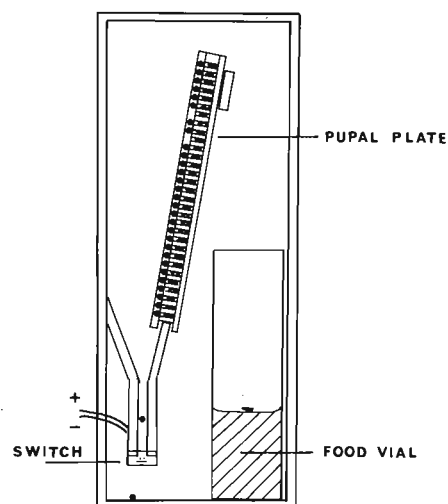


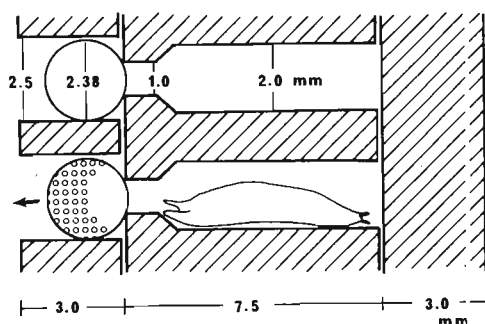
Lumme, J. and P. Lankinen. University of Oulu, Finland. An apparatus for recording the eclosion rhythm of *Drosophila*.



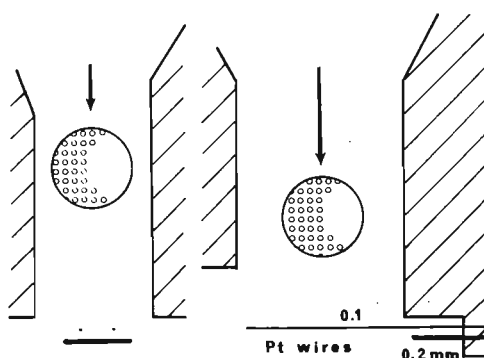
Various devices have been constructed for registering the eclosion rhythm of *Drosophila* (e.g. Grant et al., 1970; Chandrashekar et al., 1973). Truman (1972) has devised a recording apparatus for moths, which does not have any mechanically moving parts. Therefore we considered this design most useful for recording the eclosion rhythm of flies because of its simple structure and function. As a further advantage of this design can be mentioned that it creates minimum disturbance to the pupae. We have modified this apparatus for flies of the *D. virilis* group. The structure and dimensions of the device made of acrylic plastic are illustrated in the figures. The pupae are inserted into the holes of the pupal plate, and the openings are closed with balls of stainless steel. When emerging, an adult fly pushes forward the ball weighing 50 mg and drops it down. The falling ball is trapped by a funnel, where it makes a contact in the microswitch of the event recorder. The channel, through which the balls fall, is so wide that adult flies can not block it. The microswitch is insensitive for flies weighing about 4 mg.

The device can easily be constructed for flies which are smaller than those we have studied. Illumination and temperature can be controlled as desired. The same chamber can be used for recording the flight activity of newly emerged adult flies by e.g. the method devised by Nederström and Lumme (1972). For some purpose it is desirable to collect flies emerged within known intervals of time, but this seems

DETAIL OF PUPAL PLATE



PRINCIPLE OF MICROSWITCH



to be difficult with our apparatus.

References: Chandrashekar, M.K., A. Johnsson and W. Engelman 1973, *J. comp. Physiol.* 82:347-356; Grant, B.S., G. Bean and W.L. Harrison 1970, *DIS* 45:185-186; Nederström, A and J. Lumme 1972, *DIS* 48:158; Truman, J.W. 1972, *Z. vergl. Physiologie* 76:32-40.

Gassparian, S. University of Isfahan, Isfahan, Iran. A simpler method for the separation of larvae of *D. melanogaster*.

A new simpler technique for collecting larvae of *D. melanogaster* was developed. After the adult flies are separated from the container, another glass container wetted with distilled water, is superimposed upside down upon the original container which held the remaining larvae and pupae. After 10 hours, about 50 or more larvae go into the new container, the number depending upon the type of medium. Although the time needed for this procedure is short, because of the migration time required, it is better to separate the larvae the evening previous to the next day's experiments.