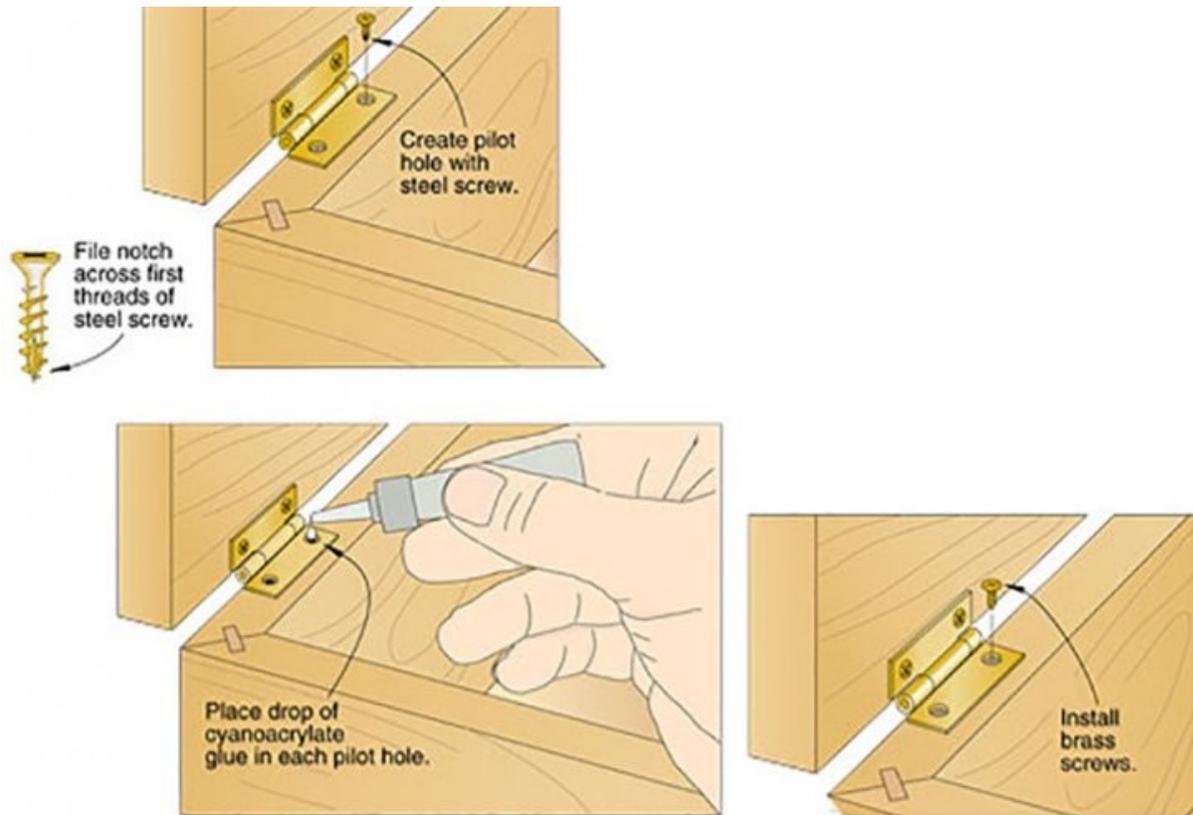


Hardware and installation tips

Attaching hinges, driving threaded inserts and other installation tricks you can accomplish like a professional woodworker.



