

Catching Insects With a Net

All insect collectors use nets to help catch elusive insects. You can use a net in one of three ways.

1. One is to *sweep* foliage. To sweep means to swing the net back and forth such that it scrapes the tops of plants and dislodges the insects that are feeding or resting there, causing them to fall into the open net. After a series of sweeps, the collector then carefully examines the insects caught in the net and selects the specimens of interest.
2. Another, more common, way in which a net is used is by swinging it quickly through the air to catch flying insects such as bees, wasps, butterflies, dragonflies, and other wary insects.
3. The third way is to use a sturdier net to collect insects from water.

Sweep nets, aerial nets, and aquatic nets can be either purchased from entomological supply houses or made at home. A general purpose net is one that is sturdy enough to sweep plants, yet light and porous enough to be swung quickly through the air. Variations in the basic plan or the materials used are common and can be adjusted to suit specific collectors needs.

Generally, a net (Figure 1) consists of a handle fitted on a heavy wire loop to which a bag is fastened. The bag is cone-shaped and twice as long as the diameter of the hoop. This length lets the bag loop over the rim and prevents the escape of insects while sweeping. An ideal material for making the bag is nylon mosquito netting, available from surplus stores. A good quality marquisette or similar material also can be used, but cotton mosquito netting or cheese-cloth is not satisfactory.

To construct the net bag, cut out a piece of net material the size and shape shown in Figure 2. The bag may be placed on the wire loop before it is attached to the handle, or it may be sewn to the loop after it is attached.

It is advisable to sew a muslin or denim band over the loop to increase the durability of the net. Use a strip of heavy muslin or denim 5 x 44 inches. Fold it lengthwise to form a hem around the top of the bag (see Figure 3). The top edge of the net should be placed between the two sides of the folded muslin. Tuck the cut edges of the muslin so that the edge of the net and the tucked edges of the muslin overlap at least 1/2 inch. Join these by twice sewing completely around the material near the middle of the overlap.



Figure 1

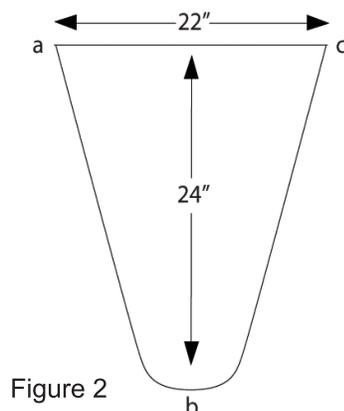


Figure 2

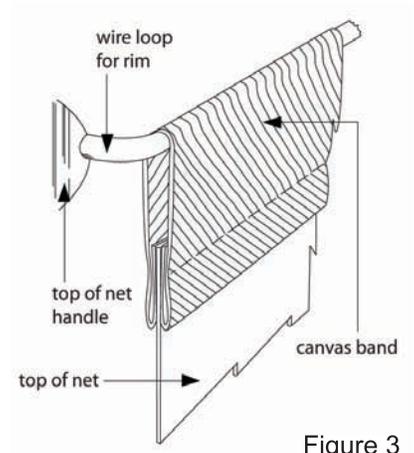


Figure 3

When choosing a handle, select a strong, lightweight wooden dowel approximately 3 feet long. A $\frac{3}{4}$ -inch dowel rod is ideal for this purpose. Cut two grooves along the sides at one end as shown in Figure 4. These grooves cradle the bent arms of the hoop and are cut as deep as the thickness of the wire. Make one groove approximately $3\frac{1}{2}$ -inches long and the other $2\frac{1}{2}$ -inches. At the end of each groove, drill a small hole at a right angle into the handle to anchor the wire.

To make the loop, bend a 4-foot length of approximately $\frac{1}{8}$ -inch durable steel wire (preferably piano wire) into a hoop with short arms at each end as shown in Figure 5. Take care that the arms and the little hooks at their ends are bent correctly to fit along the grooves and into the holes in the handle. After fitting the hoop to the handle and properly attaching the bag, one is ready to make the joint fast between the handle and the hoop.

Wrap the joint tightly with fine wire (Figure 4), or better still, fit the handle with a sliding metal sleeve. A short piece of $\frac{3}{4}$ -inch copper or aluminum tubing fits snugly over a dowel rod of that diameter.

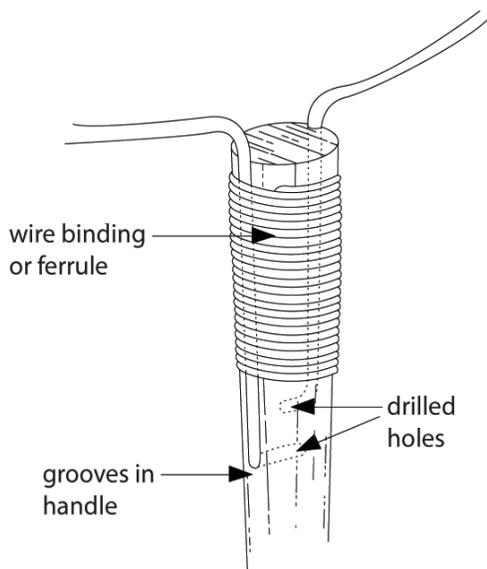


Figure 4

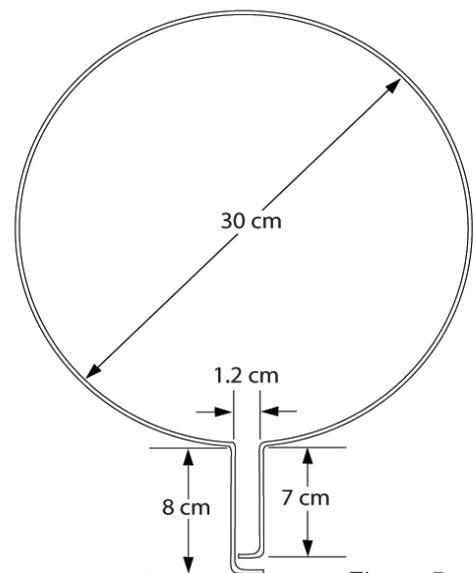


Figure 5