

Jungen, H. and R. Locher. Zoological Museum of the University, Zürich, Switzerland. Apparatus for the determination of the egg laying time of single females of *D. subobscura*.

This apparatus allows one to study the egg laying pattern over 24 hours of single *D.* females. The principle idea is to have a glass plate covered with a food medium over which a vial containing a female is moved.

Fig. 1 shows the apparatus composed of two floors. The two plates bearing the food medium (p) measure 75 x 28 x 0.5 cm. A mobile vehicle (v) holds eight glass tubes (t) on each of the two exchangeable arms (a). Each vial is 22 mm in diameter. The tubes are held in position by

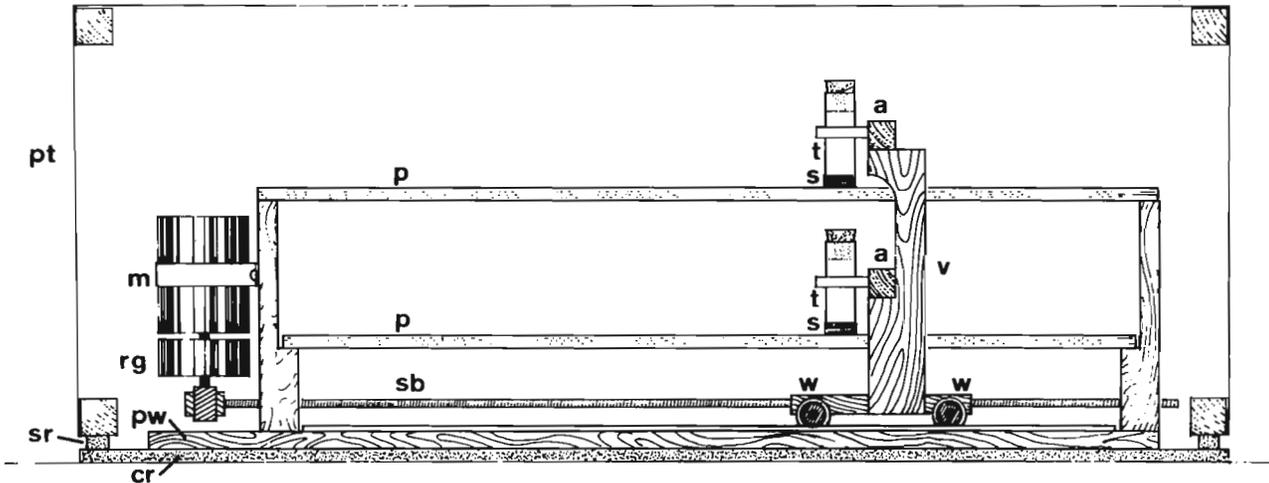


Figure 1

metal clasps and are closed with a plug. Their lower end is held 2 mm over the surface of the food medium. A silk band (s) with a fringed border (b) 2-3 mm wide is wrapped three times around the lower end of the tube in a way that the fringed border overlaps preventing the flies from escaping (fig. 2). The band is changed after every running. A screw bar (sb) goes through a nut fixed on the vehicle. A synchronous motor (m) from Philips (AU 5100/22) drives by a reduction gear (rg) of 3:1250 (Philips, BA/UR 3/1250 L) the screw bar and moves therewith the vehicle. The wheels (w) of the vehicle roll on a metal band. The apparatus is fixed on a non-warping plate of wood (pw) which lies on crepe rubber (cr). A switch changes the direction of rotation of the motor.

A transparent plastic tent (pt) serves to cover the whole apparatus. Strips of crepe rubber (sr) make it close tightly. The tent retains the humidity and prevents the invasion of other flies.

The agar and maize food is stained by molasses to facilitate counting of eggs. The food had to be cast on to the pre-heated glasses. A thin layer of yeast suspension is sprayed on the food plates by means of an atomizer and compressed air.

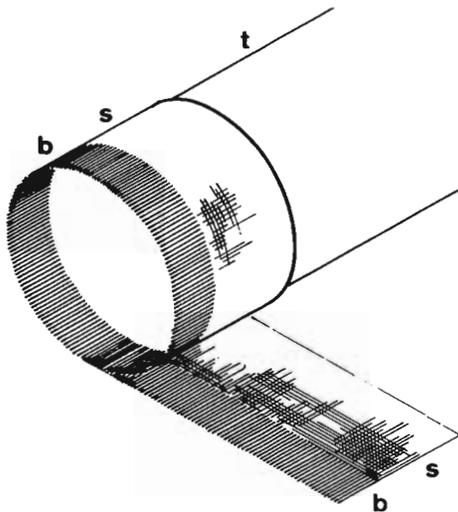


Figure 2