

AN IMPROVED TECHNIQUE FOR PINNING, SPREADING AND MOUNTING MINUTE LEPIDOPTERA¹

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Methods of spreading minute Lepidoptera vary greatly, and results are frequently poor. There is no satisfactory board manufactured for spreading their wings, therefore one has been designed by the writer. This paper describes the spreading board and how it is used.

Construction of Spreading Board

Glue a strip of 2 x 14 x ¼ inch cork to a strip of plywood of the same dimensions. Cut a 1 x 14 inch strip of 1/32 inch thick patent leather lengthwise down the centre, using a straight-edge and a sharp knife. Glue the two strips of patent leather 1/32 of an inch apart along the centre of the cork strip, smooth side up. (Fig. 1). It is convenient to make up three or more boards, varying the width of the groove for different sized moths.

Pinning and Spreading the Moths

The following equipment is used by the writer when preparing microlepidoptera specimens: spreading board, forceps, dental loop, minuten pins, glassine paper in 3/16 x 3/8 inch strips, hard balsa wood pieces 1/8 x 1/8 x 5/8 inches, number 3 insect pins and a standard mounting block.

1. Specimens to be spread must be thoroughly relaxed.

2. Place the moth venter side down on a balsa board. Grasp a minuten pin with a pair of forceps and insert the point perpendicularly through the centre of the thorax, until it penetrates 3/16 of an inch through the venter. The author wears a dental loop to expedite this work.

3. Grasp the top of the minuten pin with the forceps and push it vertically into the groove (which should be just wide enough to fit the insect's body) so that the body rests in the

groove, and the wings rest on the board.

4. Very lightly blow the wings forward, separating the fore-wings from the hind-wings. Sometimes they can be blown into the desired position and will remain there without having to be anchored by a minuten pin.

5. Grasp a minuten pin with the forceps and, catching the forewing just behind the longitudinal main vein, close to the thorax, pull the wing forward over the surface of the board until the posterior margin of the hind fringe is at right angles to the body. Anchor it with the pin.

6. Bring the hind wing forward in the same manner until the fringe of the anterior margin is nearly touching the forewing fringe and anchor it.

7. Gently lay a strip of glassine paper lengthwise over the anchored wings, taking care not to disturb any wing scales. With the forceps, secure the strip of glassine paper with four minuten pins, two pins just forward and to the outside of the front wing and two pins just behind and to the outside of the hind wing. Repeat the procedure for the wings on the opposite side.

8. Gently remove the temporary anchoring pins.

9. Using a curved pointed 00 pin in a holder, ease the antennae into the desired position.

10. When the specimen is dry (usually two or three days under room conditions), remove the minuten pins while holding the glassine paper down with a pair of fine forceps.

11. When all anchor pins have been removed, lift the strips of glassine paper with forceps.

12. Using forceps, lift the spread moths from the spreading board.

Mounting the Moths

Hard balsa wood strips may be ob-

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tained in $\frac{1}{8} \times \frac{1}{8} \times 18$ inch strips. Cut these into $\frac{5}{8}$ inch lengths for mounts. Insert a number 3 insect pin vertically through the balsa mount $\frac{1}{16}$ of an inch from one end. Press the mount to a height of $\frac{3}{4}$ inch on the pin, using the appropriate step on the "pinning

block." With forceps, grasp the pin holding the moth and press the point $\frac{1}{16}$ of an inch vertically into the balsa mount $\frac{1}{8}$ of an inch from the end. The mounted specimen is then ready for labelling. (Fig. 2).

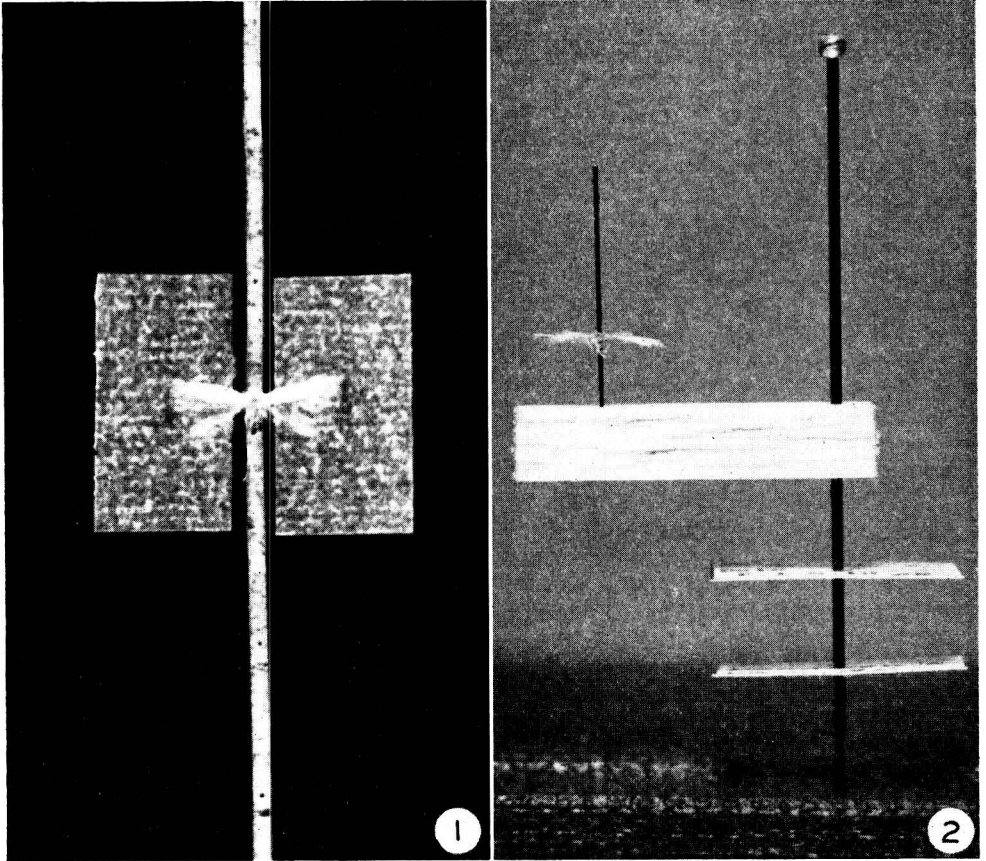


Fig. 1. Moth on spreading board.

Fig. 2. Mounted and labelled moth.

Pine Siskins Killing Forest Tent Caterpillars

In June 1954 the trembling aspen woodlands along the Fraser River Valley south of Quesnel, British Columbia, were denuded by an outbreak of the forest tent caterpillar, *Malacosoma disstria* Hbn. On June 22 in the semi-open country about Castle Rock, flocks of pine siskins, *Spinus pinus* (Wilson), were numerous and two instances of predation upon the fully-grown larvae were observed. The bird carried a larva to a suit-

able branch, then standing on the insect's body, grasped the head in its bill and pulled until the viscera were removed. These were laid along the branch and a small portion of the body contents were selected and eaten. One siskin killed three larvae in this manner in a few minutes.

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