



no fuss Hand-Cut Hinge Mortises

Creating hinge mortises by hand is easier than it looks — all it takes is a sharp chisel, a steady hand, and a little practice.

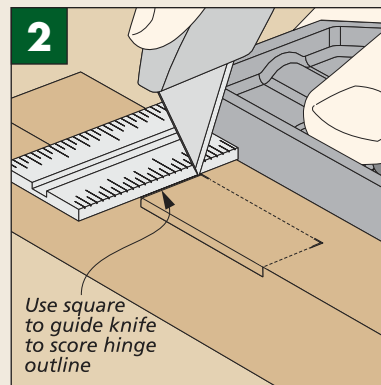
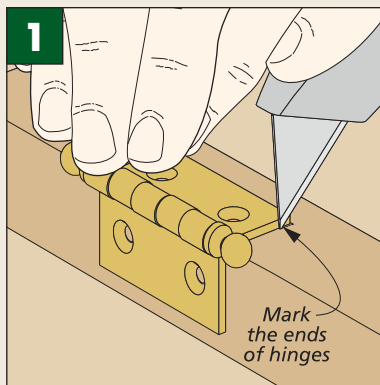
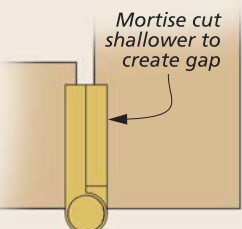
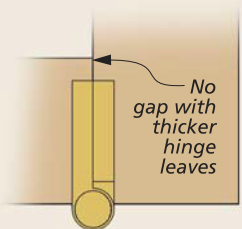
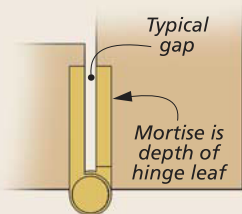
Creating hinge mortises is a job I usually reserve for the router. With a router and a simple jig, I can create perfectly sized, flat-bottomed mortises nearly every time. So why would you want to bother cutting them by hand? Well, there are a couple of reasons to consider.

If you're building a small project with small hinges, a router may be too cumbersome. And if you're trying to rout mortises in a project that's already assembled, you may not be able to get the router where you want to mount the hinges.

In these cases, creating the hinge mortises by hand may be your best (or only) option. And the truth is, with just a little practice, you can chisel a mortise in about the same time it would take you to drag out a router and set up a jig.

HINGE POSITION. Before you start making the mortises you'll need to decide how deep you want to make them. This will depend on the type of hinge you're using and how much space you want

between the two hinged parts of your project. Most butt hinges have a space between the leaves to create a clearance gap between the two pieces (top drawing at left). The deeper you make the mortises,



Lay Out the Mortise. Set the hinge in place to make tick marks for the ends and edge of the hinge. Then go back and score the outline of the hinge using a combination square to guide the marking knife.

the narrower the gap becomes. But some hinges don't have any space between the leaves (middle drawing on opposite page).

In this case, you may actually need to make the mortise shallower than the hinge leaf to create a gap, as shown in the lower drawing. If I'm installing hinges on a door, I usually shoot for a gap between $\frac{1}{16}$ " to $\frac{1}{8}$ " between the door and the frame.

LAYING OUT THE MORTISE. Once you've determined the depth of the mortise, the next step is to lay out the mortise on your workpieces. Instead of a rule or tape measure, I like to use the hinge itself to mark out the size of the mortise.

To do this, I place the hinge where I want it and then make tick marks to determine the ends and edge of the hinge, as in Fig. 1. Then I'll use a square and a sharp knife to mark out the outline of the mortise, as you can see in Fig. 2.

REMOVING THE WASTE. With the mortise laid out, the next step is to start removing the waste. To do this, I take a sharp chisel that's just a bit wider than the mortise. Holding the chisel nearly vertical, and with the bevel facing down, I make a series of shallow, angled cuts, starting at one end of the mortise and working toward the other. You can see this in Fig. 3 below.

There are a couple of things to be aware of. First, you want to stay just shy of your layout lines when making these cuts. And second, make these cuts fairly shallow.

After making the first row of cuts, go back and make a second series of cuts that overlap the first, but this time with the chisel angled in the opposite direction, as shown in Fig. 4. What you're doing here is breaking up the waste by making a series of V-shaped cuts.

