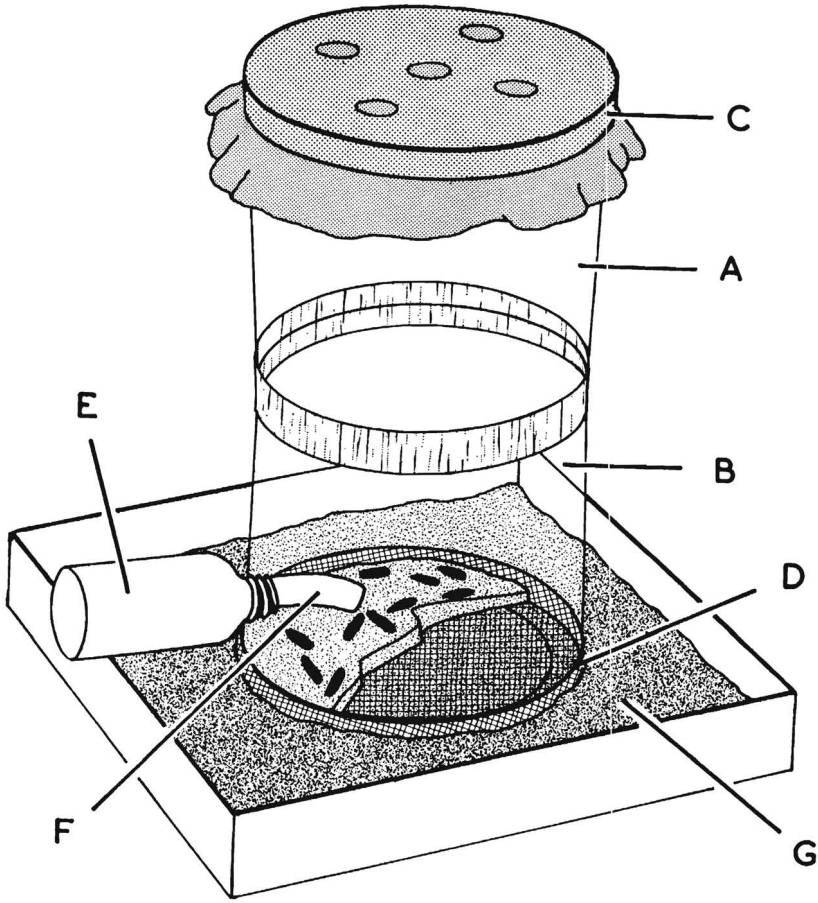
AN IMPROVED CAGE FOR REARING CUTWORM MOTHS (NOCTUIDÆ)

by D. Farnsworth

The former method of rearing cutworm moths and the collection of their eggs (Berubé, 1958), has been facilitated by the use of a new plastic cage that reduces difficulties in handling and feeding moths and in collecting their eggs.



A, B, transparent plastic containers; C, lid serving as top; D, lid serving as bottom; E, plastic food reservoir; F, dental cotton; G, sterilized fine sand.

The cage (figure) is constructed of two transparent plastic containers (A and B), the bottoms of which have been removed. The resulting edges are held together with masking tape to give a cylinder approximately five inches in diameter and ten inches high. The original plastic lids are modified to serve as ends for the cylinder. The top of the cage (C) has five ventilating holes three-quarters of an inch in diameter. A sheet of 80 mesh nylon screen is placed over the end of the cylinder and the lid forced into place so that the screen is sandwiched between the end of the cylinder and the container lid. The bottom (D) has a 4½ inch diameter disc removed and a sheet of eight mesh metal screen closes the bottom in a manner similar to the top. The food reservoir (E) is a three ounce polyethylene bottle threaded into a hole in the side of the cage 2¼ inches above the bottom. A piece of dental cotton (F), which touches the bottom of the bottle, conveys honey solution to the interior of the cage. The cage is placed in a tray 9 x 9 x 1½ in. that is partially filled with fine sand (G). In operation the cage is forced down until sand rises through the metal screen to a depth of half an inch.

Equal numbers of male and female pupæ are placed on the dry, sterile sand within the cage; a total of 30 pupæ is the most satisfactory number for a cage of this size. No further handling of the pupæ or moths is required as observations can be readily made through the clear plastic wall of the cage. When emergence begins, a ten per cent honey solution is placed in the feeding bottle which is replaced with another food reservoir as required. This method of feeding is fast and prevents the escape of moths; the transparency of the bottle ensures that food is available. The visibility of the eggs on the sand reduces unproductive sifting during egg collection and the light quality of the plastic permits greater ease of handling. Nearly all the eggs are laid on the sand and the few that are laid on the plastic wall may be easily washed off. This cage may be easily disassembled for cleaning and is unharmed by chemical sterilizing solutions.

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References

Berubé, J. A. C., 1958. Note on rearing the Red-backed Cutworm *Euxoa ochrogaster* (Guen.), in mass. *Ann. rept. ent. soc. Ontario* 88: 57.

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