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Classic Plan

Artist's Easel

In this plan you'll find:

- Step-by-step construction instruction.
- A complete bill of materials.
- Construction drawings and related photos.
- Tips to help you complete the project and become a better woodworker.

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Artist's Easel

A professional, adjustable-height design that folds to 5" thick

by Jeanne Minnich

I like to consider myself an artist—in wood, however, not oils. My friend Mikel, who prefers to express himself with paint, asked if I'd make an easel for him. I consented, naively, figuring he had in mind some sort of tripod with a crossbar attached. How difficult could that be? As it turned out, Mikel had something more elaborate in mind. After he showed me the well-worn professional easel he'd been using, I set out to see just how closely I could reproduce it in wood. The results of my exercise you see here.

Before You Begin

Mikel's old easel adjusted three ways using a metal track. I couldn't find suitable hardware, so I devised a slotted system with carriage bolts and knobs that operates about the same way. A trip to the local hardware store yielded those parts and the necessary hinges. The finished product looked good to me and adjusted smoothly, but I wasn't sure that I'd succeeded until Mikel—who was pretty picky about the whole thing—actually used it to paint a picture.

I chose maple for strength and durability, but any sturdy hardwood that doesn't split easily should work. To economize a bit, you can glue up thinner stock to make the 1¾"-thick foot and foot brace. I planed the stock oversized initially, then surfaced it to final thickness after completing the joinery.

To keep construction simple, I formed the slotted parts by sandwiching thin spacers between two strips of stock. This eliminated the tedium of cutting long slots. Where frame members join, I cut simple, tight-fitting half-laps and notches, then reinforced the glued joints with screws to prevent racking.

For appearance, I counterbored the visible screw holes and plugged them with contrasting walnut plugs. If you don't want the contrast, use matching plugs. For a more utilitarian piece, you can simply countersink the screws and omit the plugs.

You should be able to find the inexpensive hardware—hinges, carriage bolts, and plastic knobs—at any well-stocked hardware store or building-supply center.

Bill of Materials

Easel

Part	T	W	L	Mtl.	Qty.
A Center post*	⅞"	2¾"	83"	M	1
B Side posts	⅞"	1¾"	83"	M	2
C Spreader	⅞"	2¾"	26"	M	1
D Crossbar	⅞"	2¾"	28"	M	1
E Foot	1¾"	2¾"	34"	M	1
F Foot brace	1¾"	2¾"	23"	M	1
G Top brace	⅞"	1¾"	27"	M	1
H Lower brace*	⅞"	1¾"	36"	M	1
I Tray back**	⅞"	1¾"	28"	M	1
J Tray bottom**	½"	2"	28"	M	1
K Tray lip**	3/16"	1"	28"	M	1
L Spacer	⅞"	2"	4"	M	1

*Parts edge-joined from narrower stock. Please read all instructions before cutting.

**Parts cut to dimension during construction.

Material List

M–maple

Supplies

One 3" light tee hinge; two 4" light strap hinges; three ¼"-20 plastic knobs; three ¼" flat washers; three ¼x2" carriage bolts; #8x1¼" flathead wood screws; walnut for plugs; finish.

Make the Center And Side Posts

Step 1. From 5/4 stock, rip and crosscut a piece to 3¼x86" (rough size) for the center post (A). Square one edge on the jointer. Next, using a combination square and starting 3" from one end, lightly pencil lines across the face of the board to mark the ends of the slotted areas where dimensioned on the Front View drawing on *page* 5 . Note: Marking the locations of the slots on the stock will help you realign the grain when you edge-glue the strips back together.

Step 2. From this 3¼"-wide board, rip a 1 15/64"-wide strip, then a 9/32"-wide strip, then a second 1 15/64" width. Crosscut the 9/32" strip at the pencil lines to form the 2"-, 6"-, and 12"-long inserts.

Step 3. Assemble, glue, and clamp the two 1 15/16"-wide strips with the three 9/32"-wide pieces sandwiched between them, keeping the pieces oriented as they were originally. Note: Align these spacer strips with the pencil lines on the wider pieces so the grain looks unbroken. Allow the glue to dry.

