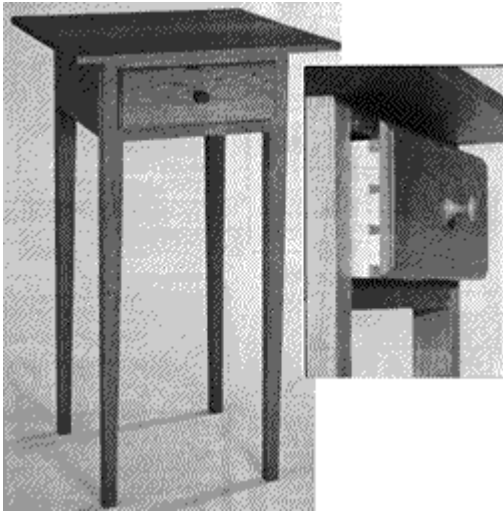


Project 17884EZ: Shaker End Table

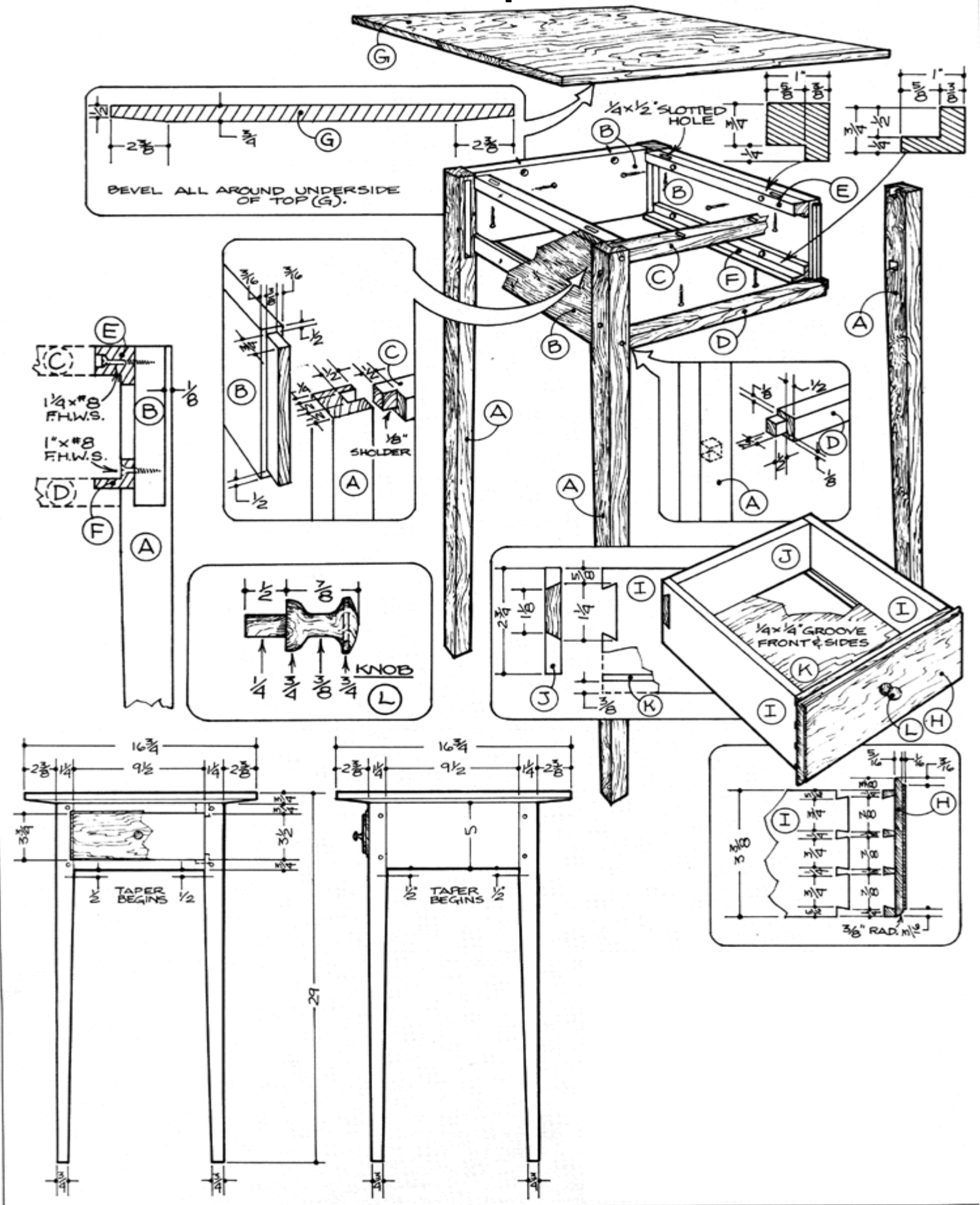


With its clean, simple lines, this piece is unmistakably Shaker style. Ours is made from cherry, a wood commonly used by Shaker craftsman, but we've also seen this piece look good when made from clear pine. The drawer bottom is 1/4" thick hardwood plywood.

