

These cane joint inserts make a solid, invisible threaded joint for canes, staffs, pool cues, or other knock-down applications. They can be easily installed by drilling a  $\frac{7}{16}$ " diameter hole into the end of each piece to be joined and gluing the inserts in place.

The internal thread and screw is  $\frac{1}{4}$ -20; the same as the thread on most camera mounts. By mounting one into the top end of a walking staff, you can use the walking staff as a monopod to support a still camera or video camera.

To achieve a perfect fit between two turned parts, such as two-piece walking staffs, install the inserts before doing the final finishing. This way, any mismatch in the joint caused by off-center drilling of the holes can be turned or sanded flush without ruining the finish.

Mark the centers of the pieces to be joined. Drill a  $\frac{7}{16}$ " diameter hole, 1" deep into the end of each piece. Install the inserts much as you would dowels, being careful to not overdo it with the glue. Press the inserts into place until they are just below the surface. If you pound them rather than press them, you run the risk of splitting your cane. The inserts have a glue-relief channel on the outside that also provides a mechanical lock, since most glues do not adhere well to metal. Epoxy is the best glue for this process, but ordinary wood glues are adequate, unless you expect the joint to be exposed to extraordinary stresses and weather conditions.

Assemble the joint. If grain matching is important, sand the ends of the parts a bit at a time, frequently reassembling until the grain matches when the two parts are fastened together.

If you will be mounting an insert into the top end of a walking staff for use as a monopod, alterations may or may not be needed, depending on the style you purchased. You must ensure that no more than  $\frac{1}{4}$ " of the projecting screw is exposed, since most cameras will not accept anything longer. If the projection is more than this, either drill the hole slightly deeper, or cut the exposed screw. To use the staff as a regular walking stick, make a decorative knob with the other insert glued in. To convert the stick into a monopod, just remove the knob and slip it into your pocket. If you want to make a very short knob, trim the closed end of the insert to suit the length of the knob.