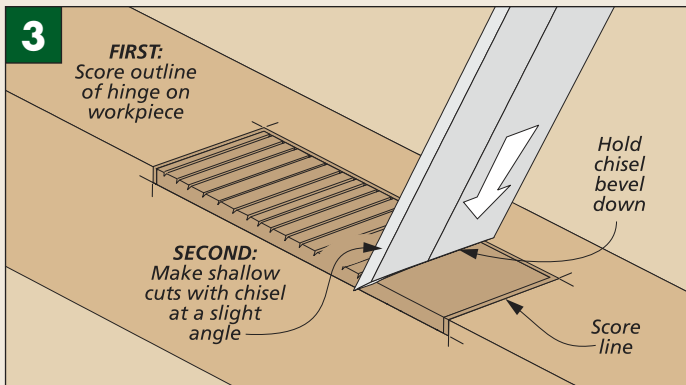
CLEANING UP THE MORTISE. The next step is to pare away the waste.

Here is where you need to use a little finesse. Working your way in from the side, carefully slice away the chips that you created by making the V-shaped cuts. You can see what I mean in Fig. 5. The key is to trim the material a little at a time.

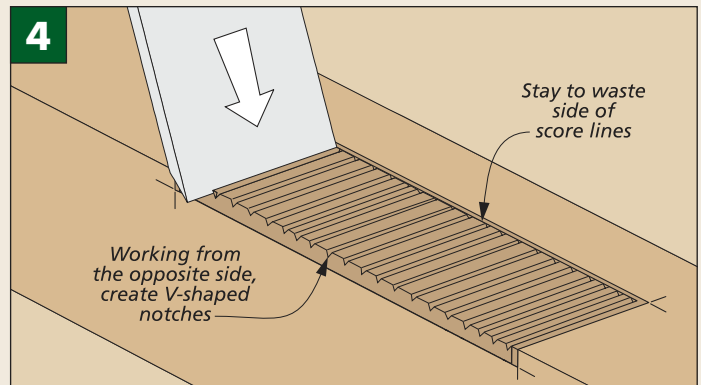
Next, you'll repeat this process until you reach the final depth. The final light strokes should smooth out the bottom of the mortise.

SQUARING THE MORTISE. Once you've finished removing the waste, the final step is to square the ends and side of the mortise. At this point, there isn't much material left to remove, so you should be able to pare it away cleanly with very little effort, just as you see in Fig. 6. It's a good idea to test the fit of the mortise with the hinge as you go along to see where you may need to trim away more material.

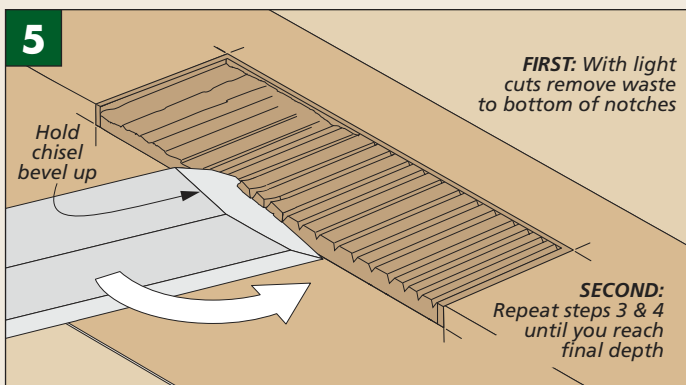
Finally, once you're satisfied with the fit, you can slip the hinge in place and drive the screws in. **W**



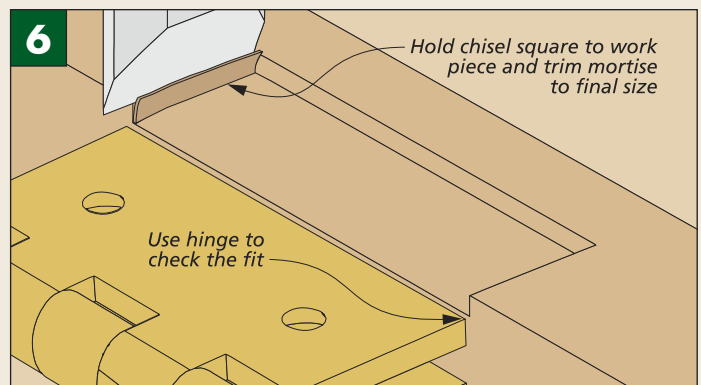
First Cuts. After scoring the outline of the hinge, take a wide chisel and make a series of cuts. Stay to the inside of the layout lines and be sure not to cut deeper than the mortise depth.



Now, the Opposite Way. From the other direction, make another set of cuts with the chisel to create a series of shallow V-shaped cuts. This helps loosen and break up the waste.



Pare Away the Waste. Holding the chisel flat, with the bevel up, slice away the loosened waste. Work across the mortise in several, light passes to avoid going too deep.



Square the Corners. The final step is to clean up the mortise. Here, you'll square the corners and trim the edge and ends for a snug fit. Use the hinge to check your progress.