Shaker End Table Materials List

Part	Description	Size	No. Req'd
A	Leg	1-1/4" x 1-1/4" x 28-1/4"	4
B	Apron	3/4" x 5" x 11" (incl. tenons)	3
C	Top Divider	3/4" x 1" x 10-1/2"	1
D	Bottom Divider	3/4" x 1" x 10-1/2"	1
E	Top Guide	1" x 1" x 9-1/2"	2
F	Bottom Guide	3/4" x 1" x 1" x 9-1/2"	2
G	Top	3/4" x 16-3/4" x 16-3/4"	1
H	Drawer Front	3/4" x 3-3/4" x 10-1/8"	1
I	Drawer Side	1/2" x 3-3/8" x 10-1/2"	
J	Drawer Back	1/2" x 2-3/4" x 9-3/8"	
K	Drawer Bottom	1/4" x 10-3/8" x 8-7/8"	1
L	Drawer Knob	See detail.	1

Shaker End Table Complete Schematic



Shaker End Table Step-by-Step Instructions

Step 1: Make the Legs (A)

1. Cut 1-1/4" square stock to a length of 28-1/4".
2. **NOTE** that only two inside edges of each leg are tapered, and that the taper starts at a point 5-1/2" from the top.
3. Lay out the location of the taper on each leg.
4. Use a taper jig or sharp hand plane to cut the taper on each leg.
5. Lay out the location of the 3/8" wide x 4" long x 3/4" deep mortise for the aprons (parts B) on each leg. **NOTE: Be sure to locate the mortise so that the apron will be inset 1/8" when assembled to the leg.**
6. Remove most of the material by drilling a series of holes using a 3/8" diameter drill bit.
7. Clean up what remains with a sharp hand chisel.
8. Lay out and mark the location of the 1/2" wide x 5/8" long x 1/2" deep notch for the top divider (part C) on each leg.
9. Use a hand chisel to cut the notch on each leg.
10. Lay out and mark the location of the 1/2" wide by 1/2" long by 1/2" deep mortise for the bottom divider (part D).
11. Use the hand chisel again to cut the mortise on each leg.

Step 2: Make the Aprons (B)

1. Cut the three aprons (parts B) to overall length and width.
2. Lay out and mark each tenon on the aprons.
3. Equip the table saw with a dado-head cutter.
4. Raise the dado-head cutter to a height of 3/16".
5. **NOTE:** The tenon thickness is regulated by the height of the cutter or saw blade. It's usually a good idea to make some trial cuts in scrap stock to get the tenon thickness just right.
5. Use the miter gauge to pass the apron stock over the dado-head cutter to establish the 3/4" tenon length.
6. Make a second pass to clean up any remaining material.
7. Flip the stock over and repeat the process on the other side.
8. Check for proper fit-up in the leg mortise.

Step 3: Make the Top and Bottom Dividers (C and D)

1. Cut the top divider (part C) and the bottom divider (part D) to size.
2. Use the same basic process as was used for the aprons to cut the tenon on each side of the dividers.

3. Mark the location of the 1/4" wide x 1/2" long slotted holes 2-1/2" in from the ends of the top dividers (C).
4. Drill the two 1/4" diameter holes next to each other to make the slots.
5. Use a 3/8" hand chisel to clean out the remaining stock.

Step 4: Sand and Assemble Parts A through D

1. Give parts A, B, C, and D a thorough sanding, finishing with 220-grit sandpaper.
2. Apply a thin coat of glue to each mortise and tenon.
3. Assemble the parts.
4. Clamp securely with bar or pipe clamps.
5. Check for squareness and correct as needed.
6. Allow the glue to dry overnight.
7. Remove the clamps.
8. Bore holes for the 3/16" diameter dowel pins.
9. Cut the pins slightly long.
10. Apply glue and insert the pins in the holes.
11. Trim with a fine-tooth saw and sand.

Step 5: Make the Top and Bottom Guides (E and F)

1. Select 2-1/2" wide stock to make the top and bottom guides (E and F).
2. Cut the stock for each guide (E and F) to length.
3. Use the dado-head in conjunction with the table saw rip-fence and a push stick to cut the rabbets into the guides.
4. Rip the stock for each guide to final width.
5. Drill the two countersunk holes in part E to a depth of 1/4" to accept 1-1/4" long by #8 flat head wood screws.
6. Make the pair of 1/4" wide by 1/2" long slotted holes in Part E.
7. Step 6: Make the Top (G)
8. Select two or more narrower pieces of 3/4" thick stock to make the top (part G).
9. Cut the boards to allow extra on both the width and length.
10. Edge-glue the boards in order to get the needed width for the top (G).
11. Clamp the boards with bar or pipe clamps.
12. Allow the glue to dry overnight.
13. Trim the top to 16-3/4" square.
14. Set the table saw blade to an angle of six degrees.
15. Secure the table saw rip fence at a point that will establish the 1/2" edge on the top.
16. Hold the top firmly in place against the rip fence.
17. Cut the bevel on all four edges.
18. Sand the top.

19. Secure the top to the base through the slotted holes in parts C and E.
20. Secure the top further with a pair of angled screws up through the back apron.

NOTE: It's important to use slotted holes in parts C and E so the top will be free to move with changes in humidity.

Step 7: Make the Drawer and Finish

1. Make and assemble the drawer as shown.
2. Apply two coats of a good penetrating oil to complete the project.

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