in the end pieces and into the tapped rod. These large screws (6) are machined from stock having a diameter of the knurled heads, leaving 5/16" x 1/2" d. shoulder to slide in the cam slot when the whole screw is tightened into the small cylinder.

The separator is 8½" long, fitting the rearing pans used in this laboratory. Longer models would allow more animals to be separated at one time. The capacity can also be increased by using a larger number of parallel cylinders in the unit.

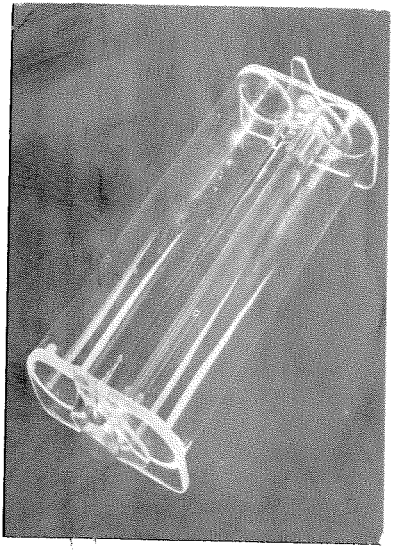

FIG. 2.—The basic 3-cylinder type separator.

OPERATION. The operation of the separator is simple. The two gaps between the three cylinders are adjusted to retain the particular size of pupa by moving both cam-levers simultaneously, thus lowering or raising the center cylinder.

The separator is placed in an empty pan and each sample to be separated is slowly poured down between the tubes. Most of the larvae wash straight through, but a few remain, caught among the pupae. These are easily seen through the clear plastic and may be forced through with a jet of water. A few small pupae may wash through too, but these can be recovered easily and quickly with a medicine dropper. The pupae are removed from the separator by opening the gaps fully and washing them off into a container.

The separator is quickly reset to the original opening if the upper edges of the end pieces have scales etched on them, which are used in conjunction with center lines on the levers.

ADVANTAGES OF THE DESIGN. The separator described has several advantages over previous models: (1) It is small, compact, and lightweight so that it may be used both in the laboratory and in the field. It is simple to make of inexpensive materials, and can be modified to fit most requirements. (2) It is simple and quickly manipulated in operation. A special advantage is that the trapped pupae can be lifted on the separator to another container and there quickly removed by enlarging the openings. (3) Considerable time can be saved. In pans with 100 individuals, half of which have pupated, 2–3 minutes are required per pan to remove the pupae with an eyedropper. With the separator, the time is one minute per pan, including recovery of the few pupae that may pass through. (4) As the openings can be adjusted over a large range, it is possible to separate various sizes of larvae and pupae as well as different species.

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SOME NOTES ON THE MOSQUITOES OF LOUISIANA, INCLUDING THE ADDITION OF *Aedes hendersoni* COCKRELL

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Aedes hendersoni was originally described as a variety of *A. triseriatus* (Say) in 1918 by Cockerell. Breland (1960) raised *A. hendersoni* to full species status and reported it from many areas in Texas. Hedeen (1963) reported this species from Illinois which is the easternmost record in this country. Nielson *et al.* (1967) listed it additionally from Colorado, Idaho, Montana, New Mexico, South Dakota, and Wyoming. A record of *A. hendersoni* was reported from Missouri by Smith and Enns (1968).

A treehole in a sweet gum northeast of Sulphur (Calcasieu Parish) was found to contain larvae of *A. hendersoni* in March, 1968. Companion species were *A. triseriatus* and *Orthopodomyia signifera* (Coquillett). Reared adult females of *A. hendersoni* closely resembled the scutal drawing of the species from Illinois by Hedeen (1963), although the base of the dark scaled area in our

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specimens was somewhat broader. The finding of this species in Louisiana was not surprising since the locality of our collections was only about 50 air miles east of the most easterly collection reported from Texas (Kountze) by Breland (1960).

The latest information on the mosquito fauna of Louisiana was compiled by Johnson (1959) in which he reported 52 species, with all but one (*Aedes zoosophus* Dyar and Knab) known to breed in the State.

A search of the literature indicates that two additional species were reported from the State prior to 1959. Dyar (1922) reported *Aedes dorsalis* (Meigen) from Delta, Louisiana. Specimens of *Aedes cinereus* Meigen were reported (as *Aedes fuscus* O.S.) from Baton Rouge and New Orleans, although King *et al.* (1944) expressed some doubt as to the validity of the identifications. Carpenter and LaCasse (1955) did not list *A. cinereus* from Louisiana. That this species does occur in the State, was verified by several of our larval collections from Sugartown and Dry Creek (Beauregard Parish) in September, 1966 and April, 1968. The sites were flooded woodland pools and associated species were *Aedes vexans* (Meigen), *A. fulvus pallens* Ross, *Psorophora ferox* (Humboldt), and *P. horrida* Dyar and Knab.

With the addition of *A. hendersoni*, the confirmation of *A. cinereus*, and the omitted record of *A. dorsalis*, the mosquito fauna of Louisiana now numbers 55 species.

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Aedes melanimon IN SASKATCHEWAN [1]

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Aedes melanimon was first described by Dyar (1924) from specimens collected at Bakersfield, California. Some taxonomists (Freeborn, 1926; Matheson, 1944) considered it to be a variety of *Aedes dorsalis* Meigen. Barr (1955), after studying specimens from Minnesota and California, restored *A. melanimon* to species status on the basis of the male genitalia. Richards (1956) reviewed the known distribution of *A. melanimon* and listed it as found in: California, Colorado, Idaho, Montana, Nebraska, Nevada, New Mexico, Utah, Washington and Wyoming. In Montana, one record was from Chinook, in Blaine County (Carpenter and LaCasse, 1955), about 30 miles south of the Canada-U.S. border. Burgess (1957) found *A. melanimon* at Brooks in southwestern Alberta, about 82 miles west of the Saskatchewan-Alberta boundary. Richards (1956) also pointed out that at least some isolations of western encephalitis virus originally attributed to *A. dorsalis* were actually from *A. melanimon*.

Thus, when mosquito survey collections were started in 1962 in connection with a study of western encephalitis in Saskatchewan (McLintock and Rempel, 1963), it was expected that *A. melanimon* would be among the species present, but it was not found until 1965. On July 29, 1965, one male was taken in a routine light trap catch on the Canada Agriculture Research Station grounds at Swift Current (southwestern Saskatchewan); another male was taken in the same trap on August 2. These were the only specimens taken in 1965.

In 1966, between July 13 and August 5, 8 males and about 500 females were taken in the Swift Current trap. On August 17 and 18, 33 females were collected by aspirator at the Prairie Farm Rehabilitation Administration (P.F.R.A.) Station at Maple Creek (about 80 miles southwest of Swift Current).

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