A PORTABLE ADULT MOSQUITO FEEDING UNIT

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Knierim *et al.* (1955) describe a simple device for offering heated blood and other fluids to adult mosquitoes. Their feeding unit is not designed to fit into small cages and is essentially non-portable. The present note describes a modified Knierim feeding unit which is portable and adapted for insertion into small cages (e.g., 1 cubic foot).

As shown in figures 1 and 2, the portable feeder is made up of a round brass (or other metal) base (B), 4 inches in diameter and one-half inch thick, a removable and rotating upright arm (R), 4¾ inches high, with a rubber hand grip (G). A Y-shaped holding arm (HA), with a simple clamping device, is screwed to the top of the upright arm.

The thermostatic control unit (T) is manufactured by Fenwal, Inc., Ashland, Mass. (type 32,000 series). The details of this unit are shown in figure 3. It measures 4½ inches in length. It has a range of 0–200° F., is adjustable to 2° F., and carries a 250-watt load. Two 10-watt, wire-wound, 300 ohm resistors are hooked in series and operated on 115-volt line; with smaller-sized resistors this unit could as easily be operated by battery. The thermostat fits into a glass tube (figs. 1 and 2) around which cellucotton, sponges, or membranes may be wrapped.

The present portable feeding unit is easily constructed; does not require alterations of existing cages; is easily cleaned and stored; and since it is small, permits several units to be inserted so that different experimental fluids can be offered to mosquitoes at a single time.

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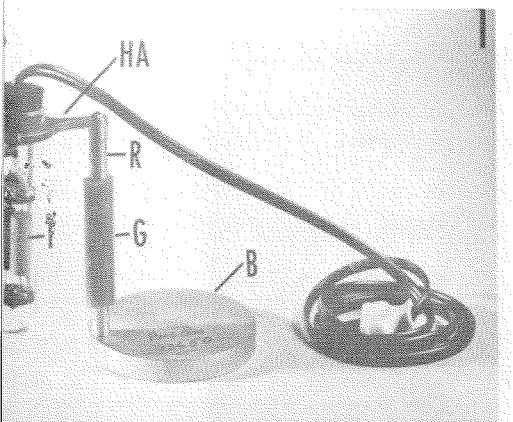
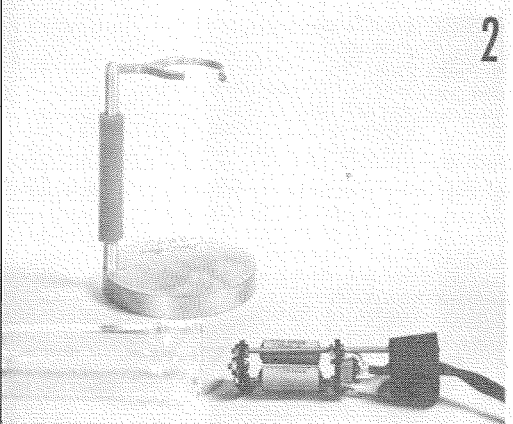
Literature Cited

KNIERIM, J. A., LEA, A. O., DIMOND, J. B., and DELONG, D. M. 1955. Feeding adult mosquitoes on preserved blood to maintain egg production. Mosq. News 15:176–179.





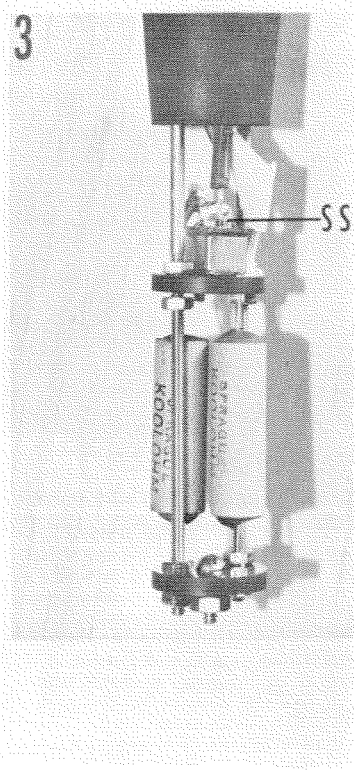


FIG. 1.—Assembled portable feeding unit showing base (B), upright arm (R), handgrip (G), holding arm (HA) and the thermostatic control (T) inserted into rubber stopper (S) and glass tube.

FIG. 2.—Disassembled feeding unit.

FIG. 3.—Details of the thermostat. The temperature regulating screw is shown at SS.