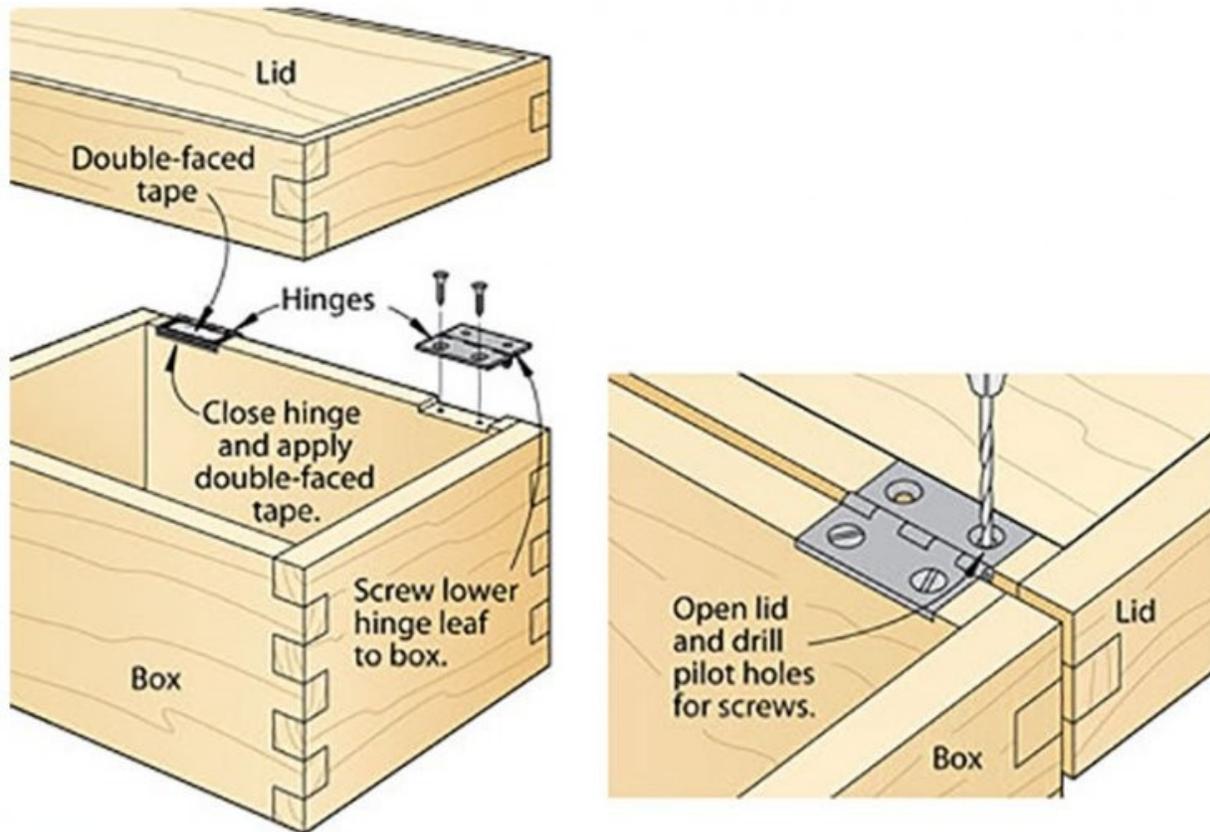
Use a little glue, hold a little screw

Two things I love to do in the woodshop are carving small figures and building small treasure or jewelry boxes. I get frustrated when attaching hinges to a box (or a basswood figure to its base) because the screw can strip or split the wood.

To prevent this, I first drill a pilot hole, then "tap" the hole with a steel screw the same size as the brass screw I'll install permanently. (I file a small notch in the screw threads to make it cut like a self-tapping screw.)

When it's time to install the brass screws, I first add a drop or two of cyanoacrylate (CA) glue to the hole, then insert and tighten the screw.

This really sets the screws in place. I find I can still back out the screws, but it's definitely more work. I've also used this method successfully to screw into the edge of plywood.

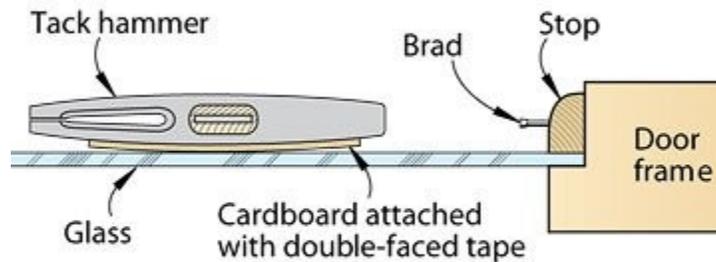


Double-faced tape holds shifty lids

Aligning a hinge with the lid of a box while you try to drill the holes for the hinge screws often proves tricky. Here's a solution that's fast and simple.

