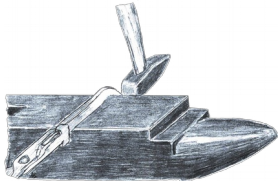


Mortise and Tenon Trivet

Leif Bennett

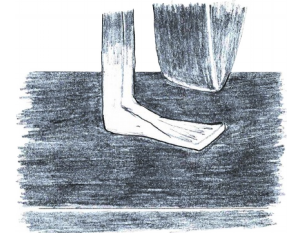


Material: Mild steel, 3 pieces, 1/4" × 1/2" / 6mm × 12.5mm rectangular bar, 8 inches / 20 cm in length.

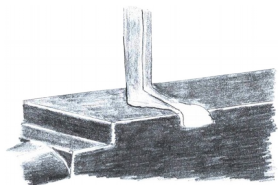


First Bend

To make the foot, 2"/5cm from the end, bend the bar across the 1/2"/12mm dimension to a right angle. Flatten the short arm across the width to form a fishtail taper about 5/8"/15mm wide.



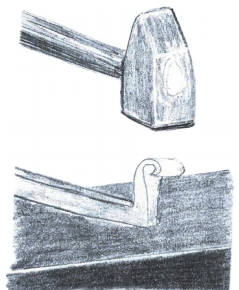
Fishtail Taper



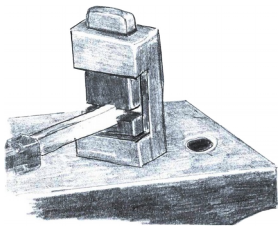
Start Scrolling Foot

Scroll up the fishtail to a pleasing curl, starting over the edge of the anvil and finishing with the curl facing upwards. Keep the inside of the foot at a right angle to the long part of the bar.

Using a guillotine tool, shape the other end to form a 1/4"/6mm round tenon. Use a monkey tool to dress the shoulders.

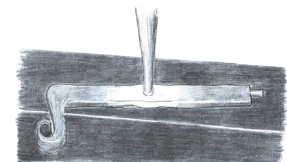


Finish Scrolling

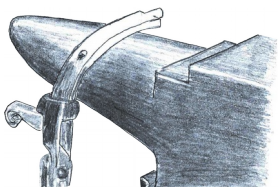


Shape the Tenon

Repeat to make 3 pieces. Adjust them so that each piece has the same distance from the top of the bar to the bottom of the foot, to ensure that the finished piece will rest flat.

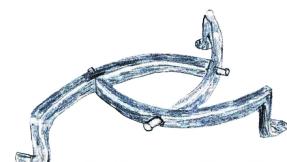


Punch the Mortise



Curve the Long Arm

In each piece, 3"/7.5cm from the shoulder, punch a 1/4"/6mm round hole for a mortise, and size the hole to fit the tenon. Curve the long arm of each piece to match a circle of 12"/30cm diameter, so that a point 3"/7.5cm from the shoulders is about 30° from the tenon. Test fit the pieces together, and adjust the curve of each piece.



Test Fit

Once the pieces fit well together, heat the tenon of one piece, insert it into the mortise of another, and peen over the protruding end of the tenon. Heat the tenon of the next piece, assemble all three pieces together, and peen over the hot tenon. To finish the assembly, peen over the third tenon, locking all three into place. This final peen may be done hot or cold.

For a blacksmith's finish, soak the trivet in vinegar overnight, scrub clean with plenty of hot water, and immediately coat with a thin layer of oil or wax. Bake the piece at 500° F / 260° C for an hour or so. Coat and bake as many times as wanted to build up a durable black finish.