

Two-Sided Standing Frame

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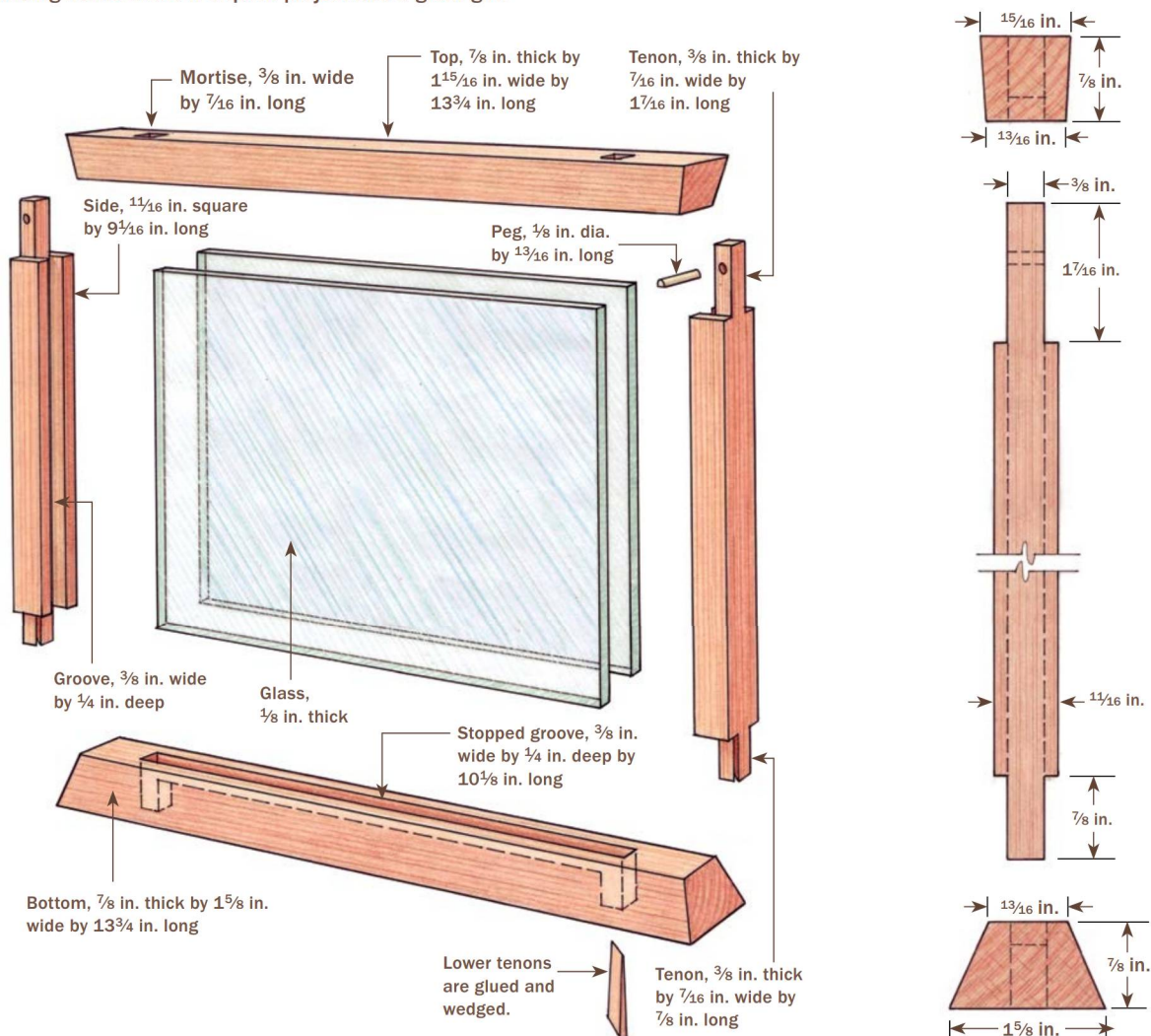
I have a black-and-white woodcut print and a piece of needlepoint that are dear to me. Since wall space is limited in my house, I decided to make a free-standing frame to display them. Both pieces of art fit in the same frame, one on each side facing out, and the frame can be placed on a tabletop, shelf, desk, dresser, anywhere you have free, flat space—at home or in the office. The frame also makes a great gift.