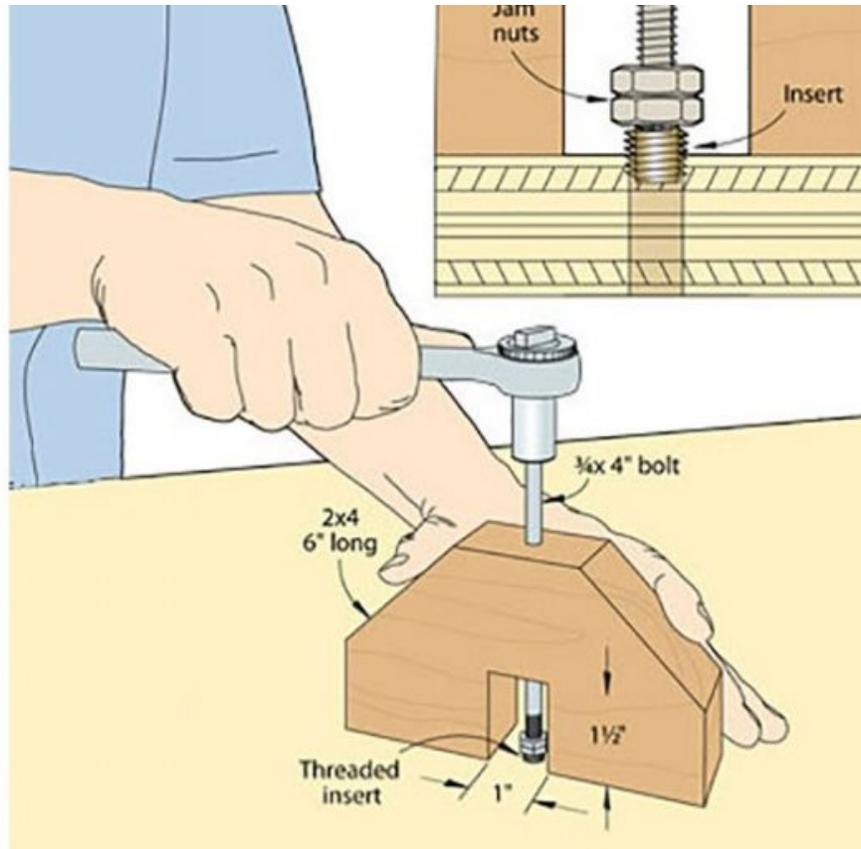
Cut your hinge mortises and screw the hinges to the box. Next, place a strip of double-faced tape on the top of the hinge and align the lid in the closed position on top of the box. Press firmly over the hinge to get a good bond between the lid and the tape.

Carefully open the lid and drill the pilot holes for the hinge as shown. Remove the lid from the hinge and take off the tape. Now, reinstall the lid by driving the screws through the hinge and into your perfectly aligned pilot holes.



This tip doesn't even scratch the surface

When tacking the stops around a fragile pane of glass (in a cabinet door, for instance), it's not hard to scratch the glass, or worse yet, break it. To overcome this potential problem, I attach a piece of card stock to one side of my tack hammer with double-faced tape as shown. Not only does the card stock protect the glass, but by using different thicknesses, I can make the face of the hammer parallel to the nail head, lessening the likelihood of bending the nail.