You can retain the attractive grain of the center post wood by using the cutting and assembly technique described in the text at *left* and *above*.

Step 4. Surface and then cut a 15/16x4x86" piece of stock. From this, rip two 1¾"-wide strips for the side posts (B).

Step 5. Plane and finish-sand the assembled center post and the two side posts to ⅞" thick. Trim the three parts to final length as dimensioned on the Front View.

Prepare the Spreader, Foot, Crossbar, and Braces

Step 1. From 5/4 stock, rip and crosscut the spreader (C) and the crossbar (D) as dimensioned in the Bill of Materials. Plane and finish-sand both parts to final thickness.

Step 2. From 5/4 stock, rip and crosscut two pieces to 3x36" and two pieces to 3x25". Face-glue the two pairs of parts. After the glue has dried, plane and sand both lamina-

tions to 1¾ x 2¾", removing equal amounts of stock from both faces. Trim the longer piece to 34" long for the foot (E), the shorter to 23" long for the foot brace (F).

Step 3. From 5/4 stock, rip and crosscut the top brace (G) as dimensioned in the Bill of Materials.

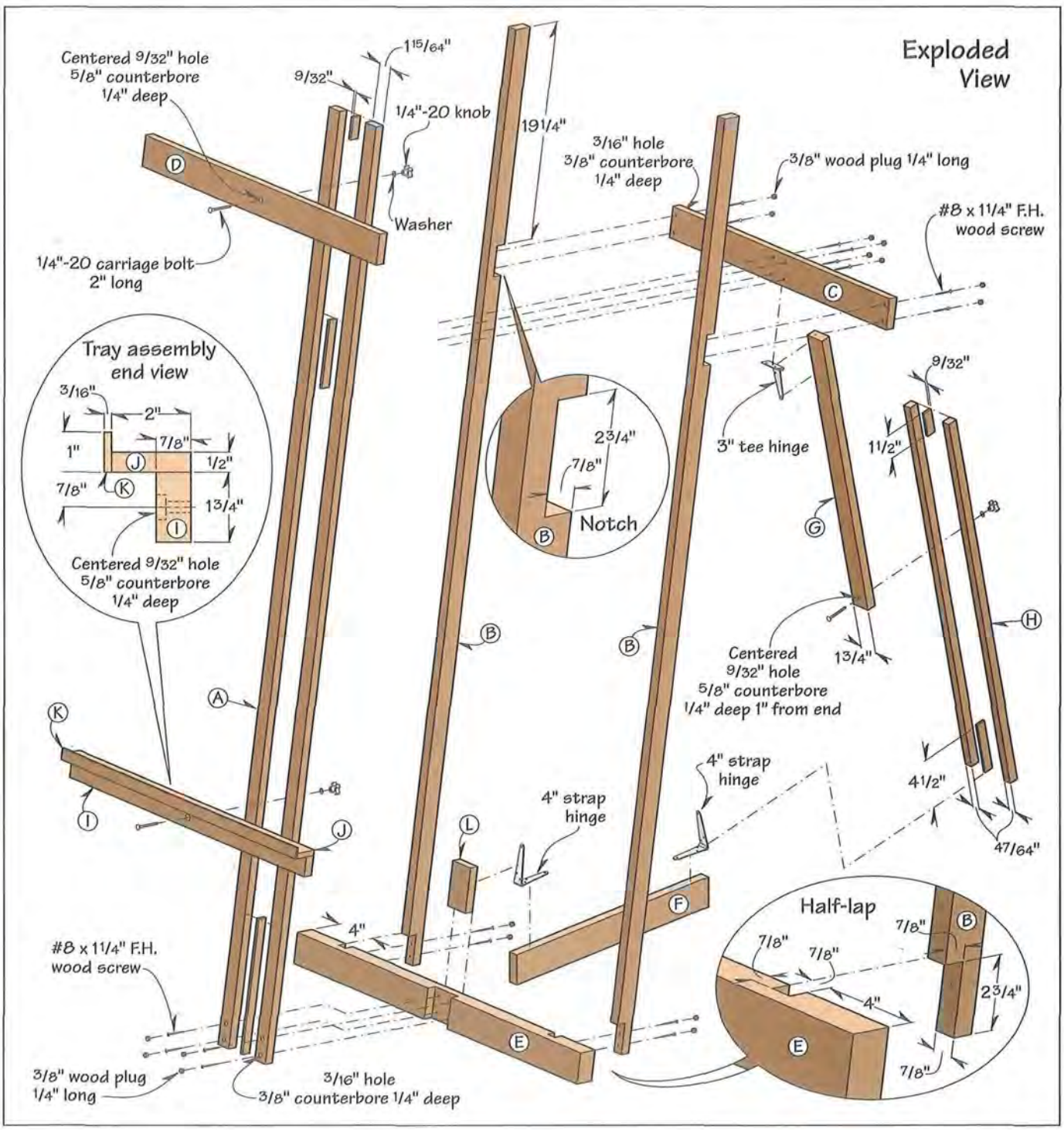
Step 4. To form the slotted lower brace (H), first prepare a 15/16 x 3 x 38" piece of stock. Using the dimensions shown on the Exploded View, rip and then reassemble the piece using the same procedure you followed to make the center post. Plane, sand, and trim the brace to final dimensions.

