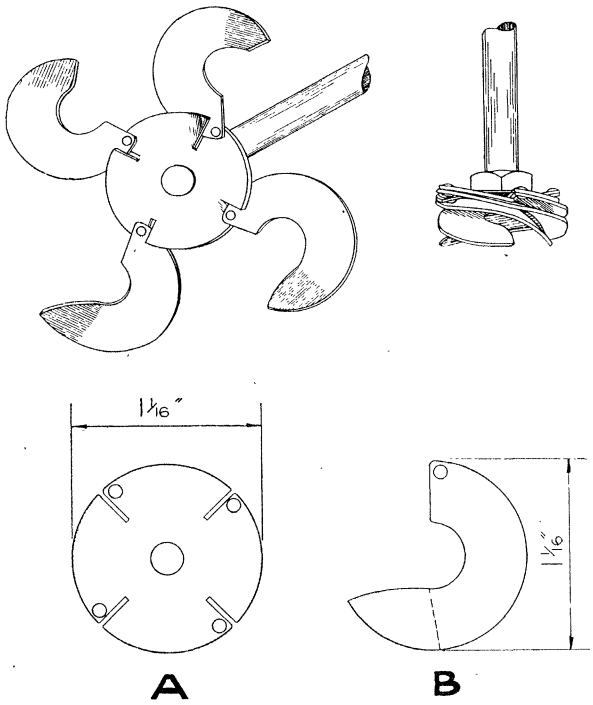

Fig. 1

This stirring device, shown in Fig. 1 in closed and open positions, is designed for insertion through a 34/45 standard taper joint. Five discs, 1 1/16 inch in diameter, were cut from a 16-gauge stainless steel sheet. A 7/32-inch hole was drilled in the center of one of these discs. Four rivet holes were then drilled and four 1/4-inch slots were cut in the periphery (Fig. 1, A). A 5/16-inch hole was bored in the center of each of the other four pieces, which were then cut to vane shape, and rivet holes were drilled (Fig. 1, B). Part of each vane was bent from the vertical plane at an angle of 30° at the point indicated by a dotted line (Fig. 1, B). (It is easier to drill or punch the center holes before cutting the discs from the original sheet.) The design shown is for a stirrer rotating counterclockwise and must be reversed for a motor rotating in the opposite direction.

A 1/4-inch stainless steel rod of appropriate length is then threaded, and on the upper side is screwed a stainless steel nut which, although not strictly necessary, serves to increase rigidity. Piece A is tapped and then screwed on the threaded rod against the nut, and the slight bottom projection is peened over. The quadrants of A are twisted through an angle of 15°. The four vanes are then riveted loosely to the underside of A. It is advantageous to drill rivet holes slightly larger than the rivets, since the latter tend to expand during the riveting operation, particularly if made from stainless steel rod. If the stirrer is properly assembled, each vane, when thrown open by centrifugal force, will rest against the upper side of the quadrant following it. When folded, the stirrer has a diameter no greater than that of A; when open, a diameter of approximately 3 inches.

An alternative design, using half discs instead of three-quarter discs for vanes, is much simpler to construct, requires but three original discs, and, being flatter, extends deeper into round-bottomed flasks—a particularly important consideration with small flasks. With such a stirrer, however, the action obtained is much less turbulent than that obtained with the bent three-quarter vanes.