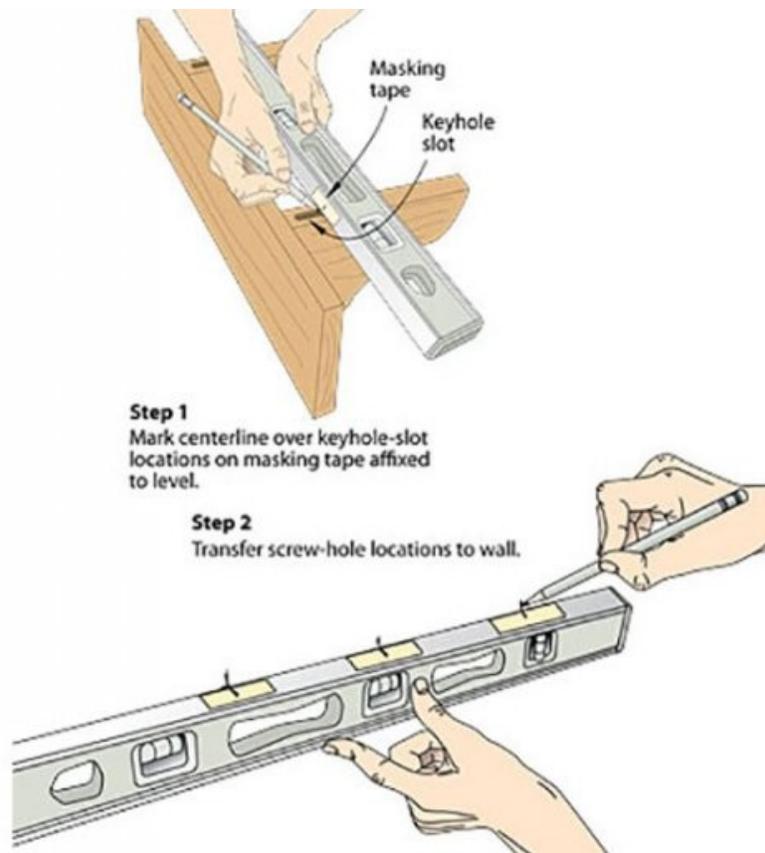


Make quick work of threaded inserts

A lot of woodworkers use a drill press to install threaded inserts, but large pieces can be too awkward or impossible for this practice. I've used the jig shown to install more than 150 threaded inserts into the music stands and other projects I build. I think it would be a great addition to your shop, and it takes only a few minutes to craft.

Start by cutting a 6" length of 2x4 to the shape shown in the drawing. For a $\frac{3}{8}$ " threaded insert, center a $\frac{13}{32}$ " hole over the opening in the bottom of the jig. Use your drill press to ensure that the hole is exactly 90° to the bottom. Insert a $\frac{3}{8}$ x 4" bolt through the hole and double-nut the end to capture the bolt.

When you're ready to install an insert, thread the insert onto the bolt and position the jig over the hole. Using a socket wrench, apply downward pressure to the bolt while you turn the insert into your workpiece.

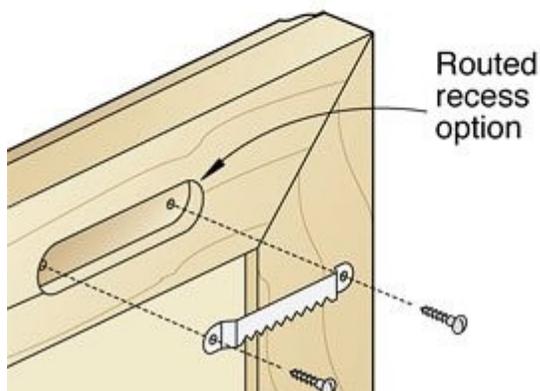
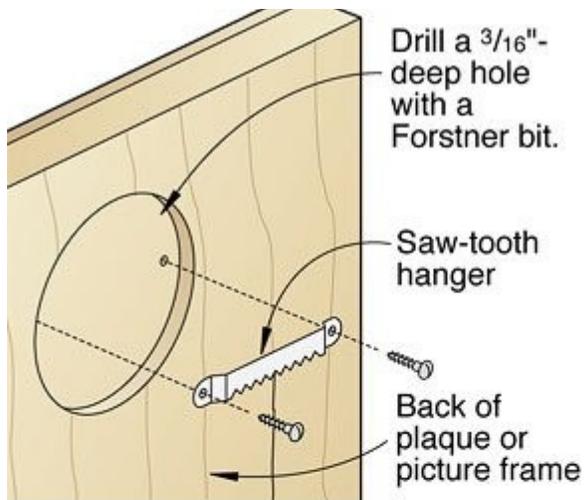


Foolproof hanging with keyhole slots

Keyhole slots are a great way to affix wooden hangings, such as a shelf or picture, to a wall. But if the mounting screws aren't perfectly level or spaced exactly the same as the slots, the job can become a nightmare. Here's a solution that works great.

I attach short pieces of masking tape to the top of my level and, using the keyhole slots themselves, I mark the locations of the slots on the tape, as shown in Step 1. If I want to center the wall hanging between two objects, I also make a third mark, centered between the two marks.

After finding the mounting location for the shelf, I mark the center of the shelf at the correct height. I place the level's center mark on that mark, make certain it's level, then mark the screw locations using the other two marks, as shown in Step 2. Finally, I drive the mounting screws into those marks. My hangings are always right on the money and level.