Assemble the Frame

Step 1. Arrange the frame members (foot, center post, side posts, and spreader) on a flat surface as dimensioned on the Front View drawing. Square the vertical parts to the horizontal members. Lay out the half-laps where the side posts join the foot. (To mark the half-lap locations, I stacked the two pieces. Then, using a sharp knife, I carefully scribed the width of each piece on the part it joins.)

Step 2. Lay out the notch on the side posts for the spreader and the notch in the front face of the foot for the center post. (To locate the notches, I measured to one edge, then used the actual piece to plot the second line.)

Step 3. Using your tablesaw and miter gauge with an extension, cut the half-laps and notches where



marked. Note: Cut the half-laps in the foot and side posts to a depth equal to one-half the width of the parts. (See the detail shown on the Exploded View.) Cut the notches to the same thickness as the embedded frame member (⅞"). To ensure tight-fitting notches and half-laps, I started cutting at one line, made multiple passes, but stopped short of the second line. I then snuck up to the final width using the actual piece for a sizing gauge.

Step 4. Dry-assemble the frame parts to check for fit. Make adjustments as necessary. Square the parts, clamp them in position, then drill the shank and pilot holes. Counterbore the shank holes ¼" deep to accept ⅜" plugs.

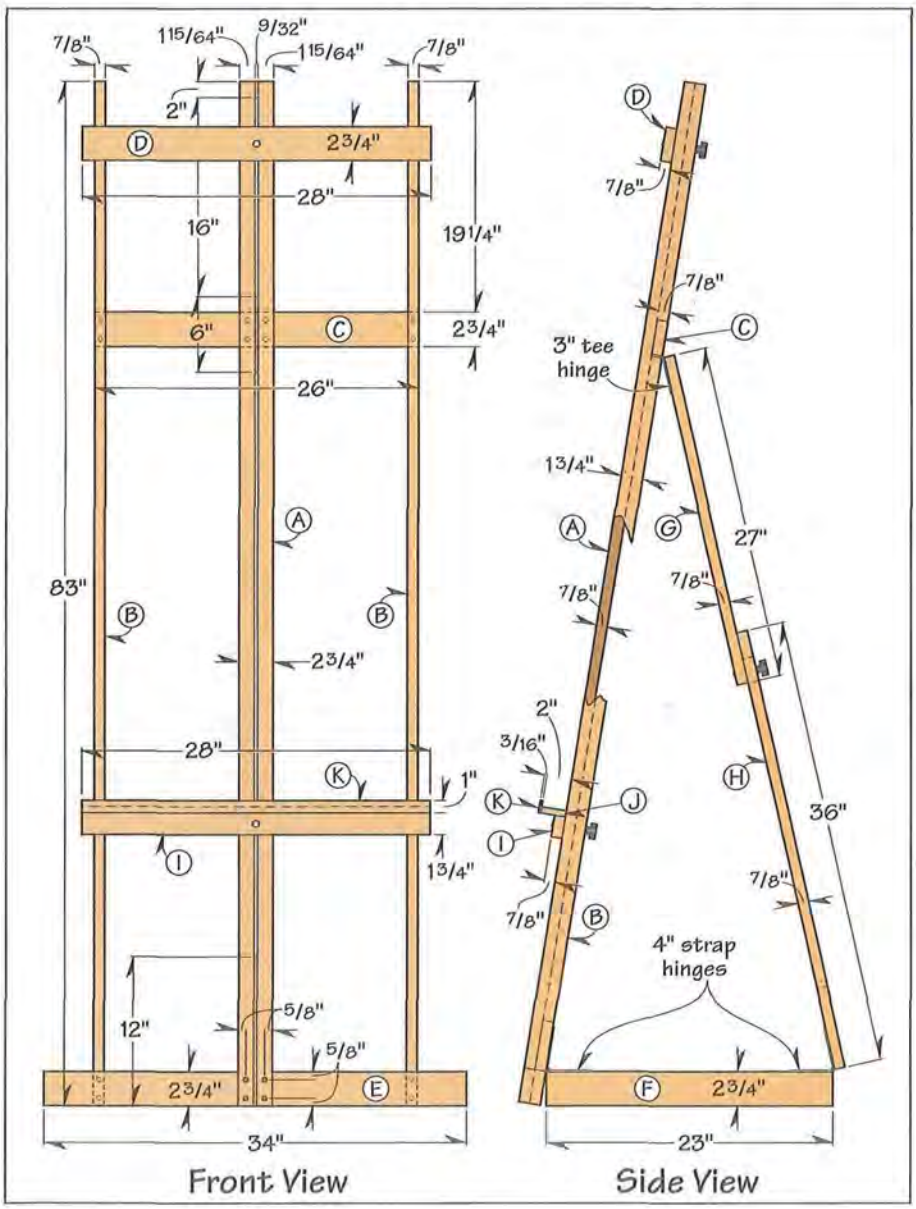
Step 5. Glue, assemble, and clamp the frame parts. Drive the screws. Cut ⅜" plugs and glue them into the counterbores. Allow the glue to dry before moving the frame. Then, trim and sand the plugs flush with the surface.

Now, Make the Tray

Note: To simplify assembly of the tray, I initially cut the three parts 1" over length. Then, I trimmed the tray to final length after assembly.

