

OPERATIONAL AND SCIENTIFIC NOTES

A HANDY, INEXPENSIVE DEVICE FOR DISPENSING INSECTICIDE DUST AND GRANULES IN SMALL QUANTITIES¹

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In the use of household insecticides, selective application procedures may be neglected by the home owner because of lack of suitable equipment, even though insects such as cockroaches can often be controlled by directing the appropriate insecticide into the cracks or crevices where the pests are hiding.

Fussell (1970 personal communication) developed a method for application of granules to cracks and crevices for cockroach control using a plastic wash bottle with a plastic hose extension. However, the device required two hands to operate, and plugging of the long plastic hose was a problem.

Plastic squeeze bottles such as those used for dispensing mustard, mayonnaise, or catsup have been found to be excellent dispensers for dispensing small quantities of insecticide dust or granules. Figure 1 shows such a plastic squeeze bottle labeled, for safety, "Insecticide." In figure 2 the insecticide granules are shown coming out of the nozzle of the dispenser. The correct nozzle



FIG. 1.—Plastic squeeze-bottle insecticide dispenser.

¹The opinions and assertions contained herein are those of the author and are not to be construed as official or as reflecting the views of the Navy Department or the Naval Service at large.

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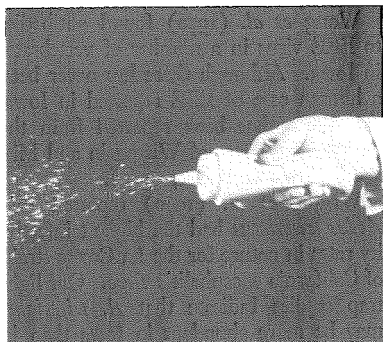


FIG. 2.—Squeeze-bottle dispenser in action.

opening is obtained by cutting off the tip; the farther back the tip is cut off, the larger the opening. While holding the dispenser parallel to the floor and squeezing it an evenly distributed pattern of dust or granules emerges. Only one hand is required to operate it, and the small cone nose is perfect for introduction of dust or granules to cracks or crevices. The plastic dispensers cost very little, are readily available, and are very easy to fill. Normal precautions, such as proper labeling should, of course, be observed.

CALLOTIA N. SUBG. OF *CULICOIDES* (DIPTERA, CERATOPOGONIDAE)

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DIAGNOSIS. *Callotia*, new subgenus, is proposed for those species of *Culicoides* with wings without spots; with macrotrichia except on the subcosta and basal cells, and second radial cell as long as the first one. Females with three functional spermathecae. Male genitalia (Fig. 1.): ninth tergum with long apicolateral processes; apodemes very long, straight or curved, without strictures. *C. saevus* Kieffer, 1922 is the type of the subgenus. This also includes *tauricus* Gutzevich, 1959, *ibericus* Dzshafarov, 1964, *micromaculithorax* Khalaf, 1957, *sejyadieni* Dzshafarov, 1958, *albipennis* Smith and Swaminath, 1932 (non Kieffer) and perhaps *slavicus* Oezagh, 1969 (male unknown). *Callotia* n. subgenus has a palearctic distribution. The name *Callotia* is pro-

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