Because both sides are visible, I knew this frame would be a bit trickier to design than a typical, wall-hung picture frame. I also needed a way to take apart the frame, should the artwork ever need to be replaced.

The frame required a relatively wide base to stand on. Playing around with several designs, I settled on a wide base, a narrower top, and through-tenons on the uprights to allow for disassembly. Although the frame

Simple Anatomy

The sleek design and basic mortise-and-tenon joinery in this standing frame make it a quick project and a great gift.





Installing artwork is a breeze. When your frame is complete you'll be able to sandwich the art between two glass pieces and slide the package into grooves in the bottom and sides (left). The mortised and grooved top will fit onto the sides (middle) and dowels will lock it all in place (right).

dimensions will vary depending on what it is to hold, the building process can be adapted to any size.

Cut the joints

Once you've measured both pieces of art, added a proportional border/mat, and come up with an overall dimension, you can rough out the frame parts for the base, the top, and the two sides. Use a drill press to rough out the mortises in the top and the base.

Cut the through-grooves in the two sides and then move on to the stopped grooves in the top and bottom pieces. The grooves line up with the mortise holes and run between them.

Square up all four mortise holes in the bottom and top. Both the top and bottom now have a groove centered on the wide faces, ending at the square mortises.

Cutting tenons on the sides of the frame is the last structural operation. With only one height setting, I cut the tenons on the table-saw using a wide dado blade. Small bevels on the tops of the tenons make the frame easier to assemble.

Assemble the frame

When I was working out the original design and the artwork and glass panes were in place, everything fit well but looked too clunky. So, to give it a lighter appearance, I ripped a bevel down the sides of the top and bottom and crosscut an angle on each end.

Once you've completed the joinery and beveling, sand all the parts to P220-grit and glue the sides to the bottom, wedging the tenons diagonally on the underside. Plane and sand the bottom flush. With the frame fully assembled, but without the artwork or glass, take a knife and mark the spot where each tenon protrudes through the top. Then remove the top and drill holes through the tenons, using shims so the tenons lie flat and are supported on the drill-press table. I make sure the hole overlaps the knife marks by about $\frac{1}{32}$ in. By offsetting the holes like this, the dowels with a flat sanded on one side are then forced into the space, pulling everything tight.

Using a dowel plate, make two dowels out of any very hard, tight-grained wood such as apple, rock maple, dogwood, or hornbeam.



Start on the drill press. Drill through the top and bottom, centering the mortise holes in the stock.



Through-grooves on the sides. With a straight bit on the router table, run through-grooves on the two side pieces.



Stopped grooves in the top and bottom. With two stop blocks clamped to the fence so that the bit lines up in the mortise holes at each end, pivot down into the first hole with the router running, run the groove, and lift the workpiece out of the second hole.



Chisel the mortises square. Now square up the mortise holes all the way through the top and bottom pieces.



Bevels lighten the look. Becksvoort rips a bevel down the length of the top and bottom, refining the look.



Angle the ends, too. With the tablesaw blade still tilted from the bevel, use a miter sled and cut angles on the ends of the top and bottom.

Begin with square stock and use a knife to cut a series of bevels around the end. Rounding the ends helps start the stock in the dowel plate. Then simply hammer the stock through the dowel plate. Fit the dowels (see photos on p. 68) and cut them to length. The dowels are removable with hand pressure, although if you insert them in January and then want to open the frame in August, it helps to have a small block to push the dowels out.

Finally, I applied two coats of Tried & True™ Danish oil, polishing the first coat with 0000 steel wool after it dried.



Quick and easy tenons.

Using a dado set, miter gauge, and the rip fence as a stop, form the tenons on the side pieces.



Lower tenons are wedged. Saw a diagonal kerf in the bottom tenons. When the wedges are tapped in, the tenons will spread in all directions.



Tap in wedges. Glue the sides into the bottom, set the top in place for clamping, glue the wedges, and tap them into place. Saw the tenons and wedges flush and then smooth the bottom with a block plane.



Dowels secure the top. Dry-fit the frame to mark for the dowels. Mark the point where the tenon protrudes. Drill a hole at that point, overlapping the knife mark by about $\frac{1}{32}$ in.



Flatten the dowels to create a perfect fit. Sand a flat into each dowel and then insert it, flat side against the top of the frame, until hand tight.



The final cut. Mark the dowels and cut them to length, flush with the sides of the frame.