Step 1. From 5/4 stock, rip, crosscut, and plane the tray back (I) to dimension plus 1" extra length. Resaw or plane stock for the tray bottom (J) and tray lip (K), then cut these parts to the same length. Finish-sand the three parts.

Step 2. Glue, assemble, and clamp the tray as shown on the detail that accompanies the Exploded View. After the glue has dried, remove the clamps and trim the tray assembly to final length.



Meet the Designer/Author

Jeanne Minnich lives and works wood in Austin, Texas, where she's employed as a copy and design editor. Jeanne got her start in woodworking as an antique restorer, then eventually ran her own furniture-making shop in Orlando. She now concentrates her efforts on small jewelry boxes, display cases, intarsia, and commission work.

Step 3. Lay out the centerpoints for the holes in the crossbar, top brace, and tray back where dimensioned on the Exploded View. Drill and counterbore the 9/32" holes.

Step 4. From maple scrap, cut the spacer (L) to dimension. Glue it to the back face of the center post where shown on the Exploded View.

Apply Finish, Attach Hinges, And Complete Assembly

Step 1. Sand all parts to break the hard edges, then vacuum them to remove the dust. Next, apply your choice of finish. (I used natural stain to bring out the curly highlights in the maple, then sprayed on two coats of clear satin lacquer, sanding with 320-grit sandpaper after each coat had dried.)

Step 2. Attach the 3" tee hinge (Stanley #14-2460) to the spreader where shown, then to the top brace. Next, attach the 4" strap hinges. Insert the three ¼"-20 carriage bolts through the holes in the parts where shown on the Exploded View, then complete the assembly. WJ

Photographs: StudioAlex, author