AN APPARATUS FOR THE OBSERVATION OF LIVING IMMATURE AND SMALL ADULT SPIDERS—*(Note).* Investigations of spider development, morphology and physiology sometimes require that specimens be examined under a microscope and later released alive and unharmed. This can be accomplished by anesthetizing the spider, but I believe this has the potential to alter the animal's behavior, physiology, etc. Such alterations in behavior or physiology are difficult to measure, but the possibility of their existence must be assumed until data to the contrary are presented.

The ideal situation is immobilization of the spider without anesthesia during the period of observation. Seligy (1970, Can. J. Zool. 48:406-7) devised an apparatus for this purpose employing an adjustable piston with a glass top. The spider was placed in the piston and an adjusting screw turned, pressing the spider against the glass, immobilizing it without crushing it. Berry, Miller and Harris (1978, Ann. Ent. Soc. Amer. 71:126-8) designed and built a chilling table for immobilizing insects.

I devised a simple apparatus that immobilizes spiders, requires little material and only a few minutes to fabricate. A 35 × 10 mm tissue culture dish (Falcon #3001) and some cardboard are required. Use the bottom of the dish as a template and cut out a circular piece of white paper (to serve as a background for observations) and tape it in the bottom of the dish. Use the top of the dish as a template and cut out a circular piece of cardboard. Cut a circle out of the center of the cardboard circle. Place the cardboard ring on top of the inverted dish bottom and place the top of the dish over the ring (Fig. 1) forming the observation chamber.

The depth of the chamber, which should be slightly greater than the thickness of the specimen, can be adjusted by adding layers of rings of varying thickness. The mobility of the spider can be further limited by reducing the diameter of the center of the cardboard rings. The entire apparatus is easily positioned under a microscope.—John B. Randall, Department of Entomology and Nematology, University of Florida, Gainesville, 32611.

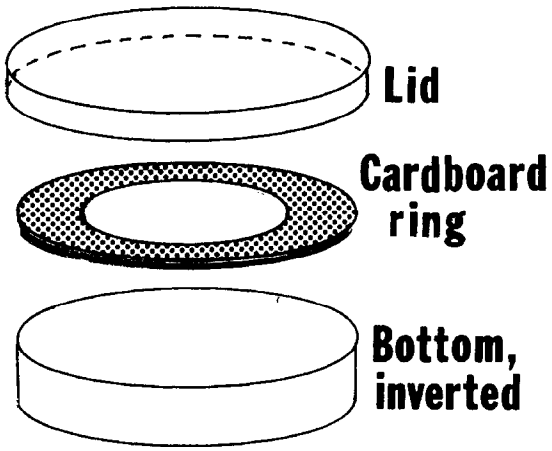


Fig. 1. A cardboard and culture dish apparatus for immobilizing and observing living spiders.