Your honor, I was framed and I demand a recess

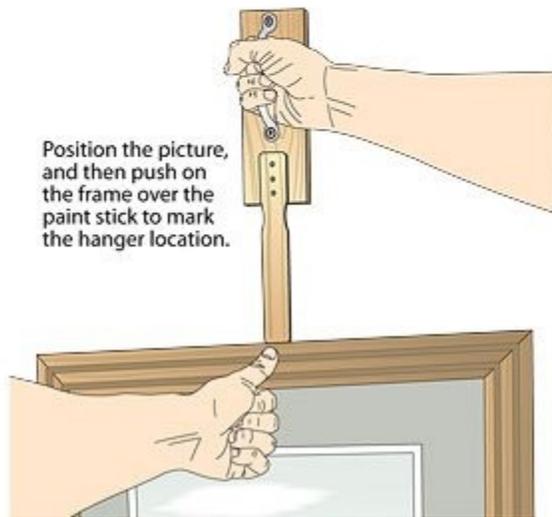
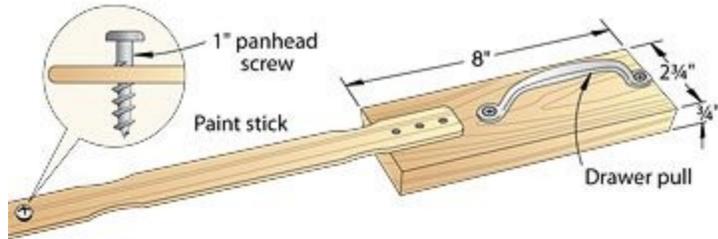
To hang a plaque or frame truly flat against the wall, recess the saw-tooth hanger as shown in *top drawing*. On plaques or wide picture frames, you can use a Forstner bit; on narrow picture frames, rout the recess with a straight bit as shown in *bottom drawing*.

You'll get hooked on this picture-hanging helper

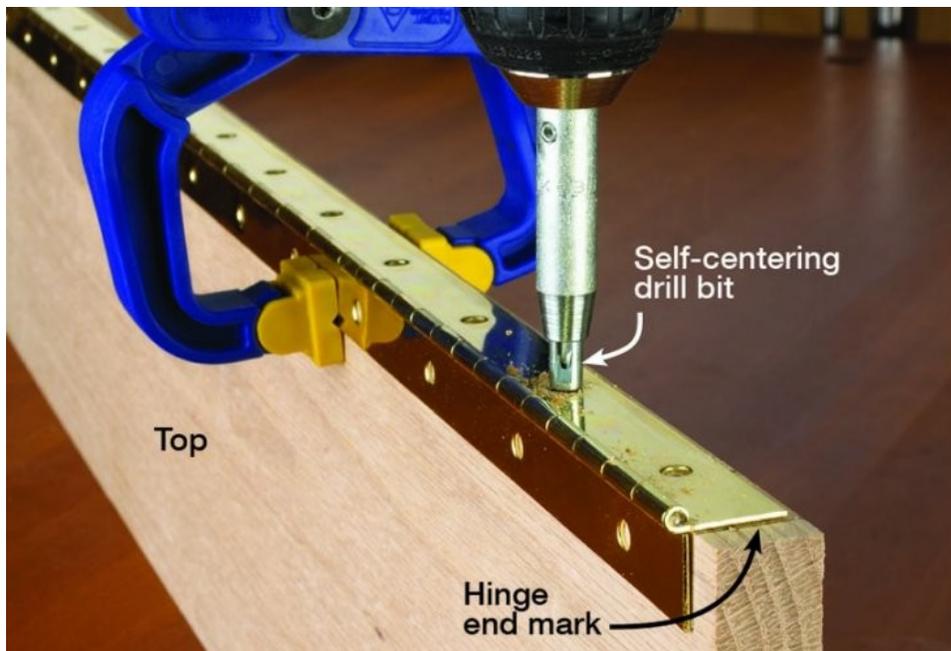
Pictures or other art with wire hangers always hang a little lower than we want them to, don't they? First, you struggle with how to hold the thing while your helper decides where he or she wants it; then, the wire on the back sags more than you expect. This nifty little jig solves both problems.

To use it, place the jig against the wall and hang the wire over the head of the panhead screw. When the location is picture-perfect, press on the

frame directly over the paint stick as shown. The screw will leave a dimple in the wall, and that's where you drive your nail. If I'm using a hook-type hanger instead of a nail, I put the bottom of the hook over the dimple.



Piano Hinge Alignment



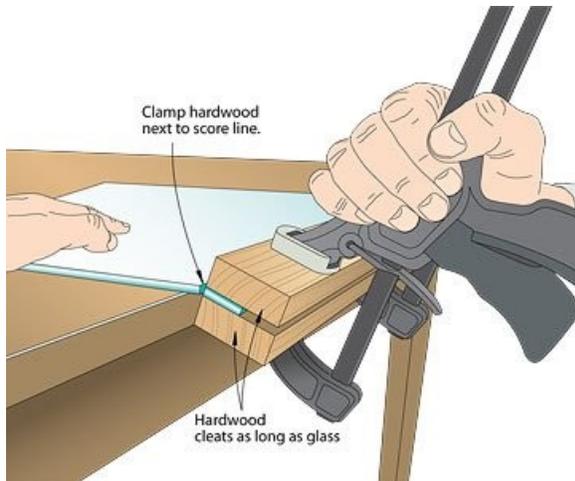
Here's a simple, surefire method that will ensure the hinged parts are aligned so the surfaces of both pieces are level with each other.

The hinge itself can solve your alignment problems. To start, mark both workpieces where one end of the hinge will be located. Then open the hinge so its barrel is on the outside of an L formed by the two leaves. Lay the hinge on a workpiece with one end against your hinge-end mark and a leaf resting along the edge, as shown *above*. Press the other leaf flat against the top surface and clamp the hinge firmly in place. Place the tip of a self-centering Vix drill bit in the hinge leaf holes, and drill pilot holes at each screw location. Move the hinge to the other workpiece where it will later be mounted, and repeat the process. This way, the two outside surfaces mount level with each other, and the hinge barrel rides at a uniform height between both parts.

Make a clean break

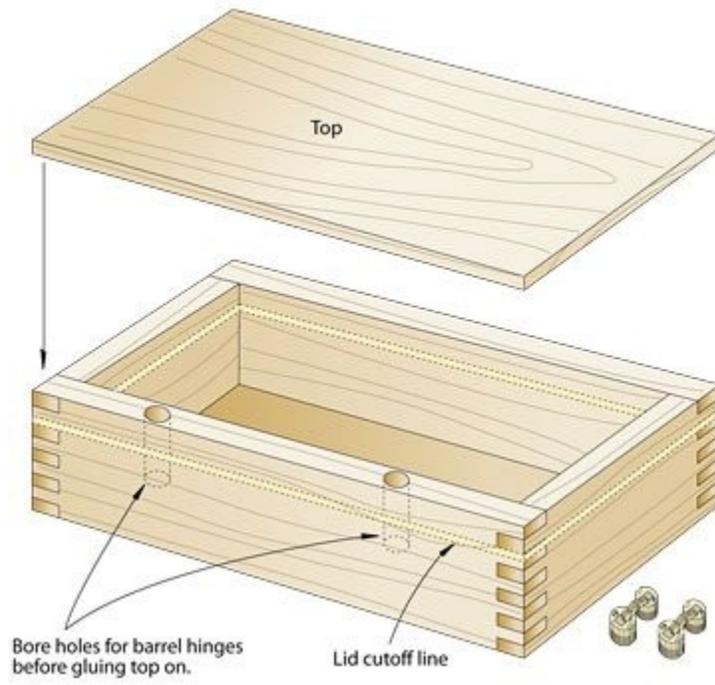
I had to trim about 1" from a piece of glass I was installing in a cabinet door. But even after scoring the glass with a cutter, it kept breaking off in small pieces. I figured if I could snap the whole length at once, I'd get a nice clean break. So I sandwiched the waste piece of glass between two

scraps of hardwood as long as the scored line and clamped them in place as shown in the drawing. Using the clamp as a handle, I gave a quick downward snap, and the piece broke off perfectly.



Boring for barrels

If you've ever used those hidden barrel-style hinges on a box, you've probably ruined a box or two trying to get the mounting holes between the box and the lid perfectly aligned. I solved this problem by boring the holes for the hinges before I glue the box top on, as shown. Then, when I cut off the lid from the box, the holes can't help but lineup.



Bore holes for barrel hinges
before gluing top on.

Lid cutoff line